Three Core Questions for the Future of Money

Lecture 6 Synthesis

The 2008 Crisis & Central Bank Response

The Long History of Money

Digital Money

Bitcoin

Stablecoins

CBDCs



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¶ 6.2

The Early 2000s Housing Boom & Securitization



↳ Prices rise fast -> risky mortgages approved



Loans bundled



Complex Securities

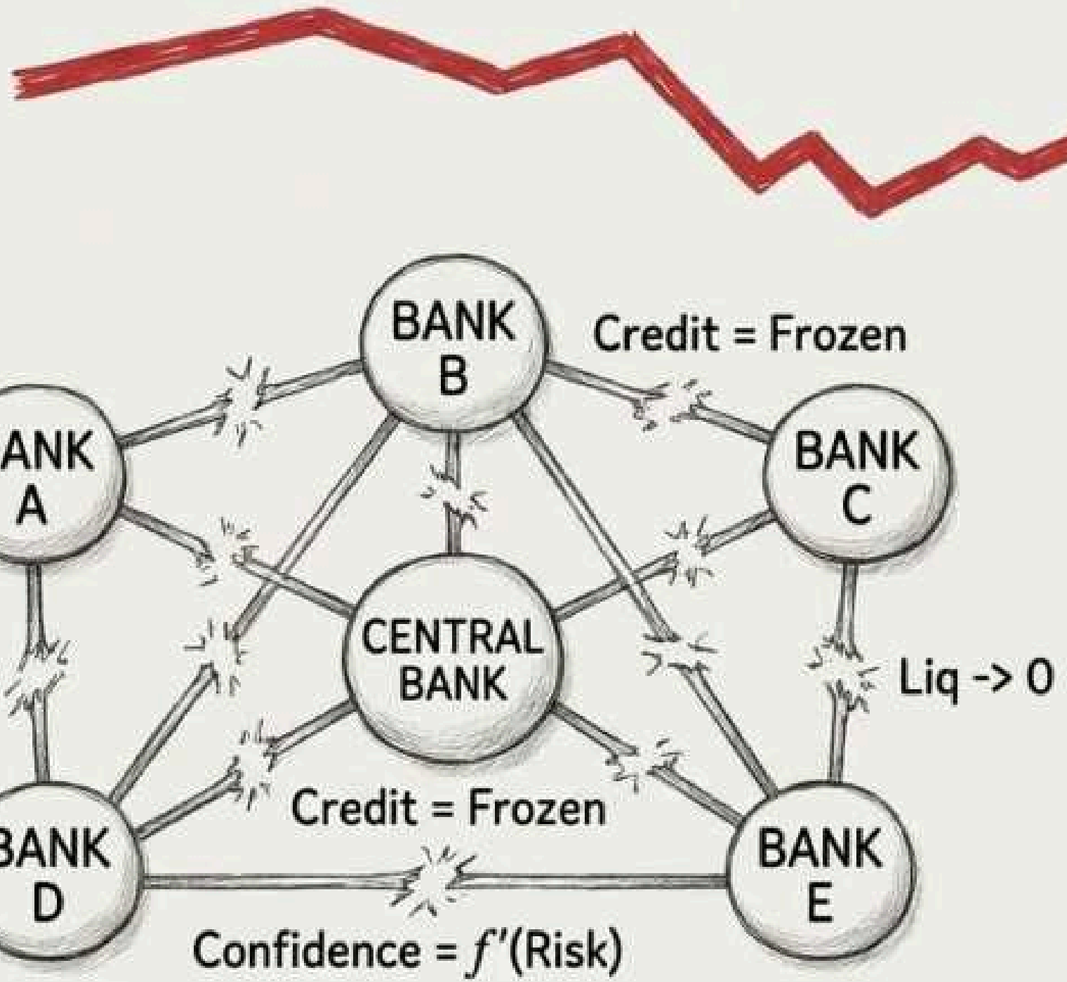
$$\text{Risk(Systemic)} = f(\text{Leverage(High)}, \Delta\ \text{Price(Housing)})$$

Even a small drop wipes out capital

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¶ 6.3

2007–2008: From Falling Prices to Panic

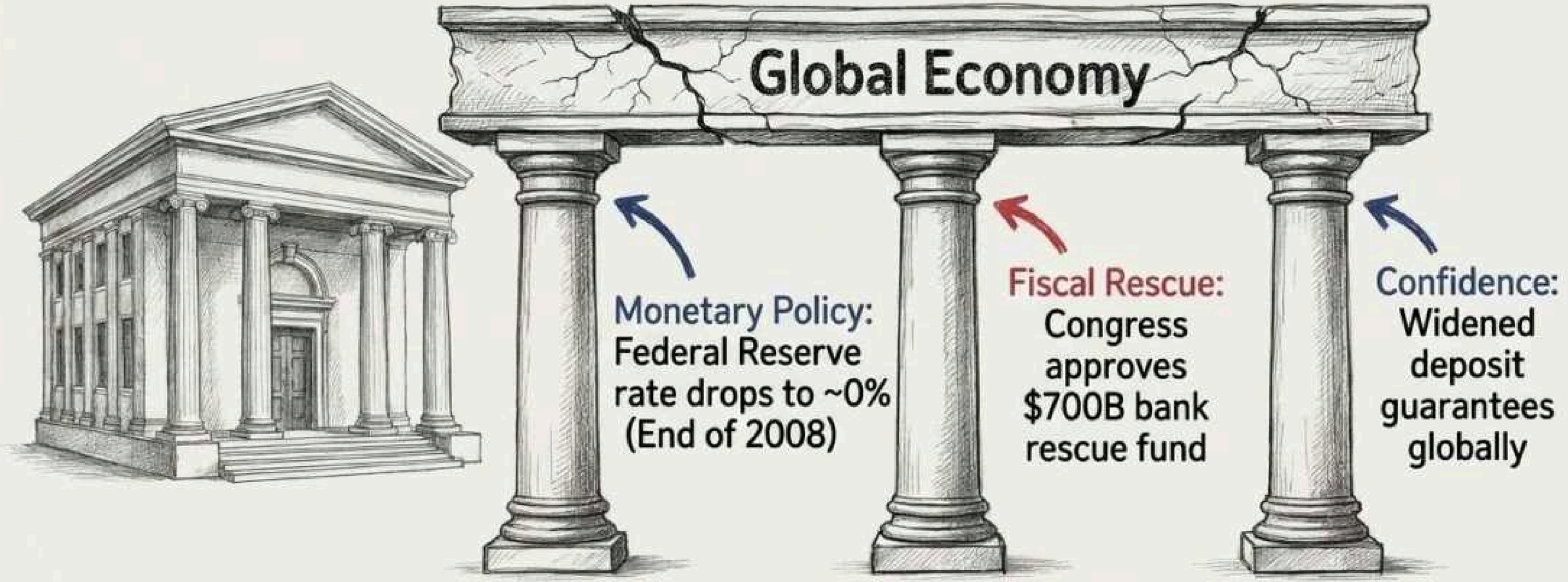


Sept 15, 2008:
Lehman Brothers Bankruptcy

Deepest recession since 1930s
-> US Unemployment hit 10%
(Late 2009).

¶ 6.4

Bagehot's Rule: Lend freely @ high rates on good collateral.



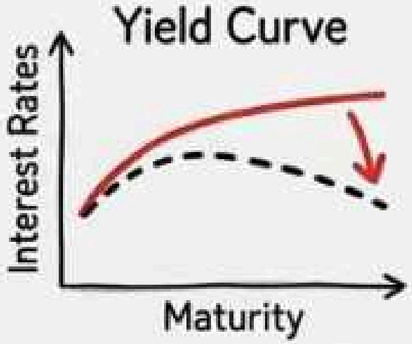
A New Tool: Quantitative Easing (QE)

¶6.5

1. Δ Reserves > 0

2. Central Bank uses reserves to buy bonds in open market.

3. Downward shift in longer-term interest rates.



4. Liquid money flows directly into the financial system.

Fed (Late 2008)

Bank of England (March 2009)

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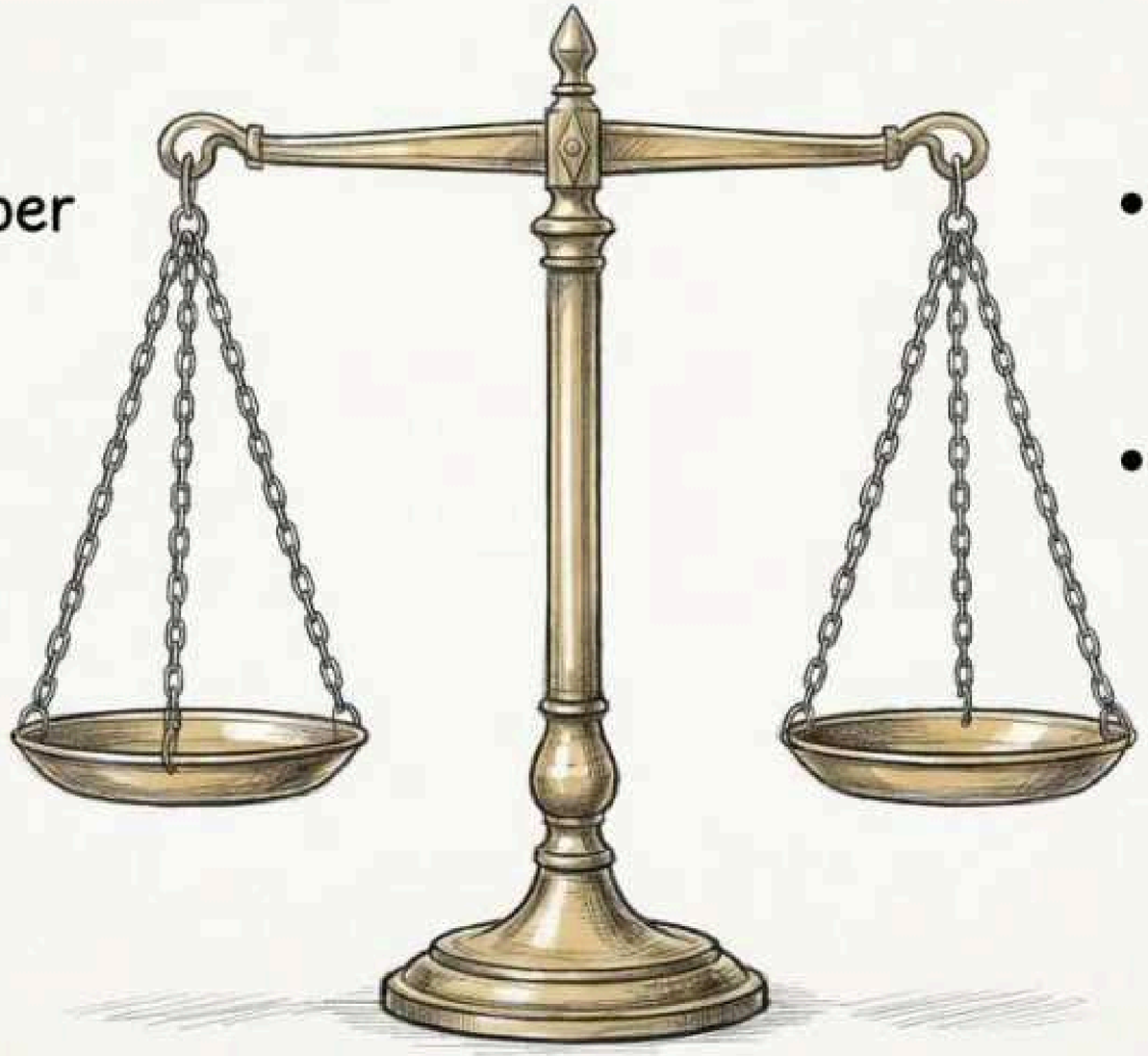
Assessing Quantitative Easing: The Divide

¶ 6.6

Supporters

- Prevented a deeper slump.
- Brought down borrowing costs.

  r (down) → I (up)



Critics

- Benefited existing owners / Widened **inequality.**
- Sparked fears of **high inflation.**



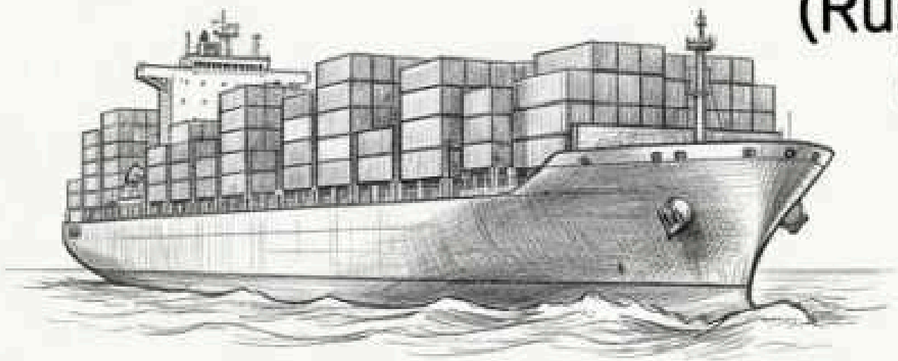


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¶ 6.7

2020–2022: Pandemic Shocks & Rising Prices

US Inflation Peak: 9.1% (June 2022)



Energy price jump (Russia invades Ukraine)

Emergency action / Large govt spending (2020)

Demand recovery

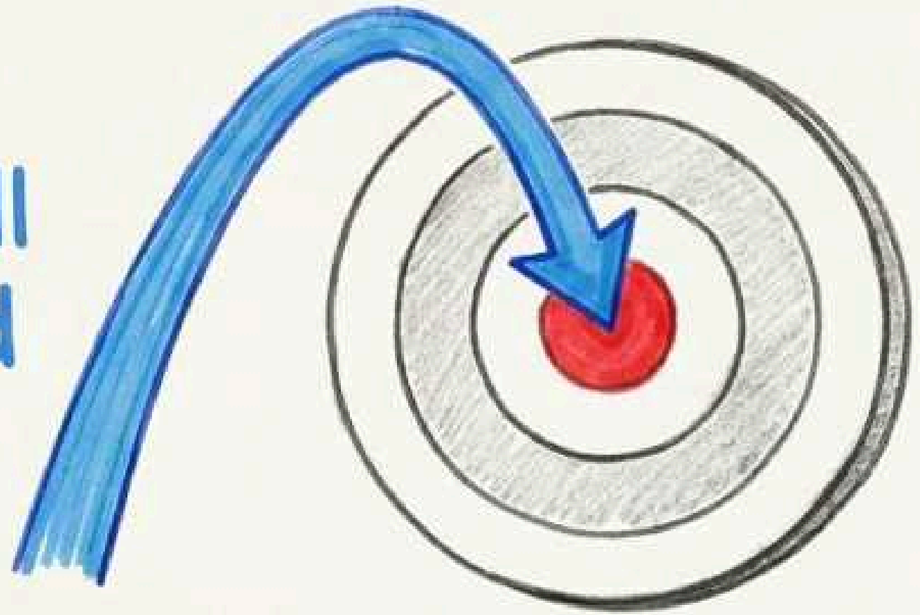
Supply chain disruption

Fed Rate hikes: ~0% to >5% (Mid-2023)

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The Soft Landing: Old Questions Return

Inflation fell back toward target.



Deep recession predicted by many did NOT materialize.

The episode reminded the public that the fundamental questions about money and prices remain highly active.

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October 31, 2008: Enter Nakamoto



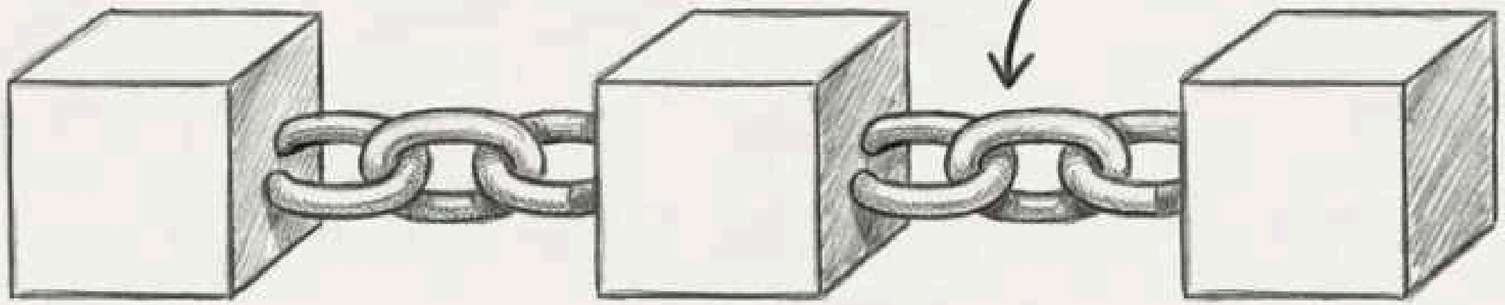
no bank
in the middle

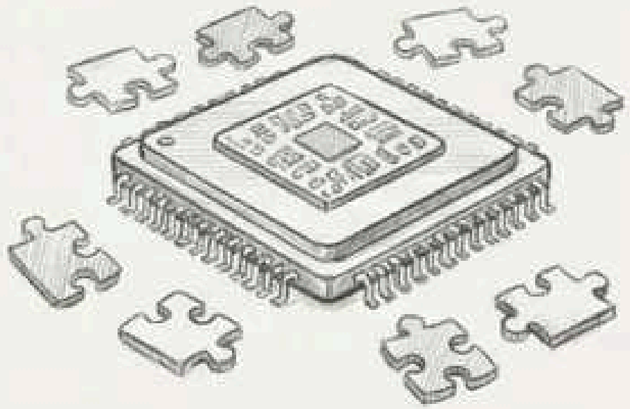
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¶ 6.10

The Mechanics: Public Ledger & Cryptography

The Ledger: Thousands of computers keep in step.





Mining

Computers compete to solve hard puzzles

$$\sum BTC \leq 21{,}000{,}000$$

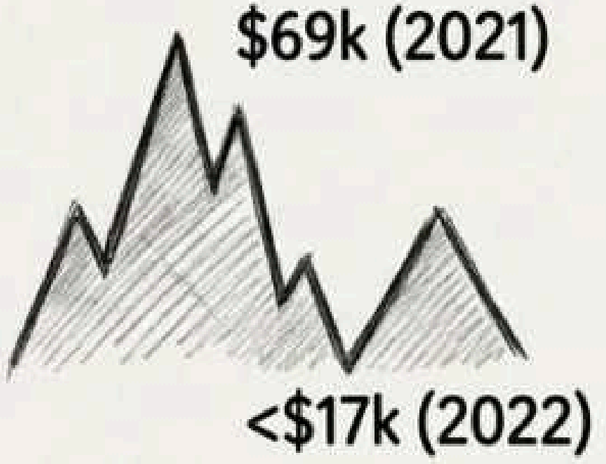
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Evaluating Bitcoin: The Three Jobs Test

Medium of Exchange [Score: Low] Used for some payments, but not most.

Unit of Account [Score: Low] Rarely used; few prices quoted in BTC.

Store of Value [Score: Volatile]



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Debating Crypto's Value

¶ 6.12

Digital Gold



A scarce asset operating completely outside government control.

Volatility, Waste & Fraud



FTX Collapse (Nov 2022)

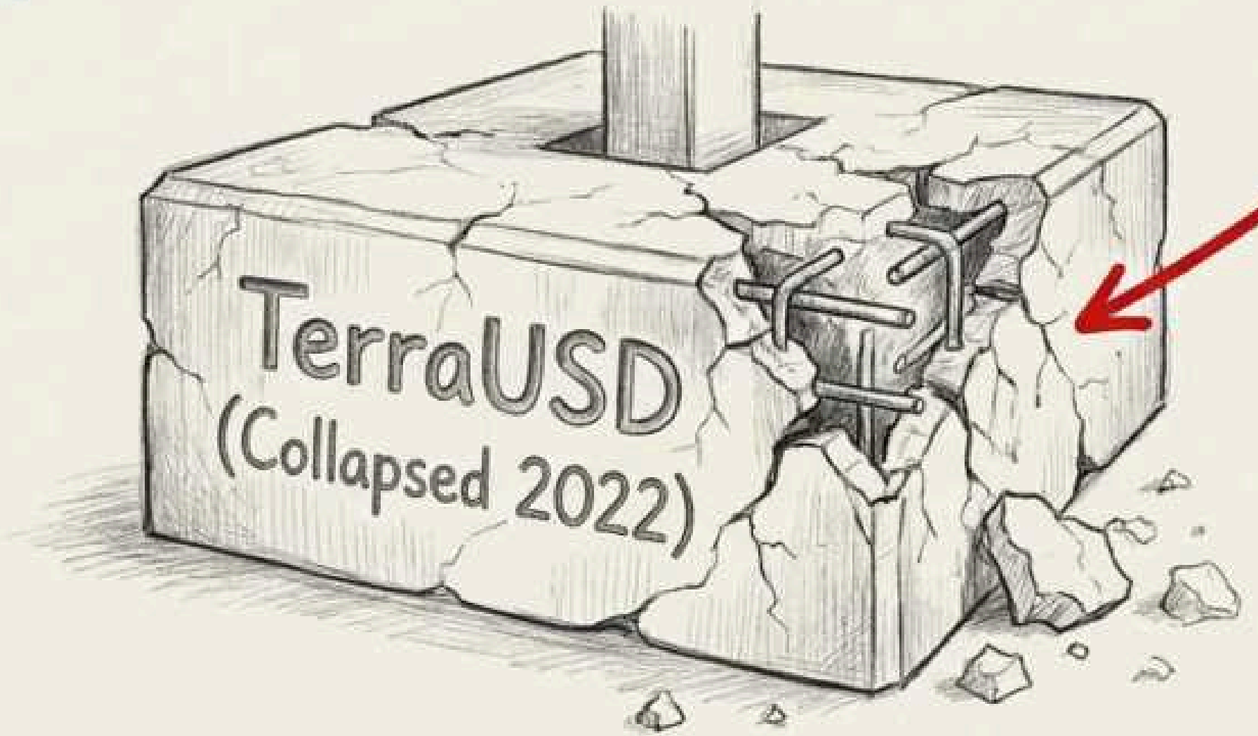
Founder convicted of fraud.

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The Stablecoin Alternative: Pegged Value

1.00 Digital Token ≡ $1.00 Reserve (Cash & Short-Term Bonds)

Widely used to move money across borders and between exchanges.



Risk: Reserves may not be what the issuer claims. Governments are now writing rules.

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CBDCs: National Money Goes Digital



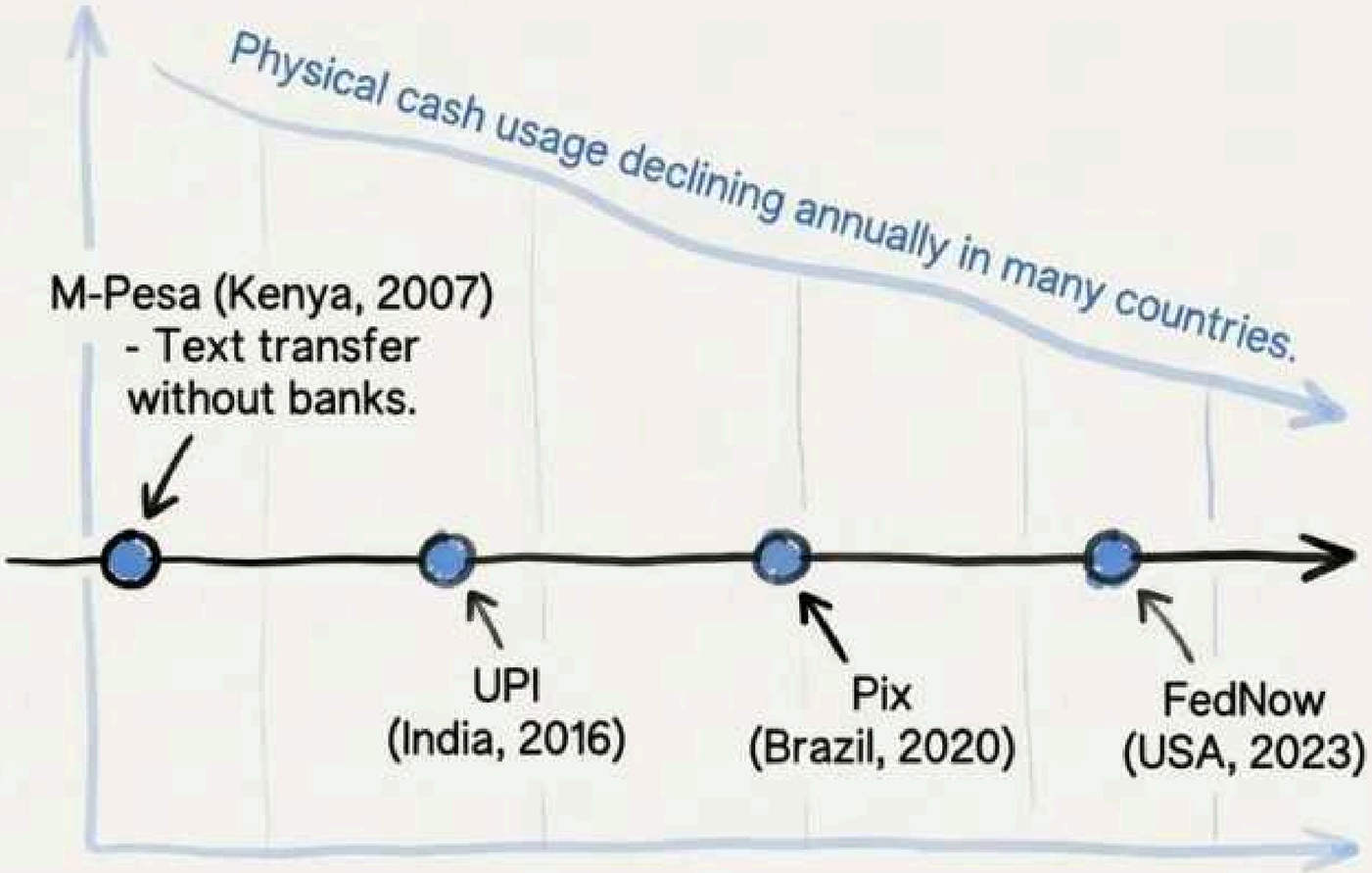
Pros vs. Cons

Supporters:	Critics:
Cheaper payments & Wider access.	Privacy concerns & Risk of draining commercial bank deposits.

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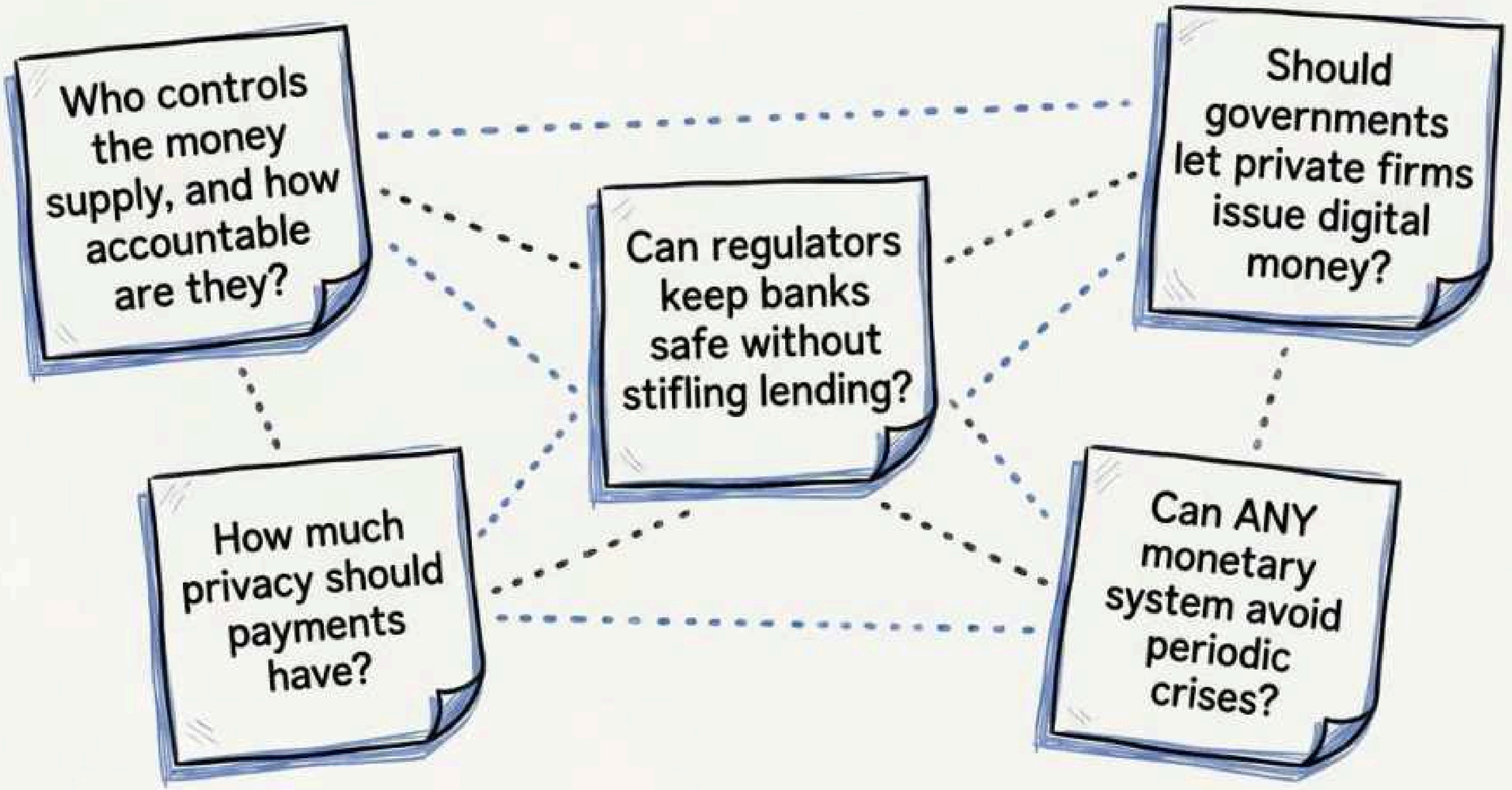
The Mobile Payment Revolution





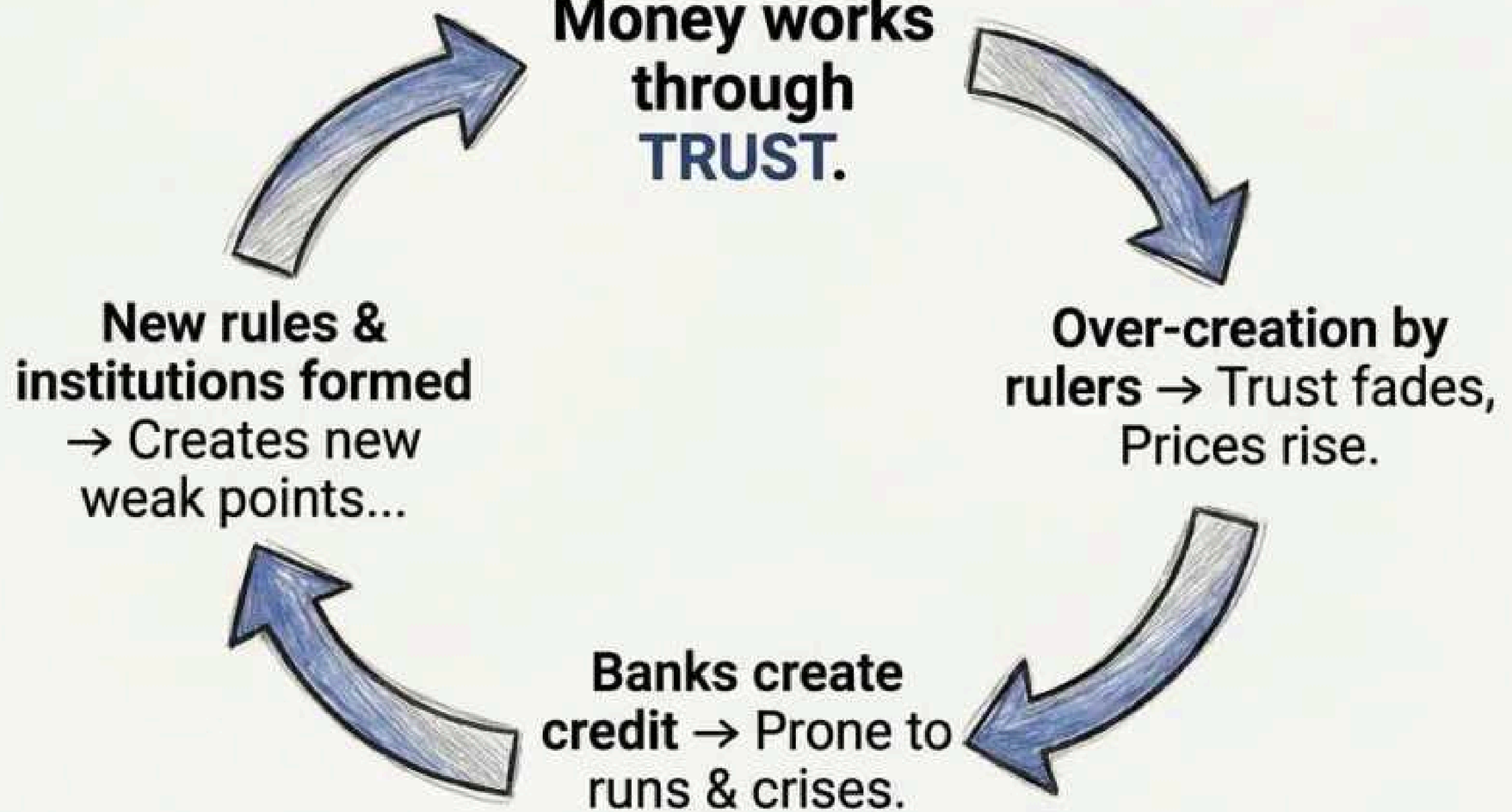
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Open Questions for the Next Era



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Recurring Patterns in Monetary History



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Analyzing the News: A Five-Point Framework

- 1. What is being called money, and does it do the three jobs?
- 2. Who creates it, and what limits them?
- 3. What backs people's trust in it?
- 4. Who gains and who loses from the change?
- 5. What does the historical record say about the last time this happened?



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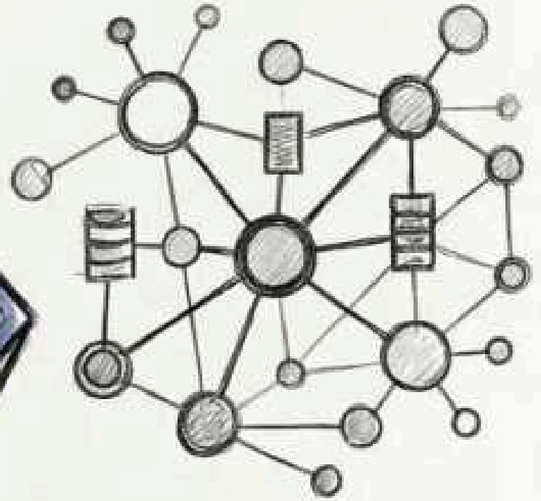
Summary: Old Problems, New Answers



2008 & 2022 Crises

Old Problems Return

The history in this course gives you the tools to judge them.



Crypto, Stablecoins, CBDCs, Mobile

New answers to the old question of what money should be.

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A Final Application Exercise

Pick one new form of money (Bitcoin, Stablecoin, or CBDC). Apply your tools:

1. How well does it do the 3 jobs of money?
2. What gives people reason to trust it?
3. What historical pattern from this course worries you most about it?

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