The Bitcoin Standard — Lecture 2 (Primitive Money) • Study Notes

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Big Picture

- Primitive monies illustrate how societies experiment with different goods before converging on the hardest form of money.
- Rhinestones in Yap and glass beads in West Africa show how money can function without moving physically — but also how easy production destroys monetary value.
- The lesson: **monetary goods survive only if their stock-to-flow ratio is high enough to resist inflation.**
- Metals eventually outcompeted primitive monies because they are durable, uniform, and harder to inflate.

Core Claims

1. **Rhinestones of Yap**
2. Huge limestone disks used as money for centuries.
3. Ownership transferred by social consensus, not physical movement.
4. Similar to Bitcoin: ownership exists on a shared ledger, not in physical transfer.
5. **Salability of Rhinestones**
6. **Across space**: large stones stayed fixed, yet ownership worked anywhere on Yap.
7. **Across time**: strongest feature — limestone scarce on Yap, requiring dangerous expeditions to nearby Palau.
8. **Across scales**: limited divisibility; could not be easily broken into smaller units.

9. **Loss of Monetary Role**
10. Captain O'Keefe (19th c.) used modern ships to mass-produce stones cheaply.
11. Supply inflation destroyed their value → Yap stones lost monetary role.
12. Lesson: without scarcity, money collapses.
13. **Glass Beads in West Africa**
14. Rare locally → adopted as money.
15. Europeans flooded supply with cheap glass → Africans' wealth expropriated.
16. Another example of easy money collapse.
17. **Metals as Money**
18. Outcompeted primitive forms because they can be standardized (coined).
19. Iron and copper → too abundant, low stock-to-flow → lost monetary role.
20. Silver lasted longer but succumbed to industrial overproduction.
21. Gold won because of durability, indestructibility, and very high stock-to-flow ratio.
22. **Stock-to-Flow Framework**
23. **Industrial commodities**: stock-to-flow ≈ 1 → supply growth easily floods market.
24. **Gold**: stock-to-flow ≈ 60 → new production tiny relative to stock, resistant to inflation.
25. Key: not just rarity, but **indestructibility and accumulated stockpiles**.
26. **Why Not Platinum or Palladium?**
27. Also indestructible, but lack centuries of accumulated stockpiles.
28. Small base means new flow overwhelms stock → volatile, unsuitable as money.
29. Example: 1820s Russia tried platinum coins → failed quickly.

Key Concepts & Mental Models

- **Primitive money** → early forms like stones, shells, beads.
- **Salability** → usefulness across scales, space, time.
- **Stock-to-flow ratio** → ultimate measure of monetary hardness.
- **Easy money trap** → high prices → easy new production → collapse.
- **Difficulty adjustment** → Bitcoin's innovation preventing supply inflation.

Examples & Applications

- **Yap Stones**: Bitcoin analogy — consensus ledger, ownership transfer without physical movement.
- **Captain O'Keefe**: demonstrates inflationary collapse of easy money.
- **Glass Beads**: colonial exploitation through monetary debasement.
- **Metals**: natural "protocol war" of money; gold won.
- **Asteroid Mining Thought Experiment**: would increase stock-to-flow → strengthen gold's role.

Quotable Ideas

- "Money is chosen not by decree, but by properties that resist inflation." — Ammous
- "The problem with easy money is always supply inflation." — Ammous
- "Gold is money not because it is rare, but because it is indestructible and has the highest stock-to-flow ratio." — Ammous

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Study Prompts

- How did Yap stones function as money without moving?
- Why did Captain O'Keefe's arrival destroy their monetary role?
- Explain why glass beads in West Africa were demonetized.
- Compare iron, copper, silver, and gold as monetary metals.
- Why does indestructibility matter more than rarity?
- Why do platinum and palladium fail as monetary goods?

TL;DR

Primitive monies like Yap stones and glass beads worked temporarily, but their low hardness made them vulnerable to supply inflation. Metals outcompeted them due to durability and uniformity, with gold ultimately dominating because it is indestructible and accumulates stockpiles across millennia. The stock-to-flow ratio is the key framework: easy money always collapses; hard money survives. Bitcoin inherits gold's role by combining indestructibility with difficulty adjustment, making it the hardest money ever created.
