

Fintech – Evolution and Disclosure Regulations- National and International Regulatory Agencies – A Conceptual Approach

Anupama Jonnalagadda

Abstract - India and other nations regulate Fintech using a multifaceted strategy that places differing amounts of emphasis on transparency and disclosure. While other nations have their own regulatory agencies and frameworks, such as the CFPB in the US and the FCA in the UK, India's primary regulators are the Reserve Bank of India (RBI) and the Securities and Exchange Board of India (SEBI). Know-your-customer (KYC) and anti-money laundering (AML) compliance, data security, cyber security, and consumer protection are important facets of Fin tech regulation. The RBI issues guidance on digital lending, payment aggregators, and cybersecurity in addition to regulating digital payments, lending, and NBFCs. The Digital Personal Data Protection Act, which will place duties on Fintechs as data processors or fiduciaries, is part of India's extensive data protection framework. Lending platforms are subject to disclosure standards, which include important fact statements outlining the terms of loans. Fintechs can test cutting-edge goods and services in regulatory sandboxes with less stringent regulatory scrutiny. A framework for identifying self-regulatory organizations (SROs) in the Fintech industry has been introduced by the RBI.

In this article, the author attempts to bring about the Fintech, its evolution and Disclosure regulations in the top five countries and India, who have been pioneers in adopting and successfully implementing this technology. The data presented is secondary from the print media, and it is tabulated, as ready reckoner. In order to do so, literature review is used mainly, to know the process of Disclosure Regulations, consumer protection, transparency. Role of central banks of the particular country, Data privacy, and also about the self-Regulatory Organization. Any technology or innovations comes with dual package and it becomes mandatory how to handle the situation before it goes out of control, as the estimate of the disruption may be horrendous in some cases. The paper concludes with details of various regulatory bodies of countries. The concept of Fintech area is still in evolving stage and rapid expansion and adaptation by more and more economies can be seen in years to come.

Keywords – RBI, AML, Fintech.

I. INTRODUCTION

Fintech, short for “Financial technology”, is giving the financial industry a digital makeover. Banking, insurance, loans, venture capital, wealth management and other financial services are becoming faster, easier, and more accessible, thanks to innovative technologies. Tech companies that enable financial innovations with new products, processes, applications and business models have a major impact on the financial market 1. (Arner, D. W., “et al”.,2016) Financial institutions and service delivery modalities are referred to as Fintech companies. As opposed to ignoring the disruption, financial institutions throughout the world are changing the way they do business digitally to allow Fintech integration to enable new products, innovative services, and modern business models that suit the digital expectations of their consumers. (world bank,2022)

The fintech business in India has experienced speedy turn of events, changing the location of money related organizations through creative advancement. The improvement of fintech in India, following its advancement heading from early organizations automated portion deals with serious consequences regarding the climb of neobanking, blockchain, and computerized reasoning driven money related (Narula ,Manjot kaur and shah,ashish,2024). The financial technology (FinTech) revolution is in full swing globally. Although technology has been a part of the financial services industry since the 1850s, it is only during the past two decades that Fin Tech has become a term to customarily describe breakthroughs in technology that potentially have the power to transform the provision of financial services, drive the creation of novel business models, applications, processes, and products, as well as lead to consumer gains. The financial industry is

constantly searching for more accurate, efficient, safe, and flexible solutions that can handle a variety of financial tasks. Innovative approaches to accomplishing these goals are offered by emerging technology (kou, G.,Lu Y,2025)

While Fin tech provides many benefits for both financial services companies and users, it is not without risks. This has resulted in both benefits and challenges for the financial ecosystem, which can only be dealt with by limiting the risk and reinforcing benefits from disruption. People believe that, regardless of the perceived hazards associated with Fintech, the comfort or ease of use that are its major benefits will always affect a user's attitude toward its usage.

Fin Tech Vs Digitalization

Fin tech, or financial technology, revolutionized financial services through innovative technologies, products, and business models. Fin tech competes against old traditional financial banking methods and long-standing institutions with new technology-thinking products and services. Digital banking, on the other hand, is digitized traditional banking services, activities, or products offered via online channels, applications, and mobile platforms.

Fin Tech start-ups are digital natives who disrupted legacy banking with digital functionalities, simplicity, big data, accessibility, agility, cloud computing, conceptuality, personalization, and convenience. Fin tech is not only improving the financial consumer experience, but is changing the way people pay, transfer money, lend, borrow, and invest. Digital banking is traditional banking dressed up in a digital wrapper.

Objectives:

1. To study the Evolution of Fin tech and Identify the institutions which regulate the Fin tech disclosures in Global Powers.
2. To understand the Disclosure regulatory authorities of in few areas like consumer protection, Anti Money Laundering (AML), know your customer (KYC), Cyber security & data usage, Investment and Crowd funding disclosures, with regard to Fin tech in the said countries.

II. METHODOLOGY

In this paper, the author tries to incorporate the various phases of evolution of Fin Tech, which brought about a sea change in the Global economy. For this extensive research on latest literature review has been done, the source have been the regulatory bodies of the top five countries, like RBI, in India, Federal Reserve Board (FRB),USA. Financial conduct Authority (UK), NFRA, Under the state council of the people's Republic of China(China). The sole purpose of the paper is to pool the information and present as a ready reckoner, about the Evolution and Regualtory bodies of FinTech, and to gain awareness about how regulatory bodies are protecting the interest of the citizens

of the respective nations by enforcing compliance with the regulations, risk management, and providing cyber security, regulatory sandbox services, prohibition of unfair practices, data privacy and security and the like. The findings and conclusion is only a pause and the area or Fin tech innovations has a long way ahead with newer technologies sprouting up with the passage of time and economies and guidelines working for the benefit of the citizens of the economies..

Scope of the study:

The study is pertained to secondary data available through review of literature and the concept is still in evolution stage and author's curiosity probed into literature on various aspects of Fin tech, like disclosure regulations,risk management, disruptive technologies, out of all, Disclosure regulations amongst few developed countries is presented.

Limitations of the study:

As the concept is new and in developing stage, the author completely relies on the print media for the authenticity of the literature, and confines to the dimensions which is the Disclosure regulations, in particular.

EVOLUTION

Fin Tech1.0 (1886-1967), is about infrastructure

This is an era when we can first start speaking about financial globalization. It started with technologies such as the telegraphs as well as railroads and steamships that allowed for the first time rapid transmission of financial information across borders. The first transatlantic cable (1866) and Fedwire (1918), the first electronic fund transfer system that used now-antiquated technologies like the telegraph and Morse code, are the major events on this timeline.

First or Initial phase: The 1950s brought us credit cards to ease the burden of carrying cash. First, Diner's Club introduced theirs in 1950, American Express Company followed with their own credit card in 1958.

Financial globalization is the first of this era which need to be highlighted. The first technological transmission across the borders started with telegraph, railroads, and steamships.The first electronic fund transfer system took at the time when key events like transatlantic cable (1866) and Fedwire in the USA(1918) also took place.

Second phase (1967-2008) is about banks

In 1967, the first handheld calculator and first ATM is installed by Barclay's Bank that marked the beginning of the modern period of fintech.

This period is marked by the financial institutions leading the shift from analog to digital. The world's first NASDAQ, digital stock exchange, was marked by its beginning, and we see how the financial markets operated today.In 1973,

the first and the most commonly used communication protocol between financial institutions facilitating the large Volume of cross border payments, SWIFT, was established and is used to this day, facilitating the large volume of cross border payments.

The year 1980 is marked by rise of bank mainframe computers and the online banking was introduced the world, for the first time, in 1990 with the internet and e-commerce business models. Internet banking brought about a major shift in people’s perception regarding money & their relationships with financial institutions.

The bank’s internal process and interactions with outsiders and retail customers had become fully digitized .This era came to an end due to Global Financial crisis of 2008.

Fintech –Phase three: (2008-2014)–The startups era

The period between 2008-2014, is marked by emergence of new players, particularly Fintech startups,along with the already existing ones such as banks.

After the Global Financial Crisis that soon took shape of general economic crisis become more widely understood, and the general public developed a distrust of the traditional banking system.

The advent of Bitcoin v0.1, in the year 2009 is another major event that has had great impact on the financial world and was soon followed by the boom of various forms of cryptocurrencies. This did not last for long, till it crashed in the year 2018.Continuing the developments of this era, the other important factor being the mass-market penetration of smartphones that enabled internet access for millions of people across the globe. As Smart phone is the primary means by which people access the internet , it facilitated usage of different financial services. Yet other significant developments have been , in 2011 google wallet was introduced , followed by Apple pay in 2014.

Fourth phase of Fintech (2014-2017) - Gloabalization

The next phase of Fintech signifies the expansion in digital banking around the globe, with improved fintech technology, which paved way to move away from the western dominated financial world .the focus here has been mainly on the consumer behavior and they way they way they make use of internet in the developing world.

This era is marked by increasing number of new entrants and their last mover advantages.

Post recession era –Fintech (2018-today)

Fintech since 2018 till date is disruptive in nature. Block chain technologies and open banking are continuing to drive the innovation of the future of financial services. In this quest, the neo banks are playing pivotal role , challenging the pricing and complexity of traditional banks, while earning customer’s trust through simplified,

digital- only experiences and low –to-no fees. There has been a drastic transformation on its part, the way people interact with banks and insurance companies, receiving bespoke offers and support. Another note worthy development is the new wave of integrated payment providers, with platforms that can offer payments as an additional strand to an already comprehensive business management system.

Fintech today:

In this era of digitalization, financial technology innovation, or FinTech, increases the efficiency of financial markets in providing financial services to the general population.(Thakor , 2020). Fin tech and banks are not mutually exclusive areas, with the rapid advent of technology, in finance industry,the mutual dependence is as much as the competition between the two areas.(RBI 2022) .The Fintech startups, on the one hand, get their funding from banks and often rely on banking, insurance, and back office partners to deliver their core products. World Economic Forum (2017). Banks resort to Fintech startups or invest in them to make use of new technologies so as to upgrade their existing operations and offerings.One thing is certain, that the speed with which Fintech is growing , innovations in Fintech is reaching to vast areas of digital economy. The testimony of Fintech and innovations, thereupon is the number of unicorns(startups value of over \$1billion), and dragons (\$1billion from investors in single round and are aggressive companies)(World Economic Forum2017)

Fin tech in new era of Banking Dimensions:

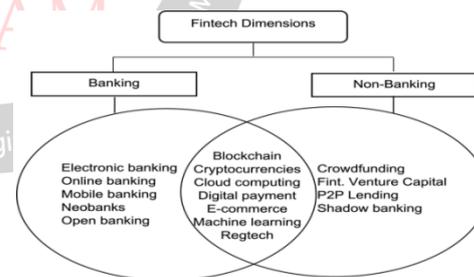


Figure :1 **Fin tech in new era of Banking Dimensions:**

The above figure depicts the financial dimensions, both banking and non banking.Banking consists of electronic banking, online banking, mobile banking, neo banks and open banks. Where are non banking comprises of crowd funding, fint. Venture capital, p2p lending and shadow banking. They both have block chain, cypto currencies, cloud computing, digital payments, e commerce, Machine learning, Reg tech activities in common.

Countries success in Fintech is influenced by a combination of factors, including government support, funding availability, technological infrastructure, and the presence

of skilled workforce.(World Bank (2020).(The Global Fintech Report)

Top ten global leaders in Fintech land scape are the following

USA, UK, CHINA,SINGAPORE, CANADA, GERMANAY, AUSTRALIA, BRAZIL, SWITZER LAND and INDIA. Global FinTech Rankings by Findexable (2021–2023).

Fintech Banking Operations are Electronic Banking , Online Banking, Mobile banking, Neo banking , Open banking, Consumer lending, secondary market loan trending, collective investment funds,alternative investment funds and so on are few regulated activities conducted by the banks(Amer “et al.”2016), The other activities include Lending services, Payment services, wealth Management, Embedded Finance, Personal Finance Management, Banking Regulated activites(Zetsche “et al.”2020) (E B A ,2015)

Non –Banking Dimensions:

Non-Banking dimensions include Crowd funding, Fin Venture capital, Peer 2Peer Lending, Shadow Banking, Insurance products, credit references, payment services, invoice trading (Factoring)Wealth management, investment advice etc do typically need a license depending on the activity they perform(Zetsche “et al 2017”)

In the Europe, most big techs in the European Union and United States do hold licenses as payment service providers, which are known as payment institutions or e-money institutions in the former and money transmitters in the latter(Table-1)

Brief about regulatory bodies of Fin Tech in select global powers and India

Regulatory bodies in India:

In India, the RBI regulates licensing and registration in the financial sector. To undertake lending activities in India, an entity must first apply for a banking license or a Non-Banking Financial Company (NBFC) license as per the Banking Regulations Act 1949 and the RBI Act 1934.

Furthermore, an NBFC intending to undertake a factoring business must get an NBFC-Factor license as per the Factoring Regulation Act 2011.Foreign exchange services are regulated by the Foreign Exchange Department of RBI. Entities engaged in foreign exchange must get either a Full Fledged Money Changing or Authorized Dealers Category I or Authorized Dealers Category II license.Further, the payment services are governed by the Payment and Settlement Systems Act 2007 (PSS Act).

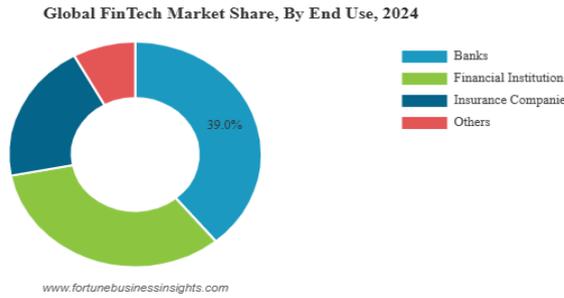
Table :1 countries and their Regulatory Authorities:

Regulatory Activities in Banking and Non-Banking sectors in Global Economies –Table 1

European Union	Banking	European Banking Authority
		Regulated under the MiFID Directives
	Non-Banking	1.Credit underwriting
		the EU Directives on Consumer Credit (Directive 2008/748/EC)
Non-Banking	2. Mortgage Credit (2014/17/EU) establish rules that must be met by all “creditors”.	
	MiFID Directives, payment services, crowd fundingDirective 2000/31/EC), e-commerce, Directive 2002/65/EC	
United States of America	Banking	Security and Exchange Commission(SEC)
		Federal Reserve Board. Fin CEN, FDIC
	Non-Banking	Federal Reserve Board(FRB)
United Kingdom	Banking	The Federal Deposit Insurance Corp(FDIC)and the Securities and Exchange Commission(SEC)
		Consumer Financial Protectoin Bureau(CFPB)
	Non-Banking	Financial conduct Authority
China	Banking	(FCA) and Prudential Regulation Authority(PRA), which is a part of Bank of England.
		Regulatory sandbox, to support fintech innovation and the “consumer duty ” to ensure fair treatment of consumers
Singapore	Banking	Financial conduct Authority
		(FCA) and Prudential Regulation Authority(PRA), which is a part of Bank of England
India	Banking	NFRA , Under the state council of the people’s Republic of china.
		People’s Bank of China(PBOC)
India	Non-Banking	Licensing requirements under the Secutities and Futures Act(chaotr 289)(SFA) or the Financial Advisers Act(Chapter 110)(FAA)
		-peer –to-peer, -Crowd funding, invoice trading, payment services, open banking, Insurance products(FAA), Credit referencs(SFA)
India	Banking	The Reserve Bank of India (RBI), The Securities and Exchange Board of India (SEBI), and The Insurance Regulatory and Development Authority of India (IRDAI)
		The Reserve Bank of India (RBI), The Securities and Exchange Board of India (SEBI), and The Insurance Regulatory and Development Authority of India (IRDAI)

Source: Author

Figure:2 Global Fin Tech Market Share,By End Use,2024



Implications of Fintech developments for banks and bank supervisors, the Committee has further specified the nature and scope of its contribution and has enhanced its ten key implications and considerations on the following supervisory issues: (BCBS,2018), (Vijayagopal et.all.,2024).

1. The overarching need to ensure safety and soundness and high compliance standards without inhibiting beneficial innovation in the banking sector
2. The key risks for banks related to fintech developments, including strategic/profitability risks, operational, cyber-and compliance risks
3. The implications for banks of the use of innovative enabling technologies
- 4The implications for banks of the growing of third parties, via outsourcing and/or partnerships use
5. Cross-sectoral cooperation between bank supervisors and other relevant authorities
6. International cooperation between bank supervisors
7. Adaptation of the supervisory skill set
8. Potential opportunities for supervisors to use innovative technologies ("supotech")
9. Relevance of existing regulatory frameworks for new innovative business models
10. Key features of regulatory initiatives set up to facilitate fintech innovations.

Regulatory bodies of Fin tech products and services in European Union:

The EU has a comprehensive framework for regulating financial technology (Fintech), banking, and non-banking financial institutions. This framework aims to ensure stability, protect consumers, and promote fair competition. Key areas of focus include digital operational resilience, crypto-assets, digital finance, and sustainable finance. The EU also emphasizes consumer protection and the harmonization of regulations across member states

Regulatory bodies of Fin tech products and services in USA:Regulatory disclosures in USA are legal requirements for organizations to provide specific information to the public or relevant authorities, promoting transparency, consumer protection, andmarket integrity. The breakdown of key aspects of regulatory disclosures in the USA are Transparency, Consumers protection, Market integrity, and so on

Regulatory bodies of Fin tech products and services in Singapore: The Monetary Authority of Singapore (MAS) is the primary regulator and supervisor of financial regulations and the de facto central bank of the nation. With the establishment of the FinTech Regulatory Sandbox to provide grants and support for the development of digital financial products, the MAS has recently received recognition for its emphasis on advancing financial technology Additionally to establish rules pertaining to Fintech

Financial institutions and Fin Tech companies can test new financial goods or services in a real-world setting within a specified timeframe and space according to the FinTech Regulatory Sandbox framework. The Security and Futures Act (SFA) regulates the trading in capital markets products, offering custodial services, advising on corporate finance, fund management, real estate investment trust management, product financing, and credit rating service

Regulatory bodies of Fin tech products and services in UnitedKindom:

The Financial Services and Markets Act 2000 ("FSMA") establishes the FCA and the PRA as the statutory regulators of UK financial services businesses and sets out their statutory powers (including rule making, supervisory and enforcement powers). It also sets out the "General Prohibition" which mandates that no person may carry on a regulated activity by way of business in the UK unless they are an authorized or exempt person. Regulated activities include, but are not limited to, deposit taking, issuing electronic money ("E-money"), entering into consumer credit agreements as lender, arranging deals in investments, effecting and carrying out contracts of insurance, managing investments and advising on investments.

Regulatory bodies of Fin tech products and services in china: The People's Bank of China (PBOC), the National Financial Regulatory Administration (NFRA), and the China Securities Regulatory Commission (CSRC) are the three most important regulatory agencies in China that keep an eye on the Fin tech industry. The PBOC prioritizes financial stability, digital money, and payment networks. Formerly known as the CBIRC, the NFRA is in charge of larger financial organizations, such as banks and insurance companies. Fin tech pertaining to securities, investment funds, and online investment advice is governed by the CSRC.

The second part of the paper presents the Disclosure of Regulatory activities and law enforcing authorities.

In the US, EU, UK, and MENA, fintech rules are changing quickly. These changes affect how banks, payment companies, crypto companies, and AI-powered finance companies work. In the US, both federal and state laws must be followed. In the EU, rules like MiCA and DORA

are enforced by the central government. In the UK, consumer protection and control of AI are getting stricter, and in MENA, open banking and digital payments are moving forward. Fines from regulators can reach millions of dollars, and new rules like PSD3 and CBDCs are being put in place. Fintechs can't ignore compliance—it's the key to long-term growth and market expansion

Table-2: Table showing Disclosure of Regulatory activities and the Law enforcing authorities in the select countries

Country	Consumer protection	AML-Anti Money Laundering	kyc	Cyber security and Data Usage	Investment and crowdfunding	ESG	Breakdown of specific practices:
European Union (EU)	Article 114 of the Treaty on the Functioning of the European Union (TFEU), Regulation (eu) no 254/2014 of the European Parliament	Fin CEN (Financial Crimes Enforcement Network) – Oversees AML compliance and collects Suspicious Activity Reports (SARs). Federal Reserve, OCC, FDIC, SEC	European Commission	ENISA (European Union Agency for Cyber security),	European Securities and Markets Authority (ESMA),	European Commission, European Securities and Markets Authority (ESMA)	Protect health, safety, economic interest of consumer,
			EC,	CERT-EU	National Competent Authorities (NCAs))		Digital markets,
			European Banking Authority (EBA)				Financial services,
USA	Consumer Financial Protection Bureau (CFPB) and the Federal Trade Commission (FTC)	The Role of the Board of Directors in Anti- Money Laundering Law Compliance 2025	FinCEN, Federal Reserve, SEC, OCC, FDIC	Cybersecurity and Infrastructure Security Agency (CISA),	Securities and Exchange Commission (SEC),	Securities and Exchange Commission (SEC),	Energy.
				Federal Trade Commission (FTC), Federal Communications Commission (FCC) and Department of Homeland Security (DHS)	Financial Industry Regulatory Authority (FINRA), Regulation Crowdfunding (Reg CF)		Department of Labor (DOL) –
UK	Consumer Rights Act 2015.	FCA (Financial Conduct Authority) – Regulates financial services firms.	Financial Conduct Authority (FCA), HMRC (His Majesty's Revenue & Customs), Money Laundering Regulations (MLRs) 2017, updated with EU directives and FATF standards.	National Cyber Security Centre (NCSC),	FCA-authorized.	Financial Conduct Authority (FCA)	leisure,
	Consumer protection from unfair trading reforms 2008:	HMRC (Her Majesty's Revenue & Customs) – Supervises non-financial businesses, NC A (National Crime Agency) – Investigates serious financial crimes, FIU		OFCOM,			Department of Business and Trade (DBT)
							State Enforcement, CFPB Guidance, Focus on UDAAPs, Oversight of Non-Bank Lenders, Overdraft Fee Caps, Digital Assets, AI and Data Privacy, KYC/AML Compliance, State Licensing Regimes, Federal Banking Charter.

		(Financial Intelligence Unit) – Central hub for financial crime intelligence					
CHINA	Consumer Protection Act, Central Consumer Protection Authority (CCPA), Consumer Disputes Redressal Commissions,	The Role of People’s Bank of China (PBOC) – Leads AML policy and supervision.	People’s Bank of China (PBOC),	Cyberspace Administration of China (CAC),	China Securities Regulatory Commission (CSRC),	China Securities Regulatory Commission (CSRC),	Data Privacy and Security,
	Consumer Protection Laws and Regulations 2025, Bank Secrecy Act (“BSA”) and anti-money laundering (“AML”) laws						Consumer Protection:Anti-Money Laundering (AML) and Know Your Customer (KYC),
		China Banking and Insurance Regulatory Commission (CBIRC)	China Banking and Insurance Regulatory Commission (CBIRC)	Ministry of Public Security (MPS)	People’s Bank of China (PBOC) and CBIRC, China Securities Regulatory Commission (CSRC)	Ministry of Finance – Issued Corporate Sustainability Disclosure Standards (CSDS).	Cybersecurity:Regulatory Sandbox,
		China Securities Regulatory Commission (CSRC) – Oversees AML in securities markets	China Securities Regulatory Commission (CSRC)				Focus on Risk Management,
		Board of Directors in Anti- Money Laundering Law Compliance 2025					Need for Innovation:
SINGAPORE	Monetary Authority of Singapore (MAS), Financial Services and Markets Act 2022 (FSMA), Payment Services Act (PSA).	Monetary Authority of Singapore (MAS)	Monetary Authority of Singapore (MAS), Accounting and Corporate Regulatory Authority (ACRA),	Cyber Security Agency of Singapore (CSA),	Capital Markets Services (CMS) license.,	Green Finance Industry Taskforce (GFIT),	Digital Technology Risk Management: 1 Token Service Providers (DTSPs),Phased Implementation,

	Other relevant acts:Securities and Futures Act (SFA), Financial Advisers Act (FAA), Personal Data Protection Commission (PDPC)			Personal Data Protection Commission (PDPC),	Securities-Based Crowdfunding (SCF)	Singapore Exchange Regulation (SGX RegCo)	MAS Notices and Guidelines:
							Fin tech Regulatory Sandbox:
				Infocomm Media Development Authority (IMDA)			Measures:
							AML/CFT, Personal Data Protection Act (PDPA),Gatekeeper Liability, Remedies for Non-Conforming Goods, Digital Token Service Provider (DTSP) Regulations
INDIA	Reserve Bank of India (RBI), Consumer Protection Act, 2019,Digital Personal Data Protection (DPDP) Act, 2023	Enforcement Directorate (ED),Prevention of Money Laundering Act (PMLA), 2002,Reserve Bank of India (RBI) – Regulates banks and financial institutions	Reserve Bank of India (RBI),	Indian Computer Emergency Response Team (CERT-In),National Critical Information Infrastructure Protection Centre (NCIIPC),Ministry of Electronics and Information Technology (MeitY)	Securities and Exchange Board of India (SEBI),	Securities and Exchange Board of India (SEBI), Ministry of Corporate Affairs (MCA)	Digital lending, to enhance transparency, Accountability, and borrower protection. These regulations aim to curb, mis-selling, data privacy violations, and unfair recovery methods. Transparency and Disclosure,Data Privacy and Security, Grievance Redressal, Compliance with Regulatory Frameworks:
			Securities and Exchange Board of India (SEBI), Insurance Regulatory and Development Authority of India (IRDAI)	Reserve Bank of India (RBI)	Reserve Bank of India (RBI)	Reserve Bank of India (RBI),	

Source: Author’s compilation

Explanation: The above table depicts the country with its respective Regulatory Authority and other Laws enforcing the guidelines . It also shows how the citizens interest is protected from unethical practices, and grievance redressal process ,remedies for non compliance, or non conformity with law and so on.

Consumer protection:Fintech companies must prioritize consumer protection and ensure fair treatment of theircustomers(CFPB,2025) Financial consumer protection policies are crucial, along with financial inclusion and literacy, in fostering a fairer, more sustainable growth and ensuring the stability of the financial system. It is essential for individuals to access quality financial products and services, to be integrated into the financial system, to receive guidance in making informed decisions, and to have proper protections in place. This includes providing adequate safeguards against potential harms as well as mechanisms for redress when issues arise. Consumer finance policies are strengthened by wider initiatives

focused on ensuring financial system stability, regulation, and corporate governance, which ultimately support the financial resilience and well-being of individuals, families, and communities.(OECD 2022). The principles of consumer protection include aspects regarding the legal, Regulatory and supervisor frame work, Role of oversight bodies, Access and Inclusion, Financial Literacy and Awareness, competition, Equitable and fair Treatment of consumers, Diclosure and transparency, Quality Financial Products, Responsible Business conduct and culture of Financial services providers and intermediaries Protection of consumer Assets against Fraud, Scams and Misuse, Protection of consumer Data and Privacy. World Bank. (2017).

Anti-money laundering (AML) & Know Your Customer (KYC):The European Commission – Develops and enforces KYC/AML directives.Anti-Money Laundering Authority (AMLA) –A new centralized body to supervise high-risk financial entities.When it comes to National

Regulators, **each** EU country has its own authority (e.g., BaFin in Germany, ACPR in France). EBA Issues guidelines and monitors implementation. USA Patriot Act. When it comes to China, People's Bank of China (PBOC), China Banking and Insurance Regulatory Commission (CBIRC). In China, **China** Securities Regulatory Commission, Anti-Money Laundering Act of 2020, Customer Identification Program (CIP) rules guide the regulatory activities. KYC I enforced by Monetary Authority of **Singapore (MAS)** under AML/CFT guidelines. Accounting and Corporate Regulatory Authority (ACRA), Supervises corporate service providers. In India, Reserve Bank of India (RBI), Regulates KYC for banks and NBFCs. Securities and Exchange Board of India (SEBI), Oversees KYC in capital markets, Insurance Regulatory and Development Authority of India (IRDAI), For insurance firms, Financial Intelligence Unit, India (FIU-IND) Collects and analyzes KYC/AML data, Prevention of Money Laundering Act (PMLA), 2002, Master Direction on KYC is issued by RBI.

Cyber security & data usage: Another parameter examined as to know the regulatory authorities in respective select sample countries is cyber security and data usage. ENISA (European Union Agency for Cybersecurity), Coordinates cybersecurity efforts and supports implementation of the NIS2 Directive, in European countries. CERT-EU – Provides incident response for EU institutions. Interinstitutional Cyber security Board (IICB) – Oversees cybersecurity governance across EU bodies. Data Protection, European Data Protection Board (EDPB), Ensures consistent application of the General Data Protection Regulation (GDPR), National Data Protection Authorities – Each member state has its own (e.g., CNIL in France, BFDI in Germany). No single federal law; governed by sectoral laws like: HIPAA (healthcare), GLBA (financial services), COPPA (children's data), State-level laws: e.g., California Consumer Privacy Act (CCPA) Personal Data Protection Commission (PDPC), of Singapore, Enforces the Personal Data Protection Act (PDPA). Infocomm Media Development Authority (IMDA), Supports digital trust initiatives. Digital Personal Data Protection Act, 2023 (DPDPA), India's new data privacy law. Data Protection Board of India, Enforces DPDPA. RBI, SEBI, IRDAI – Sector-specific regulators for financial and insurance data

Investment & crowdfunding disclosures:

Crowd funding Regulation: Regulation Crowd funding (Reg CF) **under the JOBS Act**, by US's Securities and Exchange Commission, Issuers can raise up to **\$5 million annually** via SEC-registered platforms, Issuers must file Form C with the SEC. Must disclose financials, use of proceeds, ownership, and risk factors

Financial Conduct Authority (FCA), Regulates both investment-based and loan-based. Crowdfunding Regulation:

Platforms must be **FCA-authorized**.

Categorized into **loan-based (P2P)** and **investment-based** crowd funding Platforms must provide clear, fair, and not misleading information. Risk warnings and investor appropriateness assessments are required. Regulatory Authorities in China with regard to Investment & crowd funding People's Bank of China (PBOC) and CBIRC – Oversee broader financial markets. Equity crowdfunding is treated as private placement and is tightly regulated. P2P lending has been banned since 2020 due to fraud and systemic risks. Platforms must comply with strict investor eligibility and disclosure norms. Real-name verification and risk disclosures are mandatory. Equity crowdfunding is not permitted under current SEBI rules. Donation and reward-based models are unregulated; P2P lending is regulated by RBI. SEBI mandates detailed disclosures for private placements and public offerings. Crowdfunding platforms must comply with KYC, AML, and investor protection norms if regulated.

5. ESG (Environmental, Social, Governance) disclosures (emerging trend) **European** Banking Authority (EBA), issues ESG risk guidelines for banks. Corporate Sustainability Reporting Directive (CSRD) Sustainable Finance Disclosure Regulation (SFDR) EU Taxonomy Regulation ESG Ratings Regulation (2024), Requires ESG rating providers to be authorized and supervised by ESMA. **Securities and Exchange Commission (SEC)** – Leads ESG disclosures and climate-related reporting. **Department of Labor (DOL)** – Regulates ESG in retirement plans. **Federal Trade Commission (FTC)**, Oversees greenwashing and consumer protection. Key Initiatives, **SEC Climate Disclosure Rules (2023–2025)**, Nasdaq Board Diversity Rule, SASB Standards (**now under IFRS** Foundation) Ministry of Finance, Issued Corporate Sustainability Disclosure Standards (CSDS). People's Bank of China (PBOC), Supports green finance initiatives. Mandatory ESG disclosures for A-share companies (2025 onward), CSDS aligned with ISSB and EU CSRD, Green Bond Endorsed Project Catalogue. The **Regulatory Bodies** are the following **China Securities Regulatory Commission (CSRC)** Oversees ESG disclosures for listed companies. **Ministry of Finance** – Issued Corporate Sustainability Disclosure Standards (CSDS). People's Bank of China (PBOC), **Supports green finance initiatives**. Mandatory ESG disclosures for A-share companies (2025 onward) CSDS aligned with ISSB and EU CSRD Green Bond Endorsed Project Catalogue. Securities and Exchange Board of India (SEBI), **Mandates ESG disclosures via BRSR (Business Responsibility and Sustainability Report)**. Ministry of Corporate Affairs (MCA), **Issues ESG-related guidelines**. Reserve Bank of India (RBI) – Oversees ESG in banking. Mandatory BRSR for top 1,000 listed companies Companies Act, 2013 – **Includes CSR and governance provisions**. National Guidelines for Responsible Business Conduct (NGRBC) **12**.

Findings: Fintech's growth has caused a huge change in the world's financial system. This change is due to new technologies, changing customer needs, and the desire to make sure everyone has access to money. Fintech has changed the way standard financial models work and made things faster, easier, and more accessible than ever before. Examples include mobile banking, blockchain, decentralised finance (DeFi), and AI-driven solutions.

National and international regulatory agencies have responded by becoming important players in determining the direction of FinTech. Their responsibilities have grown to encompass risk mitigation, innovation facilitation, and consumer protection in addition to oversight and compliance enforcement.

National regulators including the RBI (India), FCA (UK), SEC (USA), MAS (Singapore), and PBoC (China) have used a variety of tactics, ranging from stringent regulations for digital lending and crypto currencies to regulatory sandboxes and digital banking licenses. These actions seek to achieve a balance between maintaining financial stability and encouraging innovation.

International organizations such as the Financial Stability Board (FSB), BIS, and IOSCO are essential in advancing data governance, cross-border harmonization, and regulatory coherence. This is particularly important when considering global Fin Tech activities and digital asset movements.

Theoretically, fin tech regulation should be seen as a facilitator of sustainable innovation rather than a hindrance. Fin tech is guaranteed to flourish while preserving systemic resilience, consumer interests, and economic integrity through a principles-based, technology-neutral, and forward-looking regulatory strategy.

To sum up, creating a trust-based digital financial ecosystem that is inclusive, safe, transparent, and flexible enough to meet the ever-changing demands of the digital age requires the cooperation of fin tech development and regulatory supervision.

III. CONCLUSION

As technology is becoming ever more central in the finance industry, we tend to consider banks and fin Tech startups as opposing forces fighting for their share of the market. The reality is that both sides need each other just as much as they need to compete with each other.

On the one hand, Fin tech startups have taken funding from banks and often rely on banking, insurance, and back office partners to deliver their core products. Banks, on the other hand, have acquired Fin tech startups or invested in them to leverage new technology and ways of thinking to upgrade their existing operations and offerings.

Hopefully, this retrospective look into the evolution of Fin tech will help to sum up the long way we've come until today and put into perspective the busy times ahead of us.

One thing is certain: Fin Tech is growing, and fast. And innovation in Fin tech is reaching more and more areas of the digital economy, as per world Economic Forum. The increasing number of unicorns (privately held startup businesses with a value of over \$1 billion) is an indicator of this. The same applies to dragons, firms that raise \$1 billion from investors in a single round (and that are therefore more aggressive companies).

Another indicator of Fin Tech growth and potential is the enormous amount of global Fin tech **vc investments**. In fact, 2021 smashed all records in this domain Fintech risks have far-reaching and widespread impacts, not only affecting the financial industry but also posing potential threats to national economic security and global stability Financial Stability Board (FSB ,2022). In the financial sector, the internet has given rise to third-party payment platforms that, while speeding up transactions, also exponentially increase the volume of transactions. If a third-party platform experiences financial risk, a chain reaction could occur, resulting in severe economic losses for multiple stakeholders International Monetary Fund (IMF,2022).. Users who inadvertently click on phishing links could have their bank account or platform balance stolen. Unchecked fin tech risks may eventually lead to widespread financial crises, causing significant harm to the country's financial industry. While internet transactions improve efficiency, excessive reliance on virtual platforms undermines the foundation of the real economy, and an uncontrolled Fin tech risk could further weaken economic balance and stability. (The IMF's working paper, 2024)

Through deep analysis of vast and multidimensional financial datasets, big data can swiftly identify potential risk signals, such as fluctuations in market dynamics, abnormal transaction patterns, and unusual financial activities. This not only improves the timeliness and precision of risk identification but also enables financial institutions to uncover hidden risks that traditional methods might overlook. By detecting these warning signs early, institutions can take proactive preventive measures, mitigating risks before they escalate.

As technology is becoming ever more central in the finance industry, we tend to consider banks and Fin Tech startups as opposing forces fighting for their share of the market. The reality is that both sides need each other just as much as they need to compete with each other.

On the one hand, Fin tech startups have taken funding from banks and often rely on banking, insurance, and back office partners to deliver their core products. Banks, on the other hand, have acquired Fin tech startups or invested in them to

leverage new technology and ways of thinking to upgrade their existing operations and offerings.

Hopefully, this retrospective look into the evolution of Fin tech will help to sum up the long way we've come until today and put into perspective the busy times ahead of us.

REFERENCES

1. Arner, D. W., Barberis, J., & Buckley, R. P. The Evolution of Fintech: A New Post-Crisis Paradigm?, *Georgetown Journal of International Law*, 47, 1271(2016)<https://ssrn.com/abstract=2676553>
2. World Bank (2022). The Global Findex Database 2021: Financial Inclusion, Digital Payments, and Resilience <https://www.worldbank.org/en/publication/global-findex>
3. "Successful digital transformation rests on four pillars: culture and organization, digital tools and technology, customer-centric processes, and agile execution models." McKinsey Digital. (2021).
4. Global Legal Group. (2024). *FinTech 2024: Global Legal Insights – 7th edition*. Global Legal Insights. <https://www.globallegalinsights.com/practice-areas/fintech-laws-and-regulations>
5. BFSI Banking Financial Services & Insurance (for graph) <https://www.fortunebusinessinsights.com/fintech-market-108641>
6. World Economic Forum (2017). *Beyond Fin Tech: A Pragmatic Assessment of Disruptive Potential in Financial Services*. Retrieved from: <https://www.weforum.org/reports/beyond-fintech> → Emphasizes mutual dependence between banks and FinTechs, and the growing ecosystem including unicorns and dragons.
7. Lemma, V, *European Approaches to Fintech: The Role of Regulation and the Evolution of Supervision*. In: *FinTech Regulation*. Palgrave Macmillan, Cham (2020). https://doi.org/10.1007/978-3-030-42347-6_4
8. EPRS | European Parliamentary Research Service Authors: Carla Stamegna and Cemal Karakas Members' Research Service PE 635.513 – February 2019, *Fintech (financial technology) and the European Union State of play and outlook* Singapore reference- <https://www.mas.gov.sg/development/fintech/regulatory-sandbox>
9. U.S. Securities and Exchange Commission (SEC) – Regulation Crowdfunding Amendments, 2021 <https://www.sec.gov>
10. European Commission – European Crowdfunding Service Providers Regulation https://ec.europa.eu/info/business-economy-euro/banking-and-finance/securities-markets/crowdfunding_en
11. UK Financial Conduct Authority (FCA) – Rules for Investment-Based and Loan-Based Crowdfunding, <https://www.fca.org.uk/firms/crowdfunding>
12. RBI Guidelines on NBFC-P2P Lending Platforms (India) – 2017, updated 2021 <https://www.rbi.org.in>
13. OECD (2022), "Fintech and Sustainable Finance: Disclosure Practices in Crowdfunding" <https://www.oecd.org>
14. Wang, Jen-Sheng & Chen, Yen-Tzu, "Configuring the RegTech business model to explore implications of FinTech" *Egyptian Informatics Journal*. 26. (2024) 100483. 10.1016/j.eij.2024.100483
15. Financial Stability Board (FSB) (2022), *FinTech and Market Structure in Financial Services: Implications for Financial Stability*, <https://www.fsb.org/2022/02/fintech-and-market-structure-in-financial-services-implications-for-financial-stability/>
16. International Monetary Fund (IMF) (2022). **Title:** The Rapid Growth of Fintech: Vulnerabilities and Challenges for Financial Stability **Link:** <https://www.imf.org/en/Publications/WP/Issues/2022/04/07/The-Rapid-Growth-of-Fintech-Vulnerabilities-and-Challenges-for-Financial-Stability-516406>
17. Global FinTech Rankings by Findexable (2021–2023), *Global FinTech Index*, <https://findexable.com>
18. Merton, R. C. (2018). Fintech and the future of financial services: What's next? *Journal of Financial Perspectives*, 5(1), 1–14.
19. Zetsche, D. A., Buckley, R. P., Arner, D. W., & Barberis, J. N. (2020). Decentralized Finance (*DeFi*). *Journal of Financial Regulation*, 6(2), 172–203. <https://doi.org/10.1093/jfr/fjaa010>
20. Zetsche, D. A., Buckley, R. P., Arner, D. W., & Barberis, J. N. (2017). From FinTech to TechFin: The regulatory challenges of data-driven finance. *New York University Journal of Law and Business*, 14(2), 393–446.
21. OECD. (2022). *G20/OECD High-Level Principles on Financial Consumer Protection*. Organisation for Economic Co-operation and Development.
22. World Bank. (2017). *Good Practices for Financial Consumer Protection*. World Bank Publications. Basel Committee on Banking Supervision. (2018). *Customer Due Diligence and Financial Consumer Protection*. Bank for International Settlements.

23. Narula, Manjot Kaur and Sah, Ashish, The Evolution of the Fintech Industry in India: Growth, Challenges, and Future Prospects (November 15, 2024). Proceedings of the 3rd International Conference on Optimization Techniques in the Field of Engineering (ICOFE-2024), Available at SSRN: <https://ssrn.com/abstract=5066779> or <http://dx.doi.org/10.2139/ssrn.5066779>

24. Kou, G., Lu, Y. FinTech: a literature review of emerging financial technologies and applications. *Financ Innov* **11**, 1 (2025). <https://doi.org/10.1186/s40854-024-00668-6>

25. Vijayagopal, Preethi & Jain, Bhawana & Viswanathan, Shyam. (2024). Regulations and Fintech: A Comparative Study of the Developed and Developing Countries. *Journal of Risk and Financial Management*. 17. 324. 10.3390/jrfm17080324.

26. Faisal, Reena & Amekudzi, Carl & Kamran, Samira & Fonkem, Beryl & Tawo, Obah & Awofadeju, Martins. (2023). The Impact of Digital Transformation on Small and Medium Enterprises (SMEs) in the USA: Opportunities and Challenges.

27. Tanday, Amardeep, Fintech's Evolution and Disruption: Examining Collaborative and Competitive Dynamics with Traditional Banks in India (December 07, 2024). Available at SSRN: <https://ssrn.com/abstract=5047295> or <http://dx.doi.org/10.2139/ssrn.5047295>

List of Tables:

Table	Title
Table:1	Regulatory Activities in Banking and Non-Banking sectors in Global Economies
Table :2	Disclosure and Regulatory activities and the Law enforcing authorities in the select countries

List of figures:

Figure	Title
Figure :1	FinTech in new era of Banking Dimensions
Figure:2	Global FinTech Market share, By End Use, 2024