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Financial Inclusion in India—A Himalayan Feat

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Financial inclusion in India is a captivating tale with a long history of money lenders and more recent players including co-operatives, postal finance, self-help groups, microfinance institutions, payment providers, fintech players, and banks of many sizes, scope, and capacity. . The world watched in horror as the microfinance crisis exploded in Andhra Pradesh in October 2010. Since that crisis, financial inclusion efforts intensified, like a phoenix rising from the ashes. Extraordinary efforts include an ambitious national financial inclusion campaign promoted by the government, prudent regulation and supervision by the central bank, leading innovations in payment systems, and tremendous dynamism across many new types of financial services providers. As a result, hundreds of millions of people across India have been brought into the formal financial sector in the past decade. India is truly a global role model for the potential of financial inclusion efforts across both public and private sector.

History of Financial Inclusion Efforts in India

History often helps to explain the present. India is home to some of the oldest cultures in the world with over 5,000 years of history. Formal and informal savings and credit systems are deeply intertwined in society. Ancient texts of the Vedas dating

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back to 2000 BC reference lending and usury, and letters of credit and bills of exchange for business lending are cited in historical accounts from the Mauryan kingdom of 300 BC and medieval period of the Mughal era.[1] More recently, Rabindranath Tagore's beloved short story "Kabuliwala" written in 1892 offers a timeless and poignant perspective on the life of a merchant and money lender far from his home in Kabul, as he interacts with his clients and the broader community in Kolkata.

Early History

Focusing on just the past several hundred years, access to finance in India (and globally) followed some similar paths. In local economies, farmers, households, and small businesses typically relied on family, money lenders, larger merchants, gold dealers, and landowners for short-term credit. Savings was largely through investments in land, livestock, gold, jewelry, and other in-kind options.

The first formal banks to be established included the Bank of Hindustan and Bank of Bombay in 1770 and the Bank of Bengal in 1784.[2] The 1800s witnessed a growth in new types of banks, including joint stock banks, presidency banks, exchange banks, and foreign banks. Calcutta (present-day Kolkata) emerged as the banking and political capital during the colonial period, although over time the banking capital shifted to Bombay (present-day Mumbai).

In these early days, limited credit was available, especially in rural areas, and informal lenders were largely free to set interest rates, seize collateral, and enforce other loan terms with impunity. One account notes an early but small-scale colonial program dating to the 1860s that provided loans to subsistence farmers to help reduce dependence on money lenders.[3]

In the 1890s, the first savings and credit co-operatives were launched in India, building on the successful German Raiffeisen model that was also being adapted in other countries globally. The Indian Co-operative Credit Societies Act was passed in 1904.[4] Government led, these early co-operative efforts were neither savings based nor community led and were largely seen as channels for government credit to the agricultural sector.[5] Over time, the co-operative movement in India has evolved significantly, and key current results are discussed later in comparison with other types of financial service providers. In the early 1900s as part of the Swadeshi movement, linked to Indian nationalism and the independence movement, Indian businessmen and community leaders started a number of new banks.

Established by a parliamentary act in 1934, the Reserve Bank of India (RBI) began operations in 1935 with a focus on managing currency and public accounts.[6] Before

the RBI's existence, some of these functions were managed by the Imperial Bank of India. The 1948 Banking Regulation Act clarified the RBI's role as a central bank, established its authority to regulate and supervise banks, and laid the foundation of the modern financial sector. The Indian banking sector expanded after World War 2 and independence in 1947, although the quality of the banks and their portfolios was uneven, and much of the lending was limited to trade credit.

Early Government Programs

The 1951 All India Rural Credit Survey commissioned by the RBI concluded that formal, institutional sources, including financial co-operatives, accounted for only 7 percent of rural credit and that co-operatives were an "utter failure" in rural credit but played an important role in agricultural credit.[7] Given pressures to increase food production and linked to the input-intensive agricultural practices of the Green Revolution in the 1960s, agricultural credit became a national policy priority. The Imperial Bank of India, which later became the State Bank of India (SBI), was directed by the Indian government to expand branches in rural areas and offer agricultural credit.[8] In parallel in the 1950s, the RBI created a division for rural credit and launched a program of wholesale lending to banks to expand agricultural loans.

In a momentous event for India, in 1969 the top fourteen commercial banks were nationalized overnight through an act of Parliament under the leadership of Prime Minister Indira Gandhi.[9] These fourteen banks represented 85 percent of banking assets nationwide, and another six commercial banks were nationalized in 1980. Nationalization set the trajectory of the financial sector for decades, and its impact can still be felt today.

In the 1970–90 period, the Indian government launched a series of efforts to promote financial services, especially in rural areas given that they were home to over 70 percent of the population. The Regional Rural Bank (RRB) Act of 1975 enabled the launch of the first six RRBs in selected states; ownership is shared by the central government, the relevant state government, and a sponsoring commercial bank.[10] This RRB license was one of the first "light" bank licenses to be designed in India. Based on performance and portfolio quality, the number of RRBs in operation has decreased since the first RRBs were established in the period from the 1970s to the 1990s. While regulated by the RBI, the National Bank for Agriculture and Rural Development (NABARD) supervises the network of RRBs across India, which included fifty-three RRBs as of August 2019.

Starting in the 1970s, government policy for all banks expanded lending targets for rural areas. Forty percent of lending was to be channeled to priority sectors such

as agriculture and small-scale industry at lower interest rates—and these targets continue today. In addition, banks were required to increase the number branches in rural and less-served locations of the country. The government also launched other programs to promote rural economic development at the state and national levels—for example, the Integrated Rural Development Program.

During this period, with the best of intentions, the government focused on lending volume, paying less attention to whether loans were repaid, impact on bank portfolio quality, and socioeconomic impact of the lending. Given ongoing concerns about rural lending, plus growing demonstrations by farmers and reports of suicide by some borrowers, in 1990 the government implemented the nationwide Agricultural Debt Relief Scheme of INR100 billion (approximately US$1.4 billion).[11] Later in 2008, a second national debt relief program—the Agricultural Debt Waiver and Debt Relief Scheme (ADWDRS)—was implemented. Although the program ran for several years, already in 2008–09 the scale of the program was massive; the ADWDRS eventually covered 43 million farmers and cost INR716 billion (US$10.1 billion).[12] Loans issued through public sector banks, regional rural banks, scheduled commercial banks, and financial co-operatives were eligible for this program. Farm loan (and other loan) waivers were also used by several state governments during that period and up to the present day, often preceding elections or after natural disasters such as cyclones or droughts. These farm waivers from 2008 to 2017 were estimated at INR890 billion (US$12.5 billion).[13] Several agricultural specialists, bankers, opposition members, and others raised concerns about the program, including negative effects on the banking sector and future availability of agricultural credit. Further, critics noted that the likely beneficiaries of the program would be larger landholders with access to formal loans rather than subsistence farmers who relied on informal money lenders and merchants.[14]

In 1992 and 1998, new rounds of financial sector reforms were launched, linked to the government's broader policies to liberalize the Indian economy. During the 1990s, new private sector and foreign-owned banks were licensed, reserve requirements in banks were reduced, and the RBI's ability to regulate and supervise the various categories of banks was reinforced.[15] In addition, interest rates were deregulated, and some targets for directed lending to priority sectors such as agriculture were recommended to be reduced.[16] These reforms helped inject more competition into the financial services market with new banks and greater focus on bank financial performance, including portfolio quality. However, during this time credit to small borrowers as a share of total bank credit declined from 18.3 percent in 1994 to 5.3 percent in 2002 to 1.3 percent in 2010. Likewise, the number of small-borrower accounts at

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formal financial institutions dropped from 55 million in 1994 to 1.9 million in 2010.[17] The decline in the number of small borrowers coincided with the rise of other financial inclusion programs during the same period.

Government Institutions Supporting Financial Inclusion

India Post Financial Services

India Post is one of the world's largest postal networks. Launched during the colonial period, India Post delivered millions of letters annually by the 1860s through its network of approximately 900 post offices. An act of Parliament in 1873 approved the Post Office Savings Bank (POSB), which India Post established throughout the country in 1882; it began offering postal life insurance shortly thereafter, in 1884.[18]

Over the past 130 years, the POSB has emerged as one of the largest banking networks in the country, especially in rural areas. The core services historically offered by India Post included basic savings accounts, money orders, and life insurance. Over the decades, these services grew to include a range of savings accounts, remittance services, provident funds, mutual funds, and foreign exchange services offered through a network of 155,000 post offices.[19] A study in 2008 of India Post and its financial services estimated that the POSB managed 162 million accounts and annual deposits of INR1.6 trillion (US$22.5 billion). At such a size, the POSB would have been double the size of all other banks in the country combined.[20] After considerable internal analysis and national policy debates, India Post launched a payments bank in late 2018 (discussed later in the chapter).

NABARD

In 1981, a parliamentary act established the National Bank for Agriculture and Rural Development (NABARD), as a focal agency for development credit in rural areas. NABARD is a central pillar of the government's efforts to promote rural development nationwide. With numerous well-known programs over the decades, NABARD has played a key role in promoting the self-help group model and broader microfinance efforts across India since the 1980s. In 1998, NABARD launched the Kisan credit card program, essentially a line of credit for agricultural inputs for qualifying farmers. Administered by commercial banks, co-operatives, and regional rural banks, the Kisan credit card program simplified agricultural lending for both borrowers and lenders, and continues to this day as a major credit delivery mechanism.[21] Throughout the chapter, NABARD's activities will be discussed further.

SIDBI

In 1990, the Small Industries Development Bank of India (SIDBI) was established by parliamentary act to promote lending and development of micro, small, and medium-sized enterprises (MSMEs). SIDBI played a critical role in promoting microfinance institutions and the broader financial inclusion ecosystem in India, and this will be discussed throughout the chapter.

Indian Flavors of Microfinance: SHGs and MFIs

In line with other efforts globally to promote access to finance to low-income people and micro, small, and medium-sized businesses, several nongovernmental associations (NGOs) and associations were launched in the 1970s–90s across India. Group-based lending was already practiced in many areas,—for example, the *sheetu* and *chit* systems in Tamil Nadu and Andhra Pradesh and the *bhisi* system in Mumbai. Building on these approaches, early entrants to promote financial inclusion included the Self-Employed Women's Association (SEWA) in Gujarat in 1974, Mysore Resettlement and Development Agency (MYRADA) microfinance operations in Karnataka in 1985, and Professional Assistance For Development Action (PRADAN) microfinance operations in Rajasthan in 1987. These early efforts laid the foundation for two dominant approaches for financial inclusion in India—self-help groups (SHGs) and microfinance institutions (MFIs). Chit funds remain an important source of financing across the country, and they made new headlines with a November 2019 amendment to the 1982 Chit Funds Act that clarifies legal chit fund operations.[22]

Self-Help Groups

Starting in the mid-1980s, MYRADA, PRADAN, and later many others experimented with having small groups of people (twenty plus), especially women, pool their savings and make loans within the group; these became known as self-help groups (SHGs). Since the 1970s, similar efforts were under way in neighboring Bangladesh (by Grameen Bank and BRAC, for example) and several countries in Latin America and Africa, often under labels such as village banking and similar variants. In early pilot programs from 1987 to 1992, NABARD played a key role in helping promote and then scaling up the SHG program nationwide in the decades that ensued under the SHG Bank Linkage Program supported by GTZ (now GIZ, the German Agency for International Cooperation), the International Fund for Agricultural

Development (IFAD), the Asian Development Bank (ADB), and the World Bank, among others.[23]

The SHG program initially grew most rapidly in three states in southern India—Andhra Pradesh, Tamil Nadu, and Karnataka—and over time the program grew nationwide into one of the largest financial inclusion programs in the world. A broad range of NGOs, banks, microfinance institutions, specialized development institutions, and state governments linked with NABARD to promote SHGs across the country. Banks and other financial services providers were allowed to classify their loans to SHGs against the priority sector lending target of 40 percent of their total loan portfolio. The national government included support to SHGs, through policy and budget support, in the national annual plan starting in 2000.

Many scholars have analyzed the SHG program over the years, and most conclude that the program generates significant social and economic benefits to participants, especially women and low-income people, through empowerment, leadership opportunities, awareness raising on development issues, expanded household savings, and greater access to credit in rural areas.[24] Concerns about the program were related to potential political influence through SHG groups, subsidized interest rates between banks and the SHGs, the cost of creating and sustaining SHGs and their support structures to keep the program viable, and uneven quality both of bank portfolios for their loans to SHGs and for the internal loan portfolio among SHG members.[25]

As of March 2010, just before the microfinance crisis, NABARD reported more than 6.9 million SHGs, of which more than 5.3 million were women-only groups. NABARD estimated that 97 million families across the country were reached through an SHG. Approximately 4.8 million SHGs had loans outstanding at that date. Over the years, a range of banks began to lend to SHG groups, and these loans could also be included towards meeting a bank's priority sector lending targets. As of March 2010, loans outstanding to SHGs were estimated at INR230.4 trillion (US$3.25 billion) from commercial banks, regional rural banks, co-operative banks, microfinance institutions, and others. The average outstanding loan per member was INR4,128 (US$56).[26]

Microfinance Institutions

In parallel to the rise of NABARD's SHG program, microfinance institutions grew to become a second dominant model for financial inclusion in India. The first of the modern-era MFIs, SEWA, launched the Mahila Co-operative Bank in 1974 in Gujarat.[27] Some of the key pioneer MFIs are listed in table 13-1. MFIs took many forms, based on the legal options available such as NGOs, societies, trusts, associations, local

TABLE 13-1. **Significant MFIs Launched in India, 1974–2011**

Institution	*Launch date*	*Founding state*[a]
SEWA Mahila Co-operative Bank Ltd.	1974 as co-operative bank	Gujarat
SHARE Microfin Ltd.	1989 as a not-for-profit; later transformed into an NBFC[b]	Andhra Pradesh[c]
Satin Creditcare Network Ltd.	1990 as a not-for-profit; later transformed into an NBFC	New Delhi, National Capital Region
North East Small Finance Bank Ltd.	1990 as RGVN Society;[d] transformed into an NBFC in 2010; started operations as small finance bank in 2017	Assam
ESAF Small Finance Bank Ltd.[e]	1992 as an NGO; 2008 as an NBFC; started operations as small finance bank in 2017	Kerala
AU Small Finance Bank Ltd.	1996 as an NBFC; started operations as a small finance bank in 2017	Rajasthan
Bhartiya Samruddhi Finance Ltd. (BASIX)	1996 as an NBFC, part of the BASIX group	Andhra Pradesh
CashPor	1996 as not-for-profit	Uttar Pradesh
IndusInd Financial Inclusion Ltd.	1997 as SKS Society;[f] 2005 as NBFC, renamed Bharat Financial Inclusion Ltd. in 2016; merged with IndusInd Bank in 2019 and renamed IndusInd Financial Inclusion Ltd.	Andhra Pradesh
Spandana Sphoorty Financial Ltd.	1998 as a society; later became an NBFC	Andhra Pradesh
Jana Small Finance Bank Ltd.	1999 became Janalakshmi in 2006; became an NBFC in 2008; became a small finance bank in 2017; received scheduled bank status in 2019.	Karnataka
Krishna Bhima Samruddhi Local Area Bank Ltd. (Samruddhi Bank)	Incorporated in 1999; started operations in 2001, as part of the BASIX group	Andhra Pradesh
Capital Small Finance Bank Ltd.	2000 as local area bank; started operations as a small finance bank in 2016	Punjab
Bandhan Bank Ltd.	2001 launched as not-for-profit; later purchased an NBFC license; received bank license in 2014	West Bengal

TABLE 13-1. (continued)

Institution	*Launch date*	*Founding state*[a]
Belstar Investment and Finance Pvt. Ltd.	2003 launched as NGO Hand in Hand; acquired Belstar NBFC in 2008; acquired by Muthoot Finance Ltd. in 2016	Tamil Nadu
Adhikar Microfinance Pvt. Ltd.	2004 as a society; later as an NBFC	Odisha
Ujjivan Small Finance Bank Ltd.	2005 as NBFC; started operations with a small bank license in 2017	Karnataka
Arohan Financial Services Ltd.	2006 as an NBFC	West Bengal
Sonata Finance Pvt. Ltd.	2006 as an NBFC	Uttar Pradesh
Swadhaar Finserve Pvt. Ltd.	2006 as FinAccess not-for-profit; 2008 as Swadhaar as an NBFC	Mumbai urban focus, within Maharashtra
Equitas Small Finance Bank Ltd.	2007 as an NBFC; started operations with a small bank license in 2016	Tamil Nadu
Saija Finance Pvt. Ltd.	2007 as a society; later as an NBFC	Bihar
Suryoday Small Finance Bank Ltd.	2009 as an NBFC; started operations with a small bank license in 2017	Maharashtra
Utkarsh Small Finance Bank Ltd.	2009 as an NBFC; started operations with a small bank license in 2017	Uttar Pradesh
Annapurna Finance Pvt. Ltd.	2007; acquired NBFC license from another business and renamed in 2010	Uttar Pradesh
Fusion Microfinance Pvt. Ltd.	2010 as an NBFC	New Delhi, National Capital Region
IFMR Rural Channels and Services Pvt.Ltd.[g]	2011 as an NBFC	Tamil Nadu

Source: Compiled by author from company profiles and the RBI website.

a. Most MFIs subsequently expanded to other states.
b. NBFC = Non Banking Financial Company.
c. Andhra Pradesh was divided into two states in 2014; the new state is Telangana, with Hyderabad as its capital. Consequently, many of the MFIs listed above that started in Andhra Pradesh now also operate, and in many cases have their head offices in, Telangana.
d. RGVN Society = Rashtriya Grameen Vikas Nidhi Society.
e. ESAF = Evangelical Social Action Forum.
f. SKS Society = Swaya Krishi Sangam Society.
g. IFMR = Institute for Financial Management and Research.

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area banks, co-operative banks, and non-bank financial companies (NBFCs) until other legal options became available after 2011.

As noted earlier, the early pioneers of the SHG model and the MFI model in India were SEWA Mahila Co-operative Bank Ltd. (1974), MYRADA (founded in 1968 as a project and expanded in the mid-1980s with SHGs), and PRADAN (1983). From 13-1, surprisingly, the bulk of key MFIs emerged later in India than in many other countries. One of the oldest and most important MFIs globally is Bank Rakyat Indonesia (1895). Examples of other early MFIs around the world include the Bangladesh Rural Advancement Committee (BRAC) (founded in 1972 as an NGO) and the Grameen Bank (founded in 1976 as a project), both in Bangladesh; Réseau des Caisses Populaires du Burkina (RCBP) in Burkina Faso (1972); MiBanco in Peru (initially Grupo ACP in 1982); Banco Sol in Bolivia (initially a foundation in 1986); CVECA Pays Dogon in Mali (1986); Sidian Bank in Kenya (initially the lending NGO K-Rep in 1989); Mata Masu Dubara (MMD) in Niger (1990); and Women and Associations for Gain both Economic and Social (WAGES) in Togo (1992).

Many of the early MFIs in India started with an SHG approach to group lending, and over time approaches across the industry evolved to include smaller groups, especially joint liability groups of five to twenty (and more) women, while other MFIs piloted individual lending and other types of financial services such as basic remittances and life, crop, and health insurance. MFIs operating as NGOs or NBFCs were not allowed to mobilize deposits under RBI policy at the time.

Supporting Institutions

Many MFIs emerged during this period, often with the support of incubator and support organizations, and the most significant ones are described briefly here.

- Over several decades, SIDBI provided training, funding, and policy advocacy to support financial inclusion and the emergence of MFIs, other incubator institutions, consulting firms, rating agencies, training institutes, payment companies, and other institutions that built out the ecosystem for financial inclusion in India. SIDBI received support from the Department for International Development in the U.K., the World Bank, ADB, the U.S. Agency for International Development (USAID), GIZ, and other multilateral and bilateral funding institutions.

- NABARD may be best known for its SHG program, the Kisan credit card, and many other initiatives to promote financial inclusion in India. NABARD

also supported organizations that became MFIs. NABARD received support from IFAD, the World Bank, ADB, USAID, GIZ, and other multilateral and bilateral funding institutions.

- CARE India promoted rural development and started microfinance activities in 1989 through projects such as savings and loan association promotion in Andhra Pradesh, Orissa, and Uttar Pradesh; CREDIT 1 and 2 in Bihar, Orissa, and Madhya Pradesh; and CASHe. The CASHe project operated from 1999 to 2006 in Andhra Pradesh, West Bengal, Orissa, and Madhya Pradesh to help incubate new MFIs and advocate for enabling policy reforms. CARE's CASHe project also launched ACCESS Development Services in the mid-2000s and later ACCESS ASSIST, which continue to be a leading player in the financial inclusion sector today.

- Friends of Women's World Banking (FWWB) launched in 1981 with links to SEWA, and incubated many early-stage MFIs that later grew to national prominence. FWWB provided a broad range of technical assistance and wholesale lending to more than 300 small and nascent MFIs throughout the country. FWWB launched Ananya as an NBFC to expand its lending to MFIs in 2009. FWWB/Ananya also advocated at senior levels of the government and RBI for national policies on financial inclusion and through Sa-Dhan and other networks for financial inclusion. FWWB/Ananya continues to play a key role today.

- EDA Rural, founded in 1983, was one of the first firms to provide research, management, and training programs for development agencies, with a focus on financial inclusion, livelihoods, and agricultural value chains. In 1998, EDA Rural established M-Cril, the first rating agency for MFIs in the country. In 2016 the two entities merged as M-Cril, which continues to work across India, Asia, and globally.

- Grameen Foundation began operating in 1998 in India with a focus on providing technical assistance and funding to new MFIs; advocating for health, agriculture, and social issues; and promoting national initiatives for financial inclusion.

- Andhra Pradesh Mahila Abhivruddhi Society (APMAS), received its registration in 2001. It supports women's SHGs, SHG federations, farmer-producer

organizations, and other community-based organizations. Originally operating primarily in Andhra Pradesh, over the years APMAS expanded operations to Telangana (after the bifurcation of Andhra Pradesh), Bihar, Rajasthan, Uttar Pradesh, Madhya Pradesh, and Maharashtra.

- Aavishkaar, launched in 2002, has become a global player in impact investing across Asia and Africa. Aavishkaar helped establish, advise, and fund many new MFIs, technology firms, and inclusive businesses in agriculture and other sectors that helped to promote a sustainable ecosystem. In 2007, Aavishkaar created Intellecashe together with CashPor, a well-known MFI based in Uttar Pradesh, to incubate new MFIs in unserved areas of the country. Intellecap is the advisory arm of the Aavishkaar group.

- MicroSave, now MSC, is a global financial inclusion consulting firm operating since 1998 that began operating in India in 2006. MSC advises, trains, and provides policy advocacy for a wide range of financial services providers, technology firms, donors, policymakers, and others across India (and globally).

- IFMR Trust, founded in 2008, piloted new financial services and technologies, conducted research across a broad spectrum of financial inclusion, and advocated policy reforms; it is now called Dvara Trust. IFMR also launched IFMR Capital, which has since become Northern Arc Capital.

Table 13-1 shows where MFIs first operated. Coverage was scattered across the country, although a higher number of MFIs were based in Hyderabad, Andhra Pradesh. In practice, as MFIs began to expand, many opened branches in southern states and especially in Andhra Pradesh, where approximately forty MFIs were active in 2010. The 2010 ACCESS Development Services state-of-the-sector report raised concern about saturation and the potential for overindebtedness, noting that the number of microfinance loans greatly exceeded the number of low-income households in Andhra Pradesh, Tamil Nadu, Karnataka, West Bengal, and Orissa. The same report estimated that there were 1.5 loans for every household in Andhra Pradesh, and 9.6 microfinance loan accounts for every poor household in the state; it questioned whether there was any space left for MFIs to expand in either Andhra Pradesh or Tamil Nadu.[28] In addition to MFIs, SHGs were especially widespread in Andhra Pradesh and promoted by a range of institutions, including the state government through the SERP Velugu program.

Given the burgeoning sector, other players emerged to build the ecosystem in the mid- to late 2000s. Sa-Dhan, launched in 1999 as the first national association of community development finance institutions for all types of institutions promoting financial inclusion. Later in 2009, the Microfinance Institutions Network (MFIN) was created as the association for the subset of MFIs operating as NBFCs. Both Sa-Dhan and MFIN have critical roles in training, reporting on trends, policy advocacy, and shaping the sector.

At the meso-level of the financial sector, rating agencies specialized in microfinance operations emerged. They included EDA Rural (which later became M-Cril), ICRA, CRISIL, CARE Ratings, and others. ACCESS launched its first state-of-the-sector report on microfinance in 2006. Fino and Eko launched operations in the mid-2000s as technology companies working with MFIs and other financial service providers to facilitate payments and money transfers. Discussions started on how to incorporate MFI clients in credit bureaus. Initial efforts began to promote responsible finance and social performance monitoring. Training programs flourished, as MFIs grew rapidly and needed to train their growing numbers of new staff. Both SIDBI and NABARD, in addition to multilateral and bilateral funders, provided significant advice and funding to many of these emerging players across the ecosystem of financial inclusion.

In the public sector, the RBI launched the first campaign for "no-frills" accounts through banks, and the national financial switch came online in 2004–05. In 2006 the government approved the Micro, Small and Medium Enterprises Development (MSMED) Act, setting definitions for these types of enterprises—which was then linked to priority sector lending targets. Under the 2007 National Payments and Settlement Systems Act, the National Payments Corporation of India (NPCI) began operations in 2008 as a joint initiative of the RBI and the Indian Banks' Association (IBA). The critical role of the NPCI is discussed later in the section on payments.

The Microfinance Crisis

During the late 2000s, MFIs felt under pressure to achieve growth targets that they had agreed on with lenders and investors and also to continue growing to attract new funding. The largest five MFIs as of March 2009 (SKS, Spandana, SHARE, Bandhan, and AML) recorded an aggressive annual growth of 50–60 percent in number of clients between 2009–10.[29] Both Indian and foreign investors began to actively court MFIs for funding as the sector started to heat up, becoming one of the most active, if not *the* most active, microfinance sector in the world.

Early Seeds of the Crisis

In 2010, self-help groups represented 37 percent of the total estimated number of accounts, followed by 28 percent of accounts held by commercial banks (including RRBs) and 18.6 percent of accounts held by primary agricultural co-operatives (PACs). Clients of microfinance institutions represented just 16.5 percent of estimated microfinance accounts nationwide as of March 2010.[30] Both SHG and MFI programs grew rapidly between 2008 and 2010, although increases were also notable for commercial banks, including RRBs. The average loan size was higher for MFI loans (INR6,060, or US$85) than for SHG loans (INR4,570, orUS$64), according to data from March 2009.[31] Table 13-2 summarizes the number of accounts by type of financial service provider active in financial inclusion in India in 2008–10.

SIDBI especially, but also NABARD, FWWB, and some multilateral and bilateral donors, provided important initial grant and debt funding for MFIs. For several years, commercial banks had been lending to SHGs through the bank-linkage program led by NABARD with cofunding from multilateral and bilateral donors. Eventually commercial banks began lending to MFIs, as these could be included in their priority sector lending targets starting in 2000. In the mid-2000s, several MFIs that started as not-for-profit entities began transforming into non-bank finance companies, which enabled them to attract equity and larger amounts of debt from banks and investors to grow their operations.

TABLE 13-2. Estimate of Microfinance Credit Clients in India across the Range of Financial Services Providers 2008–10

Millions of accounts

Agency	*March 2008*	*March 2009*	*March 2010*
Commercial banks (including RRBs) small loan accounts[a]	41.00	39.2	45.2
PACS borrowers[b] (small, vulnerable)	28.5	28.7	30.0
SHGs—members[c]	47.1	54.0	59.6
MFIs—clients[d]	14.1	22.6	26.7
Total	130.7	143.9	161.5

Source: N. Srinivasan, *Microfinance India: The State of the Sector Report 2011* (New Delhi: Sage, 2011).

a. RRBs = regional rural bank.
b. PACS = primary agricultural co-operatives.
c. SGH = self-help groups.
d. MFI = microfinance institutions.

TABLE 13-3. Lending to MFIs in India, March 2010

	Lending volume	
Lender	*Indian rupees*	*U.S. dollars*
Small Industries Development Bank of India (SIDBI)	38.1 billion	536.5 million
Public sector banks, other than SIDBI	47.4 billion	667.4 million
Private sector banks	41.1 billion	579.5 million
Foreign banks	19.9 billion	280.9 million
Friends of Women's World Banking (FWWB)	3.6 billion	50.7 million
Regional rural banks (RRBs)	520 million	7.3 million
Others	210 million	3.0 million
Total	150.85 billion	USD 2.125 billion

Source: N. Srinivasan, *Microfinance India: The State of the Sector Report 2010* (New Delhi: Sage, 2010).

TABLE 13-4. Investors in MFIs in India, 2007–10

National investors	*International investors*
Lok Capital	International Finance Corp (IFC)
Aavishkaar Goodwell	Sequoia Capital
India Microfinance Development Co	Incofin
Bajaj Allianz Life Insurance	Microvest Capital Funds
SIDBI	Temasek Holdings
Catamaran Venture Fund	Blue Orchard Private Equity
Bellwether MF Fund P. Ltd	ACCION Gateway Funds
Dia Vikas Capital	MicroVentures SpA
SVB India Capital	DWM Investment Ltd., NMI Frontier Fund, Tree Line Asia Master Fund
Matrix Partners	Unitus Equity Fund, Elevar Equity Advisors, Microvest, CLSA Capital, Triodos Bank

Source: N. Srinivasan, *Microfinance India: The State of the Sector Report 2010* (New Delhi: Sage, 2010).

Table 13-3 summarizes lending volume to MFIs as of March 2010. SIDBI, the single largest lender, represented 25 percent of all lending to MFIs. Lending by SIDBI and other public sector banks combined totaled 56 percent of lending, with private sector banks at 27 percent and foreign banks at 13 percent.

In the mid-2000s, several global investors began operations in India, and a range of Indian investors emerged, that were active in the microfinance sector, as profiled in table 13-4.

TABLE 13-5. **Equity Investments in Indian MFIs, 2007–10**

Financial year	*Amount US$ (million)*	*No. of deals*
2007–08	52	3
2008–09	178	11
2009–10	209	29

Source: N. Srinivasan, *Microfinance India: The State of the Sector Report 2010* (New Delhi: Sage, 2010).

Table 13-5 summarizes the growth in equity investments to MFIs in India from 2007 to 2010. Investments grew 400 percent in annual volume and 1,000 percent in number of annual deals from 2007 to 2010. Indian MFIs at the time reported highly efficient operating expense ratios, high staff productivity levels, and healthy loan portfolio quality indicators,[32] especially in comparison with global averages from the MIX market. The cost per borrower for a sample of sixty-six MFIs, including many of the most representative nationally, analyzed by M-Cril in 2009–10, was only INR536 (approximately US$11.90 at the time, now US$7.55). These figures were very low in comparison with the global median at the time for MFIs from the MIX of US$139 and even the Asian MFI median of US$27.[33] Interest rates, and corresponding yields on portfolio, were lower than global averages. While return on equity averaged 14 percent, fairly modest in comparison with global averages, large MFIs in India were being valued at six (and more) times book value, at a time when the average MFI valuation globally was approximately twice book value.[34] These figures suggest that investors were chasing the high growth rates of Indian MFIs or that there was too much capital chasing too few deals. High valuations led to further pressure for MFIs to grow quickly and generate profits, to compensate investors, and so the spiral continued.

During this rapid growth in the microfinance sector, warning lights started to flash. In 2006, in the Krishna district of Andhra Pradesh, the state government closed some MFI branches after raising concerns about perceived high interest rates, loan collection practices, and competition among the various types of financial services providers across MFIs and SHG promoters. The Reserve Bank of India and other actors helped to mediate the crisis between leaders at the state level and in the Krishna district together with MFI leaders, who agreed to make changes in their operating practices. In 2009, in the Kolar district (and later elsewhere in the state) of Karnataka, community leaders issued warnings to MFIs about perceived concerns, and loan repayments plummeted for a period.[35] These red flags spurred the larger NBFC-MFIs to launch MFIN as their industry asso-

TABLE 13-6. Client Outreach: Borrowers with Outstanding Accounts from SHGs and MFIs, 2006–11

Millions of borrowers

Segment	*2006–07*	*2007–08*	*2008–09*	*2009–10*	*2010–11*	*Growth percentage 2010–11*
Banks and SHG[a]	38.0	47.1	54.0	59.6	62.5	4.9
MFIs[b]	10.0	14.1	22.6	26.7	31.4	17.6
Total	48.0	61.2	76.6	86.3	93.9	8.8
Adjusted for overlap	44.9	56.0	70.0	71.0	76.7	8.0

Source: N. Srinivasan, *Microfinance India: The State of the Sector Report 2011* (New Delhi: Sage, 2011).

a. SHGs = self-help groups.

b. MFIs = microfinance institutions.

ciation to help advocate for reasonable market practices and policy reforms, as well as more focused discussions on incorporating microfinance clients into the existing credit bureaus.

The SHG model and the MFI model developed parallel but complementary approaches over the years, and many MFIs also lent to SHGs. However, during these years of peak growth, proponents of the two models began to clash, with perceived greater competition for clients. As seen in table 13-6, both the number of clients/borrowers grew for both SHGs and MFIs from 2006 to 2011.[36] From 2010 to 11, growth was estimated at almost 5 percent for SHGs and over 17 percent for MFIs nationally. The overlap of clients between SHG programs and MFIs was widely acknowledged and estimated at 17.2 million people (or accounts) as of March 2011, as noted in table 13-6. MFIs portfolios plus loans by banks to SHGs together represented 1.5 percent of total national bank credit, and the outstanding microfinance loans of MFIs and SHGs totaled 4.3 percent of priority sector loans outstanding as of March 2011.

The Andhra Pradesh state government supported the SERP Velugu self-help group promotion program, which achieved impressive results, and the state had the highest outreach of self-help groups. The SERP Velugu SHG program also benefited from funding from the World Bank and other multilateral funders. As of March 2010, SHGs were estimated to serve 17.1 million members in Andhra Pradesh, representing almost 27 percent of SHG members nationwide. At the time, MFIs served 6.2 million clients in the state, or approximately 20 percent of all MFI clients nationwide.[37] Concerns grew about multiple organizations lending to the same

clients, and some families who borrowed from several lenders were no longer able to meet their loan repayment schedules. Reports of suicide by borrowers began to appear, especially in Andhra Pradesh, which increased pressure on lenders to moderate their operating practices.

In the middle of an already tense environment, SKS became the first MFI to launch an initial public offering of equity in August 2010, raising US$358 million and valuing the company at US$1.6 billion. The shares were more than thirteen times oversubscribed, with a 6:1 market-to-book value.[38] Since its founding, SKS had pursued an aggressive growth model, promoting for-profit microfinance and rapid growth as a means to serve more people. At the time of the IPO, SKS was the largest MFI in the country, with 5.8 million clients. The success of the SKS IPO generated considerable global discussion about MFI staff and investors profiting excessively from their clients, who are often from marginalized and low-income groups. At the time, at least another six Indian MFIs were in discussions for their own IPOs, although these cooled rapidly after October 2010.

The Crisis Erupts in 2010

Not surprisingly, this charged environment, with rapid growth, reports of distressed borrowers, and the high-profile SKS IPO led to a political backlash. On October 16, 2010, the Andhra Pradesh state government promulgated an ordinance with immediate effect titled "An Ordinance to protect the women Self-Help Groups from exploitation by the Micro Finance Institutions in the State of Andhra Pradesh"; the name was shortened to "Andhra Pradesh MFI Ordinance of 2010."[39] With its very title, the state government clearly meant to punish MFIs, and many analysts at the time noted the perceived competition between the state-run SERP Velugu program and leading MFIs in Andhra Pradesh.[40] Further, the manager of the SERP Velugu program publicly blamed MFIs in the state of responsibility for the suicides of borrowers in the state.[41] The ordinance was then passed as a state government act in December 2010.

The Andhra Pradesh government issued the MFI ordinance "in the larger public interest and to protect the poor from exploitation," noting that "MFIs are giving loans to SHGs at very high or usurious rates of interest and are using inhuman coercive methods for recovery of the loans. This has even resulted in suicides by many rural poor who have obtained loans from such individuals or entities."[42] In practice, the ordinance completely shut down normal MFI operations across the state. Key provisions of the ordinance included:

- MFIs were required to register in each district of Andhra Pradesh where they operated, noting their interest rate and fees, due diligence for analyzing credit applications, system for loan recovery, and list of staff conducting operations in the district.
- MFIs were not allowed to make new loans or recover existing loan payments until they registered in each district.
- Members of SHGs could only belong to one SHG.
- MFIs were no longer allowed to seek or hold any loan collateral or other security from clients.
- MFIs were required to post their interest rates in visible notices in their lobbies.
- MFIs were no longer allowed to lend to SHGs or their members, unless they presented to the district authorities a written consent from the bank already lending to the SHG.
- Any loan repayments by clients were to be made in the office of the Gram Panchayat—the village self-governance council. MFI staff and third-party agents could no longer approach clients in any other location for regular interactions, especially for loan collections.
- MFIs were required to provide the district authorities with a monthly list of all borrowers.
- The district authorities were given power to search and seize documents and to summon MFI staff or other relevant people during an inquiry into MFI practices.
- To settle any loan disputes between SHGs and MFIs, fast-track courts were to be established throughout the state.
- Any MFI staff or third-party agent found to be coercing or intimidating clients or failing to register with district authorities could be imprisoned for up to three years or required to pay a fine of up to INR100,000 (US$1,409), or both.

- Any MFI staff or third-party agent found to be contravening the ordinance could be imprisoned for up to six months or required to pay a fine of INR10,000 (US$140), or both.

- Government officers and others acting under the ordinance were given protection as public servants under the Indian penal code.[43]

The ordinance effectively stopped all MFI lending and loan recovery in Andhra Pradesh, and MFI staff were afraid to circulate. In addition to the ordinance, some district- and state-level political leaders encouraged borrowers not to repay their loans to MFIs.[44] The combined effect of these actions triggered a statewide default crisis for MFIs and other financial services providers. Repayments dropped from reported 99 percent levels before the ordinance to less than 20 percent as of January 2011.[45] Given the confusion and rising defaults, banks and investors immediately stopped lending and investing in MFIs in Andhra Pradesh and also throughout the country. The ensuing crisis became the largest microfinance crisis in the world—and remains so today. Over 9.2 million loans worth INR72 trillion (US$1.014 billion) became overdue, and 90 percent remained unpaid for years (if they were ever recovered).[46]

The crisis ignited debate across India on microfinance, SHGs, and broader issues related to financial inclusion. Many researchers, industry specialists, policymakers, and MFI and SHG practitioners tried to analyze the crisis in an effort to understand it, resolve it, and prevent anything like it from happening again. MFIN, the newly formed association of non-bank financial company MFIs, requested an independent judiciary inquiry to investigate the allegations against MFIs in Andhra Pradesh.[47]

The concerns about overindebtedness and the role of MFIs and SHGs were central to the crisis and next steps for the industry. In 2009, before the crisis, the Center for Microfinance at IFMR Research had conducted a household survey of 1,920 rural households in Andhra Pradesh to understand their access and usage of financial services.[48] The survey was designed to be representative of the entire rural population across the state and across all socioeconomic levels. It focused on household borrowing and saving behavior with a range of financial services providers, including SHGs, MFIs, and banks, as well as informal sources such as money lenders, friends, family, and others. The study by the Center for Microfinance included findings that questioned the roots of the crisis:

- An estimated 93 percent of rural households in Andhra Pradesh had some type of debt outstanding. The sources of outstanding loans for these households were

MFIs (11 percent of households); commercial banks, including RRBs (37 percent); SHGs (53 percent). However, a surprising 82 percent of households had a loan outstanding from informal sources such as friends, family, money lenders, and landlords. The median amount of outstanding loans ranged from approximately US$778 for informal loans to US$444 for commercial banks, to USD$181 for MFIs, and US$102 for SHGs.

- Households indeed borrowed from multiple sources;84 percent of households had at least two outstanding loans. Yet the sources included banks, MFIs, SHGs, and especially informal sources. Only 7 percent of households had loans outstanding from both SHGs and MFIs, which was considerably less than critics had claimed.[49]

Other researchers came to similar conclusions about the relative dominance of informal credit in both client reach and lending volume among rural households in Andhra Pradesh, including a second survey by the Center for Microfinance at IFMR Research and separate qualitative research by MicroSave, both in 2011.[50] Likewise, a study by the Indian National Council for Applied Economic Research (NCAER) found that informal sources were the main source of indebtedness for households, and with much higher loan amounts than from MFIs or SHGs.[51] The NCAER study included Andhra Pradesh and four other states: West Bengal, Tamil Nadu, Uttar Pradesh, and Rajasthan. A later study in 2013 by researchers at the Indira Gandhi Institute of Development Research (IGIDR) indicated that household consumption in Andhra Pradesh fell by 19 percent after the ordinance was passed; the greatest reduction in spending was on food and education, and there was evidence of greater volatility in overall household consumption.[52] The IGIDR study found that the microfinance crisis directly affected households that were borrowing from MFIs, but that the crisis also reduced all households' access to finance and household spending.

Rebuilding after the Crisis

The microfinance crisis that erupted in October 2010 shook the country (and the world) far beyond the state of Andhra Pradesh. The crisis caused financial services providers, policymakers, industry actors, clients, and funders to reassess the best ways to increase access to finance in India. The postcrisis period starting in late 2010 catalyzed significant innovation across India: there emerged more focus on client rights

and privacy; new types of financial services providers; and a national campaign for bank accounts underpinned by unique biometric identification, interoperable payments, growth in mobile phone access, and critical financial infrastructure. Financial inclusion more than doubled in India from 2011 (35.2 percent) to 2017 (79.9 percent) for people over fifteen years of age holding an account with a financial services provider (that is, a financial institution or mobile phone account, using most recent data available from Findex).[53] These truly impressive results are a culmination of many public and private sector efforts.

The Microfinance Code of Conduct

The unprecedented scale of the 2010 crisis rallied the microfinance sector to take action itself to improve its operating practices and differentiate the irresponsible MFIs from those that treated clients fairly. Both Sa-Dhan and MFIN, the two microfinance industry associations, had already developed acceptable practices for member MFIs, although these unfortunately did not prevent some of the excesses of the late 2000s. Even before the crisis, in early 2010, some industry players had organized workshops and provided technical assistance on establishing responsible finance approaches.[54] Then, after the crisis erupted in October 2010, these efforts became more accepted by a broader range of MFIs that recognized the need to take action. In late 2010, a group of industry players, including Sa-Dhan, MFIN, ACCESS SIDBI, multilateral and bilateral funders, and other supporters began meeting to develop an all-India common code of conduct for MFIs.[55] Building on earlier efforts from Sa-Dhan and MFIN, the working group also benefited from global perspective from the Responsible Finance Forum, the Smart Campaign, Cerise, and others. The final Code of Conduct was jointly approved by the Sa-Dhan and MFIN membership in December 2011 at the Microfinance India Summit. The Code of Conduct for MFIs included a value statement focused on integrity, quality, appropriateness, transparency, and fair dealings with clients. The code provided detailed principles for MFI operations in the following areas: integrity and ethical behavior; transparence of financial and operating conditions; client protection on fair practices, including avoiding overindebtedness, appropriate interaction and collection practices, and privacy of client information; governance of the MFI; staff recruitment; client education; data sharing with RBI-approved credit bureaus; dedicated client feedback and grievance redressal mechanisms.[56]

The code also included client protection guidelines and institutional conduct guidelines. These practices were in sync with RBI requirements, including the Guid-

ance for Fair Practices for NBFCs. SIDBI, MFIN, Sa-Dhan, and others funded dozens of MFI assessments, organized workshops to raise awareness, and trained assessors on the Code of Conduct, to help MFIs improve their operations and ensure compliance. In addition, many banks and other lenders, as well as investors in MFIs, began to require a Code of Conduct assessment as part of their due diligence of the MFI. To help implement the new code, MFIN launched an ombudsman effort, establishing a toll-free phone line for clients to report anonymously concerns in MFI operations and also submit claims for redressal.

To further strengthen the sector, the RBI issued norms for self-regulatory organizations in November 2013; and MFIN, the organization of MFIs legally recognized as NBFCs, received self-regulatory organization (SRO) status in June 2014. The RBI later accorded SRO status to Sa-Dhan, as the association for the broader group of all MFIs (including the NBFC legal category and other categories) in 2015.

In December 2015 and again in September 2019, MFIN and Sa-Dhan presented revised codes of conduct, building on the experience of the previous four years, changes in regulation, the introduction of small finance banks and new universal banks, and the RBI's earlier approval of both MFIN and Sa-Dhan as self-regulatory organizations. The revised 2015 code included a new supplementary document, "MFI Commitment to Customers," intended to be given to MFI clients at the time their loan was disbursed. The revised 2019 code further expanded provisions on risk management, staff training, and client education.[57]

In addition, in September 2019, MFIN, Sa-Dhan, and the Finance Industry Development Council (FIDC) jointly issued the Code for Responsible Lending, which extends many of the provisions of earlier codes of conduct to a broader group of financial services providers.[58] This is an important step given the new types of players entering the market over the previous five years. The earlier codes and RBI regulations focused only on NBFC-MFIs (monitored by MFIN) and MFIs (monitored by Sa-Dhan), prohibiting them from becoming the third lender to any single client, in an attempt to reduce overindebtedness. Further, total loans were to be limited to INR100,000 (US$1,409) per client. However these provisions did not apply to small finance banks, universal banks, other types of NBFCs, and other lenders. As the self-regulatory body for all registered NBFCs, FIDC's involvement in the Code for Responsible Lending is a significant step forward to include a larger group of lenders. Several universal banks and small finance banks have also agreed to the new code. The Code for Responsible Lending focuses on fair interactions with clients, suitability of financial products, avoiding overlending, transparency and education, privacy of client information, and grievance redressal.[59]

Appropriate Regulation: The RBI's Role

In the aftermath of the crisis, the RBI encouraged banks and development finance institutions to renew their lending to MFIs and agreed to restructure existing bank loans to MFIs given the broad liquidity crisis across the sector. In addition, the RBI quickly launched the Malegam Commission, which in January 2011 recommended the following: creation of a separate category of non-bank finance companies (NBFCs) for MFIs; adoption of responsible practices for MFIs, including transparency in pricing and fair loan recovery methods; continuation of priority sector benefits for bank lending to MFI-NBFCs; and specific recommendations on interest rates, interest margins, maximum loan amounts for MFIs, and loan loss provisioning requirements.

The RBI broadly accepted the Malegam Commission recommendations in May 2011 through a monetary policy statement. In June 2011, the first draft of the Microfinance Institutions (Development and Regulation) Bill was introduced in Parliament. After significant discussion and several drafts, a revised version of the bill was submitted to the Lok Sabha, the upper house of Parliament, in February 2014. Unfortunately, the bill languished in Parliament and was never passed. Thankfully the RBI was able to address the legal and regulatory issues exposed by the 2010 crisis.

To help the sector continue rebuilding, the RBI issued directions to create a new category of NBFC specialized for non-deposit-taking MFIs in December 2011. This sweeping and comprehensive regulation for NBFC-MFIs introduced several major changes:

- Minimum capital requirements or "net owned funds" of INR50 million (US$704,500), or INR20 million (US$281,800) for NBFC-MFIs in the northern regions of the country, with milestones to be met by 2012 and 2014 for existing MFIs to convert to NBFC status and meet these requirements. (The requirements have subsequently been adjusted for large, medium-sized, and smaller NBFC-MFIs.)

- Requirement that an NBFC-MFI hold at least 85 percent of net assets (for assets originated after January 2012) in the form of loans that fit the new definition of "qualifying assets":
    - loan disbursed by an NBFC-MFI to a borrower with a rural household annual income not exceeding INR100,000 (US$1,409) or urban and semi-

urban household income not exceeding INR160,000 (US$2,254). In October 2019, these limits were increased to INR 125,000 (US$1,761) for rural households and INR200,000 (US$2,818) for urban and semi-urban households.[60]

- loan amount does not exceed INR60,000 (US$845) in the first loan cycle and INR100,000 (US$1,409) in subsequent cycles. The total indebtedness of the borrower does not exceed INR100,000 (US$1,409), minus any education or medical expenses paid by the loan. In October 2019, the loan limit was increased to INR125,000 (US$1,761).[61]
- loans must be extended without collateral requirements
- loan tenure of at least twenty-four months for loans over INR30,000 (US$423) and no prepayment penalty
- loan to be repaid in weekly, fortnightly, or monthly installments at the choice of the borrower

- More stringent requirements for capital adequacy limits and calculation, revised asset classification approach, and new loan loss provisioning norms
- Greater transparency in interest rates, with an interest rate cap of 26 percent per year calculated on a declining balance basis, a 12 percent margin cap, and a 1 percent processing fee cap. In addition, no penalty could be assessed for late loan payments from clients. The loan terms were to be provided to clients in clear language noting all pricing and loan conditions. In addition, the effective interest rate must be posted in the customer lobby of each of the MFI's offices and on its website. (After a short period, the RBI adjusted some elements of the NBFC-MFI directions, such as reducing the margin cap from 12 to 10 percent for large MFIs and introducing new calculations for adhering to the interest rate and margin caps.)
- Borrowers could belong to only one joint liability group, and a maximum of two NBFC-MFIs could lend to a borrower.
- Requirement for NBFC-MFIs to establish a code of conduct, including non-coercive loan recovery practices and build on the existing Fair Practices Code issued by the RBI in 2006 for NBFCs

- Requirement for NBFC-MFIs to comply with broader corporate governance regulations for NBFCs
- Confirmation of NBFC-MFI status qualifying for priority sector lending

The RBI went further in September 2013 by setting up the Mor Committee on Comprehensive Financial Services for Small Businesses and Low-Income Households, with a broad representation of members from the public and private sectors. The committee report in January 2014 marked a shift in the discussion about how to pursue meaningful financial inclusion in India; it made the following key recommendations:[62]

- Universal electronic bank account access for all Indians over eighteen years of age
- Access to service points for payment and deposit services within a fifteen-minute walk
- Universal access for low-income households and small businesses to a formally regulated lender offering a range of suitable and affordable credit, deposit, and investment products, as well as a suite of insurance products
- Customer right to suitable financial services and legal redress in the case of gross negligence by a financial services provider, which signaled a new approach in the global discussion on responsible finance
- Recommendation for public policy to pursue principles of stability, transparency, neutrality, and responsibility. Any approach to financial inclusion should maintain overall stability of the financial system. Financial services providers should provide transparent balance sheets and frequent reporting. Market and regulatory treatment of financial services providers should be neutral and not based on their institutional character, but on the role they perform in the market. Financial services providers should be responsible for offering suitable services that are welfare enhancing.
- Recommendation for RBI to develop licenses for differentiated institutions such as payments banks, wholesale consumer banks, and wholesale investment banks[63]

Credit Reporting

Lack of data on client indebtedness contributed to the excessive growth in lending by MFIs, and this was flagged even before the crisis. Recognizing this problem, key MFIs began discussing how to incorporate microfinance clients in the credit bureaus in the mid-2000s. Starting in mid-2009, the Microfinance Institutions Network and the International Finance Corporation (IFC) jointly conducted the initial feasibility study, built market awareness, developed a common data format, helped MFIs sync their data with credit bureaus, and advised credit bureaus on linking with MFIs. By May 2011, Equifax and High Mark had launched services to MFIs, and within four months, thirty-five MFIs had already submitted 55 million loan account records, indicating their significant interest in the value of credit reporting.

The credit bureaus in India have evolved quickly, building on RBI regulation, their own expertise, and a sector hungry for this information. In July 2014 the RBI issued notifications (strengthened in January 2015) requiring all credit institutions (and largely aimed at NBFC-MFIs) to join one of the licensed credit bureaus, submit data to at least one credit bureau, and seek a credit enquiry on each client to ensure they would not be offering a third loan to any client.[64] It is noteworthy that these requirements do mandate that they report data for individual SHG clients to the credit bureaus, although this has been in discussion for at least six years.[65] When the RBI issued these notifications, four credit bureaus had been licensed by the RBI and were rapidly expanding their operations: CIBIL, the oldest credit bureau in India, which later joined with TransUnion; Experian; High Mark, which later joined with CRIF; and Equifax. Later RBI notifications required credit institutions to provide historical data on clients,[66] thereby leveling the playing field among the four bureaus. To promote consumer awareness and protection, beginning in 2016 the RBI required each bureau to provide one free credit report per year to clients of credit institutions, so they could verify their own information and take steps to correct errors.[67]

Credit bureau coverage of households and businesses in India has grown tremendously since 2014. Extensive coverage and use of credit reporting has helped reduce overindebtedness, helped credit institutions manage risk, and contributed to greater stability of the overall financial sector. The World Bank Group's Doing Business database tracks coverage through an indicator on "getting credit." Doing Business data for 2019 suggest that 478.6 million people, 17.0 million firms, and 55.9 percent of the adult population are covered by the existing credit bureaus in India.[68] Overall, the "getting credit" score for India improved to the rank of twenty-two globally as of 2019, and this score is largely based on laws, regulations, and national coverage for credit bureaus.

TABLE 13-7. Coverage of India's Credit Bureaus, as of July 2018

TransUnion CIBIL Launched 2004 3,500+ subscribers 1 billion + credit records	*CRIF HighMark* Launched 2010 4,000+ subscribers 1.2 billion + credit records
Experian Launched 2010 4,600+ subscribers 720 million + credit records	*Equifax*[a] Launched 2010 Global coverage: 820 million consumers

Source: Pallavi Nahata, "Will RBI's Public Credit Registry Disrupt India's Successful Credit Bureaus?," Bloomberg Quint, July 12, 2018.

a. India-specific data not available from Equifax.

As noted in table 13-7, the coverage of the four licensed credit bureaus is significant. CRIF HighMark reports the largest number of credit records among the four bureaus, perhaps in part because of their dominance in serving MFIs with large numbers of clients. CRIF HighMark's database includes over 1.2 billion credit records, which it estimates can be attributed to 390–400 million individuals.[69] TransUnion CIBIL reports over 1 billion credit records, partly reflecting the advantage they gained as the sole bureau for several years in the 2000s.

Although the coverage of bureaus is impressive given the size of the Indian market, more work is needed to ensure comprehensive data quality. For example, as noted earlier, lenders to SHGs are not yet required to report to credit bureaus. In addition, clients may not have accurate information, especially if they take loans from multiple lenders such as banks, NBFCs, co-operatives, and regional rural banks that have different levels of capacity and accuracy when reporting to the bureaus. In case studies across the country, analysts have noted that the records for some clients are inaccurate;[70] accuracy is especially critical given the RBI limit on total borrowing per client of INR125,000. As fintechs grow their lending operations, their loans should also be tracked through the credit bureaus. Finally, given the importance and pervasiveness of credit bureau data, clients should be more informed about their rights to view and correct their data.

In November 2017, the RBI convened the Deosthalee High-Level Committee on Credit Reporting; its report published in June 2018 calls for a unified public credit registry to be housed initially at the RBI, which would supplement the various private credit registries.[71] The public registry would serve as the single point of mandatory reporting for all loans across the financial sector, to enable the regulator to track material events across institutional loan portfolios.[72] The Deosthalee report recom-

mended that the public registry not provide services currently offered by private registries, such as credit scores. The concept of a public bureau is moving forward, as the RBI seeks a technical firm to manage the platform.

Long discussed among specialists and already done in many other countries, the RBI is also considering expanding credit bureau data to include alternative data such as payments to utilities and mobile phone companies, and transactions covered by the Indian Goods and Services Tax Network.[73] The use of alternative data could help low-income clients establish stronger credit history by expanding data coverage to include these more common types of transactions made by a broader range of the population.

Government of India Initiatives

Since 2009, the government of India has gradually developed an unprecedented national campaign for unique identification, bank accounts, interoperable payment platforms, and digitization of government payments. The components of this campaign were built separately—and under two different national government administrations—and then linked to make the combination of services even more useful. The campaign became known as JAM—Jan-Dhan (bank account campaign), Aadhaar (unique identification), and mobile connectivity (linking payments to mobile phones). No other government on the planet has attempted such an ambitious campaign in such a short period of time. The government of India's efforts have contributed to a tremendous increase in financial inclusion and digital payments across the country.

Unique Identification: Aadhaar

In 2009, the government of India launched an ambitious campaign to offer a unique identity number to every resident of India. Discussed for years as a way to unify multiple identity numbers used for subsets of the population (for example, voting card, ration card, income tax account, and driver's license numbers), the Department of Information Technology proposed a new biometric approach in 2006. The Unique Identification Authority of India (UIDAI) was created in 2009 to manage the new identity program. The first biometric UIDs using fingerprints and iris scans known as "Aadhaar numbers" were issued in September 2010.[74] The enrollment campaign ramped up progressively thereafter. Within the first year, 100 million people had enrolled, 99 percent of Indian adults were enrolled by 2017, and 1.23 billion people were enrolled as of February 2019.[75] E-payment campaigns and demonetization in 2016 may have encouraged people to enroll in Aadhaar for access to electronic

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payments. Regardless, the UIDAI campaign is the largest such identification program and biometric database in the world. National coverage was effectively achieved in nine years. Given the sheer number of people involved, in the second largest country in the world, this is an impressive accomplishment.

Rapid growth of the UIDAI campaign and its broad coverage sparked controversies and opportunities. Concerns about incorrect enrollments began emerging in 2011, and as the campaign expanded, the incidence of inaccurate data was closely monitored by UIDAI and activists, although this seems to have become less of an issue now that the program is mature.[76] Advocates have also raised concerns about data privacy and security. One reported data breach occurred in January 2018 when a journalist claimed to have paid 500INR (US$7) and received access to the entire UIDAI database.[77] Although the UIDAI has denied this account, there have been other claims of data leaks through third-party applications and unsecure websites.[78] For such a sensitive database affecting almost the entire population, data privacy and security deserve close scrutiny by advocates and careful management by UIDAI.

The Indian social welfare system includes hundreds of entitlements and subsidies, including cooking gas subsidies, prenatal care benefits, education grants, and fertilizer subsidies to a wide range of low-income people, vulnerable groups, farmers, students, and others. Starting in 2011, pilots began to emerge that would link these benefits to the UID, to track identity more accurately and reduce fraud and error.[79] Government-to-person payments are discussed further later in the chapter.

Financial service providers and mobile network operators saw an opportunity for the UID to strengthen information on their clients, to help fulfill regulated know-your-customer (KYC) requirements, and they soon began requiring clients to furnish their UID for account opening and maintenance. Globally, KYC requirements have been challenging for financial services providers working with low-income, rural, and vulnerable groups who sometimes are unable to produce birth certificates, utility bills, passports, rental contracts, and other common methods of identification.[80] KYC issues were particularly acute in India given a fractured identification system across several ministries and agencies, fraud and errors with paper-based documents, and disparate approaches by states and the central government. Given its national scope and rigorous biometric approach, the UID was welcomed as a useful KYC solution by financial inclusion advocates, banks, regulators, and government agencies.

However, legal challenges have complicated use of the UID. The Supreme Court ruled in September 2013 that people could not be refused public benefits or services if they lacked a UID; the Supreme Court further ruled that the UID could not be made mandatory. The Parliament passed the Aadhaar Act in March 2016 to provide a legal foundation for the unique ID and for the UIDAI as a statutory authority.

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Again in September 2018, the Supreme Court ruled that the UID was constitutional, including the requirement that it be used for income tax filing and government benefits such as subsidies and welfare programs, although children cannot be excluded from services for lack of a UID. However, the court determined that the UID could not be compulsory for KYC requirements by private sector entities such as financial services providers, telecommunications (telco) companies, and schools.[81] Further, the court urged the government to develop more protections for privacy and security of consumer data, and a data protection measure is now being considered.[82] In partial response, the Parliament amended the UIDAI Act in January 2019, promulgated in February 2019, to allow people to voluntarily provide their UID for KYC requirements with banks and telco providers, although a client who does not provide a UID cannot be refused service.[83] As of August 2019, a further amendment to the anti-money-laundering statutes allows for digital KYC to open a bank account with a voter ID or driver's license, if a UID is not available, which is similar to the norms for opening a mobile phone account.[84]

National Campaign for Bank Accounts: Pradhan Mantri Jan-Dhan Yogana

The government of India launched the Pradhan Mantri Jan-Dhan Yogana (PMJDY) campaign in August 2014 to ensure that all households have access to bank accounts. Managed by the Ministry of Finance, PMJDY mobilized banks to provide an interest-bearing deposit account with no minimum balance, a RuPay debit card, access to digital payments, basic life insurance, a small overdraft facility of approximately US$70, and access to insurance and pension facilities.[85] Within the first six months, PMJDY reported 136.8 million new accounts had been opened. In 2018, the PMJDY program expanded the account package, including higher overdraft of INR10,000 (US$140) and accident insurance benefits. As of January 2020, PMJDY reported over 378 million new accounts opened, the majority with public sector banks.[86] Further, 99 to 100 percent of all households hold at least one bank account in every state across the country.[87]

Analysis of the PMJDY program has been largely positive, although concerns about duplication and dormancy have persisted. Some of these new, multibenefit accounts were likely opened by households that already had a bank account. However, estimates vary on the magnitude of these duplicate accounts—from a minor percentage to 33 percent or even 79 percent of new accounts.[88] Banks were initially reluctant to engage in the program, but given the strong signals from the government, they obliged. Yet the high dormancy of new accounts raised concerns in the early years of the program. On top of the expense of account opening, dormant accounts are costly for banks to maintain and can drain their enthusiasm for financial inclusion.

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Dormancy may have been fueled by a number of factors, including clients slowly becoming familiar with their new accounts, duplicate accounts per household, and fictitious or incomplete client information used by banks to open accounts in order to meet their targets. Estimates for account dormancy ranged from 63 percent (March 2015) to 28 percent (August 2016) from independent studies.[89] Some banks—especially public sector banks—reportedly added as little as a single rupee to potentially millions of dormant accounts in order to reduce the number that they needed to report as dormant.[90] Demonetization on November 8, 2016, may have also helped increase usage of all bank accounts, including PMJDY accounts. For example, total deposits in PMJDY accounts more than doubled to approximately US$12.8 billion in the forty-five days following demonetization.[91] The dormancy issue seems to be abating; reports on PMJDY as of September 2019 suggest that there are 48.8 million zero-balance accounts (13 percent of total accounts), and 66 million accounts dormant over the previous year (17.8 percent of total accounts).[92] Further, the average deposit balance in PMJDY accounts rose from INR1,000 (US$14) in March 2015 to INR2,853 (US$40) in October 2019.[93]

Interoperable Payments Platform

The RBI established the Board for Payment and Settlement Systems in 2005 and promoted the Payment and Settlement Systems Act of 2007. Following from this framework, the National Payments Corporation of India was launched in 2009 by the Indian Banks' Association and the RBI as an umbrella organization for operating retail payments and settlement systems in India. Initially ten banks invested in NPCI, and the number increased to fifty-six banks in 2016.[94]

The NPCI manages several payment platforms and initiatives:

- Immediate Payment Service (IMPS) launched publicly in November 2010 to provide instant 24/7 interbank electronic funds transfer, building on the existing NEFT and RTGS systems available for fund transfer during normal banking hours. IMPS can be used on mobile phones, the internet, at ATMs, in text messages (SMS and USSD), and at bank branches.[95]

- RuPay launched in 2012 as a domestic debit card scheme offering an open-loop, multilateral system to connect all Indian banks and financial institutions in India with electronic payments.[96] Clients can request a RuPay debit card linked to their PMJDY accounts. There were 298 million RuPay cards issued and linked to the 378 million PMDJY accounts opened as of January 2020.[97]

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- Unified Payment Interface (UPI) launched publicly in August 2016 as a mobile phone application that allows access to a client's different bank accounts and offers several instant payment and banking features. Security is high, with two-factor authentication and a virtual address for the client's bank account—which prevents access to personal account information by unauthorized users and does not require clients to reenter information while using the application. UPI enables a range of payments, including peer to peer, merchant, utility bill, donations, and others, either in real time or at a future scheduled time. The UPI system works with a range of banking applications available from financial services providers in India on both Apple and android platforms.[98]

- Bharat Interface for Money (BHIM) is a bank and payment application also launched in 2016 that works on the UPI system using a mobile phone number, the virtual address from UPI, an account number, or even a quick response (QR) scan. Clients can send and request money, pay merchants, check UPI transactions and account balances linked to the application, and block payments or users from interacting with the client's own account. BHIM is available in twelve major languages spoken in India.[99] In 2017, BHIM added an Aadhaar or unique identity feature that allows clients to pay using their biometrics (such as a fingerprint) as authenticator, instead of a signature or security code.

These useful and groundbreaking NPCI services are enabling a true leap forward for access to digital payments across India. Use of these services is surging across the country in response to the well-designed products, as well as a deliberate focus on keeping the services affordable (and free for some products). As of September 2019, the number of payment cards in India reflects continued growth with52.6 million credit cards and 835.6 million debit cards outstanding.[100] Credit and debit card transactions exceeded 1.39 billion valued at over US$46.3 trillion in September 2019, with debit cards enabling 87 percent of transactions.[101] For the month of December 2019, NPCI reported 2.5 billion financial transactions over all of their payment networks valued at US$191.4 trillion.[102] Of these transactions, the UPI platform (including BHIM) enabled 1.3 billion transactions (52 percent of all NPCI transactions) valued at US$28.4 trillion (15 percent of all value of NPCI transactions) for December 2019.[103]

Thus, according to December 2019 data, monthly card payments were about equal in transaction number and about 1.6 times higher in value than monthly mobile payments.[104] However, payments on the UPI platform grew dramatically, from 915 million payments valued at INR1.1 trillion (US$15.4 billion) for the year ending March

2018 to 8.6 billion transactions valued at INR14.87 trillion (US$208.4 billion) for the nine months from April to December 2019.[105] These numbers reflect a ninefold growth in volume and thirteenfold growth in the value of transactions over the period.

Over the past five years the RBI and NPCI have introduced multiple revisions and improvements to the overall payment infrastructure, available products, and pricing to encourage greater usage of digital finance. For example, the RBI will enable global payments through UPI, and NPCI already demonstrated this payment mechanism in Singapore in November 2019.[106] In addition, the RBI announced that, beginning in January 2020, banks would not be allowed to charge fees for online NEFT payments from savings accounts.[107]

Further fueling mobile payments, mobile phone penetration continues to grow across India. As of October 2019 TRAI, the telecommunications regulator, reported the existence of 1.183 billion mobile phone accounts, 981.2 million of which were active.[108] However, the overall mobile teledensity of 89.6 percent reflects a density of 156.8 percent in urban areas and 57.9 percent in rural areas.[109] Prices in India for mobile phone service are among the lowest in the world, which has helped fuel mobile usage across a wide range of socioeconomic groups in both urban and rural areas.[110] Clearly, the UPI platform and other NPCI services are already encouraging impressive uptake in digital payments, building on growing mobile phone usage across India.

At least three additional factors have helped promote the use of payment services over the past decade: an expanding network of ATMs and bank agents, the government's transition from cash and checks to digital payments, and demonetization.

Expanding Service Points: ATMs and Banking Correspondents

As people start to use digital payments, they still need to be able to exchange cash in and out of the system. This cash in/cash out challenge requires service points connected to the digital payment network with sufficient cash liquidity to service clients, at least until more clients prefer digital payments over use of cash.[111] Given the cost of opening bank branches, more cost-effective and nimble solutions are necessary to expand physical service points.

The RBI recognized this challenge early, encouraging banks to install ATMs and allowing third-party or white-label ATMs starting in 2011. The number of ATMs grew by double digits for several years but declined slightly in 2019, to 232,000 ATMs as of November 2019.[112] In the past four years, so-called micro-ATMs have emerged. As modified point-of-sale (POS) devices located at retailers and business correspondents, the micro-ATM is connected through the payment system to bank accounts

so clients can deposit and withdraw cash from their accounts using a debit card. More limited functions are available at micro-ATMs than at regular ATMs, including a limit of INR10,000 (US$140) on withdrawals. In November 2019, when the RBI began reporting, over 235,000 micro-ATMs were in service.[113] The number of standard POS devices is also growing across India, with RBI reporting over 4.88 million as of November 2019, a 39 percent increase from November 2018.[114] The actual number of POS across the country is larger, as this figure includes only POS devices linked to banks, not those managed by fintechs. Five banks account for 76 percent of the POS devices, led by Ratnakar Bank with 27 percent of the POS devices.[115]

The RBI also developed guidelines for agent banking in 2006 and for progressively expanding the eligibility criteria to serve as an agent. In India, business correspondents (BCs, also known as banking agents and other terms in other countries) have emerged as a useful way to expand the network of service points, although managing this channel brings its own challenges—both for the BC network and for financial services providers that outsource client relations through BCs.[116]

In the past ten years, several BC networks have emerged to help banks expand their physical network across the expanse of India. Eko and FINO were two of the first BC networks launched in the late 2000s; others included Paytm RazorPay, IFMR Rural Channels and Services, Oxigen Services, Instamojo, ItzCash, A Little World, the Drishtee Foundation, Samvriddhi Trust, Novopay, Ekgaon, and ZeroMass. BC networks in India have learned key lessons on business viability and agent management, including how to attract and screen potential agents, how to remunerate agents through financial and other incentives, and how to retain their best agents. Successful BC networks developed scalable models for BC operations, including agent training, client training, cash management, and fraud management.

As a way to combine the old and the new in financial inclusion, MFIs and SHGs have also been serving as BCs for payment providers and banks across India for several years. MFIs and SHGs know their customers and already have agents and branch offices in rural and semi-urban areas where banks are less present. However, serving as a BC can detract from the MFI's or SHG's core operations and raise new issues, including managing cash liquidity, serving a larger clientele without the deep relationships established through microfinance groups, ensuring the agent's safety, and avoiding hollowing out their own operations and client relationships in favor of relationships with their partner banks. In the author's discussions with MFIs and SHG networks over the years, few say that they have pursued BC operations as a core operational strategy. However, for some MFIs or SHG networks, serving as a BC could be a reasonable strategy if the gains outweigh the additional risk.

Given their growing presence and proximity to clients, BCs have helped increase clients' comfort with and use of digital payments. However, BCs can also add to client angst by refusing to provide cash, preferring to focus on their core business (such as gas stations or grocery stores, for agents based in those locations), defrauding clients, being closed during key hours, or providing substandard customer service. Over 20 percent of BCs have also been subjected to fraud and abuse by clients and business partners.[117] The BC sector's development and professionalization is supported through the Business Correspondent Federation of India (BCFI),the industry association of both corporate and agent business correspondents active since 2014. With over forty-five member companies, the BCFI offers training, certification and BC registry; standards of customer service; a code of conduct; a grievance redressal mechanism; and technology platforms for the BC industry.[118]

The BC model in India has not developed as exponentially (per capita) as in other countries such as Kenya or Tanzania, where BCs are ubiquitous and vital to the provision of financial services in those countries. The BCFI currently estimates that there are more than 787,000 agent BCs across the country.[119] India's trajectory for BCs and other service points will be different given the confluence of financial inclusion efforts by both public and private sector agents.

Government-to-Person (G2P) Payments

The government of India made a strategic decision to convert to digital payments, a move that has produced efficiency, cost savings, and transparency for government services and benefits. Yet perhaps its largest impact has been to drive greater use of digital payments by hundreds of millions of people and businesses receiving or paying government transfers.

Government payments include a wide range of transfers to and from other governments (state, local, international), to and from businesses (procurement for services and goods, taxes, fees, licenses), and to and from people (taxes; social welfare payments; public sector staff, such as military, government bureaucrats, and public school teachers; salaries; benefits; and pensions). As a gateway to financial inclusion, government-to-person payments can bring people into the formal financial sector by giving them a bank account where they can receive social welfare payments. For low-income and vulnerable people, government-to-person payments may be a lifeline of income, and perhaps their largest single financial transaction in a month.

In India, government-to-person payments include cash transfers (wages, pensions, and unemployment assistance), subsidy transfers (for food, kerosene, and fertilizers),

and benefit transfers (welfare programs, including the well-known National Rural Livelihood Mission and the Mahatma Gandhi National Rural Employment Guarantee Act). One study from 2012–13 estimated that annual G2P payments in India exceeded $236 billion at the time—approximately 55 percent was in cash transfers, 33 percent in subsidy transfers, and 12 percent in benefit transfers.[120]

Gradually, pilots to digitize G2P payments began to emerge, although the challenges were immense.[121] At the time, most records at government offices were entirely paper based, fragmented across multiple registries, managed by multiple layers of staff and outsourced workers at multiple locations. Not surprisingly, errors in these records were inevitable, through human error and sometimes by design in cases of fraud. Digitizing the actual records of the benefit programs and people eligible to receive government payments was an onerous undertaking. Thereafter, convincing banks (even public sector banks) to open accounts for the beneficiaries of government payments was extremely difficult, especially before the UID and PMJDY programs enabled hundreds of millions of identification and bank accounts. One example is the IFC pilot program with the State Health Society in Bihar for digitizing health benefits and records, linking with the PFMS system, and enabling G2P payments across this large state of more than 100 million people.[122] Even in the early years of the pilot programs, the G2P payment pilots struggled to help beneficiaries enroll, receive their UID numbers in the mail, open bank accounts linked to their UID, actually receive their government benefits according to program rules, and then withdraw the cash from their accounts, often at bank branches or through business correspondents several kilometers from their homes.[123]

To facilitate government payments, the Ministry of Finance, through the Office of Controller General of Accounts, developed and launched the Central Plan Schemes Monitoring System in 2009. The online platform was conceived as a financial tracking and reporting system on the flow of funds from central government to state and local governments for a range of government funding, including subsidy and benefit transfers. The platform was renamed the Public Finance Management System (PFMS) and expanded in 2013 to include government-to-person payments. As part of the government's broader Digital India initiative, the Ministry of Finance continues to improve the PFMS platform with new functionality, including real-time links to core banking systems of most banks in the country, allowing PFMS to be used for almost any government payment to people and vendors across the country.[124]

To give even more impetus to this strategic transformation, in 2013 the government created a specialized unit to coordinate direct benefit transfers (DBTs), the DBT Mission, originally in the Planning Commission and shifted in 2015 to the high-level Cabinet Secretariat.[125] As of December 2019, the DBT Mission reported 429 cash and

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in-kind government benefit G2P programs using their platform. For the cash DBT programs, the eight-month expenditure for April to December 2019 of INR1.1 trillion (US$15.3 billion) may match the 2018–19 fiscal year expenditure of INR2.1 trillion (US$30.16 billion for 440 government programs.[126] Channeling digital payments for such a large number of programs and beneficiaries is a master stroke by the government of India to accelerate financial inclusion while greatly increasing the efficiency, transparency, and effectiveness of government benefit programs.

The government of India is also considering universal basic income (UBI) to replace some of the existing benefit programs. The hundreds of current benefit programs are mostly conditional, meaning they are limited to specific people based on socioeconomic conditions, specific geographies, triggered by certain actions such as buying fertilizer, receiving prenatal care at approved clinics, or enrolling in university, or tied to specific expenditures such as approved food purchases. UBI as a concept could be unconditional, provided to every citizen, and used for any purchase, according to the analysis laid out by the Ministry of Finance in January 2017.[127]

Demonetization

On November 8, 2016, the Indian prime minister made a surprise evening announcement that all 500 and 1,000 rupee notes (US$7 and US$14, respectively) would no longer be legal tender as of midnight that day. At the time, these two currency bills represented a staggering 86 percent of all currency notes in circulation.[128] In promoting demonetization, the prime minister cited concerns about cash used for terrorism, and to avoid taxes, as well as the prevalence of counterfeit currency. People were told they could exchange their currency in bank accounts and receive the new 500 and 2,000 rupee notes (US$7 and US$28, respectively) for fifty days until December 30, 2016, although this currency exchange was then curtailed in late November 2016. In addition, daily limits on currency exchanges per person and cash withdrawals from banks and ATMs were imposed. The sheer logistics of such a transition, given the size of the country and population, were overwhelming.

Not surprisingly, the shortage of cash affected everyone—perhaps proof that cash is still king in India. The informal sector is almost fully cash based and used by the vast majority of the low- and middle-income Indian population for their livelihoods and many household purchases. Almost every household had people queuing in long lines at banks to exchange their currency. Researchers, industry associations, and even the RBI and others have studied the economic and social effects, including lower ag-

ricultural production (given the lack of cash to buy inputs), lower agricultural prices (given the lack of cash to buy produce), loss of jobs in manufacturing and other sectors, and loss of sales, production, and wages for MSMEs that provide most households with their regular supply of food and commodities.[129]

However the cash crisis propelled the use of digital payments, at least in the short term. The use of payment cards and digital wallets rose during this period and remained high even after the liquidity crunch eased. One study published almost two years after demonetization suggests that overall debit card use increased 84 percent, clients added 82 percent more funds to digital wallets, and people increased peer-to-peer payments by 745 percent and e-shopping by 405 percent.[130] As of June 2019, cash in circulation grew to INR212 trillion (approximately US$3 trillion), or over 24 percent more than in October 2016, just before demonetization.[131] Yet the trend in payments continues to grow, especially in urban areas. According to the RBI, payments volume and value grew at 54.3 percent and 14.2 percent, respectively, in 2018–19, and this builds on increases of 44.6 percent and 11.9 percent, respectively, in 2017–18.[132] A notable difference in India's trajectory is that payments and broader use of digital finance are growing most rapidly through use of mobile devices, while usage of debit and credit cards at POS terminals is declining, relatively. In mid-2019 both the RBI and the government announced additional measures to encourage businesses to accept payments and consumers to use payment options.[133] As the economy develops and service providers continue to add features, digital payments will likely continue to grow significantly across India.

MUDRA Bank: Pradhan Mantri MUDRA Yojana

In April 2015, a new entrant emerged in the financial services sector: Pradhan Mantri MUDRA Yojana (PMMY), also known as the MUDRA Bank.[134] Not actually a licensed bank, MUDRA is the Micro Units Development and Refinance Agency, a government fund to increase lending to micro, small, and medium-sized enterprises across the country. The loans are granted through banks, NBFC-MFIs, regional rural banks, co-operative banks, and other financial services providers in three categories of lending up to INR1 million (US$14,090).

According to MUDRA's March 2018 annual report, the program worked with 200 institutions, including 93 banks, 72 MFIs, 32 NBFCs, and 6 small finance banks. More than 48 million loans were granted in the fiscal year April 2017 to March 2018, with disbursements of INR2.46 trillion (US$34.6 billion), of which 40 percent was in loans to women and 33 percent to vulnerable socioeconomic groups.[135] In addition,

MUDRA launched a credit card scheme, similar to the Kisan card offered by NABARD described earlier. In the 2017–18 fiscal year, 152,000 card accounts were opened (over 850,000 cumulative card accounts since 2015), and INR14.3 billion (US$201.5 million) in loans was disbursed. The program grew in the 2018–19 fiscal year, when MUDRA reported approving more than 59.8 million loans with a value of INR3.2 trillion (US$45.3 billion) from April 2018 to March 2019. Operations continue at a robust pace; provisional data for the eight months of activity in fiscal year 2019–20 through December 2019 indicate approval of 35.5 million loans with a value of INR1.79 trillion (US$25.2 billion).[136]

Concerns are rising about the portfolio quality of the program. RBI issued cautions in January and November 2019 and said nonperforming MUDRA loans had risen from INR110 trillion (US$1.55 billion) in January 2019 to INR164.8 trillion (US$2.31 billion) in November 2019 across their partner banks.[137] Given these portfolio concerns, the Ministry of Finance is reported to have asked public sector banks participating in the program to review eligibility criteria, geographic reach, and program features.[138] Reporting in the Indian press suggests that portfolio quality remains a concern, as nonperforming MUDRA loans at some public sector banks are estimated to exceed 20 percent of their MUDRA portfolio.[139] The data on nonperforming loans should be clarified and measures taken to remediate the portfolio given the magnitude of the MUDRA program.

Perhaps more important, the broader economic impact of MUDRA, especially for job creation and stabilizing incomes of self-employed people, is not yet known. A draft analysis from the Labour Bureau under the Ministry of Labour and Employment suggests that new job creation is lower than originally anticipated, estimating that 11.2 million additional jobs were created during the initial period of the program from April 2015 to December 2017. An initial cost-benefit calculation suggests that each job created cost INR510,000, and that only 20 percent of borrowers have started new businesses.[140]

New Banks and Other Players Emerge

In 2014, the RBI built on helpful recommendations from its technical committees to add new categories of players to the Indian financial sector: payments banks and small finance banks. Over the past decade, several new fintech companies have emerged, often in partnership with other licensed financial services providers. As mentioned earlier, many started as BCs; they have gradually expanded their operations, and some have recently been granted NBFC licenses.

Payments Banks

Given the large and complex market and need for financial services, a multitiered approach with a range of financial services providers makes sense in India. The Mor Committee report in January 2014 helped to reinforce this approach by recommending the creation of a new category of bank for payments banks. The RBI moved quickly on this, releasing draft guidelines for payments banks in July 2014 and approving the final guidelines in November 2014.[141] Operating guidelines for payments banks were released by the RBI in October 2016.[142]

Payments banks are restricted to providing payment and remittance services, deposits can have a maximum account balance of INR100,000 (US$1,409) per client, and debit/ATM cards must be linked to accounts. In addition, payments banks may serve as the banking correspondent of another bank and distribute simple insurance products on behalf of other insurance companies.[143]

The new banking license generated significant interest, given the potential for payments business in India. In 2015, forty-one firms expressed interest in the payments bank license, and eleven firms were given in-principle conditional approval by the RBI to submit a full proposal.[144] Finally, seven firms with deep experience in telecommunications, banking, information technology, payments, and postal services were granted payment bank licenses (table 13-8). The first to launch, in January 2017, was Airtel Payments Bank, backed by the largest Indian telecommunications provider Bharti Airtel and Kotak Mahindra Bank.[145]

The seven payments banks are an interesting group. Four mobile phone operators linked with commercial banks launched payments banks. They bring advantages such as a large network of physical outlets and agents, a large client base, experience with mobile money, deep financial resources, and good brand recognition. India Post brings its massive network of physical outlets and brand recognition. Fino builds on its long history as a banking correspondent. The oldest institution to apply, India Post

TABLE 13-8. Payments Banks Granted Licenses as of March 2019

Payments Banks
Aditya Birla Idea Payments Bank Limited
Airtel Payments Bank Limited
Fino Payments Bank Limited
India Post Payments Bank Limited
Jio Payments Bank Limited
NDSL Payments Bank Limited
Paytm Payments Bank Limited

Source: Reserve Bank of India, "Banks in India," March 2019.

was also approved for a payments bank license, building on its long history of financial services and massive physical presence across the country.

The RBI designed payments banks to spur competition in the financial sector, and the new banks have certainly raised the hopes of financial inclusion advocates. However, this category of bank has inherent challenges:

- When payments banks were designed, the market for payments was already highly price competitive. Competition has become even more fierce given advances by NPCI across a range of payment services, and especially with UPI.
- While payments banks are allowed to serve as a BC for another bank and sell other firms' insurance policies, the commission income will be modest for the effort involved. Their income is further limited by their inability to lend.
- Deposit accounts cannot exceed INR100,000 (US$1,400), which limits their attractiveness for savers who would normally add to their balances over the long term.
- The investment income of payments banks is limited by the requirement that they maintain 75 percent of their liquidity in treasury bills or government bonds.

Noting the challenges of the initial payments bank model, three of the eleven firms given conditional approval eventually declined to pursue their bids in 2016.[146] Further, two significant players with links to the largest telco firms, Aditiya Birla Idea Payments Bank and Vodafone's M-Pesa payment service, announced their plans to close in July 2019.

As anticipated from their initial design, the business model for payments banks is challenging, given the limited revenue options and thin margins. Of the six remaining payments banks, only Paytm recorded a profit for fiscal year 2018–19, while the others incurred losses in 2017–18 and 2018–19.[147] Payments are a small-value and large-volume business, and payments banks need to leverage technology, customer service, links with other providers, and economies of scale to be successful. Recognizing these challenges, in September 2019 the RBI issued draft guidelines to allow payments banks to apply for small finance bank licenses in September 2019. In December 2019 the RBI announced criteria for "on tap" small finance bank licenses, including eligibility criteria for payments banks to convert to small finance banks after five years of operation.[148] This policy shift may address many of the challenges facing payments banks, and it is a welcome move.

Small Finance Banks

Building on the recommendations of the Malegam Committee in 2011 and subsequent analysis across the microfinance sector, the RBI announced the small finance bank license in 2014. Small finance banks were conceived as providing a graduation path for strong NBFCs to expand their services to include deposits and other financial services. The RBI guidelines for small finance banks are coherent with this objective:[149]

- Banks should focus on deposits and lending to unserved and underserved households, small and marginal farmers, and micro, small, and medium-sized enterprises.

- There is no geographic restriction of operations; however, at least 25 percent of branch offices are to be in unbanked rural centers, as defined by the RBI based on the Indian census.

- At least 75 percent of loans must go to priority sector lendingas defined by the RBI (as discussed in earlier sections).

- For 50 percent of the lending portfolio, loans are limited to a maximum of INR2.5 million (US$35,225), which is much higher than the earlier limit of INR100,000 for NBFC-MFIs (US$1,400). With this larger lending authority, small finance banks are able to offer appropriate loans to their long-term clients and also compete more effectively with larger banks to serve small and medium-sized enterprises. Lending to a single individual or firm is capped at 10 percent and 15 percent of capital funds, respectively.

- Banks are required to have capital of INR1 billion (US$14 million), which is much less than the capital requirement of INR5 billion (US$70.45 million) for a private sector universal bank.[150]

- Prudential norms are the same as for existing commercial banks, including cash reserves and statutory liquidity ratios.

A total of seventy-two firms expressed interest in the small finance bank license, and in September 2015 ten firms were given in-principle conditional approval by the RBI to comply with the requirements and receive a full license within eighteen

TABLE 13-9. Small Finance Banks in Operation

Ujjivan Small Finance Bank	Fincare Small Finance Bank
Equitas Small Finance Bank	ESAF Small Finance Bank
AU Small Finance Bank	Suryoday Small Finance Bank
Capital Small Finance Bank	Utkarsh Small Finance Bank

Source: Reserve Bank of India, "Banks in India," August 2019.

months.[151] All ten were eventually approved for licenses. The current list of small finance banks operating is in table 13-9.

After many years of consideration, the small finance bank license is a real step forward in enabling strong MFIs with a proven track record to graduate and offer a broader range of financial services, especially deposit services. Nonetheless, small finance banks face challenges as they transform from NBFCs and pursue this new path:

- Attracting and managing deposits requires a completely different business model than making loans. Many specialists have written about this over the past twenty years. Some of the key requirements include building client trust, managing liquidity requirements for on-demand deposits, ensuring that clients have ready access to their deposits through branch offices or ATMs or agents, managing more dynamic assets and liabilities, and training staff for the new approach.

- Regulatory requirements and reporting are significantly higher for small finance banks than for NBFCs, and the new banks will understandably be under tight scrutiny by the RBI to ensure that they comply.

- Given the broader scope of operations, the new banks may seek new talent, perhaps attracting candidates from other commercial banks. Given experience with institutional transformations across the globe for several decades, these personnel changes may trigger internal challenges among the new staff and existing staff who have transitioned from the NBFC, who may have been loyal to the firm for years.

- Governance may also need to evolve, given higher capital requirements and the need to attract investors, but also to comply with RBI requirements for an independent board directors.

- The investment required in this massive institutional transformation will affect the banks' profitability for several years. Investments will include adapting systems, head and branch office changes, developing new products and client groups, new technology platforms, compliance functions, additional reporting to the RBI, staffing changes, adapting staff training, rebranding the NBFC as a small finance bank, additional treasury functions, expanded requirements for annual auditing and reporting, and enhanced risk management.

The firms that converted from NBFCs to small finance banks all bring extensive experience serving microfinance clients over many years, and so far the new small finance banks seem to be performing well.[152] In June 2018 the RBI announced that urban co-operative banks would be eligible to become small finance banks starting in August 2018.[153] Further, in December 2019 the RBI announced criteria for "on-tap" small finance bank licenses, with specific reference to eligible local area banks, urban co-operatives, NBFCs, MFIs, and payments banks.[154] Under this expansion of the small finance bank license, applicants could be reviewed and granted licenses on an ongoing basis, rather than responding to periodic calls for applications from the RBI. This welcome move should enable strong urban co-operatives, NBFCs, MFIs, and payments banks to make a similar successful transition.

The future of small finance banks depends on mastering the deposit business, incorporating new technologies, expanding to other relevant services such as SME or agricultural lending, and attracting long-term clients by offering quality and affordable financial services.

Two Other New Bank Entrants

After a ten-year period, the RBI opened competition for new commercial bank licenses in 2013. Of the original twenty-seven applicants, only two firms were selected in April 2014 for in-principle approval and given eighteen months to comply with the full requirements: IDFC Bank and Bandhan Bank.[155] This outcome surprised the financial services industry, as several applicants with deep corporate links, another well-regarded NBFC-MFI, and a housing finance NBFC were not selected.

IDFC Bank is specialized in infrastructure lending and builds on years of experience. Bandhan converted from an NBFC-MFI to a full bank license, which has even more stringent requirements than the small bank license. Bandhan grew rapidly during the 2000s in eastern India, managed its growth well, and was not heavily affected by the microfinance crisis that erupted in Andhra Pradesh in 2010. The RBI's

selection of Bandhan, together with the graduation of ten NBFCs to small finance banks, helped reinforce the morale and image of the stronger MFIs that managed the crisis and demonstrated years of serving low-income clients responsibly.

New Fintechs

Across the globe, new fintech players are entering the financial sector, and many are becoming significant at national and even international levels. Similarly, fintech innovation is bubbling in India; one estimate is that over 2,000 fintechs are active, triple the number in 2015.[156] Indian fintechs are attracting significant equity from global and domestic investors, and several major Indian cities are listed among the top 100 fintech hub cities globally.[157] As noted earlier, dozens of fintechs initially launched as banking correspondents, working with licensed banks and other financial services providers. More recent entrants include MobiKwick, NeoGrowth, Policy Bazaar, PhonePe, Ziploan, MyLoanCare, Shubh Loans, PayU, Kissht, epayLater, Lending Kart, Faircent, and epiFi. Many of the payments fintechs also offer online and mobile access to loans, often serving as originators for other licensed credit providers.[158] Other fintechs such as ZestMoney, Kaleidofin, Niyo Solutions, Open, Pay Zello, instaDApp, and 0.5Bn FinHealth partner with banks to offer insurance, wealth management, foreign exchange, and other services to households and small businesses.[159] Peer-to-peer lending platforms are emerging as licensed NBFCs, offering a new model for borrowers and investment options for households. One of the older, established platforms is RupeeCircle, and others include LendBox, Lenden Club, OML, India Money Mart, Faircent, and I2I Funding. As of September 2019, several fintechs, including MoneyTap, CredAble and PayMe India, had been granted NBFC licenses to offer lending on their own books.[160]

Global players such as Google Pay are also becoming active in India, and Amazon Pay launched in 2019. The messaging platform WhatsApp has developed a beta payments product with about 1 million users, and in August 2019 it applied for RBI approval as a payments service. WhatsApp could rapidly become a significant player given its 400 million users across India.[161] The RBI allowed WhatsApp to test payment services starting in February 2018, although full approval was delayed given concerns about their noncompliance with requirement to host relevant data in India.[162] RBI subsequently granted approval in early February 2020, and the NPCI has given WhatsApp permission to use its digital platform in a phased manner for up to 10 million users in the first phase.[163] As seen globally, fintechs and other types of virtual players introduce new competition in the sector, and successful new business models can change dynamics quickly.

Current Status

As described throughout this chapter, India is perhaps the most dynamic country for financial inclusion in the world, and it has achieved tremendous results. Clear gains have been made by the private and public sector dramatically increasing access to finance across India.

From a wider perspective, it should be noted that the Indian economy slowed its long-term growth trajectory in 2017–19. Many factors were at work, including the impact of demonetization, launch of the new goods and services tax, and concerns in the financial sector. Surprisingly, reports from the government's Niti Aayog suggest that poverty levels increased in 2018–19 in twenty-two states and union territories after a decade of progress in reducing poverty from 2005 to 2016.[164]

The Financial Sector

In the financial sector, bank nonperforming assets and provisions against losses increased significantly in 2017, at levels not seen since 1993–94, resulting in banking sector losses for the 2017–18 fiscal year ending March 31, 2018.[165] Public sector banks accounted for approximately 87 percent of nonperforming loans in 2018.[166] For the 2018–19 fiscal year, performance of commercial banks improved across asset quality, capital adequacy, and profitability, although financial sector activity remained low given overall macroeconomic conditions. The government infused significant capital into restructuring public sector banks in late 2019; however, the overhang of nonperforming loans continues, and new concerns emerged from NBFCs and co-operatives.[167]

Table 13-10 summarizes the composition of the Indian banking sector.

The sector experienced two large surprises in 2018, when the Punjab National Bank (PNB) was found to have committed fraud and Infrastructure Leasing and Financial Services defaulted. The PNB fraud was made public in early 2018, when it was revealed that a bank manager had used falsified letters of undertaking and letters of credit to defraud a large client of INR120 billion (US$ 1.69 billion) over the previous six years.[168]

The debt default by Infrastructure Leasing and Financial Services (IL&FS) of US$13 billion starting in August 2018 again rattled the financial sector; the stock market plunged when the default was made public.[169] IL&FS is a specialized lender for infrastructure and partially government owned. The default triggered concerns across the debt market given the number of Indian development finance institutions, insurance companies, banks, mutual funds, and others holding IL&FS bonds. The

TABLE 13-10. Type and Number of Banks in India, 2019

Bank category	*Number of banks*
Public sector banks	18
Private sector banks	22
Foreign banks	47
NBFC-MFIs	95
Regional rural banks (RRBs)	53
Co-operative banks (scheduled and unscheduled)	33
Local area banks	3
Small finance banks	8
Payments banks	6
Financial institutions and development banks	4

Source: Reserve Bank of India, "Banks in India," August 2019. This list does not reflect the ongoing consolidation of public sector banks announced in August 2019 and closures of regional rural banks, nonbank financial companies, and co-operatives from August to December 2019.

ensuing liquidity crunch was especially hard on housing finance companies and NBFCs that borrow from the market to on-lend.

A number of financial sector specialists, including from the government and RBI, have advocated for several years that public sector banks should be reformed. Given the history of nationalization of banks in the 1970s, public sector banks dominate the banking sector. However their dominance is declining.[170] When the RBI licensed the first new private sector banks in 1990, public sector banks managed 90 percent of the banking market. The public sector bank market share declined to 80 percent in 2000 and to 75 percent in 2014. According to RBI reporting in December 2019, as of March 2019 public sector banks managed 64 percent of bank advances.[171] Further, annual growth of bank advances in public sector banks dropped from 73 percent in 2014 to 24 percent in 2019; the results were similar for annual growth of deposits.[172] Over the past ten years, new banks, NBFCs, and fintechs have increased competition and triggered changes across the financial sector.

In April 2017, the RBI announced a revised framework for prompt corrective action for banks (both public and private sector), in which performance triggers would be based on nonperforming assets, capital adequacy ratio, and return on assets.[173] Thereafter, the RBI placed eleven public sector banks under the prompt corrective action framework, requiring closer monitoring and remedial action such as limits on dividends, branch expansion, and other operating limits.[174]

Reflecting these concerns, the Ministry of Finance announced in late August 2019 that ten public sector banks would combine into four banks over the coming months.[175]

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This consolidation had been under discussion for years, and if the mergers and recapitalizations are successful, it will represent an important step forward for financial sector health. The mergers include: Punjab National Bank with Oriental Bank of Commerce and United Bank; Syndicate Bank with Canara Bank; Union Bank of India with Andhra Bank and Corporation Bank; and Indian Bank with Allahabad Bank. The consolidation builds on the September 2018 decision to merge Bank of Baroda, Vijaya Bank, and Dena Bank in April 2019. With this decision, the number of public sector banks declined to twelve from twenty-seven in 2017.

In addition to public sector banks, the RBI is addressing portfolio and performance issues with NBFCs by cancelling registrations of more than 1,850 NBFCs in FY2018–19 through March 2019.[176] The number of cancellations is eight times greater than in the previous fiscal year and reflects the RBI's attention to financial sector health. Other NBFC cancellations continued throughout calendar year 2019, including twenty in late December 2019.[177]

Dozens of struggling financial co-operatives have also been closed in both urban and rural areas over the past several years. A case attracted headlines in November 2019 when the RBI restricted operations and limited withdrawals by depositors at the Punjab and Maharashtra Co-operative Bank (PMC). In addition to other financial and governance irregularities, PMC reportedly loaned over US$920 million to a now bankrupt housing developer.[178] In December 2019, the RBI announced restrictions on urban co-operative banks, including lower exposure norms, requirements for large co-operatives to report to the credit registry, and improvements to cybersecurity systems.[179] In February 2020, the government cabinet approved changes to the banking law that bring regulation and supervision for the 1,540 cooperatives across the country fully within the RBI's mandate. Previously, responsibility for oversight of cooperatives had been shared between the RBI and respective state-level cooperative societies.[180] This policy change removes ambiguity and gives RBI more authority to resolve issues in the cooperative sector.

In its 2017–19 policy changes the RBI focused on lowering the level of nonperforming assets of financial service providers, reducing new cases of troubled assets, requiring higher loan-loss provisions, and requiring financial services providers to recapitalize where needed.[181] In February 2020, the RBI increased deposit insurance from INR 100,000 (US$ 1,400) to INR 500,000 (US$ 7,000) for deposits in insured banks.[182] Going forward, the RBI plans to revise its supervisory framework and developing a prompt corrective action framework for NBFCs to be implemented in 2022.[183] Another key achievement in strengthening the financial system is the Insolvency and Bankruptcy Code passed by Parliament in 2016 and launched in November 2017. This code will help address the overhang of nonperforming assets, stimulate

economic growth, and give banks more tools to manage their lending risk. An amendment to the Insolvency and Bankruptcy Code approved in November 2019 includes NBFCs under the coverage of this code, which will help resolve distressed finance companies in an orderly manner.

These reforms will address some of the concerns of low-performing public and private sector banks, the implications of the IL&FS crisis, and related troubles in the NBFC and co-operative sectors. Successfully implementing the public sector bank mergers, reducing the number of nonperforming loans, and other reforms will be critical for overall financial sector stability, competition, financial inclusion, and economic growth for India's future.

Financial Inclusion

India has made tremendous progress on financial inclusion. The number of Indian adults with a bank account more than doubled, increasing from 35 percent in 2011 to 53 percent in 2014 to almost 80 percent in 2017, according to Findex data. . Actual levels of financial inclusion were even higher as of January 2020, according to PMJDY accounts and NPCI mobile payment information. India's level of financial inclusion compares favorably with that of other large emerging markets: 80 percent of adults hold a bank account in the People's Republic of China, 70 percent in Brazil, and 69 percent in South Africa. In 2014, men were 20 percent more likely to hold an account than women in India, and the gap shrank to just 6 percent in 2017.[184] And according to PMJDY statistics, almost every household in India has a bank account.[185] Still, approximately 190 million Indian adults do not have an account, of which 60 percent are women.[186] Further, according to Findex data for 2017, 48 percent of adults with an account did not use it, which is almost twice the 25 percent average for developing countries and an increase from 42 percent in 2014.[187] According to more recent data from September 2019, an estimated 17.8 percent (66 million) of PMJDY accounts are dormant.

According to comparable microfinance data from March 2019, lending through MFIs, NBFC-MFIs, and banks served 56 million clients with a portfolio of INR1.86 trillion (US$26.3 billion).[188] For the same period, over 10 million SHGs held savings accounts with banks, with deposits of INR233 billion (US$3.3 billion). Of these, about 50 percent or 5 million of the SHGs had an outstanding loan from a bank, totaling INR871 billion (US$12.3 billion).[189] NABARD estimates that these SHGs reach 120 million households across India.

As of this writing in early 2020, data on the microfinance industry show growth of 47.9 percent in the loan portfolio from September 2018 to September 2019, with a

total outstanding portfolio exceeding INR2 trillion (US$28.2 billion) across banks, NBFCs, and small finance banks.[190] Of the outstanding portfolio, banks manage 40 percent of loan volume while NBFC-MFIs hold 31 percent, small finance banks hold 17 percent, other NBFCs hold 11 percent, and other MFIs hold 1 percent. The three states with largest volume of outstanding loans were Tamil Nadu, West Bengal, and Bihar. Concerns about overlending and saturation of markets are growing again. Over 60 percent of the microfinance portfolio concentrated in just six states, and more alarming, 54 percent of the microfinance portfolio is reported in 100 districts.[191] High levels of indebtedness and protests in Assam that began in late 2019 are a reflection of these concerns.[192] The rapid pace of growth is challenging to manage well, and the financial services providers and their boards and investors will act on lessons of the earlier experience and avoid another crisis.

Future Challenges

Financial inclusion goes well beyond simply access to credit, although typically credit receives much of the attention. Actual financial inclusion involves having access to a range of financial services: loans, deposits, payments, insurance, investments, and pension products. Further, access to financial services is only a first step; the ability to use these services to manage household and business needs is the real goal.

India faces several remaining challenges to achieve full financial inclusion. As part of the solution, the RBI and the Ministry of Finance have coordinated with public and private sector playersto develop a new national financial inclusion strategy, which was approved in March 2019 and formally released by the RBI in January 2020. The strategy for 2019–24 highlights a comprehensive approach to making financial services available, accessible, and affordable, including providing universal access, a basic bouquet of services, livelihood and skills development, financial literacy and education, customer protection and grievance redressal, and effective coordination among key players in the financial sector.[193]

Market innovation with proportional regulation will play a key role in addressing the remaining inclusion challenges, especially in such a vibrant and creative economy as India. The following areas merit special attention in the effort to achieve full financial inclusion.

Enable greater usage of accounts. According to Findex data of 2017, 48 percent of adults with an account did not use it, which is almost twice the 25 percent average

for developing countries.[194] In September 2019, 17.8 percent of accounts (66 million) were still dormant. Although access to services is increasing, greater usage is now the focus for the future.

Expand geographic coverage, especially in rural areas. Given the highly successful rollout of bank accounts under the PMJDY program since 2015, the focus can shift to usage of financial services. Clients need convenient access to service points such as bank branches, ATMs, and business correspondents. Over time, the need for physical service points may shift as clients become more comfortable making transactions on their phones and reducing their reliance on cash.

Financial service providers are gradually increasing their coverage of the country. However there are areas with thin or nonexistent coverage, including northern and northeastern India.[195] Coverage for financial services is also uneven in urban centers and rural areas. Branch offices are expensive to maintain, especially in rural areas.

On a positive note, access to credit in rural areas expanded to 69 percent, from 56 percent in 2013, according to the 2018 All India Financial Inclusion Survey managed by NABARD.[196] The 2019–24 national financial inclusion strategy includes a focus on access to finance in rural areas.[197] Further, in 2019 both the RBI and the Ministry of Finance established committees on rural services, agriculture, and MSMEs; their recommendations were under review at this writing.

In absolute terms, India benefits from over 120,500 commercial bank branches, although these are concentrated in urban and semi-urban areas. Another 597,155 outlets serve rural areas as of March 2019.[198] The number of ATMs stabilized at 232,000; most are in urban and semi-urban areas, and just 16.5 percent in rural areas.[199] The number of micro-ATMs continues to grow; over 235,000 are available across the country.[200] Mobile phone coverage is 155 percent in urban centers and 59 percent in rural areas.[201]

Given India's vast geographic expanse and large population, these numbers need to be analyzed more carefully on a regional and per capita basis. Globally comparable data from 2017 suggest that, on a per capita basis, the numbers are improving: there were 14.7 commercial bank branches and 22.1 ATMs per 100,000 people in 2017, an increase from 10.5 branches and 8.9 ATMs in 2010. However, the number of ATMs per capita in India is still much lower than in Brazil (106.8 per 100,000) or the People's Republic of China (81.5).[202] The business correspondent model can help expand service points, as described earlier. The growth in transactions via business correspondents increased 41 percent for the year ending March 2019, and the Indian Banks' Association launched a new database of infor-

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mation on BCs in February 2018 that will help clients identify BCs and improve transparency of their operations.[203]

To help retain BCs and continue growing their coverage, the transaction fees paid to banks and BCs must be adequate to cover the actual costs and risks they incur, especially in semi-urban and rural areas. An earlier taskforce had recommended transaction fees of 3.14 percent for distributing direct benefit transfers for G2P payments;[204] however, banks pay BCs 0.5 percent of the transaction amount of INR15 (US$0.21), whichever is lower, for government DBT payments.[205] In comparison, fees for distributing government DBT payments are much higher in Brazil (US$0.84), Colombia (US$6.24), Mexico (US$2.52), and South Africa (US$3.5) according to 2012 data.[206] BCs incur different costs and dedicate varying amounts of time with clients for account opening, accepting deposits, providing withdrawals, and facilitating money transfers. Median monthly revenue for BCs has more than doubled, from US$40 in 2015 to US$93 in 2017, yet monthly operating costs are relatively higher in India at US$62 than in other countries with large BC networks.[207] The viability of BCs and their outreach to service points remains an issue, and a comprehensive review of costs for each type of service and fair margin, perhaps graduated based on size of the transaction, would be important to address in order to expand and maintain the viability of service points across India.

Review usage with a gender lens. Usage can be further analyzed looking at discrepancies by gender. A minority of 27.2 percent of women participate in the formal labor force in India, down from 36.8 percent in 2005.[208] Mobile phone usage directly affects mobile payment usage. Just 38 percent of women use mobile phones, in comparison with 71 percent of men, and men are 33 percent more likely than women to own a mobile phone.[209] The digital divide is real: if women do own phones, they are usually feature phones, not smart phones that can access the internet and could enable them to use banking and payment applications.

In financial services, men were 20 percent more likely to hold an account than women in India, although the gap decreased to just 6 percent in 2017.[210] This progress is largely due to the PMJDY program to open bank accounts. In his budget speech of January 2019, the finance minister noted that almost 70 percent of PMJDY accounts are held by women.[211] Women purchased 32 percent of life insurance policies in the 2017–18 fiscal year.[212] This progress is heartening, although more research is needed to verify that women are actually using the accounts. For example, in India and globally, there have been instances of microfinance loans disbursed or accounts opened in the name of a woman, but a man (such as her husband or father) actually controlled the account.

Promote product diversification. Full financial inclusion goes well beyond simple credit, although typically credit receives much of the attention. Financial inclusion involves a range of financial services: loans, deposits, payments, insurance, investments, and pension products. Tremendous potential exists for other financial products that would help households and businesses manage their financial lives.

- Deposit accounts are a critical and foundational financial service for households and businesses. Only 19.6 percent of adults reported saving at a financial institution in 2017, up slightly from 14.4 percent in 2014.[213] By qualifying for a small finance bank license, NBFC-MFIs and now also urban co-operative banks can qualify to offer their clients deposits and a broader range of services. Payments banks may also help increase deposits, although the cap of US$1,400 on these accounts will limit the usage. Across the globe low-income and low-middle-income clients already use multiple means of saving money, both formal and informal, and on an aggregate basis, this represents a massive volume of funds. Increasingly, financial services providers understand this market potential, which can also help mobilize new sources of financing for their operations. There is enormous opportunity to innovate in deposit services using greater personalization to structure deposits, including a range of tenures, number of free deposits and withdrawals per month, minimum balances, interest paid, convenient access through mobile apps, and other features. Other longer-term investment options may also become viable in the medium term for these client groups.

- According to Findex data, 28.7 percent of adults reported sending or receiving a digital payment in 2017, a good increase from 19.3 percent in 2014.[214] Payments banks, the UPI, and other platforms managed by NPCI are helping expand the use of payments and remittances. Payment volume through cards and mobile phones is surging. Nonetheless, greater innovation and outreach could improve their usefulness to clients and businesses.

- Of the millions of microfinance clients in India, a surprising 60 million loan clients are still organized through joint liability groups (JLGs), while 120 million households are reached through self-help groups (SHGs). Since the 1990s, many financial service providers across India have used the standardized JLG model of 5–20+ clients and larger groups of clients for SHGs. Approximately 18 percent of JLG clients also have an individual loan, in addition to their group loan.[215] Individual loans are growing as a percentage of lending, but given RBI

regulation, NBFC-MFIs are limited to just 15 percent of their portfolio in individual lending. Nonetheless, NBFC-MFIs still have room to grow to reach this limit. Individual lending for business and household loans represents a growth opportunity in India, and fintechs are already pursing this with success.

In many other countries globally since the 1990s, once individual lending was introduced, it proved highly popular and less cumbersome to microfinance clients, and as a result group lending declined dramatically. Yet individual or retail lending requires a significantly different approach than group lending, and institutions must analyze their markets with more refined client segmentation. Given today's data capabilities, much greater personalization is available to screen clients and tailor services, and indeed, clients in India and globally are enjoying hyperpersonalization in many online and retail transactions. To pursue this market opportunity, institutions will need to adapt their client screening, product design, marketing, staff training and hiring, internal procedures, IT, portfolio management, risk management, and collections practices to ensure careful growth of individual loans.

- More than 328 million life insurance policies were in effect in 2017, and analysts generously estimate that this corresponds to 25 percent of the population being covered.[216] In addition, the PMJDY accounts offer a life insurance option, although this could be further expanded and promoted.

- Approximately 12 percent of the labor force contributes to a mandatory or voluntary pension program,[217] and this may be a high estimate. Public pension programs include the Indira Gandhi National Old Age Pension Scheme, focused on low-income people. Other programs for informal sector workers include the National Pension Scheme-Swavalamban, the Atal Pension Yojana announced in 2016, and the new Pradhan Mantri Shram-Yohi Maandhan (PMSYM) announced by the government in February 2019. Given the growing population over age sixty, and the incidence of old-age poverty, a comprehensive approach to public pensions should be a priority. Consideration should include eligibility for coverage, adequacy of the benefit payment, sustainability of the program including the need for government transfers, and logistics for payments to reach the intended recipients, including use of bank accounts and access to service points.[218]

In a positive move, the RBI is renewing its focus on insurance and pensions through the new financial inclusion strategy currently in development.[219] As new

products are developed, they should be adaptive and inclusive in their design and avoid a supply-led or aggressive target-driven approach. Financial services need to be convenient, appropriately designed, affordable, and delivered in a responsible way. With this focus, financial service providers can increase the likelihood that their target clientele will actually use the services.

Continue innovating in the payments and fintech ecosystem. India has made a significant leap forward in its payments infrastructure, government policy, regulation and supervision, and financial services providers over the past five years. As examples of recent deep thinking in the policy arena, the RBI released two major analyses of retail and digital payments in January and May 2019.[220] In May 2019, the RBI approved the new Payments Vision 2021 to promote positive customer experience with lower cost, higher confidence, and more convenience, together with building an enabling payments ecosystem.[221] Use of digital payments is lower in rural areas, including secondary and tertiary cities and smaller communities, and these are areas for focus. Nationally, key aspects of achieving this vision would include reducing the costs for merchants to accept payments, expanding the number of point-of-sale devices, promoting QR codes to facilitate payments, allowing a broader range of financial services providers to acquire cards, developing offline payment options, tracking fraud cases and facilitating redress by consumers, and reducing the cost to the consumer to use digital payments.

The Ministry of Finance released a new analysis on fintech related issues in September 2019.[222] The policy analysis from both the RBI and the Ministry of Finance suggests a useful evolution in thinking to promote digital payments: it would improve KYC (and e-KYC) requirements and cybersecurity; consider virtual banks; dematerialize financial instruments including land and real estate titles; and incorporate alternative data in credit scoring. Payment and other fintech providers are driving innovation, although this is an area to monitor closely for potential credit bubbles, lack of data privacy and protection, and consumer issues. Already, India's payment system is among the most advanced and innovative globally, and the RBI benchmarks itself against other countries' systems.[223] Both public sector and private sector entities should continue to focus on the appropriate enabling environment for payments, defining the most effective role of NPCI, encouraging greater competition among banks and nonbanks, and ensuring efficient and quality payment services with relevant consumer and data protections.

Consider the most effective role for government policy and programs. The government of India has played an important role in promoting financial inclu-

sion, especially over the past ten years. The Reserve Bank of India is a highly technical central bank that has effectivelyly focused on soundness of the financial sector and financial inclusion over many years.[224] Government policy and programs will need ongoing recalibration to ensure their effectiveness as the financial sector continues to evolve:

- The PMJDY program dramatically expanded access to bank accounts. Usage of bank accounts is growing, although millions of accounts are dormant. G2P programs and related policy measures for direct benefit transfers could help increase use of these accounts and identify which accounts are redundant so they can be closed.

- Concerns about nonperforming loans in the MUDRA program should be analyzed and steps taken to improve portfolio quality and overall program effectiveness.

- Both the agricultural sector and small and medium-sized businesses play a critical role in employment and economic growth across India. Approximately 44 percent of the total labor force work in the agricultural sector.[225] Multiple financial inclusion programs linked to these two sectors are coordinated by India's leading development finance institutions, especially SIDBI and NABARD. The RBI expert committee on MSMEs with its report of June 2019, and the current RBI internal working group on agriculture, will provide useful analysis for improving financial services in these two critical sectors.

- Earlier sections reviewed India's past experience with farm loan waivers, which many states continue to use. For example in 2017, at least four states, Uttar Pradesh, Maharashtra, Punjab, and Karnataka, announced farmer loan waivers, with an estimated cost of US$13.6 billion.[226] New loan waivers were predicted in 2019,[227] despite long-standing RBI concerns about farm loan waivers and their impact on credit culture.[228] The agricultural sector, especially smallholder farmers and related SMEs in the agricultural value chain, are key to economic growth for the country. Yet financial services, and especially credit lines, remain challenging for many working in the agricultural sector; it is estimated that 40.9 percent of smallholder and marginal farmers have access to credit.[229] At this writing, an internal working group of the RBI is analyzing options for agricultural credit. The national program to expand crop insurance, the Pradhan Mantri Fasal Bima Yojana (PMFBY), launched in 2016,[230] is a potentially

more effective approach to mitigating risks for farmers and encouraging agricultural development. However, concerns by farmer groups about mistakes in the calculation of claims and violations of procedures should be verified and addressed.[231]

- Appropriate government and central bank policy could be a game changer in diversifying financial services, including deposits, life insurance, pensions, and other investment products, by providing incentives for financial service providers to expand their usage.

Strengthen efforts to improve consumer protection and data privacy. As more people gain access to bank accounts and use sophisticated digital finance, consumer protection, transparency of service conditions and fees, data privacy, and grievance redressal become increasingly important. As seen in the microfinance crisis of 2010, responsible finance through fair treatment of customers is a cornerstone of stability and continued expansion of financial services. As of 2019, growing concentrations of lending in six states and 100 districts raise alarms. Reports of overindebtedness in specific regions and with certain client groups should be investigated carefully to resolve the issues before they escalate into a larger conflict. For example, reports on indebtedness in Assam starting in late 2019 and an MFIN investigation suggest that average indebtedness is twice the national average, and in five districts of Assam average indebtedness is four times the national average.[232] Given the protests and difficult circumstances of clients in Assam at this writing, care will be required to resolve them in a manner that is fair to clients and respects the laws, regulations, and codes of conduct governing financial services providers.

Digital finance requires additional measures for consumer protection given its virtual nature and the burgeoning number of new fintechs offering a broad range of services. At the time of writing, the RBI has just announced two welcome additions to help monitor and regulate the digital payments industry. A new self-regulatory organization will be created by April 2020 for digital payments companies, similar to the role MFIN and Sa-Dhan play for NBFC-MFIs and MFIs, respectively. In addition, the RBI will launch a digital payment index by July 2020 to monitor usage of payments across the country.[233]

As a subset of fintechs, the peer-to-peer lending industry is emerging rapidly in India. At least fifteen peer-to-peer lending companies are registered with the RBI as NBFCs. In December 2019, the RBI approved an increase in the limit per individual investor across all peer-to-peer lending platforms from INR100,000 to INR500,000 (US$1,400 to US$7,045).[234] As seen in other countries, peer-to-peer lending offers new

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sources of borrowing for households and businesses, in addition to opening new options for investment for those with excess capital. Yet this lending model can also trigger new types of consumer protection issues, both for the borrower and for the lender/investor, as well as challenges to manage nonperforming loans. In the period 2015–20, the People's Republic of China experienced a bubble of peer-to-peer lending involving millions of clients and billions of dollars. Over 6,000 such lending platforms have either closed or defaulted; one estimate puts the losses at over US$30 billion for 2.7 million household investors.[235] Given fraud, pyramid schemes, nonperforming loans, and growing public concern, the People's Bank of China, China's central bank, took a series of measures beginning in 2016 to tighten control of the industry, and some provinces have tried to ban outright peer-to-peer lending firms. In November 2019, the Chinese government announced that most peer-to-peer lenders will be required to resolve their portfolios and close within a year, and only a few well-established firms will be allowed to convert to small loan companies.[236] The Chinese experience is not unique; other countries are looking carefully at their own peer-to-peer lending industries. As this sector emerges in India, proportional regulation and careful monitoring will be vital to consumer protection and financial stability.

As a cornerstone, clients need to be informed about their rights and responsibilities when availing themselves of financial services. Several NGOs, NBFCs, and banks have piloted a range of financial-awareness programs across India over the past decade or more, with varying levels of effectiveness. For several years, the RBI has spearheaded the development of financial-awareness materials and translated them into numerous languages spoken across the country. In 2019, the RBI and SEBI, IRDAI, and PFRDA, the other three leading financial sector supervisory agencies, launched the National Centre for Financial Education (NCFE), which provides materials for client awareness, conducts surveys and exams on level of knowledge on financial services, and organizes educational programs with a range of organizations focusing on clients and staff of financial services providers.[237]

In 1995, the RBI created the Banking Ombudsman program, which allows clients to register complaints and seek redress. The ombudsman covers commercial banks, urban co-operative banks, regional rural banks, small finance banks, and payments banks. Building on that experience, the RBI extended the existing Banking Ombudsman program to NBFCs in February 2018,[238] later adding non-deposit-taking NBFCs and digital transactions[239]

Consumer complaints about financial service providers submitted to the twenty-one Banking Ombudsman offices managed by the RBI increased in fiscal year 2018–19 to more than 195,900, almost 20 percent more than in the previous year.[240] This builds on an increase from 2017 to2018 of 25 percent. These two years of significant

increases in complaints may have been caused by greater awareness of grievance redressal procedures, more banking clients, greater use of digital channels, or a greater number of incidents of fraud and mismanagement. The top issues flagged by complaints were nonobservance of fair practices; problems with ATMs and debit cards and mobile and electronic banking; failure to meet commitments; problems with credit cards and deposit accounts; levy of charges without notice. The ombudsman tracks complaints about NBFCs separately; it received over 3,990 during this same period, a sixfold increase from the prior year, when NBFCs were added to the ombudsman coverage. For NBFCs, the complaints centered on nonadherence to fair practices, nonobservance of RBI directions, levy of charges without notice, and lack of transparency in contracts.[241]

The ombudsman service is useful for resolving grievances and building consumer confidence. Further, the RBI manages a Consumer Education and Protection Department, which has developed materials and awareness campaigns in the major languages used across the country.

Taking the approach a step further, in September 2018 the ombudsman developed guidelines for banks with more than ten outlets to establish internal ombudsman programs. Enforcing these guidelines will be important for increasing the independence of internal ombudsmen to flag and resolve issues related to customer service and for closely monitoring cases raised to the RBI's ombudsmen offices and ensuring appropriate remediation. Given the large number of cases related to lack of fair practices, a verification program on accuracy in marketing, akin to "secret shopping," may also be useful to consider.[242]

Reports on fraud through digital finance are increasing across India,[243] perhaps in line with the rising use of such services. Of the ombudsman complaints described above, mobile and electronic banking, which started to be tracked separately in July 2017, now represent 7.5 percent of grievances. ATM and debit card issues represent more than 18 percent of grievances; the main complaint is that accounts are debited without cash being dispensed by the ATM.[244] In a timely move, the RBI announced a new ombudsman scheme for digital transactions in January 2019.[245]

Given breaches of information across the globe and rising awareness of potential uses of personal information, data privacy is becoming a cornerstone of consumer protection. Many players already seek client data, and this will only increase given the emergence of fintechs, artificial intelligence and greater use of credit scoring, and emerging trends in the financial and e-commerce industries. A new type of data entity is also emerging—account aggregators. In late 2018, the RBI issued the first five in-principle licenses for account aggregators that gather client information to share with financial services providers and other companies.[246] Designing and implement-

ing appropriate regulation for this expanding universe of players who track and manage client data will be critical.

On this front, India is ahead of many countries. The technical committee to the Ministry of Electronics and Information Technology has already drafted a Personal Data Protection Bill. The bill was introduced in the Indian Parliament in December 2019 and was under deliberation at this writing. Reviews of the draft bill are mixed, and analysts have proposed revisions to the final version of the bill.[247] Nonetheless, the initial draft includes important provisions that will improve consumer protection, such as requiring consent for personal data collection, enabling people to correct their data, and allowing the right to be forgotten.

Conclusion

The epic story on financial inclusion in India is not yet complete. In a vibrant economy with such diverse financial services providers, hundreds of millions of people are able to use financial services for their household and business needs. Although full financial inclusion is not ensured, India is well placed to remain a global leader. Few other countries in the world offer such an optimal mix: dynamism and innovation by financial services providers, an engaged and enlightened central bank making key investments in financial infrastructure and ensuring financial stability, and large-scale government initiatives on identification and financial inclusion. Achieving a sound and inclusive financial sector will be a truly Himalayan feat. The people of India deserve nothing less.

Notes

1. This chapter was completed in January 2020, and market changes after that date are not included in the analysis. Reserve Bank of India (RBI), "Evolution of Payment Systems in India," December 12, 1998 (https://rbidocs.rbi.org.in/rdocs/Publications/PDFs/4452.pdf).
2. RBI, "The Advent of Modern Banking in India: 1720 to 1850s" (https://m.rbi.org.in/scripts/ms_banks.aspx).
3. Vijay Mahajan, "Call for an Inclusive Banking Structure for India by 2019, Fifty Years after Bank Nationalization" (New Delhi: UK Aid, 2013).
4. Ibid.
5. Smita Premchander and others, *National Study on Financial Cooperatives in the Context of Financial Inclusion in India* (New Delhi: United Nations Development Program, 2015).
6. RBI, "Brief History" (https://www.rbi.org.in/history/Brief_History.html).
7. RBI, "Report of the Technical Group Set up to Review Legislations on Money Lending, 2006."

8. Mahajan, "Call for an Inclusive Banking Structure."

9. D. N. Ghosh, *No Regrets* (New Delhi: Rupa Publications, 2015).

10. RBI, "Speech by Deepali Pant Joshi, RBI Executive Director, to the Conference of Chairmen of Regional Rural Banks, July 15, 2013. Mangalore.

11. All conversions of Indian rupees (INR) to U.S. dollars (US$) are as of January 10, 2020. "History and Details of Farm Loan Waivers in India," *The Logical*, *Indian*, June 13, 2017 (https://thelogicalindian.com/story-feed/awareness/farm-loan-waivers).

12. "FM on Whys and Hows of Farm Loan Waiver," *Rediff India Abroad*, May 24, 2008.

13. "Just Loan Waivers Will Not Work," *New Indian Express*, June 19, 2017.

14. N. Srinivasan, "Farm Loan Waiver: Right Choice for Supporting Agriculture?" *CAB Calling*, April–June 2008 (Reserve Bank of India, College of Agricultural Banking).

15. James Hanson, "Indian Banking: Market Liberalization and the Pressures for Institutional and Market Framework Reform," Working Paper 104 (Stanford Center of Global Poverty and Development, August 2001).

16. Sujay Dixit, "Liberalisation of Indian Banking and Regulation," Legal Service India (http://www.legalservicesindia.com/article/1023/Liberalisation-of-Indian-Banking-&-Regulation.html).

17. Mahajan, "Call for an Inclusive Banking Structure."

18. Shweta Punj, "India Post: In Letter and Spirit," *India Today*, August 11, 2017.

19. India Post, "Financial Services" (https://www.indiapost.gov.in/Financial/Pages/Content/Financial.aspx).

20. "India Post—Financial Services" (New Delhi: World Bank, 2008).

21. See "Kisan Credit Card" at www.wishfin.com/kisan-credit-card/.

22. "Transparency in Chit Fund Schemes," Studycafe.in, December 2019.

23. A. Fernandez, "History and Spread of the Self-Help Affinity Group Movement in India: The Role Played by IFAD" (Rome: International Fund for Agricultural Development, 2007).

24. EDA Rural Systems Pvt. Ltd. and APMAS, "Self Help Groups in India: A Study of the Lights and Shades" (CARE, Catholic Relief Services, GIZ, and U.S. Agency for International Development, 2006); Rosenberg and others, "Sustainability of Self-Help Groups in India: Two Analyses," Occasional Paper 12 (Washington: Consultative Group to Assist the Poor [CGAP], World Bank, 2007).

25. Ibid.

26. National Bank for Agriculture and Rural Development (NABARD), "Status of Micro Finance in India 2009–2010" (Mumbai, 2010).

27. SEWA Bank, "History" (https://www.sewabank.com/history.html).

28. N. Srinivasan, *Microfinance India: The State of the Sector Report 2010* (New Delhi: Sage, 2010).

29. Ibid.

30. N. Srinivasan, *Microfinance India: The State of the Sector Report 2011* (New Delhi: Sage, 2011).

31. Srinivasan, *Microfinance India: 2010*. .

32. Portfolio indicators, and indeed almost all of the indicators during this rapid growth period, may have been distorted by the costs of growth (hiring and training new staff, launch-

ing new branch offices, growing operating costs, and others) and by the rapidly growing loan portfolios.

33. M-Cril, *M-CRIL Microfinance Review* (New Delhi, 2010).

34. Srinivasan, *Microfinance India: 2010*.

35. "Six Microfinance Crises That the Sector Does Not Want to Remember," *Microfinance Focus* (www.microfinancefocus.com/6-microfinance-crises-sector-does-not-want-remember).

36. Srinivasan, *Microfinance India: 2011.*

37. Ibid.

38. Srinivasan, *Microfinance India: 2010.*

39. "Andhra Pradesh MFI Ordinance of 2010" (Hyderabad: Andhra Pradesh State Government, 2010).

40. Vineet Rai, "India's Microfinance Crisis Is an Effort to Monopolize the Poor," *Harvard Business Review*, November 4, 2010. Elizabeth Rhyne, "On Microfinance: Who's to Blame for the Crisis in Andhra Pradesh?" (Washington: Center for Financial Inclusion and Huffington Post, November 2, 2010); Eric Bellman and Arlene Chang, "India's Major Crisis in Microlending," *Wall Street Journal*, October 28, 2010; Justin Oliver, "Who's the Culprit? Accessing Finance in Andhra Pradesh" (blog), CGAP, November 11, 2010; Graham Wright and Manoj Sharma, "The Andhra Pradesh Crisis: Three Dress Rehearsals . . . and then the Full Drama" (Lucknow, Uttar Pradesh, India: MicroSave, December 2010).

41. Vineet, "India's Microfinance Crisis,"

42. "Andhra Pradesh MFI Ordinance of 2010."

43. Ibid.

44. Mahajan, "Call for an Inclusive Banking Structure."

45. M. A. Ghiyazuddin and Shruti Gupta, "Andhra Pradesh MFI Crisis and Its Impact on Clients" (Centre for Microfinance and MicroSave, 2012).

46. Mahajan, "Call for an Inclusive Banking Structure."

47. "MFIN Demands Independent Judiciary Enquiry for Allegations against MFIs," *Microfinance Focus*, October 20, 2010.

48. Oliver, "Who's the Culprit?"

49. Ibid.

50. Ghiyazuddin and Gupta, "Andhra Pradesh MFI Crisis."

51. Rajesh Shukla, Prabir Kumar Ghosh, and Rachna Sharma, "Assessing the Effectiveness of Small Borrowing in India" (New Delhi: NCAER Centre for Macro Consumer Research, 2011).

52. Renuka Sane and Susan Thomas, "The Real Cost of Credit Constraints: Evidence from Micro-finance," Mumbai Working Papers 2013-013 (Mumbai: Indira Gandhi Institute of Development Research, 2013). Also published as Renuka Sane and Susan Thomas, "The Real Cost of Credit Constraints: Evidence from Micro-finance," *B. E. Journal of Economic Analysis Policy* 16, no. 1 (2016): 151–83.

53. World Bank, *Global Findex Data 2018* (Washington, 2018). This 2018 report is based on 2017 data.

54. For example, the author and her team at IFC incorporated responsible finance and social protection principles in technical assistance agreements and organized workshops on responsible finance starting in early 2010 with a range of MFIs and industry players.

55. The author and her team at IFC plus colleagues at the Michael and Susan Dell Foundation helped facilitate these meetings, as part of the India Responsible Finance Forum, which included support to MFIN and Sa-Dhan as they harmonized their codes of conduct and adapted relevant global lessons.

56. Author's copy of "Code of Conduct for the Microfinance Industry" (New Delhi: MFIN and Sa-Dhan, December 2011).

57. "Code of Conduct for the Microfinance Industry."

58. "MFIN, Sa-Dhan Release Code for Responsible Lending for Micro-Credit Industry," *Times of India*, September 16, 2019.

59. "Code for Responsible Lending in Micro-Credit" (New Delhi: MFIN, Sa-Dhan, and FIDC, September 2019).

60. "RBI Increases Household Income Limits for Borrowers of NBFCs and MFIs," *News On AIR* (All India Radio), November 9, 2019.

61. Ibid.

62. RBI, "Report of the Committee on Comprehensive Financial Services for Small Businesses and Low-Income Households," 2013 (https://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/CFS070114RFL.pdf).

63. RBI, "The Non-Banking Financial Company: Micro Finance Institutions," *Directions*, 2011.

64. RBI, "Data Format for Furnishing of Credit Information to Credit Information Companies and other Regulatory Measures," June 27, 2014 (https://www.rbi.org.in/Scripts/NotificationUser.aspx?Id=8968); RBI, "Membership of Credit Information Companies (CICs)," January 15, 2015 (https://www.rbi.org.in/Scripts/NotificationUser.aspx?Id=9485). This requirement was consistent with the NBFC-MFI regulation issued by the RBI in December 2011 interdicting any MFI from becoming a lender to a client that already had two loans from other MFIs. Subsequently, the RBI required credit institutions to seek two credit enquiries, in order to increase the accuracy of credit decisions.

65. Despite considerable advocacy and effort, data on borrowers organized in SHGs are not required to be reported to the credit bureaus. As discussed in the chapter, banks of all types—NBFC-MFIs, MFIs, and others—lend to groups of clients organized in SHGs, but the level of information on individual loans within SHGs is uneven at best. Given the millions of SHG clients and outstanding loans, this remains a significant gap in credit bureau data across India.

66. RBI, "Issue of Comprehensive Credit Information Reports," August 2, 2017 (https://www.rbi.org.in/Scripts/NotificationUser.aspx?Id=11077).

67. RBI, "Free Annual Credit Report to Individuals," September 1, 2016 (https://www.rbi.org.in/Scripts/NotificationUser.aspx?Id=10590).

68. World Bank Group, *Doing Business Database* (Washington) (https://www.doingbusiness.org/en/rankings).

69. Email from CRIF HighMark to author, February 27, 2019.

70. K. Nishanth and Deepti George, "Let's Stop Kicking the Can Down the Road: Highlighting Important and Unaddressed Gaps in Microcredit Regulations" (Dvara Research, October 23, 2019) (https://www.dvara.com/blog/2019/10/24/lets-stop-kicking-the-can-down-the-road-highlighting-important-and-unaddressed-gaps-in-microcredit-regulations/).

556-84179_ch01_1aP.indd 342 3/14/20 2:16 PM

71. RBI, "Report of the High-Level Task Force on Public Credit Registry for India," April 4, 2018 (https://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/PCRRR09CF7539AC3E48C9B69112AF2A498EFD.PDF).

72. Pallavi Nahata, "Will RBI's Public Credit Registry Disrupt India's Successful Credit Bureaus?" Bloomberg Quint, July 12, 2018. See also "Public Credit Registry: Why Its Implementation Will Be a Milestone in Ending MSME Credit Woes," *Financial Express*, September 8, 2019.

73. Nikhat Hetavkar and Abhijit Lele, "Credit Bureaus May Soon Be Allowed Access to Data from Utility Providers," *Business Standard*, August 22, 2018.

74. "PM, Sonia Launch Aadhaar, the Unique ID Project," Press Trust of India, *Deccan Herald*, September 29, 2010.

75. H. K. Varun "SC's Aadhaar Verdict: Privacy vs. Identity," *Deccan Herald*, September 20, 2018; Mahendra Singh, "99% of Indians over 18 Now Have Aadhaar Cards," *Times of India*, January 28, 2017; "Aadhaar Dashboard," Unique Identification Authority of India (https://uidai.gov.in/).

76. Varun, "SC's Aadhaar Verdict."

77. Rachna Khaira, "Rs 500, 10 Minutes, and You Have Access to Billion Aadhaar Details," *The Tribune*, January 3, 2018.

78. Tanmay Patange, "Two Sides of the Aadhaar Controversy from This Week," *Indian Express*, July 14, 2018 (updated).

79. Varun, "SC's Aadhaar Verdict."

80. Jennifer Isern and others, "AML/CFT Regulation: Implications for Financial Service Providers That Serve Low-Income People," *Focus Note* 29 (Washington: CGAP, World Bank, July 2005).

81. "What Supreme Court's Aadhaar Verdict Means for You: 10 Points," *Livemint*, September 26, 2018.

82. Vindu Goel, "India's Top Court Limits Sweep of Biometric ID Program," *New York Times*, September 26, 2018.

83. "Lok Sabha Passes Bill to Amend Aadhaar Act," *Economic Times*, January 4, 2019. See also "Cabinet Approves Aadhaar Ordinance to Allow Its Use as ID Proof for Bank Accounts, SIM Connection," *News 18*, February 28, 2019.

84. "eKYC, Digital KYC for Opening Bank Accounts to Make Process Secure," *Livemint*, August 28, 2019.

85. Pradhan Mantri Jan-Dhan Yogana (PMJDY), "Program Overview and Basic Statistics," Government of India (https://www.pmjdy.gov.in/).

86. Ibid.

87. PMJDY, "State-wise Statistics," Government of India (https://www.pmjdy.gov.in/).

88. Graham Wright and Manoj Sharma, "India's Enabling Triangle for Financial Inclusion," MicroSave Consulting, September 26, 2018 (https://www.microsave.net/2018/09/26/indias-enabling-triangle-for-financial-inclusion/); Manuela Gunther, "The Progress of Financial Inclusion in India: Insights from Multiple Waves of Survey Data" (Overseas Development Institute and CAFRAL, 2017) (https://cafral.org.in/sfControl/content/Speech/65201730802PMManuela_Kristin_Günther.pdf).

89. Aishwarya Singh, Lokesh Singh, and Mukesh Sadana, "PMJDY: Improved Financial Inclusion, but Roadblocks Remain" (Washington: CGAP, World Bank, 2015); Sakshi

Chada, "PMJDY: Commendable Growth, yet Low-Hanging Barriers Persist" (Washington, CGAP, World Bank, August 24, 2016).

90. Anuj Srivas, "Jan Dhan Yojana: One Rupee Balance and the Dormancy-Duplication Problem," *The Wire*, September 14, 2017.

91. "Demonetisation: Jan Dhan Account Deposits Double to Rs87000 Crore," *Livemint*, January 1, 2017.

92. Anand Adhikari, "Jan Dhan Yojana Data Shows Rural Area Residents Using Bank Accounts More Often," *Business Today*, November 20, 2019.

93. Anand Adhikari, "Jan Dhan Yojana: Average Deposit Balance Doubles Despite Rural Distress, Economic Slowdown," *Business Today*, November 6, 2019.

94. National Payments Corporation of India (NPCI), "Background"(https://www.npci.org.in/).

95. NPCI, "IMPS Product Overview" (https://www.npci.org.in/).

96. NPCI, "RuPay Product Overview"(https://www.npci.org.in/).

97. PMJDY, "Program Overview and Basic Statistics."

98. NPCI, "UPI Product Overview"(https://www.npci.org.in/).

99. NPCI, "BHIM Product Overview"(https://www.npci.org.in/).

100. RBI, "Bankwise ATM, POS, and Card Statistics."

101. Ibid.

102. NPCI, "Statistics"(https://www.npci.org.in/).

103. Ibid.

104. Unfortunately card data are not yet available for December 2019, so this comparison is using September 2019 data for cards and their transactions and December 2019 data for UPI and NPCI transactions.

105. NPCI, "Statistics."

106. "BHIM UPI Goes Global; QR Code-Based Payments Demonstrated at Singapore FinTech Festival," *Business Standard*, November 13, 2019.

107. Already in July 2019, the RBI had waived fees for outward transactions using the RTGS and NEFT systems. This latest change removes the authority of financial services providers to charge clients using savings accounts for these transactions. Nikhil Agarwal, "NEFT, RTGS Transfer Charges to Be Waived for Savings Account, RBI Issues Order," *Livemint*, December 18, 2019.

108. Telecommunications Regulatory Authority of India, 2019). "Highlights of Telecom Subscription Data as on 31st October 2019," December 30, 2019.

109. Ibid.

110. However, because prices are so low and competition by providers is high, the telecommunications industry is struggling, and the industry has witnessed significant consolidation as several providers have exited. The industry and related pricing for mobile services may change in the near term. See, for example, "A Price War Has Undermined India's Big Telecoms Companies," *The Economist*, December 12, 2019.

111. Many researchers have analyzed the tipping point when cash in/cash out points become less critical, so this is not developed further in this section. However, for low-income and vulnerable groups, cash in/cash out points will be important to maintain for the medium to long term in India and globally.

112. Reserve Bank of India, "Payment and Settlement System Statistics," January 11, 2020; and RBI, "Bankwise ATM, POS, and Card Statistics"(https://www.rbi.org.in/scripts/paymentsystems.aspx).

113. RBI, "Payment and Settlement System Statistics."

114. Reserve Bank of India, . "Payment and Settlement System Statistics," January 11, 2020; and RBI, "Bankwise ATM, POS, and Card Statistics" (https://www.rbi.org.in/scripts/paymentsystems.aspx).

115. Reserve Bank of India, . "Payment and Settlement System Statistics," January 11, 2020; and RBI, "Bankwise ATM, POS, and Card Statistics" (https://www.rbi.org.in/scripts/paymentsystems.aspx). See also "Total Number of POS Machines Grew 39% YoY to 4.88 Million in November 2019." Medianama, February 10, 2020.

116. The BC model in India and several markets across Asia and Africa has been extensively analyzed; two of the best resources for further information are MSC (MicroSave Consulting) and CGAP.

117. Aakash Mehrotra and others, "State of the Agent Network, India 2017" (MicroSave Helix, February 2018) (http://www.microsave.net/wp-content/uploads/2018/12/Agent_Network_Accelerator_Research_Country_Report_India.pdf).

118. Business Correspondent Federation of India, "Programs and Membership" (http://bcfi.org.in/).

119. Anand Shrivastav, BCFI Founder, correspondence with the author, January 11, 2020.

120. Author's unpublished files based on public data.

121. Jennifer Isern and others, "Government to Person Health Payments in Bihar, India: Diagnostic and Recommendations" (New Delhi: International Finance Corporation, June 2011).

122. Jennifer Isern, , Anita Sharma, and Georgina Marina, "Transforming Health through E-Payments in India," Finance in Focus Series of the Finance and Markets Department (Washington: World Bank, August 2017).

123. Ibid. For another view of G2P payments nationwide in India, see also Paul Breloff and Sarah Rotman, "An Overview of G2P Payment Sector in India" (Washington: CGAP, World Bank, September 2011). See also MicroSave Consulting (MSC) for high-quality analysis of G2P programs in India and globally.

124. Controller General of Accounts, Ministry of Finance, Government of India. "PFMS Description" (https://pfms.nic.in/NewDefaultHome.aspx).

125. DBT Mission, Government of India, "DBT description" (https://dbtbharat.gov.in/).

126. DBT Mission, Government of India, "MPR FY2018-2019 and MPR FY2019-2020 as of end December 2019" (https://dbtbharat.gov.in/).

127. Ministry of Finance, Government of India, "India Economic Survey 2016–17" (https://www.india.gov.in/content/economic-survey-2016-17). For more analysis, see Saksham Khosla, *India's Universal Basic Income: Bedeviled by the Details?* (Washington: Carnegie Endowment for International Peace, 2018).

128. Prabhash Dutta, "Demonetisation: What India Gained and Lost," *India Today*, August 30, 2018.

129. "Demonetisation Hit Small and Medium-sized Enterprises," *Financial Express*, January 25, 2017. See also Suparna Dutt D'Cunha, "One Year Later: India's Demonetization

Move Proves Too Costly An Experiment," Forbes, November 7, 2017;and Gabriel Chodorow-Reich and others, "Cash and the Economy: Evidence from India's Demonetization," Working Paper (Harvard University, December 2018).

130. Sumit Agarwal, "India's Demonetization Drive: A Necessary Jolt Towards A More Digital Economy?," *Forbes*, September 1, 2018.

131. Samrat Sharma, "Two and a Half Years of Demonetisation: Cash Rules, Digital Payments Grow, Credit Cards Drag," *Financial Express*, August 21, 2019.

132. RBI, Annual Report 2019.

133. Anubhutie Singh, Beni Chugh, and Malavika Raghavan, "Digital Payments in India: Reflections from the Union Budget, the RBI's Payments Vision 2021 and the Nilekani Committee Report" (Chennai, India: Dvara Trust, August 20, 2019).

134. "PM Launches Pradhan Mantri MUDRA Yojana," April 8, 2015, website of the Office of the Prime Minster, PMINDIA.

135. Pradhan Mantri MUDRA Yojana (PMMY), MUDRA Annual Report 2017–18 (https://www.mudramitra.in/).

136. Ibid., MUDRA statistics 2018–19 and 2019–20 (https://www.mudramitra.in/).

137. "RBI Cautions Government over NPA Spike in MUDRA Loans," *Economic Times*, January 13, 2019; "RBI Deputy Governor Red-Flags Rising Stress in Mudra Loans," *Times of India*, November 26, 2019.

138. Banikinkar Pattanayak, "NPA Crisis: PSU Banks Likely to Revamp Mudra Scheme," *Financial Express*, September 2, 2019.

139. See, for example, Anand Adhikari, "Mudra Loans Report Card: PNB NPAs at 23%, other banks' above 20%," *Business Today*, November 27, 2019. See also Majid Alam, "Bad Loans under Mudra Scheme on a Rise, Reveals RTI," *News18*, December 31, 2019.

140. "Mudra Loan Reality Check: Each Job Costs Rs 5.1 Lakh; Only 20 Percent Borrowers Started New Business," *Financial Express*, September 4, 2019.

141. RBI, "RBI Releases Guidelines for Licensing of Payments Banks," November 27, 2014.

142. RBI, "Operating Guidelines for Payments Banks" (https://www.rbi.org.in/SCRIPTs/NotificationUser.aspx?Id=10635).

143. RBI, "RBI Releases Guidelines."

144. Joel Rebello and Anup Roy, "Reliance, Airtel, Nine Others Get RBI Nod to Open Payments Banks," *Livemint,* August 20, 2015.

145. , Amrit Raj and Upasana Jain, "Airtel Payments Bank Launched, with Vow to Shake Up Old Banking System," *Livemint*, January 13, 2017. .

146. Pratik Bhakta, "Surrendering of Payments Bank Licences Not a Worry, Says RBI Governor Raghuram Rajan," *Economic Times*, June 8, 2016.

147. Radhika Merwin, "Why Five Out of the 11 Payments Banks Have Shut Shop," *Hindu Business Line*, September 10, 2019.

148. RBI, "Guidelines for 'On Tap' Licensing of Small Finance Banks in the Private Sector," December 5, 2019 (https://rbidocs.rbi.org.in/rdocs/Content/PDFs/SFB130920194F5B25F26CF34E5F83756F304C704236.PDF).

149. RBI, "Guidelines for Licensing of Small Finance Banks in the Private Sector," November 27, 2014 (https://rbidocs.rbi.org.in/rdocs/Content/PDFs/SMFGU271114.pdf).

150. RBI, "Licensing of New Banks in the Private Sector," February 22, 2013 (https://www.rbi.org.in/scripts/BS_PressReleaseDisplay.aspx?prid=28191).

151. RBI, "RBI Grants "In-Principle" Approval to 10 Applicants for Small Finance Banks," September 16, 2015 (https://www.rbi.org.in/scripts/BS_PressReleaseDisplay.aspx?prid=35010).

152. Author discussions with leadership and staff of small finance banks and information shared publicly by small finance banks over the past four years. See also Andreas Nilsson and Nina Freudenberg, "Moving Past Microfinance: How India's Small Finance Banks Aim to Take Financial Inclusion to the Next Level," *Next Billion*, August 29, 2018. (https://nextbillion.net/microfinance-india-small-finance-banks/).

153. RBI, "Statement on Developmental and Regulatory Policies," June 6, 2018.

154. RBI, "Guidelines for 'On Tap' Licensing of Small Finance Banks." The draft guidelines were originally released in mid-September 2019 for public review.

155. RBI, "RBI Decides to Grant "In-Principle" Approval for Banking Licences," April 2, 2014. Of note: Two applicants later withdrew, reducing the pool to twenty-five applicants.

156. "Fintech Startups Paving Way for a Financially Smart India," *Economic Times*, March 28, 2019.

157. "India Emerging as Fintech Hub: Findexable Report," *Moneycontrol News*, December 11, 2019.

158. "Fintech Startups Paving Way for a Financially Smart India." See also Srikanth, "Top 5 Financing Platforms for MSMEs & SMEs In INDIA," *TechieExpert*, October 16, 2019 (www.techiexpert.com/top-5-financing-platforms-for-msmes-smes-in-india/).

159. Adait Palepu, "India's Neo-Banks: What's So 'Neo' About Them?," Bloomberg Quint, December 4, 2019.

160. Pratik Bhakta, "Fintech Startups Look for Total Makeover with Lending Licence," *Economic Times*, September 6, 2109.

161. Rishi Ranjan Kala, "Whats App Seeks RBI Approval for Payments Service," *Financial Express*, August 30, 2019.

162. Aarzoo Mittal, "WhatsApp Payments Service Isn't Compliant for Launch: RBI to SC," Entrackr.com, November 8, 2019.

163. "WhatsApp Pay Set for Phased Roll Out in India; Granted NPCI Permission." *Business Standard*, February 7, 2020.

164. Prasanna Mohanty, "Budget 2020: Niti Aayog Shocker; Poverty, Hunger and Income Inequality Up in 22 to 25 States and UTs," *Business Today*, January 8, 2020.

165. RBI, "Report on Trend and Progress of Banking in India for the Year Ended June 30, 2018," December 28, 2018 (https://rbidocs.rbi.org.in/rdocs/Publications/PDFs/0RTP2018_FE9E97E7AF7024A4B94321734CD76DD4F.PDF).

166. Tamal Bandyopadhyay, "The Status of Public Sector Banks in India today." *Livemint*, August 26, 2018.

167. RBI, "Report on Trend and Progress of Banking in India for the Year Ended June 30, 2019," December 24, 2019 (https://rbidocs.rbi.org.in/rdocs/Publications/PDFs/0RTP241219FL760D9F69321B47988DE44D68D9217A7E.PDF).

168. "How PNB Recovered from Biggest Bank Fraud to Top Spot in 'Reform Agenda' in Just 9 Months," *Financial Express*, March 1, 2019.

169. George Matthew and Sandeep Singh, "IL&FS Defaults, NBFC Whiplash: Understanding the Debt Market Crisis," *Indian Express*, September 26, 2018.

170. Tamal Bandyopadhyay, "The Status of Public Sector Banks in India Today," *Livemint*, August 26, 2018.

171. Tamal Bandyopadhyay, "Accept or Not, Bank Privatisation Is On," *Business Standard*, January 12, 2020. See also Reserve Bank of India, "Report on Trend and Progress of Banking in India for the Year Ended June 30, 2019."

172. Ibid.

173. Reserve Bank of India, "Revised Prompt Corrective Action (PCA) Framework for Banks," April 13, 2017.

174. Ira Dugal, "Half of India's Listed Government Banks Now under RBI's Watch," Bloomberg Quint, January 4, 2018.

175. "Govt Banks on Big Bang Mergers as GDP Tanks," *Hindu Businessline*, August 30, 2019.

176. Rahul Satija and Suvashree Ghosh, "Cancelled Registrations of 1,851 NBFCs in the Year Ended March 31," *The Print*, August 22, 2019.

177. RBI, "RBI Cancels Certificate of Registration of Thirteen NBFCs" and "Seven NBFCs Surrender Their Certificate of Registration to RBI," both on December 26, 2019 (https://www.rbi.org.in/scripts/BS_PressReleaseDisplay.aspx?prid=48971; and https://rbidocs.rbi.org.in/rdocs/PressRelease/PDFs/PR1518689E6EEE5627492FA2685B507AB6E62F.PDF).

178. "PMC Crisis: This Tiny Bank In Maharashtra Is a Canary in India's Coalmine," *Economic Times*, September 30, 2019.

179. Shayan Ghosh, "After PMC Crisis, Tighter Norms in Place for Urban Cooperative Banks," *The Mint*, December 6, 2109.

180. "RBI Given Power To Regulate Cooperative Banks As Centre Approves Changes To Banking Laws." Scroll.in, February 5, 2020.

181. RBI, Annual Report 2019.

182. RBI, "Deposit Insurance and Credit Guarantee Corporation (DICGC) Increases the Insurance Coverage for Depositors in All Insured Banks to ₹ 5 lakh." February 4, 2020.

183. Somesh Jha, "RBI Plans PCA Framework, Different Supervisory System for NBFCs by 2022," *Business Standard*, November 11, 2019.

184. World Bank, *Global Findex Data 2018*.

185. PMJDY, "Program Overview and Basic Statistics."

186. World Bank, *Global Findex Data 2018*.

187. Ibid. Inactivity is defined as no deposit or withdrawal to the account in the previous twelve months.

188. Alok Misra and Ajay Tankha, "Inclusive Finance India Report 2019" (New Delhi: Access and Access Assist, December 2019).

189. NABARD, "Status of Microfinance in India 2018–2019" (Mumbai, 2019).

190. MFIN, "MicroMeter Edition 31: September 2019" (New Delhi, August–November 2019). See also "Microfinance Sector Sees 47.85% Growth in Loans," *Hindu Businessline*, November 25, 2019.

191. Misra and Tankha, "Inclusive Finance India Report 2019."

192. Atmadip Ray, "MFIs Stare at Repayment Crisis in Rural Assam," *Economic Times*, November 22, 2019.

193. RBI, "National Strategy for Financial Inclusion," January 10, 2020 (https://rbidocs.rbi.org.in/rdocs/content/pdfs/NSFIREPORT100119.pdf; and https://www.rbi.org.in/scripts/BS_PressReleaseDisplay.aspx?prid=49116).

194. World Bank, *Global Findex Data 2018*. As noted earlier, inactivity is defined as no deposit or withdrawal to the account in the previous twelve months.

195. Mukta Mani, "Financial Inclusion in North India: Status and Insights," *IUP Journal of Bank Management* 18, no. 1 (2019).

196. RBI, "Report on Trend and Progress of Banking in India for the Year Ended June 30, 2018." Note that this survey is based on 2016 data.

197. RBI, Annual Report 2019.

198. RBI, "Report on Trend and Progress of Banking in India for the Year Ended June 30, 2019." Note that the data on branches are limited to scheduled commercial banks only; the number would be higher if the other financial services provider branches were included.

199. RBI, "Payment and Settlement System Statistics." See also RBI, "Report on Trend and Progress of Banking in India for the Year Ended June 30, 2019."

200. RBI, "Payment and Settlement System Statistics."

201. Telephone Regulatory Authority of India, "Highlights of Telecom Subscription Data as of 31st December, 2018," February 28, 2019.

202. *World Development Indicators 2010–2017* (Washington: World Bank).

203. RBI, "Report on Trend and Progress of Banking in India for the Year Ended June 30, 2019."

204. Pawan Bakhshi, Manoj Sharma, and Graham Wright, "What's Undermining India's Financial Inclusion Progress?" (Washington: CGAP, World Bank, June 5, 2015).

205. Ashwin Manikandan, "Business Correspondents' Income Model Based on Commissions Unviable," *Economic Times*, April 11, 2019.

206. MicroSave and Business Correspondent Federation of India (BCFI), "Business Correspondent Channel Cost Assessment," April 2015.

207. Mehrotra and others, "State of the Agent Network, India 2017."

208. Shaikh Zoaib Saleem, "Women Bought 32% of Life Insurance Policies in 2017–18, Shows Irdai Data," *Livemint*, January 23, 2019.

209. Giorgia Barboni and others, "A Tough Call: Understanding Barriers to and Impacts of Women's Mobile Phone Adoption in India" (The Kennedy School at Harvard University, October 2018).

210. World Bank, *Global Findex Data 2018*.

211. PMJDY, "Program Overview and Basic Statistics."

212. Saleem, "Women Bought 32% of Life Insurance Policies in 2017–18."

213. World Bank, *Global Findex Data 2018*.

214. Ibid.

215. CRIF High Mark, "Emerging Trends and Patters of Retail Lending to Microfinance Customers," presented at the Inclusive Finance India Summit, New Delhi, December 2019

216. Aparajita Singh, "Are We Protected Enough?" (Chennai, India: Dvara Trust, March 2019).

217. Richard Jackson, "Meeting India's Retirement Challenge," Global Aging Institute, Presentation made at the World Bank office in Washington, January 16, 2019.

218. K. Nishanth, "Old Wine in a New Bottle? An Analysis of the Pradhan Mantri Shram-Yogi Maandhan" (Chennai, India: Dvara Trust, February 5, 2019).

219. Atmadip Ray, "RBI Prepares for Full Financial Inclusion in Hinterland," *Economic Times*, January 22, 2019.

220. RBI, "Policy Paper on Authorisation of New Retail Payment Systems," January 21, 2019. See also RBI, "Report of the High Level Committee on Deepening of Digital Payments," May 17, 2019 (https://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/ANRPS21012019A8F5D4891BF84849837D7D611B7FFC58.PDF; and https://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/CDDP03062019634B0EEF3F7144C3B65360B280E420AC.PDF).

221. RBI, Annual Report 2019.

222. Department of Economic Affairs, Ministry of Finance, Government of India, "Report of the Steering Committee on Fintech Related Issues," September 2019.

223. RBI, "Report on Benchmarking India's Payment Systems," June 2019.

224. For an excellent review of RBI policy and decision making over the decades, see M. S. Sriram, *Talking Financial Inclusion in Liberalised India* (New Delhi: Access Assist with Routledge India, 2018). See also Raghuram Rajan, *The Third Pillar: How Markets and the State Leave the Community Behind* (New York: Harper Collins, 2019).

225. RBI, Annual Report 2019.

226. Susan Desai, "India's Farm Loan Waiver Crisis," *Pacific Exchange* (blog), Federal Reserve Bank of San Francisco, September 11, 2017.

227. Mayank Bhardwaj and Rajendra Jadhav, "India's Modi Seen Forgiving Farm Loans as He Seeks to Win Back Rural Voters," Reuters, December 11, 2018.

228. RBI, "Edited Transcript of Reserve Bank of India's First Bi-Monthly Post Policy Press Conference," April 7, 2017. See also "Avoid Farm Loan Waivers: RBI's Internal Working Group," *New Kerala*, September 3, 2019.

229. George Matthew, "Financial Exclusion: 40.9 percent of Small and Marginal Farmers Not Covered by Banks," *Indian Express*, September 15, 2019.

230. Ministry of Agriculture, Government of India, PMFBY website.

231. Poorvi Kulkarni, "Why Farmers across India Are Complaining of Being Cheated by Prime Minister's Crop Insurance Scheme." Scroll.in. February 27, 2019.

232. Atmadip Ray, "MFIs Stare at Repayment Crisis in Rural Assam," *Economic Times*, November 22, 2019.

233. "RBI Proposes Self-Regulatory Body for Digital Payment System." Economic Times, February 6, 2020.

234. Pratik Bhakta, "RBI Raises Aggregate Exposure Limit to Rs 50 Lakh on P2P Lending Platforms," Economic Times, December 11, 2019.

235. Daniel Ren, "A 71-Year-Old Victim's Tale Reveals Extent of Greed in China's US$30 Billion Peer-to-Peer Lending Fiasco," *South China Morning Post*, December 30, 2019.

236. "P2P: China's Once-Booming Lending Industry Must Close within Two Years, Government Notice Says," *South China Morning Post*, November 28, 2019.

237. RBI, Annual Report 2019. The other supervisory agencies that co-launched the NCFE are Securities and Exchange Board of India (SEBI), Insurance Regulatory and Develoment

Authority (IRDAI), and Pension Fund Regulatory and Development Authority (PFRDA). See also the website of the National Centre for Financial Education at NCFE.org.in.

238. RBI, "Report on Trend and Progress of Banking in India for the Year Ended June 30, 2018; RBI, "Report on Trend and Progress of Banking in India for the Year Ended June 30, 2019.

239. RBI, Annual Report 2019.

240. RBI, "Report on Trend and Progress of Banking in India for the Year Ended June 30, 2019; "Report on Trend and Progress of Banking in India for the Year Ended June 30, 2018."

241. RBI, "Report on Trend and Progress of Banking in India for the Year Ended June 30, 2019."

242. The secret shopping investigation by *Economic Times Wealth* is a good example, and MicroSave Consulting has also conducted similar exercises in India and globally. Narendra Nathan, "Banks Continue Mis-selling Financial Products: Here's What You Must Know to Protect Yourself," *Economic Times Wealth* November 21, 2018.

243. Saikat Das, "RBI Spots Fraud That Wipes Out a Customer's Bank Balance Via UPI, Alarm Sounded," Economic Times, February 17, 2019. See also "Woman Shares Her Banking Details, Loses Rs 10.36 Lakh," *Times of India*, March 1, 2019.

244. RBI, "Report on Trend and Progress of Banking in India for the Year Ended June 30, 2019."

245. RBI, "The Reserve Bank Introduces Ombudsman Scheme for Digital Transactions," January 31, 2019.

246. Srikanth Lakshmanan, "Exclusive: RBI Issues In-Principle Licenses to 5 Account Aggregators," *Medianama*, November 22, 2018.

247. Dvara Trust, "Our Response to the Draft Personal Data Protection Bill, 2018" (Chennai, India, October 10, 2018). See also Bhumika Khatri, "The Personal Data Protection Bill 2018 Does Everything but Protect Personal Data," *Inc42*, July 29, 2018; Brahma Chellaney, "Data Is Wealth. India Must Protect It." *Hindustan Times*, August 20, 2019.

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