



CIRCULAR SYSTEM GOLD



Gold, Global – Circular System Characteristics

System characteristics:

Gold is used as „safe heavens“ assets traded in the commodity markets. Its system relevance in the financial markets (and as gold reserve in national banks) has been traditionally high.

Availability/Role of recycling technology:

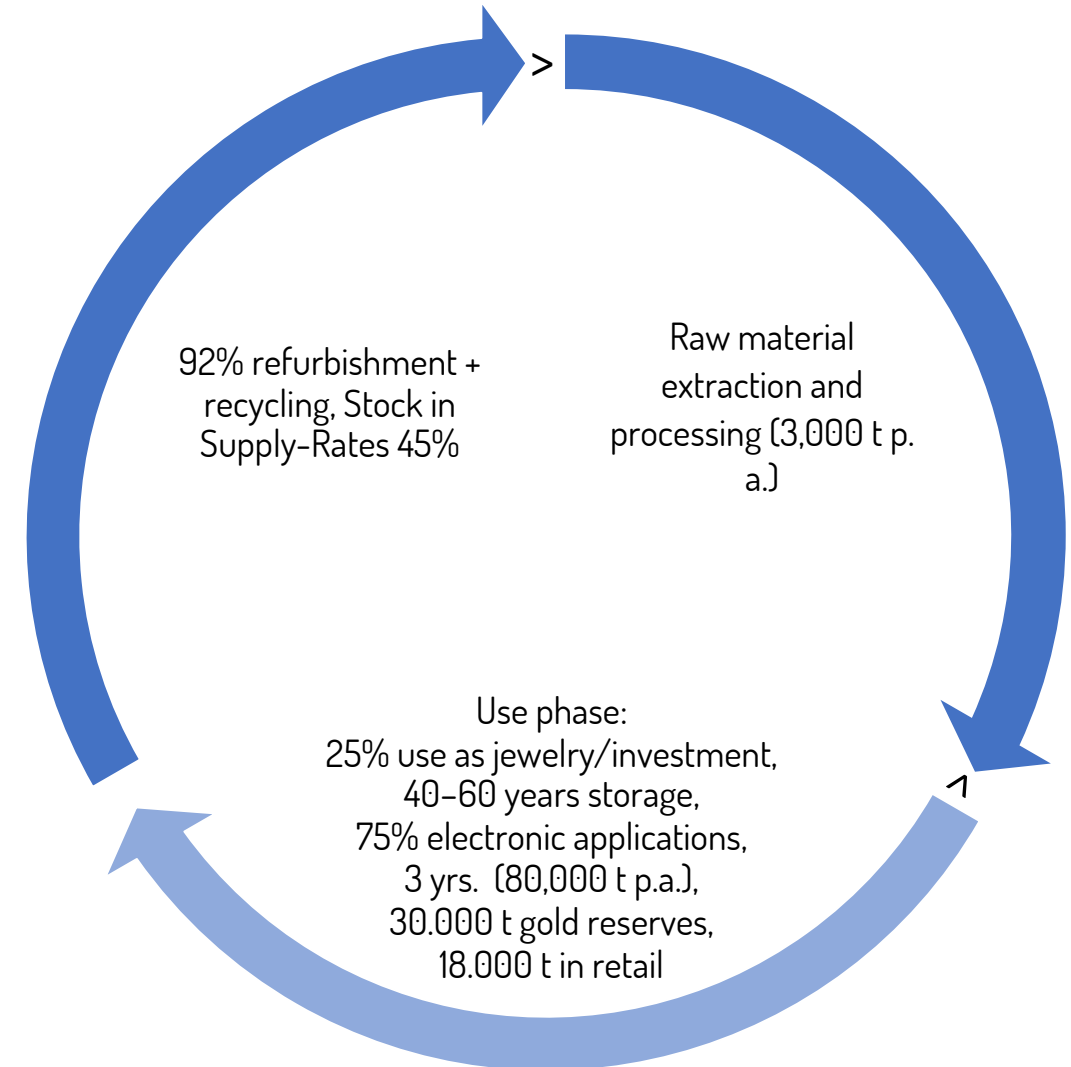
- Product durability and recyclability is very high.
- Recycling process technologies are available.

Maturity of market:

- Professionalized digitized stock markets for pure material.
- Monopolistic extraction markets (cost driven).
- Oligopolistic recycling markets, highly specified, **high investments necessary, key player Umicore.**
- Competitive consumer markets (jewelry, electronics).
- No specific circular logistics.
- Material banks (banks, safes, depots, high stock-in-supply-rate).

Policy intervention type/regulations/directives:

- 1865 Lateinische Münzunion.
- 1945-1971 Bretton Woods.
- 1999 EU Central Bank Agreement.
- World Gold Council, 33 Members, Gold miners, Gold Valuation Framework.





SWOT Gold

1. Closed loop
2. Technical cycle, C2C, non-toxic material
3. Large stocks, measurable stock-in-supply-rates
4. Inherent value, strong compliance for financial markets
5. Stock trading – highly developed markets
6. High cognition for stewarding of material

Strength

1. Downcycling (electronics), when not designed according to C2C principles
2. Informal recycling markets (80% in global south)
3. Lack of legislative for collection + recycling
4. Lack of design for recycling, technical diversity of materials keeps growing

Weakness

Opportunity

1. Rising demand (electronic technologies)
2. Market growth

Threat

1. Geopolitical policies / punitive tariffs
2. Substitution
3. Speculation – explosion of prices
4. Exploitation of stock for supply
5. End of globalization



1. Nature Science

Discovery of gold as precious and lustrous mineral 6000 years ago.



2. Envisioning

Referred to as “gold of the gods”, the mineral was reserved for high society. Visions of gold as symbol for wealth and superhuman qualities and therefore value as cognitive element for gold goes back in ancient times.

An old, open wooden chest with metal bands and leather straps, containing several strands of pearls and gold chains, sitting on a stone step. The chest is made of dark wood with metal bands and leather straps. It is open, revealing several strands of pearls and gold chains inside. The chest is sitting on a stone step, and the background shows a stone wall and a concrete wall.

3. Investment

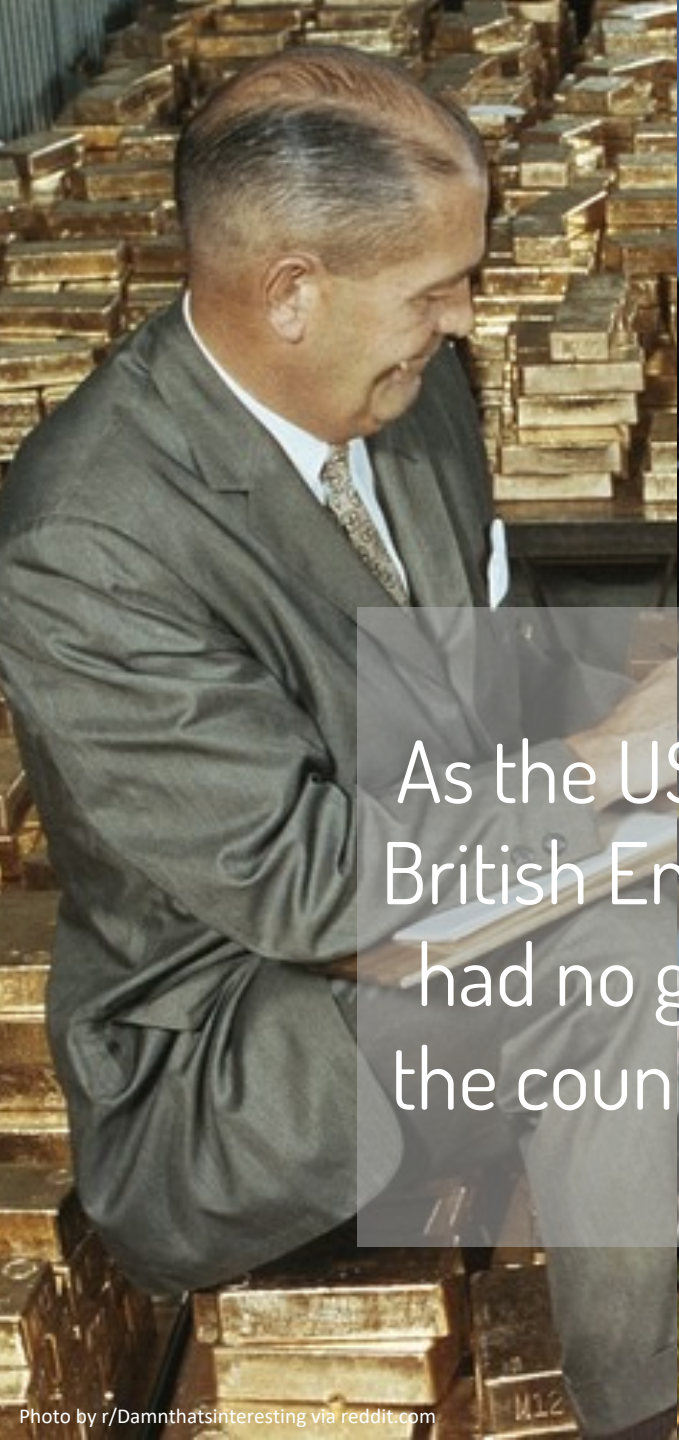
Kings and monarchs started to stockpile gold as treasure. Material banks were born.



4. Rocket Science

For trading, people had to meticulously weigh lumps of copper, silver or gold and determine its purity. Around 550 BC, King Croesus solved the problem. The ruler standardized silver and gold coins of uniform weight.

The coins give Croesus a new form of influence: financial power. "I'm not Croesus" today still signifies a lack of pecuniary potency.



6. Historic Event

As the USA declared themselves independent from the British Empire in the end of the 18th century, the country had no gold reserves. Paper money led to inflation, so, the country started digging for gold and started to build banks with bars of gold in Fort Knox.



5. Cognition for System Relevance

After World War II, rebuilding Europe as an economic center and important trading partner was the goal. The Bretton Woods agreement pursued the stabilization of exchange rates between the currencies so that world trade could proceed without problems. The dollar-gold-standard was reestablished.

The image is a composite background. On the left, there are several green and blue printed circuit boards (PCBs) with various electronic components. In the center, a large pile of fine, yellowish-gold dust or particles is scattered. To the right, there is a gold bar with some markings, and two smartphones are visible: one with a brown back and another with a dark blue back. The overall theme is electronic waste and resource recovery.

7. Technical Innovation

Today, the market has developed digitized sorting and recycling technology to solve diversification to get gold back out of even electronic equipment.



umicore

Umicore Gold
Recycling closed loop

8. Business Innovation

The system has become manageable through a one player who wins through knowledge and technology.

9. Life Cycle

System has evolved. Technical cycle is working. Gold remelting and recycling is common practice.

A gold Bitcoin coin is positioned on the right side of the image, partially overlapping a semi-transparent grey text box. The coin features the Bitcoin symbol and the word "Denarium" on its surface. To the left of the text box, there is a rough, irregular gold nugget. The background is dark, making the gold elements stand out.

10. Forecast

Economic activity, the growth of electronic devices and even new digital currencies are connected to gold as secure currency in circulation which is why it is projected to accompany development and circular economy.



7. Handling Diversity



Society

8. Business Innovation



Organization

6. Cognition for System Relevance



2. Vision

3. Investment

9. LCA

5. Historic Event

4. Rocket Science



Individuum

1. Discovery

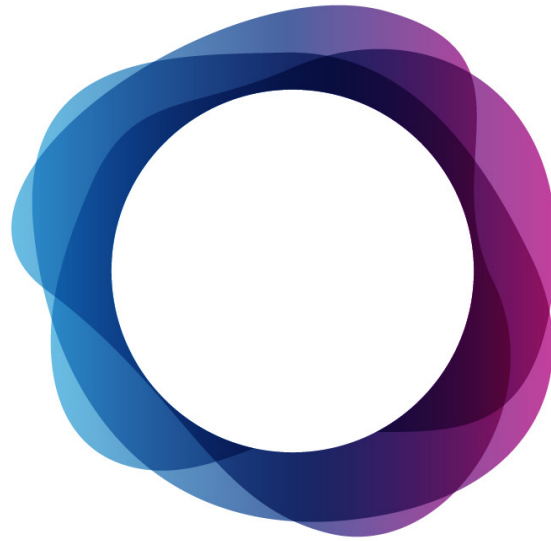


10. Foresight



Thank you
for your
attention

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