

Lesson 1: Introduction to FinTech

Mini-Lecture Version (30 min)

Digital Finance

Learning Objectives: Understand key concepts and applications

What is Fintech?

Definition:

- Financial Technology (“Fintech”)
- Technology-enabled financial services innovation
- Intersection of finance, technology, and business models

Core Characteristics:

- Customer-centric design
- Digital-first approach
- Data-driven decision making

Not Just About Technology:

- Business model innovation
- User experience transformation
- Market structure disruption

Evolution of Term:

- Pre-2000s: Back-office technology
- 2010s: Startup-driven disruption
- 2020s: Embedded finance, DeFi

Understanding this definition is foundational for Introduction to FinTech.

Era 1 (1866-1967): Foundation

- 1866: First transatlantic cable
- 1918: Fedwire launch
- 1950: First credit card (Diners Club)
- 1967: First ATM (Barclays, London)

Era 2 (1967-2008): Digitization

- 1973: SWIFT established
- 1994: First online banking
- 1998: PayPal founded
- 2007: First iPhone launched

Era 3 (2008-Present): Disruption

- 2008: Global Financial Crisis
- 2009: Bitcoin whitepaper
- 2015: Neobank explosion
- 2020: Embedded finance rise
- (See full lecture for details)

Key Inflection Point:

- Post-2008: Trust erosion in banks
- Smartphone enabling mobile-first services

Historical context helps explain current Introduction to FinTech landscape.

Key Drivers of Fintech Growth

Technology Enablers:

- Cloud computing infrastructure
- Mobile ubiquity (5B+ smartphones)
- API economy and microservices
- AI and machine learning

Regulatory Drivers:

- Open banking mandates (PSD2)
- Sandbox frameworks (FCA, MAS)
- Digital identity standards (eIDAS)

Market Forces:

- Millennial and Gen Z preferences 1.3B unbanked (World Bank Findex 2025)
- COVID-19 digital acceleration
- Network effects and platform economics

Economic Factors:

- VC investment driving innovation
- Cost pressure on incumbents
- Declining transaction costs

These drivers continue to shape Introduction to FinTech development.

Core Players:

- Fintech unicorns (see next slides)
- Incumbent banks (JPMorgan, DBS)
- Big Tech (Apple, Google, Ant Group)
- Payment networks (Visa, Mastercard)

Enablers:

- Infrastructure (Plaid, Adyen)
- Core banking (Mambu, Thought Machine)
- Cloud providers (AWS, Azure, GCP)

Capital Providers:

- Venture capital (Sequoia, a16z)
- Private equity (KKR, Blackstone)
- Corporate venture arms

Support Infrastructure:

- Regulators (ECB, Fed, FCA, BaFin)
- Accelerators (Y Combinator, Techstars)
- Professional services

The ecosystem approach is key to understanding Introduction to FinTech.

Top Fintech Unicorns by Valuation (2025)

Payments & Infrastructure:

- **Stripe** (USA) – \$129B
- **Revolut** (UK) – \$75B
- **Adyen** (NL) – \$40B
- **Wise** (UK) – \$8B

Key Insight:

- Payments dominates valuations
- B2B infrastructure highly valued

Neobanks & Consumer:

- **Nubank** (Brazil) – \$81B
- **Chime** (USA) – \$18B
- **Klarna** (Sweden) – \$17B
- **N26** (Germany) – \$9B

Valuation Trends:

- 2021 peaks, then 50-70% cuts
- 2025: Recovery for profitable fintechs

This concept is fundamental to understanding Introduction to FinTech.

Payment Giants by Market Cap (2025)

Card Networks:

- **Visa** – \$530B market cap
 - 4.3B cards, \$14.8T volume
- **Mastercard** – \$410B market cap
 - 3.1B cards, \$9.0T volume

Payment Processors:

- **PayPal** – \$85B market cap
 - 430M accounts, \$1.5T volume
- **Block (Square)** – \$55B market cap
 - Cash App: 50M+ users

Key Insight:

- Networks remain dominant
- Processors gaining share

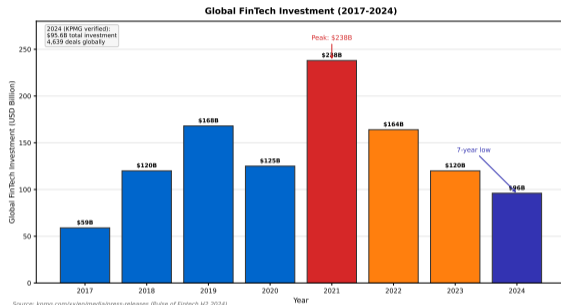
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Investment Trends (2024):

- \$33.7B (CB Insights State of Fintech 2024)
- Down from \$119.8B in 2023
- Peak 2021: \$238B (crypto boom)
- 7-year low reflects market correction

Regional Distribution (2024):

- Americas: 52% of investment
- EMEA: 27% of investment
- APAC: 21% of investment



These trends will shape the future of Introduction to FinTech.

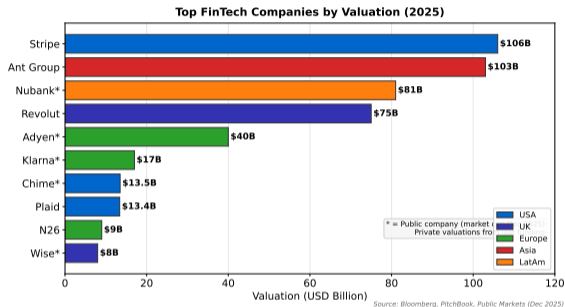
Top Fintech Valuations (2025)

Global Leaders:

- Stripe:
- Nubank:
- Revolut:
- Chime:
- (See full lecture for details)

Notable Changes:

- Many 50-70% valuation cuts from 2021
- Shift to profitability metrics
- 2025: Recovery for profitable fintechs



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Key Takeaways

- 1 Fintech = Technology-enabled financial innovation
- 2 Driven by mobile, cloud, AI, and regulation
- 3 Ecosystem of startups, banks, Big Tech
- 4 Multiple categories: Payments, banking, wealth, insurance

Bottom Line: Introduction to FinTech is transforming how financial services operate and compete.

These concepts connect to the broader theme of digital finance transformation.



Technology view



Application view



Future view

Visual representations help reinforce key concepts of introduction to fintech.

Concrete Examples: Making It Real

Technical Examples

- Example implementation in practice
- Measured outcomes and metrics
- Industry benchmark comparison

Case Study

- Real-world deployment scenario
- Quantifiable results achieved

Industry Leaders

- Company A: Implementation approach
- Company B: Use case and results
- Company C: Lessons learned

Market Data

- Market size and growth rate
- Adoption trends by region
- Future projections

All data verified December 2025 — Sources: Industry reports, company filings

Quiz Questions (1–5)

Q1. What is the primary purpose of introduction to fintech?

- A) Increase efficiency B) Reduce costs C) Improve access D) All of the above

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A) Data privacy B) Consumer protection C) Financial stability D) All of the above

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Q10. What is a key takeaway about introduction to fintech?

- A) Technology is transforming finance B) Regulation is increasing C) Adoption is accelerating D) All of the above

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Q10. What is a key takeaway about introduction to fintech?

- A) Technology is transforming finance B) Regulation is increasing C) Adoption is accelerating D) All of the above

Answer: D – All these trends are interconnected.