

# **Summary of Discussion on BlockChain and Sustainable Communities**

**Paolo Dini  
LSE**

**Cloughjordan Eco Village, Ireland  
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# Overview

- Monetary theory
- Connecting the strands of discussion
- Current work

# **Main Definitions of Money**

- **Aristotelean commodity theory of money (dominant):**

Money is a precious commodity that facilitates barter

- **State theory of money:**

Money is whatever the state accepts as tax

- **Sociological or institutional theory of money:**

Money is a social relation of credit and debt

# Sociological Monetary Theory

Money is a ***social*** relation of credit and debt (formalised through double-entry book-keeping):

- Trust: based on some form of backing
- Morality: repayment of debt
- Power: rate of interest of the loan proportional to power differential

Money has a life-cycle:

- It is **created**
- It is **spent** one or more times
- It is **destroyed** when a loan is repaid to the bank or when taxes are paid

*sociological theory*

*commodity theory*

However, since it is **assignable** debt, after it is spent a few times the manner in which it was created is soon forgotten, and its perception as a precious commodity predominates

# Sociological Monetary Theory

From sociological perspective, all money is debt,  
although not all debt is money (Ingham 2004).

Therefore, **debt is the more general concept**

- A loan can consist of money that already exists, or of money that is created at the moment the loan is made
- **Collateral** guarantees that if loan is not repaid the value of the loan is not lost
- When money was created as part of the loan, collateral is called '**backing**'

# Sociological Monetary Theory

Money can be created in different ways (oversimplified for clarity):

- **State's** “printing” of money [Knapp's (1905) state theory of money, Positive Money, MMT, ... ]
  - **backing: future tax receipts**
  - **positive entry: state supplier's bank balance**
  - **negative entry: public debt**
- **Banks'** issuance of money e.g. as mortgages [Douthwaite (1999), Ingham (2004), Werner (2014), ... ]
  - **backing: value of house**
  - **positive entry: house seller's bank balance**
  - **negative entry: buyer's mortgage loan** (although it is recorded as an “asset” by bank)
- **VISA's** issuance of credit [thanks to Chris Cook for this example]
  - **backing: your credit line (your job, credit history, etc)**
  - **positive entry: retailer's bank balance**
  - **negative entry: credit card bill**
- In **mutual credit** systems, money is created when company goes in the red by a certain number of credits [Littera et al. 2014. <http://eprints.lse.ac.uk/59406/>]
  - **backing: products and services that company will sell over the next 12 months**  
(i.e. the labour!)
  - **positive entry: seller's credit balance**
  - **negative entry: buyer's credit balance**

# Bitcoin

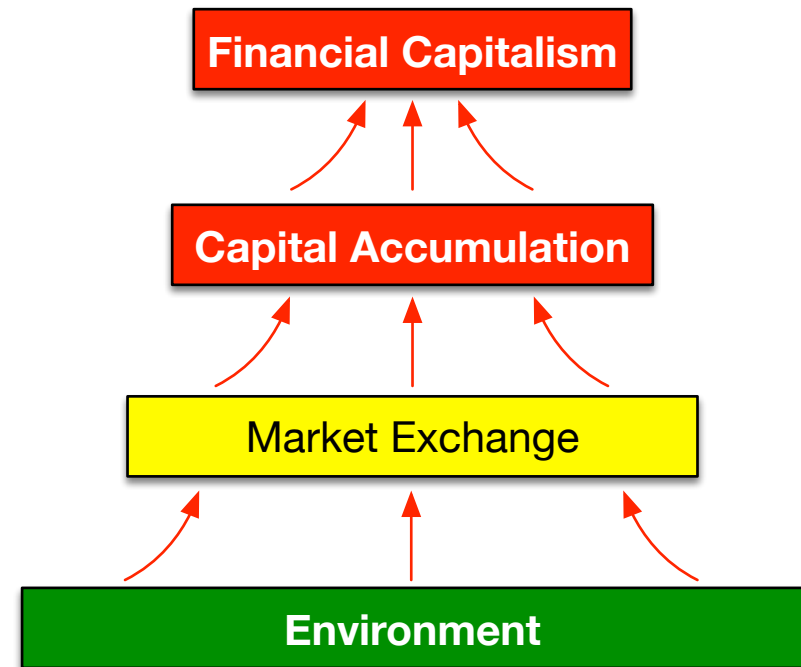
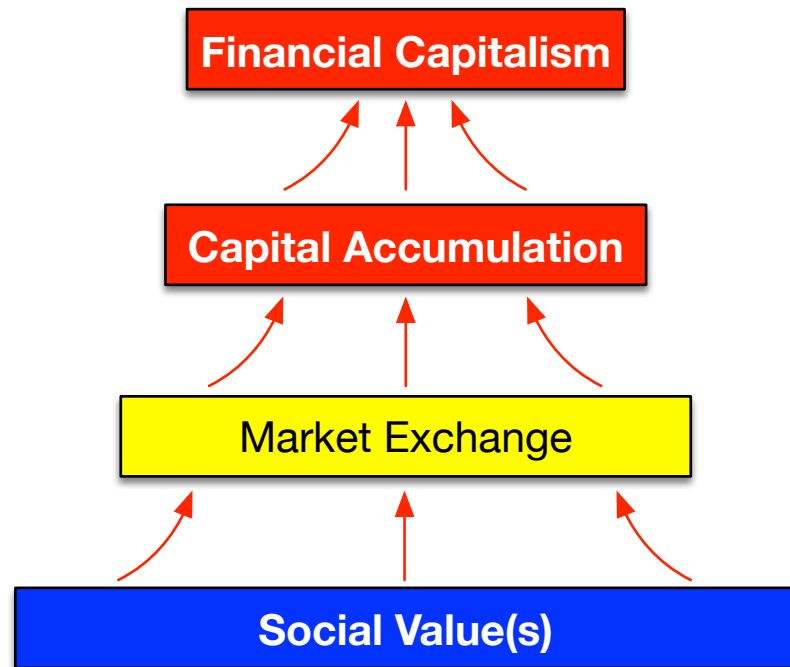
Notice how in Bitcoin the backing is provided by the Proof of Work, so by the CPU cycles expended, so by the energy expended, so by the **carbon** released to find the private key (unless the energy source is non carbon-based)

Notice how this is diametrically opposite to Douthwaite's idea of using the value we place in the environment as backing!!

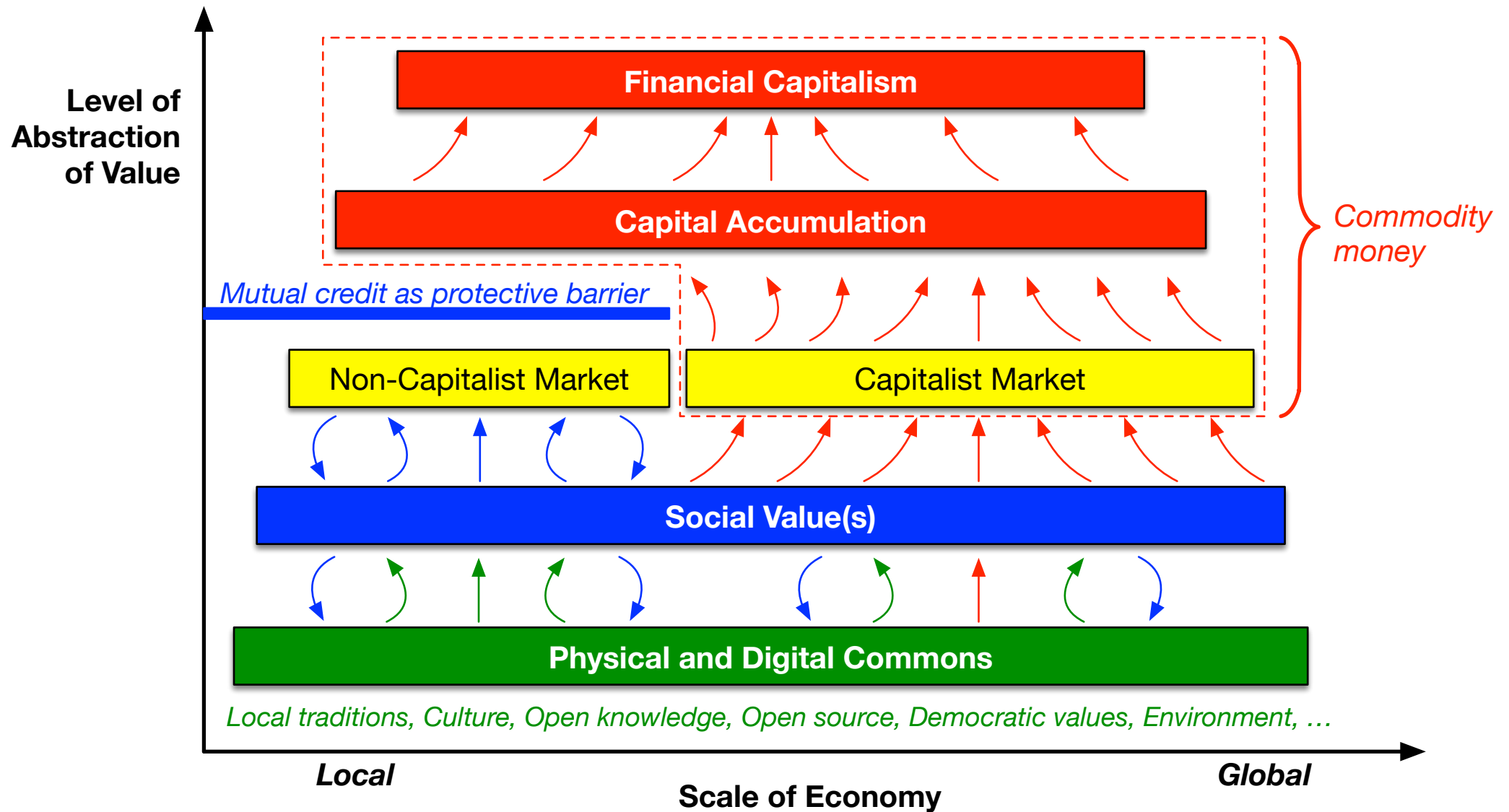
**(Summary from notes)**



# Commodification & Financialisation as the 'Big Vacuum Cleaner'



# A Better Architecture for Capitalism



# A Multi-Scale Architecture

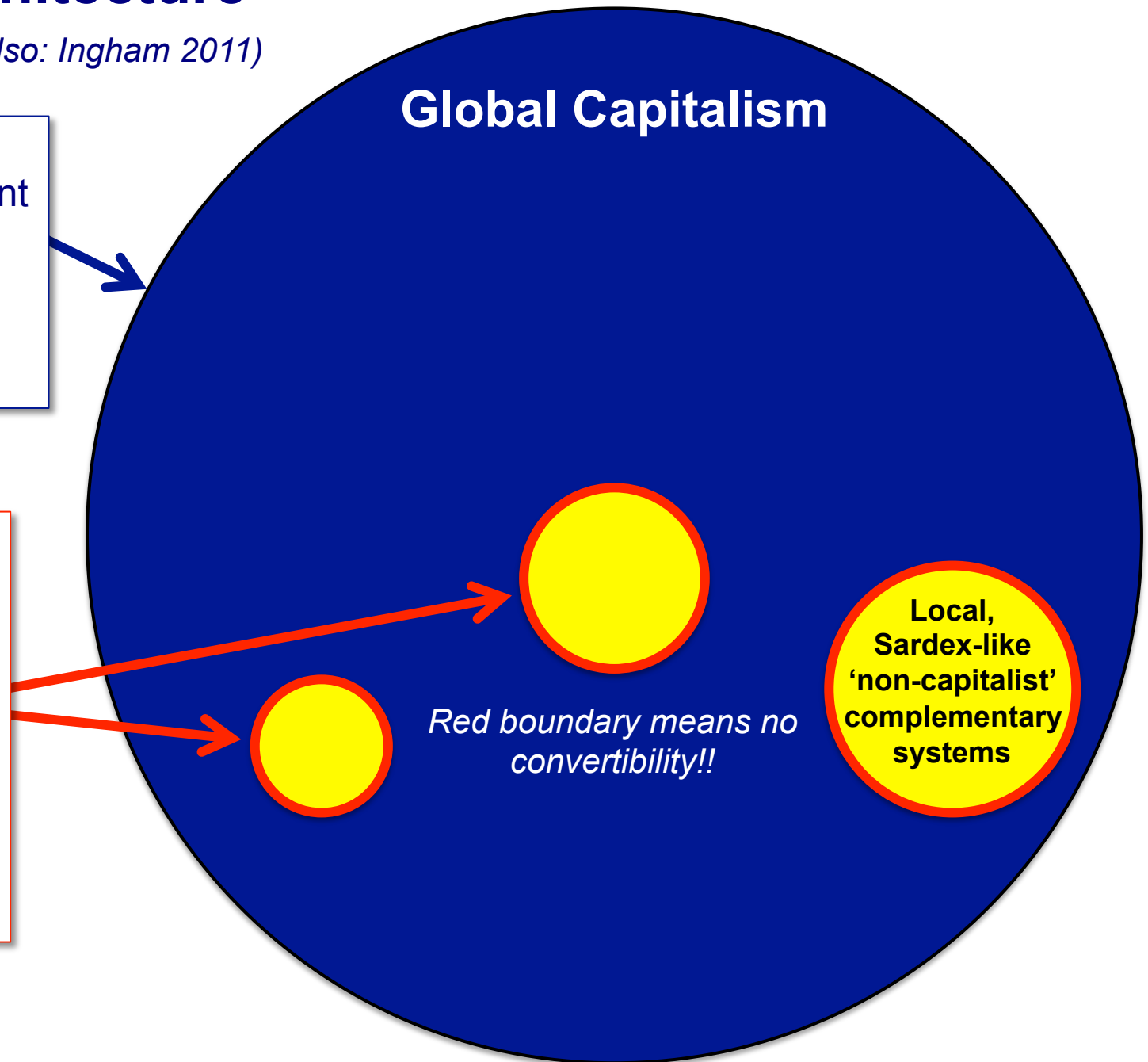
*(Inspired by Douthwaite 1999. Also: Ingham 2011)*

## Social Construction N. 1:

Dynamic growth and constant revolutionary transformation of the means of production through technological innovation

## Social Construction N. 2:

Closer to Adam Smith's 'circular flow' model, but with the medium of exchange made explicit as a social relation of credit and debt, and with its creation devolved to the circuit members



# Sardex works for the following reasons:

## **Structural: Economic & Financial**

- It is a B2B system mainly for/by SMEs, so sustainable
- Maximum credit line dependent on company size and history. Hence, speculation bubbles cannot form
- It is a unit of account (1 Sardex = 1 Euro), a medium of exchange, and a store of value, but NOT itself a commodity (zero interest)
- No transaction fees (annual membership fee)
- No interest on negative balances means it provides flexible and free credit
- No interest on positive balances means that it is better to spend the credits than to hoard them. This helps the (local) economy.
- Preferential trading within the circuit ("import substitution") leads to an approx 10% increase in turnover
- Whereas import substitution is not good according to mainstream economics (militates against competition), for weak economies with a negative trade balance it provides a "safe harbour effect" against the vagaries of global financial capitalism
- 20/1 ratio of (products & services) backing to currency created
- Net contribution to GDP through mixed trades that could not otherwise have taken place

## **Social**

- Trust in Sardex srl
- P2P Trust
- Solidarity & identity
- Accountability & transparency
- Money creation mechanism & double-entry book-keeping method highlights nature of money as a social relation of credit & debt
- Zero-commission brokering
- Lowers need to emigrate

**A capitalist market is a market in which the medium of exchange is itself a commodity (Amato & Fantacci 2012)**

## **Structural: Institutional**

- 100% fiscal (VAT) transparency rebuilds trust between state and citizens
- Clear and strong contractual rules
- Thorough vetting of applicant SMEs

## **Political**

- "Non-capitalist market": market focus relieves need for ideological commitments
- Devolution of **money-creation "meta-power"** to individual members is highly empowering and prepares the ground for participative democracy

## Also:

- Continually educating users about how to use the network and what the network aims to achieve
- Commitment by members to accept in credits 10 times the credit line
- Active collaborations with academics from multiple disciplines
- Increasing interest in educational programmes
- Professional communication and marketing campaigns
- Network interests were built into the economic model before profit
- Modest growth expectations: growth is possible and desirable rather than mandatory
- Sardex is non-partisan and non-ideological, but with a clear 'cultural project' to develop
- Being replicated in 10 other Italian regions (sharing the IT infrastructure)

# Political Economy Perspectives

		<i>Economic System</i>	
		<b>Capitalist</b>	<b>Commons-Based</b>
<i>Political System</i>	<b>Libertarian/ Anarchic</b>	Bitcoin  Bitnation	Credit Commons
	<b>State-Centred</b>	Neoliberal nation-state	Mutual Credit Circuit as tax-paying non-capitalist market

# Theories of Technology

*(Feenberg 1999)*

Technology is:	Autonomous	Humanly controlled
Neutral	Determinism <i>(Marx)</i>	Instrumentalism <i>(optimistic)</i>
Value-laden	Substantivism <i>(pessimistic)</i>	Critical Theory <i>(Feenberg)</i>

# Sardex References

- Littera, Giuseppe, Sartori, Laura, Dini, Paolo and Antoniadis, Panayotis (2014). *From an idea to a scalable working model: merging economic benefits with social values in Sardex*. In: Inaugural WINIR Conference, 11-14 September 2014, Greenwich, London, UK. <http://eprints.lse.ac.uk/59406/>
- Dini, Paolo, Motta, Wallis and Sartori, Laura (2016) Self-funded social impact investment: an interdisciplinary analysis of the Sardex mutual credit system. In: ISIRC: 8th International Social Innovation Research Conference, 05-07 Sep 2016, Glasgow, UK. <http://eprints.lse.ac.uk/67622/>
- Sartori, Laura and Dini, Paolo (2016) *From complementary currency to institution: a micro-macro study of the Sardex mutual credit system*. Stato e Mercato, 107 pp. 273-304.



# Bibliography & Links

<http://www.unrisd.org/brett-scott>

<http://creditcommons.net/>

<http://www.e-ir.info/2014/06/01/visions-of-a-techno-leviathan-the-politics-of-the-bitcoin-blockchain/>

