Payments and Fintech
5-Slide Teaser
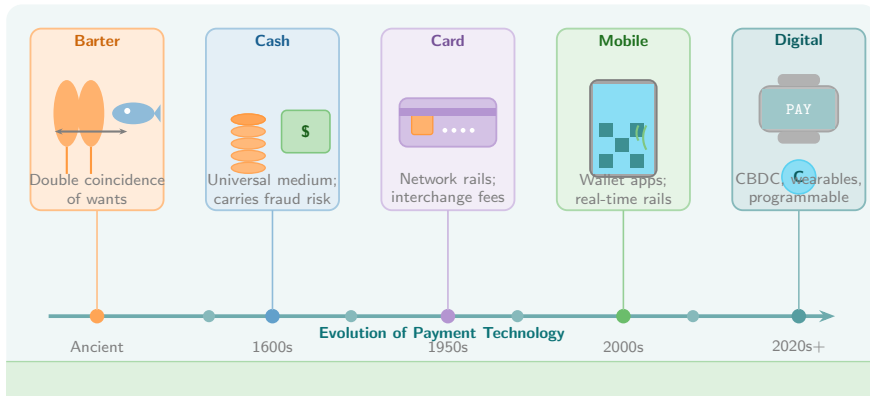
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Why Payments? From Barter to Tap-to-Pay

Barter — Double coincidence of wants

Cash — Universal medium; carries fraud risk

Card — Network rails; interchange fees

Mobile — Wallet apps; real-time rails

Digital — CBDC, wearables, programmable

Evolution of Payment Technology

Ancient · 1600s · 1950s · 2000s · 2020s+

Slide 1/5 — WHY — Every payment era solved the friction of the prior one – fintech targets the remaining frictions of speed, cost, and access.

What Are the Payment Methods? A Comparative View

Illustrative Comparison of Payment Methods Across Key Dimensions

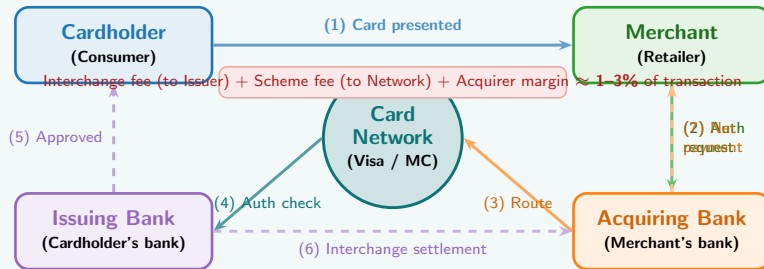| Method	Settlement Speed	Cost to Merchant	Privacy	Global Reach	Offline?
Cash	Instant (T+0)	Near zero	High (anonymous)	Domestic only	Yes
Debit / Credit Card	T+1 to T+2	1–3% interchange	Low (tracked)	International	No
Mobile Wallet	Near-instant	0.5–1.5%	Low (data collected)	Growing	Partial
Bank Transfer / RTGS	Instant or T+1	Low (flat fee)	Moderate	Limited by rails	No
Stablecoin	Minutes (T+0)	Very low	Pseudonymous	Global	No
CBDC	Instant (T+0)	Potentially zero	Low (state visibility)	Bilateral CBs	Designed for it

No Single Winner

Each method trades off cost, speed, privacy, and reach differently. The "best" payment method depends on the **use case**: micro-payment, cross-border, retail, or wholesale.

The Friction Lens

Fintech competes by **reducing one friction at a time**: cards cut cash-handling cost; wallets cut card friction; stablecoins cut FX conversion delays.

Slide 2/5 — WHAT — Payments = information + value transfer. Reducing friction on either dimension is where fintech creates value.

How Do Card Payments Flow? The Four-Party Model

The Four-Party ("Quadripartite") Card Model – Illustrative Flow

- **Cardholder** (Consumer)
- **Merchant** (Retailer)
- **Card Network** (Visa / MC)
- **Issuing Bank** (Cardholder's bank)
- **Acquiring Bank** (Merchant's bank)

(1) Card presented

Interchange fee (to Issuer) + Scheme fee (to Network) + Acquirer margin ≈ 1–3% of transaction

(5) Approved

(2) Auth request

(4) Auth check

(3) Route

(6) Interchange settlement

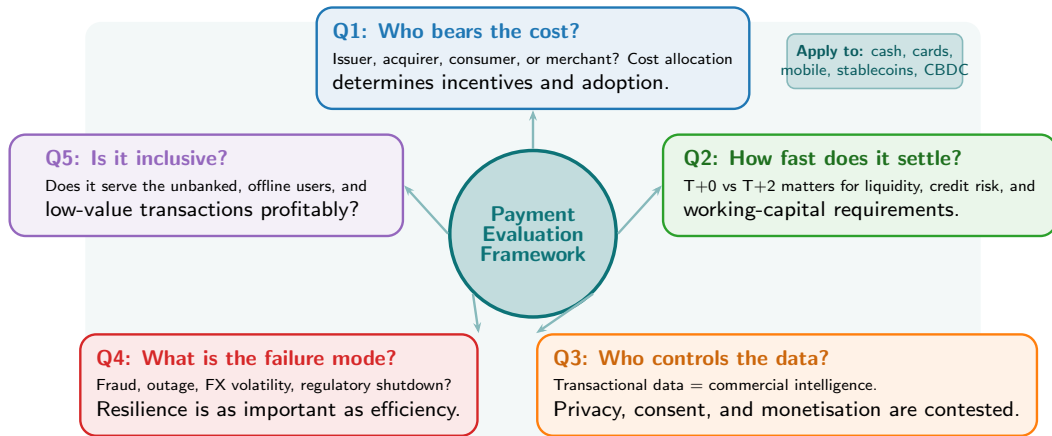*Solid arrows = authorisation flow   Dashed arrows = settlement / money flow*

Slide 3/5 — HOW — The four-party model dates to the 1960s. Fintech attacks each leg: neo-banks on issuing, PayFacs on acquiring, stablecoins on the network.

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Illustrative All-In Merchant Cost by Payment Rail

Illustrative Merchant Cost (% of transaction value)

- Cash — *handling + shrinkage* — 1.5
- Debit Card — *interchange + scheme* — 0.6
- Credit Card — *rewards + risk* — 2.4
- Mobile Wallet — *platform margin* — 1.1
- Stablecoin — *gas fees (est.)* — 0.2
- CBDC — *design goal* — 0.05
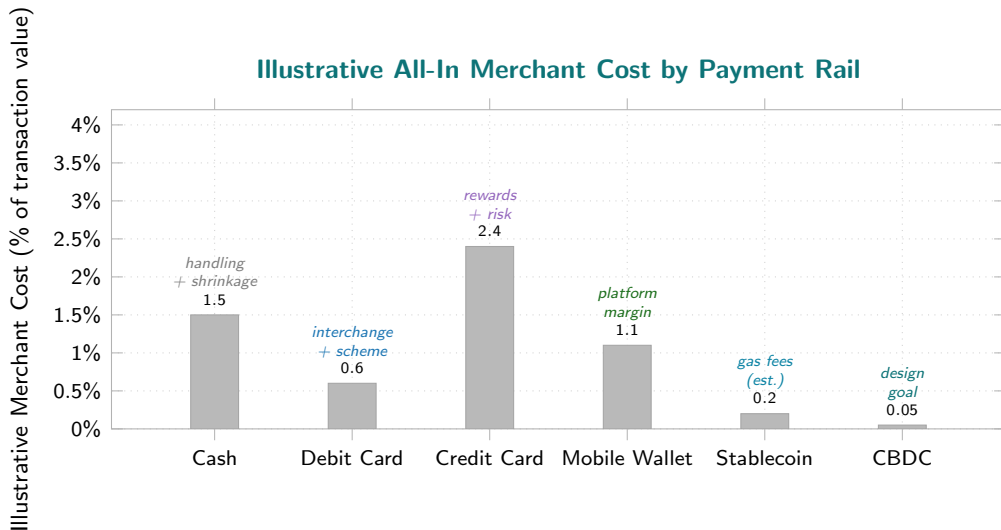
All figures are purely illustrative for teaching purposes. Actual costs vary by country, volume, contract, and product type.

So What? A Framework for Evaluating Any Payment System

Q1: Who bears the cost?
Issuer, acquirer, consumer, or merchant? Cost allocation determines incentives and adoption.

Apply to: cash, cards, mobile, stablecoins, CBDC

Q5: Is it inclusive?
Does it serve the unbanked, offline users, and low-value transactions profitably?

Payment Evaluation Framework

Q2: How fast does it settle?
T+0 vs T+2 matters for liquidity, credit risk, and working-capital requirements.

Q4: What is the failure mode?
Fraud, outage, FX volatility, regulatory shutdown? Resilience is as important as efficiency.

Q3: Who controls the data?
Transactional data = commercial intelligence. Privacy, consent, and monetisation are contested.

Slide 5/5 — SO WHAT — Five questions, any fail: cost allocation, settlement speed, data control, failure modes, and inclusion = evaluate any payment system with this lens.