Overview and Oversight of Payment & Settlement Systems in India
Main Functions of RBI

- Monetary Authority
- Regulator and Supervisor of Financial System
- Regulation and Oversight of Payment and Settlement Systems
- Manager of Foreign Exchange
- Issuer of Currency
- Developmental Role
- Banker to Government
- Banker to Banks
Regulates the payment system to provide a bouquet of safe, secure, convenient, affordable digital payment options

Oversight of payment systems from the perspective of their design, operations and risk management

Operator of Large Value Payment Systems – RTGS and other critical payment infrastructure – Providing settlement services

Catalyst – Determining development needs and setting priorities for PSPs; providing fertile environment for Research and Innovation
Journey of Payment System in India

1980 • ATMs, MICR clearing, Cards

1990 • Internet Banking, ECS, EFT

2004 • Real Time Gross Settlement - RTGS

2004 • National Financial Switch - NFS

2005 • Electronic Funds Transfer - NEFT

2008 • Image based cheque clearing - CTS
2008 • Prepaid Payment Instruments - PPI
2010 • 24x7 instant, P2P – IMPS
2011 • Biometric based - AePS
2012 • White Label ATMs – WLA
2012 • Unique ID based DBT - APBS
2012 • Domestic Card Scheme - RuPay
Journey of Payment System in India

2013
• National Automated Clg House - NACH

2013
• SMS based payments - USSD

2016
• 24x7 instant, P2P, P2M – UPI

2016
• Electronic Toll Collection - NETC

2016
• Bill Payment – BBPS

2017
• MSME receivable financing - TReDS
Payment Systems in India: Unique Measures

- 2009: Card Transactions - 2FA and Online Alerts
- 2010: 24x7 Instant Payments System - IMPS
- 2010: Positive Confirmation in NEFT
- 2016: Common QR code standards - Bharat QR
Volumes : 2014-15

- RTGS: 1%
- CCIL Operated Systems: 3%
- Paper Clearing: 1%
- Retail Electronic Clearing: 10%
- Cards: 14%
- Prepaid Payment Instruments (PPIs): 71%
- Mobile Banking: 0%
Volumes: 2018-19

- RTGS: 0%
- CCIL Operated Systems: 3%
- Paper Clearing: 18%
- Retail Electronic Clearing: 20%
- Cards: 46%
- Prepaid Payment Instruments (PPIs): 13%
- Mobile Banking: 0%
September 2019 - Payment Transactions in numbers

- **RTGS**
  - Vol = 11.22
  - Val = 93,831

- **Dr Cards**
  - Vol = 1,208.95
  - Val = 3,295

- **Paper Clg ~CTS**
  - Vol = 82.80
  - Val = 5,918

- **Retail Elect Clg**
  - Vol = 709.18
  - Val = 21,405

- **Mobile**
  - Vol = 1,107.64
  - Val = 3,166

- **Cr Cards**
  - Vol = 180.29
  - Val = 598

- **Cards O/S**
  - Cr = 52.6
  - Dr = 835.6

- **PPIs**
  - Vol = 403.36
  - Val = 179

- **Acceptance infra**
  - PoS = 45.9 mn
  - ATM = 227,886

**Volumes Sep 2019**
- RTGS: 11.22%
- Dr Cards: 10.15%
- Paper Clg ~CTS: 7.63%
- Retail Elect Clg: 16.58%
- Mobile: 24.11%
- Cr Cards: 0.94%
- Cards O/S: 5.12%
- PPIs: 0.04%
- Acceptance infra: 0.02%

**Values Sep 2019**
- RTGS: 93.831 billion
- Dr Cards: 3.295 billion
- Paper Clg ~CTS: 5.918 billion
- Retail Elect Clg: 21.405 billion
- Mobile: 3.166 billion
- Cr Cards: 0.598 billion
- Cards O/S: 21.405 billion
- PPIs: 0.179 billion
- Acceptance infra: 45.9 million
- ATM: 227.886 million

Customer transactions only; Interbank transactions excluded; Volume in million; Value in ₹ billion
Payment Systems in India – Overview

Financial Market Infrastructure - 01

Umbrella Organisation 01

Card Network 05

ATM Network 05

WLAO 08

PPI 104

BBPOU 48

TReDS 03
Policy Framework for Payment Systems

7A

Accessibility
Availability
Acceptability
Affordability
Assurance
Awareness
Appropriateness
Indian Retail Payments - Policy Perspectives

Key Drivers
- Financial Inclusion
- Move to a ‘Less Cash’ economy
- Demand for faster payments
- Interoperability
- Integration of government payments

Key Enablers
- Separate Act – PSS Act 2007
- Government Push - JAM
- Internet Penetration & Growth of Fintech
- Awareness and Education
Payment Systems in India – An Overview

- Retail
  - Cards Payment Networks
  - NACH, APBS, AEPS, BBPS, IMPS, UPI, NETC & NFS

- Cross Border Money Transfer

- Large Value
  - CCIL
  - RTGS

- Cheque Clearing – CTS & ECCS

- SSS for G-Secs

- NEFT

- NEFT

- WLAO

- PPI

- RTGS

- Large Value

- NEFT

- NACH, APBS, AEPS, BBPS, IMPS, UPI, NETC & NFS

- Cards Payment Networks

- Cross Border Money Transfer

- WLAO

- PPI
RBI Payment and Settlement Systems Vision 2021

**EMPOWERING EXCEPTIONAL (E)PAYMENT EXPERIENCE**

Forward Looking Vision for three years

Gives a road-map for measures to be taken during the period

Outlines the expectations from various stakeholders

Gives targets for digital transactions

Vision aims towards:

- Enhancing Customer Experience
- Empowering Payment System operators
- Enabling Ecosystem & Infrastructure
- Risk Focused Supervision
- Forward looking Regulation

Forward Looking Vision for three years:

- Gives a road-map for measures to be taken during the period
- Outlines the expectations from various stakeholders
- Gives targets for digital transactions
4C’S FOR VISION 2021

1. COMPETITION
2. COST
3. CONVENIENCE
4. CONFIDENCE

Goal Post For Payment System
**Expected Outcome**

**Reduction in cheque based payment to 2% of electronic txns by 2021**

**4-fold growth in digital transaction by Dec 2021**

**Payment transaction turnover to be 22.30 times the GDP by Dec 2021**

**Increase in Point of Sale (PoS) vs ATM ratio for card transactions**

**Reduction in Cash in Circulation (CIC) as a percentage of GDP**

**50% increase in mobile based payment transactions**

**Reduction in pricing**

**Reduction in TD by 10%, BD by 5% annually, improvement in TAT**

**Enhanced healthy competition - establishment of new PSOs**

**Acceptance infra to be upscaled 6 times by 2021**

**5 million active PoS by Mar 2021**

**Substantial increase in asset-lite infrastructure (QR Code)**
✓ SRO to be created with participation of industry players for security, consumer protection, pricing, payment standards.
Cost

Accessible & Affordable
Scalability and system capacity
Cross Border Payment charges
Increasing LEI usage for cross border payments
Inter-operability
Acceptance Infrastructure

✓ ‘Reduction in ‘per-transaction’ cost keeping in view of marginal costing approach; Shift from ad valorem rates to fixed pricing
✓ Pricing structure to be transparent and affordable
✓ Inter-operability in and among payment system operators /players
✓ Focus on proliferation of asset-lite infrastructure (QR Code based)
✓ Innovation led low cost devices
Convenience

- TAT
- Internal Ombudsman
- Widen use of Domestic cards
- 24*7 Helpline
- National Settlement Services (Cards)
- Adoption of new technologies
- Awareness
- Enhanced Retail payment services
- E-mandates / SI
- Customers Awareness Survey

- Online Dispute Resolution system
- Industry wide – 24x7 helpline and systematically planned customer orientation programmes
- Appointment of Internal Ombudsmen
- Single National Settlement account for all authorized card network
- Globalization of RuPay (UAE, Singapore and Bhutan); Creation of SBU
- Blockchain based clearing and settlement
**Confidence**

- More Coverage for CTS
- Contactless and Tokenization
- Third Party Risk management
- Increased Coverage for TReDS
- Enhanced Security for mobile payments
- Framework on data collection on frauds
- Geo-tagging of Payment system
- Integrity of payment systems
- Framework - testing resilience of PS
- Regulation of PG & PA

**Vision 2021**

- CTS – improvement in processes / features
- Geo-tagging - Messaging to be enhanced for all online systems
- NPCI can take lead in defining mobile payment standards
- Customized PCI standards to better suit / reflect Indian situation
Ensuring safety and efficiency of existing systems
Monitoring, Assessing and inducing change
Pre-requisites for Oversight

- Authority
- Standards
- HR Capacity
- Co-operation
Elements of Oversight Framework

- Legal Mandate
- Tools / Methodology
- Communicating the findings
- Corrective measures
Elements of Oversight Framework - Legal Mandate

Legal Mandate

- PSS Act, 2007
- BR Act, 1949
- RBI Act, 1934
Elements of Oversight Framework – Tools / Methodology

Off-site

Tools / Methodology

Market Intelligence

On-site

Banks: Common inspection

Non-banks: Decentralised to 4 ROs

SAT

SAR

Returns

Off-site
Elements of Oversight Framework – Communicating the findings

- Communication
  - One to one discussion during onsite inspection
- Risk Categorisation
- Inspection Report
- Exit Meeting
Elements of Oversight Framework – Corrective Measures

- Inspection compliance
- Warnings & Penalties
- Periodic Communication
Thank You!