Regulatory responses to the financial stability implications of stablecoins

U. Bindseil*

5 November 2025

In essence, stablecoins are electronic money issued by a narrow balance sheet vehicle into a distributed ledger (or a "programmable platform"). Many believe that they will have significant success as new form of money. Members of the current US administration expect that US stablecoins would circulate globally and support demand for treasuries and the international role of the USD. Related to the latter, recent industry initiatives plan to rely on US stablecoins as settlement asset for cross border payments ("stablecoin sandwich"). We review the implications of large global stablecoins on the financial system and discuss financial stability risks and remedies. We compare regulatory approaches across some jurisdictions and note that different directions have been taken, although all authorities seem to agree that stablecoins must not be remunerated. We discuss additional ideas how to address the risks associated with successful stablecoins, propose some basic regulatory principles and note that prohibiting the remuneration of stablecoins is not necessarily fostering financial stability. We suggest three regulatory options fulfilling the proposed regulatory principles.

Keywords: money, stablecoin, blockchain, narrow banks, financial stability, run, disintermediation
E40, E50, F33, G10, G20

*I would like to thank Inaki Aldasoro, Rhys Bidder, Bill Nelson, Ousmène Mandeng, Lewis McLellan, Ulf Lewrick, George Pantelopoulos, Martin Scheicher, and Manmohan Singh for helpful comments. All remaining errors are mine.

1. Introduction

Amongst many others, Waller (2025) considers that stablecoins represent the current key private-sector innovation in payments: Initially created to support crypto trading by providing a bridge from the monetary system into the crypto-world, their use cases have expanded and are expected to do so further. Their 24/7 availability and ease of circulation through public and private blockchains would allow various applications, including providing access to US dollars in countries with high inflation or limited banking access. On 4 February 2025, President Trump's so-called Crypto Czar, David Sacks, held a press conference on Capitol Hill to discuss the new Administration's plans for cryptocurrency regulation and stated that "Stablecoins have the potential to ensure American dollar dominance internationally, to increase the usage of the US dollars digitally as a world reserve currency, and in the process create potentially trillions of dollars of demand for US treasuries that could lower long-term interest rates."[1] President Trump noted at the occasion of him signing on 18 July 2025 the key regulatory act on US stablecoins, the so-called Genius Act, that "This signing is a massive validation … It's good for the dollar and it's good for the country". The "Fact Sheet of The President's Working Group on Digital Asset Markets" (30 July 2025) expresses the view that "The widespread adoption of dollar-backed stablecoins will modernize payments infrastructure and allow the United States to move away from costly and outdated legacy systems." Industry representatives launching new stablecoin initiatives also explain their views why stablecoins would revolutionize payments (e.g. McLaughlin, 2025, 3). Analysis by financial institutions confirm high expectations on stablecoins: for example, Citi (2025) estimates $1.9 trillion stablecoin issuance in 2030 and in a "bull case" even $4.0 trillion. On 8 October 2025, total market cap of stablecoins stood slightly above USD 300 billion, up from around USD 125 billion two years early (see Aldasoro et al 2025 for a stock-take of the current stablecoin market). While extrapolating these growth rates is difficult, it seems likely that the total value of outstanding stablecoins will be significant, thus raising questions on what structural and cyclical changes this implies for the architecture of the global monetary and financial system.

The FSB (2020) had defined a "stablecoin" as: "crypto-asset that aims to maintain a stable value relative to a specified asset, or a pool or basket of assets". This definition is still used in e.g. CPMI (2024). The FSB defines "Asset-linked stablecoins" as those which are backed "with fiat currency, assets or other cryptocurrencies" [2]. This definition seems extensive: any asset could under this definition be transformed into an economically equivalent "stablecoin" which would be fully backed and interchangeable with this asset. In practice, only stablecoins denominated in national currencies have played so far a relevant role. In the EU, Articles 3(1)(6) and 3(1)(7) of MiCA define: "Electronic money token' or 'e-money token'" as "a type of crypto-asset that purports to maintain a stable value by referencing the value of one official currency". The US Genius Act of 2025 (Bill "Guiding and Establishing National Innovation for U.S. Stablecoins of 2025") specifies under Section 2, (14) that a "payment stablecoin" is a digital asset that is designed to be used as a means of payment or settlement; and the issuer of which "is obligated to convert, redeem, or repurchase for a fixed amount of monetary value; and (II) represents it will maintain or creates the reasonable expectation that it will maintain a stable value relative to the value of a fixed amount of monetary value…"

[1] Mandeng (2025) discusses some reasons why governments may want to not rely too much on the expectation that stablecoins would strengthen the demand for their sovereign debt.

[2] FSB (2020) also considers "algorithm-based stablecoins" which would "seek to use algorithms to increase or decrease the supply of stablecoins in response to changes in demand". Algorithmic stablecoins are considered by now as unviable and do not play a relevant role relative to stablecoins backed by a reserve.

Banks can in principle issue stablecoins both under the Genius Act and under MiCAR but the client funds collected from the issuance of stablecoins must be held in a fully segregated way and not be commingled with the banks' other funds for further usage, thereby preserving the idea of a "narrow" separated balance sheet associated with stablecoins. If the client funds would be commingled with the rest of the bank's funding and would not be earmarked and segregated, the relevant "tokenized" monetary liabilities should instead be classified as "commercial bank money tokens" (CBMTs). As suggested by EBA (2024, p. 19, Table 2), both tokenized deposits and e-money tokens issued by an EU bank would also represent a claim against the entire balance sheet of the credit institution. The four essential differences between bank-issued e-money tokens (stablecoins) and CBMTs would be: (i) CBMTs cannot be transferred to parties who are not themselves holders of an account with the bank issuing the CBMT, while e-money tokens can (in this specific sense they are a "bearer instrument"); (ii) CBMTs can be remunerated, while e-money tokens can't; (iii) Funds collected through CBMTs can be commingled with other funding sources, while funds collected via e-money token issuance must be fully segregated; (iv) CBMTs are only a claim against the bank's entire balance sheet, while an e-money token issued by a bank is both a direct claim against the segregated client funds to be held by the bank to match the e-money token issuance, *and* against the entire bank balance sheet. As mentioned above, in view of the segregation of funds required from a bank issuing stablecoins, such bank-issued stablecoins can still be interpreted as money issued by a "narrow" vehicle with a sort of separate balance sheet, although enhanced further with a guarantee by an entire bank. It will have to be seen whether bank-issued stablecoins and CBMTs will play an important role in the future. So far, commentators have not expressed to the same extent financial stability concerns with their regard as with stablecoin issued by independent narrow-balance sheet entities. Moreover, there seems to be lesser expectations of spectacular growth of bank-issued stablecoins or CBMTs in the coming years. We therefore focus in the rest of the paper on stablecoins issued by non-bank payment services providers.

Bindseil, Coste and Pantelopoulos (2024) argue that **the term "stablecoin" is ultimately misleading and redundant**. This would be for three reasons: *First,* referring to "coin" - also in "Bitcoin", "Altcoin" "Meme-coin", etc. - wrongly suggests a bearer-based instrument (like "token"). In fact, these "coins" are registered and transferred in a system-of-accounts database (still it is acknowledged that they can have properties akin to a bearer instrument in case of quasi-universal access through public blockchain networks). *Second*, that private money is supposed to be "stable" in the sense that it is defined as being redeemable into other forms of public and private money defined by the national unit of account (the numéraire) is shared with other forms of private money. Otherwise, it would lack convertibility and would be an idiosyncratic payment or investment asset not falling under the "singleness" of money, which is currently a much referred to, although still evolving concept (Garratt and Shin, 2023; Bidder, 2025; Coste and Pantelopoulos, 2025, BIS, 2015). MiCAR and the Genius Act both confirm that stablecoins ("e-money tokens" and "payment stablecoins", respectively) must be designed as redeemable and fungible private money. *Third,* the nature of the database structure and the validation processes of a database that records the positions of holders in a specific asset and the transfers of the assets between holders, is normally not relevant for the nature of the asset and should not determine its name. For example, a bond (a fixed income security) remains a bond and should be designated as such regardless of whether ownership is documented via (i) a paper bond certificate, (ii) a registry (ledger) in a paper book, (iii) a central electronic ledger maintained by a central security depository (CSD), or (iv) a ledger using distributed ledger- or blockchain technology. MiCAR has accepted this by using the term "e-money token" instead of "stablecoin", whereby "e-money" is understood in the sense of the Directive 2009/110/EC, i.e. electronic money issued by a non-bank payment services provider with a narrow balance sheet and a

special license to issue electronic means of payment but not to grant credit, and furthermore restrained on its asset side to hold highly liquid and short term assets. But unfortunately neither "e-money" nor "token" are ideal solutions to overcome the linguistic problems raised by the term "stablecoin: "e-money" is itself misleading and not really self-explanatory since banks and central banks also issue electronic forms of money, i.e. "e-money" misses the occasion to enshrine in the terminology the essence of this form of money, which is that the issuance is by a specialized, narrow balance sheet vehicle (also in some sense if the issuer is a bank, as the funds obtained from the issuance of the stablecoin need to be held in segregated form).

The meaning of "stablecoins" is in essence "electronic money issued by a private entity with narrow balance sheet made available in a distributed ledger" and one approach could be to use an acronym for exactly this expression. However, a long acronym is unattractive and unlikely to be used. Since currently, money issuance is limited otherwise to banks (commercial banks and central banks), and since paper money (in contrast to electronic money) is becoming less relevant, the most important element of a concise designation would be that the issuers have a narrow balance sheet and a shorter term would thus be **"narrow balance sheet money issued into distributed ledger"**. If we accept the term "tokenization" for the primary or secondary issuance into a distributed ledger, we could also use the term "tokenized narrow-balance sheet money". But Bindseil, Coste and Pantelopoulos (2024) had argued that "tokenization" is not such a useful term either as it is mystifying what is in essence "the act to represent the ownership of an asset and its subsequent transfers amongst holders in a ledger". Last but not least, some (BIS annual report for 2024, chapter 3) have tended recently for good reasons to substitute referencing to "distributed ledgers" or ledgers relying on "blockchain technology" with the more general term "programmable platform" to be more agnostic on the exact database architecture and related techniques, but to insist on the unconstrained possibilities to design and implement any financial operations on such platforms (including across the various assets that could be represented on such a platform). In essence, a "stablecoin" would thus be **"narrow balance sheet money on a programmable platform"**. The stablecoin issuer would be just the "narrow balance sheet money issuer" also to avoid mixing the nature of the issuer with the nature of the platform used to record ownership and transfers of it. We will use in the rest of this paper both the term "stablecoin" and "narrow balance sheet money on a programmable platform" in an interchangeable way.

As mentioned above, beyond the role of serving as money in crypto-speculation, use cases and developments are currently discussed that may expand the role of stablecoins:

(1) Store of value and means of payment in less stable currency areas, possibly also to circumvent capital controls or for other forms of illicit payments. For store of value functions, tokenized US money market funds may be even more attractive since these provide remuneration, while stablecoins in principle cannot (at least in theory, according to both MiCAR and the Genius Act – but see below; moreover, money market fund shares will likely be distributed only to subscribers of the fund and in this sense could not compete with stablecoins as stores of value of anonymous holders on public blockchains). The higher direct usefulness of stablecoins for payments will support their demand, but this demand will depend on opportunity costs, i.e. the accessibility and current remuneration of tokenized money market funds (or of tokenized bonds more generally), and on the costs of converting the latter into stablecoins. If the holdings or uses are illicit, then the user must not use a regulated exchange, or at least not one domiciled in a jurisdiction co-operating with the relevant authorities.

(2) For merchant use: For example, on 30 April 2025, Visa announced in a press release that thanks to a co-operation with Stripe's Bridge "…Fintech developers using Bridge can now offer stablecoin-linked Visa cards to their end customers in multiple countries through a single API integration. Cardholders will be able to make everyday purchases from a stablecoin balance at any merchant location that accepts Visa. … Bridge deducts

the requisite funds from the customer's stablecoin balance and converts the balance into fiat, enabling the merchant to get paid in their local currency like any other transaction. Customers can add these cards to supporting digital wallets and pay at the 150M+ merchant locations that accept Visa."

(4) As settlement asset in global payments. A number of competing initiatives have recently been launched in this field, including by well-known companies. **Bridge/Stripe:** Bridge plans to offer a platform using stablecoins as path-through settlement asset nick-named "stablecoin sandwich": "Right now, corporate treasury is huge. Multinationals like SpaceX want to repatriate funds from regions with volatile currencies. We call it the stablecoin sandwich — using stablecoins as a settlement layer. It's fast, cost-effective, and avoids holding currencies like Nigerian naira or Argentine peso."[3]. **Circle/Finastra:** Finastra announced in a press release on 27 August 2025: "a strategic collaboration with a subsidiary of Circle …, a global financial technology firm and stablecoin market leader, to enable banks to integrate USDC settlement into cross-border payment flows. The collaboration will leverage Finastra's payment hub solutions, … to connect financial institutions to Circle's payment infrastructure, offering rapid, cost-effective international transfers." **Swift/Consensys**: SWIFT announced in a press release on 29 September 2025 that "Swift and a group of more than 30 financial institutions globally will develop a shared digital ledger, with initial focus on real-time 24/7 cross-border payments … using any form of regulated tokenised value." Another project that relies on stablecoins as settlement asset for cross border payments is Ubyx (McLaughlin, 2025). Citi (2025) summarizes the possible advantages of stablecoin platforms for cross border payments as follows: "While the cost advantage for stablecoins may vary, their value lies in reduced reconciliation burdens, fewer intermediaries, and programmability. Stablecoins can offer a streamlined experience that aligns better with digital-first workflows, particularly in corridors where traditional banking rails remain slow and fragmented." Similar structures relying however on CBDC were explored earlier by central banks (see for example the Press release "New York Fed and Monetary Authority of Singapore Publish Results of Joint Wholesale Cross-Border Payments Research Study, May 18, 2023").

(5) Further progress in blockchain technology: Relating also to the previous point, new layer-1 blockchains are being launched, specifically designed for financial applications. They would achieve improvements on settlement finality, cost efficiency, and compliance features. For end-users, this would expand the range of stablecoin networks to choose from, encouraging competition, innovation, and reducing dependence on the legacy chains (Citi, 2025)

(6) Trend towards tokenization of securities and other financial assets: Use cases for stablecoins will expand in terms of providing the payment leg in seamless on-chain financial operations with the tokenization of assets. A competition to stablecoins in this field could come from central banks who would provide central bank money-based solutions[4], and who argue that for wholesale transactions, settlement in central bank money is preferable (as also stated in the Principles of Financial Market Infrastructures: CPSS-IOSCO, 2012).

The purpose of this paper is to review the implications of large global stablecoins on the financial system and discuss financial stability risks and remedies. Section 2 restates the flows of funds effects of stablecoins, depending on parameters that may be determined by regulation or economic incentives. Section 3 provides an overview of current discussions of financial stability implications of SCs and policy options that were enshrined in law or are still being considered. Regulatory approaches across some jurisdictions are compared. Section 4 takes a step back and revisits some aspects of the current regulatory debate. Section 5 concludes.

[3] Interview Mai Leduc, head of product at Bridge, given 22 August 2025, Forrester. https://www.forrester.com/blogs/how-stripe-and-bridge-are-pushing-stablecoin-real-world-adoption-a-conversation-with-mai-leduc/

[4] See for example ECB Press release, "ECB commits to distributed ledger technology settlement plans with dual-track strategy", 1 July 2025, https://www.ecb.europa.eu/press/pr/date/2025/html/ecb.pr250701~f4a98dd9dc.en.html

2. Flow of funds

Contrary to *unbacked* crypto-assets, (backed) stablecoins are not created out of "thin air" but result from financial flows that are constrained by the fact that the sum of total financial assets minus the sum of total financial liabilities of a closed system must always equate to zero, and that for any individual entity, changes in financial positions do not in themselves change the net total financial position of the entity, nor its net wealth. Also, any (change of) financial position of one entity always needs to be mirrored in (change of) a financial position of another entity. Stablecoins are thus created through some "flows of funds", i.e. shifts between financial assets and liabilities that must be mutually consistent (e.g. Jacewitz, 2025). We need to parametrize certain assumptions on the flows of funds originating from stablecoins.

Single country case

First, we consider the case of a single country. We assume that households finance a share $\beta \in [0,1]$ of their stablecoin investment by reducing sight deposits with banks, and **(1-β)** by reducing banknotes. We moreover assume that that the stablecoin's reserve is held in the following three forms:

- A share $\alpha \in [0,1]$ is held in the form of commercial bank deposits.
- A share $\delta \in [0,1-\alpha]$ is held in the form of deposits with the central bank
- A share **(1- α - δ)** is held in the form of bonds, and of this:
    - a share $\phi \in [0,1]$ of the bonds were held previously by banks, and
    - a share $(1-\phi)$ of these bonds are coming from the households (or other non-banks).

Letting the total amount of stablecoins created be **C** (for "coin"), the following system of financial accounts (Figure 1) shows how, with these parameters, funds flow across the financial system and change the financial accounts of sectors when stablecoins of a value C are created. The flow of funds formulas reveal that in theory it is not excluded that aggregate bank liquidity improves and dependance from central bank credit declines because of the emergence of stablecoins – notably if households finance stablecoins largely with banknotes (β close to zero) and if the stablecoin issuer cannot deposit funds with the central bank (δ=0, or close to it). However, it seems more likely that stablecoins are financed to a larger extent by deposits, which are in absolute terms much bigger than banknotes in most countries. The sector-aggregated financial accounts in Figure 1 do not show that stablecoin deposits will likely be concentrated with few banks and moreover they are likely to be more volatile and be subject to higher remuneration than normal granular customer accounts[5]. **It is therefore safe to assume that bank liquidity will in practice deteriorate when stablecoin volumes increase.**

Households could also fund their purchases of stablecoins via selling investment assets, such as government bonds or **money market funds**. Money market funds invest funds themselves into the same asset categories as stablecoins: short term government debt, bank deposits (or short-term bank paper) and potentially central bank deposits (like in the case of the US Fed reverse repo facility to which also money market funds can participate). We could thus expand the model and distinguish three sources of funds (deposits, cash, and

[5] This higher volatility does not need to relate to a high volatility of the total volume of a certain stablecoin depositing its funds with banks, but with the fact that the stablecoin distributes its deposits across few banks, and opportunistically shifts the funds from one bank to the other, depending e.g. on small changes of credit risk perceptions or the availability or more attractive (higher remunerated) offers from other banks.

money market funds, with shares being β, ω, and 1-β-ω) and set the shares of investments of the money market fund to be *α´*, δ´and 1- *α´*- δ´. These parameters can be added accordingly to obtain modified formulas for the effects of stablecoin issuance across the various financial account positions. If money market funds have a similar asset composition as stablecoins (meaning that *α´ is close to α, and* δ´close to δ), then flows from one into the other will obviously have only minor consequences for the overall financial structure of the system. The Genius Act specifies eligibility of T-Bills *of three months or under* as reserve, contrasting with most treasury-backed money market funds, which are allowed to hold T-bills of up to a year. Therefore, a move from MMFs into stablecoins may increase demand for bills up to 3 months, lowering their yield and steepening the 3m-1yr curve.

Figure 1: Financial account representation of flows of funds from stablecoin-creation, single country case

Households, pension and investment funds, insurance companies			
Sight deposits	((1 -α-δ)(1-ϕ)-β) C	Other net liabilities	
Stablecoin	C		
Banknotes	- (1 - β) C		
Bonds	– (1-α-δ)(1-ϕ) C		
Stablecoin issuer			
Deposits with banks	α C	STC issued	C
Deposits with CeB	δ C		
Government bonds	(1-α-δ) C		
Commercial Banks			
Loans		Sight deposits.	((1 -α-δ)(1-ϕ)-β) C
Bonds	– (1-α-δ)ϕ C	Stablecoin deposits	α C
		Central bank credit	(δ + β -1) C
Central Bank			
Credit to banks	(δ + β -1) C	Banknotes issued	- (1 - β) C
		Stablecoin deposits	δ C

Above, the flows of funds were presented as something mechanical, which could be captured in fixed parameters, so that the flows are all proportionate to the total SC created. In reality, price elasticities will be non-linear, and the **price effects and relative changes of financial positions across sectors will also be non-linear** regarding the total creation of stablecoins. To predict the effects of stablecoins on funding and asset prices, these issues would need to be developed further, using data and economic modelling.

Two countries case (stablecoin issued in one, but used in two)

In view of the current global predominance of USD stablecoins, the flow of funds needs to be understood also in an asymmetric two country model. For example, Kendrick and Jha (2025) predict that around one trillion USD of deposits will leave emerging market banks in the medium term and flow into US stablecoins. We therefore illustrate now the case of **two countries, and one stablecoin issued in one of these – say in country A, meaning that the reserve takes the three forms of assets in country A**. We assume that an **amount D** of stablecoins is **circulating in country B**. We assume for presentational simplicity that the exchange rate between the currencies of A and B is one. We assume that in country B, the households finance a share **θ** of their stablecoin investment with a reduction of sight deposits, and **(1-θ)** with a reduction of banknotes. The

capital market flow related to the investment of B-households into A-stablecoins is compensated by an inverse flow between the banks. We also see this in the financial accounts as an increased net claim of the A-banks towards the B banks. Of course, it could also be that this flow reduces a previous net claim of B-banks towards A-banks. We assume that the banks are ready to play this role in one way or the other[6]. Figure 2 shows the implied flow of funds.

Figure 2: Financial account representation of flows of funds from stablecoin-creation, two-country case with B-country households holding A-country stablecoins

Country A (in currency A)			
Households, pension and investment funds, insurance companies			
Sight deposits	$((1-\alpha-\delta)(1-\phi)-\beta)$ **C** + $(1-\alpha-\delta)(1-\phi)$ **D**	Other net liabilities	
Stablecoin	**C**		
Banknotes	$-(1-\beta)$ **C**		
Bonds	$-(1-\alpha-\delta)(1-\phi)$ **(C + D)**		
Stablecoin issuer			
Deposits with banks	α **(C + D)**	STC issued	**C + D**
Deposits with CeB	δ **(C + D)**		
Government bonds	$(1-\alpha-\delta)$ **(C + D)**		
Commercial Banks			
Bonds	$-(1-\alpha-\delta)\phi$ **(C + D)**	Sight deposits	$((1-\alpha-\delta)(1-\phi)-\beta)$ **C** + $(1-\alpha-\delta)(1-\phi)$ **D**
Claims against Banks in B	**D**	Stablecoin issuer deposits	α **(C + D)**
		Central bank credit	δ**(C + D)** $-(1-\beta)$ **C**
Central Bank			
Credit to banks	δ**(C + D)** $-(1-\beta)$ **C**	Banknotes issued	$-(1-\beta)$ **C**
		Stablecoin issuer deposits	δ **(C + D)**
Country B (in currency B; exchange rate 1:1)			
Households, pension and investment funds, insurance companies			
Sight deposits	$-\theta$ **D**	Other net liabilities	
Stablecoin	**D**		
Banknotes	$-(1-\theta)$ **D**		
Commercial Banks			
Assets		Sight deposits.	$-\theta$ **D**
		A-country banks	**D**
		Central bank credit	$-(1-\theta)$ **D**
Central Bank			
Credit to banks	$-(1-\theta)$ **D**	Banknotes issued	$-(1-\theta)$ **D**

It is noteworthy that in country B, the aggregate dependence on central bank credit of banks declines (to the extent that households reduce their holdings of banknotes to finance their stablecoin purchases), i.e. in this

[6] The stability of exchange rates despite the investment of households in country B into A-issued stablecoins assumes a willingness of banks to compensate and accept an opposite change of their cross-border position in an elastic manner. This is because in a flexible exchange rate system, the central bank does not make available its foreign reserves to compensate cross border financial flows, and the net foreign position of countries does not change with financial flows alone.

sense the aggregate liquidity position of the banking system improves. However, if one zooms into the liquidity situation of individual banks, negative effects will likely prevail for the majority of banks. Like in the domestic case, the newly gained deposits, in this case from A-country banks, are likely to be more expensive, more concentrated, and less stable than the previous sight deposits from households. The majority of banks will only experience outflows from household deposits, and no inflows from A-country banks.

How can we imagine the build-up of these positions happening in practice? The A-stablecoin can be bought via a crypto exchange which is licensed in B-land. This exchange has an account with a B-bank (say JP Morgan Frankfurt), and the household has to transfer funds from her bank account to that account. The SC issuer has an account in A-land with the A-land headquarter of that B- Bank (say JP Morgan NY). The crypto exchange buys the SCs on behalf of the B-household, asking the international banking group to debit its account in B-land and to transfer in A land the corresponding amount to an account of the SC issuer with another bank. This creates a net intra-group USD claim position from the A-land subsidiary of the group to the B-land subsidiary of the group (a claim from JP Morgan NY on JP Morgan Frankfurt). We could assume that there will be some appreciation of the A currency because of the appearance of the stablecoin issued in A with material cross border holdings by B-entities, or that central bank B needs to raise interest rates to avoid this. The global banking system (or other parties which are ready to enter cross border claims opportunistically, such as hedge funds, etc.) need to be incentivized somehow to accept the change of the cross-border position. Here, for simplicity, we stick to the assumption of fully elastic cross border positions of banks (since the country's total net foreign position is not changing due to financial account transactions).

What if the **regulators in B-land prescribe that stablecoins distributed in B-land (although the stablecoin is denominated in A-currency) need to hold a local reserve in B-land?** Then in essence we have two local stablecoins, instead of one international one. How could in such an arrangement fungibility be achieved between the two stablecoins? Can the holders of stablecoins issued in A-land liquidate them in B-land? This has a regulatory and a technical dimension. The technical dimension is that the A-land and the B-land stablecoin issuing vehicles need to install a 24/7 instantaneous operational procedure how reserves are transferred in case of stablecoins issued in one area are returned in another area. The regulatory dimension is that in this case there is effectively one joint reserve for the entire global issuance, and if regulations of the reserve are not the same, then each of the local regulations gets undermined (unless one is strictly more demanding than the other – in that case the less demanding one does not get undermined). This has recently been a matter of discussion in Europe.[7]

What if the SC position in B-land is instead built up through **current account transactions**, say exports from country B to country A, paid in stablecoins (flow **D**), or remittances (flow **R**)? Then, no new stablecoins are created, but a simple asset swap or transfer between the two households (or non-financial firms) takes place, as shown in Figure 3.

[7] https://www.reuters.com/sustainability/boards-policy-regulation/brussels-set-disregard-ecb-warnings-over-stablecoin-rules-ft-reports-2025-06-25/
https://alexanderbechtel.com/trumps-crypto-policy-triggers-dispute-between-ecb-and-eu-commission/
https://data.consilium.europa.eu/doc/document/WK-4742-2025-COR-1/en/pdf

Figure 3: If the stablecoin position of B-land would have been built p by current account surpluses.

Household/Firm A		
Real goods Stablecoin	+ D - D - R	Other net liabilities
Household/Firm B		
Real goods Stablecoin	- D + D +R	Other net liabilities

The "stablecoin sandwich"

Finally, how can we imagine stablecoins being used as global settlement asset for cross border payments, as various recent stablecoin initiatives suggest? One option for relying on stablecoins in cross border payments would be that everyone holds at least one of the well-known global USD stablecoins (Tether or USDC) and directly pays with these. Only occasionally, when holdings would get too small or too big relative to needs, an adjustment of the holdings to the desired level would be undertaken via an exchange. The flows of funds of this case were shown in Bindseil and Pantelopoulos (2022, section 6.2). This would mean a dollarization of international trade and remittances, which may be efficient but not perceived desirable by other nations from the monetary sovereignty perspective (including their monetary income). Some have argued that a preferable alternative therefore could be a "stablecoin-sandwich", whereby each economic entity continues to rely on domestic bank accounts, but every bank also offers a 24/7 interface to a programmable platform on which a USD stablecoin is used as settlement asset for cross border payments. Consider the key steps for an international payment in this framework. First, the client provides the instructions for a cross-border transfer to its bank, indicating the target account in another country and another currency and the value to be transferred (expressed in foreign currency if it refers to the amount to be received by the payee, or in domestic currency if it refers to the amount to be debited from the payer's account). Second, on the programmable platform, market makers are posting 24/7 binding bid ask quotation for USD versus all other currencies. If a cross-border transfer is say from EUR to JPY, then still two FX operations are undertaken relying on the binding quotations EUR-USD and USD-JPY. The platform automatically chooses the best quotations and calculates the missing amount (in case the client fixed the originating currency amount, the missing amount is the one of the target currency, and vice versa). Third, the transfer itself and the related FX operations are effectuated automatically, immediately and atomically (through smart contracts).

In flows of fund terms, this can be represented as shown in figure 5. Imagine Currency A to be the EUR, currency B the Yen and currency C the USD (exchange rates are still assumed to be 1:1:1). On the platform, only USD tokens circulate, but on top the respective banks and the market makers have positions there in domestic currencies, backed by reserves with banks. These positions are not like the stablecoins which are used as settlement medium, but just specific positions held exclusively for the purpose of the FX settlement platform. We do not show specifically how the market makers got their USD stablecoin positions (of course that could be added). **All positions being part of the settlement platform (assets or liabilities) are shown in red. First, the banks of the importing and exporting firms (Firm A and Firm B), and the market makers create the required positions in their respective currencies in the platform through transfers. We assume these positions to be P_A, P_B, P_{AMM}, P_{BMM}, respectively. Second, an international payment of Q is effectuated between two non-financial firms, using their banks who rely on the platform. We assume that all transactions occur simultaneously, so that actually the two banks of the firms never have to hold any USD SC positions.** These transactions all occur in the books of the programmable platform– only the debiting and crediting of the firms' bank accounts and of the transfer of the real goods is necessarily outside the books of

the platform. This allows for simultaneity and atomicity. As one can see, Bank A-1 and Bank B-1 do not need to hold at any time USD stablecoins because the smart contract executes simultaneously the two currency swaps. At the same time, specialized market makers can concentrate on quoting bid-ask prices for one FX market. From time to time, the parties holding positions in the platform (the two banks and the two MMs) may adjust their positions via in and out transfers.

Figure 4: a platform allowing to use USD stablecoins as FX settlement asset without requiring domestic banks and firms to hold such stablecoins (SCs).

Stablecoin settlement platform			
Bank A-2 (EUR))	$+P_A$ $+P_{AMM}$	**EUR-token held by Bank A-1**	$+P_A$ **- Q**
		EUR token held by EUR-USD MM	$+P_{AMM.}$ **+ Q**
Bank B-2 (B currency - Yen)	$+P_B$ $+P_{BMM}$	**Yen token held by Bank B-1**	$+P_B$ **+ Q**
		Yen token held by Yen USD MM	$+P_{BMM}$ **- Q**
USD stablecoin position	X	**USD SC holdings of EUR-USD MM**	X **- Q**
		USD SC holdings of Yen-USD MM	X **+ Q**
Market maker EUR-USD			
Deposit bank A-3	X $-P_{AMM}$	Equity	X
EUR token	X $+P_{AMM.}$ **+ Q**		
USD SC	X **- Q**		
Market maker YEN-USD			
Deposit with Bank B-3	X $-P_{BMM}$	Equity	X
YEN token	X $+P_{BMM.}$ **- Q**		
USD SC	X **+ Q**		
Firm A (European)			
Real goods	X **+ Q**	Equity	X
Account Bank A-1	X **- Q**		
Bank A-1 (firm A's bank)			
EUR-token	X $+P_A$ **- Q**	Deposits of Firm A	X **- Q**
Central bank deposits	**X** $-P_A$		
Bank A-2 (EUR custody bank of stablecoin platform)			
Central bank deposits	X $+P_A$ $+P_{AMM}$	**Platform deposit**	X $+P_A$ $+P_{AMM}$
Bank A-3 (EUR-USD MM's bank)			
Central bank deposits	X $-P_{AMM}$	Deposits EUR-USD MM	X $-P_{AMM}$
Firm B (Japanese)			
Real goods	X **- Q**	Equity	X
Account Bank B-1	X **+ Q**		
Bank B-1 (firm B's bank)			
Yen-token	X $+P_B$ **+ Q**	Deposit of Firm B	X **+ Q**
Central bank deposits	X $-P_B$		
	X		
Bank B-2 (Yen custody bank of stablecoin platform)			
Central bank deposit	X $+P_B$ $+P_{BMM}$	**Platform deposit**	X $+P_B$ $+P_{BMM}$
Bank B-3 (Yen-USD MM's bank)			
Central bank deposit	X $-P_{BMM}$	Deposits Yen-USD MM	X $-P_{BMM}$

3. Financial stability issues and regulations in selected countries

The following main issues have been identified in a scenario of substantial success of stablecoins.

1) **Inflows into the stablecoin at the expense of banks**, i.e. drain from bank deposits (e.g. Liao and Caramichael, 2022):
   a) S*tructurally* over time when the stablecoin grows and reaches considerable size.[8]
   b) In a *bank stress scenario* when the SC is considered safer than banks and when flows from bank deposits into SCs are abrupt and endanger acutely the liquidity of the bank.
2) **Rapid outflows from a stablecoin subject to a run** (Gorton and Zhang, 2023; Goel et al, 2025; Ma et al, 2025; Anadu et al, 2025): *Contagion via fire sales* of assets by the stablecoin issuer (if reserves are in the form of securities); *Contagion via deposit withdrawals* from banks (if reserves are in the form of deposits).

Issue 1a is associated with the idea of some structural positive externality of banking, i.e. of having lending and deposit taking/creation in one institution, which would be undermined if deposits flow into stablecoins. **Issues 1b and 2 are agnostic on whether there is a positive externality of banking or not**. This is about rapid, run-like outflows of short-term funding which can hit banks or stablecoin issuers depending on the type of triggering event (perceived bad news on banks, or bad news on stablecoins). Crisis can hit an entire sector (banking sector, or stablecoin sector), or more likely individual banks (one bank, or one stablecoin issuer). In the latter case, one natural destination of deposits outflows is the closest possible substitute, so for a bank that would be deposits with other banks, and for a stablecoin, that would be other stablecoins. As a general caveat, it should be recalled that financial stability issues relating to rapid outflows from any issuer of private monetary liabilities are universal and they have become more acute in a world of 24/7 and immediacy of transfers.

Finally, there is also **something in between *structural outflows* from one sector (e.g. from banking into stablecoins) and *acute runs* on any issuer of money**: in the era of the internet, online banking, and BigTechs, sight deposits or other forms of money, like stablecoins, in any case become less stable and presumably more expensive as competition intensifies. This applies also *within* one sector: banks compete more for deposits with other banks when switching costs between banks decline; and if one stablecoin finds a solution to remunerate its holders, other stablecoins will soon suffer from outflows, etc. This effect has therefore little to do with stablecoins per se. The new ease of shifting funds - from bank to bank, from bank to stablecoin, from bank to (tokenized) money market fund – all lead, without any run, to making deposits less stable and more competitive and thus expensive. This undermines somewhat the past advantages of banks stemming from a stable and cheap depositor base (see e.g. Bindseil and Senner, 2023). Even if one would argue that this has a negative welfare dimension, for

[8] In the words of Bank of England (2025), "A large-scale displacement of commercial bank money by new forms of digital money could mean a higher fraction of money in the economy backed by high-quality liquid assets (HQLA) rather than by loans to the real economy. In that event, real economy loans could be financed instead by more stable, and expensive, sources of funding, reducing the efficiency with which commercial banks extend credit. As a result, there could be a greater reliance on non-banks for credit provision. Overall, there may be a trade-off between the optimal provision of transaction services – that is, payments – and intermediation services – that is, credit. On the one hand, the introduction of new forms of digital money may improve the range of transaction services available to people. On the other hand, it might reduce the efficiency of credit provision in the economy."

example in the sense that banks can appropriate less the synergetic benefits between lending and deposit taking, it seems difficult to design policy measures to address this. Moreover, it is an issue that goes beyond the topic of stablecoins entering the arena, and therefore it goes beyond the scope of this paper.

Regulatory options

What policy options are available to address structural and cyclical financial stability issues related to the emergence of large stablecoins? In the following, we will discuss various instruments that have been considered or legislated, and we will provide illustrations from the US, EU and Bank of England emerging frameworks. The first four instruments below can be considered to reduce the risks of runs on stablecoins and the severity and negative effects of those, while the other measures are more about protecting banks from the consequences of too successful stablecoins.

1) **Capital requirements on stablecoin issuers**

Capital protects the solvency of the stablecoin against operational risks and losses arising in case of the need to fire sell assets, making runs on the stablecoin less likely. According to the US Genius Act, capital (and liquidity and risk management) requirement parameters can be set by the relevant regulators, but they must be "tailored to the business model and risk-profile of permitted payment stablecoin issuers" and "not exceed requirements that are sufficient to ensure the ongoing operations of permitted payment stablecoin issuers". The EU foresees own funds requirement for e-money and e-money tokens of 2% of financial liabilities outstanding. Bank of England (2023, section 5.3) considers that credit, liquidity and market risk are addressed through the requirements on the reserve, while operational risks still require capital, which would be calibrated according to the PFMI methodology. Goel, Lewrick and Agarwal (2025) provide an analytical framework to calibrate regulatory capital and liquidity requirements for stablecoins[9]. Based on US stablecoins and Treasury market data, they find that "combining a 1% capital requirement with a 30% liquidity requirement can reduce default probabilities to about 0.2% and cap the expected price impact of bond sales."

2) **Requirements regarding the stablecoin's reserve holdings (liquidity requirements)**

A high degree of liquidity of reserves (i) makes runs on the stablecoin less likely, and if nevertheless holders would for good or bad reasons initiate a run, the consequences are milder since (ii) fire sale losses for the stablecoin issuer will be lower (iii) the likelihood of insolvency of the stablecoin issuer will be lower; (iii) there will be less fire sale externalities or other negative externalities. Policy parameters could include:

a) **Minimum share in the form of very short-term deposits with financial institutions.** If one assumes that for banks the liquidation of these deposits is not an issue, then this avoids the negative effects of fire sales of marketable assets in case of a run on a stablecoin.
b) **Granularity, maximum maturity, and rating requirements with regards to deposits with banks**, such as to make less likely that the withdrawal of the funds by the stablecoin issuer from the banks could cause any secondary issue.
c) **Segregation of deposits from stablecoin issuers at the level of banks**, i.e. forcing banks to

[9] They rightly cover jointly liquidity and capital requirements, i.e. point 1) and point 2) in our list of regulatory approaches. Indeed, capital and liquidity jointly determine the stability of the balance sheet structure of any entity engaged in liquidity transformation.

hold the funds separately and not use them for loans or other investments, with the following two potential benefits: (i) in case of bank insolvency, the funds can be recovered; (ii) withdrawals of these deposits from banks do not put the banks under stress. However, the disadvantage of this approach is that funds cannot be used by banks for lending and general liquidity management (and neither MiCAR nor the Genius Act would seem to foresee this in a strict sense).

d) **Minimum share in the form of deposits with the central bank (and, first of all, allowing access to central bank deposits)**: withdrawing funds from the central bank does not cause any financial stability issues since the central bank is never liquidity-constrained and does not have to react to such withdrawals by having itself to liquidate assets.

e) **Eligibility criteria for securities holdings and portfolio constraints**: granularity, maximum maturity, issuer rating requirements, etc. Short term and highly rated securities tend to remain liquid in financial turmoil situations, so that fire sales *ideally* do not lead to strong negative price effects and contagion.

Regarding the reserve, section 4 of the Genius Act specifies that it shall comprise: (i) US currency or deposits with a Federal Reserve Bank; (ii) bank deposits; (iii) Treasury bills, notes, or bonds with remaining maturity =< 93 days (iv) money received under repurchase agreements backed by Treasury bills with maturity =< 93 days; (v) reverse repurchase agreements… (vi) funds invested in underlying assets described in clauses (i) through (v); (vii) any other similarly liquid Federal Government-issued asset approved by the primary Federal payment stablecoin regulator, …; or (viii) any reserve described in clause (i) through (iii) or clause (vi) through (vii) in tokenized form. The Genius act does not specify minimum shares amongst these eligible assets.

For the EU, EBA has formulated regulatory technical standards with respect to the liquidity requirement of the reserve asset of e-money tokens and what qualifies as high quality liquid assets, including concentration limits.[10] For example, Article 2 of the former draft Act specifies that for e-money tokens, the percentage of reserve assets in the form of overnight bank deposits and repo must be at least 40% for significant tokens and at least 20% for tokens that are not significant. For a five days horizon, the minimum is 60% for significant tokens and 40% for others. Article 6 sets concentration limits amongst banks for the part of the reserves deposited with banks: 25% of the total reserve with a single 'global systemically important institution' or other 'systemically important institution'; 15% with large institutions, and 5% for any other deposit taking institution.

Section 5 of Bank of England (2021) provides an extensive discussion of stylized reserve models for stablecoins, distinguishing in total five approaches that could be imposed through regulation: (i) Bank model: Stablecoins could be authorized as banks; (ii) High-quality liquid assets model, in which stablecoins would be backed with highly liquid securities; (iii) Central bank liability model, in which stablecoins would be backed with central bank reserves; (iv) Bank deposit-backed model, where stablecoins would be backed by deposits placed at commercial banks; (v) Mixed model: combinations

[10] EBA report EBA/RTS/2024/11 June 2024.
EBA opinions in response to the EC amendments relating to the draft Regulatory Technical Standards (RTS) specifying the composition and liquidity requirements of the reserve of assets and to the EC amendments to specify the highly liquid financial instruments with minimal market risk, credit risk and concentration risk under the Markets in Crypto-Assets Regulation (MiCA).

or variants of these models. Bank of England (2023) concludes with a clear preference for the central bank liquidity model:

> *"The Bank's preferred option is for systemic stablecoin issuers to back the stablecoins in issue fully with central bank deposits. … It would also ensure that the stablecoins can be used for payments with full confidence, can be exchanged at par for other forms of money and that coinholders can redeem their funds at full value – and hence maintain singleness of money. Deposits held with the central bank, along with banknotes, are the most liquid, risk-free asset in the economy. Requiring full backing with central bank deposits means that the credit, liquidity or market risks associated with other choices of backing assets are eliminated. In the absence of a deposit guarantee scheme or resolution regime, this would give coinholders greater confidence that their stablecoins can be redeemed in full at any time, minimising run risks. … The Bank considers that full backing with central bank deposits would allow for a greatly simplified regime, relative to the banking regime, for example, and encourage issuers and other firms to focus their business models on payments-related activities. It would encourage investment in building the use cases for new technologies in payments, such as efficiency, cost and functionality, in order for issuers to generate revenue. And it would ensure that revenues are not vulnerable to changes in interest rates."*

One may remark that vulnerability to changes in interest rates is inevitable if one prohibits the remuneration of stablecoins. Also, in this double-no remuneration regime (no remuneration on the asset and liability sides of the stablecoin issuer), the stablecoin business model remains exposed to interest rate changes and suffers in a high-interest rate environment because of the higher opportunity costs of stablecoin holders to hold unremunerated stablecoins. Table 1 compares briefly the effects of the interest rate level on the volume and intermediation spread of stablecoins. It suggests that the interest rate exposure of the business model of stablecoins could be relatively high under the approach preferred in Bank of England (2023). On the regulation of the remuneration of stablecoin client positions, see also point 8) below. One may also wonder about the competitiveness of stablecoins under such a UK regime, relative to the ones under a regime in which stablecoins can earn income on their reserve. The latter have a solid profit margin (once they reach some volume) which creates cash-flow and incentivizes investments into technology to be successful, and to find ways to circumvent the prohibition to pay income to stablecoin holders such as to outcompete those operating under a double no interest rate regime.

Table 1: Effects of interest rate increase on stablecoin business model, depending on regulatory constraints on the remuneration of stablecoins' assets and liabilities[11]

Effects on: ⇒ **Stablecoin issuers:… ⇓**	**stablecoin volume**	**stablecoin intermediation spread**	**Overall effect on stablecoin viability**
unconstrained on asset and liability side	neutral	neutral	neutral
not remunerate client holdings, but free on asset side	decline*	increase	mixed
No remuneration on both sides of the balance sheet	decline*	neutral	negative

* because of effects on opportunity costs of holding unremunerated stablecoins

3) **Access to central bank LOLR**

[11] The table does not cover the special effects that may occur if central bank policy rates and some market interest rates would move into negative territory (as they did in some European currencies in recent years).

The LOLR (lender of last resort) avoids fire sales in situations of market turmoil. Thanks to the unique properties of the modern central bank to (i) never be liquidity constrained and (ii) to be considered risk free from the perspective of borrowers having to provide collateral, the central bank can make a large difference in available liquidity in crisis situations without taking material risks for the tax-payer. None of the three central banks reviewed has yet considered granting LOLR access to stablecoins, whereby one needs to distinguish such access based on regular credit operation of the central bank from such access provided ex post in a discretionary way in a specific non-anticipated crisis scenario. Access to the LOLR would typically come with additional scrutiny and regulation.

4) **Applying a deposit insurance scheme on stablecoins**.

Deposit insurance has been accepted as key remedy to bank runs and it might be argued that in analogy, it should apply to stablecoins. However, for stablecoins the pseudonymity of holdings on public blockchains would cause some additional challenges. Moreover, such a system has administrative costs, and it distorts incentives, like any insurance scheme. Therefore, none of the jurisdictions reviewed seems to have considered seriously to impose a deposit insurance scheme on stablecoins.

The following instruments control against too rapid structural and/or cyclical inflows into stablecoins from bank deposits.

5) **Limiting and/or disincentivizing (through remuneration rates) the access of stablecoin issuers to central bank deposits**

This would have two advantages from the perspective of banks: first, it avoids that bank deposits are absorbed ultimately by the central bank, and second, if central bank deposits are a large share of stablecoin reserves, that stablecoin issuers are perceived to be as secure as central bank money. This measure is obviously in opposition to point 2d above. Similar points have been made on deposit outflows from banks into retail central bank digital currency. Bindseil and Senner (2023) restate the belief that interest rates are generally an effective and elastic tool in preventing certain balance sheet liability items of the central bank to balloon in crisis situations if it is felt that this endangers financial stability. Moreover, policy makers can consider imposing a maximum share of the total reserve – say e.g. 30%, such as to prevent that stablecoin holders see the stablecoin as quasi-central bank money. Granting to stablecoin the access conditions of banks to central bank deposits (in terms of remuneration and being unlimited) would mean to endorse narrow banking and deny that banking deserves to be protected from it (i.e. deny positive externalities of the synergies between loan provision and the deposit/payment business lines of banks). The existence and materiality of this positive externality remains somewhat unclear, i.e. there is no solid body of economic literature which would allow to conclude either way on this. The US Genius Act does not seem to restrain stablecoins' deposits with the central bank, and these deposits are mentioned as one option to hold reserves (see point 2 above). In a speech held on 21 October 2025, Waller (2025a) suggests that the Fed is studying: *"a possible prototype for this type of payment account or, as I sometimes call it, a "skinny" master account. The account would provide access to the Federal Reserve payment rails while controlling for various risks to the Federal Reserve and the payment system. To control the size of the accounts and associated impacts on the Fed's balance sheet, the Reserve Banks would not pay interest on balances in a payment account, and balance caps may be imposed. These accounts would not have daylight*

overdraft privileges—if the balance hits zero, payments will be rejected. They would not be eligible for discount window borrowing or have access to all Federal Reserve payment services for which the Reserve Banks cannot control the risk of daylight overdrafts."

Eligible institutions for such non-remunerated, non-credit accounts would presumably include (in particular?) stablecoin issuers. The ECB published in January 2022 a "prefunding" policy towards non-banks (ECB, 2022) in view of the prefunding of payment systems and other ancillary systems accessing the Eurosystem RTGS TARGET2. The policy also explicitly addresses stablecoins stating that the purpose of granting of access to TARGET2 would not be "for the custody of assets that back the issuance of means of payment or other assets to the public. Accordingly, access to TARGET2 will not be granted to ancillary systems to back stablecoins (or any other means of payment or assets) issued to the public." Finally, the Bank of England (2023), as mentioned, supports the access of stablecoin to central bank deposits to the extent that it is considering imposing that this form of reserve would be the only one for stablecoins, but foresees zero remuneration like the Fed.

6) **Disincentivising too large stablecoins**

Such disincentivizing can be achieved by imposing additional regulatory requirements on very large stablecoins. Those would be specified such that the potential negative externalities of such stablecoins are not higher than the ones of smaller volume stablecoins (in principle like in the case of systemic global banks). A more granular market structure of stablecoins reduces negative repercussions of a run *on one* stablecoin and may also appear positive in terms of preserving competition. On the other side, to preserve network effects and efficiency and to prevent payment market fragmentation, a more granular market structure of stablecoins would require fungibility with its various dimensions (e.g. Coste and Pantelopoulos, 2025). All three revied jurisdictions foresee some form of extra regulatory burden on large and systemic stablecoin issuers.

7) **Imposing limits on stablecoin holdings.**

Central banks have generally given in to demands that they should limit the size of holdings of CBDC per household and per firm. Remarkably, only the Bank of England has considered similar limitations to inflows into privately issued alternatives like stablecoins. It seems logical to make a link between the two, and it appears rather submissive that some central banks would happily discuss and accept limits on CBDC, while not also at least proposing similar limits on any other new form of monetary liabilities which may also impact the overall structure of money and finance. It may generally be argued that limits are a bad tool as they require significant IT and administrative efforts in implementation and are normally avoided in market economies for various obvious reasons. In the case of stablecoins, implementing limits appears to be challenging because of the vision that stablecoins would continue to be available via *anonymous* (non-KYCed) wallets. The idea to prohibit anonymous wallets has been fiercely combatted by crypto lobbyists, and legislators have ultimately not dared to pursue it. No references to limits on stablecoin holdings have been made in the US and EU legislations. The Bank of England concludes that holding limits on systemic stablecoins would likely be needed for financial stability reasons, drawing an explicit analogy to the digital pound:

> *"The Bank considers it likely that, at least during a transition, limits would be needed for stablecoins used in systemic payment systems, to mitigate financial stability risks stemming from large and rapid outflows of deposits from the banking sector, and risks posed by newly recognised systemic payment systems as they are scaling up. … Similar to its proposed approach for the digital pound, the Bank*

considers it likely that limits on stablecoins used in systemic payment systems would be needed to manage financial stability risks by constraining the degree to which deposits could flow out of the banking system at least during a transition. The Bank recently consulted on an individual holding limit of digital pounds between £10,000 and £20,000, and sought views on a lower limit, such as £5,000. Applying similar holding limits to stablecoins would allow the Bank to learn more about the extent of bank disintermediation associated with their use and the resulting impact on the cost and availability of credit. As bank deposits flow to new forms of digital money, including stablecoins, commercial banks could lose retail deposit funding and pass on higher wholesale funding costs to customers. Thus, credit conditions could worsen."

Bank of England (2023) acknowledges that implementing holding limits for each systemic stablecoin "may be operationally challenging, given that users may be able to use multiple entities to access a given stablecoin" and invites "feedback on the practicalities of implementing such limits, including potential technological solutions". Even if one finds operational solutions to implement an effective limit, downsides of stablecoin holding limits may remain. For example, a limit on stablecoin holdings could damage the original purpose of stablecoins to serve as monetary medium for crypto-speculation.

8) **Regulate the remuneration that stablecoin issuers can grant to the holders of stablecoins.**
Traditionally, and inspired by the technical challenges in remunerating paper-based means of payments such as banknotes, the assumption predominates that payment instruments are not remunerated. Overall, regulatory remuneration constraints on means of payments in a market-oriented and electronic world could however appear as anachronism and at least would deserve to be revisited. In a world of electronic account money, why would holdings of means of payments be unremunerated regardless of whether the short-term nominal market rate currently stands at -1%, 0%, 5% or 10%?[12] The main reason why regulations prohibit the remuneration of stablecoins (and non-tokenized e-money) would appear to relate to the belief that it would facilitate further the structural disintermediation of banks. This would ideally be supported by a clearer identification of the positive externalities of the synergies achieved by banks between deposit issuance and loan provision.

All jurisdictions surveyed by Garcia-Ocampo (2025), including the three reviewed here in more detail, exclude in principle the remuneration of stablecoins. The US Genius Act clearly prohibit interest payments to holders: "(11) Prohibition of interest. No permitted payment stablecoin issuer or foreign payment stablecoin issuer shall pay the holder of any payment stablecoin any form of interest or yield (whether in cash, tokens, or other consideration) solely in connection with the holding, use, or retention of such payment stablecoin." Article 50 of MiCAR specifies that "issuers of e-money tokens shall not grant interest in relation to e-money tokens" and that "crypto-asset service providers shall not grant interest when providing crypto-asset services related to e-money". Also Bank of England (2023) concludes that stablecoins should not be remunerated.

[12] It has been noted that the remuneration of households' sight deposits with banks is generally low (often zero) and only co-moves weakly with the level of short-term nominal interest rates in fixed income markets. For example, Beyer et al (2024) find for Europe that the pass through to deposit rates has been weaker in the post pandemic tightening cycle than in previous tightening cycles, countering the intuition that in the era of internet banking, switching costs should have declined and thus competition between banks should have increased, which should strengthen the pass through.

In practice, there are however tendencies to circumvent the prohibition to remunerate stablecoins. Circumvention includes re-labelling or re-structuring yields (third-party rewards, earning through lending, etc.) and regulators have not taken comprehensive and forceful countermeasures. Garcia Ocampo (2025) reviews such techniques[13], including the reactions of authorities. US Banking associations have identified the issue and have requested in a letter to Senators that loopholes in the Genius Act regarding the remuneration of stablecoins should be closed to protect the role of banks in the economy (US Banking Associations, 2025):

> ***"A. Interest and Yield. Strengthen the prohibition on interest payments for payment stablecoins by extending it to brokers, dealers, exchanges, and affiliates of payment stablecoin issuers.*** *The associations support the GENIUS Act's prohibition against payment stablecoin issuers paying interest or yield on payment stablecoins, which appropriately reinforces stablecoins as a payment mechanism — not a store of value. However, this restriction is easily bypassed when exchanges or other affiliates offer yield or rewards to stablecoin holders, undermining the law and distorting market incentives. Banks power the economy by turning deposits into loans; when deposits flow into stablecoins chasing yield, credit creation suffers. To close this loophole and protect the financial system, we urge Congress to extend the stablecoin issuers interest prohibition to cover digital asset exchanges, brokers, dealers, and affiliated entities. Doing so will preserve the role of banks in credit intermediation while allowing innovation in digital payments to flourish responsibly."*

Regarding the consequences of different combinations of constraints on the remuneration of stablecoin asset and liabilities on the viability of stablecoins, see Table 1 above.

9) **Revisit the regulation of banks and other measures taken with a view to make deposit runs less likely, such as prudential regulation, the LOLR, bank deposit insurance, etc.**

Such measures would make deposit outflows from bank into stablecoin in crisis situations less likely. This could be justified to be a better approach than measures 5-8 since: (1) stablecoin are only one of many destinations of bank deposit outflows in a world of continuity and immediacy (Bindseil and Senner, 2023); (2) making stablecoins less safe to avoid that they are considered safe havens in a banking crisis is not a sound regulatory approach; instead, regulators should make each and every financial institution as safe as possible on its own.

In sum, there are remarkably many dimensions and parameters to choose with a view to address financial stability risks of stablecoins. This is complicated by the fact that dimensions are not independent from each other, and sometimes factors seem to suggest opposite directions: for example, granting to stablecoin issuers unlimited access to the central bank (depositing and/or LOLR) strengthens the resilience of the stablecoin, but because of that might facilitate bank runs in a systemic banking crisis. Table 2 summarizes the policies of the three jurisdictions reviewed regarding the first 8 policy options.

Table 2: overview of (emerging). Stablecoin regulation in three jurisdictions

[13] She notes (p. 10): "Some CASPs already offer products that allow users to earn returns on their payment stablecoin holdings, either directly or by facilitating access to DeFi lending protocols. These offerings have, at times, provided returns higher than those of traditional deposits. For example, in September 2025 some CASPs offered a 4.25% Annual Percentage Yield on USDC holdings, more than four times the average US bank deposit rate. Similarly, in January 2025 DeFi lending rates on stablecoins such as USDT and USDC were, on average, 400 basis points higher than the US federal funds rate."

	EU MiCar (or other EU acts)	US Genius	UK vision
1) Capital requirements	2%	To be specified by responsible authority	For operational risks, PFMI approach
2) Liquidity requirement	Deposits, HQLA, min share of deposits; concentration limits	Deposits, treasuries, central bank deposits, bank deposits	Preference for central bank deposits
3) LOLR	No		
4) Deposit insurance	No		
2d) & 5) Access Central bank deposits	EU regulations do not exclude access, but ECB rejected it[14]	An option; remuneration not yet specified	Preferred; No remuneration
6) Limits on holdings	No	No	Yes – considered; 10,000-20,000 pound
7) Extra requirements on systemic stablecoins	Yes – additional rules for the stablecoins classified as large or systemic		
8) Remuneration = 0	Yes – remuneration prohibited		

Table 3 summarizes which measure addresses which issue, and in addition what unintended consequence the measure may however have.

Table 3: Measures and what they aim at preventing, including unintended consequences

	Prevent:			
Measures applied to stablecoins (except 9): ⇓	**Structural disintermed. of banks**	**Run on banks**	**Run on SCs**	**Unintended consequences**
1) Capital requirement			**X**	
2) Liquidity requirement			**X**	
3) LOLR			**X**	Moral hazard
4) Deposit insurance			**X**	Moral hazard
5) Access CeB deposits	(X***)**		**X**	If 100%: blurring difference between SC and CeBM
6) Limits on holdings	**X**	**X**		Implementation burden; distorts competition
7) Add. requirement large SCs			**X**	
8) Remuneration = 0	**X**			Measure depends on level of i, creates cyclicality
9) Better bank regulation		**X**		

**If mandatory and not remunerated and the interest rate level is high enough*

Across the three jurisdictions, Bank of England (2021), (2023) provides the most thorough, consistent and transparent analysis of the options to address financial stability risks of stablecoins. Bank of England also stands out in terms of conclusions, with (i) the idea of 100% mandatory non-remunerated reserves with the central bank and (ii) possible holding limits.[15]

[14] https://www.ecb.europa.eu/press/intro/news/html/ecb.mipnews20240719.en.html?utm_source=chatgpt.com

[15] Bidder (2025a) discusses critically the Bank of England approach to stablecoins as outlined in Bank of England (2023).

4. Optimal policies to address financial stability risks of stablecoins?

Taking a step back, and assuming not being bound by path dependencies, what could be an unconstrained optimal policy to regulate stablecoins with a view to foster financial stability? How to make use of the many theoretically available policy instruments that could be considered, and combine them in the best possible way? Designing regulation could start from the following principles.

First, regulatory instruments to address the fear that stablecoins would be too successful and excessively harm the assumed positive externalities of banking should not be dependent on the level of short-term risk-free interest rates. The level of short-term risk-free interest rates is steered by the central bank with a view to achieve its primary mandate (in particular price stability). This implies that using non-remuneration as a sort of Pigouvian tax against stablecoins is crude and cyclical and can ultimately be counterproductive. Generally rejecting the remuneration of money could be considered as a sort of a regulatory "original sin" in the era of electronic money. As restated above, non-remuneration of electronic means of payment is more abnormal than economically meaningful. Non-remuneration of money was normal in the times of paper banknotes because of technical constraints. But in a world of electronic means of payments, in which there are no such technical constraints, *and in which the substitutability between money and short term remunerated non-monetary assets intensifies*, it seems counterproductive to legally restrict the remuneration of an important asset class to zero. Assets of highest liquidity (and high credit quality) will have lower yields than other assets. The unconstrained yield of these may be around 0% if e.g. short term highly rated government securities will yield 1% or even 3%. But in market conditions in which the latter will yield 8% (or -1%), e.g. because inflation stands at e.g. 6% (close to zero or maybe in deflationary territory), monetary assets should not be expected to keep an unchanged remuneration of 0%. Artificial constraints on remuneration will have negative, "cyclical" repercussions: they will complicate the transmission of monetary policy, and they imply strong, interest-level dependent unintended effects on the business model of private entities issuing such money, with obvious negative financial stability consequences. These unintended consequences on the issuers of such money will be mirrored in reverse effects on their competitors – such as banks and money market funds. Preserving such an anomaly might not be a sound approach to prevent deposit outflows from banks in a consistent manner across time and across economic environments. Non-remuneration of stablecoins is an effective way to keep stablecoins relatively unattractive in a high interest rate environment, but not at all in a very low- or negative interest rate environment, such as experienced in advanced economies in the years 2015-2022 (and for much longer in Japan).[16] If one feels that one has on one side good reasons to preserve a certain structural protection of banks as private issuers of money relative to narrow money-issuing institutions, while on the other side one wants the latter to exist and explore their societal benefits in the coming years, then one should take recourse to other tools for controlling against a potentially *excessive* success of stablecoins at the expense of banking and banks' credit provision. These tools must not totally depend in an unintended way on the level of short-term nominal interest rates.

[16] Aldosoro et al (2025) note that: "stablecoins appear to be sensitive to an increase in short-term interest rates. This sensitivity has been evident in their declining market capitalisation during periods of monetary policy tightening, a pattern that is consistent with investors responding to rising opportunity costs of holding stablecoins".

A **second**, related, but more general principle of regulating stablecoins for achieving financial stability is that fears that stablecoins which accomplish credibility and stability would be too successful and thereby undermine financial stability by harming banks (by draining their deposits) are not a good reason for hesitating to use tools that make stablecoins credible in the first place. Controlling against excessive inflows into stablecoins (if felt to be necessary) must be done with tools that are compatible with the highest possible safety of stablecoins. Moreover, narrow balance sheet money issuers are not the only destination of deposit outflows from banks, in particular not at the level of individual banks (and competition between banks is increasing in the era of internet banking and the collaboration of banks with BigTechs).

A **third** principle, an obvious and universal one, is that economic and financial innovations should only be suppressed or constrained by regulation based on identified market failures. In the case of non-bank money issuers, two market failures could potentially be identified. First, one seems to attribute to banks a positive structural externality stemming from their joint, synergetic functions of loan provision and deposit and transaction services, whereby the banks are moreover assumed to be unable to reap themselves the full societal benefits of this synergy. This could be a justification for subsidizing banks, or for taxing competitors of banks which do not have this positive externality. Still, more analytical efforts should be made to identify better the nature and size of these positive externalities of banking. The second type of market failure that could be addressed is the negative externality of runs, be it on banks or on stablecoins (via fire sales- or liquidity related contagion). Because of the multitude of destinations of possible deposit outflows in an instantaneous, multi-asset, 24/7 world, the only way to address this problem in a systematic way is to make the entities which are potentially suffering from the run safer through regulating them (e.g. through more stringent capital and liquidity requirements), in line with principle 2.

A **fourth** principle that seems even more trivial than the previous one, but that would seem to have been violated in the context of the regulation of stablecoins from a financial stability perspective, is the one that authorities should not regulate but then watch passively circumvention taking place that undermines the effectiveness of the regulation. This would seem to be the case for the remuneration of stablecoin if CASPS (crypto-asset services providers) are allowed to generate indirect renumeration of stablecoins with schemes of which the sole purpose seems to be regulatory circumvention (see Garcia Ocampo, 2025). Such circumvention schemes may also create additional risks because of their dodgy nature – these risks would be avoided if instead standard remuneration would be allowed. In this particular case, as argued above, the regulation itself seems anyway to have more drawbacks than advantages. Maybe the willingness of authorities to let circumvention happen relates to the implicit acknowledgement of the suboptimality of the initial rule.

What regulatory approaches are effective and comply with these four principles? The thorough analysis of the Bank of England concluding on the advantages of a large share of stablecoin reserves being held with the central bank seems per se convincing, but we doubt that it is compatible with not remunerating these reserves, as the viability of stablecoins would be rather weak under this approach (in particular if there is competition with stablecoins issued elsewhere which earn renumeration on their reserves). We consider below three approaches which all would fulfill the four principles outlined above.

(1) Laissez-faire approach (beyond stringent liquidity and capital requirements on stablecoins)
First, one could impose stringent liquidity and capital requirements on stablecoins, but otherwise opt for *laissez-faire* on the basis of mainly two potential arguments: (i) the positive *structural* externalities of banking would be insufficiently proven[17], and in the case of doubt, regulation should be avoided (in view of the general feeling that advanced economies have over-regulated themselves in many areas); (ii) as far as *runs* are concerned, anyway there would be many other destinations of deposit outflows from banks, and in particular at the level of individual banks, and going against one such destination would be ineffective anyway. The laissez-faire approach - like approaches (2) and (3) below – would not constrain the ability of stablecoin issuers to remunerate their liabilities (for the reasons indicated above).

(2) 100% reserves with the central bank and stabilizing tiered remuneration approach
This approach follows the logic of the Bank of England preference, except for remuneration of the stablecoin issuer's reserve (and, once more, remuneration of liabilities would be unconstrained). Reserves would be fully held with the central bank but not at a zero interest rate. Instead, remuneration of reserves would be referenced to policy interest rates and would also be used to control against a perceived risk of over-success of stablecoins, against the additional risks of particularly large single stablecoins, and against rapid inflows of funds in case of a banking crisis. Capital requirements would be imposed to address operational risks (like foreseen by the Bank of England). The mandatory deposits of stablecoin issuers held with the central bank could for example be remunerated as follows, with three main elements:

- **Base remuneration**: this remuneration would be somewhat lower than the one of banks' excess reserves (assuming here that the latter is also the central bank target for short term quasi risk-free interest rates). For example, it could be set in normal market conditions to be "money market target rate minus 1.5 percentage points". The idea of this spread would be that it could remain stable if policy interest rates change, but if *structural* factors change, it could be revisited. The spread considers the need to protect structurally the business model of banks and is in this sense a Pigouvian tax component addressing an assumed market failure of the bank business model to appropriate all of its benefits, leading to a positive externality of banking. Moreover, it considers the current general lack of understanding and implied prudence towards the implications of stablecoins. Third, the lower level of the base remuneration can be interpreted as a tool for sharing adequately seignorage income between the central bank and the narrow balance sheet money issuers. If these entities benefit from central banking functions or even substitute to some extent public money, it seems right that some of their seignorage income would be reaped by central banks on behalf of society.
- **Lower remuneration of large holdings beyond some threshold, per stablecoin issuer**. In line with the current (or outlined) regulations on stablecoins and on banking, large entities are considered to bear more risk of negative externalities, including in the context of the too-big-to fail problem. Therefore, remuneration of reserves could be lower beyond a certain absolute size of deposits by one stablecoin issuer. The threshold would also consider possible views on

[17] Arguing that the positive externalities of banking are not sufficiently proven is not the same as saying that the synergies between loan provisions and deposit and payment services are not proven. The existence of the latter is only a necessary, but not sufficient condition for relevant positive externalities of these synergies.

network effects, competition and interoperability of stablecoins, i.e. what would be a desirable market structure and concentration of stablecoin issuers. These views will evolve over time with experience. The remuneration beyond the threshold could be set to be for example "1 percentage point below the base remuneration". This measure would complement possibly extra capital and liquidity[18] requirements on large stablecoins, which should not be set at unreasonable levels. One may also conclude that extra capital and liquidity requirements on large stablecoin issuers are sufficient, and one could then drop this element of the remuneration formula.

- **Remuneration deduction for fast inflows**: fast inflows could be discouraged by imposing a negative remuneration add-on for any "disproportional" increase of deposit holdings within a short period of time. For example, growth of stablecoin volumes (and thus of deposits with the central bank) by 5% per month would be accepted, but inflows of more than 5% in a month would be remunerated subject to an additional negative spread of e.g. 2 percentage points for a certain duration. The percentage monthly growth threshold and the negative remuneration add-on are to be derived from the fears attached to short-term deposit outflows from banks into the central bank via stablecoins. Stablecoin issuers would need to find ways to pass on this dynamic negative component to the inflows on their liability side, or to make such fast inflows unattractive or difficult in some other way.

In total, the central bank would need to specify five parameters (Base remuneration; Negative spread for large holding remuneration and quantity threshold beyond which it would be applied; negative spread for fast inflows and relative deposit increase threshold beyond which it would be applied) and do analysis for calibrating these in a pragmatic and reasonable way. Implementing the formula itself is not difficult in the context of an electronic account system. That the analysis to establish the parameters would be complex should not be considered a problem: first, the analysis can remain pragmatic without taking particular risks. Second, the problem cannot be simply ignored, and setting the parameters in a way to have a simple flat remuneration should also be based on an equally thorough analysis showing that different values of the five parameters above would not be preferable. Parameters will have to be revisited over time, depending on how successful stablecoins are, what issues arise in practice, how banks can cope with the change, and any other experience on how the formulas and parameters work in practice. Finally, the approach could also be simplified, and for example the second or third component of the remuneration formula could be dropped, or even both.

(3) Minimum low- remunerated CB reserve as a Pigouvian tax tool

A third approach would combine the two previous ones as follows: stablecoins would have to hold a *certain share* of their reserve with the central bank at an unattractive interest rate, such as for example "20% of their reserve, remunerated at the market rate minus 500 basis points", including if the market rate would be itself below 500 basis points, which would mean that the remuneration of the reserve would be negative. This example would be equivalent in terms of implied costs to requiring the stablecoin to hold "10% of its reserve at market rates minus 1000 basis points". The cost of the mandatory badly remunerated reserve would act as a Pigouvian tax addressing the estimated positive externalities of banking and the implied degree of protection that banks would deserve. It would be important that stablecoins could liquidate this mandatory, badly remunerated reserve in case they

[18] Liquidity requirements such as the eligibility constraints on securities eligible to back the reserves,

have liquidity needs. They would then be allowed to under-fulfil the requirement and they would simply have to pay a fee that would be as costly as the opportunity costs of holding badly remunerated reserves. In other words, one could also directly calculate a tax on stablecoins as follows: outstanding volume of stablecoins times a proportional fee. To achieve the same Pigouvian tax as in the two examples above, the fee would simply be 1 percentage point per annum of the stablecoin volume. This would weaken the ability of the stablecoin issuer to remunerate its monetary liabilities by basically 1 percentage point, providing the intended advantage to banks, but in a much more controlled way than to simply prohibit stablecoin issuers to remunerate their liabilities. Of course, the Pigouvian tax could be higher than 1% if the estimated positive externality of banking is higher (e.g. 2%).

Finally, and this holds for both the second and the third option, formulas can be adjusted if it is felt that implied *negative* remuneration of stablecoins is particularly effective as deterrent or could be too strong even. The formula would then foresee that negative spreads towards the short-term market rate would be reduced when entering negative territory. Negative rates would not be excluded but would be phased in in an assuaged manner. Example: assume option 3 has been chosen with an initial Pigouvian tax p = 1% p.a. on stablecoins, but then it is wished that the tax formula considers an estimated non-linear aversion against negative rates. If we assume (for the sake of simplicity) that the stablecoin issuer has no operating costs and that with a given liquidity regulation, it can achieve a remuneration of its assets at the level of the reference market rate j, then one could set for example: for $j >= 1\%$: $p = 1\%$; for $0 < j < 1\%$: $p = 0.5\% + j/2$; for $j < 0$: $p = 0.5\%$. This is not particularly complicated, and in any case, if such non-linear effects exist, simply ignoring them would not be a good solution relative to the effort to refine a formula.

Table 4 summarizes the three options in terms of addressing the three issues identified at the beginning of section 3.

Table 4: Three options fulfilling reasonable principles

	Prevent:		
Measures applied to stablecoins: ⇓	**Structural disintermediation of banks**	**Run on banks**	**Run on SCs**
Option 1: Laissez faire	-	-	Yes (via liquidity and capital adequacy requirements)
Option 2: 100% reserve in from of central bank deposits; three elements of remuneration	Yes (Includes also Pigouvian elements)	Yes (extra negative spread on fast inflows)	
Option 3: Flat Pigouvian tax	Yes	-	

The choice amongst the options would be based on weights attributed to different risks.

5. Conclusions

In this paper we revisited the domestic and international liquidity effects of inflows into stablecoins, plus the flows of funds related to one popular new use case of stablecoins, the cross-border payment stablecoin sandwich.[19] We then turned to the regulation of stablecoins, and how rules imposed on the reserves of stablecoins could contribute to financial stability. We noted the diversity of approaches across selected jurisdictions (EU, US, UK), although all approaches could be considered to have in common an "original sin", which is to impose zero client remuneration on stablecoin issuance. This measure's effects are totally dependent on the level of short-term interest rates. It implies that the viability and competitiveness of stablecoins is made dependent on the interest rate levels, which moreover implies opposite effects on the competitors of stablecoins, i.e. banks and money market funds. This should not be expected to be conducive to financial stability. Moreover, regulation of stablecoins, including remuneration rules, often seem to be driven by the idea "do not make stablecoins too safe or viable as this could harm banks". Instead, one should make stablecoins as safe as possible and, if felt necessary, design an adequate quasi-Pigouvian tax on stablecoins which would be based on the estimated positive externalities of banking (i.e. synergies between loan provision and deposit collection, which for some reason however cannot be fully appropriated by the banks). Such a Pigouvian tax must not depend on the level of short-term interest rates. We develop three alternative proposals to the regulation of stablecoins, all of which overcome the "original sin" to constrain the remuneration of stablecoins to zero and also fulfil some further proposed principles of good regulation.

The choice for or against option 1 (laissez-faire) depends mainly on whether one believes in the merits of protecting banks because of some positive externalities of banking, i.e. of the synergetic provision of lending and deposit/transaction services. The choice between option 2 (100% reserves with central bank and tiered remuneration formula) and option 3 (diversified reserves with a proportional Pigouvian tax) should depend on how worried one is on runs. Option 3 protects stablecoins against runs by imposing (like the other two options) capital and liquidity requirements on stablecoins. Option 2 in addition reduces the likelihood of runs on stablecoins and their impact because the stablecoin reserves are 100% held with the central bank. Moreover, option 2 disincentivizes runs from banks into stablecoins by imposing a negative extra remuneration component on fast inflows into the reserve with the central bank (these inflows correspond exactly to the inflows into the stablecoin under option 2, since stablecoin issuers must hold 100% of their reserve with the central bank). At the end, the choice amongst the three options could also be constrained by legal, communications, and other practical feasibility considerations, whereby option 3 could probably encounter more difficulties than options 1 and 2. Option 2 is obviously more ambitious than option 1 and thereby also may encounter more practical implementation challenges than option 1.

[19] We did not cover all regulatory issues relating to stablecoins and in particular not the ones associated with their distribution on public blockchains and pseudonymity, namely the risks of facilitation of illicit payments (money laundering, terrorist financing, tax evasion, evasion of capital controls, payment leg of any other criminal activity).

References

Aldasoro, Iñaki, Matteo Aquilina, Ulf Lewrick and Sang Hyuk Lim (2025), "Stablecoin growth – policy challenges and approaches", BIS Bulletin N. 108, 11 July 2025.

American Bankers Associations (2025), Letter to Senators to "address several loopholes identified in the recently enacted GENIUS Act", 12 August 2025.

Anadu, Kenechukwu, Pablo D. Azar, Marco Cipriani,Thomas M. Eisenbach, Catherine Huang, Mattia Landoni, Gabriele La Spada, Marco Macchiavelli, Antoine Malfroy-Camine, J. Christina Wang (2024), "Runs and Flights to Safety: Are Stablecoins the New Money Market Funds?"

Bank of England (2021), "New forms of digital money", Discussion paper.

Bank of England (2023), "Regulatory regime for systemic payment systems using stablecoins and related service providers", Discussion paper.

Beyer, Robert, Ruo Chen, Claire Li, Florian Misch, Ezgi O. Ozturk, and Lev Ratnovski (2024), "Monetary Policy Pass-Through to Interest Rates: Stylized Facts from 30 European Countries", IMF Working Paper WP24/09, European Department.

Bidder, Rhys (2025), "Singleness of money: towards a nuanced debate", forthcoming in: CEPR e-book on the future of money, edited by Dirk Niepelt.

Bidder, Rhys (2025a), "The Bank of England approach to stablecoins – a comment", King's College London, Qatar Centre for Global Banking & Finance.

Bindseil, Ulrich and George Pantelopoulos (2022), "Towards the holy grail of cross border payments", ECB WPS 2698.

Bindseil, Ulrich and Richard Senner (2023), "Destabilization of bank deposits across destinations: assessment and policy implications", ECB WPS No. 2887.

Bindseil, Ulrich and Omid Malekan (2025), "Toward immediacy and continuity in money and finance?", Journal of Financial Market Infrastructures, Volume 12, No. 3, June 2025.

BIS (2025), "The next-generation monetary and financial system", Chapter III of the BIS Annual Economic Report 2025.

Citi (2025), "Stablecoins 2030 - Web3 to Wall Street", Citi Institute, Global perspectives and solutions.

Coste, Charles and George Pantelopoulos (2025), "Central bank money as a catalyst for fungibility: the case of stablecoins", ECB WPS No. 3111.
CPSS-IOSCO (2012), Principles of Financial Market Infrastructures, BIS.

European Banking Authority (2024), "Report on tokenized deposits", EBA/REP/2024/24.

Garcia Ocampo, Denise (2025), Stablecoin-related yields: some regulatory approaches, FSI Briefs, No 27, 23 October 2025

Garratt, Rodney and Hyun Song Shin (2023), "Stablecoins vs. tokenized deposits: implications for the

singleness of money", BIS Bulletin, No. 73.

Goel, Tirupam, Ulf Lewrick, and Isha Agarwal (2025), "Making stablecoins stable(r): Can regulation help?", 10 September 2025.

Gorton, Gary B. and Zhang, Jeffery Y., (2023), "Taming Wildcat Stablecoins" 90 University of Chicago Law Review 909

Jacewitz, Stefan (2025), "Stablecoins could increase treasury demand, but only by reducing demand for other assets", Federal Reserve Bank of Kansas City, Economic Bulletin, , 8 August 2025.

Kendrick, Jeoff, and Madhur Jha (2025), "Stablecoins – Implications for EM", Standard Chartered, Global Research.

Liao, Gordon Y. and John Caramichael (2022). "Stablecoins: Growth Potential and Impact on Banking," International Finance Discussion Papers 1334. Washington: Board of Governors of the Federal Reserve System

Ma, Yiming, Yao Zeng, and Anthony Lee Zhang (2025), "Stablecoin runs and the centralization of arbitrage", NBER Working Paper 33882.

Mandeng, Ousmène (2025), "Do stablecoins increase the net demand for US Treasury securities?", OMFIF, 26 August 2025

McLaughlin, Toni (2025), "Ubyx Whitepaper - Stablecoin Ubiquity", 24 March 2025.

Waller, Christopher (2025), "Technological Advancements in Payments", Wyoming Blockchain Symposium 2025, Teton Village, Wyoming

Waller, Christopher (2025a), "Embracing New Technologies and Players in Payments",
Remarks made at the Payments Innovation Conference, Federal Reserve Board, Washington, D.C.