

DC³ Conference

From cryptocurrencies to CBDCs

25 – 27 January 2022

<https://itu.int/go/dc3c>



An event of the Digital Currency Global Initiative

Organized jointly:

FDCI

Future of Digital
Currency Initiative





Stablecoins Track

Challenges and opportunities for stablecoins

DC³ Conference

From cryptocurrencies to CBDCs

26 January 2022

14:00 – 15:15 CET

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Moderator

Jean-Marc Seigneur
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Singapore



Gueorgui Gotzev
Fintech & Blockchain Lawyer
KOHLER GOTZEV
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Dante Disparte
Chief Strategy Officer and
Head of Global Policy
Circle
United States of America

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PD Dr. Jean-Marc Seigneur

- DC³ stablecoins workstream leader
- 140+ peer-reviewed publications on decentralized trust since 2002
- Google award of excellent research in academia received in 2016
- Director of the blockchain Certificate of Advanced Studies (CAS) at the University of Geneva
 - Technical, business and legal courses on blockchain, cryptocurrencies, decentralized finance, NFT...
 - Taught online via Zoom in English, no need to be in Geneva
 - 12 European credits (ECTS)
 - <https://www.cas-blockchain-certification.com/>





Agenda

1. Introduction “Overview of the work of the stablecoins workstream in the Digital Currency Global Initiative (DC3)”
2. Presentation by panelists (15 minutes each)
3. Panelist Discussion and Q&A with Audience (15 minutes)
4. Closing Remarks



Key Takeaways

- What are stablecoins, and how do they differ from cryptocurrencies and central bank digital currencies (CBDCs)?
- What are the main regulatory challenges for stablecoins?
- How can stablecoins and global stablecoins enhance the efficiency of the provision of financial services and what innovative applications could arise?
- What are the technical architecture options for stablecoins? What are the technologies that are enabling the stablecoins innovations ?



Work of the stablecoins workstream

- Collaborative work started in mid-2020
- Report of Digital Currency Global Initiative – Architecture, Interoperability Requirements and Use Case Working Group on Stablecoins and Use-case Examples
 - Draft version <https://archive-ouverte.unige.ch/unige:157864>



State-of-the-art Review

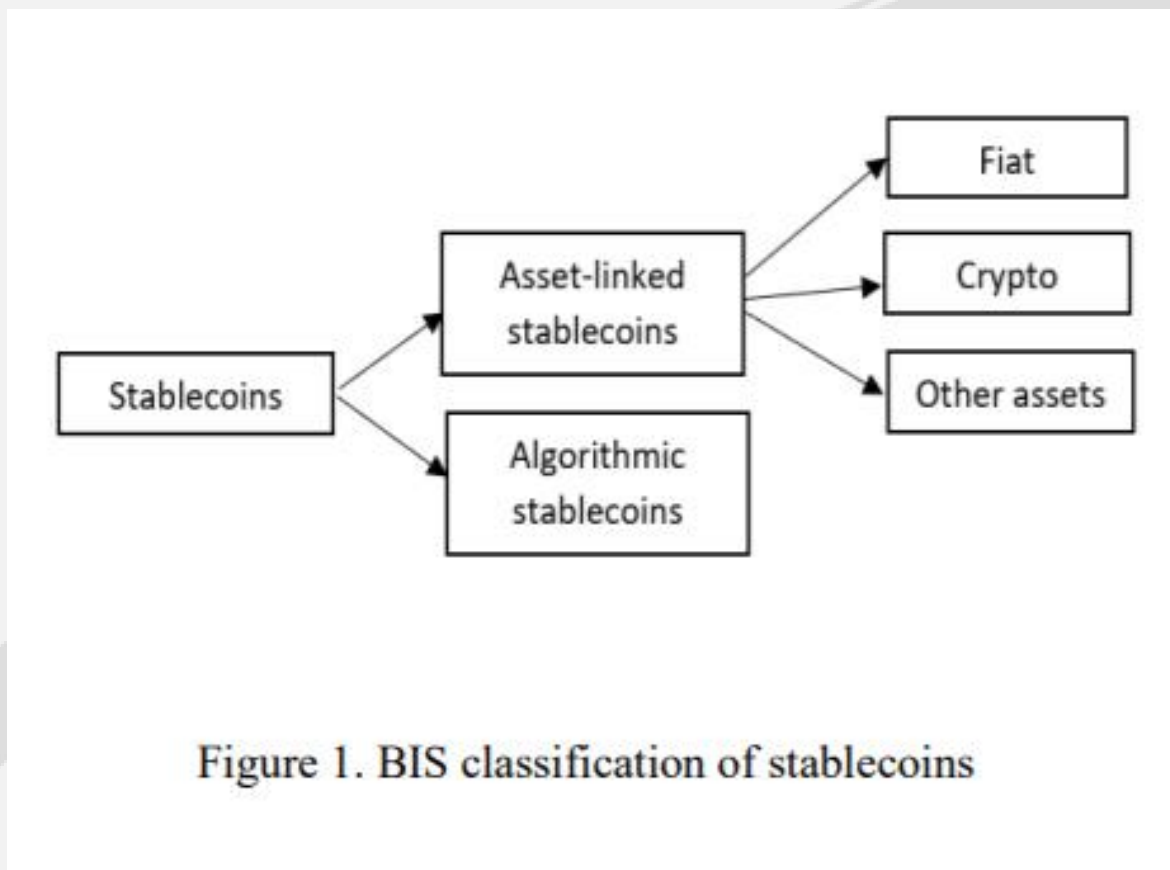


Figure 1. BIS classification of stablecoins

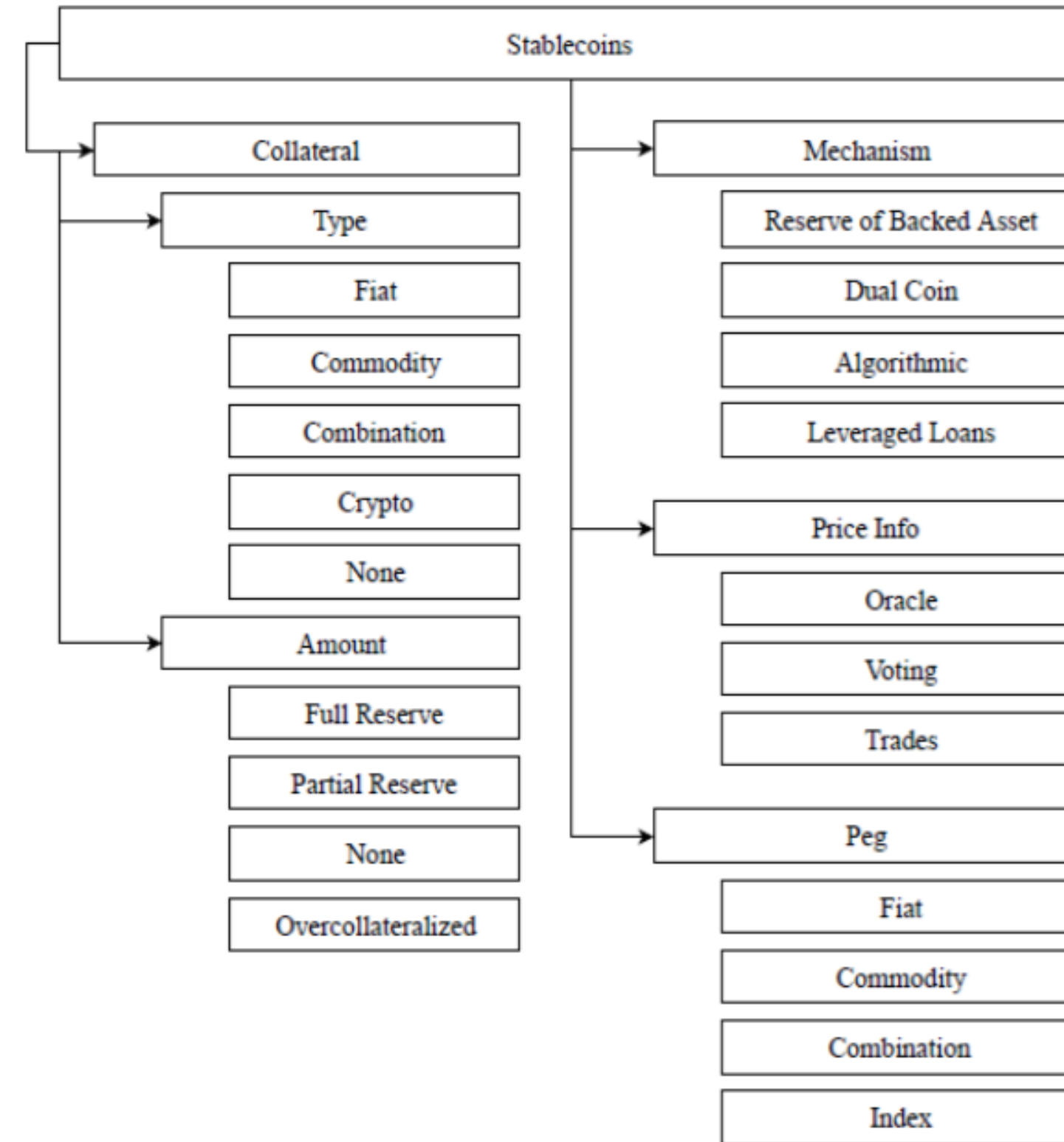


Figure 2. (Moin et al., 2019)' stablecoins taxonomy



Definition

- A stablecoin is a coin (i.e., one unit of an asset) whose value is stable relative to a reference, which may be some units of another asset or basket of assets or a more abstract reference like purchasing power.



Collateral-based stablecoins

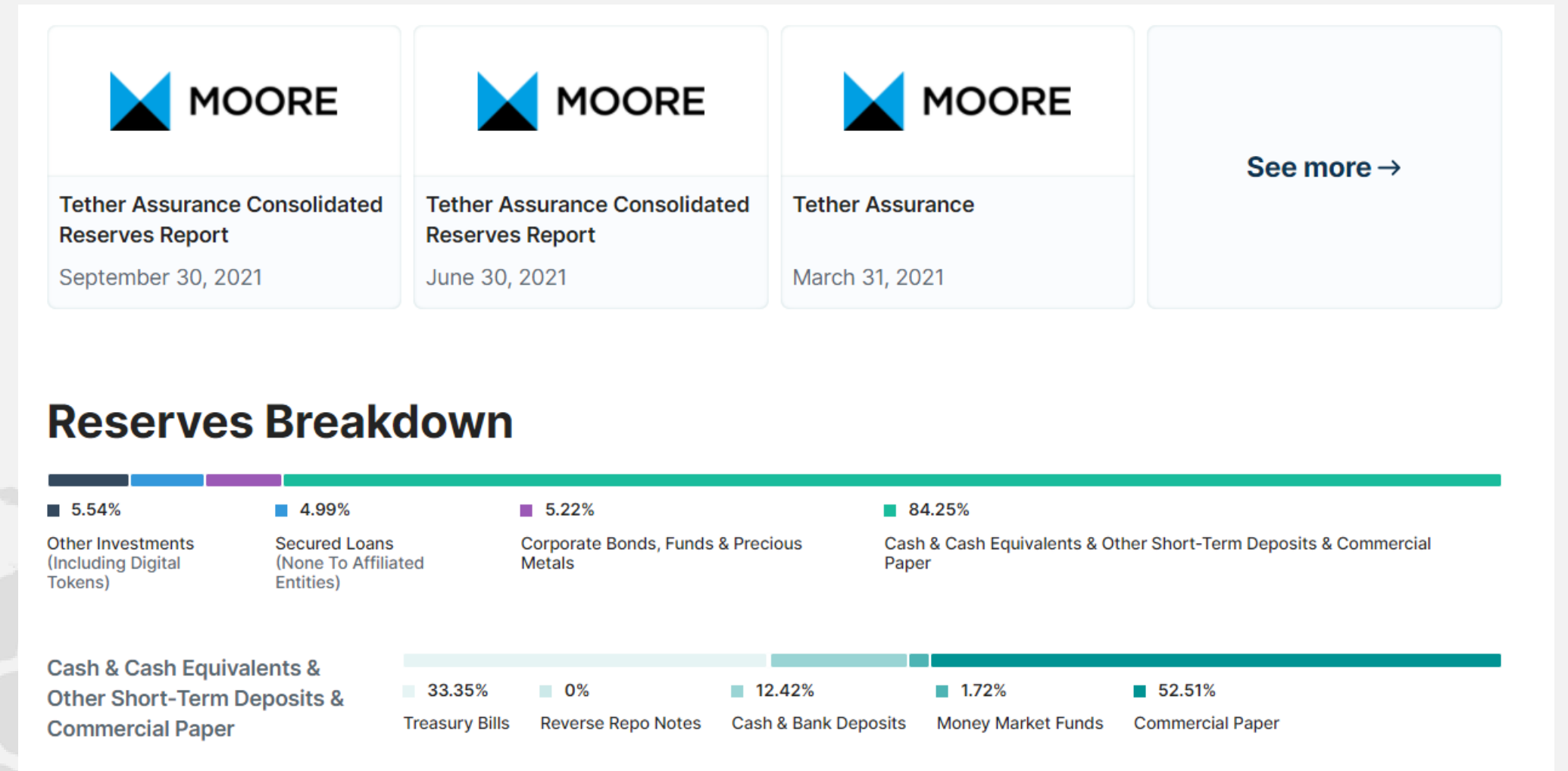
- Issue of trust in the collaterals reserve (fiat, gold, cryptocurrencies...)
- Main difference between fiat-based stablecoin and CBDC
 - A central bank de facto creates and controls its fiat reserve
 - Any fiat-based stablecoin intermediary will have to provide evidence about the reserve (external audits...)



Fiat-based Reviewed Use-cases

- USDT(1\$)
- USDC (1\$) (see next Dante Disparte presentation)
- LUGH (1 Euro)
- BNDES (1 Brazilian Real)

- GLX (basket of fiat selected based on GDP performance to maintain purchasing power) <https://archive-ouverte.unige.ch/unige:97657>
- LIBRA / DIEM (from a basket of fiat to 1\$ only)

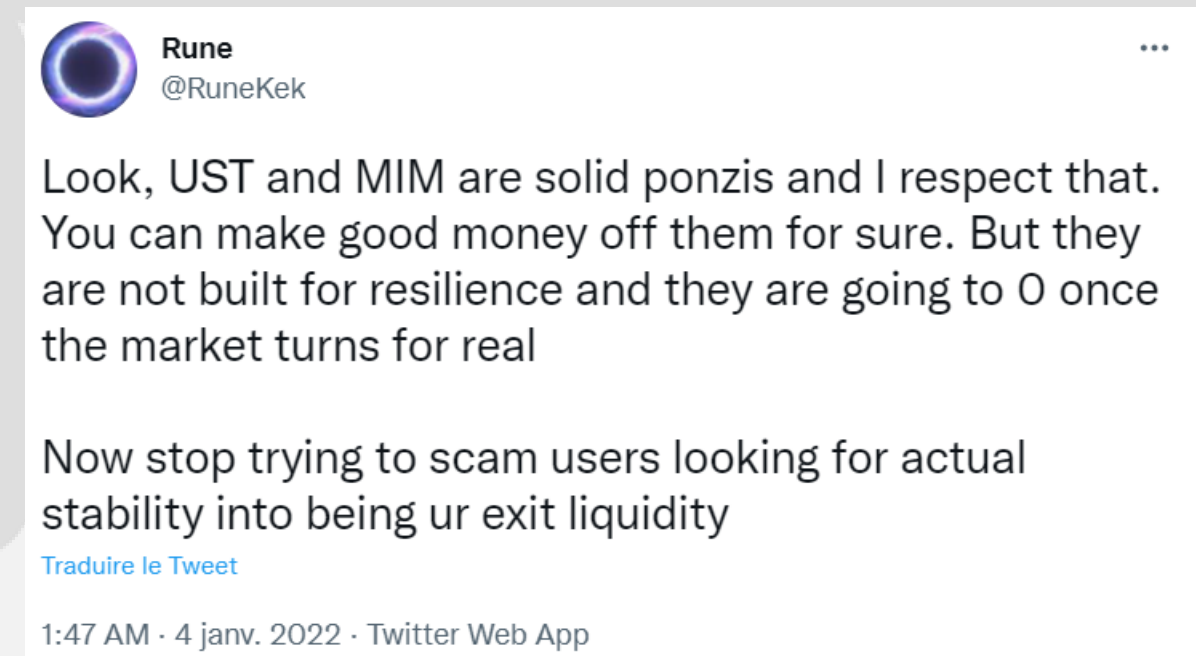




Crypto collaterals-based Reviewed Use-cases

- MakerDAO Dai (1\$)
- Celo cUSD (1\$)

Contact with Terra UST (1\$)

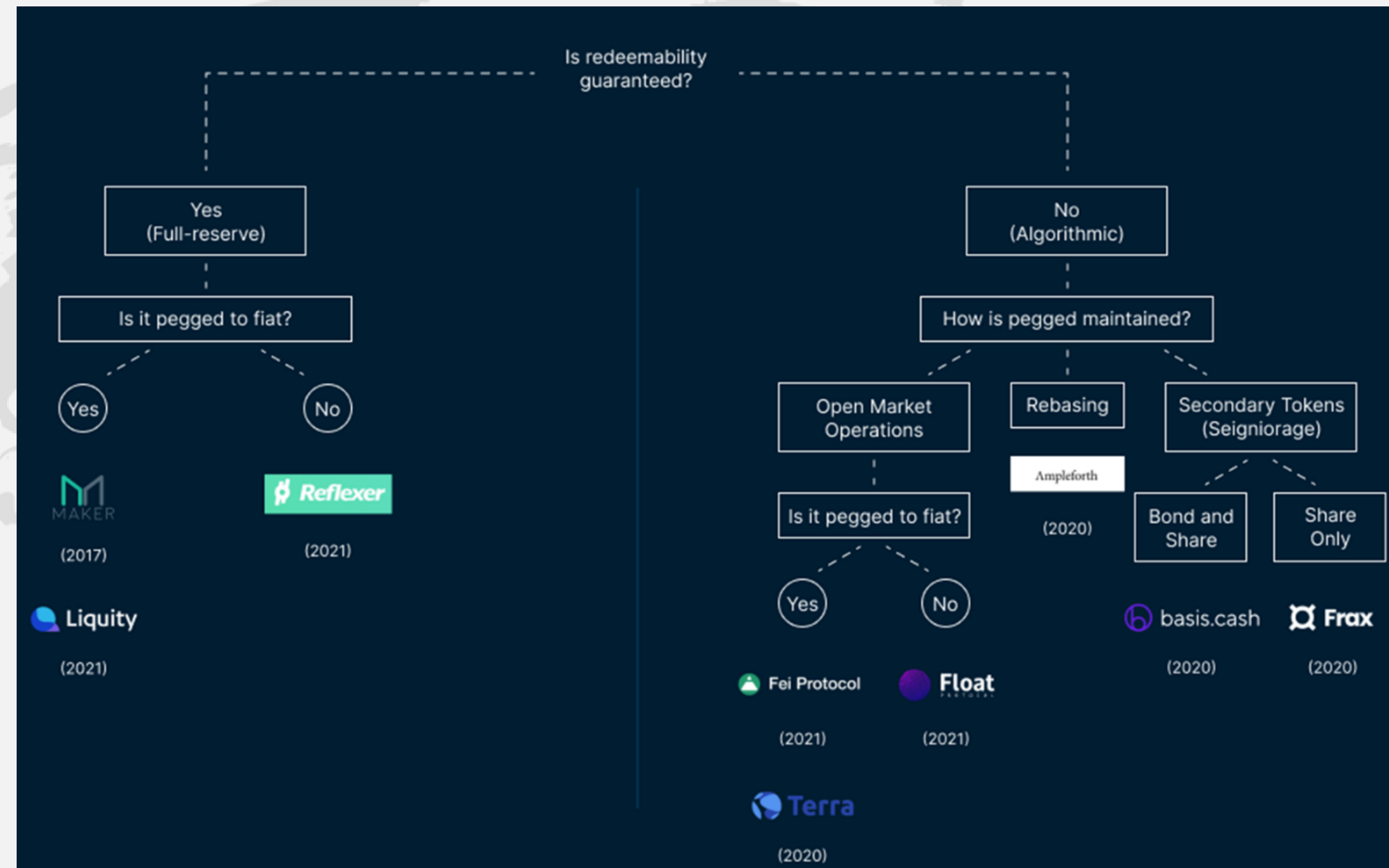


[MakerDAO co-founder]



Other Reviewed Use-cases

- Ampleforth algorithmic stablecoin (see Lisa JY Tan next presentation)



[Loon]



Report Comparison Overview

	Libra/Diem	Tether [USDT]	BNDES	LUGH [EURL]
Peg / Reference point	Fiat [ex: 1 ≈USD = 1 USD]	Fiat [1 USDT = 1 USD]	Fiat [1 BNDES = 1 BRL]	Fiat [1 EUR-L = 1 EUR]
Collaterals	Fiat / full reserve	Fiat / partial reserve	Fiat / full reserve	Fiat / full reserve
Stabilization mechanism	Reserve of backed asset	Reserve of backed asset	Reserve of backed asset	Reserve of backed asset
Price information	Oracles	Oracles	Defined by BNDES, which is the issuer / settlement body with no secondary market	Oracles
Underlying DLT	Libra Blockchain	Mainly Ethereum & Tron but available on several blockchains	Ethereum	Tezos
Consensus mechanism	Libra BFT	PoW/PoS of Ethereum or PoS of Tron	PoW/PoS of Ethereum	PoS of Tezos
Governance	Managed by the Libra / Diem consortium	Centrally managed by the private company	Centralized at BNDES	Relies onto 4 administrators groups (Owner, Administrator, Minter, Reserve) using multi-signatures to operate EUR-L
Issuer	Libra / Diem Association in partnership with Silvergate bank	Tether Ltd – private company	BNDES bank	Private company

	Custodial	Custodial	Non-Custodial	Custodial
Insurance	High regulatory compliance enforcing government-issued ID for the Novi wallet that states that “in event of fraud, you will be eligible to receive a full refund”	None	BNDES is a state-owned institution.	None
Interoperability with other DC	Claim to develop new standards that developers will be able to use	Can be swapped with other ERC-20	No (it may be possible in the future, for settlement)	Can be swapped with other Tezos-based FA1.2 tokens
Integration with other Payment systems	Not released yet	Massively compatible: Ethereum / OMG network / Binance Smart Chain / Tron / Solana	Some integration with SPB (Brazilian Payment System)	Partnership with the bank Société Générale
Storing and exchanging coins	Libra/Diem-compatible wallets, especially the Facebook Novi wallet, a reference wallet implementation is provided for other providers	ERC-20 compatible wallets and many major centralized exchanges	ERC-20 compatible wallets	FA1.2 compatible wallets
Freezing	The Libra/Diem can freeze addresses	Yes Tether can freeze addresses	Yes, at least in the beginning.	The administrators group has the ability to declare an address as accredited, to lock/unlock an address, to pause transfer and to transfer from one address to another
KYC/AML	Any account on the Facebook Novi wallet will required government IDs	No KYC/AML so far	De facto compliance reusing trust from national digital certificate	Yes for now as it is restricted to trade on centralized exchanges where users have to pass KYC
Level of decentralization	Low (run on its own controlled blockchain with freezing feature; although the consortium members are quite diverse and influential, they have mainly been centrally chosen by Facebook to some extent; only addresses that have	Low (although it runs on several blockchains without KYC/AML, Tether can freeze any addresses and is the unique controlling party with opaque information regarding its reserve, which is rarely audited and	Low (deployed on Ethereum but with centralized governance by BNDES)	Low (although it runs on the quite decentralized Tezos blockchain, it relies on 4 administrators group that have the ability to freeze addresses)



	passed KYC/AML with government ID on Novi wallet)	not in-depth, transparently)		
Systemic importance	Although the decentralization is low, the level of the technical team is high and Facebook and consortium members already have more than 1,5 billion users	It is the most used stablecoins with links to several exchanges with high leverage, which is clearly a high systemic risk for cryptocurrencies, at least on the short term after a potential cease and desist of Tether by the USA	Until now it has only been used on pilot projects	Until now it is only a pilot project but it is interesting as it is launched in France, which has specific stablecoins views, by one of the major supermarkets groups.



Other stablecoins aspects covered in the report

- **Legal compliance**
 - United States of America
 - European Union
 - China
 - Switzerland
 - See next Gueorgui Gotzev presentation
- **Interoperability**
 - Standardization at the ITU level can greatly help in this regard
 - See also Visa presentation today



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