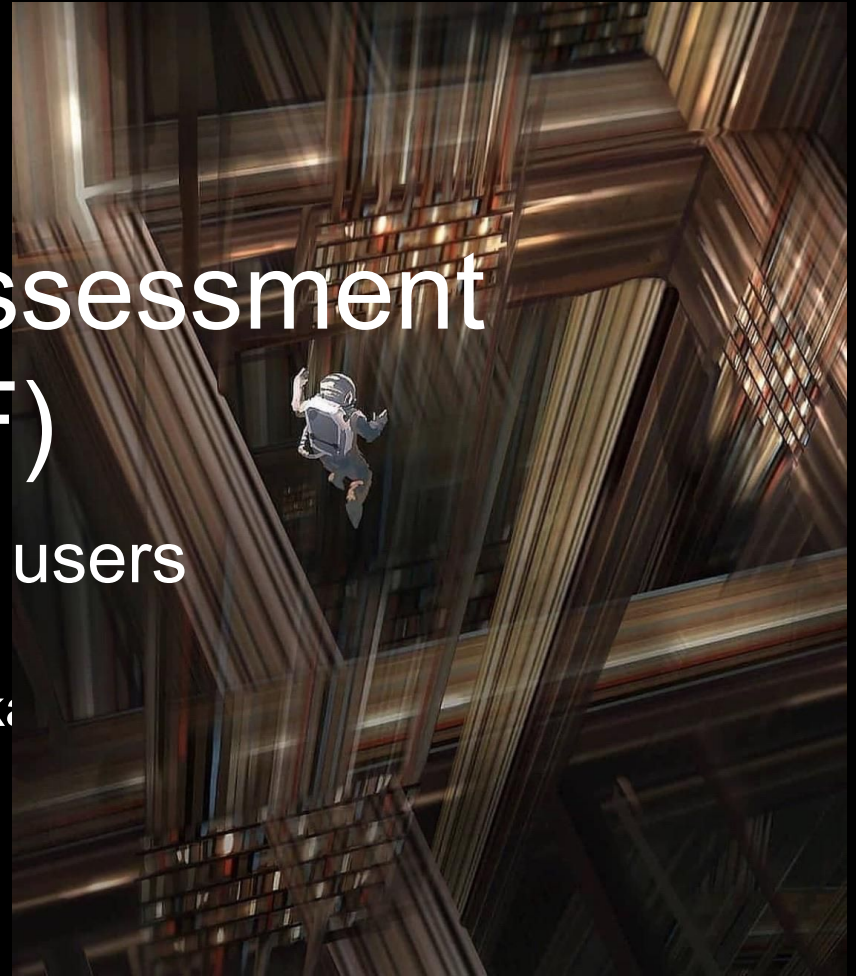


Stablecoin Risk Assessment Framework (SRAF)

Regulatory risk to stablecoin users

by Tammy Yang, Aleksandra Fiutowski



About us

Aleksandra Fiutowska

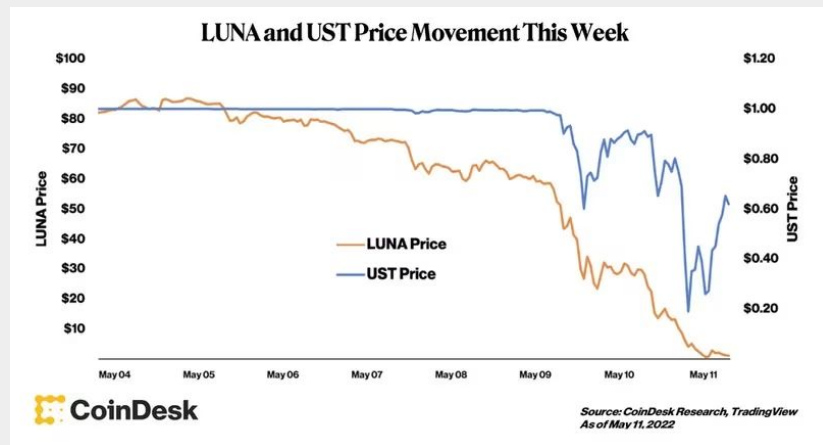
- Legal professional for a major protocol Foundation
- Led stablecoin regulatory research for Risks and Protection Dashboard at CCAF (Cambridge Centre for Alternative Finance)

Tammy Yang

- Blockchain analytics at a crypto exchange
- Banking (credit risk modeller, developer)

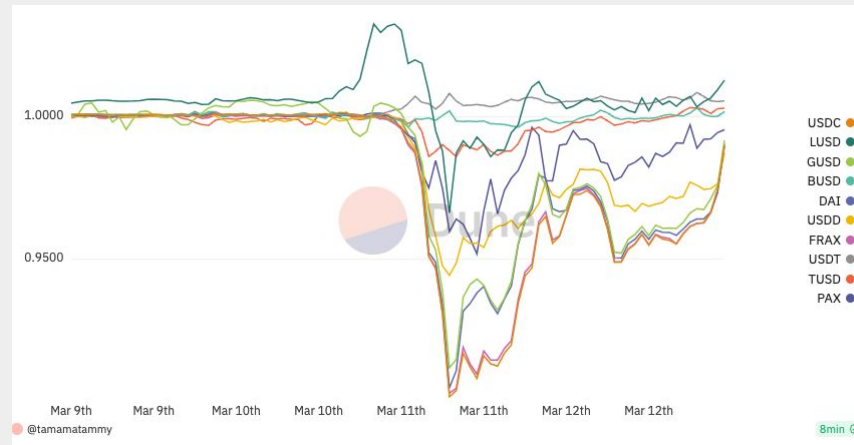
The two stablecoin events

The Fall of Terra, May 2022



- UST market cap ~\$18B USD in April
- 3rd largest stablecoin
- Collapse due to fundamental flaw in design

The SVB collapse, Mar 2023



- USDC fully backed by cash and cash equivalent
- 3rd largest stablecoin
- Depeg due to the custodian risk it exposed to
 - cash != banking notes

About SRAF

Building a multidimensional stablecoin risk assessment framework

Defining stablecoin risk:

- price becomes too volatile over time - too high or too low
- price significantly lower than pegged value
- complete failure
- value cannot be accessed

Asset Backing

Stability Mechanism

**Issuance and
Redemption**

Liquidity

Governance

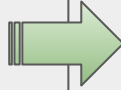
Smart contract

Oracle

Regulatory Risk

The challenge of having a single rating

- Difficult to assign weights on different risk categories
- Not enough data for probability of depeg model
- Not only depeg matters - high/volatile stablecoin price can also harm users



Our approach:

Use the framework to analyse and compare risk amongst stablecoins, users decide the importance of each category based on their own objective and risk appetite

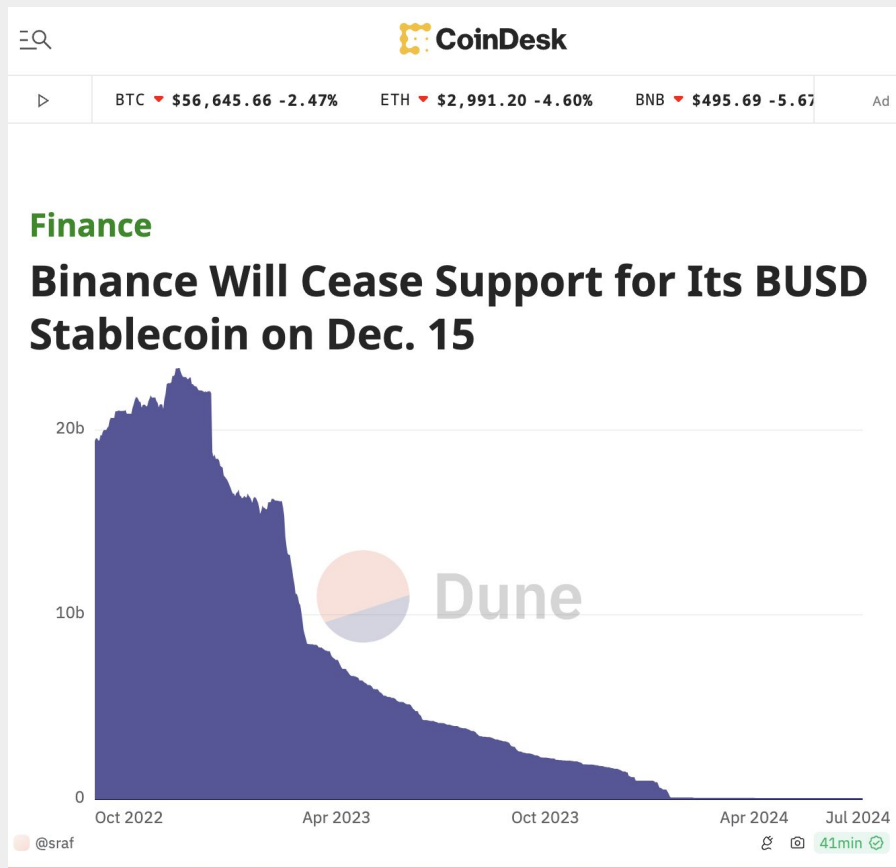
BUSD unwind

Authority actions

- Feb, 2023, New York DFS ended minting of BUSD at Paxos
- Dec 2023, Binance stopped supporting BUSD

Impacts to users

- Users were able to redeem BUSD at 1:1 as reserve was not impacted
- Users were not able to trade BUSD on Binance



FTX collapse

Authority actions:

- Dec 2023, IRS demanded \$24B from FTX for unpaid tax

Impacts to users

- Some remaining assets was used to pay bankruptcy lawyers
- \$200M was paid before client compensation

What if FTX has its own stablecoin?

FM Home > Cryptocurrency

FTX Settles \$24 Billion Tax Dispute with Internal Revenue Service

Tuesday, 04/06/2024 | 21:37 GMT+2 by Jared Kirui

- The settlement includes FTX paying \$200 million within 60 days of court approval and \$685 million after compensating other creditors and customers.
- Initially, the IRS claimed \$44 billion, but it was amended to \$24 billion.



CoinDesk



BTC ▼ \$56,543.97 -1.90%

ETH ▼ \$2,999.03 -4.08%

BNB ▼ \$497.11 -4.84%

Ad

Policy

FTX Disputes IRS's 'Alice in Wonderland' Tax Claim

THE BLOCK

BTCUSD 56,536.00 -2.20%

ETHUSD 2,997.53 -4.16%

BCHUSD 322.93 -6.00%

FTX says IRS demand for \$24 billion in unpaid taxes is delaying recovery of user funds

Binance enforcement

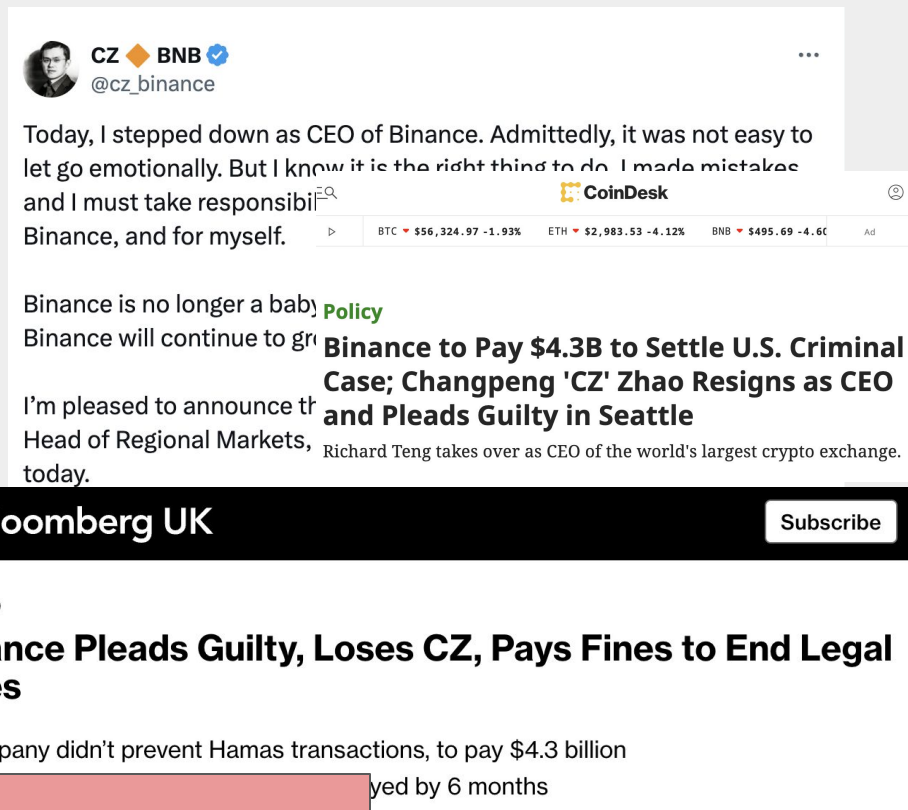
Authority actions

- Nov 2023, Binance was fined for \$4.3B for various wrong doings
- CEO CZ stepped down and was sentenced to jail



User impact

- No direct impact to the users as Binance has the money to pay
- Several countries, including Australia and Cyprus, revoked or suspended Binance's operating licenses

What if Binance didn't have the money to pay?



The image shows a screenshot of a tweet from CZ (@cz_binance) and a Bloomberg UK article headline. The tweet, dated Nov 14, 2023, at 11:00 AM, states: "Today, I stepped down as CEO of Binance. Admittedly, it was not easy to let go emotionally. But I know it is the right thing to do. I made mistakes and I must take responsibility for Binance, and for myself." Below the tweet, a CoinDesk article snippet is visible, titled "Binance is no longer a baby policy" and "Binance will continue to grow". The article snippet also mentions "Binance to Pay \$4.3B to Settle U.S. Criminal Case; Changpeng 'CZ' Zhao Resigns as CEO and Pleads Guilty in Seattle" and "I'm pleased to announce that I'm stepping down as Head of Regional Markets, Richard Teng takes over as CEO of the world's largest crypto exchange. today." Below the tweet, a Bloomberg UK article headline is visible: "Binance Pleads Guilty, Loses CZ, Pays Fines to End Legal Woes". The article snippet also mentions "Company didn't prevent Hamas transactions, to pay \$4.3 billion" and "Suspended by 6 months".

CZ  
@cz_binance

Today, I stepped down as CEO of Binance. Admittedly, it was not easy to let go emotionally. But I know it is the right thing to do. I made mistakes and I must take responsibility for Binance, and for myself.

Binance is no longer a baby policy
Binance will continue to grow

Binance to Pay \$4.3B to Settle U.S. Criminal Case; Changpeng 'CZ' Zhao Resigns as CEO and Pleads Guilty in Seattle

I'm pleased to announce that I'm stepping down as Head of Regional Markets, Richard Teng takes over as CEO of the world's largest crypto exchange. today.

Bloomberg UK [Subscribe](#)

Crypto

Binance Pleads Guilty, Loses CZ, Pays Fines to End Legal Woes

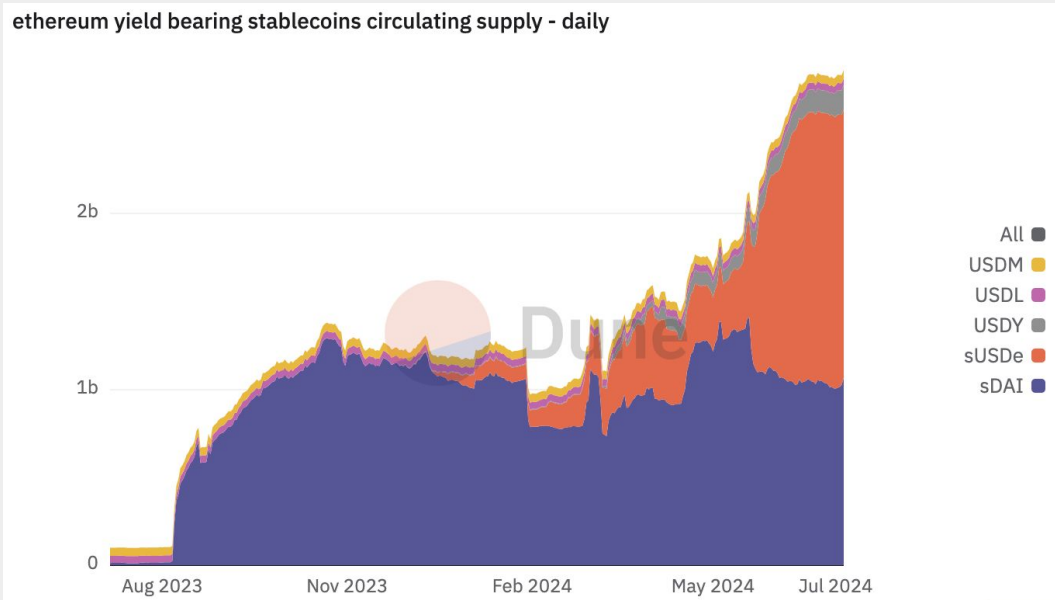
■ Company didn't prevent Hamas transactions, to pay \$4.3 billion
Suspended by 6 months

The rise of yield bearing stablecoin

Yield-bearing stablecoin circulating supply

Authority actions

- Not much happening yet
- Easier to be identify as security
 - E.g. Paxos Lift Dollar USDL is not available in the US



Key Motivations

Assuming all other aspects of a stablecoin function as expected, the primary concerns for users arise from the actions of authorities remains:

- will their stablecoin holding be impacted when authorities take actions
- will their stablecoin trading activities be impacted when authority take actions

Authorities' concerns

Do stablecoins pose risks to consumers and the broader economy?

Can stablecoins serve as a means of payment and a store of value?

- Consumer protection and market integrity
- Financial Stability
- Illicit Activities

Key stablecoin regulatory frameworks

	Framework	Key authorities	Progress	Start from
EU	MiCA	ESMA, ECB	In application (partially)	2020, Come to effect in 2024
UK	DP23/4	FCA, BOE	under development	2018~2019
US	FIT 21	US Congress	Proposed	2023
	Payment Stablecoin Act	US Congress	Proposed	2024
	Clarity for Payment Stablecoin Act	US Congress	Proposed	2022
HK	legislative proposal for stablecoins	HKMA	under development	2022
SGP	Single Currency Stablecoins	MAS	under development/expected to be adopted in 2024	2022

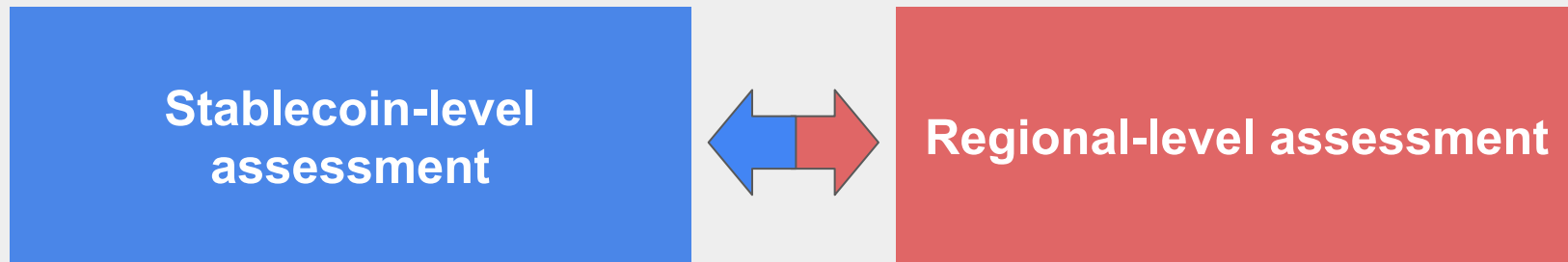
Potential regulatory actions

Within authorities' legal jurisdiction:

- **Restricting trading or other relative activities** on centralised crypto platforms
- **Restricting operations**, including issuance and redemption
- **Imposing fines**
- **Seizing reserves** at custodial institutions

Our approach

We have establish a semi-analytic approach that can objectively help stablecoin users to better understand regulatory risks.



Risk metrics at stablecoin level

Factor	Description
Stablecoin type	Custodial and or non-custodial
Operation location	Where does the stablecoin project is registered
Issuer	Who is responsible for issuance and redemption and what authorities have a say to the issuer
Reserve custodian location	Where/where are the reserve asset custodians? Are reserves bankruptcy remote?
If reserve bankruptcy remote	if the stablecoin project or the reserve custodian goes bankrupt, other creditors don't have a claim on the stablecoin reserve
% supply at key CEX	Portion of the stablecoin supply at centralised exchanges, how likely trading activities can be restricted by regulators in EU, UK, US, SGP, etc
% jurisdictional exposure of reserve assets	Portion of the RWA in reserve by region. e.g, holding of US treasury will have a connection to US laws and regulations

Risk metrics at regional level

Factor	Description
Key authorities	Who are the key regulatory bodies that are in relation to crypto and stablecoin
Regulatory history	Regulatory events in relation to crypto projects in the past
Stablecoin regulatory framework progress	If the jurisdiction has a stablecoin specific regulatory framework and what is its status

Case study

	USDC	USDT	DAI		Authority	Regulatory history	Regulatory framework progress
Stablecoin type	Custodial	Custodial	Non Custodial				
Operation location	US	British Virgin Island	Onchain	US	SEC, CFTC, FinCE; NY DFS	Rich, on CEX and crypto projects	Proposed
Issuer	CB Circle	Bitfinex	MakerDAO				
Reserve location	US	tbc	Onchain, RWA	EU	EMSA, EBA	Mainly on CEX	In application (partially)
Is reserve bankruptcy remote	No	Unknown	Onchain: Yes RWA: tbc				
% supply at CEX	~9%	~33%	~2%	UK	FCA, BOE	Mainly on CEX	Under development
% jurisdictional exposure of RWA	100% US	Mostly US	~11% CB USDC institutional reward ~11% short term US Treasury	SGP	MAS	Mainly on CEX	Under development

Wrapping up

- Regulatory risk is extremely complex and challenging to be assessed systematically
- It requires ongoing efforts to establish and refine regulatory standards and guidelines - which also creates uncertainty
- Key concerns for stablecoin users are:
 - Direct impact - stablecoin value get hold or lost
 - Indirect impact - stablecoin activities are restricted

The stablecoin/crypto industry should be actively participate in the discussion of developing stablecoin regulatory framework

Thank you for coming!

- Follow us for more updates!
 - SRAF: X (@tamamatammy)
 - Ola: linkedin (aleksandra-fiutowska), X (@olafiuu) ; Twitter (olafiuu)
- Previous presentation on other risk categories can be found [here](#)
- The working paper for stablecoin risk assessment framework is going live soon