9. The regulatory approach to FinTech in India

India occupies the greater part of South Asia with an estimated area of 3.287 million Km^2 It is the second most populous country with a population of approximately 1.3 Bn (India, 2022). In 2021 its unbanked population was estimated at 20% (Global Finance, 2021). In the same year its literacy rate was reported as 74.04% (Census of India, 2021) and an internet penetration rate of 34%.

India is one of the fastest-growing FinTech markets globally, and has the third-largest FinTech ecosystem, with 26 disclosed unicorns[11] and an 87% FinTech adoption rate.[12] The average across 27 developed and emerging markets in Africa, Latin America, and South Asia is 64% (Catalyst Fund and Briter Bridges, 2021). Despite its rapid FinTech development, India has one of the world's largest unbanked populations comprising 190 million people (Demirguc-Kunt, Klapper, Singer, Ansar and Hess, 2018). Financial inclusion and digital infrastructure have been some of the key focus areas of the government and regulators in India (Reserve Bank of India, 2021e).

India's regulatory approach has been positive and supportive of the development of FinTech as a means to achieving regulatory objectives including financial inclusion. The primary regulators for the FinTech sector in India are the Reserve Bank of India (RBI), and the Securities and Exchange Board of India (SEBI).[13] The RBI is responsible for banking activities, while SEBI oversees securities. In January 2022, the RBI announced plans to establish a separate FinTech department by including its financial technology unit within the Department of Payment and Settlement Systems (DPSS). The new department is being developed to respond to the sector's rapidly changing landscape and will be responsible for promoting innovation, identifying challenges and opportunities to grow the sector, as well as building mechanisms for addressing challenges promptly (The Economic Times, 2022).

A notable development in India's regulatory approach was the Government of India's establishment of an International Financial Services Centres Authority (IFSCA) in April 2020. IFSCA is a unified regulatory body for the development and regulation of financial products and services, and financial institutions in the International Financial Services Centre (IFSC) in India (IFSCA, 2020a). IFSCA combines the regulatory powers of RBI, SEBI, Insurance Regulatory and Development Authority of India (IRDAI) and the Pension Fund Regulatory and Development Authority (PFRDA) (CCAF, 2021e). Before the establishment of IFSCA, it was the remit of domestic financial regulators to regulate the financial sector in IFSC. The stated objective of IFSCA is to provide a holistic vision to ease the process of doing business in IFSC and to offer a world-class regulatory environment (IFSCA, 2020a).

The RBI has also promoted the National Payment Corporation of India (NPCI) as responsible for spearheading digital payments. NPCI is an initiative of RBI and the Indian Banks' Association (IBA) under the provisions of the Payment and Settlement Systems Act, 2007. It is empowered to create a robust payment and settlement infrastructure in India (NPCI, 2021a) and

11 A unicorn is a privately held startup company valued at over $1 billion.

12 Adoption rate can be represented as the number of members of a society who start using a new technology or innovation during a specific period.

13 India also has other regulators who have jurisdiction over the insurance and pension sectors, namely the Insurance Regulatory and Development Authority of India (IRDAI) and Pension Fund Regulatory and Development Authority (PFRDA).

prescribes regulations and guidelines concerning the Unified Payments Interface (UPI) (NPCI, 2021a). India's Unified Payments Interface (UPI) is a platform that integrates multiple bank accounts into a single mobile application, merging various banking features to enable seamless peer-to-peer fund routing and merchant payments under one umbrella. It is being developed as a scalable payment platform to support the digital payments ecosystem in India.

India's multi-faceted regulatory approach towards innovation was articulated by the RBI's Deputy Governor, Shri T Rabi Sankar, during the Global FinTech Festival in 2021 (Sankar, 2021). India's approach has been to "create the environment where digital innovation can thrive" by establishing "the basic infrastructural entities which provided the rails on which innovative products can run". He further explained that regulation is employed to "actively facilitate wider participation to include non-banks (for example, mobile wallets issued by non-banks) and increase interoperability among different payment systems" (Sankar, 2021).

Regulators often apply existing regulatory frameworks to new innovative business models, either by focusing on the underlying economic function and risks of those activities, or on individual organisations, and increasingly on both. They are also adjusting existing regulatory frameworks to accommodate new market entrants and re-engineering existing processes to allow greater adoption of new technologies to flourish. Another approach has been to create brand new regulatory frameworks or regulations to include (or prohibit) explicit and specific FinTech activities such as a framework for P2P lending in 2017 and a framework for invoice-based lending in 2018 (Reserve Bank of India, 2021a).

Several regulatory initiatives have been introduced to stimulate a 'less-cash economy' and to support financial inclusion objectives. FinTech-specific regulatory initiatives introduced to date, include regulatory sandboxes and innovation hubs (Dar, Viswanath, Suri, Ashok and Mukul, 2021). The RBI sandbox had two cohorts launched in 2020 that focused on retail payments and cross border payments. These have supported 6 and 8 firms respectively. In April 2020, IRDAI approved 16 applications by life and non-life insurers to test specific products in the sandbox (BFSI, 2021).[14] Regulators in India are eager to identify regulatory barriers to innovation and to accommodate new FinTech models by amending existing regulations to facilitate market needs (CCAF, 2021e).

There were two significant regulatory developments that have evolved gradually in recent years. Firstly, RBI, after initially following a 'light-touch' approach to FinTech regulation has been increasingly moving towards a full-regulation model (Ahluwalia, Malhotra and Pareek, 2021). An important development in this regard has been in the digital payments sector, with the introduction of a full-fledged regulatory regime for payment aggregators (Chambers, 2021). Secondly, RBI has indicated its intention to emphasize efforts on protecting consumer data and preventing digital fraud (Ahluwalia, 2021).

Figure CS1.1 summarises the regulatory approach to FinTech in India across key business models (verticals). In comparison with the APAC region, the majority of FinTech verticals in India have general regulatory frameworks or laws that apply to all the sectors reviewed. There are some differences regarding ECF and P2P lending: India has prohibited ECF and created FinTech-specific regulatory frameworks for P2P lending, while all other sampled APAC jurisdictions have general sector frameworks.

14 The sandbox is reported to have received 173 applications in its first cohort and 185 in the second. See: (Business Standard, 2021).

Figure CS1.1: India regulatory frameworks in FinTech verticals

	PAYMENTS	E-MONEY	REMITTANCES	EQUITY CROWDFUNDING	PEER-TO-PEER
India	General Sector Framework	General Sector Framework	General Sector Framework	Prohibited	Fintech Specific Framework
Region Mode	General Sector Framework	General Sector Framework	General Sector Framework	General Sector Framework	General Sector Framework

Figure CS1.2 shows that the cross-sectional areas addressed within India's regulatory frameworks are similar to those commonly addressed in APAC. India also has financial services-specific regulatory laws/frameworks for cybersecurity and consumer protection, which are similar to the commonly adopted approach in APAC. However, India's approach to regulating cross-sectional areas differs in specific ways from those commonly adopted in APAC. For example, India has yet to enact a general data protection regulatory framework. A comprehensive data protection bill, The Data Protection Bill 2019 (previously called The Personal Data Protection Bill 2019) is currently pending approval before the Indian parliament (CCAF, 2021e). In most of the sampled APAC jurisdictions, regulators have implemented financial services specific regulatory laws/ frameworks.

Figure CS1.2: India cross-sectional regulatory frameworks[15]

	DATA PROTECTION	CYBERSECURITY	CONSUMER PROTECTION	OPEN BANKING
India	Law/Regulatory Framework in Development	Financial Services Specific Law/ Framework	Financial Services Specific Law/ Framework	Financial Services Specific Law/ Framework*
Region Mode	Financial Services Specific Law/ Framework	Financial Services Specific Law/ Framework	Financial Services Specific Law/ Framework	Unregulated

Note: India's approach has been to create rules and initiatives that focus on 'key components' that are a pre-requisite to open banking In this way India is paving the necessary road towards formal open banking interventions. Initiatives that are currently being pursued includes clarity on data registries- defining who, how and what data can be stored (within a government entity sense) and further refining account aggregation rules and supervision.

Examples of positive regulatory practices in India

Digital infrastructure

India offers some noteworthy examples of digital infrastructure initiatives. A renowned example is India Stack, a group of technologies that enables digital identity authentication, transfer of money, and the sharing of documents and data. India Stack comprises three infrastructure systems: a comprehensive digital identity, a digital payments infrastructure built by the National Payments Corporation of India (NPCI), and a data-management system (Carrière-Swallow, Haksar & Patnam, 2021). One of the key objectives of India Stack is to provide greater access to digital finance in an economy where retail transactions are still predominantly cash-based (Carrière-Swallow, Haksar & Patnam, 2021). A study from the 2020 McKinsey Global Payments Report estimated that 89% of the transactions in India is cash-based (McKinsey & Company, 2020). The introduction of a data-management system could reduce some of the risks related to privacy and identity theft arising from the more widespread sharing of data, for example in open-banking applications (Carrière-Swallow, Haksar & Patnam, 2021).

15 India's approach has been to create rules and initiatives that focus on 'key components' that are a pre-requisite to open banking. In this way India is paving the necessary road towards formal open banking interventions. Initiatives that are currently being pursued includes clarity on data registries- defining who, how and what data can be stored (within a government entity sense) and further refining account aggregation rules and supervision.

As a part of the digital infrastructure, India also has Aadhar. Aadhar is a unique biometric identification system that employs a random 12-digit number (Government of India, 2021). Aadhar allows the public to access government digital services thereby improving the availability and transparency of social payments including financial assistance to those in need (Government of India, 2021). FinTechs can verify customer identity using the Aadhar number, together with a fingerprint and/or iris scan. FinTechs can rely on Aadhaar authentication to confirm identity without additional verification measures, thus simplifying and accelerating the customer due diligence process (FIGI, 2021). Non-banking institutions, including FinTechs, are required to apply for an Aadhaar e-KYC Authentication Licence (The Banking & Finance, 2021). However, a limited number of services are currently restricted from using Aadhar as a mandatory KYC document and permitted banks can access Aadhaar only with the consent of the account holder (Supreme Court of India, 2018).

There are also ongoing digital infrastructure initiatives in the payments sector. To streamline the QR code infrastructure, RBI decided, in October 2020, to maintain interoperability between two existing QR codes (UPI QR code and Bharat QR code) (CCAF, 2021e). Additionally, RBI also mandated all Payment System Operators (PSO) using proprietary QR codes to shift to one or more of the interoperable QR codes. This migration process is due for completion before 31 March 2022 (CCAF, 2021e).

Regulatory sandboxes

In November 2019, RBI launched a regulatory sandbox to promote orderly, responsible and efficient innovation in financial services, and to bring benefits to consumers. As of 2021, RBI had announced four regulatory sandbox cohorts, one each relating to retail payments, cross-border payments, MSME lending and financial fraud. RBI also established the Reserve Bank Innovation Hub (RBIH) to support and promote cross-sectoral innovation in FinTech sectors by creating an enabling ecosystem bringing together academics, technology, finance, and regulators (Sankar, 2021). Some examples of key business activities included in the RBI's regulatory sandbox are payments, remittances, marketplace lending, digital KYC, digital identification, and wealth management (Reserve Bank of India, 2021f).

Other regulatory agencies in India have also launched regulatory sandboxes covering their sectors. For example, IRDAI created a regulatory sandbox to facilitate innovation in the insurance sector in July 2019 and in the same year, SEBI created an Innovation Sandbox Framework to enable FinTech firms to conduct 'offline testing' of their products or services based on market data provided by stock exchanges, depositories, qualified registrars and share transfer agents (IRDAI, 2020; CCAF, 2021e). In 2021, SEBI launched an innovation sandbox web portal, where FinTech firms and individuals can leverage the test environment for 'offline testing' (ETBFSI, 2021). IFSCA also launched its regulatory sandbox initiative in 2020 (IFSCA, 2020b). The IFSCA sandbox enables FinTech firms to operate in the capital markets, banking, insurance, and financial services with certain facilities and flexibilities to experiment in a live environment with a limited set of real customers and within a specified time frame (Government of India, 2020).

Data sharing

In 2016, RBI established a new licensed entity called Account Aggregator (AA) to facilitate data sharing. AA acts as an intermediary between a Financial Information Provider (FIP), such as a bank, banking company, insurance company, etc. and Financial Information User (FIU), which are entities registered with, and regulated by, any financial sector regulator (Rao, 2021). AA leverages appropriate APIs to enable the flow of information. It is a regulatory initiative in India that combines prescriptive and facilitative approaches and is in its early stages of development (Rao, 2021).[16]

P2P lending

India has a financial service-specific regulatory framework for P2P lending, a departure from most sampled APAC jurisdictions. The Master Directions – Non-Banking Financial Company (NBFC) – Peer to Peer Lending Platform Directions, 2017 provide a framework for the registration and operation of an NBFC that offers a P2P lending platform (Reserve Bank of India, 2021a). These platforms can also conduct activities relating to debt crowdfunding. The Master Directions framework sets out the registration process, the scope of activities, capped exposure, and operational guidelines (Reserve Bank of India, 2021a).

Key challenges

There are four key regulatory challenges for the Indian regulators as summarised below:

Table 9.1: Summary of challenges, India

AREA	SUMMARY OF CHALLENGE
Fragmented regulatory approach	• The absence of a consolidated set of regulations governing FinTech sectors in India makes it challenging for FinTech firms to navigate the regulatory landscape (Ahluwalia, Malhotra and Pareek, 2021). • Multiple regulators in India have their own sandboxes covering various topics (CCAF, 2021e).
Data protection	• India does not currently have national legislation that governs data protection or privacy. Regulation of data protection is fragmented, with provisions covering aspects of data protection captured in different pieces of legislation. The principal provision is drawn from Article 21 of the Indian Constitution and the Supreme Court of India ruled that personal data is recognized as a fundamental right under this Article (Supreme Court of India, 2018; India, 1949). • In December 2021, the Joint Parliamentary Committee submitted its report on the Data Protection Bill 2019 to the Indian Parliament after two years of deliberation (India, 2019; Lok Sabha Secretariat, 2021).
Digital lending	• India lacks clarity in its digital lending regulatory framework, although there is a dedicated framework for P2P lending. Gaps in other forms of digital lending frameworks have led to the rise of consumer protection issues in digital lending (CCAF, 2021e). • In January 2021, RBI established a digital lending Working Group (WG) to address this issue and to develop regulations for the sector (Reserve Bank of India, 2021d). One of the WG's recommendations was that a Self-Regulatory Organisation (SRO) be established to cover the participants in the digital lending ecosystem.
Concerns about the effectiveness of activity-based regulation	• The RBI's Deputy Governor explained in a 2021 speech that activity-based regulation might be less effective than entity-based regulation when dealing with the financial activities of big tech firms (Sankar, 2021). This statement came at a time when new technology giants, including WhatsApp and Apple, are looking to be a part of India's payment system ecosystem (The Times of India, 2021).

16 Prescriptive approach is described as regulators requiring banks to share customer-permissioned data and requiring third party users to register with regulatory authorities while facilitative approach is described as regulators issuing guidance and recommended standards and releasing open API standards and technical specifications.