

# The Emergence of a New Organisational Paradigm and its Requirements

Over the past 3,000 years or so, money has progressively become the means by which human activities and relationships are organised beyond the boundaries of families and small groups. At the same time, families and small groups are increasingly reliant on money to sustain themselves.

Simple exchange money organisation of activity and relationships leads to accumulating debt until the debt can no longer be sustained and a reset or Jubilee is necessary to rebase the money system.

We have yet again reached such a point. The 2008 global financial crisis was the final wakeup call. Rather than the accumulated debt being written off, it was underwritten by tax-payers and their activities. Through bank bailouts and central bank support, debt was socialised. Since then, the debt has grown exponentially and the amount of debt in the global financial system is now unsustainable. Hence, central banks and others are thinking of how to navigate their way out of trouble.

Introduction of central bank digital currency (CBDC) seems to be the favoured approach to resetting the financial system.

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## 1. Going Direct – BlackRock

CBDC is the logical progression of BlackRock Investment Institute's March 2020 Special Bulletin *Time for policy to go direct*<sup>1</sup>. - "Authorities in all major economies have to fast-track sizeable, comprehensive and flexible support programs."

Excerpt from their Special Bulletin:

*"There is not enough monetary policy space to deal with the next downturn"*

- An extreme form of "going direct" would be an explicit and permanent monetary financing of a fiscal expansion, or so-called helicopter money. Explicit monetary financing in sufficient size will push up inflation. Without explicit boundaries, however, it would undermine institutional credibility and could lead to uncontrolled fiscal spending.
- A practical way of "going direct" would need to deliver the following:
  - 1) defining the unusual circumstances that would call for such unusual coordination;
  - 2) in those circumstances, an explicit inflation objective that fiscal and monetary authorities are jointly held accountable for achieving;
  - 3) a mechanism that enables nimble deployment of productive fiscal policy, and;
  - 4) a clear exit strategy.

Such a mechanism could take the form of a standing emergency fiscal facility. It would be a permanent set-up but would be only activated when monetary policy is tapped out and inflation is expected to systematically undershoot its target over the policy horizon.

- The size of this facility would be determined by the central bank and calibrated to achieve the inflation objective, which would include making up for past inflation misses. Once medium-term trend inflation is back at target and monetary policy space is regained, the facility would be closed.

The most obvious way for central banks to calibrate the size of the funding facility is CBDC.

"Going direct" is a form of central planning without any common knowledge and wisdom. This approach has an unfortunate history.

The Soviet Union's Five-Year Plans were a series of nation-wide centralized economic plans aimed at rapidly industrializing the country and increasing agricultural production. These plans were initiated by Joseph Stalin in the late 1920s. The most infamous of these plans, particularly in relation to famine, were the first<sup>2</sup> and second Five-Year Plans.

The Great Leap Forward was an economic and social campaign led by Mao Zedong and the Chinese Communist Party (CCP) from 1958 to 1962. Its aim was to rapidly transform China from an agrarian society into a socialist society through rapid industrialization and collectivization. The campaign, however, led to one of the most catastrophic famines in human history.

## 2. Information Driven Organisation

### 2.1 BlackRock

By 2018, BlackRock was managing some \$6.3trillion<sup>3</sup> globally, since when, through acquisitions, connections and marketing, BlackRock's funds under management continue to grow. It has also expanded the capability and influence of its Aladdin<sup>4</sup> platform to gather and analyse investment related data.

So far, in 2024, BlackRock has added to the capability and reach of its Aladdin platform with two acquisitions:

***BlackRock to Acquire Preqin, Leading Private Markets Data Solutions Provider<sup>5</sup>-***  
*“Transforms BlackRock’s private markets capabilities by delivering integrated investments, technology, and data for the whole portfolio.- Strategic expansion of Aladdin tech business into fast-growing private markets data segment, unlocking additional \$8 billion total addressable market.”*

***BlackRock Agrees to Acquire Global Infrastructure Partners (“GIP”), Creating a World Leading Infrastructure Private Markets Investment Platform<sup>6</sup> - Global Infrastructure Partners (“GIP”), a leading independent infrastructure fund manager, jointly announce that they have entered into an agreement for BlackRock to acquire GIP for total consideration of \$3 billion of cash and approximately 12 million shares of BlackRock common stock.***

BlackRock's rise reflects the systemic or macro risk within the global political economy. The three main risk factors are: *scale, homogenisation and virtualisation<sup>7</sup>*. BlackRock is emblematic of these traits and has been a key influencer of central bank policy and financial regulation, particularly in the US.

### 2.2 GAFAM

GAFAM is an acronym for five popular U.S. tech stocks: Google (Alphabet), Apple, Facebook (Meta), Amazon, and Microsoft.

GAFAM tap into our/everyone's data to make informed decisions and derive value, indirectly, from opensource software and self-organising, co-creative development methodologies emanating from individuals, groups and companies that are embracing what the new paradigm has to offer. GAFAM are highly valued accordingly as publicly quoted companies. **They provide us with empirical evidence of the benefits of capturing, storing and transferring information/data.**

GAFAM grew and are highly valued not because of money invested but from the knowledge economy on which they thrive. They handle value directly, the data (reality and value) is the

endogenous<sup>8</sup> “money”. For the rest of us, this value is exogenous, and we need to use exogenous money to interact with them.

Real value is in the commons: land, resources, knowledge etc. These are either gifts from nature (the universe) or co-created by humans through collaboration over time and space. GAFAM have colonised knowledge.

### 3. Petro Dollar Agreement expiration

The arrangement is rooted in a secret 1974 deal between Saudi Arabia and the US: the Saudis would recycle their petrodollars into US Treasuries in exchange for an American security guarantee, thus creating a strategic alliance that has shaped global politics for decades. The petrodollar system gives the U.S. a degree of leverage over oil-exporting countries; they rely on the stability of the U.S. dollar and have a vested interest in maintaining the currency's strength.

The reality is that this no longer holds true and new alliances are evident.

#### 3.1 BRICS - New Alliances

BRICS is an intergovernmental organization comprising Brazil, Russia, India, China and South Africa. In January 2024, five new members joined the BRICS bloc: Saudi Arabia, the United Arab Emirates, Egypt, Iran and Ethiopia.

This means that five new currencies are in the pot for payments and mutual holdings.

New BRICS members could provide the much-needed vehicle currency<sup>9</sup>

BRICS is home to 3.27 billion people, or 41.13 % of the world's population<sup>10</sup>.

With China and India being the world's most populous countries, they have by far the largest population share (87 %) in BRICS. According to estimates, BRICS+, as the organisation has been informally called since its expansion, now accounts for 37.3% of world GDP.

The BRICS mechanism is lacking a vehicle currency like the one provided by the European Payments Union in 1950, where several currencies – weak ones as well as strong ones – were cleared. In the end the D-Mark emerged as the main vehicle currency after the dollar served in the interim.

While the renminbi will be the main currency for trade, payments and settlements within BRICS, the role of a new prime holding currency offers fresh possibilities. Regarding trade, Saudi Arabia and the UAE will most likely trade with China in renminbi, independent of the denominator currency. This will significantly affect the global supply of renminbi and further internationalise the currency.

Which currency will emerge as the BRICS vehicle currency in the short and medium term is still open. This currency will have to be strong and offer stable relations with the rest of the world – first and foremost the dollar – and be freely convertible. The renminbi has shown its limitations in playing this role due to depreciation and exchange rate volatility in addition to Chinese restrictions on financial accounts and a highly managed offshore renminbi market.

## 3.2 Two BRICS Contenders

Among the new currencies the only ones that meet these vehicle criteria are the Saudi riyal and the UAE dirham. Both currencies have full capital account convertibility, for residents and foreigners, and have been pegged to the dollar since the mid-1990s. While the Saudi government might have some qualms about internationalising its currency, the UAE seems more market friendly, open to trading in all the other BRICS currencies. As a market maker the dirham could fulfil the role of vehicle currency in the short term.

The well-developed financial centre in the UAE would offer BRICS partners cash deposits or dirham instruments, or freely convert BRICS currencies into dollars. Offshore renminbi holdings were never free of restrictions and exchange rate risk. Dirham convertibility will satisfy the need for dollars, which have been denied to them by China. Buying dirham cash or instruments poses no risk as they can be freely converted into dollars at a fixed exchange rate.

The UAE financial system would have to play the role analogous to the European Payments Union (EPU), accepting strong and weak currencies, such as rupees for remittances or renminbi for imports from China, and disposing of them or adding to their portfolio of reserves. These will be held by private financial institutions as well as the Central Bank of the United Arab Emirates. They would step in where political agreement has failed to provide a mechanism.

The Saudi Riyal could become a major player among BRICS+ (Brazil, Russia, India, China, South Africa, and additional countries) for several key reasons.

The combination of Saudi Arabia's substantial economic resources, strategic reforms, and active international engagement positions the Saudi Riyal as a potentially significant currency within the BRICS+ framework. As BRICS+ countries seek to diversify their economic ties and reduce dependency on Western currencies, the Saudi Riyal's prominence could increase, supported by the kingdom's ongoing efforts to bolster its financial and economic standing on the global stage.

The open question at the moment is in which direction the pressures for appreciation of the riyal/dirham or the depreciation of weak currencies within BRICS will lead. The revaluation of the D-Mark in the European case is worth studying.

## 3.3 Further Contenders

A sterling-based CBDC has the potential to become a viable vehicle currency post-Brexit by leveraging enhanced transaction efficiency, increased trust and stability, technological advancements, strategic economic policies, and a robust regulatory framework. By addressing these areas effectively, the Bank of England can position a sterling CBDC as an attractive vehicle currency for international trade.

Doubtless, there are other contenders among central banks and the field is open to those whose CBDCs can qualify as vehicle currencies. Even the ECB and its constituent central banks can have local implementation of advanced knowledge based currency to undertake projects and development.

Non-banks can also provide solutions which may fit the requirements of this new organisational paradigm. For example, the CEO of BlackRock, whose current assets under management stand at \$9.1 trillion<sup>11</sup>, stated that Bitcoin is a viable currency and important financial instrument. This shows the potency of solutions provided by non-banks.

## 4. Future of money

### **“NOT the same old money in digital form”**

GAFAM’s success is derived from direct value handling through use of the opensource tools and methods and points the way to the future of money. Blackrock attributes its rise to the collection and analysis of detailed investment data. These entities are hybrids – between the new data driven methodologies and old style, exchange money paradigm.

While the appearance of money some three to five thousand years ago facilitated human activities at scale over large distances, money tampers with humans’ natural ability to acquire essential knowledge and wisdom that sustained us for some 300,000 years – **protosustainability**; this methodology is what we use in our families and small groups today and is a blueprint for the contemporary, data driven economies. Tools to facilitate human activity at scale have emerged in recent decades and these tools are embedded in our daily lives and shape the environment of the current structural change.

The use of opensource and co-creative methodologies help us to see the current reality and its potential for changes in tools such as money and ways/methods to organise ourselves.<sup>12</sup>.

## 5. CBDC as a Bridge

### **Requirements for Bridge Money deployment – a hybrid approach**

While change is already underway, we need actors and methodologies to effect an orderly and smooth transition.

**Enhanced Interoperability** - We need a bridge or means to transition from the simple exchange money paradigm to the new knowledge based organisational paradigm. A CBDC deployed to provide a robust and stable form of exchange into international trading currencies backed by substantial assets could form such a bridge.

**Direct Value Handling**<sup>13</sup> - A CBDC can capture, store and transfer in space and time unique values/attributes of transactions and relationships. Such a CBDC would need to adopt the Distributed Autonomous, Interdependent Self-Organisation (DAISO) *protosustainability* methodology in order to be fit-for-purpose in the new organisational paradigm.

A CBDC which satisfies these two criteria will provide a bridge to ease and facilitate the transition to the new organisational paradigm built on direct value for human sustainability.

## 6. Benefits

From Money to Advanced Knowledge and Wisdom based organisation.

- Effective decision making/taking from local to global, based on the knowledge and wisdom economy

Successful examples of such a knowledge/information driven decision approach – the knowledge economy: GAFAM and BlackRock. The Bank for International Settlements (BIS) is launching Project Insight to explore how to better monitor developments in global value chains (GVCs) by combining structured and unstructured granular data and applying big data analytics tools.<sup>14</sup>

- Limiting Natural resources use  
Less reliance on old-style competition and old money methodology requirements for growth, less waste of resources and human activities leaving more time for contemplation of knowledge to foster wisdom.
- Increased capacity to act, leading to better results

#### **Key Aspects of Direct Resource Funding:**

**Efficiency:** Reduces administrative overhead and speeds up implementation;

**Targeted Impact:** Resources are directly applied to where they are needed, i.e. to specific projects or to satisfy community requirements, ensuring that intended outcomes are more likely to be achieved;

**Accountability:** Participation of those directly impacted who have a vested interest in successful delivery means that accountability is direct and integral to this approach;

**Flexibility:** Adjustments can be made dynamically in response to evolving realities minimising wasted effort and resources.

The proposed hybrid approach overcomes the Challenges associated with Direct Resource Funding in the Money Paradigm which are typically cited as:

- **Oversight:** direct accountability removes the need for external oversight systems
- **Equity:** Equitable participation is an essential feature of direct value handling and proto-sustainability
- **Dependence:** The hybrid approach leverages externally provided resources such that, in time, additional external support is only required for new projects to augment what has already be successfully delivered. Direct value handling fosters self-sufficiency.

Furthermore, the amount of funding required is greatly reduced because it is only required to pump prime a project or local community. Direct value handling leverages the value of externally provided resources because the internal resources and activities generate shared value within the project or community without recourse to external funding.

## **7. AI and its role in the future of money**

Meeting our sustainability requirements in an interconnected world, requires us to understand the sustainability requirements of the others.

In families and small groups, this is something we do automatically but most of us lack the mental capacity to extend our capacity beyond, say, 150 individuals.



To be able to extend our capacity regionally, nationally or globally, we need help to analyse the huge quantity of precise data.

Information technological development over the last 60 years with printed electronic circuits and methodologies such as Open Source, BigData and Machine Learning have provided us with the tools to scale *protosustainability* methods to organise ourselves based on granular, detailed knowledge of human sustainability requirements.

Such a Knowledge based society and economy needs decentralised AI, AI that will be able to handle larger datasets and more complex tasks without the limitations of a central processing unit and limited real intelligence.

## 7.1 From narrow AI to superintelligent decentralized AI

Narrow AI systems are designed to perform a narrow task (e.g., facial recognition or internet searches) operating within a limited context. Most current AI applications fall into this category

### **What is decentralised AI or AI version 2.0?**

Unlike centralized AI, where all processing happens in a central location under a single or centralised authority, decentralized AI distributes not only the processing across multiple nodes and devices but decentralises the training of AI systems. Groups of people or individuals collaboratively train and share models with the ability to keep the training data locally. The resulting models can be made publicly available.

AI v2.0 emerges from the currently undergoing structural change that drives optimisation efforts to reduce latency while optimising bandwidth and electricity usage. These have given birth to technologies such as Edge Computing that involves processing data close to where it is generated (e.g., on local devices like smartphones, IoT devices) rather than sending it to a centralized data centre or Blockchain - utilized to ensure trust, transparency, and security in data systems. Blockchains can record and verify transactions or model updates in a tamper-proof manner.

Some of the emerging methods for effective decision taking that are based on knowledge and wisdom are:

**Federated Learning** a machine learning approach where multiple decentralized entities, individuals and groups of people, collaboratively train a shared model while keeping the training data locally on each device for enhanced data privacy and security;

**Swarm Intelligence** models inspired by the collective behaviour of fungi<sup>15</sup>, social insects or animals, where simple individual agents follow local rules and interactions, leading to the emergence of intelligent global behaviour.

Future money methodology based on decentralised AI will solve concerns related to the current Narrow AI, such as:

- Fairness and Bias - Ensuring that AI systems are fair and unbiased in their information analysis and decision-making processes;
- Privacy - Safeguarding personal data used by AI systems;



- Security - Protecting AI systems from malicious attacks;
- Job Displacement - Addressing the impact of AI on employment and workforce dynamics;
- Regulation - Developing policies and regulations to govern the use of AI;
- Ownership of data and data accuracy.

## 8. Conclusion

The current level of debt in the global financial system is unsustainable and countries struggle to find adequate resources to fund projects. For example, Bloomberg recently reported<sup>16</sup> that, in spite of its resource wealth, Saudi is forecasting budget deficits until at least 2026 and is having to cut funding to projects like NEOM. A hybridised Saudi CBDC could implement the threatened projects at much lower cost.

We need to think differently and use technology intelligently rather than just replicating exchange money in digital form.

The proposed hybrid approach (Money/Direct Value Handling) can satisfy the needs of individuals and communities by applying resources directly to where they can create maximum impact.

It leverages resources through pump priming projects in which most of the value is co-created and shared locally, thereby limiting requirements for external financial support.

The first central bank to implement CBDC that satisfies the bridge criteria will doubtless lead us into the future organisational paradigm while providing an environment in which their population can not only sustain themselves but thrive. Such an example will quickly attract other central bankers to emulate success thus accelerating the change.

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<sup>1</sup> BlackRock <https://www.blackrock.com/corporate/literature/whitepaper/blackrock-bulletin-policy-going-direct-march-2020.pdf>

<sup>2</sup> Deseret News, <https://www.deseret.com/2012/10/1/20507472/this-week-in-history-the-ussr-s-first-five-year-plan/>

<sup>3</sup> Investigate Europe <https://www.investigate-europe.eu/en/posts/blackrock-the-company-that-owns-the-world>

<sup>4</sup> Reinsurance News <https://www.reinsurancene.ws/blackrock-aladdin-investment-management-insurance/>

<sup>5</sup> BlackRock <https://www.blackrock.com/aladdin/discover/blackrock-to-acquire-preqin>

<sup>6</sup> BlackRock <https://www.blackrock.com/corporate/newsroom/press-releases/article/corporate-one/press-releases/blackRock-agrees-to-acquire-global-infrastructure-partners>

<sup>7</sup> CISI Review <https://www.cisi.org/cisiweb2/cisi-news/the-review-article/has-financial-services-regulation-made-the-world-a-safer-place-for-investors>

<sup>8</sup> Endogenous/exogenous definition: See page 4 Digital Currency Global Initiative (DCGI) - NFT, AI as contemporary technology tool for human sustainability and role of CBDC as bridge.

<https://archive.org/details/dcgi-decentralizednonfinancialmethodsforhumansustainability>

<sup>9</sup> OMFIF <https://www.omfif.org/2024/02/new-brics-members-could-provide-much-needed-vehicle-currency>

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<sup>10</sup> BRICS

[https://www.europarl.europa.eu/RegData/etudes/BRIE/2024/760368/EPRS\\_BRI\(2024\)760368\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2024/760368/EPRS_BRI(2024)760368_EN.pdf)

<sup>11</sup> BlackRock Assets under Management <https://g.co/kgs/uxMRyj3>

<sup>12</sup> Digital Currency Global Initiative (DCGI) - +NFT, AI as contemporary technology tool for human sustainability and role of CBDC as bridge. <https://archive.org/details/dcgi-decentralizednonfinancialmethodsforhumansustainability>

<sup>13</sup> Direct Value Handling, A Nikolov and C Menzies <https://archive.org/details/tokenising-value-8-dec-2022>

<sup>14</sup> The Bank for International Settlements (BIS)

[https://www.bis.org/about/bisih/topics/suptech\\_regtech/insight.htm](https://www.bis.org/about/bisih/topics/suptech_regtech/insight.htm)

<sup>15</sup> Entangled Life <https://www.merlinsheldrake.com/entangled-life>

<sup>16</sup> Bloomberg: Saudi Prince's Trillion-Dollar Makeover Faces Funding Cutbacks

<https://www.bloomberg.com/news/articles/2024-07-11/saudi-prince-s-trillion-dollar-makeover-faces-funding-cutbacks>