Pre-Day 7 Economics Review

Digital Finance Intensive Course | Distribute at start of Day 7

10 concepts from Days 5-6 that Day 7 builds on directly

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1. Transaction Cost Economics (Day 5A)
Three cost types: *search* (finding counterparties), *bargaining* (negotiating terms), *enforcement* (monitoring and compliance). Fintech reduces at least one. Coase (1937): firms exist because TC of using markets exceeds TC of internal organisation.

2. Two-Sided Markets – basics (Day 5A)
A platform that serves two distinct user groups whose value depends on the other side being present. Key concept: *cross-group externality* – each new user on side A increases the value of the platform for side B users. Introduced in Day 5A as the revenue mechanics framework.

3. Revenue Layer Taxonomy (Day 5A)
Three layers in digital finance revenue:
Infrastructure (Layer 1): fees to run the network (e.g., gas fees, card rails).
Protocol (Layer 2): fees embedded in rules (e.g., AMM LP fee 0.3%).
Application (Layer 3): user-facing product fees (e.g., Coinbase trading fee).
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4. Mechanism Design – introduction (Day 5A)
A mechanism maps agents' actions to outcomes. Good mechanisms align incentives: each agent's individually optimal action produces the socially desired outcome. Day 7B extends this to AMMs, gas auctions, and PFOF.

5. Moral Hazard vs. Adverse Selection (Day 5A)
Adverse selection: hidden information before a transaction ("lemons problem"). The riskier party is more likely to transact.
Moral hazard: hidden action after a transaction. Once insured, agents take more risk.
Both arise from information asymmetry between principal and agent.

6. Signaling in Digital Finance (Day 5B)
A signal is a costly observable action that reveals private information credibly. Requirements: signal must be *cheap for high-quality types* and *costly for low-quality types* (single-crossing). Example: a 6-month track record on-chain signals reliability. Spence (1973).

7. Network Effects – Metcalfe's Law (Day 5A)
Value of a network $V \approx n(n-1) \approx n^2$. Doubling users quadruples value. Introduced in Day 5A as the foundation for platform revenue forecasting. Day 7A formalises with winner-take-all dynamics and tipping.

8. The Analyst's Canvas – four questions (Day 6A)
Q1: "Who pays whom, and why?" (revenue model)
Q2: "Who needs to show up for this to work?" (network requirements)
Q3: "What can break this?" (fragility analysis)
Q4: "What does the regulator see?" (regulatory exposure)
Source: *content_day5_framework_sheet.tex* (canonical wording)

9. Regulatory Arbitrage as Crisis Pattern (Day 6B / DFF)
Regulatory arbitrage: operating bank-like functions without bank-like regulation. Studied in "When Digital Finance Fails" as a recurring crisis trigger. Day 7B applies this to Ant Group (bank capital requirements) and Robinhood (PFOF disclosure).

10. Platform Business Model Types (Day 5B)
Four types covered in Day 5B:
(a) Transaction platforms: connect buyers/sellers, earn per-transaction fee
(b) Innovation platforms: provide infrastructure for third-party apps
(c) Investment platforms: aggregate capital, earn management/performance fee
(d) Social platforms: sell attention to advertisers, offer free service to users
Day 7 applies Rochet-Tirole pricing theory to all four.

Day 7 builds on all 10 concepts above. Day 7A (Economic Theory) formalises concepts 1, 2, 5, 6, 7 with rigorous models. Day 7B (Platform Wars) applies concepts 3, 4, 8, 9, 10 to real platform competition cases. Ant Group appears in both lectures as the running case.