FinTech in India: present status and looming issues

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Structure of this talk

- What is FinTech
- Governing framework: Information, Payments, Business models and the role of technology
- The FinTech industry in India
- Policy status, Looking forward
What is FinTech
Definition

- Financial Stability Board (2017):
  
  “...technologically enabled financial innovation that could result in **new** business models, applications, processes, or products with an associated material **effect** on financial markets and institutions and the provision of financial services.”

  (Emphasis added)

Same functions; New mechanisms of delivering finance.
Classifying financial functions and delivery

Traditional (FSB, 2017) –

1. payments, clearing and settlement  
2. deposits, lending and capital raising  
3. investment management and market support  
4. insurance

FinTech (Schindler, 2017) –

1. distributed ledger technology  
2. machine learning and online marketplace lending,  
3. equity crowdfunding  
4. insurance FinTech  
5. robo-advice
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Key take-aways

▶ Goals of FinTech: Higher financial inclusion; competition to existing financial firms.

▶ How can competition make a material impact on existing financial firms?

Through a focus on function vs. (institutional) form (Merton and Bodie, 2005)

▶ FinTech is about new business models that disrupt existing business models by:
  ▶ Identifying functions in finance and
  ▶ Uses technology to deliver functions separately
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Key take-aways: Advantages, Challenges

- Advantage #1: Delivery at lower cost, higher efficiency
- Advantage #2 (?): Higher diversification across traditional service providers → lower systemic risk.
  - Systemically important financial firm
  - Payment system capture
- Challenge #1: New sources of systemic risk
  - Lack of data protection
  - Systemic model failure → distortions in delivery (exacerbated financial exclusion)

Finance is critical to an economy.
But! Regulators worry greatly about challenges.

⇒ FinTech may face higher regulatory / policy risk.
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The “function vs. form in finance” framework for FinTech
What makes FinTech work

There are three main components where FinTech has an advantage over traditional finance:

- Payments systems
- Information systems
- Business models enabling transactions
Payment systems

Every (financial) transaction touches upon the payments system.

▷ Formal finance: accounts that could be debited by cheques. Only banks could issue cheques ← access to payment system.

▷ Innovation #1: Credit cards. Next: Money market mutual funds issuing cheques. Present day: digital wallets, cellphones as payment channels.

▷ Important for ease of transactions: (1) access to the payments system and (2) inter-operability across channels. This is where the role of the State (policy) is important.

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Role of information

- Core of finance → contracts allowing counterparties to move funds to each other at different points in time. Example: credit (simple). Example: insurance (less simple).
- This requires trust. Trust requires information.
- When there is information asymmetry, finance cannot work well.
- Systems that generate information about contract performance help finance.
- How does this play out for FinTech?
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FinTech and information

- Technology has helped make transaction history transparent: for individuals and firms.
- Example: Online transactions $\rightarrow$ generate transaction history.
- Example: Online transactions $\rightarrow$ machine learning $\rightarrow$ prediction about preferences.
Preferences + Payments + Information = . . .

- Technology platforms → small valued transactions → learning models about credit worthiness for new borrowers / entrepreneurs.
- Traditional models exist (Joint Liability Groups in the Micro Finance Industry) but technology allows speed and scale.

Enabling credit transactions that is supported by a new way of understanding credit potential?

FinTech!
Role of the business model in FinTech

FinTech happens when all three elements described previously integrally involves a financial decision (credit/investment, risk management, advice about these).

To build it requires up-front investment.

- Technology needs to be built.

  For what customer base? What scale? What is the required capability?

- Payment systems interfaces to be built and need to be licensed.

  Is direct access available? What is the cost of procuring licenses? What is the cost of interoperability?

- Information systems need to be designed and purchased.

  Is direct access available? What is the cost of procurement?

Business models to achieve scale and permanence in FinTech.
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Business model concerns

**Business model viability:** what is the expected demand? what is the expected profit? under what conditions? what is the investment required? over what horizon? when can it become profitable? under what conditions – what are the business model risks?

who is the team?

**Regulatory concerns:** Is this business model possible under the laws and regulations? What systemic risks can it pose? Will this change? How to manage business risk when regulations change?

**Supporting financial market ecosystem:** Is there a plethora of financing choices to support the pricing and risk of the business models? How deep are the equity and bond markets? Are they sophisticated enough to take the long-run risks that some of the business models require?
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FinTech in India
Indian payments systems

- Combination of a monopoly payment system provider and payment gateways.
  - PSP – National Payments Corporation of India (NPCI) regulated by the Central Bank (RBI).
  - Payment gateway providers – multiple firms adhering to in the Payments Card Industry Data Security Standards (PCI DSS).

- NPCI supports
  - *Digital payments* through two types of channels called Unique Payment Interface (UPI) and Immediate Payment Service (IMPS), and
  - *Mobile banking* transactions.

This allows for digital wallets like PAYTM.

- Examples of some payment gateways include RAZORPAY, PAYYOUBiz.
Information for finance in India

- A single unique nation-wide ID, Adhaar. This is linked to all bank accounts today and can help as the unique identifier for all persons across all important transactions.

- Credit bureaus: Credit Information Bureau of India, Ltd. (CIBIL) to which all banks are required to report defaults above a threshold.

  Several smaller firms tracking credit information of the customers of micro-finance firms.

- Information utilities (new structure created under the Insolvency and Bankruptcy Code, 2016).
The Indian FinTech business ecosystem

- deposits, lending and capital raising:
  - P2P Lending Platforms: Faircent, LendBox
  - Alternative Lenders: LendingKart
  - Alternative credit-risk modelers, credit enablers: Algo360, CreditMantri
  - Credit Products Comparators: BankBazaar, Paisabazaar
  - Crowdfunding: Let’s Venture, 1Growth, Milaap

- investment management and market support
  - Robo Advisory: OroWealth, FundsIndia
  - Mutual Funds Aggregators: BharosaClub, Zerodha Coin
  - Personal Finance Management: Walnut
  - Hybrid Platforms: Paisabazaar

- insurance
  - Aggregators: Policy Bazaar, EasyPolicy
  - Insurancetech: Bajaj Allianz, Videocon Liberty

Challenges ahead for FinTech in India
FinTech for financial inclusion

- Financial inclusion: stated policy in India as far back as 2000.
- Several policy initiatives in the last five years to increase number of bank accounts opened (2015) and to move to a cashless economy (demonetisation, 2016).
- Number of bank accounts have increased.
  Yet, digital payments still remains to be sought by policy.
  **Source:** *Report of the High level committee on the deepening of digital payments*, RBI, March 2019.
- Information systems have been built.
  But these need to be readily accessible to undertake investment decisions by debt or equity.
  Data privacy laws can be a challenge in accessing information to build targetted financial products and services.
Cash vs. digital transactions, cross-country comparisons

Even within the rich world, the most digitised societies use cash least often.

Source: The Economist
Inherent challenges of India

- Large geography, large population.
- More important, *heterogenous* population → this requires different business models. The same business model will not work in different regions in India.
- Solution?
  - More competition in the financial sector.

FinTech is the more cost-effective way to create competition, particularly in an emerging economy.
Trouble on building competitive finance

- Indian policy has been pro-control and anti-competition. Example: Banking sector licenses are difficult to get, even with the mandate of financial inclusion.
- Dominated by monopolies in the payment systems (by law) and monopolies in the information space. Example: CIBIL, NPCI, RBI’s recent announcement of a single national public credit registry.
- Traditionally, in India financial business models cannot operate unless explicitly licensed.
- Licensing criteria is not risk-based; non-bank financial firms are treated equal to banks, even without the benefit of deposit-taking.
- Uncertainty: Frequent, sudden changes in the regulations on requirements and access. Example: recent notification from the Central Bank prohibiting non-banking finance firms from accessing credit information, changes in disclosure requirements by defaulting firms from the securities regulator.
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Way forward?

- Measurement systems: to capture the extent of financial inclusion beyond the number of bank accounts.
- Better regulatory governance: regulators must adhere to better processes when making regulations to eliminate regulatory risk and uncertainty for FinTech firms.
- Policy must shift to more competition and innovation and less central planning.
- Policy must have a holistic perspective and not try to develop FinTech in isolation.

Without a well-developed overall financial market with well functioning bond, equity and derivatives markets, FinTech will not be able to raise finances to grow.
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Comments / Questions?