Gravitywell Research

INSTITUTIONAL INVESTMENT INTELLIGENCE

INDIA / DIGITAL PUBLIC INFRASTRUCTURE & FINTECH

India's Financial Operating *System.*

The world's most ambitious digital public infrastructure is maturing into a programmable financial OS. This report sizes the market, scores its attractiveness, maps where the rent accrues, weighs the citizen — and lays out the trade.

$2.1tn	757m/d	41–84%	~₹10k cr
FINTECH TAM · 2030E	UPI TRANSACTIONS/DAY · RECORD, JUN 2026	EBITDA AT THE LISTED INFRA TOLL-BOOTHS	EST. ANNUAL VALUE OF A 0.3% UPI MDR

GWR-2026-IN-001 · V1.4 · JULY 2026 · GRAVITYWELL.IO

INSIDE THIS REPORT

CONTENTS

Market, Rent, Risk & the Trade

THE THESIS

India built its rails as public goods, priced at zero margin. The rent migrated to regulated, *listed* toll-booths at 41–84% EBITDA — richly priced. The new data rent is being ring-fenced by DPDP before it forms. **Own the moat; price the multiple; underwrite the risk.**

POINT-IN-TIME & GRADING

Data as of **1 July 2026**. FY26 = year ended Mar 2026. USD at **₹94.7/$** (RBI ref ~₹94.4, 29 Jun 2026). Every figure carries a data-quality grade A audited / B primary-estimated / C modelled (§Methodology). Not investment advice.

EXECUTIVE SUMMARY
00

The Rails Are Public. The Rent Is Private.

India has assembled the most complete stack of digital public infrastructure on earth — a $2.1tn-TAM financial OS from a 1.4-billion-person identity layer up through payments, consent-data, credit, commerce and capital markets.[1] Each rail was engineered as a low-cost public utility. The consequence for an allocator is counter-intuitive: **the value is not in the rails — it is in the regulated, mostly-listed choke-points the rails feed, and in who is permitted to monetise the data they generate.**

$2.1tn	~84%	42–64x	~0%
FINTECH TAM 2030E (§01)	PEAK EBITDA AT THE LISTED INFRA TOLL-BOOTH (IEX)	P/E AT WHICH THE INFRA COMPOUNDERS TRADE	MARGIN ON THE ZERO-MDR UPI PAYMENT RAIL

INDIA FINTECH — AT A GLANCE

DASHBOARD

MARKET

~$47bn revenue (2025) → $190bn (2030E, ~35% CAGR). 7,500+ firms · 30 unicorns · $51.1bn cumulative VC.[13,41]

SCALE

UPI 757m txns/day · 89% account ownership · 474m AA consents · ULI ₹1.75L cr disbursed.[2,10]

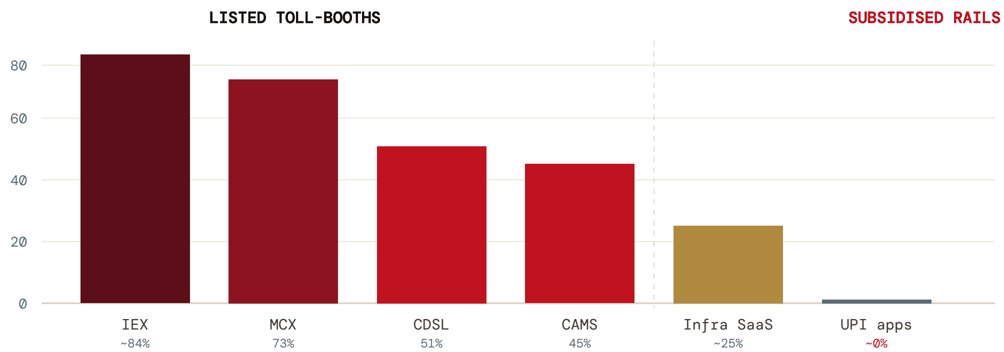
MACRO

GDP $3.9tn · real growth 7.6% · repo 5.25% · CPI 3.93% · INR 94.7 · DPI ~2% of GDP.[26,42]

Where the Margin Lives, Visualized

FIG. 0.1

EBITDA margin by layer — sourced to FY26 filings of the *listed* infrastructure names. The rails the public touches earn nothing; the regulated infrastructure behind them earns most.



SOURCE: FY26 company filings (IEX, MCX, CDSL, CAMS); GW estimates for infra-SaaS / acquirers. Full comps §07, valuation §08.[9]

EXECUTIVE SUMMARY — CONTINUED

00 · ii

Six Findings That Reframe the Trade

FINDING 01 · THE RAILS ARE LOSS-LEADERS

Public infrastructure, priced to mobilise — not to monetise.

UPI processes ~85% of digital payments and ~60% of the world's real-time transactions at zero MDR — a record 757m/day (Jun 2026, 22.72bn txns / ₹28.9L cr).[2,3] Adoption, not profit, was the design objective, and it succeeded.

FINDING 02 · RENT SITS IN LISTED TOLL-BOOTHS — PRICED

41–84% EBITDA, but 42–64x earnings.

IEX 84%, MCX 73%, CDSL 51%, CAMS 45% — confirmed by FY26 filings.[9] But the market prices regulatory threat over growth: IEX (slowest) is cheapest (~23x); BSE/MCX (fastest) the dearest (§08).

FINDING 03 · MDR IS A ~₹10K-CRORE OPTION

The largest payment network is the least profitable — for now.

A 0.2–0.3% large-merchant MDR is worth an estimated **₹6,000–16,000 cr/yr** to the industry, dropping at ~85–95% to profit. PhonePe (~46% of UPI volume, May 2026) has the most leverage. A Parliamentary panel backs tiered MDR (Mar 2026); not yet policy.[31]

FINDING 04 · DATA IS THE NEXT MARKET — NOW RING-FENCED

DPDP reshapes who can monetise the consent rail.

AA leads the world in users (474m consents, 820+ FIs); ULI has disbursed ₹1.75L cr.[8,10] But DPDP Rules (Nov 2025) wall the consent-manager off from monetising the data — value migrates to the analytics layer.[17]

FINDING 05 · THE RISK LIVES IN THE UNSECURED TAIL

And the cautionary mirror is China's Ant.

Household debt has climbed to 45.5% of GDP (Sep 2025) but stays manageable; unsecured loans are 53% of retail slippages and fintech books are >70% unsecured.[16] Concentration in two foreign-controlled apps (~79%, below 80% for the first time) is the Ant-crackdown risk India has deferred three times (§18).

FINDING 06 · ACCESS IS WON; USAGE, TRUST & EXPORT ARE NOT

The unpriced risks are the citizen and the hype.

89% own accounts but 16% sit inactive; bank fraud hit ₹48,021cr (FY26, +46% YoY); ~350m feature-phone users are excluded; 1-in-5 users have been defrauded.[21,23,44] And the "DPI exporter" bull case still rests on ~₹330cr of cross-border UPI (FY26-to-date, §18).

> *"India built a financial operating system — gave the rails away, kept the toll-booths, and is now writing the rules for the data. The trade is everything bolted to the rails that the state could not give away — bought at the right multiple."*
>
> GRAVITYWELL RESEARCH — EDITORIAL THESIS

EXECUTIVE SUMMARY — CONCLUSION

00 · iii

What To Do With This

PUBLIC-MARKET ALLOCATORS

Own the toll-booths — at the right multiple.

CDSL, CAMS, BSE, MCX compound at 41–84% EBITDA but trade 42–64x and are *beta to market volumes*, not defensives. IEX is a regulatory-discount trap. Buy the structure; underwrite the cycle and the multiple (§08).

PRIVATE GROWTH & VC

Back profitable infra; price the reset.

Perfios (PAT +₹104cr) and lending-led names over cash-burning rails (M2P loss ₹256cr). Wealthtech +258% funding. 2022 marks reset 30–45% at IPO — Razorpay filed, PhonePe paused (§11–12).

POLICYMAKERS & REGULATORS

Price the rail; bank the impact.

A tiered MDR restores an investable payments economy without taxing the citizen. The sector is 250k→400k jobs and ~2% of GDP; harden the single point of failure and measure inclusion outcomes (§19–20).

THE ONE-LINE CONCLUSION

India’s financial OS is a finished public good with an unfinished profit model and an unwritten risk model. Capital compounds at the listed choke-points — at a price; the new data rent is walled off as it forms; the citizen carries a fraud-and-exclusion tail; and the export bull case is, so far, diplomacy. **Own the moat the state built; pay the right multiple; underwrite the rail — and the risk — it has not yet priced.**

WHAT V1.4 ADDS FOR THE PROFESSIONAL READER

v1.4

- **Data refreshed to 1 Jul 2026** — Jun-2026 UPI (22.72bn / ₹28.9L cr), the Jun-2026 RBI Financial Stability Report (household debt 45.5%, GNPA 1.8%), and RBI Annual Report FY26 bank-fraud (₹48,021cr).
- **§08·ii Liquidity & fair value (new)** — free float, FII headroom, F&O and a fair-value multiple band for the seven listed toll-booths.
- **§08 MDR sensitivity (expanded)** — full large-merchant × MDR grid; leverage ranking quantified.
- **§22 Monitoring dashboard (new)** — dated catalysts *and* tripwire KPIs to track the thesis.
- **Corrections** — microfinance stress restated to MFIN PAR (not a 16% GNPA); demat growth reframed to the FY26 slowdown; IEX coupling timeline updated (APTEL dismissal, Feb 2026).
- **Methodology** — confidence rating, change log, AI-assisted-analysis disclosure and a per-section data-vintage table.

THE 90-SECOND VERSION

QUICK READ

Five Calls, Five Risks

The calls favour the regulated and infrastructural over the subsidised and consumer-facing — at a disciplined entry price. The risks are policy, credit-tail, concentration and trust, not adoption.

FIVE CONVICTION CALLS

CONVICTION

1 · Own the listed toll-booths

HIGH

CDSL, CAMS, BSE, MCX — 41–84% EBITDA. But market-volume beta at 42–64x; buy on cycle pullbacks. → §07,08

2 · Back profitable picks-and-shovels

HIGH

Perfios (PAT +₹104cr), wealthtech (+258% funding) over cash-burning rails and MDR-capped apps. → §11,12

3 · Hold MDR reform as a ~₹10k-cr option

MEDIUM

PhonePe/Razorpay/Paytm carry the leverage. Asymmetric, binary, politically gated — size it small. → §08,14

4 · Underwrite AA/ULI net of DPDP

MEDIUM

ULI past ₹1.75L cr; the consent-manager wall caps who monetises — own the analytics layer. → §09,14

5 · Avoid the unsecured tail & the de-rating moat

HIGH

Fintech books >70% unsecured; IEX moat under market-coupling attack. → §15,08

FIVE MATERIAL RISKS

SEVERITY

■ **Zero-MDR persists** No reinstatement keeps the payments layer structurally unprofitable.	HIGH STRUCTURAL
■ **Unsecured / thin-file NPA** 53% of retail slippages; fintech 36% growth, >70% unsecured.	HIGH ACTIVE
■ **Concentration → Ant risk** ~79% UPI in two foreign-owned apps; 30% cap deferred 3×.	HIGH DEFERRED
▪ **Systemic single point** NPCI runs the whole rail; 4 major UPI outages in 14 months.	MEDIUM RECURRING
◦ **Trust & exclusion** Fraud ₹48,021cr (FY26); 1-in-5 defrauded; ~350m feature-phone excluded.	MONITORED REPUTATIONAL

■ HIGH ▪ MEDIUM ◦ MONITORED

THE BOTTOM LINE

Treat India's financial OS as a utility with a few richly-priced, cyclical private toll-booths attached. The compounders are regulated and infrastructural — buy them on the cycle, not the story; the optionality is a repriced rail and a ring-fenced data market; the risk is a credit tail, a concentration mirror to China's Ant, and a trust deficit the aggregates hide.

PART I · THE MARKET
SECTIONS 01 — 03

The Size & the *Shape*

Before the trade, the market: how big the opportunity is, how attractive its structure, and where it sits on the strategic map — sized, force-scored, and framed.

READING
Pages 07 — 09

KEY FIGURE
$2.1tn TAM · 2030

WHAT YOU'LL TAKE AWAY

01
The market, sized
TAM/SAM/SOM funnel by segment, with the analyst variance reconciled.

02
The structure, scored
Porter's Five Forces — and why the toll-booths win, not the platforms.

03
The strategic frame
A formal SWOT and a PESTLE for the macro, political and legal lens.

MARKET SIZING
01

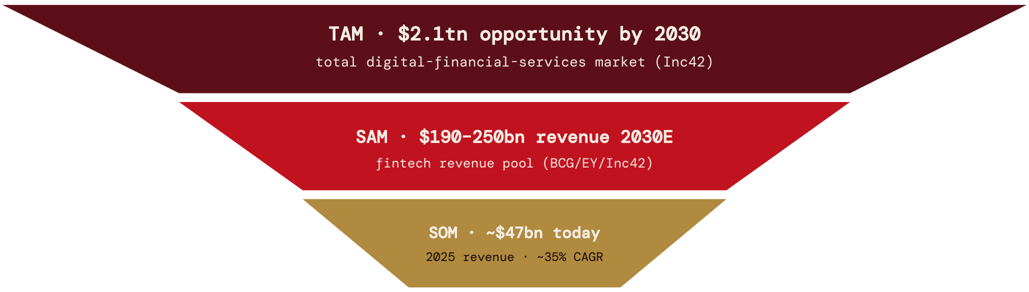
TAM, SAM & SOM

India fintech is a $2.1tn *opportunity* but a ~$47bn *revenue* business today — a 45x gap that is the whole bull case, and the whole trap. Confuse the two and you over-size every segment ~10x.

The Sizing Funnel — Opportunity vs Revenue vs Obtainable

FIG. 1.1

TAM = total digital-financial-services opportunity; SAM = fintech revenue pool; SOM = today's captured revenue. Note the unit shift from market-opportunity to revenue.



SOURCE: Inc42 State of Indian Fintech 2025 (TAM); BCG/EY (revenue); Inc42 (~$47bn 2025). TAM is market-opportunity, not revenue — the two are ~45x apart.[13,41]

TABLE 1.1 · SEGMENT SIZING — CURRENT MARKET & 2030 TRAJECTORY

SEGMENT	MARKET 2025	FORECAST	CAGR	GRADE
Digital payments	~$6.8B	~$7.9B (2026)	16-22%	B
Digital lending (platform)	~$0.5B ('24)	$2.45B (2030)	31.5%	B
Lending (TAM)	—	$1.3T (2030)	>60% of TAM	C
Wealthtech	~$0.15B (FY24)	21% CAGR	+258% fund.	B
Insurtech	$0.9-10B*	$11.9B (2033)	29-55%	C
Neobanking	—	$253B TAM ('30)	~20%	C
Fintech revenue	~$47B	$190-250B ('30)	~35%	

*Insurtech 2024 baseline ranges $0.9–10B across analysts (~5x) by scope (solutions-only vs end-to-end). Treat all segment forecasts as directional; analyst TAM/CAGR figures vary widely and are graded C unless a named filing supports them.[41,43]

THE REVENUE SPLIT THAT MATTERS (VS THE TAM TRAP)

Of the ~$190bn 2030 *revenue* pool, only lending's ~50% share is analyst-disclosed (§12); the rest is modelled. **Never apply the $2.1tn TAM segment shares to the $190bn revenue base — a ~10x error** that recurs across India fintech decks. The investable number is the revenue pool and who captures its margin (§06), not the headline TAM.

INDUSTRY STRUCTURE

02

Porter's Five Forces

The same five forces score very differently across the three tiers of the stack — which is precisely why the toll-booths are attractive and the platforms are not. Higher force = lower attractiveness.

TABLE 2.1 · FIVE FORCES BY TIER (■ HIGH FORCE / ▪ MEDIUM / ◦ LOW — HIGH FORCE = WORSE FOR INCUMBENTS)

FORCE	RAILS (UPI/AA)	TOLL-BOOTHS (CDSL/CAMS)	PLATFORMS (APPS)
Competitive rivalry	◦ Low (NPCI mono)	◦ Low (duopoly)	■ High (price war)
Threat of new entry	◦ Low (gatekept)	◦ Low (licence moat)	▪ Med (Navi, super.money)
Supplier power	▪ Med (banks)	◦ Low	■ High (NPCI + banks)
Buyer power	■ High (zero-MDR)	◦ Low (captive)	■ High (multi-homing)
Substitutes	▪ Med (cards)	◦ Low (compulsory)	▪ Med (cash 60% rural)
Attractiveness	Utility — not investable directly	★★★★★ Most attractive	★☆☆☆☆ Least attractive

TOLL-BOOTHS — WIN

Low rivalry (regulated duopolies), high entry barriers (RBI/SEBI licences), captive buyers on compulsory activity, no substitute. The structurally attractive tier — at a price (§08).

RAILS — UTILITY

NPCI's monopoly kills rivalry, but buyer power (zero-MDR merchants) extracts all the surplus to the citizen. Not directly investable; the value leaks downstream.

PLATFORMS — LOSE

Brutal rivalry, powerful suppliers (NPCI + banks), multi-homing buyers with zero switching cost, cash still a substitute. Margins compressed to ~0 (§07). Avoid as a toll-booth proxy.

The Five Forces verdict *is* the report's thesis in one frame: the only tier where all five forces favour the incumbent is the regulated infrastructure. Everything bolted to the rails fights a structurally hostile market.

STRATEGIC FRAME

03

SWOT & PESTLE

STRENGTHS

- World-leading DPI; 1.4B identity base; 757m UPI txns/day.
- Regulated toll-booths at 41–84% EBITDA.
- ₹81.6L cr MF AUM & SIP ₹30,954cr/mo tailwind.

WEAKNESSES

- Zero-MDR — no payments-layer margin.
- ~79% concentration; >70% unsecured fintech books.
- Fraud ₹48k cr; ~350m excluded; thin data monetisation.

OPPORTUNITIES

- ₹30L cr MSME credit unlock (AA/ULI).
- Tiered MDR ~₹6–16k cr/yr; credit-on-UPI.
- DPI export; wealthtech (+258% funding).

THREATS

- DPDP ring-fence; IEX market coupling.
- Ant-style forced intervention on concentration.
- NPCI single point of failure; US Section 301.

TABLE 3.1 · PESTLE — THE MACRO, POLITICAL & LEGAL LENS

FACTOR	SIGNAL	NET
Political	Zero-MDR populism into 2029; DPI as soft power; tiered-MDR recommended but not enacted	MIXED
Economic	GDP $3.9tn, real growth 7.6%, repo 5.25%, bank credit +15.9%, household savings recovering	TAILWIND
Social	89% account ownership but 16% inactive; ~350m excluded; fraud & literacy gaps	MIXED
Technological	UPI/AA/ULI mature; AI 21% adoption / 11% production; agentic & CBDC nascent	TAILWIND
Legal	DPDP Rules, Digital Lending & Co-Lending Directions, 125% risk-weight — compliance opex rising	HEADWIND
Environmental	Green-fintech / climate-tech $5.1bn (2nd globally); DPI rails for green subsidies & carbon credit; SEBI BRSR	EMERGING

> Net PESTLE read: a strong economic & technological tailwind, a hardening legal headwind, and a politically-gated payments-pricing question — the configuration that keeps the toll-booths compounding while the rails stay margin-free.[26,27,42]

PART II · THE STACK
SECTIONS 04 — 05

The Architecture of the *OS*

Seven layers, modelled on a protocol stack — publicly developed, privately provisioned, regulatorily governed. And the rail that conquered the world by volume while earning nothing: UPI.

READING
Pages 10 — 11

KEY FIGURE
757m UPI txns/day

WHAT YOU'LL TAKE AWAY

01
A layered map of the stack
Identity bedrock to markets & wealth, with each layer's competitive structure.

02
UPI in global context
Benchmarked vs Visa, Mastercard, PIX, FPS — and the 2026 share reversal.

03
The zero-MDR trap
Why the most-used rail is the least-investable — valued in §08.

ARCHITECTURE
04

The 7-Layer Financial Stack

Modelled on the OSI protocol stack — each layer publicly developed, privately provisioned and regulatorily governed. Maturity rises from a universal identity bedrock to a near-monopoly markets layer.

TABLE 4.1 · THE INDIA STACK, LAYER BY LAYER (TOP = MARKET-FACING)

#	LAYER	KEY INFRASTRUCTURE	STATUS
7	**Markets & Wealth**	CDSL · NSDL · CAMS · KFin · BSE · NSE · MCX · IEX · GIFT/IFSCA	MONOPOLY
6	**Programmable Money**	Digital Rupee e₹ (circulation *fell 24%* in FY26) · e-RUPI · UMI	EARLY
5	**Commerce Protocol**	ONDC (Beckn) · 450M+ txns · mobility ~56% · ~85% retail sellers inactive	STALLING
4	**Credit Infrastructure**	OCEN / ULI (₹1.75L cr) · CIBIL · Experian · Equifax · CRIF · GST Sahay	PROVEN
3	**Consent Data Layer**	Account Aggregator (DEPA) · 474M consents · 820+ FIs · NBFC-AAs	SCALING
2	**Payments Rail**	UPI (757m/day) · IMPS · AePS · FASTag · Bharat BillPay · NPCI · 703 banks	DOMINANT
1	**Identity Bedrock**	Aadhaar 1.4B · eKYC ($0.15/ID) · DigiLocker 676M · eSign · UIDAI	UNIVERSAL

Cross-cutting: credit bureaus · AI underwriting (§19) · embedded-finance APIs · agentic payments (§21). e₹ retail circulation fell to ₹772cr (Mar 2026, −24% YoY); ONDC growth has migrated from retail to transit ticketing.[4,5]

BUILT PUBLIC

Layers 1–3

Identity, payments and consent — universal reach, near-zero unit cost, no native margin. The data they generate is the contested prize (§09, §14).

CONTESTED MIDDLE

Layers 4–6

Credit, commerce and programmable money — public protocol meets private execution. Mixed traction: ULI scaling, ONDC stalling, e₹ shrinking.

THE RENT LAYER

Layer 7

Markets & wealth — regulated near-monopolies on compulsory activity. The structural home of excess returns, and mostly *listed* (§06–08).

PAYMENTS RAIL · GLOBAL BENCHMARKS

05

UPI Is the World's Payment OS

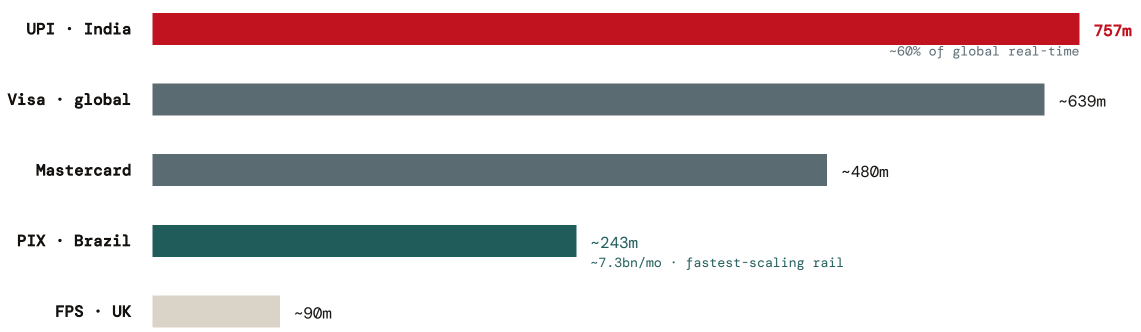
By daily volume, UPI has surpassed Visa. By real-time share, it *is* India's economy — ~85% of digital payments and ~60% of global real-time transactions, across nine live international corridors.

22.72bn TXNS · JUN 2026 · ₹28.9L CR	**757**m/d DAILY RECORD · JUN 2026	**~29**% P2M SHARE OF UPI *VALUE*	**9** LIVE INTERNATIONAL CORRIDORS

Daily Transaction Volume — Global Networks

FIG. 5.1

Approximate transactions per day, millions. UPI has passed Visa on volume while remaining a domestic, zero-MDR rail.



SOURCE: NPCI (Jun 2026); IMF; RBI Annual Report; BCB (PIX). Visa/Mastercard are global, all-rail; UPI & PIX are domestic real-time.[2,3]

UPI SHARE · VOLUME · THE 2026 REVERSAL

APP	DEC 2025	MAY 2026
PhonePe (Walmart)	45.35%	46.26%
Google Pay (Alphabet)	34.64%	32.75%
Paytm	7.65%	7.91%
Navi / super.money / others	12.36%	13.08%

~79% in two foreign-controlled apps (May 2026 — below 80% for the first time) — the concentration the 30% cap (deadline 31 Dec 2026, deferred 3×) is meant to break. The Ant parallel: §18.[2, 32]

INVESTMENT IMPLICATION

Zero-MDR caps app profit at break-even. P2M is ~63% of UPI *volume* but only ~29% of *value* (tiny-ticket QR dominates) — the number that governs any MDR calculation (§08). Credit-on-UPI (~16% of card spends now on RuPay) is the live monetisation wedge.[31]

228bn UPI TXNS · CY2025	**~85%** OF INDIA DIGITAL PAYMENTS	**9** LIVE CORRIDORS (UAE, SG, NEPAL...)	**703** BANKS LIVE ON NPCI RAILS

PART III · WHERE THE RENT ACCRUES
SECTIONS 06 — 10

The Toll-Booths & the *Data Market*

Profits concentrate in a thin layer of regulated near-monopolies — mostly listed, richly priced. The data rent forms on top, ring-fenced by DPDP. And the value chain shows exactly where the margin pools sit.

READING

Pages 12 — 17

KEY FIGURE

41–84% EBITDA · 42–64x

WHAT YOU'LL TAKE AWAY

01

Where margin concentrates — & its ₹ size

Nine pools, the tier line, the absolute revenue, and the value chain.

02

The comps and the valuation

FY26 multiples, multiple history, cyclicality and the MDR option.

03

The AA / ULI unlock

India's open-finance ecosystem vs Plaid — net of the DPDP wall.

VALUE CAPTURE · PROFIT-POOL ANALYSIS

06

Where Economic Rent Accrues

The rails are zero-margin utilities. Profit concentrates in regulated near-monopolies — but the "toll-booth" label holds only for the licensed infrastructure, not the platforms. And the pools, in ₹, are smaller than the throughput implies.

High rent · 40–84% EBITDA   Medium · 15–40%   Thin / competitive

TABLE 6.1 · PROFIT POOLS — MARGIN, ₹ REVENUE POOL, AND WHETHER THE THESIS APPLIES

POOL	EBITDA	INDUSTRY REV POOL	STRUCTURE	TOLL?
Power/Comm. Exch.	73–84%	≈₹2,900cr A	IEX · MCX	YES
Depositories	~51%	≈₹2,900cr A	CDSL · NSDL · 22.5Cr demat	YES
Stock Exchange	48–64%	BSE ₹4,834cr A	BSE listed · NSE unlisted	YES
Fund RTAs	41–45%	≈₹2,800cr A	CAMS (~68%) · KFin (~32%)	YES
Credit Bureaus	~50–60%	≈₹2,000cr B	CIBIL · Experian · Equifax · CRIF	YES
PA / PG gateways	~25%	₹3.5–4.5k cr net C	Razorpay · Pine Labs · Cashfree	PARTIAL
Broking platforms	~35% op	competitive	Angel One · Zerodha · Groww	NO
Payment/insur. plat.	~6–10%	thin	Paytm · PB Fintech	NO
UPI / ONDC apps	~0 / neg.	~0 MDR	PhonePe · GPay · ONDC apps	NO

The whole digital-payments *gross* revenue pool is ≈₹2.5–4.2L cr C — but India earns ~0 MDR on ~$3.4tn UPI throughput, so monetisation has migrated downstream to lending/insurance. Each toll-booth pool is only ₹2,000–4,800cr absolute — high-margin, slow-compounding annuities, not vast markets.

KEYSTONE THESIS — REFINED

The "Visa, Moody's and Bloomberg" of India are **CDSL, CIBIL and CAMS** — toll-booths at 41–84% EBITDA. The thesis does *not* extend to the platforms (Paytm, Angel One, PB Fintech). Buy the licensed infrastructure; the platforms are a thinner, more competitive trade (§02 Five Forces confirms it).

PUBLIC COMPARABLES · FY26

07

The Listed Toll-Booths

The thesis is testable: most names are listed with audited FY26 filings. The infra layer confirms 41–84% EBITDA and regulatory moats. The platforms do not qualify.

TABLE 7.1 · INDIA FINANCIAL-INFRASTRUCTURE & FINTECH COMPS — FY26 (USD AT ₹94.7)

COMPANY	MKT CAP	REV (OPS)	EBITDA	PAT (YOY)	P/E
BSE	$16.8B	₹4,834cr	48-64%	+88%	~64x
MCX	$7.7B	₹2,302cr	73%	+138%	~54x
CDSL	$3.0B	₹1,145cr	~51%	-14%	~61x
CAMS	$2.1B	₹1,516cr	45%	+2%	~43x
NSDL IPO AUG'25	$1.9B	₹1,530cr	custody	+11%	~47x
KFin	$1.6B	₹1,301cr	41%	+3%*	~44x
IEX MOAT AT RISK	$1.2B	₹616cr	~84%	+15%	~23x
Angel One	$3.3B	₹5,140cr	~35% op	-22%	~34x
Paytm	$7.3B	₹8,437cr	~6%	turned +	~95x
PB Fintech	$7.9B	₹6,794cr	~7-10%	+90%	~112x

*KFin FY26 growth is largely inorganic (Ascent acquisition); organic Q4 ~4.6%. Consolidated; total income > ops-revenue for cash-rich exchanges. CAMS did a 1:5 split, Angel One 1:10 (FY26) — split-adjust per-share data. P/E noisy for newly-profitable Paytm / PB Fintech.[9]

THE ONE ERODING MOAT

IEX posts 84% EBITDA but faces **market coupling** — CERC's order (Jul 2025) routes price discovery through Grid-India. **APTEL dismissed IEX's appeal (Feb 2026)**; CERC's draft notification (20 Apr 2026) codifies Grid-India as the coupling operator, removing the main legal off-ramp. Coupling first hits the Day-Ahead Market — ~81% of IEX volume — so FY26's +17% volume does not yet reflect it; analysts model share falling toward ~50% by FY28. Down ~34% YoY (₹212→₹125); P/E ~23x. The cheapest infra multiple is a regulatory-threat discount.

THE TAILWIND UNDER THE RTAS

MF AUM **₹81.58 lakh cr** (May 2026); SIP **₹30,953cr/month** (+16% YoY); 27.65cr folios. Demat ~**22.9cr** (May 2026; CDSL 18.4cr + NSDL 4.5cr) feeds CDSL/NSDL — though FY26 new-account additions *slowed* ~22%. And SEBI's F&O clampdown cut NSE F&O turnover −18% in FY26 — these revenues are *cyclical* (§08).[29]

> All eleven are investable on public markets. The infra cluster (BSE, MCX, CDSL, CAMS, KFin) is a richly-priced compounder basket; the platforms (Angel One, Paytm, PB Fintech) are competitive and should not be underwritten as toll-booths.

VALUATION FRAMEWORK

08

Valuation & What's Priced In

High margins are not the trade — the entry multiple is. These names are growth-cyclical, beta to market volumes, and serially de-rated by regulators. The market already prices regulatory threat over growth.

TABLE 8.1 · MULTIPLE HISTORY, RETURNS & CYCLICALITY (SPLIT-ADJUSTED)

CO.	P/E NOW	5YR P/E RANGE	5YR REV CAGR	ROE	DIV YLD	BETA DRIVER
CDSL	~61x	17-90x	~27%	24.5%	~1.0%	Demat + txn/IPO volumes
CAMS	~43x	30-50x	~17%	~37%	~1.7%	MF AUM (telescopic)
KFin	~44x	42-64x	~22%	24.5%	~1.3%	MF AUM + fund-admin
BSE	~64x	23-80x	~50%	~40%	~0.25%	Index-options premium ▲▲
MCX	~54x	30-55x	~43%	~56%	~0.2%	Commodity ADT ▲▲
IEX	~23x	23-71x	~14%	~39%	~2.7%	Power volume; reg. de-rate
Angel One	~34x	10-35x	~32%	~16%	~1.5%	Retail F&O orders ▲▲

The paradox: **IEX (slowest grower, ~14%) is cheapest (~23x); BSE/MCX (fastest, ~43–50%) the dearest (~54–64x)** — the market is pricing regulatory threat, not growth. De-raters: SEBI true-to-label cut CDSL ~−33% (2025); TER consultations cut CAMS/KFin −24–28%; IEX market coupling −45–50%; Angel One's F&O framework cut Q1 FY26 PAT −61%.[30]

MDR REFORM — SENSITIVITY MODEL C

UPI value ~₹360L cr/yr · P2M ~29% of *value* · large-merchant ~50% (est, range 30–60%) · MDR 0.2–0.3%:

MDR	@30%	@50%	@60%
0.20%	~₹6,200cr	~₹10,400cr	~₹12,500cr
0.25%	~₹7,800cr	~₹13,000cr	~₹15,700cr
0.30%	~₹9,400cr	~₹15,600cr	~₹18,800cr

Columns = large-merchant share of P2M *value* (weakest input; §Methodology). Range ~₹6,200–18,800cr/yr.

Flows at ~85–95% to pre-tax profit (UPI MDR ≈0 today). Leverage tracks large-merchant P2M share: **PhonePe (~46% of UPI volume) ≫ Paytm (~8%) > Razorpay > Pine Labs** (acquirers capture merchant-side economics). Common error: using 63% volume share doubles it — use 29% by value.

SWING VARIABLES — WHAT MOVES THE ANSWER

1. **Market-volume cycle**
   BSE/MCX/Angel revenue is high operating-leverage beta to F&O/ADT.
2. **MDR reinstatement**
   Binary; ±₹6–16k cr to the payments industry.
3. **IEX market coupling**
   Binary; ~−45% already in the price.
4. **SEBI fee caps (TER / true-to-label)**
   Recurring yield drag on CDSL/CAMS/KFin.
5. **AA/ULI credit scale-up**
   Slow-burn upside to bureaus & infra-SaaS.

> Verdict: the infra basket is a *quality-at-a-price* trade, not a value one. Entry on market-cycle drawdowns (when F&O/ADT volumes compress the cyclicals) beats chasing the compounder narrative at 60x. IEX is cheap for a reason.

TRADABILITY & ENTRY · FOR THE ALLOCATOR WHO MUST SIZE IT

08 · ii

Liquidity, Float & Fair Value

The thesis names "the right multiple" — but a desk also needs float, liquidity and derivatives to size the position. All seven trade single-stock F&O; FII holdings sit well below caps; the fair-value bands are GW judgements, grade C, not price targets.

TABLE 7.2 · LIQUIDITY, OWNERSHIP & FAIR VALUE — LISTED TOLL-BOOTHS (AS OF 1 JUL 2026, USD AT ₹94.7)

COMPANY	MKT CAP	FREE FLOAT	FII% (CAP)	F&O	P/E NOW	GW FAIR P/E C
BSE	$16.9B	~100%	19.4% (49%)	Yes	~64x	45–55x
MCX	$7.6B	~100%	26.1% (49%)	Yes	~54x	40–50x
Angel One	$3.2B	~71%	12.8% (—)	Yes	~33x	22–30x
CDSL	$2.9B	85%	11.4% (—)	Yes	~61x	40–50x
CAMS	$2.1B	~100%	44.4% (—)	Yes	~41x	38–45x
KFin	$1.6B	~77%	26.3% (—)	Yes	~44x	38–46x
IEX MOAT AT RISK	$1.2B	~100%	14.2% (—)	Yes	~23x	18–25x

No-promoter names (BSE, MCX, CAMS, IEX) run ~100% free float, institutionally held; CDSL float 85% (BSE holds 15% strategic); KFin float ~77% (General Atlantic 22.9%); Angel One float ~71% (promoter 28.8%). FII sits well below the 49% exchange cap — no cap binds RTAs or brokers — so headroom is ample everywhere. Basket ≈ $35bn, led by BSE. ADV (traded value) not shown: no source publishes clean multi-session figures; all seven are liquid, F&O-eligible large-caps. Shareholding as at Mar-2026 (Q4FY26) filings.[9,30]

HOW TO READ THE FAIR-VALUE BAND

Bands anchor to 5-yr P/E ranges de-rated for regulatory state (grade C). **BSE (64x) and MCX (54x)** sit above band — a cyclical premium; enter on volume drawdowns, not at the peak. **Angel One (33x)** screens cheap but F&O is ~47% of income and structurally capped — the discount is deserved. **IEX (23x)** is a coupling-overhang trap, not value. The compounders (CDSL/CAMS/KFin) are quality at a full price.

2026 REGULATORY SCORECARD

Structural hits already in price: IEX (CERC coupling; APTEL appeal dismissed Feb 2026) and Angel One (SEBI F&O framework; FY26 the earnings trough). **Feared-but-defused:** CAMS/KFin TER cuts (~10bps net, GST excluded — RTAs rallied) and BSE (F&O framework absorbed, re-rated on Sensex-options share). **CDSL** mid (true-to-label margin drag, PAT −14%). **MCX** the upside outlier (options boom, PAT +138%, coal-exchange optionality, Apr 2026).

DATA CAPITAL MARKETS · OPEN-FINANCE BENCHMARK

09

The World's Largest Open-Finance Ecosystem

India's Account Aggregator leads the world in users; the weakness is thin per-consent monetisation versus Plaid — and DPDP now walls the consent-manager off from monetising the data itself.

TABLE 9.1 · OPEN FINANCE BENCHMARKED — INDIA (AA) VS USA (PLAID)

METRIC	INDIA · ACCOUNT AGGREGATOR	USA · PLAID
Scale of adoption	474M cumulative consents	500M+ accounts connected
Accounts enabled	2.88B+ for data sharing*	~50% of US bank accts (est.)
Institutions on-network	820+ FIs	12,000+ FIs
Monetisation	₹1.47L cr disbursed · H1 FY26	$546M est. ARR · 2025
Market value	~10% of personal loans (vol.)	$8B valuation · Feb 2026

*"Accounts enabled" (2.88B) ≠ "accounts linked by users" (~305M); FIP/FIU counts vary 135–999 by definition B. AA leads on mandate-backed reach; Plaid on revenue-per-connection — the question is whether AA monetisation converges as ULI scales.[10]

CREDIT GAP · THE RUNWAY

₹30L Cr

MSME *addressable* gap — ~24% of debt demand (SIDBI×Crisil, May 2025). Not the ₹69L cr gross-demand figure.[7]

ULI PIPELINE

₹1.75L cr

64 lenders (41 banks + 23 NBFCs); 3.2M loans to Oct 2025; still in pilot, no public launch.[8]

THE DPDP RING-FENCE — READ THIS BEFORE UNDERWRITING AA MONETISATION

DPDP Rules (notified 13 Nov 2025) require a Consent Manager to be India-incorporated, ₹2cr net worth, operate *data-blind*, and — critically — **a consent manager cannot also be the data fiduciary/processor monetising the same data.** Value migrates to whoever owns the *analytics/underwriting* between consent and disbursement (the §06 infra-SaaS pool). CM obligations bite ~Nov 2026; full compliance May 2027; Board not yet staffed.[17] Contrast §18: this mandate-led model out-scaled the EU's PSD2.

VALUE CHAIN · BUSINESS MODELS

10

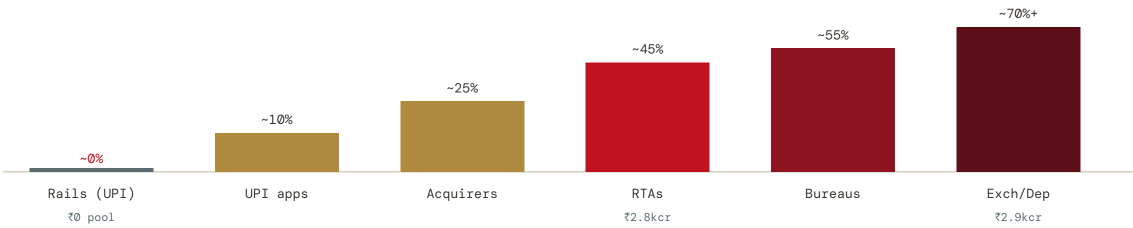
Value-Chain Economics & GTM

Trace a rupee of financial activity up the stack and the margin pools light up unevenly — the rails earn nothing, the licensed infrastructure earns most, and the capital intensity inverts the returns.

The Value Chain — Margin Pool by Node

FIG. 10.1

EBITDA margin (bar height) × indicative ₹ pool, traced along the stack. Public rails → private toll-booths.



SOURCE: §06 profit pools; FY26 filings. Margin rises monotonically up the chain; the ₹ pools stay modest — annuity, not scale.[9]

TABLE 10.1 · BUSINESS MODEL · GTM · COST STRUCTURE · CAPITAL INTENSITY

MODEL	GTM	COST DRIVER	CAPITAL INTENSITY
Lending	Distribution + co-lending (bank balance sheet)	Credit losses · cost of capital	VERY HIGH
Payments	Scale land-grab on a free gov't rail	Incentives · cashbacks · cloud	LOW
Infra SaaS / API	Land-and-expand into FIs (B2B)	R&D · enterprise sales	MEDIUM
Toll-booths	Regulatory licence; captive flow	Tech + compliance (fixed)	LOW (ASSET-LIGHT)

THE DISTRIBUTION / BALANCE-SHEET SPLIT

The dominant operating model is **bank/NBFC-as-balance-sheet, fintech-as-distribution** (detailed §19). The fintech sources and services; the regulated lender holds the loan and the NPA, posting ≤5% first-loss (DLG). Co-lending AUM est. ₹1.8–2.0L cr (FY26); PhonePe alone distributes for 56 lending partners (₹14,270cr cumulative). For an allocator: the credit risk sits on bank books — own the distribution and the infrastructure, not the balance sheet.[38]

PART IV · CAPITAL, FUNDING & EXITS
SECTIONS 11 — 13

What You Can *Actually Buy*

The private-market map with real unit economics, the funding rotation, the M&A wave and the down-round reset — with returns math — and three probability-weighted trajectories to 2030–2040.

READING
Pages 18 — 20

KEY FIGURE
$51bn cumulative VC

WHAT YOU'LL TAKE AWAY

01
The investable universe, with P&L
Who is actually profitable, who is burning, on what scale metric.

02
Funding, M&A & returns
The rotation, the consolidation wave, and IRR by scenario.

03
Probability-weighted scenarios
Bull/base/bear with weights and explicit triggers.

INVESTMENT LANDSCAPE · PRIVATE MARKETS

11

Private-Market Map & Unit Economics

Valuations alone mislead. Below each mark is the FY25 P&L: who is profitable, who is burning, and on what scale metric. Profitable infra (Perfios) and lending (KreditBee) sit beside cash-hungry rails (M2P, Cred).

TABLE 11.1 · SELECTED INDIA FINTECH — VALUATION & FY25 UNIT ECONOMICS

COMPANY	VALUATION	FY25 REV	PAT	SCALE METRIC
PhonePe	~$15B	₹7,115cr	+₹630cr adj.†	UDRHP filed
Razorpay	~$5-6B	₹3,783cr	-₹1,209cr†	TPV ~$180B
Cred	~$4.5B	₹2,735cr	-₹1,457cr	TPV ₹8.5L cr
KreditBee	$1.5B	₹2,712cr	+₹473cr	AUM ₹10,102cr
Pine Labs	$3.3B	₹2,274cr	-₹145cr‡	GTV ₹11.4L cr
Perfios	~$1B	₹670cr	+₹104cr	profitable SaaS
Juspay	$1.27B	₹514cr	+₹62cr‡	Series D
M2P Fintech	undisc.	₹506cr	-₹256cr	EBITDA -₹223cr

†PhonePe ₹2,358cr & Razorpay losses are one-time ESOP/redomicile charges — both operationally profitable (PhonePe adj. EBIT +₹117cr; Razorpay payments EBITDA+). ‡Pine Labs Q1 FY26 turned net-positive; Juspay PAT flattered by deferred-tax. Entity traps: Razorpay India-entity (PAT+ since FY23) vs consolidated; KreditBee group vs standalone.[14,40]

THE ALLOCATION READ

Separate the operationally-profitable (Perfios, KreditBee, PhonePe adj., Razorpay payments) from the genuinely loss-making (M2P, Cred). The clean infra-SaaS compounder is **Perfios**; the scaled lending book is **KreditBee** (ROMA 4.8%). Razorpay's listing (end-2026) is the cohort's price-discovery event. Underwrite to *adjusted, operating* economics — not headline reported losses or 2021 marks.

CAPITAL FLOWS · CONSOLIDATION · RETURNS

12

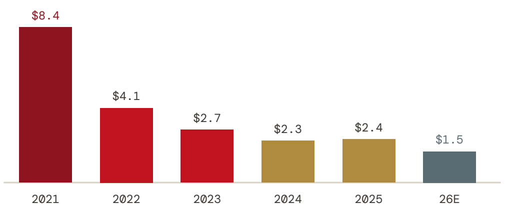
Funding, M&A, Exits & Returns

$51bn has flowed into India fintech; the boom reversed in 2026, capital is rotating to wealthtech, consolidation is rising, and the 2022 marks are resetting 30–45% at exit.

Annual Fintech Funding

FIG. 12.1

US$bn raised. Peak 2021; reset since.



Tracxn / Venture Intelligence (annual); Inc42 H1-2026 ≈ $1.3bn, −19% YoY. Provider totals differ by taxonomy.[14,41]

M&A & CONSOLIDATION · 2025-26

DEALS

Meta → CRED	$900M @ $4.5bn
Slice → NESFB	bank licence
InCred Money → Stocko	broking
Partners Group → Infinity Fincorp	$230M (75%)
Cumulative (Tracxn, May'26)	306 acq · 76 IPOs

Theme: VC slowdown is pushing full-stack consolidation (payments+lending+bank licence); Meta's $900M into CRED at a $4.5bn mark (Jun 2026) reprices the reset cohort. ***EV/revenue multiples are not publicly disclosed*** *on Indian fintech deals — size on operating economics, not rumoured marks.*[45]

IRR BY SCENARIO C — ILLUSTRATIVE 5YR

EXPOSURE	BULL	BASE	BEAR
Listed infra (public eq.)	~22%	~12%	~2%
Private infra-SaaS	~30%	~18%	~5%
MDR option (apps)	~40%+	~8%	neg.
Unsecured lenders	~20%	~10%	neg.

GW model. Assumptions: entry at current multiples (infra 40–64x; IEX ~23x), 5-yr hold, exit multiple per §13 scenario (base de-rates to 35–45x), revenue CAGR ~35% base / ~45% bull / ~20% bear. India VC pooled returns are dispersion-heavy — top-quartile drives the index (Bain India VC 2026).

THE DOWN-ROUND RESET

2022 marks clear 30–45% lower at liquidity: Pine Labs ($5–6B→$3.3B), Razorpay ($7.5B→$5–6B), Cred ($6.4B→$3.5B→$4.5B). Sector revenue ~$47bn (2025) → $190bn (2030) ≈ 35% CAGR. **Underwrite to reset marks, not 2021 vintages.** Funding rotated to wealthtech (+258%) as lending contracted.[15]

> GIFT City: IFSC banking assets **$106.7bn** (Feb 2026, 7x in five years; rising toward ~$111bn by Q4-FY26); ~1,150 entities, 37 banks — the offshore structuring venue for the exit cohort.[12]

SCENARIO ANALYSIS · 2030 — 2040

13

Three Trajectories — Probability-Weighted

Weights are Gravitywell judgements, not market-implied. The base case dominates; the bull case needs a tiered MDR and a real export pipeline; the bear case is the unsecured tail plus regulatory overhang.

TABLE 13.1 · SCENARIO MATRIX — INDIA'S FINANCIAL OS TO 2030-2040

INDICATOR	BULL · 25%	BASE · 50%	BEAR · 25%
Fintech revenue · 2030E	$250B+	$190B (BCG)†	$120B
Credit-to-GDP · 2035E	60%	50%	42%
India Stack export nations	50+	20+ (MOSIP/UPI)	Sub-10
Annual fintech VC	$5-10B	$2-4B	$1-2B
Infra comps re-rate	Hold 50-70x	De-rate to 35-45x	25-30x

†$190B is BCG's Aug-2024 estimate (~35% CAGR), predating the 2025–26 slowdown. Probability-weighted 2030E revenue ≈ **$188B** — base-case-anchored.[13]

BULL · 25% · DPI EXPORTER

ULI closes most of the MSME gap; tiered MDR reinstated; a real export pipeline converts (not just MOUs); e₹ finds product-market fit. Public market-cap creation across the infra basket.

BASE · 50% · DOMESTIC CHAMPION

Strong domestic success; ONDC a transit niche; AA to ~25% penetration; selective export. Razorpay lists, PhonePe re-files; ULI scales but the MSME gap persists; comps de-rate to 35–45x.

BEAR · 25% · FRAGMENTED RAILS

ONDC stalls; DPDP/probe overhang; zero-MDR maintained; unsecured NPA spike; concentration entrenches (cap deferred again); e₹ stays sub-0.1% of money supply.

BUY SIGNAL (FLIPS TOWARD BULL)

ULI past ₹2.5L cr; AA monthly disbursements > ₹25,000cr; a tiered-MDR notification; a disclosed-value export deal; DPDP Board operational.

RISK WATCH (FLIPS TOWARD BEAR)

Unsecured slippage acceleration; household debt past ~48% of GDP (already 45.5%, Sep 2025); IEX coupling go-live (APTEL appeal dismissed Feb 2026); a 4th deferral of the 30% cap; a systemic UPI outage.[16]

PART V · RISK, REGULATION & THE CITIZEN
SECTIONS 14 — 17

The Rules, the Tail & the *Customer*

The regulatory regime hardened in 2025. The credit risk lives in the unsecured tail. The citizen carries a fraud-and-exclusion burden — and the customer, finally, gets a voice.

READING
Pages 21 — 24

KEY FIGURE
1-in-5 defrauded

WHAT YOU'LL TAKE AWAY

01
The regulatory calendar
DPDP, Digital Lending, MDR and the 30% cap — dated.

02
The unsecured tail & the citizen
Where the NPAs form; fraud, inclusion and the exclusion tail.

03
The customer voice
Segmentation, NPS, switching barriers and what users actually pay.

POLICY & COMPLIANCE

14

The Regulatory Calendar

The biggest change since the OS thesis was written is regulatory, not technological. Three new regimes — data, digital lending and payment pricing — reshape every monetisation path in this report.

TABLE 14.1 · THE LIVE REGULATORY CALENDAR (AS OF 1 JUL 2026)

REGIME	STATUS / KEY DATES	BITE
DPDP Rules 2025	Notified 13 Nov 2025; CM obligations ~Nov 2026; full compliance May 2027; Board *not yet staffed*	₹250CR CAP
Digital Lending Directions 2025	Issued 8 May 2025; multi-lender rules 1 Nov 2025; public DLA directory live Jul 2025	DLG 5%
Co-Lending Directions 2025	Effective 1 Jan 2026; all lending (not just PSL); ≥10% risk retention	NEW
Unsecured risk-weights	125% (Nov 2023) *stands*; only MFI (→100%) & bank→NBFC eased Feb 2025	125%
UPI MDR	Zero-MDR intact; tiered-MDR *proposed* by Parl. panel (12 Mar 2026); RuPay-CC-on-UPI >₹2k from 1 Jun 2026	PROPOSAL
NPCI 30% market cap	Deadline 31 Dec 2026; PhonePe ~46%; deferred 3×; 4th plausible	PENDING
SEBI F&O / TER	F&O framework phased to Dec 2025 (NSE F&O −18%); base-expense framework eff 1 Apr 2026	ENFORCED

THE FISCAL TRADE-OFF

Zero-MDR is funded by the UPI incentive: **₹2,000cr** allocated FY27 vs the industry's ~₹4,500cr ask (incentives cover only ~11% of cost). DFS told Parliament zero-MDR is "financially unsustainable"; RBI Governor: "UPI is not truly free." A tiered MDR is the structural fix — politically gated (§19).[31]

FOR THE INVESTOR

Every digital-lending and data thesis now carries new opex: DLG capped at 5%, ≥10% co-lending risk retention, data localization, neutral-comparison mandates, and DPDP consent/breach machinery (₹250cr ceiling). Price compliance as a structural cost, not a one-off.[17,18]

CREDIT CYCLE · ASSET QUALITY

15

Credit Risk & the Unsecured Tail

Aggregate leverage is benign and system GNPA is at a multi-decade low. The danger is concentrated: the unsecured consumption tail, small-ticket digital loans, and the multi-lender borrower.

45.5% HOUSEHOLD DEBT / GDP (SEP 2025)	**1.8%** SYSTEM GNPA (MAR 2026) · MULTI-DECADE LOW	**53%** OF RETAIL SLIPPAGES ARE UNSECURED	**36%** FINTECH-LENDING YOY GROWTH

WHERE THE NPAS FORM

- Unsecured loans drive **53% of retail slippages**; ~76% of slippages at private banks. The first default is the unsecured loan; it cascades to secured.
- Fintech books are **>70% unsecured**; impairment elevated among borrowers with **5+ lenders**.
- Small-ticket PLs (<₹10K): **+44%** delinquency jump in the late-2023/24 vintage — NBFC/fintech subprime, outside the top-100 cities.
- Credit-card NPAs +28% YoY; the one retail segment still not eased from the 150% risk-weight.

THE MICROFINANCE CYCLE

Peak stress FY25 — GLP –13.9%, PAR 31–180d peaked ~6.3% (Mar 2025), ~4M borrowers exited. MFIN guardrails 2.0 (3-lender cap, ₹2L household limit, Apr 2025) plus the Feb-2025 risk-weight cut reopened funding. **Q4 FY26 inflection:** GLP ₹3.25L cr, +3% QoQ (first growth in 7 quarters); PAR 31–180d back to ~2.0%. A real cycle, not a blip.[20]

RBI'S VERDICT — AND THE CAVEAT

RBI's FSR (June 2026) puts household debt at **45.5% of GDP** (Sep 2025, up from 41.9%) — rising but still **moderate** by EM standards, ~69% prime-concentrated and asset-backed; non-housing retail is 58.4% of household borrowings (Mar 2026) and retail unsecured GNPA sits at 1.7%. The flagged risk is the unsecured consumption tail, not the aggregate. For a fintech-lending thesis, that tail *is* the business — and the co-lending model (§19) pushes the NPA onto the bank's book, not the fintech's.[16]

THE END-USER LENS · PUBLIC INTEREST

16

The Citizen — Inclusion, Fraud & Exclusion

Access is won; usage and trust are not. The headline 89% account ownership hides an inactivity, fraud and exclusion tail that is the sector's real reputational and policy risk.

89%	16%	₹48kcr	~350m
ADULT ACCOUNT OWNERSHIP (FINDEX 2025)	ACCOUNTS INACTIVE · ~26% PMJDY INOPERATIVE	BANK FRAUD · FY26 (+46% YOY)	FEATURE-PHONE USERS · APP-EXCLUDED

FRAUD & PREDATION

- Bank fraud **₹48,021cr** FY26 (+46% YoY — but value inflated by 314 legacy cases reclassified post-SC; case count fell to 10,114); cyber fraud **₹22,495cr / 28.15 lakh cases** (2025), 76% investment scams.
- Digital-arrest losses fell −66% (2025) after awareness campaigns — a rare win.
- Loan-app harassment/suicide cluster (Kerala, H1 2026); MeitY blocked 87 apps, RBI→Google 47.
- Mitigation: mandatory 2FA on all digital payments (1 Apr 2026); verified-payee-name; NPCI MuleHunter.AI (23 banks).

GRIEVANCE & REDRESS

RBI Ombudsman complaints **13.34 lakh in FY25 (+13.6%)** — loans & advances (29%) and credit cards (+20%) the top categories; banks 81.5%, NBFCs 14.8%. DPDP adds 90-day grievance resolution and 72-hour breach notification — but the Data Protection Board is **not yet staffed**, so redress efficacy is unproven.[25,17]

THE EXCLUSION TAIL — WHO THE OS LEAVES OUT

~350m

Feature-phone users locked out of app-based UPI/AA (Counterpoint 2025); UPI123Pay exists but publishes no adoption data.

27%

Financial literacy — last measured 2019 (NCFE FLIS); no national survey since, NFLIS 2025 still in field. Digital literacy ~37%; ~90% not English-proficient.

56 / 84

Women vs men mobile ownership (%). Ownership gap ~nil; the gap is now usage, elderly access and vernacular UI.

RBI Financial Inclusion Index reached **67.0** (Mar 2025). The frontier is no longer the bank account — it is whether the elderly, the feature-phone user and the non-English speaker can transact safely without being defrauded or excluded.[21,33]

DEMAND-SIDE · CUSTOMER INTELLIGENCE

17

The Customer

Who uses the OS, how satisfied they are, what makes them switch, and what they actually pay. The demand side the investor lens usually skips — and where the next 200 million users will be won or lost.

SEGMENTATION & BEHAVIOUR

- **Urban 62% / rural-semiurban 38%** prefer UPI; small-town adoption 42%→50% (FY24→25).
- **Gen Z (18–35)** the highest-adoption cohort; UPI Lite / tap-and-go skew.
- **Women <30%** of UPI users — a 200m+ addressable gap.
- Income tiers: affluent→credit/CRED; middle→UPI+wallet; low→PMJDY+agent-assisted.
- Multi-homing: users hold **2–3 apps**; switching is low (habit + interoperability).

SATISFACTION & NPS B

Paytm P2M NPS (RedSeer)	42
PhonePe · Trustpilot	1.6 / 5
Google Pay · Trustpilot	1.4 / 5
Rural prefer UPI (EY-CII)	38%
UPI tech-decline rate	~0.8%

Merchant NPS strong (Paytm 42); consumer Trustpilot low but selection-biased toward complainants. Gateway success 92–96%.[44, 46]

PAIN POINTS & SWITCHING BARRIERS

1-in-5 users defrauded in 3 years; 51% don't report; UPI fraud 10.64 lakh cases / ₹805cr+ (Apr–Nov 2025). Top decline cause: bank-server timeout (35–45%). Switching is blocked by habit, rewards (cited by 30% of young users) and lack of cross-app interoperability — a moat for the incumbents, a barrier for entrants. The blockers on the next 200m: literacy (<50% rural understand KYC/PIN), language (~90% not English-proficient), feature phones, and trust after a failed transaction.[44, 33]

WHAT USERS ACTUALLY PAY B

P2P / P2M UPI	₹0 (zero-MDR)
App-based personal loan APR	12–28%
Margin-trading (MTF) interest	~15% p.a.
Equity-delivery brokerage	₹0 (Zerodha)*
Credit-on-UPI / BNPL	opaque

**"Zero brokerage" ≠ zero cost — statutory STT/stamp/GST/DP charges remain. Credit-on-UPI & BNPL APRs are not transparently disclosed to consumers — a redress & conduct risk.*[29, 46]

THE COMPETITIVE READ BY SEGMENT

Payments: Paytm leads merchant NPS in "Bharat"; PhonePe/GPay lead volume. Credit: CRED owns the premium (25m members, 750+ score gate). Wealth: Groww wins Gen-Z mindshare; Zerodha stays broker-first. The strategic battle is the **super-app** — Paytm (payments+lending+insurance) vs PhonePe (payments+credit) vs CRED (credit-first + UPI) — fought on trust and rewards, not price (which is zero).[44, 46]

PART VI · FORCES, IMPACT & THE TRADE
SECTIONS 18 — 22

The Mirror, the Impact & the *Trade*

What the world's other state-built rails teach. The structural forces beneath the surface. The economic and ESG impact. The technology horizon. And, finally, the trade.

READING
Pages 25 — 29

KEY FIGURE
~2% of GDP

WHAT YOU'LL TAKE AWAY

01
International comparables & forces
PIX, the Ant cautionary tale; banks, AI & the single point of failure.

02
Impact & the horizon
Jobs, GDP, ESG — and the 5–10-year technology roadmap.

03
The trade
Model positioning, a dated catalyst calendar, a stakeholder playbook.

COMPARATIVE · STATE-BUILT PAYMENT RAILS

18

International Comparables — PIX · Ant · PSD2

India is not the first to build a state rail. Brazil shows how to monetise one; China shows what happens when private apps grow too powerful on it; the EU shows how mandate-without-monetisation fails. And the export bull case shrinks under scrutiny.

TABLE 18.1 · STATE-BUILT / OPEN-FINANCE RAILS COMPARED

SYSTEM	SCALE	MODEL	LESSON FOR INDIA
Brazil · PIX	~7.3bn txns/mo; ~83–93% of adults	Free P2P; ~0.22–0.33% MDR borne by banks; credit layer	Monetise the *credit* layer, not the free rail
China · Alipay+WeChat	>90% of mobile pay; >$80tn (2024)	Private duopoly on a state rail; Ant IPO killed	The state *will* intervene once concentration turns systemic
EU · PSD2	559 TPPs; ~13% retail; ~19% monetise	Mandated free API access; no charging mechanism	Mandate without monetisation stalls; AA's central mandate beat it
UK · Open Banking	16.5M users; 351M payments (2025)	VRP & first *paid* open-banking API model (2025)	Paid API rails are the route to monetisation

THE ANT CAUTIONARY TALE

Ant's **$34.5–37bn IPO was halted 3 Nov 2020**, days before listing; forced restructuring, a ~$985M fine (2023), Jack Ma ceding control, and a **~70% valuation collapse** (~$280–315bn → ~$78.5bn). India's mirror: **~79% of UPI in two foreign-controlled apps**, with the 30% cap *deferred three times*. China shows the intervention is forced and brutal once concentration is systemic.[34,35]

THE EXPORT REALITY-CHECK

Cross-border UPI ran **~755,000 transactions / ~$29.5m in FY25**, nearly doubling to ~1.49m / ~₹330cr in FY26-to-date (through Dec 2025) — still against ~757m domestic transactions *per day*. India–Nepal launched the first two-way P2P corridor (Jun 2026); the rest are tourist/diaspora acceptance, not selling UPI abroad. MOSIP (the more credible export, ~29 countries, 185m IDs) is *donor-funded and given away*. The bull case is soft power and pipeline optionality — not demonstrated revenue.[28,36]

> Brazil also shows the geopolitical tail: a US Section 301 investigation (determination 1 Jun 2026) proposed 25% tariffs citing payment policies that displaced US card networks — a warning as UPI internationalises.[37]

BENEATH THE SURFACE

19

Structural Forces — Banks, AI & Systemic Risk

Three forces the headline numbers miss: who actually holds the credit risk, how far AI really is, and the fragility of a one-operator rail.

BANKS VS FINTECH — DISTRIBUTION, NOT DISINTERMEDIATION

The dominant model is **bank/NBFC-as-balance-sheet, fintech-as-distribution**. The regulated entity is lender of record and holds the NPA; the fintech sources and posts ≤5% first-loss (DLG). PhonePe (56 lending partners, ₹14,270cr cumulative disbursals) and Paytm (lending rev ₹611cr Q2 FY26, ~80% under DLG) are distributors, not lenders. Co-lending AUM ~₹1.1L cr (CRISIL, Mar 2025) → GW est. ₹1.8–2.0L cr FY26 C (no published FY26 print — treat as modelled). RBI's Co-Lending Directions 2025 (eff 1 Jan 2026) now mandate ≥10% risk retention.[38]

AI — MOSTLY PILOT BEHIND THE HYPE

RBI's FREE-AI survey (Aug 2025): ~21% of REs use AI, 13.7% for underwriting — but only ~15% use interpretability tools. EY: 74% started PoCs, only 11% in production. Fraud-AI (NPCI MuleHunter.AI) live at 23 banks; agentic-UPI pilots (Razorpay+NPCI+OpenAI/Anthropic) run in closed user groups with *no agent-specific regulation*; for now NPCI's platform rules set the limits, not a regulator. FREE-AI's line: "accountability must remain human."[39]

SYSTEMIC & GOVERNANCE — THE SINGLE POINT OF FAILURE

One operator (NPCI) runs UPI, IMPS, RuPay, NACH, AePS, FASTag. **Four major UPI outages in 14 months** (incl. a 5-hour event, 12 Apr 2025; nationwide, 10 Feb 2026). RBI's New Umbrella Entity scheme — meant to create a competitor — was **shelved (2023)**; no live alternative exists. NPCI itself competes on its own rail via BHIM.

Governance cautionary tales: **Paytm Payments Bank licence cancelled 24 Apr 2026**; BharatPe/Grover settled (2024); Fino Payments Bank MD arrested (Feb 2026). Political economy: zero-MDR is statutory, populist and pro-trader; with 2029 approaching, "the government is taxing UPI" optics outweigh the shrinking ₹2,000cr subsidy — which is why a tiered MDR keeps being recommended but not enacted.

> Net: the credit risk sits on bank balance sheets (good for fintech equity, watch the banks); AI is a multi-year capex story, not a here-and-now moat; and the rail's single-operator design is an under-priced systemic and governance risk.

PUBLIC VALUE · SUSTAINABILITY

20

ESG, Economic Impact & Employment

The policy case for the OS is not the equity story — it is jobs, GDP, leakage savings and inclusion. And ESG is moving from absent to mandated.

~250k→400k	~2%	$39bn	$2.6bn
FINTECH JOBS · 2025→2026E	DPI ECOSYSTEM · SHARE OF GDP	DBT LEAKAGE SAVINGS (AADHAAR)	CLIMATE-TECH FUNDING · 2025 (TRACXN)

ECONOMIC IMPACT & JOBS B

- **250k+ jobs (2025) → ~400k (2026E)**, +7.5% hiring; 7,500+ firms, 30 unicorns; Tier-2/3 cities ~35% of new postings.
- DPI contribution **0.9% of GDP (2022) → 2.9–4.2% (2030E)** (NASSCOM-ADL); ecosystem ~$100bn (~2% GDP, Redseer).
- Aadhaar-DBT leakage savings **~$39bn** cumulative; 500m+ brought into banking (majority women).
- Digital economy crossed **$200bn**, trajectory to ~$1tn.

ESG & SUSTAINABILITY B

SEBI BRSR / ESG-disclosure mandates now bind listed FIs. India climate-tech funding **$2.6bn (2025, Tracxn; $12.8bn cumulative across 1,583 firms)** — note broader "cleantech" trackers scope it higher. DPI rails (UPI+Aadhaar+AA) increasingly carry green subsidies, ESG tracking and carbon-credit settlement. **Financial inclusion is the headline impact lever:** account ownership 50%→89% (2011→25), gender parity, 500m+ banked. Gaps: no standardised ESG metrics, thin MSME capacity, few fintechs publishing KPIs.[47]

FOR THE POLICYMAKER

The OS is a fiscal asset (jobs, GDP, leakage savings, inclusion) funded by a fragile mechanism (the ₹2,000cr zero-MDR subsidy covers ~11% of industry cost). The policy frontier: price the rail without taxing the citizen, mandate ESG/inclusion *outcome* reporting (not just access), and fund the infrastructure gaps (vernacular, feature-phone, elderly) that the market will not.[31, 33]

5-10 YEAR OUTLOOK

21

Technology Roadmap & Disruptive Horizon

Where the OS goes next — and what could disrupt it. The near term is monetisation of existing rails; the long term is AI-native, agentic and tokenised finance.

TABLE 21.1 · THE TECHNOLOGY HORIZON

HORIZON	WHAT SHIPS	INVESTABLE SIGNAL
Near · 1–3yr	Credit-on-UPI scale; ULI public launch; UPI international (Nexus, 20+ countries by FY29); AA monetisation	LIVE
Mid · 3–5yr	Agentic payments (Razorpay+NPCI pilots); AI underwriting mainstream (FREE-AI); CBDC programmability (purpose-bound); ONDC financial services	PILOT
Long · 5–10yr	Tokenised deposits / UMI; cross-border DPI rails; AI-native finance; quantum-safe security	EMERGING

DISRUPTIVE INNOVATIONS TO WATCH

- **Agentic commerce** — AI agents transacting on UPI Circle; NPCI's FiMI LLM; no agent-specific regulation yet.
- **AI underwriting** — alt-data + AA; the fraud-AI arms race (MuleHunter vs synthetic identity).
- **CBDC programmability** — purpose-bound money (PDS, agri DBT) despite shrinking circulation.
- **Tokenisation** — UMI for tokenised deposits/CDs in wholesale CBDC.

DISRUPTIVE RISKS

A super-app consolidation that entrenches the foreign duopoly; a Big-Tech / AI-platform shift that moves the value layer above the rails; an AI-driven fraud escalation that outruns detection; and a data-localisation / geopolitical fracture (US Section 301) that fragments cross-border ambition. The OS's openness is its strength and its disruption surface.

THE 5-10-YEAR ARC

By 2030, expect: a monetised payments layer (tiered MDR), a scaled data-credit market (AA/ULI past the MSME gap), agentic and AI-native rails in production, and a still-listed toll-booth complex compounding — re-rated by the cycle, not the story. The disruption that matters is not a new app but control of the **intelligence layer** sitting on top of public rails the state will keep free.

POSITIONING · CATALYSTS · PLAYBOOK

22

The Trade

The decision-ready synthesis: how to position, what dates to trade around, and what each stakeholder should do. Illustrative framing for professional investors — not investment advice.

MODEL POSITIONING

FRAMING

▲ **Core long · listed infra** — OWN
CDSL, CAMS, BSE, MCX — own the moat; enter on market-cycle drawdowns, not at 60x.

▲ **Private · profitable infra** — OWN
Perfios, KreditBee; wealthtech. Operating profit, not 2021 marks.

◆ **Option · MDR beneficiaries** — OPTION
PhonePe, Razorpay, Paytm — small, asymmetric, binary.

▼ **Avoid/underweight** — AVOID
IEX until coupling resolves; pure unsecured lenders; zero-MDR consumer apps.

CATALYST CALENDAR

DATED

SEBI base-expense framework	1 Apr 2026 ✓
Co-Lending Directions live	1 Jan 2026 ✓
Govt response to tiered-MDR	2026 (watch)
Razorpay listing	~end-2026
NPCI 30% cap deadline	31 Dec 2026
DPDP CM obligations	~Nov 2026
DPDP full compliance	May 2027
IEX DAM coupling go-live	appeal dismissed
PhonePe IPO re-file	paused (watch)
TRIPWIRE KPIS · MONITOR	
Unsecured retail GNPA	>1.7% → derisk
Household debt / GDP	>48% → derisk
Next RBI FSR	Dec 2026

STAKEHOLDER PLAYBOOK

ACTION

PE / VC

Underwrite to adjusted operating economics & reset marks. Demand unit economics & IRR-by-scenario, not valuations. Use GIFT City for structuring; model DPDP/DLG compliance as opex. Exit via the ’26–27 IPO window & the M&A consolidation wave.

POLICYMAKERS

Quantify the zero-MDR welfare-vs-fiscal trade-off; staff the DPDP Board; enforce or retire the 30% cap; harden NPCI’s single point of failure; measure inclusion & ESG *outcomes* per rupee; fund the exclusion-tail gaps.

INDUSTRY & END USERS

Operators: own a layer (distribution or infra), not the balance sheet; partner on co-lending. Users: know the true cost behind “free,” verify lenders on the RBI DLA directory, use 2FA, assert DPDP rights, demand vernacular & feature-phone access.

FOR THE TECHNICAL READER

APPENDIX · i

Methodology & Data-Quality

DATA-QUALITY GRADES — USED THROUGHOUT

A Audited / primary
Listed filings, RBI/NPCI/SEBI releases. Lock decimals to source.

B Primary, estimated split
Real source, but a sub-component is apportioned or survey-based (incl. NPS).

C Modelled / illustrative
GW model (MDR, segment split, TAM, IRR, scenarios). Directional.

POINT-IN-TIME & FX

Data as of **1 July 2026**. FY26 = year ended Mar 2026. USD at **₹94.7/$** (RBI ref ~₹94.4, 29 Jun 2026). Figures are point-in-time and may restate; prior values are preserved in the §Change Log, not silently overwritten.

MARKET SIZING (§01)

TAM/SAM/SOM figures are mostly grade C — analyst variance is wide (fintech market $51bn vs TAM $2.1tn vs revenue $190–250bn; insurtech baseline ranges 5x). We show ranges, never a false-precise single number, and flag the ~10x TAM-vs-revenue trap.

THE MDR MODEL (§08)

₹360L cr UPI value × ~29% P2M-by-*value* (not 63% by volume) × large-merchant share 30–60% × MDR 0.2–0.3%, flowing ~85–95% to pre-tax profit. Output ₹6–16k cr/yr is grade C; the large-merchant split is the weakest input.

VALUATION & RETURNS (§08, §12)

Multiples are split-adjusted (CAMS 1:5, Angel One 1:10). P/E ranges are 3–5yr from secondary aggregators — trust the band, not the decimal. IRR-by-scenario is a GW model C, entry-multiple- and exit-window-dependent.

CUSTOMER DATA (§17)

NPS/Trustpilot are grade B — Trustpilot skews to complainants (selection bias); Paytm NPS 42 is RedSeer merchant survey. Consumer pricing (APRs) is indicative; credit-on-UPI / BNPL rates are not transparently disclosed.

IMPACT & ESG (§20)

Employment (250k→400k) and DPI-GDP share (0.9%→2.9–4.2%) are grade B (NASSCOM-ADL, ET, Redseer). Few fintechs publish ESG KPIs; figures are sector-level.

UNIT ECONOMICS (§11)

Reported vs adjusted matters: PhonePe and Razorpay losses are one-time ESOP/redomicile charges. Entity traps (Razorpay India vs consolidated; KreditBee group vs standalone) are footnoted in-table.

FRAMEWORKS (§02–03)

Five Forces, SWOT and PESTLE are GW analytical judgements synthesised from the sourced data in §06–20, not third-party scores.

PRIMARY-SOURCE VERIFICATION

Several RBI/PIB/MoSPI/NPCI primaries were access-limited at writing; load-bearing figures are corroborated across multiple secondary outlets quoting the same release. Verify decimals against primaries before onward use.

AI-ASSISTED ANALYSIS

Drafting, synthesis and cross-source reconciliation were AI-assisted (LLM). Every load-bearing figure was human-verified against the cited primary release; where the latest release could not be confirmed, the last-known value is retained and dated rather than estimated. No figure is model-generated without a source.

REPORT CONFIDENCE — MEDIUM-HIGH

Payments (NPCI), macro (RBI/NSO), listed comps (FY26 filings) and the June-2026 RBI FSR are grade A and current — high confidence. TAM / 2030 revenue, the MDR opportunity, co-lending FY26 AUM and IRR-by-scenario are grade C models — directional only. Net: **Medium-High**.

POINT-IN-TIME DISCIPLINE

APPENDIX · i-b

Change Log & Data Vintage

CHANGE LOG

POINT-IN-TIME

VER.	DATE	WHAT CHANGED
v1.0–1.2	Jun 2026	Initial build — frameworks, 7-layer stack, comps, scenarios.
v1.3	Jun 2026	Added §01–03 sizing/frameworks, §10 value chain, §12 M&A, §17 customer, §20 ESG, §21 roadmap.
v1.4	**1 Jul 2026**	**Refreshed to 1 Jul cutoff:** Jun-2026 UPI (22.72bn / ₹28.9L cr / 757m-per-day); May-2026 app share (PhonePe 46.26 / GPay 32.75, combined below 80% first time); **RBI FSR June 2026** (household debt 41.3→45.5%, GNPA 2.1→1.8%); RBI Annual Report FY26 bank fraud (₹36,014→48,021cr); co-lending ₹1L cr (Apr-24)→₹1.1L cr (Mar-25); climate-tech re-scoped to $2.6bn (2025). **Corrections:** microfinance stress restated to MFIN PAR (was a 16% GNPA figure not in the source); demat growth reframed to the FY26 slowdown; IEX coupling timeline (APTEL dismissal, Feb 2026). **Added:** §08·ii liquidity/fair-value exhibit; expanded MDR sensitivity grid; §22 tripwire KPIs; confidence rating; AI-assisted disclosure; this change log & vintage table.

Published values are point-in-time. Where a source revised (e.g. RBI restated FY25 bank fraud to ₹32,803cr), the current print carries the new figure and the prior value is preserved here — history is never silently overwritten.

DATA VINTAGE & FRESHNESS

AS OF 1 JUL 2026

DOMAIN	KEY METRIC	AS OF	GRADE	FRESHNESS
Payments (§05)	UPI volume/value/day	Jun 2026	A	Current
App share (§05)	PhonePe/GPay/Paytm	May 2026	A	Current
Macro (§03)	GDP, repo, CPI, FX	Jun 2026	A	Current
Credit risk (§15)	Household debt, GNPA	Jun-2026 FSR	A	Current
Fraud (§16)	Bank fraud FY26	Mar 2026	A	Current
Listed comps (§07–08)	FY26 filings, prices	Jun/Jul 2026	A	Current
Funds (§07)	MF AUM / SIP	May 2026	A	1 mo
Funding (§12)	H1-2026 fintech VC	Jun 2026	B	Current
Microfinance (§15)	MFIN GLP / PAR	Q4 FY26	A	Quarterly
Co-lending (§19)	AUM (CRISIL)	Mar 2025	B	Stale ~15mo
Inclusion (§16)	RBI FI-Index	Mar 2025	A	Awaiting
Literacy (§16)	Financial literacy	2019 (NCFE)	C	No newer survey
AI adoption (§19)	RBI FREE-AI	Aug 2025	A	10 mo
TAM / 2030 (§01)	Revenue forecast	Aug 2024	C	Model

Freshness is disclosed, not masked. Three items are knowingly stale — co-lending AUM (no FY26 print exists), financial literacy (no national survey since 2019; NFLIS 2025 in field), and the Aug-2024 TAM (predates the 2025–26 slowdown; §13 probability-weights it). RBI Ombudsman FY26 and the Mar-2026 FI-Index publish ~Aug 2026, after this cutoff.

CITATIONS

APPENDIX · ii

Source Register

Superscript numerals refer to the primary sources below, verified to the most recent publication available at writing (1 July 2026). Where a fresher release did not yet exist, the last-known value is retained and dated (see §Data Vintage).

1 GW India Stack framework; UIDAI; DigiLocker; MeitY DPI disclosures.

2 NPCI — UPI: 22.72bn/₹28.92L cr/~757m-per-day (Jun 2026, released 1 Jul via IANS/ANI wire); 228bn CY2025; app share Dec 2025 & May 2026 (PhonePe 46.26% / GPay 32.75%, combined below 80% first time). Cross-border FY26 ~1.49m txns/₹330cr (to Dec 2025); India–Nepal 2-way corridor Jun 2026.

3 IMF; RBI Annual Report; Worldline India Digital Payments (Jan 2026) — P2M 63% vol / 29% value.

4 RBI Annual Report FY26 — e₹ circulation ₹771.7cr (−24% YoY).

5 ONDC / Beckn — 450m+ cumulative; mobility ~56%; ~1.16 lakh active retail sellers.

6 iSPIRT — India Stack / OCEN architecture.

7 SIDBI × Crisil (13 May 2025) — MSME addressable gap ₹30L cr.

8 RBI / RBIH — ULI ₹1.75L cr / 3.2m loans (GFF 3 Oct 2025); 64 lenders.

9 FY26 listed filings — CDSL, NSDL, CAMS, KFin, BSE, MCX, IEX, Angel One, Paytm, PB Fintech; demat ~22.5cr (SEBI).

10 Sahamati — AA: 474m consents (May 2026); 2.88bn enabled; 820+ FIs; ₹1.47L cr H1 FY26.

11 Sacra; Business Standard — Plaid: $8B valuation, $546m ARR, 12,000+ FIs.

12 IFSCA; Tribune — GIFT City IFSC banking assets $106.7bn (Feb 2026).

13 BCG × GFF, *Building Bridges* (Aug 2024) — ~$190bn revenue by 2030; EY corroborates; ~$47bn (2025, Inc42).

14 Tracxn (Jan/May 2026) — $2.4bn (3rd globally); valuations; cumulative 306 acq / 76 IPOs / 30 unicorns / $51.1bn VC.

15 Venture Intelligence (Jan 2026) — $2.82bn 2025; payments $1.06bn / lending $752m / wealthtech $547m (+258%).

16 RBI *FSR* (June 2026, released 30 Jun) — household debt 45.5% of GDP (Sep 2025); system GNPA 1.8% (Mar 2026); retail unsecured GNPA 1.7%; non-housing retail 58.4%. Unsecured 53.1% of slippages & fintech +36% (>70% unsecured) carried from Dec-2025 FSR (not re-stated in June).

17 MeitY — DPDP Rules 2025 (13 Nov 2025); Consent Manager wall; ₹250cr penalty.

18 RBI (Digital Lending) Directions 2025 (8 May 2025) — DLG cap 5%; DLA directory.

19 RBI — risk-weight 125% (Nov 2023); Feb 2025 partial rollback.

20 MFIN Micrometer Q4 FY26 (57th ed., as of 31 Mar 2026) — GLP ₹3.25L cr (+3% QoQ, first growth in 7 qtrs); PAR 31–180d ~2.0% (peaked ~6.3%, Mar 2025).

21 World Bank Global Findex 2025 — ownership 89%; 16% inactive; FI-Index 67.0 (RBI).

22 PIB / DFS — PMJDY ~56.98cr accounts; ₹2.68L cr deposits; ~26% inoperative.

23 RBI Annual Report FY26 — bank fraud ₹48,021cr (+46% YoY on restated FY25 base ₹32,803cr; value inflated by 314 legacy cases; 10,114 cases). RBI digital-payment fraud 293 cases/₹29cr. UPI-specific ₹805cr/10.64 lakh (Apr–Nov 2025, NPCI/Parliament — different dataset).

24 I4C / MHA — cyber fraud ₹22,495cr / 28.15 lakh cases (2025); digital-arrest −66%.

25 RBI Ombudsman Annual Report 2024-25 — 13.34 lakh complaints (+13.6%).

26 NSO / MoSPI (5 Jun 2026) — nominal GDP ~₹347L cr (~$3.9tn); real growth ~7.6% FY26.

27 RBI MPC (5 Jun 2026) — repo 5.25%; CPI 3.93%; INR/USD ~94.7.

28 NIPL / IBEF — 9 live corridors; cross-border UPI ~755k txns / ~$29.5m (FY25).

29 SEBI / AMFI — F&O framework; NSE F&O −18% FY26; MF AUM ₹81.58L cr, SIP ₹30,954cr/mo; brokerage schedules.

30 Company filings & aggregators — P/E ranges, ROE, div yields; SEBI true-to-label (Oct 2024); CERC market coupling (Jul 2025).

31 Parliamentary Standing Committee on Finance (12 Mar 2026); Budget 2026 ₹2,000cr UPI incentive; PCI 0.3% proposal.

32 NPCI — UPI 30% cap, deadline 31 Dec 2026 (3rd deferral).

33 NCFE FLIS 2019 (financial literacy ~27% — no post-2019 national survey; NFLIS 2025 in field); Counterpoint 2025 (feature-phone ~350m); TRAI (Dec 2025, 1.258bn wireless); digital literacy ~37%.

34 BCB (PIX); ProMarket; EBANX (Nov 2025) — ~7.3bn txns/mo; ~0.22–0.33% MDR; PIX Automático.

35 Caixin; CNBC; SCMP — Ant IPO halt (Nov 2020); $985M fine (2023); ~70% collapse.

36 European Commission COM(2023) 365; McKinsey (2025); Open Banking Ltd (Feb 2026) — PSD2; UK VRP.

37 USTR — Section 301 Brazil determination (1 Jun 2026).

38 CRISIL (13 Aug 2025) — co-lending AUM ~₹1.1L cr (Mar 2025); RBI (Co-Lending Arrangements) Directions 2025 (issued 6 Aug 2025, eff 1 Jan 2026, ≥10% retention); PhonePe/Paytm lending disclosures.

39 RBI FREE-AI report (13 Aug 2025); EY *AIdea of India* (Mar 2025); RBIH MuleHunter.AI; NPCI/Razorpay agentic-UPI pilots.

40 MCA / Tofler / Entrackr / DRHPs — FY25 unit economics: Razorpay, Perfios, M2P, Pine Labs, Juspay, KreditBee, Cred, PhonePe.

41 Inc42 *State of Indian Fintech 2025*; IMARC; Straits Research; Grand View Research — TAM/segment sizing & CAGRs.

42 NASSCOM-ADL (2024); Redseer; ORF — DPI GDP contribution; DBT savings; digital economy.

43 Nexdigm; Market Research Future — insurtech & wealthtech sizing (wide variance).

44 EY-CII Financial Inclusion (Dec 2024); RedSeer (NPS); Trustpilot; National Herald / RBI — UPI fraud, decline rates.

45 Fintechfutures; Inc42 (H1-2026 fintech funding ~$1.3bn, −19% YoY); Bloomberg/Reuters (Meta–CRED $900M @ $4.5bn, Jun 2026); M&A (Slice-NESFB, InCred-Stocko, Partners Group-Infinity — values largely undisclosed); Bain India VC 2026.

46 Zerodha; Groww; ProductGrowth — brokerage & MTF pricing; gateway success rates.

47 SEBI BRSR/ESG; Economic Times HR survey (jobs); Tracxn India Climate-Tech (Jun 2026) — $2.6bn (2025), $12.8bn cumulative; DBT Mission / PIB — ₹3.48L cr cumulative savings (~$39bn).

Additional: Watal Committee (2017, NPCI governance); MediaNama (outage RCAs); KPMG India Fintech 2025; Deloitte (rural fintech).

DECODING THE JARGON

APPENDIX · iii

Glossary & Acronyms

Account Aggregator (AA / DEPA)
Consent-based open-finance framework letting individuals share financial data via licensed NBFC-AAs — Layer 3.

BRSR
Business Responsibility & Sustainability Report — SEBI's mandatory ESG-disclosure framework for listed companies.

Consent Manager (DPDP)
A registered, data-blind intermediary managing user consent; under DPDP Rules it cannot also monetise the data — the ring-fence around AA economics.

DLG / FLDG
Default/First-Loss Default Guarantee — fintech cover to a lender, capped by RBI at 5% of the disbursed portfolio.

DPDP
Digital Personal Data Protection Act 2023; Rules notified 13 Nov 2025, phasing to May 2027; ₹250cr penalty ceiling.

Five Forces
Porter's framework (rivalry, entry, supplier & buyer power, substitutes) used in §02 to score industry attractiveness by tier.

Market coupling
Routing all power-exchange bids through a single operator for price discovery — the reform threatening IEX's moat.

MDR
Merchant discount rate — fee to accept a digital payment. UPI's zero-MDR caps payment-app profitability.

MTF
Margin Trading Facility — broker-funded leverage for equity buying; ~15% p.a. interest.

NPS
Net Promoter Score — customer-loyalty metric (−100 to +100); used in §17.

P2M vs P2P
Person-to-Merchant vs Person-to-Person UPI. P2M is ~63% of *volume* but only ~29% of *value* — governs MDR maths.

TAM / SAM / SOM
Total Addressable / Serviceable Available / Serviceable Obtainable Market — the sizing funnel in §01.

ULI
Unified Lending Interface — RBI/RBIH credit rail pulling consented data for rapid underwriting.

UPI
Unified Payments Interface (NPCI) — India's real-time retail payments rail (Layer 2); the world's largest by daily volume.

INSTITUTIONAL ABBREVIATIONS

ADT	Average daily turnover
BNPL	Buy-now-pay-later
CAGR	Compound annual growth rate
CERC	Central Electricity Regulatory Commission
DBT	Direct Benefit Transfer
DPDP	Digital Personal Data Protection Act 2023
DPI	Digital public infrastructure
FSR	RBI Financial Stability Report
GTV/TPV	Gross / Total transaction value
IRR	Internal rate of return
NPCI	National Payments Corporation of India
PESTLE	Political-Economic-Social-Tech-Legal-Environmental
RTA	Registrar & Transfer Agent
SAM/SOM	Serviceable available / obtainable market
SWOT	Strengths-Weaknesses-Opportunities-Threats
TAM	Total addressable market
TER	Total Expense Ratio
UIDAI	Unique Identification Authority of India
ULI	Unified Lending Interface

END OF REPORT

Own the moat.
Pay the right *multiple.*

India built the operating system and gave the rails away. Capital compounds at the regulated choke-points it kept — but they are listed, cyclical and richly priced. The new data rent is walled off as it forms; the citizen carries a risk tail; and the export story is, so far, diplomacy. Own the moat the state built; pay the right multiple; underwrite the rail — and the risk — it has not yet priced.