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EURO BANKING ASSOCIATION

# Challenge speech: Digital Money, Digital Assets, Digital Identity: The Future of Banking



**Dave Birch**

Author, Advisor and  
Commentator

#EBAday



DAVID·G·W·BIRCH

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# Digital Assets, Digital Money, Digital ID The Future of Banking

EBAday  
Lisbon, June 2024

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Framing the issues in a structured response to  
ongoing debates and developments

r5

# DAVID G.W. BIRCH

Author, advisor and commentator on digital financial services

*Money in the Metaverse, with Victoria Richardson* (Spring 2024).

*The Currency Cold War* (2020).

*Before Babylon, Beyond Bitcoin* (2017).

*Identity is the New Money* (2013).

*Digital Identity Management* (ed. 2007).

*Forbes and Financial World.*





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# Digital Assets

Decentralised finance is going to be big

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*This isn't about ideology or theology  
it's about business pure and simple*



# Don't Listen to Me!

Listen to what the people who matter are saying



Jonathan Larsen (chief innovation officer of Ping An Group and head of Ping An Global Voyager Fund) told me on stage at Money20/20 Asia in 2019:

*Tokenization is a really massive trend... a much bigger story that cryptocurrencies, initial coin offerings (ICOs), and even blockchain.*

## Larry Fink Says Tokens Are “The Next Generation For Markets”

David G.W. Birch Contributor

Author, advisor and global commentator on digital financial services.

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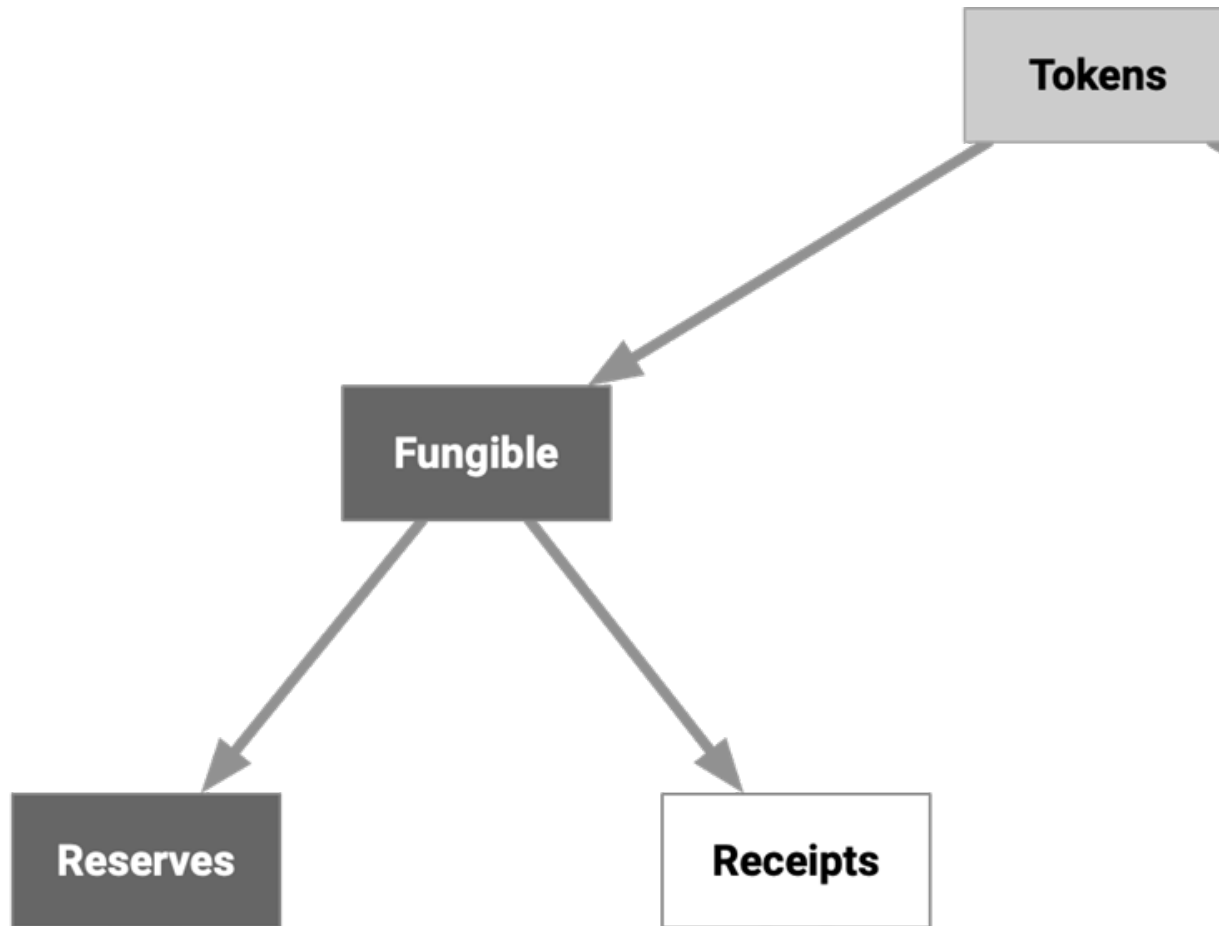
Mar 1, 2023, 10:56am EST



Larry Fink, chief executive officer of Blackrock Inc., speaks an event on the sidelines of day three ... [+] © 2023 BLOOMBERG FINANCE LP

The CEO of Blackrock, Larry Fink, recently said that tokenization will be “[the next generation for markets](#)”. If you think of tokens as bitcoin BTC 0.0% or pictures of chimpanzees with sunglasses on, you might well think that the man who runs the biggest asset management company (with \$7 trillion under management) is out on a limb. But if you think of tokens as digital assets that can

# Fungible



Feb 28, 2021, 12:30pm EST | 8,464 views

## You Can't Launder Bitcoins!



David G.W. Birch Contributor

Fintech

Author, advisor and global commentator on digital financial services.

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-06:58

### f Dollars Are Fungible, Bitcoins Are Not.

As you'll be aware from the plethora of stories about Bitcoin using more electricity than most countries, Bitcoin "mining" means throwing massive amounts of computer power at a mathematical puzzle, and the first computer to solve the puzzle finds the new bitcoins. Not everyone gets into Bitcoin mining just for the money though. The operator of a Bitcoin mining operation (miners who work together to share the profits) quoted in [CoinDesk](#) is investing for other reasons "such as to avoid capital controls".

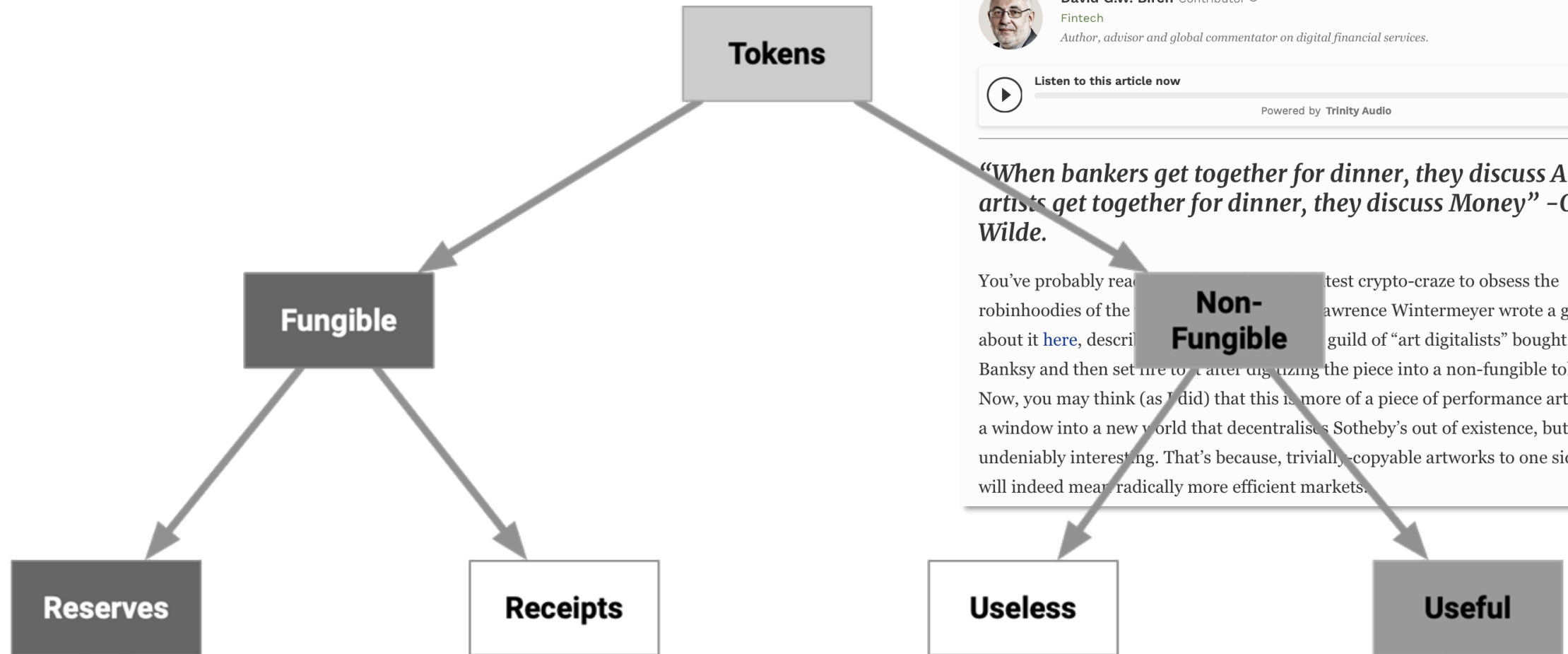
Some people mine Bitcoin for profits but some some people mine it for politics.

The Foundation for Defense of Democracies (FDD), a Washington think tank, summarised the emerging situation rather well in their position paper "[Crypto Rogues](#)". They noted that "blockchain technology may be the innovation that enables U.S. adversaries for the first time to operate entire economies outside the U.S.-led financial

**Useless** v, while this may be technically slightly more difficult ways to create transactions without a blockchain and a central bank has **Useful** and a [working paper](#) describing how to do that. The widespread availability of decentralised financial services threatens to bypass the existing infrastructure.



# Non-Fungible



**Forbes**

Mar 7, 2021, 03:30pm EST | 1,262 views

## Not Your Keys, Not Your Kings Of Leon

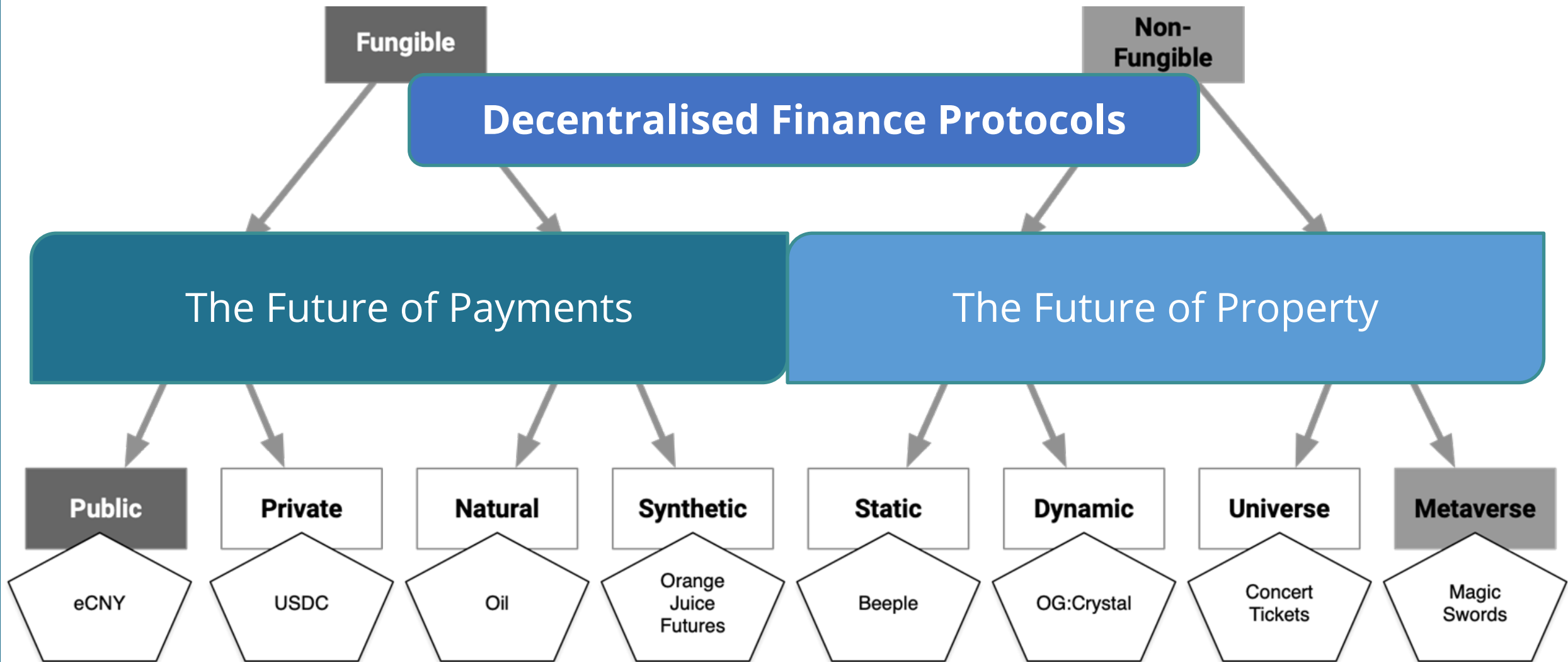
**David G.W. Birch** Contributor  
Fintech  
Author, advisor and global commentator on digital financial services.

Listen to this article now -07:08

“When bankers get together for dinner, they discuss Art. When artists get together for dinner, they discuss Money” –Oscar Wilde.

You’ve probably read about the latest crypto-craze to obsess the robinhoodies of the Lawrence Wintermeyer wrote a great piece about it [here](#), describing how a guild of “art digitalists” bought an original Banksy and then set fire to it after digitizing the piece into a non-fungible token (NFT). Now, you may think (as I did) that this is more of a piece of performance art itself than a window into a new world that decentralises Sotheby’s out of existence, but it is undeniably interesting. That’s because, trivially-copyable artworks to one side, NFTs will indeed mean radically more efficient markets.

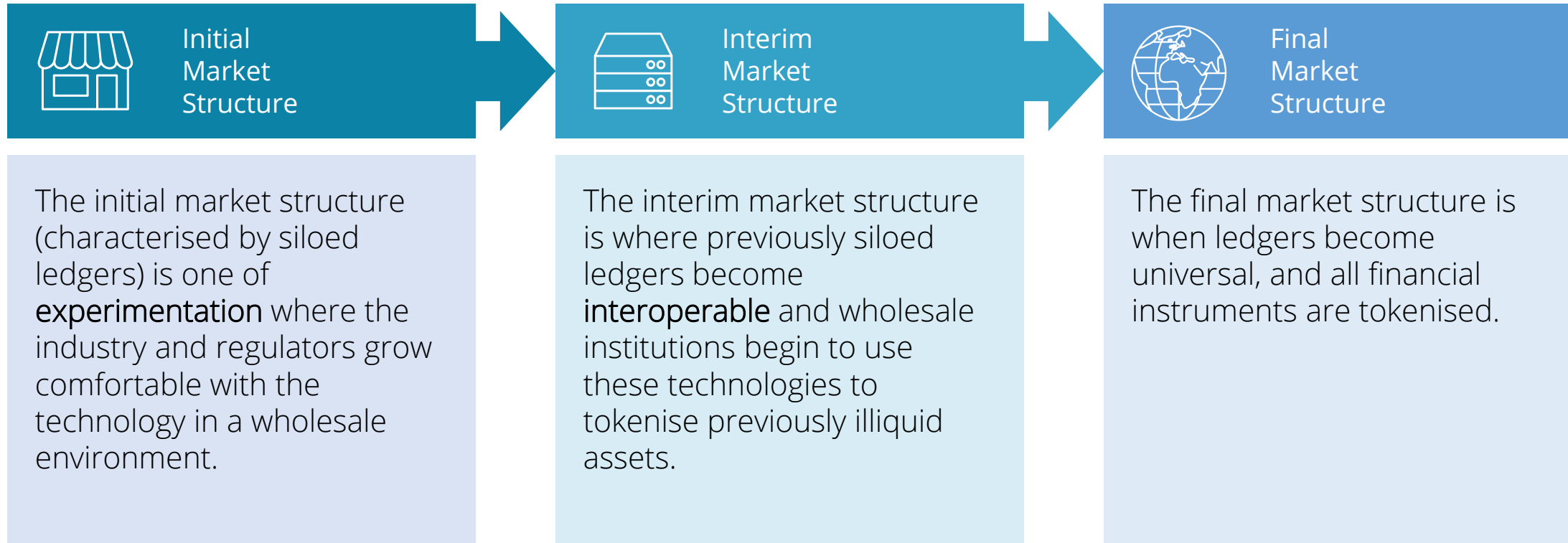
# The Token Economy





# TOKENISATION AND MARKETS

Tokens and DeFi Form New Market Infrastructure



# THE FININTERNET

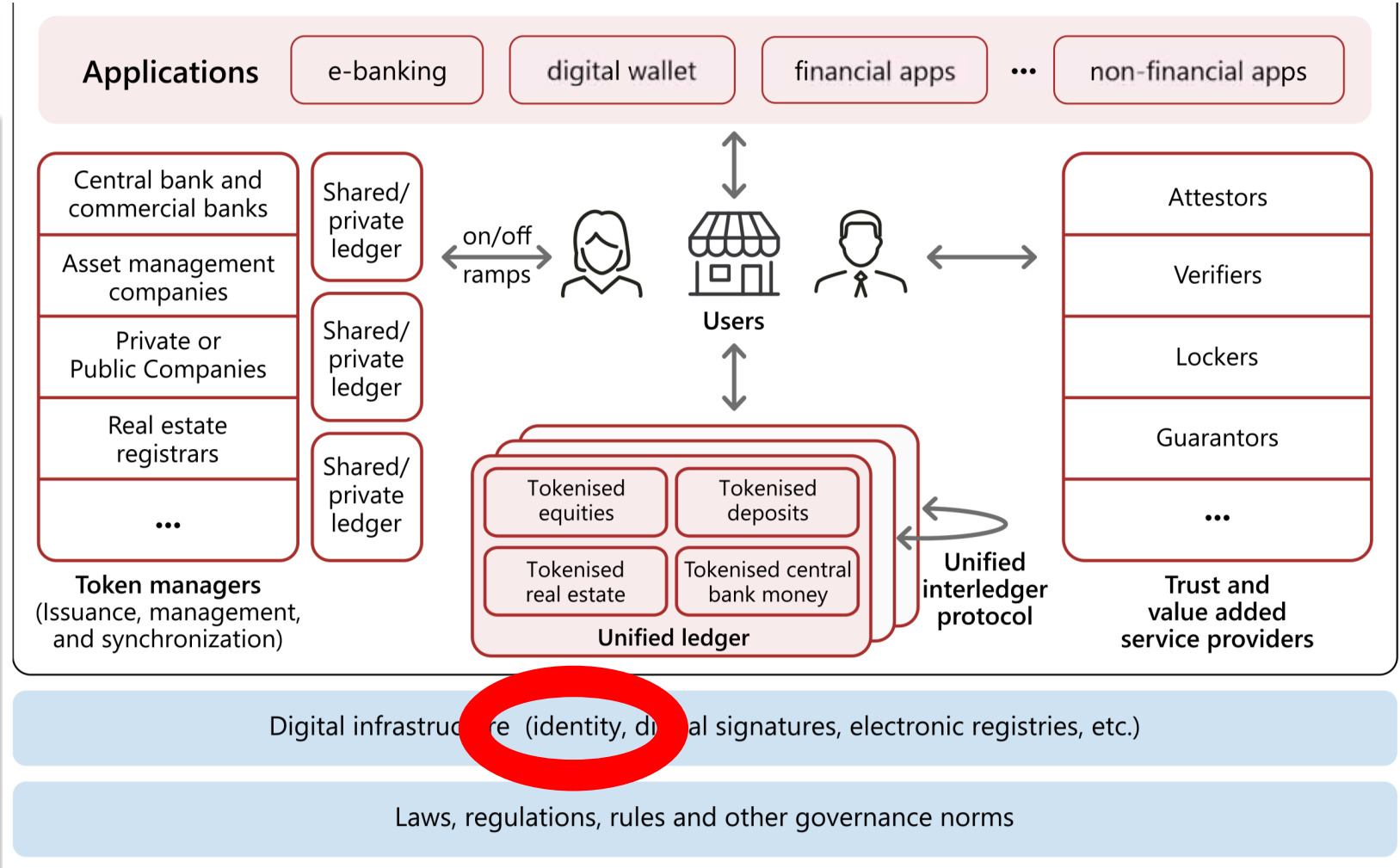
The BIS Vision



BIS Working Papers  
No 1178

Finternet: the financial  
system for the future

by Agustín Carstens and Nandan Nilekani





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## CBDC

We need to be right, we do need it tomorrow

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*And if you are going to make any transactions "offline" then  
make all transactions "offline"*



# Digital Currency 101: CBDCs are Stablecoins

One specific kind of one type of digital currency



**Crypto crash: Stablecoin collapse sends tokens tumbling**

By Joe Tidy  
Cyber reporter

9 hours ago | Comments

*"Stablecoins"*

Algorithms

*Currency Boards*

Reserves

Receipts

*Stablecoins*

*CBDCs*

Public

Private

Natural

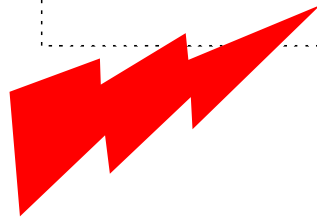
Synthetic

eCNY

USDC

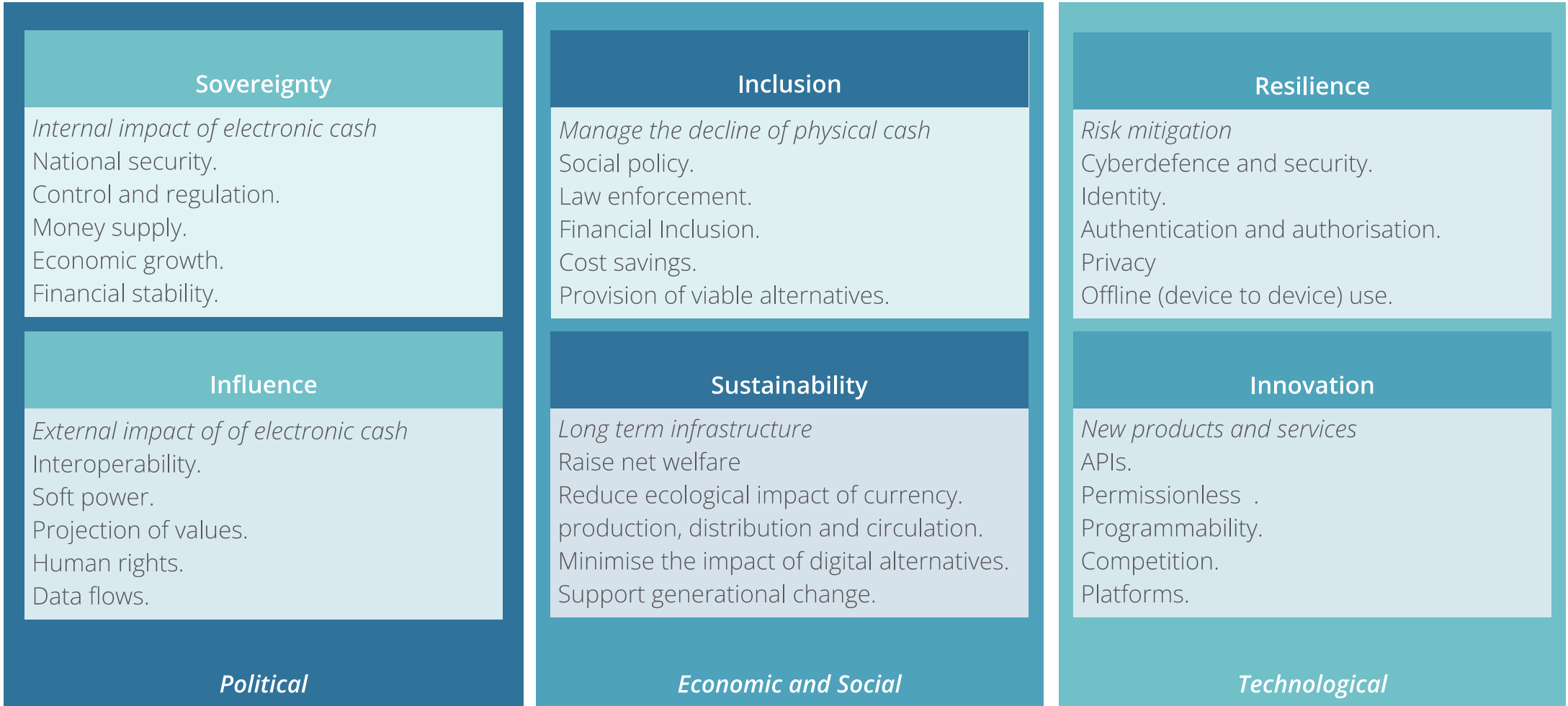
Oil

Orange Juice Futures



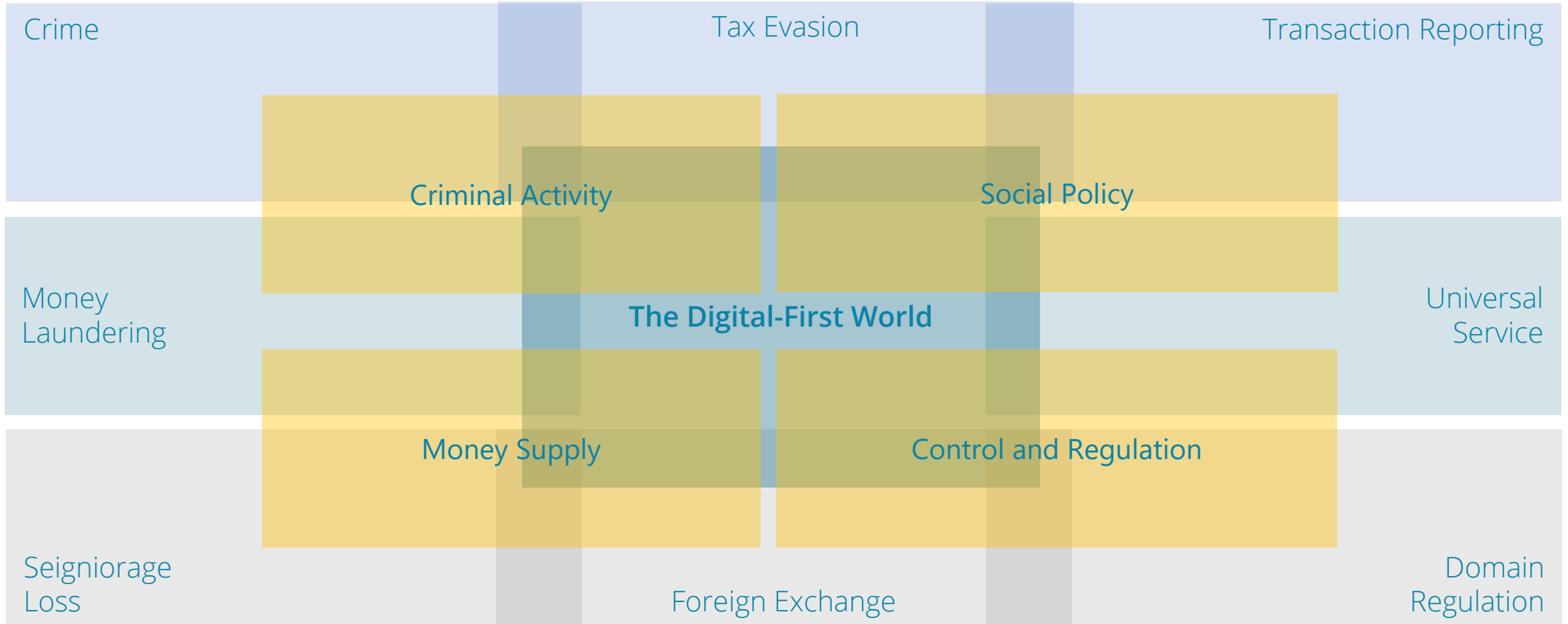
# Why Bother?

There is no burning platform, but here are some key drivers



# National Strategy

Central bank digital currency needs to be developed in the context of a wider strategy



SO...

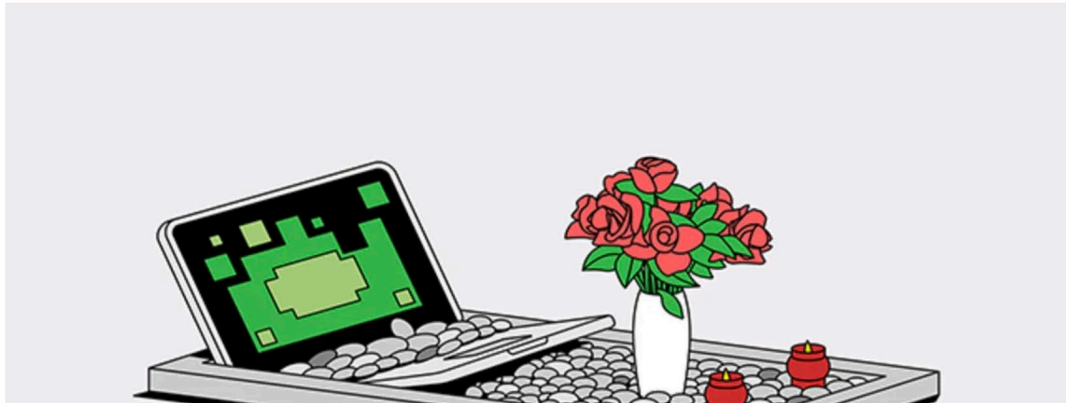
What's going on?

**The Economist** Menu Weekly edition The world in brief Search My Economist

**The World Ahead** | Digital currencies in 2024

# The roll-out of central-bank digital currencies will slow in 2024

*They create new problems while solving few*



Time to press pause



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COMMENTARY



**Outlook 2024: The three Ds of reserve management**

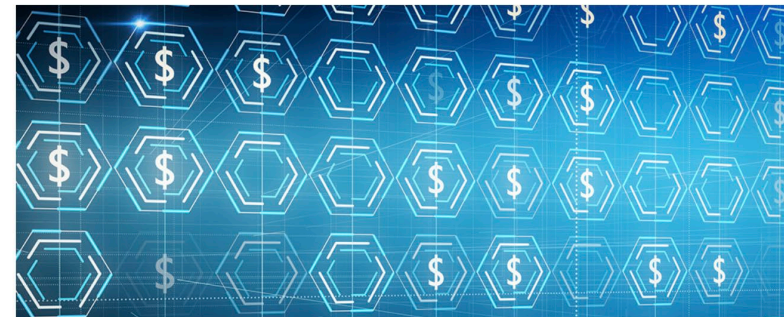
ON DEMAND



**Navigating the new norm: the long-term outlook for inflation and implications for investors**

# CBDCs set to acquire critical mass in next five years

By OMFIF editors | 13 December 2023



Full speed ahead

# CONTEXT

## Bank of England Consultation Response

### Primary legislation

*Both Houses of Parliament.*

### Privacy

*The Bank and the Government would not access users' personal data*

*It seems to me that in a democratic society, law enforcement must be able access this data!*

### Programmability

*The Bank and the Government would not program a digital pound*

*PIPs (and users) should be able to? Or not?*

### Access to cash

*Safeguards.*

## Bank of England and HM Treasury

Bank of England



HM Treasury

Response to the Bank of England and HM Treasury Consultation Paper:  
The digital pound: a new form of money for households and businesses?

Consultation Response



# CBDC Taxonomy

National Association of German Cooperative Banks (BVR), Association of German Banks (BdB), Association of German Public Banks (VÖB), German Savings Banks Association (DSGV) and Association of German Pfandbrief Banks (vdp)

## Wholesale CBDC

Issued by the central bank to be used for the capital markets and interbank transfers.

The GBIC's experts are calling for this special form of the digital euro partly because, by adopting this approach, the ECB would be able to include further digitalisation of central bank accounts in its project.

The ultimate aim is to achieve improvements which can benefit consumers, enterprises and also the banking sector.

(See also Bank of England *Omnibus*.)

## Retail CBDC

Issued by the central bank is to be used by private individuals in the euro area in the same way as cash for everyday payments, e.g., to retailers or government agencies.

It should be possible to use the digital euro like cash, anonymously and offline.

For this purpose, credit institutions will provide consumers in Europe with "CBDC wallets", i.e., electronic wallets.

(I don't think this should be restricted to credit institutions.)

## Machine CBDC

"Tokenised commercial bank money" made available by commercial and savings banks.

This is to complement the two forms of digital central bank money, in particular to meet corporate demand arising from Industry 4.0 and the Internet of Things.

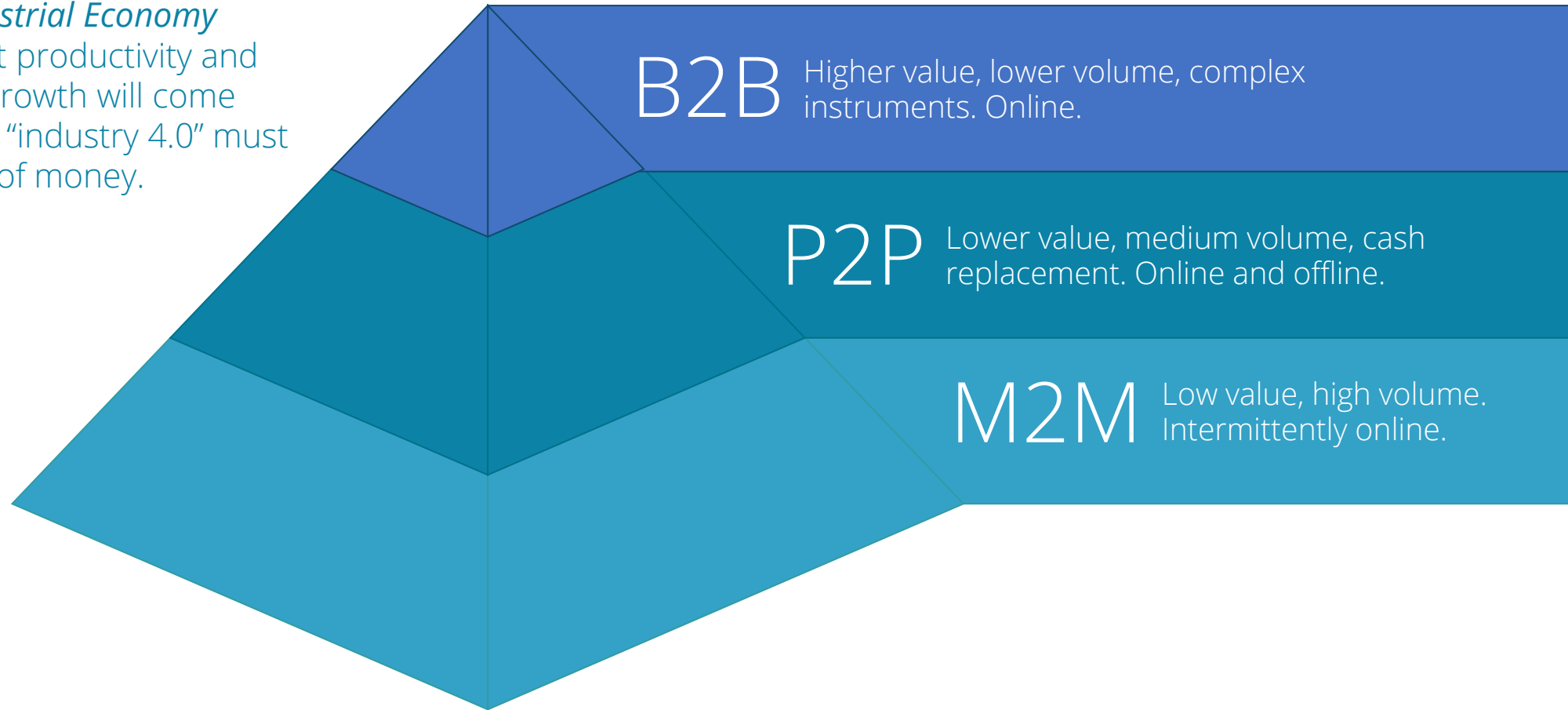
It could facilitate transactions based on "smart" – i.e., automated – contracts and thus increase process efficiency.

# Optimising Currency

## Why use the same implementation across all use cases?

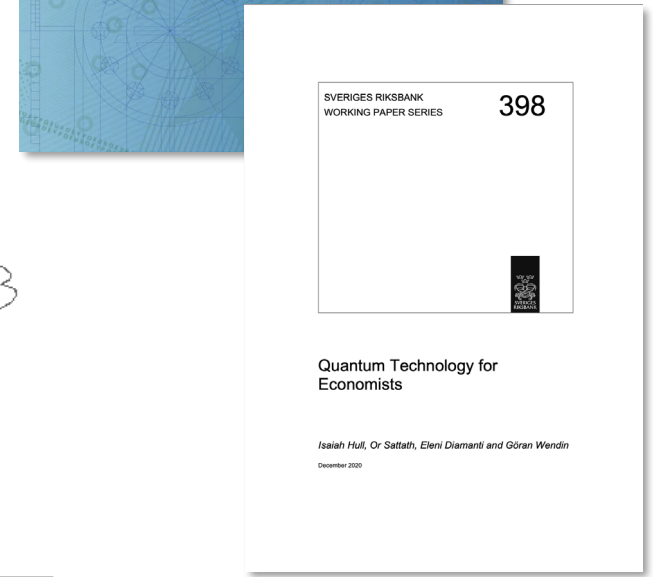
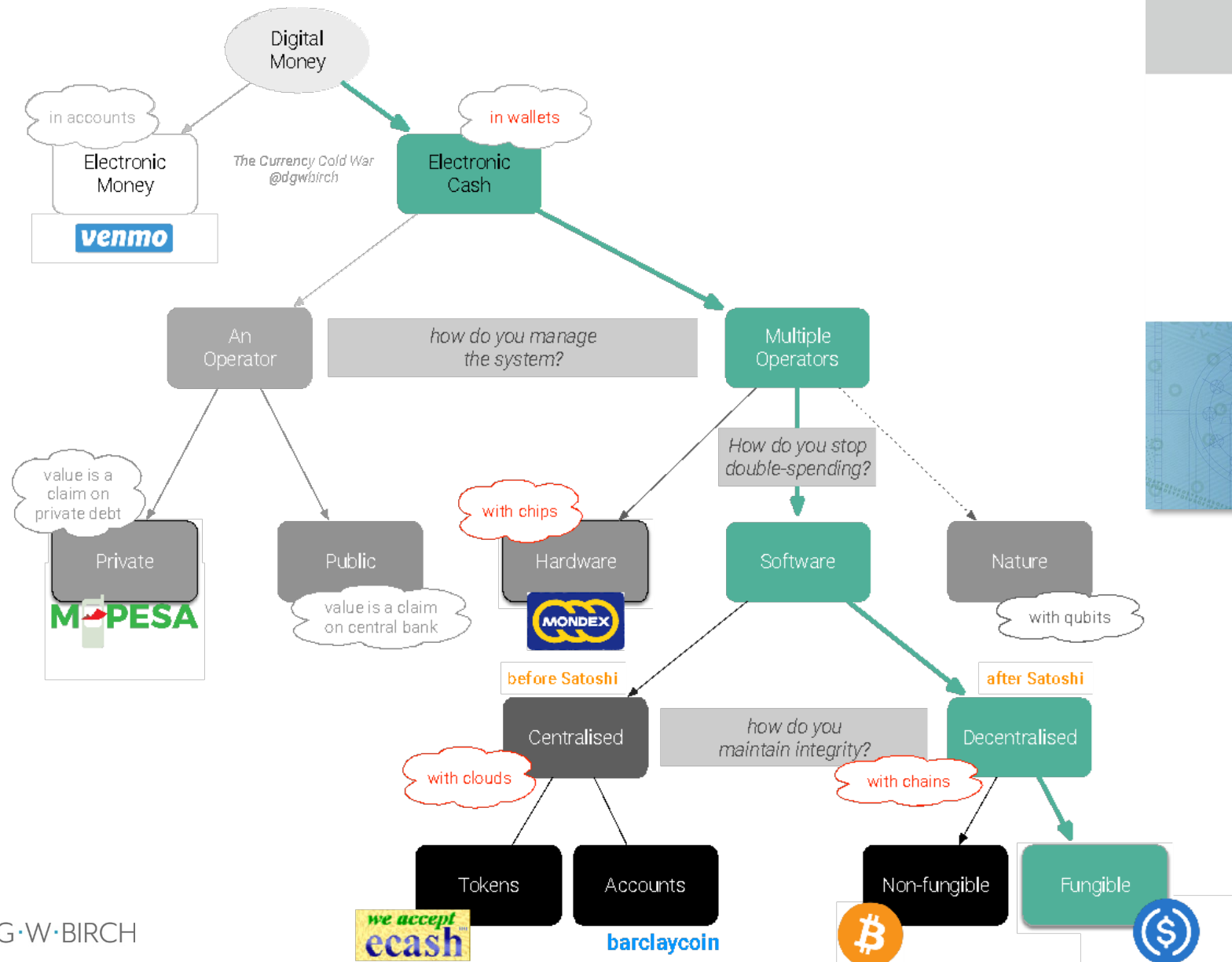
### *Support the Post-Industrial Economy*

The German view that productivity and therefore economic growth will come from automation and “industry 4.0” must mean different kinds of money.



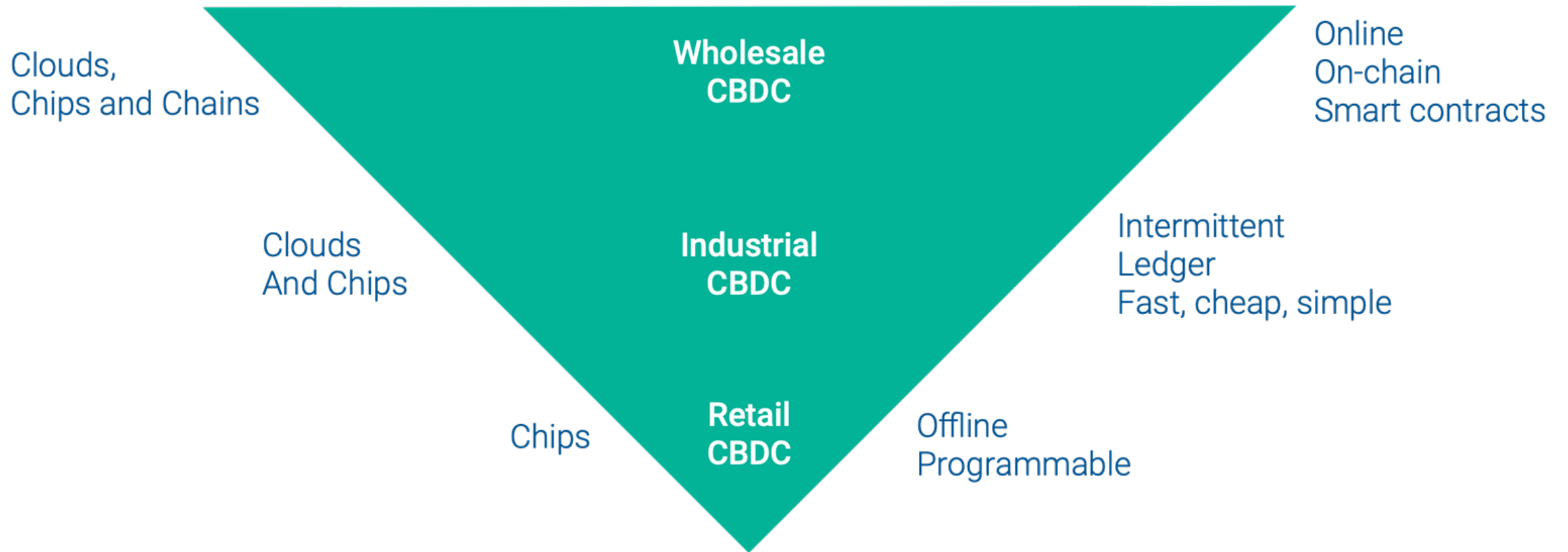
# CBDC Architecture

## Recap



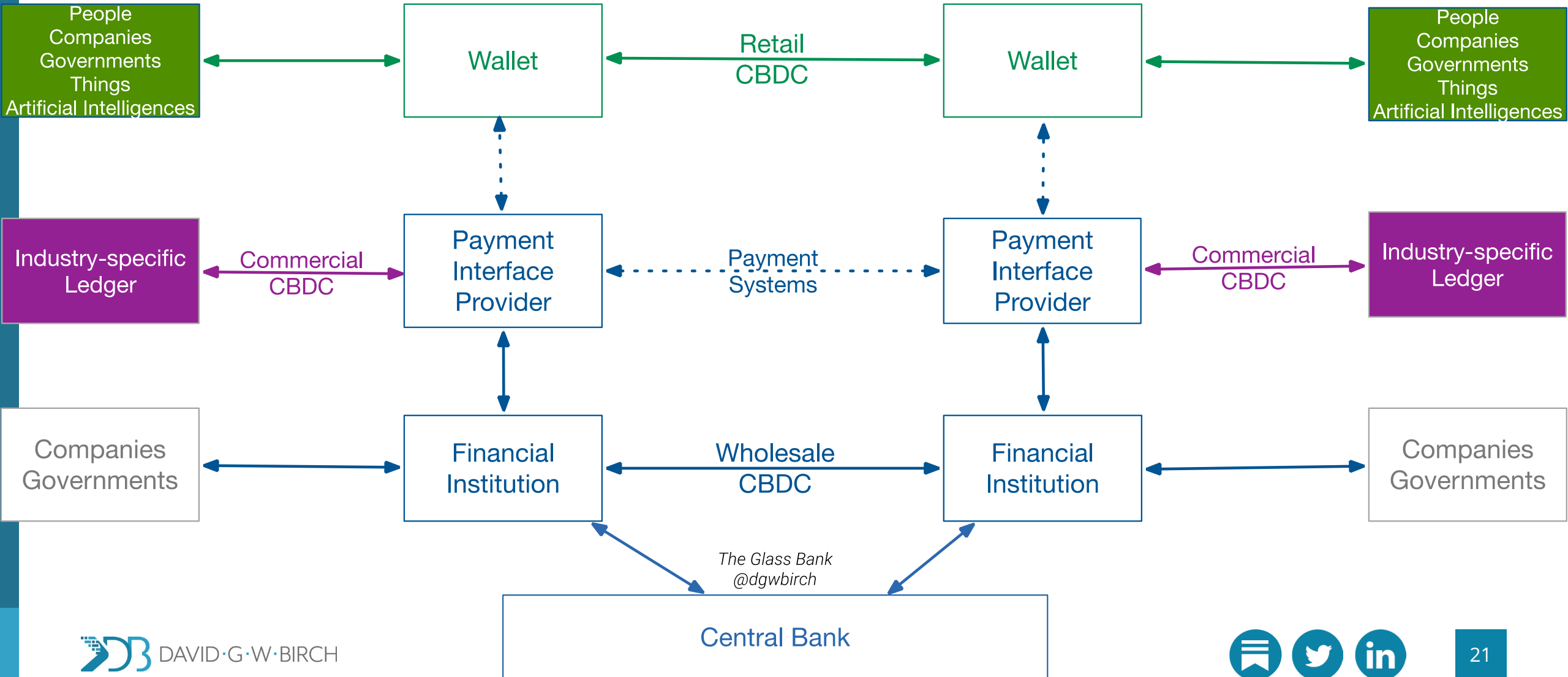
# We Have The Technology

One size does not fit all



# Strawman

An example of how implementations may interact

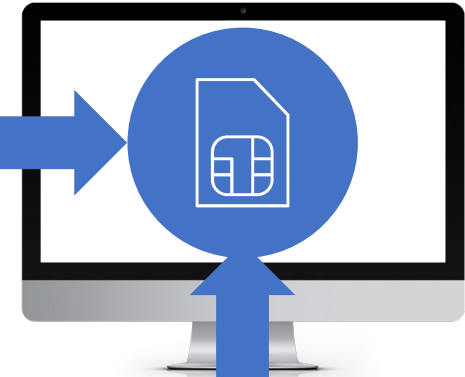
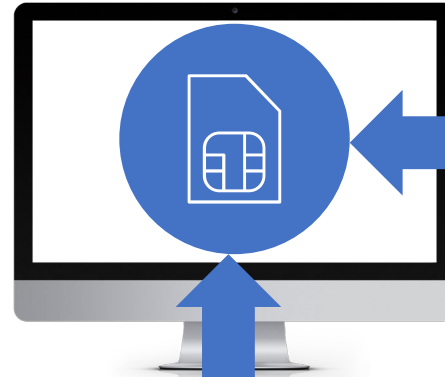


# Retail Marketecture

## Two Tier with Tamper-Resistant Hardware

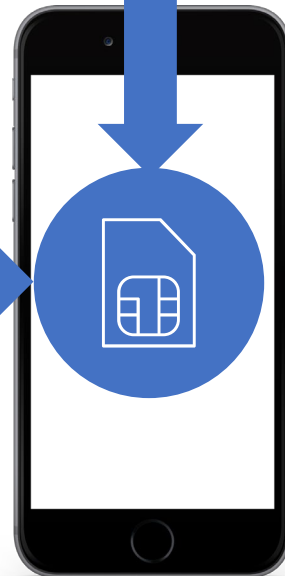
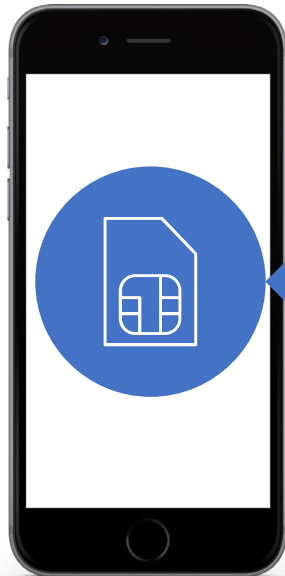


secure  
element

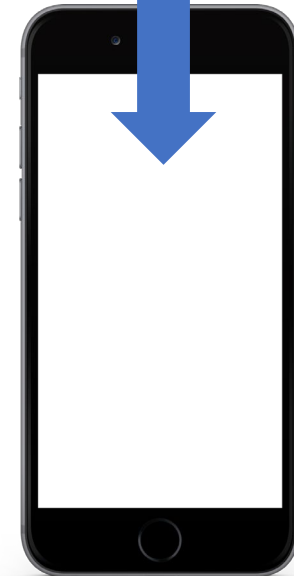


online

hosted



offline





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# Digital Identity

The foundation for changes

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*If you know who all of the participants in a transaction are  
payments just accounting*

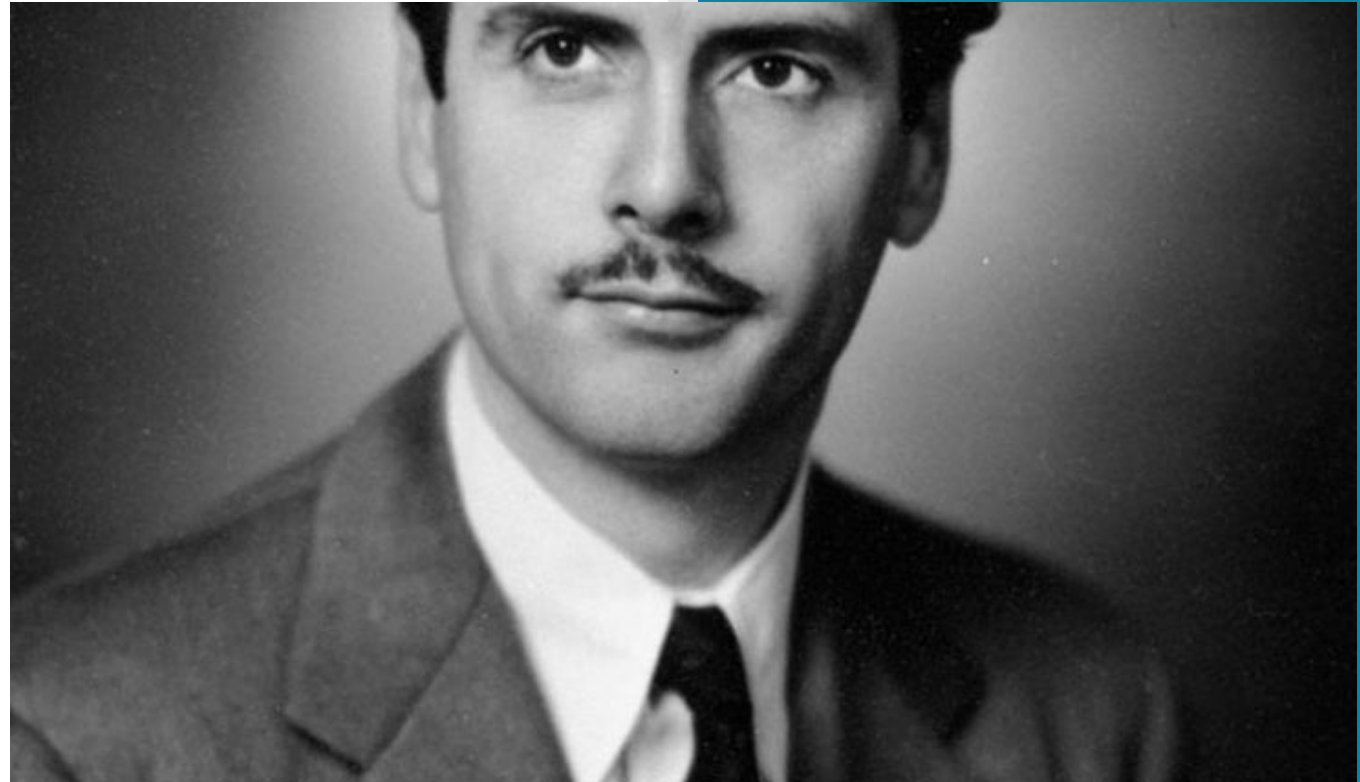


## WHAT. A. GUY.

*Marshall McLuhan was right about everything*

*In the new electric world, where everybody is involved with everybody, where everybody is involved in complex processes, the old identity cards, the old means of finding out who am I, will not work*

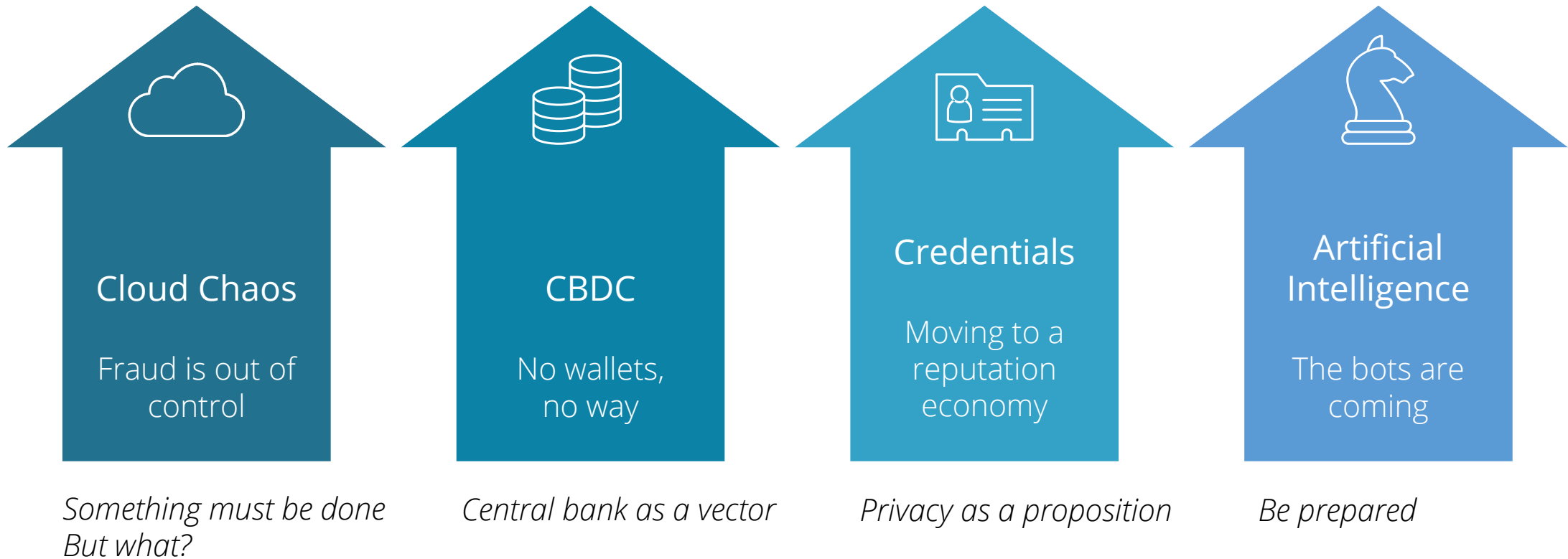
(I wish that more people would take this onboard, give up trying to digitise the old identity systems and start building the new digital identity system we need.)





# DIGITAL IDENTITY DRIVERS

*Why now?*



# DIGITISED IS NOT GOOD ENOUGH

Electronic paper is not the way forward

Digitised Identity	Digital Identity
Nodes	Edges
Static	Dynamic
Single	Multiple
Hierarchy	Relationships
Dumb	Smart
Stand-alone	Interactive

# THE WALLET WARS

*It used to be about top of wallet, now it's about wallet*

EU Digital ID Wallet

2027?



# WHY BOTS?

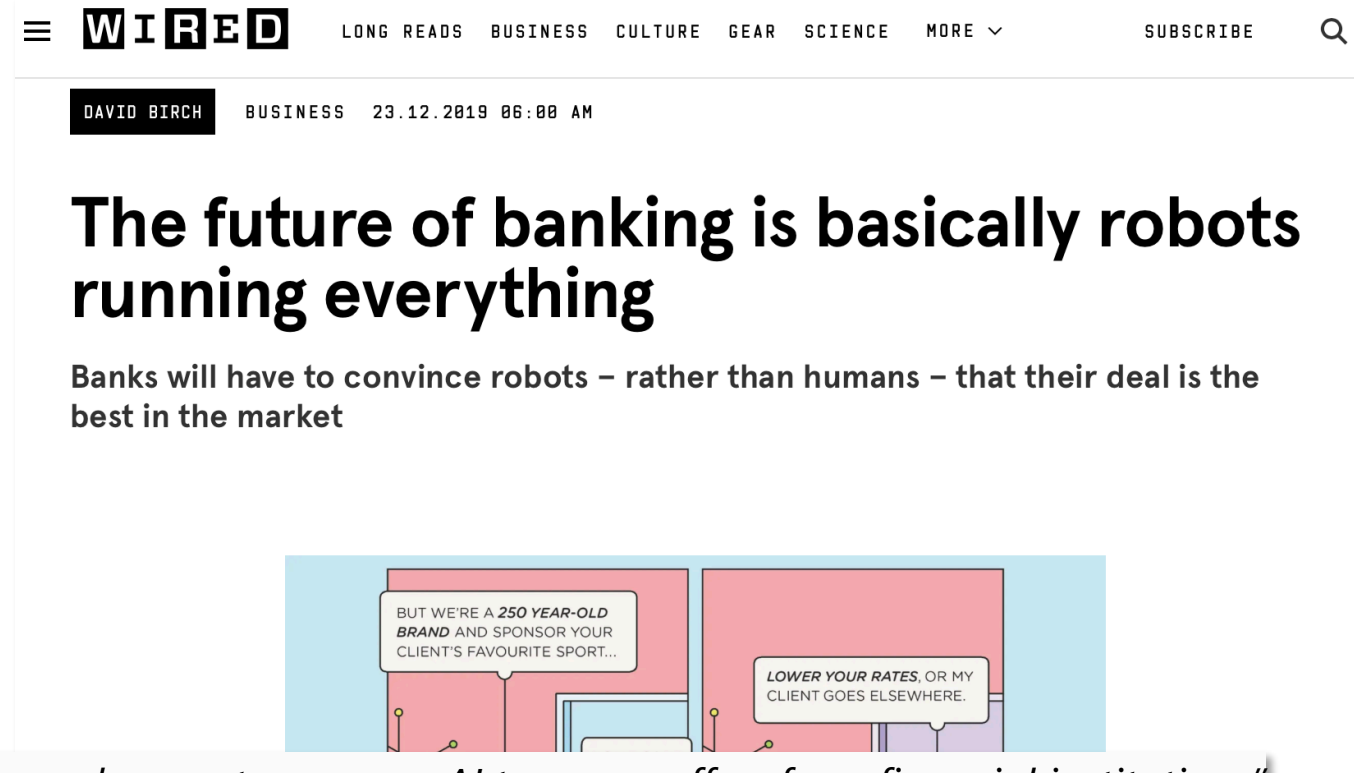
There are two kinds of transactions

*Most transactions are so boring, why are people involved in them at all?!*

*The transactions that are not boring are too complicated for most people to understand.*

*ChatGPT can already fight parking tickets, so why can't it pay for the parking in the first place?*

*"the big change in financial services will come when customers use AI to assess offers from financial institutions"*

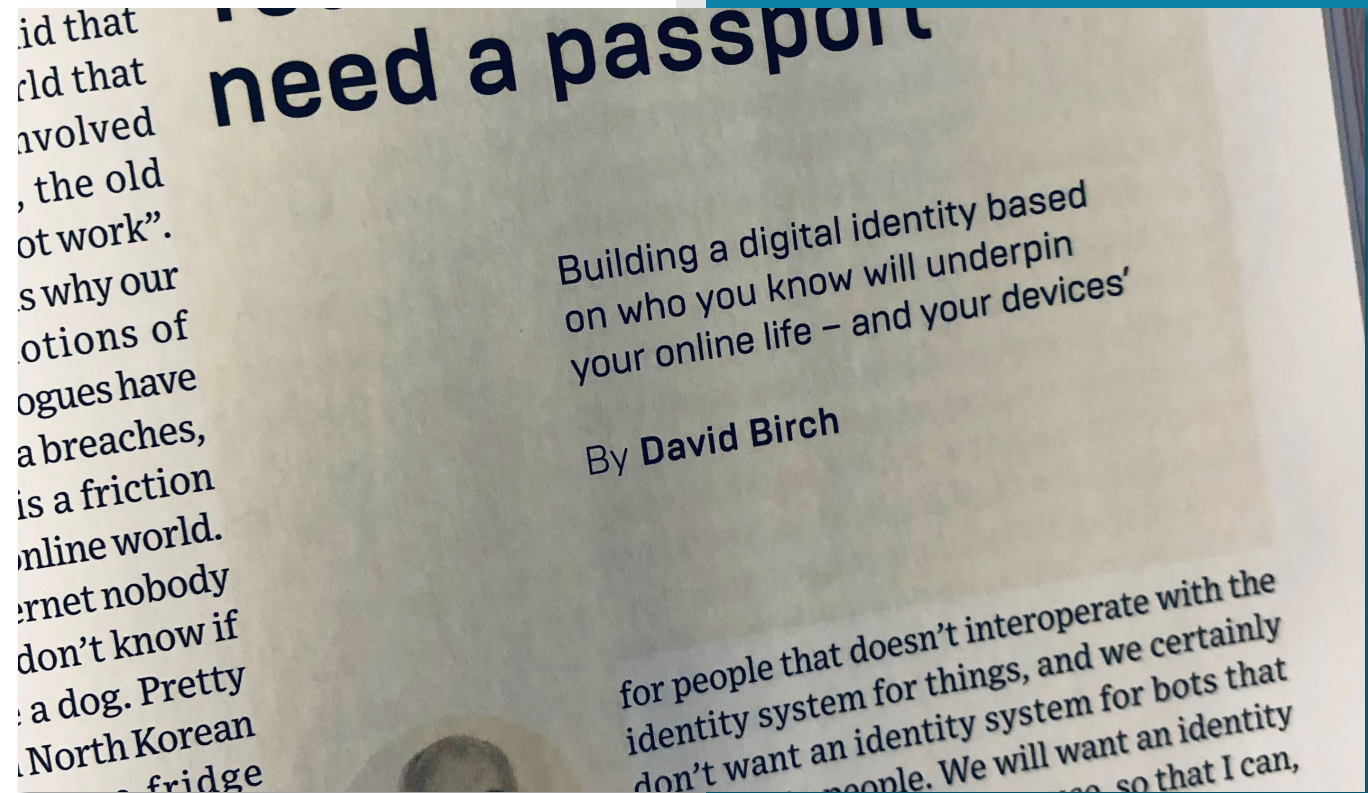


# ROBOTS NEED PASSPORTS

The missing piece is digital identity

How will you know if the bank is real? You can't even tell if that photo of Boris Johnson being arrested is real or not.

And how will the bank know that it's you and not a bot pretending to be you to fool to voice recognition?



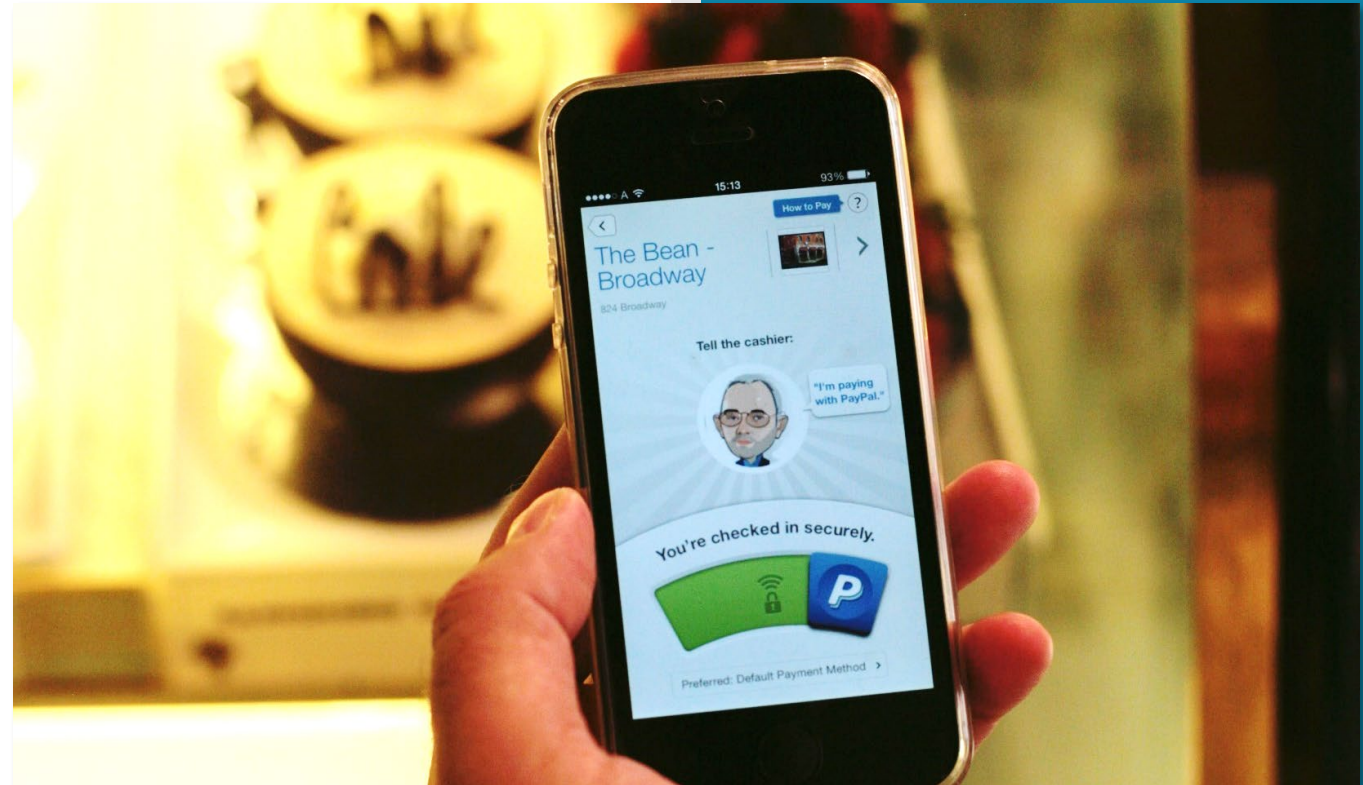
# WE KNOW WHAT THE PROBLEM IS

*But who will fix it?*

*"It's not about payment. It's about identity"*

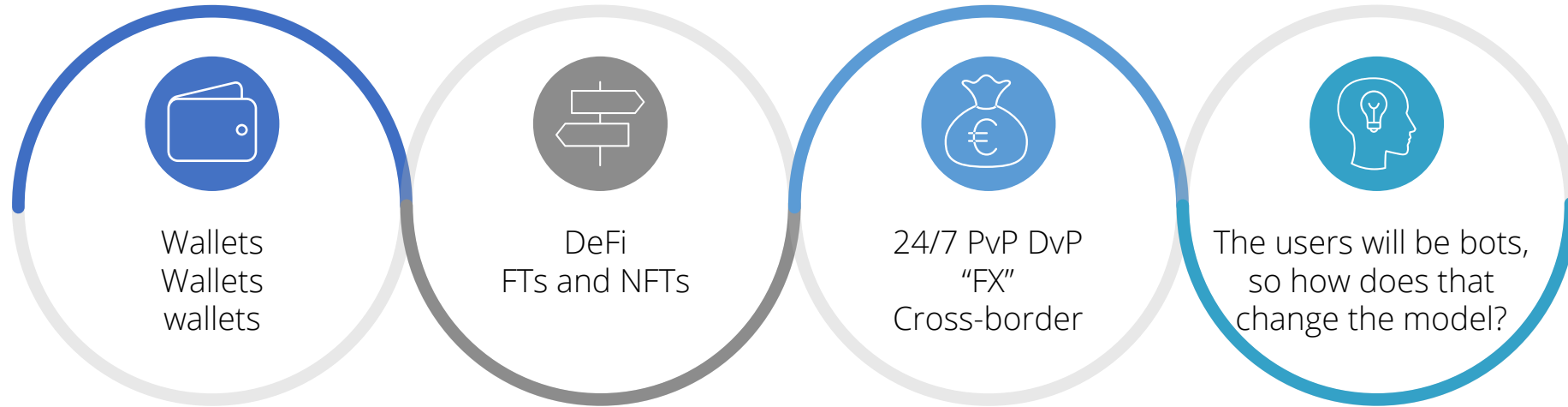
*Jack Dorsey, Founder of Square and Twitter*

*New York Times  
22<sup>nd</sup> December 2013*



# The Bank Response

What makes strategic sense?



01 Digital Identity  
European ID  
Credentials

02 Digital Assets  
NFTs  
Real-World  
Assets

03 Digital Money  
Stablecoins  
CBDC

04 AI...

# ONE MORE THING...

Announcing DaveGPT...







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**THANKS!**

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