



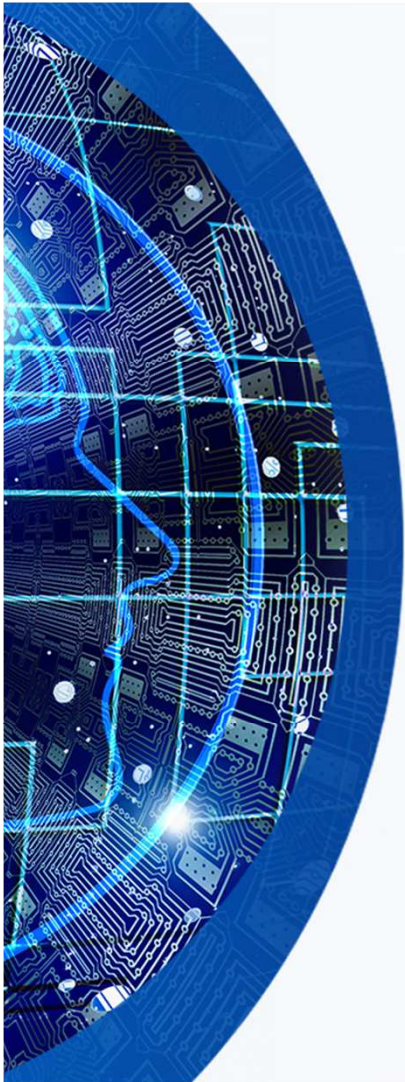
Status and Development of Central Bank Digital Currencies (CBDC)

Prof. Dr. Clemens Jäger



Let me issue and control a
nation's money and I care not
who writes the laws.

~ Mayer Amschel Rothschild



Agenda

1. **What are CBDC's?**
2. Current status
3. CBDC's vs. Cash
4. Impacts
5. Outlook



CBDC

CBDC = central bank digital currency

“In simple terms, a central bank digital currency (CBDC) would be a digital banknote.”

(Source: <https://www.bis.org/about/bisih/topics/cbdc.htm>)

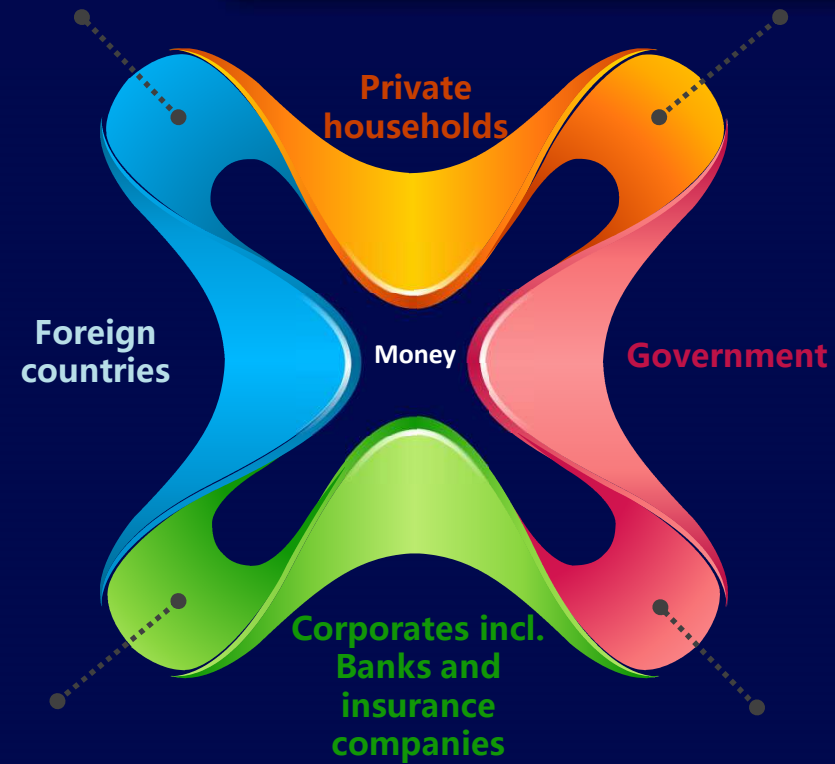


CBDC

- In the course of CBDC development and implementation, certain factors must be ensured. Monetary functions: (Source: <https://www.bundesbank.de/de/service/schule-und-bildung/erklaeerfilme/was-ist-geld--800972>)
 - Exchange function
 - Store of value function
 - Unit of account function
- Characteristics of money: scarcity, durability, divisibility, transportability and general acceptance



Changes at the heart of our economic system





Two versions

➔ Basically there are two variants to distinguish:

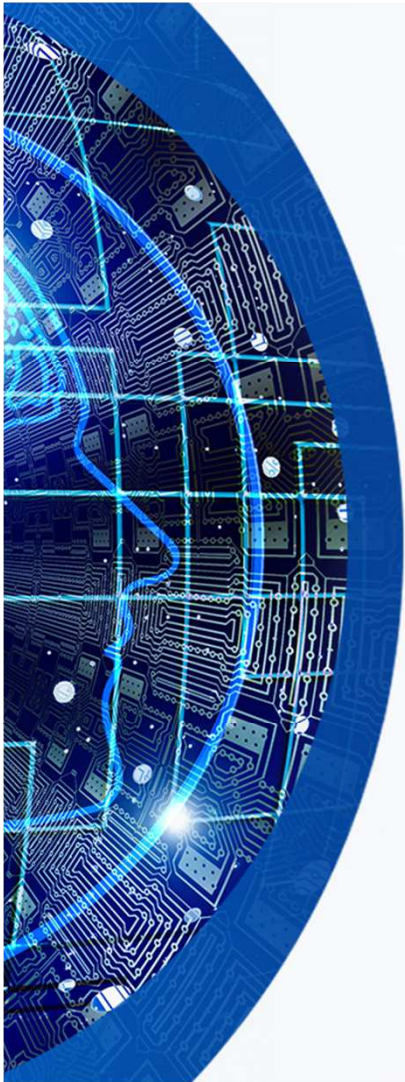
- 1) Wholesale CBDC
- 2) Retail CBDC

Option 1:

Everyone gets an account at the central bank for payment transactions. Like cash, these deposits are not at risk of insolvency because the central bank backs them up.

Option 2:

Citizens cannot hold an account at the central bank, but they have special accounts at banks for CBDC's. Unlike normal bank deposits, the deposits in these accounts are not a loan to the bank, but a trust account. The account holder owns the money; the bank manages it only as a service provider.



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Today's Central Bank Digital Currencies Status

Database update: September 2022 • News update: Oct, 31 22

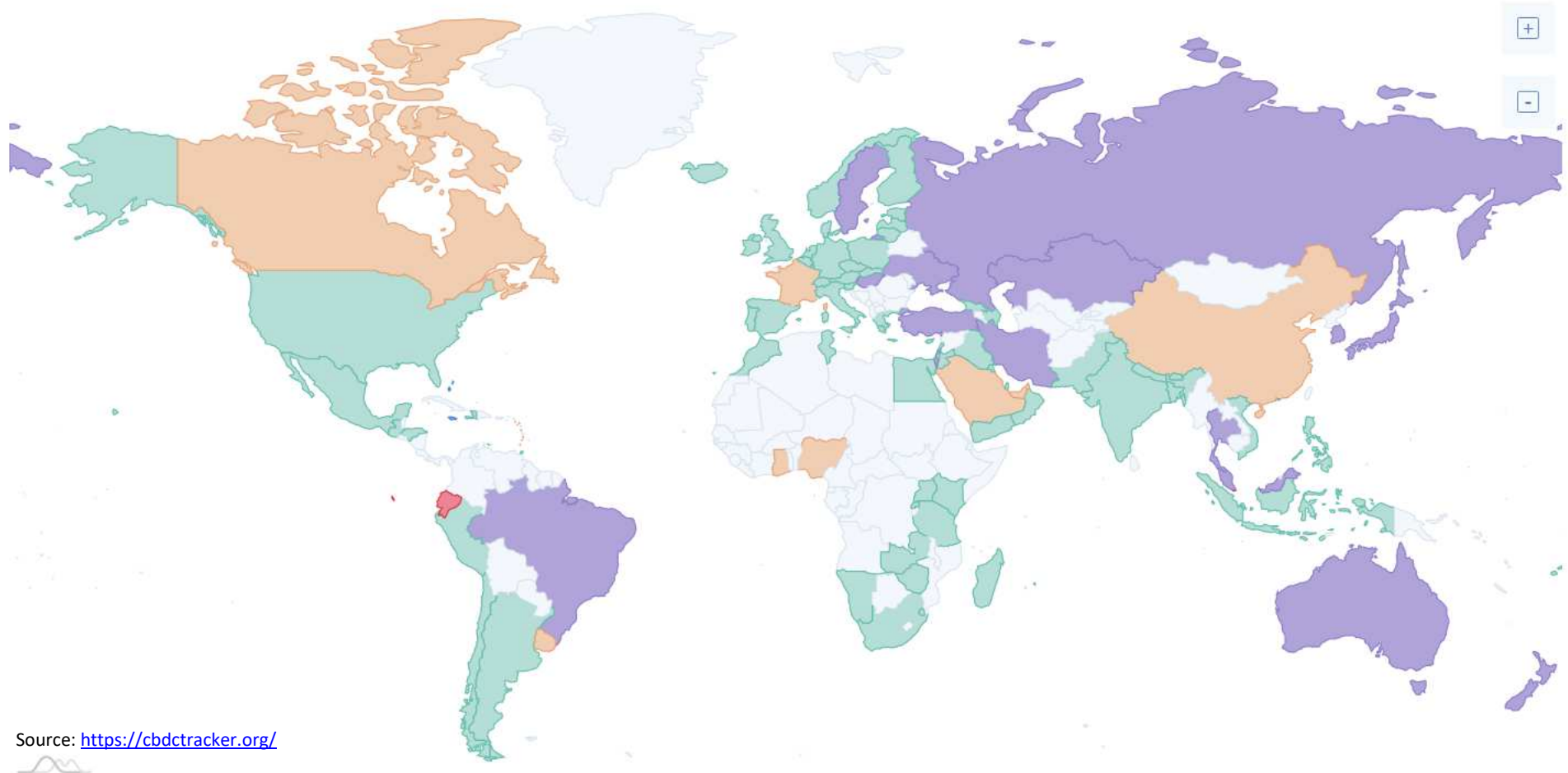
☐ Cancelled

 Research

- Proof of concept

 Pilot

Launched

[Show all](#)

Source: <https://cbdctracker.org/>



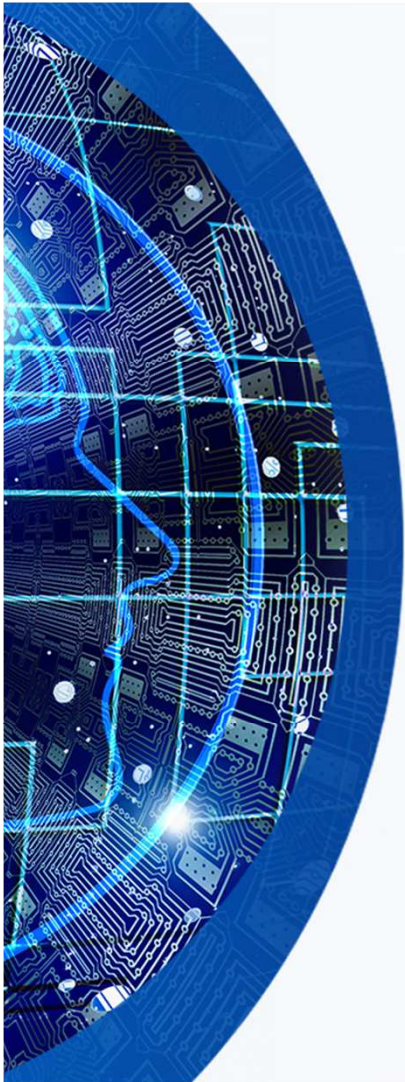
President Biden Executive Order, 09. March 2022 & Fact Sheet September 2022

- (1) Over 100 countries are exploring or piloting Central Bank Digital Currencies (CBDCs), a digital form of a country's currency.
- (2) Highest urgency regarding the research and development of an own CBDC. The expenses for this are in the national interest!
- (3) The goal is to ensure U.S. international leadership in promoting the development of CBDC's that are consistent with the priorities and democratic values of the U.S.



Source:

<https://www.whitehouse.gov/briefing-room/statements-releases/2022/03/09/fact-sheet-president-biden-to-sign-executive-order-on-ensuring-responsible-innovation-in-digital-assets/>
<https://www.whitehouse.gov/briefing-room/statements-releases/2022/09/16/fact-sheet-white-house-releases-first-ever-comprehensive-framework-for-responsible-development-of-digital-assets/>



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Benefits of cash

- (1) Transactions are anonymous
- (2) Good control over spending
- (3) No technical infrastructure required
- (4) Cash is an inclusive form of payment (including children, elderly people, people with physical or mental disabilities, women)
- (5) Limitation of negative interest rates
- (6) Cash is a low-cost payment instrument for the user



„Bank of central banks“

„In our analysis on CBDC's, in particular for general use, we tend to establish the equivalent with cash - and there is a huge difference there. For example, in cash, we don't know who is using today a 100 \$ bill or a 1000 Peso bill. A key difference in CBDC is [that] the central bank will have **absolute control** on the rules and regulations that will determine the use [of central bank digital currencies]. And also, **we will have the technology to enforce that**. Those two issues are extremely important and makes a huge difference with respect to what cash is.“

Agustín Carstens - General Manager, Bank for International Settlements

Source: <https://meetings.imf.org/en/2020/Annual/Schedule/2020/10/19/imf-cross-border-payments-a-vision-for-the-future> (from approx. min. 24)

„Like cash, a CBDC could and would be available 24/7, 365 days a year. At first glance, not much changes for someone, say, stopping off at the supermarket on the way home from work. **He or she would no longer have the option of paying cash.** All purchases would be electronic.“

Speech of Agustín Carstens - General Manager, Bank for International Settlements

Source: <https://www.bis.org/speeches/sp190322.pdf>, page 5.

Goal of CBDC's: “So that instead of having banknotes and cash in our pockets or in our wallets, we can have exactly the same thing. **But in a digital form.**”

Interview with Christine Lagarde

Source: <https://www.youtube.com/watch?v=-reNQWdmjX0>, from approx. min. 15:30

CBDC's vs. Cash

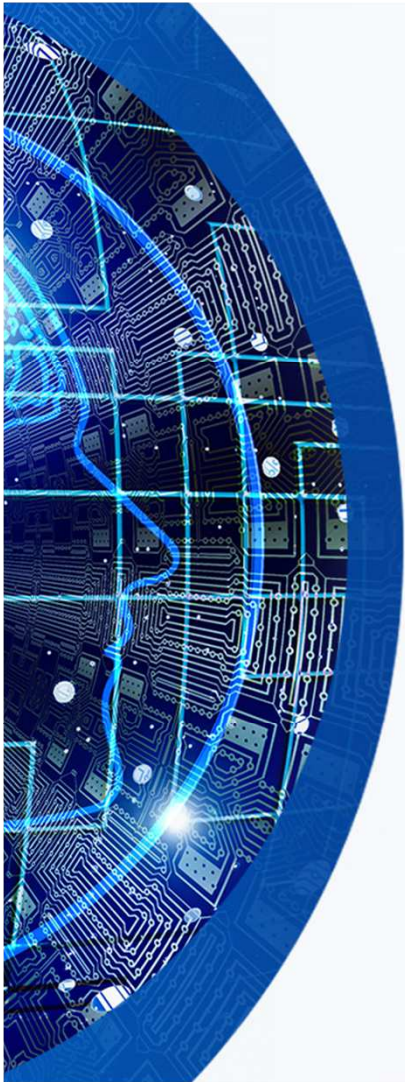
BETTER THAN CASH
ALLIANCE

www.betterthancash.org

- „War on Cash“ was successively replaced by the phrase „financial inclusion“
- Dan Schulman (CEO, Paypal) explained very clearly the benefits of „financial inclusion“ for online payment services. This included the statement: „bringing people into the system“! (Source: <https://www.bloomberg.com/news/videos/2015-12-01/paypal-ceo-financial-inclusion-a-huge-opportunity>)

BILL & MELINDA
GATES foundation





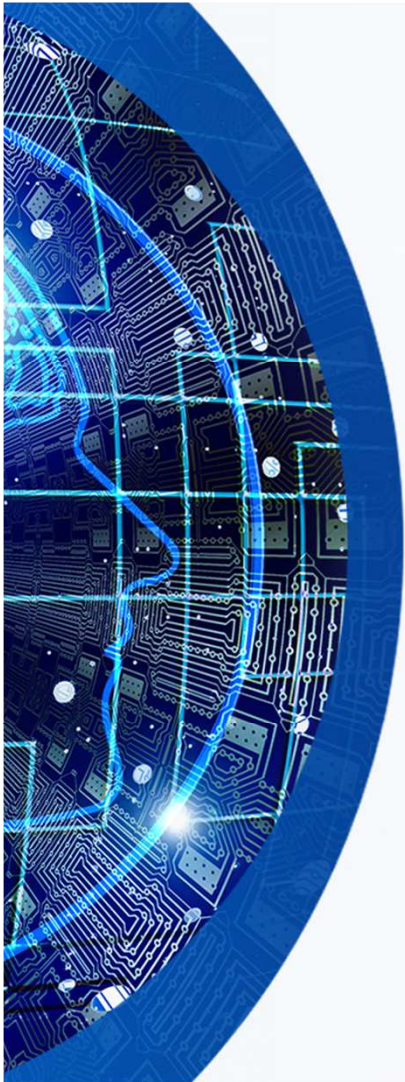
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Impacts



Source: a.o. Bindseil, U.
Tiered CBDC and the financial system, in ECB,
Working Paper, No 2351 / January 2020, p. 5.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3513422



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Competition of the CBDC's





Competition of the CBDC's

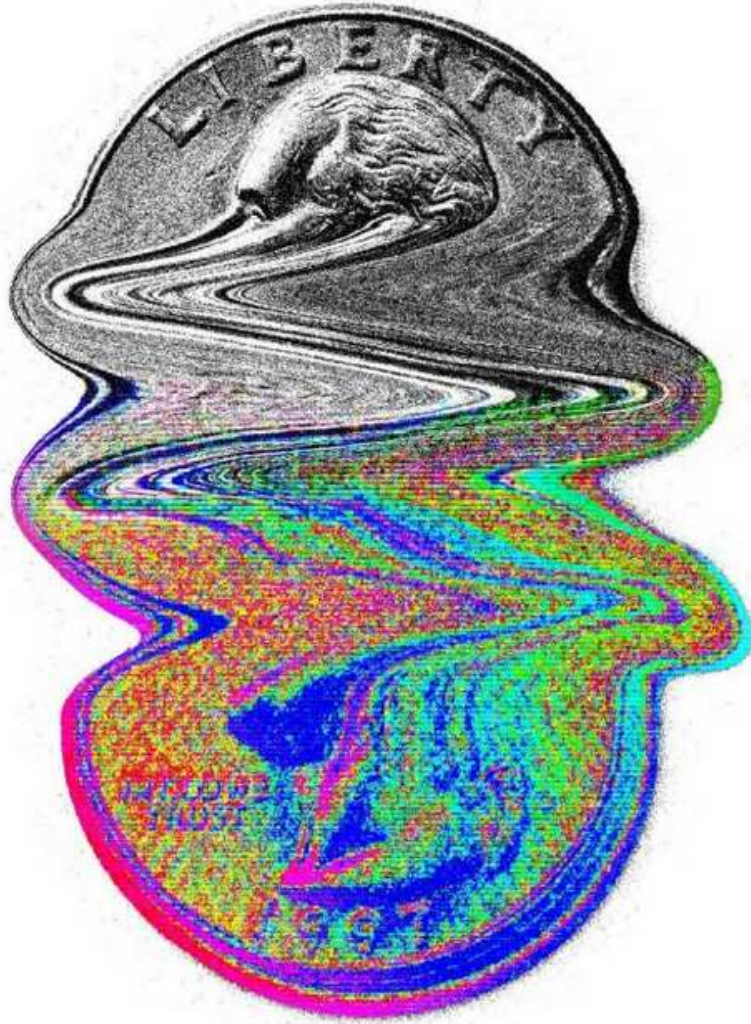
eYuan

- Not a simple digital payment app
- The app tracks where you are, what your name is, what your social security number is, [and] what all your identifiers are.
- Has the ability to geolocate
- Statement: „Imagine if they [China] could run an algorithm that says, let's look for U.S. government employees who have Tinder and are short on cash – and maybe they're married – and we can corrupt them immediately.“ (Kyle Bass, 2022)
- In the USA, the question of **banning the eYuan** is already being actively raised today!

Source: https://www.zerohedge.com/geopolitical/chinas-digital-yuan-biggest-threat-west-overshadowed-russian-war-kyle-bass-warns?utm_source=rss&utm_medium=rss&utm_campaign=chinas-digital-yuan-biggest-threat-to-the-west-is-overshadowed-by-russian-war-kyle-bass-warns

Source: <https://www.zerohedge.com/economics/watch-kyle-bass-cancer-chinas-new-digital-currency>

Source: <https://www.youtube.com/watch?v=vbVd7IK2Oc4&t=84s>



“
**THE FUTURE
OF MONEY
ARE DIGITAL
CURRENCIES.**

Bill Gates

”





**Thank you for your
attention!**



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<https://ted.europa.eu/udl?uri=TED:NOTICE:358265-2021:TEXT:EN:HTML&tabId=0>

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https://www.researchgate.net/publication/322445094_Insights_on_Demonetisation_from_Rural_Tamil_Nadu_Understanding_Social_Networks_and_Social_Protection

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Further projects

- ID for development: <https://id4d.worldbank.org/>
- Modular Open Source Identity Platform (MOSIP): <https://mosip.io/>
- Aadhaar - Unique Identification Authority of India: <https://uidai.gov.in/>
- Italia Cashless: <https://www.cashlessitalia.it>



Interesting backgrounds

- (1) Can banks individually create money out of nothing? — The theories and the empirical evidence

Quelle: <https://www.sciencedirect.com/science/article/pii/S1057521914001070?via%3Dihub>

- (2) Banking Market Concentration - The 'Herfindahl-Hirschman Index'

Quelle: https://www.youtube.com/watch?v=MechH0ebs_c (from approx. Min. 24.)

- (3) <https://www.youtube.com/watch?v=LQOeVnGgtuY>

- (4) <https://professorwerner.org/shifting-from-central-planning-to-a-decentralised-economy/>