

The Trust Problem: In-Class Exercises

Standalone Lecture — 3 Short Exercises

Prof. Dr. Joerg Osterrieder

Digital Finance — BSc Course

How to use these exercises

- Three short in-class exercises, ~8–10 minutes each.
- Attempt on paper first, then discuss with a partner.
- Solutions are hidden by default; instructor build reveals them via `\solutionstrue`.

Companion to `lecture_trust_problem`.

Exercise 1: Trust Intermediaries in Traditional Finance

Task. Name three categories of trust intermediaries in traditional finance. For each, state (a) the service they provide and (b) a rough order-of-magnitude cost (% or dollar amount). *Difficulty: Introductory — tests recall.*

Exercise 2: Total Cost of a Traditional Remittance

Scenario. You send \$500 from the US to a family member in Kenya via a remittance operator with:

- Flat fee: \$5
- Percentage fee: 6.5% of the principal
- FX spread: 3% (hidden in the exchange rate)

Task. Compute (a) each fee component in dollars, (b) total cost in dollars, (c) effective cost as a percentage of the principal. *Difficulty: Introductory — single-step arithmetic.*

Exercise 3: A Broken Trust Assumption in 2008

Task. The 2008 financial crisis is often framed as a failure of *trust in intermediated risk assessment*. In 2–3 sentences:

- a) State the specific trust assumption that retail and institutional investors relied on.
- b) Explain why it failed in practice.

Difficulty: Intermediate — tests conceptual understanding.