How did money get invented?

From barter to coins to paper to bank money. What a coin and a receipt promise, how a goldsmith turns 100 coins into $1,000, why a promise fails if everyone asks at once, money today, checklist sign 2.

1 Why money

barter · the test

- **Barter** = swapping goods for goods · Coralia (toy island): Mia has fish, needs shoes · Sam has shoes, wants bread → no swap
- **Double coincidence of wants** = a swap works only if each has what the other wants
- Money fixes it → **medium of exchange** (money's first job, Macroeconomics, Lesson 6): sell fish for money → buy shoes
- **Money** = anything **most people accept as payment** · valuable ≠ money

Money	Not money
coins · banknote · dollars in a bank account (card, phone)	gold ring, painting (valuable, no shop takes it) · bus ticket, gift card, loyalty points (one seller only)

2 Coins, paper

metal → promise

- **Lydia** (kingdom in today's Turkey), about **600 BC**: lumps of electrum (natural gold + silver) with a **stamp** → no weighing
- **Coin** = metal + a stamp that **promises weight and purity**
- Coins heavy for big payments → **Song China** (the emperors' dynasty then): merchants in Chengdu (western China) trade receipts → first standard paper notes, **jiaozi**, around **1024**

3 The goldsmith

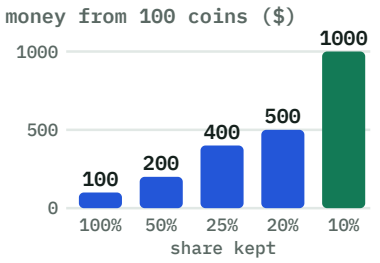
receipts · lending

- **London, 1600s**: goldsmiths (gold craftsmen) with safes → merchants leave coins → get a **receipt** → shops accept receipts
- **Banknote**, at first = a goldsmith's receipt: a **promise to hand over coins** when asked
- Coralia: Rosa holds **100 coins** ($1 each) · few ask on a normal day → keeps a **share**, lends the rest → borrowers spend → sellers deposit again → lent again
- Round by round (practice, half kept): deposits `100 + 50 + 25 = 175` after 3 rounds → never past `100 ÷ 0.5 = 200` · at 10%: lend `90 → 81 → 72.90…`

4 The multiplier

coins ÷ share kept

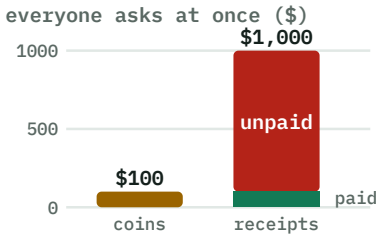
- **Reserve ratio** = share of deposits a bank keeps instead of lending · **money multiplier** = `1 ÷ reserve ratio`
- `money = coins ÷ share kept` → Rosa: `100 ÷ 0.10 = $1,000` · at 20%: `100 ÷ 0.20 = $500` (each coin behind $5)
- Share kept ↓ ⇒ lending ↑ ⇒ money ↑ · money is **made by lending**, not dug up
- Practice: Ezra, 50 coins → `50 ÷ 0.20 = $250`



5 The catch

everyone asks at once

- Rosa: **$100** of coins vs **$1,000** of receipts → all holders ask on one morning → pays only **$100**: 1 receipt in 10 · $900 unpaid
- **Bank money** = a promise to pay coins that people accept as payment → only as good as the share who ask **at once**
- Nobody cheated: normal days work · a promise holds only while few ask (→ Lesson 3: bank runs, 1930-33)
- Practice: Ezra $250 on 50 coins → `250 − 50 = $200` unpaid



6 Money today

checklist sign 2

- **Bank of England**: founded London **1694** as the government's banker → today the UK's **central bank** (bank of the government and of the other banks), its notes the promise most trust
- Bank of England: notes + coins ≈ **3%** of money in the UK · most of the rest = **bank deposits** (money in bank accounts) = promises
- Pay by card → no coin moves: your bank owes you less, the shop's bank owes the shop more
- Practice: "the bank keeps your money in its vault" → wrong · made-up bank, $2,000 deposits, 5% cash → pays `$100` at once
- **Bubble checklist** (warning signs, from Lesson 1) · **Sign 1 · Bought to resell, not to use** **Sign 2 · Money is a promise: it holds only while few ask at once**

Watch out: money = **coins ÷ share kept** (divide, don't multiply by the share) · a smaller share kept means **more** money, not less · valuable ≠ money: ask who accepts it · deposits are promises, not coins in a vault (a bank's locked strong room)