



The Medici Banking Network

Facilitator Guide

A role-playing simulation for the History of Money series

Learning Bitcoin Foundation

Facilitator Guide

The One Lesson

Wealth moved between cities without gold moving between cities. A merchant in Florence handed gold to a Medici clerk and walked to London with a piece of paper. In London, another Medici clerk read the paper and handed over gold from London's vault. The gold never crossed the Alps. Bandits could not rob paper they could not redeem.

If attendees leave understanding that viscerally, the simulation has succeeded. Everything else is bonus.

Time Budget (45 to 60 minutes)

Segment	Time	What happens
Teaching presentation	15 to 20 min	Florence 1397, the problem of moving gold, the Medici insight. End with: "Now you run the network."
Setup and role cards	3 min	Assign roles, hand out gold and cards, point at branch tables.
Round 1a: gold only	2 min	Banks closed. Merchants and patrons must carry physical gold.
Round 1b: banks open	8 min	Vouchers issued. Trade accelerates.
Round 2: bandits and bank runs	10 min	Bandits active. Vaults can hit zero and branches close.
Debrief	5 to 10 min	Three questions and the Bitcoin tie-in.

Scaling: 8 to 80 People

More attendees means more parallel transactions, not more roles per person. Layers stack: Base alone runs 8 to 11 people; add Layer A for up to 16, Layer B for up to 24, and so on. Each layer is sized for the maximum of its range, with a drop list so you can cut down to the actual number of attendees.

Group size	Layers to print	Total cards
8 to 11	Base	11
12 to 16	Base + A	16
17 to 24	Base + A + B	24
25 to 33	Base + A + B + C	33
34 to 47	Base + A + B + C + D	47
48 to 62	Base + A + B + C + D + E	62
63 to 80	Base + A + B + C + D + E + F	80

How to Drop Cards When You Have Fewer People

Each layer in Part 2 ends with a drop list showing exactly which cards to remove for any size below the layer maximum. The general logic:

1. Start by removing the Florentine Painter Patron. She is the only patron whose absence costs nothing because she only interacts with one merchant who has other customers.
2. Then remove Second and Third copies of merchants and patrons, working from highest-numbered down.
3. Then remove standalone merchants whose patron has other customers (Banker's Daughter, Papal Courier, etc.).
4. Never remove any Banker, any Bandit, or any first patron of a city.

If you find yourself wanting to remove something not on the drop list, replace it with a duplicate of a different merchant from the same layer instead. This keeps the ratios balanced.

Materials

The materials list scales with attendance. The table below shows what to prepare for each size tier. Gold tokens can be poker chips, paper squares, or wrapped candies.

Group size	Cities	Vouchers	Pens	Ledgers	Gold tokens
8 to 11	2	30 to 40	4	2	420 (160 in vaults, 220 to roles, 40 reserve)
12 to 16	3	50	6	3	620 (240 in vaults, 320 to roles, 60 reserve)
17 to 24	4	70	8	4	880 (320 in vaults, 480 to roles, 80 reserve)
25 to 33	4	100	8	4	1140 (320 in vaults, 720 to roles, 100 reserve)
34 to 47	4	140	10	4	1520 (320 in vaults, 1060 to roles, 140 reserve)
48 to 62	5	180	12	5	2000 (400 in vaults, 1420 to roles, 180 reserve)
63 to 80	6	230	14	6	2500 (480 in vaults, 1780 to roles, 240 reserve)

Room Setup

Spread branch tables around the perimeter of the room, leaving the center open for travel. Each branch needs a city sign (you have these already), a ledger, a stack of blank vouchers, a pen, and a vault (cup or envelope) with the starting gold loaded in. Bankers sit behind the table. Travelers approach from the front.

Designate a corner as the Bandit's hideout, somewhere they can stash robbed gold in Round 2.

The Rules (Read Aloud to the Room, ~3 minutes)

Read slowly. Pause for questions. This is all the rules there are.

If you are a Banker

- Sit at your branch. You speak for the Medici in this city.
- When a Merchant or Patron deposits gold, take it into your vault, fill out a voucher for the deposited amount minus the 10% fee, sign it, and hand it over. Record the deposit in your ledger.
- When someone arrives with a voucher from another branch, check the signature, pay them the voucher amount in gold from your vault, and record the redemption.
- If your vault hits zero, your branch closes for the rest of the round. Travelers holding vouchers redeemable at your branch are stuck.
- The 10% fee is the bank's profit. Track it.

If you are a Merchant or Patron

- Your role card tells you who you are, where you start, what gold you start with, and exactly what you must do.
- You have two ways to move money: carry your gold with you, or deposit your gold at your home branch in exchange for a voucher and redeem the voucher at your destination.
- Vouchers cost a 10% fee when issued. Gold has no fee but Round 2 brings risk on the road.
- Bandits cannot read or redeem vouchers.

If you are a Bandit

- In Round 1, you are silent and invisible. Walk between cities. Watch who carries gold. Take no action.
- In Round 2, you may rob anyone you see carrying gold. Approach them, say "robbed," and take half their gold (rounded down). You cannot take vouchers.
- You may rob the same person only once per round.

The Full Script

Read these announcements at the marked times. The bracketed lines are facilitator actions, not spoken aloud.

Opening (Setup, 3 minutes)

“Welcome to Europe, in the year 1450. The Medici Bank has just opened branches across the major trading cities. You are about to step into this network as a banker, a merchant, a patron, or, for a few of you, a bandit. Take a moment to read your role card. It tells you who you are, where you start, and what you must accomplish.”

[Hand out role cards. Direct people to their starting city tables.]

[Brief bandits privately: silent in Round 1, active in Round 2.]

Round 1a: The Old Way (2 minutes)

“Round 1 begins. For the first two minutes, the Medici Bank is closed. Merchants and patrons, you may only pay with gold you physically carry, hand to hand. Begin.”

[Walk the room. Watch for people figuring out the friction of physical gold. Most will hesitate, look around, and realize the distances feel longer than expected.]

Round 1b: The Network Opens (8 minutes)

“The Medici Bank is now open. Bankers, take your seats. Anyone may deposit gold at a branch, receive a signed voucher for the amount minus 10%, and redeem that voucher at any other Medici branch. Continue your work.”

[Walk between branches. If a banker forgets the 10% fee, whisper a reminder. If anyone looks confused, point at their card.]

[At 5 minutes into Round 1b, ask aloud: “Bankers, how many vouchers have you issued? Anyone redeem a voucher across cities yet?”]

[Do not reveal the bandits. The Round 2 reveal lands cold.]

End of Round 1

“Freeze. Round 1 is complete. Stay where you are. Bankers, close your ledgers for the moment but do not reset them.”

Round 2: Trust and Its Limits (10 minutes)

“Round 2 begins. The network is now established. But two new realities arrive with this round.”

“First: bandits are now on the road. They walk the spaces between cities. They will rob anyone carrying visible gold of half their coins. They cannot touch vouchers.”

“Second: if a branch runs out of gold, it shuts. Anyone holding its vouchers cannot redeem them there. Begin.”

[Lean into the moment of surprise. Bandits are now visible.]

[After the first robbery, pause briefly: “What just happened? Could that have been avoided?” Then resume.]

[If a branch runs out of gold, do not rescue it. Announce: “The Bruges branch has closed. Anyone holding Bruges vouchers cannot redeem there.”]

[Cap bandits at 2 to 3 successful robberies. Don't let them bankrupt the room.]

End of Round 2

“Freeze. Count your gold. Count your vouchers. Bandits, count your loot. Bankers, finalize your ledgers.”

Debrief (5 to 10 minutes): Three Questions

Three questions, then the Bitcoin tie-in. Ask, then let attendees do the work. They will surface the lessons themselves.

1. What changed when the vouchers appeared?

Expected answers: trade got faster, gold stopped moving, the bankers became necessary, the network had to be trusted as a whole.

2. What were you actually trusting when you accepted a voucher?

Expected answers: the banker's signature, the Medici name, the assumption that the destination branch would still be open, the ledger as a record of who owed what.

3. What broke the system, or what would have, if we'd kept going?

Expected answers: a branch ran dry, a bandit robbed the wrong person at the wrong time, someone forged a voucher, a patron defaulted on a big debt. All four of these (bank runs, theft in transit, forgery, sovereign default) are exactly what eventually killed the real Medici Bank in 1494.

The Bitcoin Tie-in (the close)

“The Medici invented a settlement network on top of gold, secured by signatures and reputation. It worked for 97 years. It collapsed in days when the trust assumption broke. Every bank still works this way today. They net positions across a ledger, settle imbalances elsewhere, and depend on you trusting their signature. Bitcoin is one answer to the question this room just felt: can we get the network without the trust?”

Troubleshooting

Problem	Solution
No one is using vouchers in Round 1b	Single out one merchant: "You're walking from Florence to Bruges with 20 gold? That's a long road. There's a Medici branch right here." Once one person uses a voucher, others follow.
Bandit robs in Round 1	Pull aside, reset: "Round 1 is observation only."
Bandit is too aggressive	Pull them aside: "You've been spotted. Lay low for one minute."
Banker forgets the fee	Whisper a reminder. Do not shame them publicly.
Branch runs out of gold	Let it happen. Announce: "The Bruges branch has closed. Anyone holding Bruges vouchers cannot redeem there."
Room feels chaotic	Call a 30 second freeze. Resume with energy.
Someone finishes their tasks early	Tell them they may take on a second transaction with any willing partner, or assist a banker with the ledger.
Room is full of finance professionals who want to optimize	Lean in. Let them net positions, propose inter-branch lending, or try to forge a voucher. Affirm in the debrief: "You just reinvented the bill of exchange."