

In-Class Activity: TBM3 — Model Matching

Digital Finance – BSc Course

Prof. Dr. Joerg Osterrieder

Trustless Business Models | 15–18 min | Individual → Pair-share

Context: You have met six trustless business models: (1) DeFi Lending, (2) Tokenized Assets (RWA), (3) DAOs, (4) Supply Chain Provenance, (5) Self-Sovereign Identity (SSI), (6) Programmable Money. Coase’s three cost categories: *search / bargaining / enforcement*. The “best” model is the one whose trust-minimisation attacks the *dominant* cost.

Exercise 1: Map Scenarios to Models For each row pick the *single best* model (1–6) and the dominant Coase cost it attacks (S/B/E).

#	Scenario	Best model (1–6)	Cost (S/B/E)
A	A Kenyan coffee cooperative wants EU buyers to verify “fair-trade origin” without trusting a paper-based certification body.		
B	A Swiss asset manager wants to issue fractional shares of a CHF 15M Picasso painting to 300 accredited investors globally, tradeable 24/7.		
C	A crypto-native remittance app needs to auto-release funds to a freelancer in the Philippines the moment a GitHub PR is merged.		
D	A DeFi user holds \$40,000 in ETH and needs \$15,000 cash for 6 months without selling (no bank account abroad).		
E	A protocol treasury of \$120M wants community members — not a foundation board — to decide quarterly grant allocations.		
F	A patient wants to share their medical record with a specialist in another country without handing over a username & password.		

Exercise 2: Justify in Coase’s Language Pick **two** rows from Exercise 1. For each, write a 1-line justification stating *which cost category drops sharpest* and *why the other 5 models fit worse*.

Row ____ : _____

Row ____ : _____

Exercise 3: Residual Risk Spotter Trustless does *not* mean risk-free — each model shifts trust rather than removing it. For rows **A**, **B**, and **D** identify **one residual trust assumption** that remains even after the blockchain solution is in place.

A: _____

B: _____

D: _____

Debrief: Does every real-world scenario map cleanly to *one* model, or do most require combining several? Name one scenario where two models are genuinely needed.