

Stablecoins in Latin America and the Caribbean (LAAC): status of use and policy reflections

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Abstract

Stablecoins have been gaining some traction in the Latin America and Caribbean (LACC) region. Although the actual level of adoption seems to be rather low, recent market developments suggest a growing interest among financial institutions, startups, and the population at large. Moreover, regulatory developments, market dynamics, and economic conditions in other jurisdictions could rapidly evolve and so, likely help boost stablecoin usage. These circumstances are particularly relevant for the region since stablecoins hold the potential to provide a practical answer to a number of issues faced by LACC countries (e.g., difficulties in accessing efficient means of payment, investment, and loans).

While offering potential benefits, stablecoins also present significant risks whose underlying drivers need to be identified to assess the actual nature and size of the vulnerabilities they may pose to the financial system. For example, since stablecoins rely on the stability of their backing assets, the choice of the latter is of heightened importance. This is critical in emerging market economies (EMEs), where currencies may exhibit higher volatility due to market fluctuations and other idiosyncratic factors like loss of confidence or external and internal shocks. Additionally, the lack of access to a wide range of secure assets, as is often the case in those jurisdictions, can further amplify price movements.

In addition, stablecoins pose several regulatory challenges, which can vary depending on the specific design and usage of the stablecoin. Their cross-border nature, the diversity of actors, the lack of reliable data, their potential level of complexity, and the multiplicity of issues to consider make it difficult for authorities to determine the most adequate legal framework. Although, in general, there are no specific regulations on crypto assets and stablecoins in the region, the experience of other jurisdictions, as well as internationally coordinated responses that are being developed via standard-setting bodies, could be leveraged by the LACC countries when designing their regulatory frameworks, adapting them to their particular features as needed.

1 Introduction

Stablecoin is a broadly used term to refer to a particular type of crypto asset that aims to maintain a stable value in relation to another asset. Unlike conventional crypto assets such as Bitcoin and Ethereum, per design, stablecoins intend to prevent significant fluctuations in their value. However, despite their name, stablecoins may not always succeed in achieving this goal in practice. Most commonly, stablecoins are pegged to a fiat currency such as the U.S. dollar or euro, but they can also have connections to non-financial assets such as gold or other commodities.

The way stablecoins intend to deliver on its promise can take several forms. Yet, the largest stablecoins in the market typically rely on the establishment of a reserve denominated in the reference asset (e.g., USD). Outstanding

units are typically backed on a one-to-one basis with those reserve assets. Generally, the issuer agrees to issue and redeem units of stablecoins in exchange for their equivalent in units of the reference asset. Given its relevance, this type of stablecoins is the main focus of the report.

A survey carried out by CEMLA during 2023¹ showed that stablecoin adoption across the participating jurisdictions is generally considered to be low. Where used, the underlying reasons appear to be manifold and often related to jurisdiction- and user-specific circumstances like, e.g. privacy concerns, search for yield or cost efficiency, among other. Against this light, it is no strange that most jurisdictions currently lack a specific legal framework and/or guidance related to the regulatory treatment of stablecoins

Despite the current low levels of adoption, the fact that market dynamics could very quickly change the status quo, calls for closely monitoring their evolution. This is especially the case in the LACC region, since stablecoin adoption could revolutionize payment and remittance systems as well as increase efficiency and financial inclusion. In addition, given that many economies in the area have close trade and financial relations with countries abroad, stablecoins have the potential to transform the way cross-border payments are conducted. These developments could further have significant implications for financial stability and market integrity that need to be properly addressed.

Against this light, the members of CEMLA’s FinTech Forum agreed to perform a deep dive of the topic of stablecoins, starting with the above-mentioned survey, a review of the literature and an assessment of how these lessons applied to their respective countries. This exercise was further complemented with additional desk research to complete a full picture on the perceived risks, use cases, drivers and concerns for their respective authorities. The report closes with a comparative study on legal responses across the world and potential lessons and relevant issues to be considered by financial authorities to deploy an effective policy framework.

2 Concept, distinctive features and taxonomy

2.1 Underlying nature of stablecoins

The term “stablecoin” can be defined as a type of crypto asset designed to maintain a stable value in relation to another asset, unlike conventional crypto assets such as Bitcoin and Ethereum, which can experience significant fluctuations in their value. The Financial Stability Board (FSB), the International Organization of Securities Commissions (IOSCO), the Financial Action Task Force (FATF), and the International Monetary Fund (IMF) have adopted this definition. Stablecoins can be pegged to a monetary unit like the USD or the Euro, but they can also be pegged to non-financial assets such as gold or other commodities.

The concept of stablecoin is based on the stated goal of maintaining stability in its value relative to another asset. However, it is crucial to note that beyond the terminology used, many of these instruments may not necessarily be stable. Moreover, some stablecoin arrangements entail financial activities that are potentially subject to current regulations and oversight in the jurisdictions where they operate. Leveraging innovative technology should not serve as a pretext for conducting regulated activities outside the bounds of the law and relevant regulations. Depending on their specific structure, the issuance of stablecoins could be likened to the issuance of electronic money, negotiable securities, or even the solicitation of bank deposits².

In this context, it is important to analyze how these arrangements are structured and the mechanisms through which issuers endeavor to fulfill the promise of value stability.

Two generic stabilization mechanisms can be distinguished. On one hand, the most widely adopted stablecoins in the market are based on a reserve denominated in the reference asset (e.g., the USD). The units in circulation are typically backed in a one-to-one relationship with the reserve assets. Generally, the issuer commits to issuing and redeeming stablecoin units in exchange for their equivalent in units of the reference asset. This commitment to issuance and redemption creates arbitrage opportunities in the case of price fluctuations in the secondary market, which is a crucial part of the stabilization mechanism. Other, less commonly used schemes aim to stabilize the value through algorithms that regulate the supply in response to changes in demand for the stablecoin. Due to its limited scope, this report will not address the latter type.

Given the variety of so called stablecoins, to further advance the regulatory analysis of these instruments it is important to delineate the structural aspects that may influence their operation in order to separate those that

¹Responses were received from the following countries: Brazil, Colombia, Costa Rica, Ecuador, Spain, Guatemala, Honduras, Jamaica, the Dominican Republic, Trinidad and Tobago, and Uruguay.

²The Bretton Woods Committee [10].

could be truly considered a new development from those that resemble existing products with the technology being the only differentiating factor. More precisely:

- **Type of peg:** This refers to whether the stablecoin is linked to a monetary unit, such as a fiat currency, or a non-financial asset, like a commodity.
- **User Rights:** It is important to determine whether users of the stablecoin have the right to convert it to nominal value, redeem it at market value, or receive an asset in kind. Each of these rights can have significant implications for investors and the liquidity of the stablecoin.
- **Reserve Ratio:** This aspect refers to whether the issuance of the stablecoin is fully backed by reserve assets or follows a fractional scheme, where not all tokens in circulation are backed by assets. Transparency in the reserve ratio is crucial for trust in the stability of the stablecoin.
- **Reserve Assets:** This factor relates to the nature of the assets used to back the stablecoin. They can be traditional assets like fiat currency, securities or commodities, or even other crypto assets. They can also be denominated in the same currency as the peg or in a different one. The choice of reserve assets can impact the stability and trust in the stablecoin, as the quality and liquidity of these assets are determinants of its ability to maintain its nominal value. Careful selection of reserve assets and their management is essential to ensure the stablecoin's good performance in the market and the efficacy of the stabilization mechanism.

2.2 Taxonomy: a potential analytical framework

Taking into account the structural aspects outlined previously, we can delineate the following categories of stablecoins. These categories are defined by their relationship to the reference unit, the rights conferred upon users, the composition of backing assets, and whether they operate on a complete or fractional reserve basis.

This analytical framework could offer authorities a practical tool for enhancing their comprehension of this phenomenon, thus supporting them in deciding on the most convenient regulatory approach to be followed when addressing stablecoins.

Type of Peg	User Rights	Reserve Ratio	Example	Cat.
Pegged to a monetary unit	Group 1: Convertibility ³ to nominal value	100%	Fiat money	N/A
		100%	Fiat money and/or negotiable securities	USDC
		Fractional	Fiat money and/or negotiable securities	JPM Coin (authorized)
Pegged to a non-financial asset	Group 2: Redemption at market value	100%	Franklin OnChain U.S. Government Money Fund ⁴	D
	Group 3: No redemption rights	No backing	TerraClassic USD	E
	Redemption in kind of at market value	100%	Commodities	F
	Redemption in kind	Any	Non-financial crypto assets	G

Table 1: Taxonomy

³Convertible securities refer to the exchange of financial instruments for other types of tradable assets from the same issuer, while redeemable securities refer to the exchange of those securities for cash.

⁴See <https://www.sec.gov/Archives/edgar/data/1786958/000137949121001250/filing222856581.htm>

2.2.1 Stablecoins referenced to a monetary unit

Within stablecoins referenced to a monetary unit, the following groups can be identified:

- Group 1: Right to convertibility at par (1:1) with respect to the nominal value of the instrument. In this case, the stablecoin represents a debt of the issuer, and the issuer commits to convert it back to money upon the user's request. Redemption fees may eventually apply.
- Group 2: Right of ownership of a share of the reserve assets. In this case, the stablecoin represents an equity instrument, where the holder has ownership of a fraction of the backing assets. The stability in the value of the stablecoin will depend on the management of the reserve assets.
- Group 3: The stablecoin does not give the holder a right of redemption.

In Group 1, stablecoins representing a right to convertibility at nominal value, we can distinguish the following categories:

A. Electronic Money Tokens

E-money can be defined as a stored monetary value or prepaid product in which a record of the funds or value available to the consumer for multipurpose use is stored on a prepaid card or electronic device (for example, a computer or mobile phone), and which is accepted as a payment instrument by other than the issuer (multipurpose use). The stored value represents a claim enforceable against the e-money provider to repay the balance on demand and in full. This universal acceptance distinguishes e-money from retail gift cards and other payment instruments that can only be spent with one retail group (single purpose) [17].

From a broad and technologically neutral perspective, a stablecoin could be considered a form of electronic money if it complies with certain distinctive elements. To make this possible, it is essential that the design of the stablecoin arrangement meets all the requirements laid down in the regulatory framework of the country in which it operates, with a particular emphasis on the ability to provide full reimbursement upon request by the holder at any time.

B. Asset referenced token

This category includes stablecoins that are pegged to a monetary unit and are fully backed by a basket of fiat currencies and/or negotiable securities.. In this case, the issuer also commits to redeem at a 1:1 rate as regards the peg, and the holder is not entitled to any interest or other returns earned on the assets that conform the reserve.

When the reference asset is a basket of fiat currencies, a broad interpretation of the definition of electronic money could be applied and conclude that the concept of a "monetary value claimable from its issuer" is not necessarily limited to a single currency. However, significant risks emerge, such as asset-liability mismatch between the reserve assets comprising the currency basket and the reference unit which could lead to potential fluctuations in the stability of the stablecoin. Therefore, careful management of the composition and management of the currency basket is essential to mitigate these risks and ensure the stability of the stablecoin's value over time. Similar considerations apply where negotiable securities as used in the reference basket given their inherent market risks.

C. Tokenized Bank Deposits

Another potential model within Group 1 emerges when the issuer gathers funds from the public by issuing a convertible crypto asset at its nominal value (1:1), employing a fractional reserve scheme. This practice places the entity involved in a position between two sets of clients: those with surplus resources and those with a deficit of economic resources.

In this scenario, the issuer retains only a portion of the funds collected in reserve assets (characterized by high liquidity and credit quality) to cover the routine withdrawals of its clients. The remainder is allocated to active operations in pursuit of profitability, entailing varying degrees of risk. It is evident that this business model bears resemblance to that of traditional banks. Indeed, a recent publication from the BIS Innovation Hub [8] employs the term "deposit token" to refer to this type of stablecoin.

A notable example within this category is JP Morgan Coin, which serves as a tokenized representation of bank deposits issued by JP Morgan to facilitate international treasury management services for its corporate clients.

Within this spectrum, there may also exist stablecoin arrangements that effectively engage in financial intermediation and deposit-taking activities, despite lacking the required authorization. This scenario poses significant risks for both users and the stability of the financial system, as such activities are conducted without the necessary regulatory oversight, potentially exposing participants to fraud or substantial financial losses.

In Group 2, comprising stablecoins representing a right of ownership over a share of reserve assets convertible at market value, we find:

D. “Stable” Security Tokens

An alternative model presents stablecoins as a form of participation in a collective equity purportedly invested according to a strategy prioritizing portfolio liquidity and stability.

In contrast to previous models, the redemption amount received by the user is contingent upon the market value of the assets and liabilities constituting the equity. This valuation may align with the promised parity but could also fall substantially lower, or even to zero, depending on factors such as portfolio management and prevailing market conditions. The opposite may also be true.

Under this conception, instruments presented as “stablecoins” may effectively qualify as negotiable securities. Consequently, their issuance, trading, and management must adhere to the applicable regulatory framework.

In the global market, regulated negotiable securities exist, designed to offer investors a highly liquid option characterized by minimal risk, maintaining a 1:1 relationship with a fiat currency such as the US dollar or the euro. Money market funds (MMFs) exemplify this, wherein jurisdictions with specific MMF regulations, such as the European Union and the United States, restrict investment options to instruments characterized by high liquidity and credit quality. These instruments encompass cash, cash equivalents, and short-term high credit-rated debt securities, including US Treasury bonds. However, it is crucial to acknowledge that MMFs carry financial risks and lack additional protective measures, such as bank deposit insurance, thereby not guaranteeing full parity.

An exemplary illustration within this category is the Franklin OnChain U.S. Government Money Fund, an SEC-approved money market fund established in 2021, with shares registered and transferred utilizing distributed ledger technologies.

E. Unbacked tokens

Lastly, we encounter tokens marketed as stablecoins that are pegged to a monetary unit but lack any asset-backed reserve scheme. Although they often rely on algorithms to stabilize their value, recent events have demonstrated the inadequacy of these measures. In such cases, primary concerns revolve around transparency for users. TerraClassicUSD serves as an example of this category.

Box 1 – The crash of Terra/Luna

TerraUSD, launched in September 2020, was the algorithmic stablecoin of the Terra blockchain. It aimed at maintaining a 1:1 value with the US Dollar by establishing a link with a sister token, Luna, in such a way that one TerraUSD token would always be worth \$1 USD of Luna. This link offered possibilities for arbitrage, that is, every time TerraUSD fell/went above the 1:1 ratio, there were incentives for investors to sell/purchase them in exchange for Luna, thereby reducing/increasing the standing amount. This was, therefore, the basis of its stabilization mechanism. Since there were no assets backing neither TerraUSD nor Luna, their worth was largely dependent on users’ trust.

The crash of TerraUSD and Luna took place in May 2022. Although there is no certainty about the reasons behind, it seems it had to do with growing concerns about the sustainability of the system [51]. A potential trigger could have been a rate cut in the interest paid for TerraUSD deposits by the Anchor Protocol. This was a decentralized lending protocol that offered very high yields on TerraUSD deposits (up to 19.5%) and that on May 2nd had announced a two-point cut in the rate due to a low demand for TerraUSD borrowing. Regardless whether this was indeed the cause or not, the fact is that on May 7th two large investors unstaked their positions in the Anchor Protocol for a total of \$2 billion and liquidated a large portion of it. This caused a cascade effect, leading to the depeg of TerraUSD and a free fall of Luna’s value, resulting in the Terra ecosystem losing \$50 billion in valuation in just three days^a and their total value soon after. The TerraUSD/Luna crash

impacted the whole crypto asset market, underlining its fragility, interconnectedness and complexity.

^aFor more information see <https://www.forbes.com/sites/qai/2022/09/20/what-really-happened-to-luna-crypto/?sh=5dd0ef8e4ff1>.

2.2.2 Stablecoins referenced to non-financial assets

Within this category of stablecoins, the following groups can be identified:

F. Tokenized Certificates of Deposit

Certain stablecoins pledge to maintain parity with a commodity, such as gold, soybeans, or wheat, rather than being tied to a currency. In this scenario, the stablecoin represents the right to receive a specific quantity of the physical commodity or its equivalent value in currency.

Examples of this category include Pax Gold (linked to gold) or Agrotoken, which encompasses various tokens tied to wheat, soybeans, and corn. The stabilization mechanism operates on the premise that each token is backed by physical stocks of the grains, with one ton per token equivalence. Essentially, the stablecoin, in this instance, functions as a tokenized certificate of deposit representing the goods deposited to support it. However, it is important to note that in certain jurisdictions, this arrangement may be classified as a security, subject to prevailing legal and regulatory frameworks.

G. Stablecoins backed by another crypto asset

Some stablecoins seek to implement a stabilization mechanism based on backing with other crypto assets. The most prevalent example is DAI, backed by exchange-traded crypto assets. These stablecoins employ over-collateralization schemes to mitigate the volatility of the underlying asset, though these approaches may prove inefficient and ineffective at times. Typically, this type of stablecoin does not confer any rights to the user and should, therefore, be considered exchange-traded crypto assets. Nevertheless, each case should undergo individual analysis, as it could potentially constitute a security if the underlying crypto asset is financial (in which case, it would fall under category [D]).

3 Main uses and potential adoption drivers

Stablecoins have been gaining some traction in the LACC region, primarily to address certain financial challenges in the region. For instance, the survey results indicate that some startups and financial institutions have launched or are planning to launch their own stablecoins pegged to the local fiat currency (e.g., Carib\$, pegged to Barbados and Jamaica Dollars and BRZ pegged to the Brazilian Real) with the aim to provide stability in volatile markets. Some activity is also being observed in the framework of innovation enablers (e.g. an innovation hub involving the Central Bank of Brazil selected two projects that used stablecoins and the Spanish sandbox admitted for testing a stablecoin pegged to the euro).

That said, and although there is a general lack of official data, the use of stablecoins in the region is largely perceived to be low according to the respondents to the survey. For example, by using Google Trends Banco de la República found that Colombians' interest in the largest stablecoins by market cap (Tether and USD Coin) vis-à-vis first generation crypto assets was not substantially greater. It is also worth mentioning that, in the case of Brazil, this conclusion was backed by official data (as gathered by the Brazilian Federal Revenue Office).

Despite current usage levels, the adoption of stablecoins could change rapidly due to regulatory developments, market dynamics, and economic conditions. An analysis of the use cases they could cover and the main drivers for adoption can help assess their potential and, to some extent, anticipate these changes.

Main use cases

The applications of stablecoins are diverse, with varying degrees of importance across jurisdictions and user types. According to the results of the survey, the most significant use cases are payments, investment/savings, and lending. In any case, as this market is still in its early stages, the landscape is subject to rapid evolution, with certain use cases gaining prominence over others. Consequently, these potential shifts may not follow a predictable trajectory.

1. **As a means of payment.** Stablecoins, owing to their relatively lower volatility compared to other crypto assets, hold significant potential for use as a medium of exchange. For instance, according to [49], Tether and USD Coin have maintained deviations from the peg below 1% for over 97% of their existence. Consequently, stablecoins offer the benefits of crypto assets as a payment instrument, including reduced costs, increased speed, and enhanced transparency, while mitigating the risks associated with sudden price fluctuations. This could be considered their primary use case, or at least the intended use case. It is important to note that these benefits stem from the underlying technology (i.e., distributed ledger technology, DLT), so they could also be attained with alternatives such as central bank digital currencies (CBDCs).
 - 1.1. In the realm of domestic payments, stablecoins are more likely to be utilized in economies with less developed payment systems or where access to such systems is limited for a significant portion of the population, therefore improving financial inclusion. The fact that crypto wallets and stablecoin accounts can be opened with a smartphone helps provide access to financial services to those who do not have traditional bank accounts. Additionally, stablecoins may appeal to segments of the population who, for various reasons (discussed further in the drivers below), prefer to settling debts using crypto assets. The programmability of stablecoins also presents opportunities in the Internet of Things (IoT) domain, facilitating low-cost micropayments. For example, projects like the collaboration between Daimler and Riddle&Core aim to develop a blockchain-based hardware wallet enabling vehicles to make payments to digital communication devices (e.g., toll booths, parking meters, etc.) [18].
 - 1.2. However, the primary use case in this context is cross-border payments, where stablecoins can offer significant advantages in terms of cost, transaction speed, and transparency compared to traditional banking systems. Evidence suggests their use in remittances (e.g., Bitso offers a remittance service in stablecoins) as well as in corporate payments (e.g., JPCoin) and wholesale payments (e.g., Finality). Stablecoins backed by central bank money, such as Finality, could be regarded as a distinct subset allowing the private sector to leverage the essential settlement properties of central bank money. Finally, stablecoins can facilitate efficient money movement within the same organization, enabling seamless transactions among different entities within a corporate group.
2. **As a store of value.** In economies characterized by instability and high inflation rates, as is or has been the case in some LACC countries, stablecoins pegged to stable assets, like the US dollar, can potentially serve as a means to safeguard savings against currency devaluation. This is evident in countries like Argentina, where a recent study indicates that a significant portion of the population, particularly younger demographics, expresses willingness to acquire dollar-pegged stablecoins⁵. However, studies suggest that regardless of the size or backing of a stablecoin, maintaining parity with its peg at all times remains a challenge [49]. Section 4 of this paper delves into some of the factors contributing to this phenomenon.
3. **As an investment.** Stablecoins offer an accessible avenue for investment, often easier than investing directly in the reference asset. For instance, in regions like Argentina⁶, with currency acquisition restrictions, investing in a dollar-pegged stablecoin may be more practical than acquiring the currency itself, especially in anticipation of a bullish dollar trend. Notably, stablecoins play a significant role in the decentralized finance (DeFi) space [31], providing investors with opportunities for returns without exposure to extreme volatility. Investors can earn income on their stablecoins by participating in various DeFi activities, such as providing liquidity to pools supporting DeFi protocols.
4. **As a mean to get loans.** Stablecoins are utilized as collateral to secure loans, either in fiat currency or other crypto assets. In the former scenario, stablecoins facilitate access to loans on favorable terms or under circumstances where traditional lending may not be viable. In the latter case, borrowed crypto assets are often utilized in activities offering returns. This may include participation in DeFi applications or other investment opportunities. Platforms like Nexo enable borrowing of fiat money and crypto assets against stablecoins. Similarly, DeFi protocols like Aave accept stablecoins as collateral for overcollateralized loans.

⁵See <https://www.cronista.com/infotechnology/criptomonedas/chau-dolar-blue-la-cotizacion-que-miran-todos-los-argentinos-antes-de-las-elecciones/>

⁶See <https://www.infobae.com/economia/2023/12/11/nuevas-restricciones-cambiaras-como-pagar-hoy-los-gastos-en-dolares-de-las-tarjetas-de-credito/>

Additionally, stablecoins are used at a global level as a bridge between the fiat world and the crypto world. Stablecoins have emerged as a conduit between traditional fiat currencies and crypto assets, offering greater convenience, speed, and cost-effectiveness. In some cases, they serve as the sole option for investing in crypto assets, particularly on platforms that do not support fiat currency trading, such as dYdX. This facilitates users in preserving the value of their crypto asset investments amidst periods of high volatility quickly and inexpensively.

In conclusion, while stablecoins were initially designed to impart stability to the crypto asset market and enhance their utility as a means of payment, their use cases have expanded beyond these objectives. Their role in the DeFi ecosystem and as an investment vehicle exemplifies this evolution.

Main Reasons Driving Stablecoin Adoption

The adoption of stablecoins within an economy is influenced by a multitude of factors, often diverse and heterogeneous. The unique circumstances of each jurisdiction (economic, social, institutional, and cultural) and the distinct characteristics of potential users play pivotal roles in driving adoption. The following provides a concise overview of the most frequently cited reasons in the literature motivating customers to acquire and utilize stablecoins, closely intertwined with the described use cases.

1. **Privacy and Data Protection.** Certain population segments are attracted to the perceived ability of stablecoins to safeguard personal data associated with transactional activities. The pseudo-anonymity inherent in crypto assets, coupled with reduced intermediary involvement due to decentralization, is believed to offer greater privacy compared to traditional payment methods [41]. This fosters better control over data access and reinforces civil liberties.
2. **Cost-Efficiency.** In specific contexts, stablecoins offer lower transaction costs compared to fiat-currency pegged payment instruments [27]. Factors contributing to this efficiency include shorter intermediation chains and enhanced transparency facilitated by distributed ledger traceability. These attributes make stablecoins particularly suitable for cross-border payments and remittances, as well as for promoting financial inclusion in regions with limited access to banking services [48].
3. **Store of Value in Weak Economies.** Structural macroeconomic vulnerabilities such as high and sustained inflation, currency devaluation, and eroding trust in institutions have positioned stablecoins as a store of value and alternative medium of exchange in certain regions [56]. In many cases, stablecoins enjoy greater credibility than official currencies, particularly in economies with unstable financial systems.
4. **Circumvention of Capital Controls.** Stablecoins have gained traction in jurisdictions with stringent foreign exchange restrictions and capital controls, enabling users to bypass regulatory constraints. Empirical evidence suggests [26] a correlation between the imposition of monetary restrictions and increased activity in crypto assets, particularly in regions experiencing capital flight.
5. **Search for Yield.** In economies characterized by low interest rates, the pursuit of differential returns has driven the widespread adoption of stablecoins, especially in Western countries. Stablecoins play diverse roles within the decentralized finance (DeFi) ecosystem, offering opportunities for positive returns through various financial activities such as lending, liquidity provision, and collateralization [4, 1, 11].
6. **Psychological Factors.** Psychological considerations also influence stablecoin adoption, particularly among crypto asset traders [47]. Factors such as curiosity about new technologies and liberal political attitudes are positively associated with the adoption of stablecoins, according to research findings.

In summary (see Figure 1) stablecoin adoption is driven by a multitude of factors that vary across jurisdictions and individuals. While privacy concerns, yield-seeking behavior, and liberal attitudes are prevalent in industrialized nations, emerging economies prioritize hedging against inflation, improving payment efficiency, and circumventing capital controls.

Box 2 – The future of stablecoins: some reflections based on the latest available evidence

Despite experiencing an overall decline in market cap in recent years, the stablecoin ecosystem stands at a pivotal juncture poised to reshape its landscape in the foreseeable future. On one hand, prominent players in the stablecoin market have witnessed a notable loss in market share due to mounting uncertainties surrounding



Figure 1: Most frequent drivers of stablecoin adoption worldwide. Source: Author’s own

their promoters, affiliates, or business partners (e.g., the SEC lawsuit against Paxos, the collapse of Silicon Valley Bank). On the other hand, decentralized stablecoins are garnering increasing attention from investors and, albeit still relatively small, are making significant strides within the broader space.

Furthermore, the growing interest of banks in this domain, coupled with normalization efforts across multiple jurisdictions led by leading financial industry payment companies^a and regulatory bodies, could catalyze a resurgence—and even expansion—of stablecoin utilization in global finance. In the absence of credible, internationally accessible alternatives such as central bank digital currencies launched by major countries and the rise of tokenized financial markets, stablecoins could emerge as pivotal instruments to fill this void.

Operational innovations such as the transition to layer 2 solutions for scalability and efficiency, along with the opportunities presented by Web3, may amplify this trend and paint a promising picture for the stablecoin landscape in the short term. Moreover, the emergence of regional stablecoin initiatives tailored to specific user communities could propel this market further forward.

Finally, another potential growth catalyst lies in the fact that stablecoins predominantly resonate with younger audiences (aged 18-24), while more traditional crypto assets tend to enjoy broader support among adults. The former primarily rely on stablecoins as a medium of exchange for other crypto assets, placing greater emphasis on the pursuit of yield rather than the store of value motivation.

^aFor example, in September 2023 MoneyGram announced plans to launch a non-custodial digital wallet enabling fiat-to-stablecoin conversion. The same month, Visa revealed its intention to facilitate cross-border settlement of USDC using Solana. Lastly, in August 2023 PayPal put into circulation its own stablecoin to allow P2P transfers between its customers

4 Risks Associated with Stablecoins in Emerging Market Economies (EMEs)

Stablecoins have gained prominence as digital assets designed to address the price volatility concerns associated with first-generation cryptocurrencies, such as Bitcoin. However, they introduce a distinct set of challenges that require a thorough examination, particularly within the context of Emerging Market Economies (EMEs). In this analysis, we explore the various facets of stablecoin risks, their risk factors, transmission channels, and their potential implications on the financial systems of EMEs. To this end, a general classification of risks is introduced and used as a framework from which it is made a detailed examination of those risks considered most relevant. This classification is built upon the works of [4] and [57] and identifies four risk categories: macroeconomic risks, legal and regulatory risks, operational risks, and others.

The Nature of Stablecoins

Stablecoins, often touted as the solution to cryptocurrency volatility, usually derive their price stability from a reserve of sovereign fiat currencies or other reserve assets. Unlike their volatile predecessors (e.g., first-generation crypto assets), stablecoins aim to maintain a steady value, making them an attractive option for various use cases. However, this very dependence on reserve assets can be a source of concern. Several structural elements underpin the nature of stablecoins, affecting their stability, utility, and susceptibility to various risks.

Stablecoins are not entirely stable. Episodes of instability may arise as isolated cases or as linked cases depending on the causes behind such situations⁷. These episodes may arise from the fact that these cryptocurrencies derive their creditworthiness from a basket of sovereign fiat currencies or other reserve assets and do not benefit from the protections applying to bank deposits and lender-of-last-resort support [12].

The different structures and underlying assets on which stablecoins are underpinned can give rise to different degrees of volatility, as suggested by fluctuations in their market capitalization that typically arise in response to investor purchases and redemptions [52, 57]. Nevertheless, beyond delving into their volatility levels, this chapter reviews the costs that may emerge from a massive adoption of these digital assets. In such a situation, any adverse shock to the reserve assets backing their value or to the market conditions of said basket may cause various types of risks to the financial system and the economy as a whole, especially if stablecoins are global.

To better understand the consequences that a broad use of stablecoins may cause in the economy, we adopt the definition of risk proposed by [58] and later referenced by [57], according to which the risk caused by the growing use and popularization of stablecoins relates to the “uncertainty about future outcomes that may differ from expectations that might imperil the financial system as a whole if said crypto assets are adopted as a digital payment instrument” .

Risk Factors and risk catalysts

A critical aspect of analyzing stablecoin risks in EMEs is the identification of risk factors, which are fundamental elements or conditions that contribute to the likelihood of potential risks associated with stablecoins. These factors stem from the very nature of stablecoins and their operational mechanisms and can influence the potential risks they pose to users and the financial system. Within the risk factors, there are specific events that may trigger or amplify the manifestation of risks, which are known as risk catalysts, in the sense they can alter the stability and functioning of stablecoins. Thus, risk factors are defined as the conditions that create vulnerabilities or predispose the system to risks, while risk catalysts are the specific events that activate or intensify these risks.

As shown in this section, some risk factors like market disruptions and loss of user confidence in fiat currencies can indeed be understood as risk catalysts. Therefore, a proper understanding of these elements (i.e., risk factors and risk catalysts) is crucial for assessing the vulnerabilities of the financial system as well as to effectively manage and mitigate the overall risk exposure associated with stablecoin adoption.

1. **Collateral Valuation.** Stablecoins often employ over-collateralization, where the total value of reserve assets exceeds the value of issued stablecoins. This cushions against potential risks but raises questions about what happens when the collateralization ratio falls. If asset values decline or other factors impact this ratio, there is a risk of under-collateralization, which can lead to a loss of trust and financial instability.
2. **Market Fluctuations.** While stablecoins aim for stability, they may not always maintain a perfect 1:1 peg with their underlying assets, leading to fluctuations in value. Stablecoins’ market values can fluctuate, primarily in response to investor purchases and redemptions. These fluctuations impact the value of assets held in reserve, introducing price risk. In EMEs, where access to stable assets might be more limited, these fluctuations can have more pronounced effects. Changes in the market value of stablecoins may also arise from external market conditions.
3. **Issuer Reliability.** The reliability and stability of stablecoin issuers in maintaining its value can affect public trust in these digital assets compared to central bank-issued currency.

⁷A recent example of an isolated case of instability in stablecoins is that related to the collapse of FTX that occurred in November 2022 <https://www.nytimes.com/2022/11/10/technology/ftx-binance-crypto-explained.html>. The collapse of Terra, in May 2022, is an example of a case of linked instability [53].

4. **Regulatory uncertainty.** Stablecoins are subject to a complex regulatory landscape, which varies across jurisdictions. This regulatory uncertainty creates risks for both users and issuers, as changes in regulatory frameworks can impact the operation and value of stablecoins. The lack of clear regulation or sudden changes in existing regulatory frameworks may disrupt stablecoin operations and undermine market confidence.
5. **Regulatory environment.** Changes in regulatory frameworks governing stablecoins, including restrictions, oversight, or outright bans, can impact their usage and potential to compete with central bank currency.
6. **Technological vulnerabilities.** Weaknesses in smart contracts or the blockchain infrastructure that support stablecoins could lead to operational failures or security breaches, posing significant risks to stablecoin systems. Said weaknesses include coding errors, bugs, or security flaws within smart contracts, as well as weaknesses in the underlying blockchain technology, such as consensus algorithms or network protocols. Furthermore, these vulnerabilities may undermine confidence in the stablecoin’s system, possibly causing fluctuations in its value and impacting its reliability as medium of exchange or store of value.
7. **Economic Instability.** Economic volatility refers to the volatility of the underlying assets or economic conditions of the countries where stablecoins are used. The stability of stablecoins depends on the stability of the assets backing them, typically a basket of reserve assets or fiat currencies. In EMEs, where currency values can be more volatile, the stability of these assets plays a critical role. Fluctuations in these asset values can lead to uncertainties in the value of stablecoins, posing risks to their users and the broader financial system. For instance, specific events such as sudden market sell-offs or regulatory interventions can act as risk catalysts, exacerbating the impact of these fluctuations.
8. **Issuer Risks.** These are risks associated with the stability and credibility of the stablecoin issuer, encompassing factors such as financial health and adherence with regulatory requirements. Instances of financial instability or non-compliance with regulatory standards relating to the stablecoin’s issuer can erode confidence in the stablecoin, potentially leading to disruptions in its operation and loss of user trust. Therefore, the stability and reliability of the issuer are crucial determinants of the stablecoin’s value and trustworthiness.

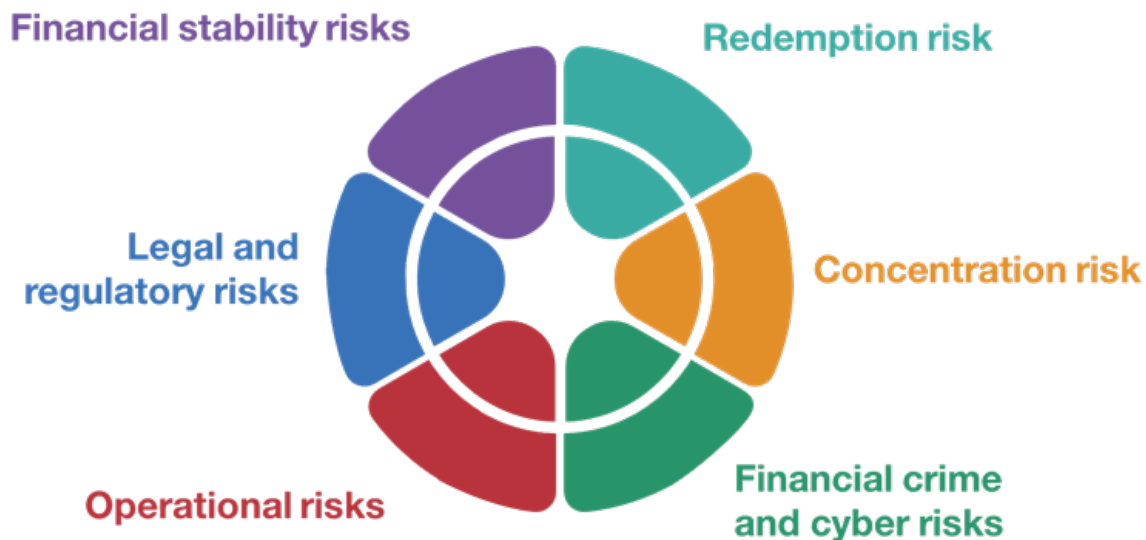


Figure 2: Stablecoins’ risks. Source: Author’s own

Risk Spectrum

1. **Potential Risks in EMEs.** The widespread adoption of stablecoins, especially in EMEs, carries financial stability and liquidity concerns, which can have far-reaching implications on the stability of the financial system and the broader economy.

1.1 Financial Stability Risks. The concept of financial stability is commonly related to the health of the financial system and, particularly its infrastructures, institutions, and markets. Any disturbance to these components may lead to the build-up of financial imbalances that may eventually affect real economic activity [43].

A broad adoption of stablecoins may cause several risks to financial activities, mostly due to confidence issues arising from their extensive use. As previously mentioned, by design, stablecoins borrow their credibility from a basket of reserve assets, primarily fiat currencies. Thus, it is natural to expect that a sudden drop in trust in stablecoins can cause disruptions on a large scale in the real economy and spillover effects in the financial system, creating a network of interconnected risks [57].

To examine the impacts that these situations may cause on the financial stability component, we used the framework introduced by [43], since this allowed us to identify the most relevant subcategories: bank disintermediation, currency substitution, payment system risk, and credit, and liquidity risks. For each financial stability risk, a possible risk catalyst is described. Given that risk factors are described as stemming from the nature and operational mechanisms of stablecoins, influencing the potential risks they pose, they also significantly influence the stability and functioning of stablecoins, thereby acting as catalysts for various risks.

1.1.1 Bank Disintermediation. As stablecoins become a preferred store of value or medium of exchange, there is a growing risk of bank disintermediation. Users may increasingly shift their assets from traditional bank deposits to stablecoins, thus challenging the traditional banking model. This trend poses questions about the financial health of banks and their role as financial intermediaries. Moreover, financial institutions themselves might bolster their exposure to stablecoins, further complicating the ecosystem. The negative effect of such a situation could be amplified if, in addition to the population’s general adoption of stablecoins, financial institutions also increase their exposure to these digital assets and/or play multiple roles in the respective ecosystem, either as issuers or custodians [42]⁸.

Risk catalyst: A widespread adoption of stablecoins due to an amplified confidence in these digital assets may also amplify the risk of bank disintermediation.

1.1.2 Currency Substitution. Emerging economies, especially those grappling with unstable domestic currencies, face the prospect of currency substitution. In such cases, users may opt for stablecoins, pegged to more reliable fiat currencies, during times of economic stress or domestic currency devaluation [42]. This risk is more pronounced with global stablecoins that offer a stable alternative to national currencies^{9,10}.

This phenomenon, often referred to as ‘cryptoization’ could have far-reaching consequences¹¹. If crypto assets, particularly first-generation ones, gain widespread adoption, their price volatility directly affects holders’ financial stability. Moreover, the rise of crypto assets as mainstream currency alternatives may challenge global reserve currencies, leading to higher and more volatile capital flows, potential circumvention of capital flow regulations, and impacts on exchange rates.

Risk catalyst: As in the case of bank disintermediation, an amplified confidence in stablecoins can expand the adoption of stablecoins, triggering currency substitution. In periods of economic stress or currency devaluation, the population may prefer stablecoins over domestic currencies, which can accelerate currency substitution. This shift in users’ preference can exacerbate existing economic

⁸The stablecoin ecosystem includes components related to the issuance, redemption, and stabilizing mechanisms. It also involves issuers, reserve assets, custodians holding reserves, and market makers [5].

⁹These stablecoins have a potential reach and adoption across multiple jurisdictions [36, 37]

¹⁰Under extreme but plausible conditions, a widespread adoption of stablecoins as a medium of exchange or store of value may pose substantial risks as regards the central bank’s ability to control monetary policy. In such a scenario, central banks may find it more challenging to influence economic conditions through traditional monetary policy tools (i.e., interest rate adjustments or open market operations) given that stablecoins are not under their direct control. Thus, it holds clear that changes in stablecoins value may not reflect the central bank’s policy goals. Another possible outcome that may arise from the people’s change of cash holdings to stablecoins relates to the possibility that central banks may lose seigniorage revenue. However, such a scenario is very unlikely given that, as [2] pointed out, seigniorage is small in many countries.

¹¹Cryptoization is equivalent to the dollarization processes that have occurred in some economies due to the lack of public trust in the stability of the local currency [46]. In the context of digital currencies, cryptoization refers to the substitution of fiat currency by cryptos.

vulnerabilities and potentially lead to further destabilization of the financial system.

1.1.3 Payment System Risk. Another risk arising from the widespread use of stablecoins refers to their role as payment instruments. In this regard, it has been pointed out that a payment solution is considered as such if and only if it is issued by a trusted institution, such as central banks [12].

In that vein, in the hypothetical situation where stablecoins serve as a fundamental component of payment systems, disruptions in their stability mechanisms can lead to unforeseen challenges. A widespread reliance on stablecoins for everyday transactions means that any disruption in their payment services can significantly impact economic activities. These disruptions might arise due to variations in stabilization mechanisms, potentially triggered by sudden declines in the value of underlying assets. Guaranteeing public confidence in stablecoins as reliable payment instruments is essential in a regulated environment [42].

Risk catalyst: Disruptions in stability mechanisms of stablecoins can propagate through payment systems, affecting economic activities. These disruptions can amplify the overall risk landscape in highly interconnected systems, also serving as catalysts for liquidity crises, credit risk, and financial instability.

1.1.4 Credit Risk. In the context of stablecoins, credit risk comes from the issuer or the custodian of the respective reference assets. This risk can be defined as the inability to meet their financial claims and prevent adequate counterparty risk assessment. This risk originates from the default condition of pseudonymity in the blockchain technology [20].

Risk catalyst: The inability of stablecoin issuers or custodians to meet financial claims can trigger credit risk concerns. If users lose confidence in the creditworthiness of stablecoin issuers, it can escalate into broader systemic concerns, impacting financial stability and liquidity conditions.

1.1.5 Liquidity Risks. Liquidity risks associated with stablecoins are dependent on the market liquidity of their reference assets. During times of economic or financial stress, the “fire sale” of these underlying assets can diminish the value of stablecoins concerning their reserve assets. This undermines user confidence and poses challenges to the stability of global stablecoin arrangements. Liquidity risk also extends to the issuer’s ability to meet redemptions in times of stress. Delays in processing redemption requests can create significant concerns for users [36, 37].

According to the FSB [36, 37], liquidity risk refers to the issuer’s inability to meet redemptions in stressed conditions. The liquidity risk implies that there may be a lag before redemption requests can be met¹² [2]. Some stablecoins can experience liquidity problems that may arise from the issuer of stablecoins, making it difficult for users to buy or sell them at the desired price. If a stablecoin lacks liquidity on exchanges, it might not be readily exchangeable for other cryptocurrencies or fiat currencies, leading to difficulties in trading or cashing out.

Risk catalyst: Market liquidity challenges associated with stablecoins can escalate into broader liquidity crises. If stablecoin issuers face difficulties in meeting redemption requests during economic stress, it can undermine market confidence, exacerbating liquidity risks across the financial system.

1.1.6 Increasing capital outflows. A wide popularization of a global stablecoin can lead to massive capital outflows in periods of financial and macro instability. This situation may be even more critical if there are generalized concerns about the stability of macroeconomic fundamentals or an emerging economic crisis. Periods of high inflation and/or currency depreciation can lead consumers and firms to hold more global stablecoins, giving way to massive capital outflows. Such a situation can cause much stronger impacts in small and open economies.

Risk catalyst: Changes in government policies related to digital currencies, such as taxation, legal recognition, or acceptance for payment of taxes and fees, can influence the adoption and usage of global stablecoins.

¹²Additional restrictions may also apply such as minimum amounts to be redeemed and/or limitations to the number of requests one issuer can place within a given period of time.

Transmission Channels:

The pathways through which risks associated with stablecoins propagate across the financial system are known as transmission channels. Understanding these channels is crucial to gauge how these risks can propagate through the financial system. By dissecting the stablecoin ecosystem and identifying both risk factors and potential risk catalysts, the interplay between different elements and their role in shaping risk dynamics can be better understood.

The transmission channels for these risks are multifaceted. Crypto assets have two primary economic functions: store of value and means of payments. These functions create demands for various types of crypto assets, from first-generation to stablecoins. Financial institutions might get exposed directly or indirectly if they engage in crypto-related activities. Negative developments in crypto assets can undermine confidence in the financial system and regulators. Credibility in crypto markets themselves may suffer due to price manipulation, cyber incidents, or governance issues. Such loss of credibility could limit the usefulness of crypto assets for large-scale transactions and create spillover effects.

The transmission channels identified for stablecoin risks are as follows:

Bank Disintermediation. This scenario can occur, for example, when market fluctuations lead to an amplified confidence in stablecoins. Users may respond by increasing their holdings of stablecoins, potentially challenging the traditional banking model, as they shift assets away from traditional bank deposits into stablecoins. The influx of assets towards stablecoins represents a transmission channel for risk that may end up causing bank disintermediation. Additional complexities may arise when financial institutions become more involved in the stablecoin ecosystem, either as issuers or custodians.

Currency substitution. This scenario is more likely to occur within the context of an EME, particularly in one with unstable domestic currencies, where the adoption of stablecoins as an alternative currency can lead to a currency substitution. During periods of economic stress or currency devaluation, users may opt for stablecoins, especially those pegged to more reliable fiat currencies. This shift in preference can impact the use of domestic currencies and influence exchange rate dynamics, presenting risks to the local financial system, potentially triggering the need for interventions from the central bank and the supervisory agency.

Financial Intermediaries. Stablecoin usage by financial intermediaries, such as banks and payment processors, can affect liquidity conditions in the financial system and transmission mechanisms for monetary policy.

Market Dynamics. Changes in market sentiment, demand for stablecoins, or actions by market participants can quickly transmit risks throughout the ecosystem. Similarly, changes in stablecoin demand and usage relative to central bank currency can impact exchange rates, interest rates, and broader financial market conditions, affecting monetary policy effectiveness and financial stability.

Interconnectedness. Stablecoins are often used as a means of transferring value between different cryptocurrency exchanges or platforms. Disruptions or risks within these platforms can propagate through the network, potentially affecting the stability and functionality of the entire ecosystem.

Regulatory Actions. Regulatory actions targeting stablecoin issuers or exchanges can have spillover effects on the entire stablecoin ecosystem, affecting liquidity, investor confidence, and market stability.

Technology Failures. Vulnerabilities or failures in the underlying blockchain technology or smart contracts can lead to widespread disruptions and loss of funds across the stablecoin ecosystem.

Financial Contagion. If a major stablecoin issuer or platform experiences problems, it could trigger a loss of confidence in other stablecoins or related services, leading to contagion effects throughout the market.

Public Perception and Confidence. Shifts in public perception and confidence regarding the reliability, stability, and utility of stablecoins compared to central bank currency can influence adoption

rates and market dynamics, impacting monetary control and central bank policy effectiveness. The rationale behind these risks can be listed as follows:

- First, a financial stability risk emerges.
- That risk propagates through a specific transmission channel.
- Risks catalysts amplify the effects of the initial shock throughout the economy.

These points are more easily understood, as depicted in Figure 3.

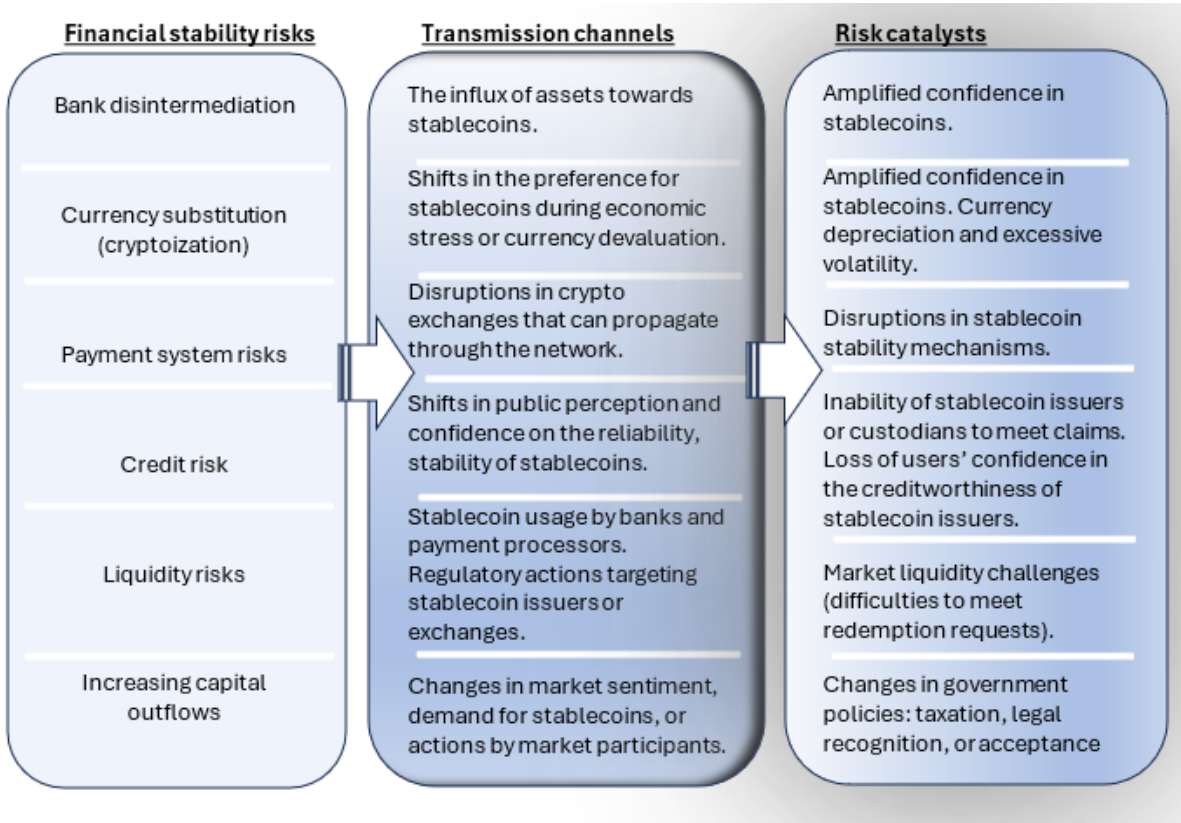


Figure 3: Financial Stability Risks. Source: Author's own

1.2 Legal and Regulatory Risks. Stablecoins introduce a set of legal and regulatory challenges that have the potential to jeopardize a nation's financial integrity and compliance with anti-money laundering (AML) regulations. Striking the right balance between user privacy and regulatory requirements is a complex task. Stablecoin issuers must adhere to AML and know your customer (KYC) regulations, which can be both intricate and costly to implement.

1.2.1 Money Laundering and Counter-Terrorism Financing. The trade of stablecoins often necessitates the sharing of personal information. The challenge lies in striking a balance between user privacy concerns and regulatory requirements. Users may be hesitant to share personal data due to privacy and security concerns, while regulatory authorities aim to collect sufficient information to combat illicit activities like money laundering and terrorism financing. To reconcile these interests, innovative solutions, such as tokenization and data vaults, must be considered to securely store personal information and protect users' identities [59].

Stablecoin issuers may need to adhere to anti-money laundering (AML) and know your customer (KYC) regulations, which can be complex and costly to implement. In this regard, the role played by international standard-setting bodies (e.g., FSB, BIS) will be key to lessen the effects of ML and FT on economic activities. Any action in this line may require agreements for information sharing and cooperation between supervisory agencies of different jurisdictions. These agreements should

be accompanied by clear rules (policies) for data management. The mitigation of money laundering risk at the global level could be achieved by implementing the travel rule, which is currently overlooked in most jurisdictions. This rule states that virtual asset service providers must obtain, hold, and exchange information about the originators and beneficiaries of virtual assets transfers [42].

1.2.2 Regulatory and tax regime differentiation. Different regulatory frameworks across countries may lead to a regulatory arbitrage or a dilution of regulation [2]. Likewise, the lack of international cooperation in tax regimes may incentivize avoidance and elusion. Cross country initiatives to harmonize crypto assets regulation like the one being studied in the European Union (Markets in Crypto assets regulation –MiCA–) would allow to avoid this type of situations.

2. Operational Risks. Several operational aspects of stablecoins influence the risks they pose in EMEs.

2.1 Interoperability as an Operational Risk. The lack of interoperability between different stablecoins can lead to the fragmentation of private payment solutions. This creates operational risks and the emergence of “walled gardens” where user flexibility is restricted, posing challenges for seamless financial interactions. This concept refers to a situation where only few players have access to user’s transaction data [13].

2.2 Smart Contract Failures as an Operational Risk. Stablecoins built on blockchain platforms rely on smart contracts. These contracts can be vulnerable to bugs or coding errors, leading to the loss of funds or instability. Such operational risks can disrupt the smooth functioning of stablecoins.

3. Other Risks.

3.1 Redemption Risk. The stability of stablecoins is closely tied to the value of their reference assets. Fluctuations in these assets can lead to redemption risks, where the assets backing stablecoins may become insufficient to maintain their peg to the underlying reserve assets¹³. If the value of the basket of reference assets is above or equal to the value of the stablecoin, they can be redeemed at par (1:1). This is precisely the idea behind these digital assets, which were designed to allow their users to redeem their holdings at par to the referenced official currency. However, in practice, stablecoins’ redemptions depend on the reserve valuation, but they may also depend on limits or minimum thresholds established by their issuers. This particularity explains the existence of stablecoins unredeemable balances [19].

While this is how the stablecoins redemption works in theory, in practice, the rule of redeeming at par does not always maintain a perfect 1:1 peg with the underlying assets, leading to fluctuations in their value. These fluctuations can give rise to redemption risk, defined as the risk that reserve assets are insufficient to allow stablecoins to be redeemable for their peg value [7].

3.2 Concentration Risk. The concentration of economic power in a limited number of stablecoin issuers and wallet providers creates concentration risk. This can result in the lack of interoperability and system fragmentation [13], impacting user experience and potentially leading to systemic vulnerabilities. To tackle this issue, regulatory authorities can introduce standards to promote interoperability among stablecoin issuers [46].

3.3 Financial Crime and Cyber Risks. Just like other digital payment infrastructures, stablecoins are susceptible to financial crime and cybersecurity threats. These risks are primarily linked to the technological uncertainty, which can lead to cybersecurity issues, security of information issues, and risks inherent to any digital payment infrastructure [54]. Hacks and security breaches can lead to financial losses and erode user trust, creating operational challenges for the stablecoin ecosystem.

On data gaps:

The crypto assets market, particularly stablecoins, faces a critical challenge: data gaps. In [49] emphasize the necessity of addressing these gaps to unlock the full potential of stablecoin usage. While transaction information is available, crucial details remain undisclosed by stablecoin issuers. This lack of transparency not only poses

¹³A different stabilization mechanism operates in the case of algorithmic stablecoins, which are based on matching the supply and demand in order to maintain a stable value. According to the [19], as regards regulatory purposes, algorithmic stablecoins should be treated as unbacked crypto assets.

risks for market stability but also hampers informed decision-making and effective policy development [14]. As these gaps persist, the risk of market disruptions and financial instability looms large, underscoring the urgent need for regulatory oversight [6]. However, navigating these challenges requires a nuanced approach tailored to each jurisdiction’s regulatory landscape. This subsection explores how data gaps act as risk catalysts, potentially amplifying market shocks and undermining investor confidence, with ramifications extending beyond the crypto market to the broader financial system.

According to the study by [49], understanding and addressing data gaps in the crypto assets market, especially concerning stablecoins, is crucial for realizing the potential benefits of stablecoin usage. While transaction information is available from commercial data providers and stablecoin websites, the authors argue that more detailed data are necessary to fully grasp stablecoin usage patterns. They highlight the challenge of obtaining actual usage data, as stablecoin issuers typically do not publicly disclose such information.

As suggested by the authors, the lack of transparency and increased uncertainty resulting from data gaps could be understood as potential risk factors for stablecoin markets. Data gaps concerning stablecoins’ reserves, issuance, and governance mechanisms erode transparency and trust in the stablecoin ecosystem. Moreover, uncertainty regarding stability, reliability, and regulatory compliance exacerbates the risk environment, particularly in jurisdictions where crypto assets are not yet regulated.

As per the authors, one could infer these data gaps not only hinder authorities’ ability to make informed decisions and develop evidence-based policies but also pose challenges for intervention in the event of a run or loss-of-confidence events that may harm consumers. Therefore, the prevalence of data gaps makes it challenging to assess risk exposures, monitor market developments, and implement effective risk management strategies, especially in unregulated environments where formal rules for managing crypto asset risks are lacking.

Furthermore, there is a dual aspect of risk factors acting as risk catalysts, as previously highlighted. In other words, a risk factor can be understood as a risk catalyst depending on the context and situation being analyzed. From [49], one could suggest that data gaps become particularly relevant as risk catalysts in the context of market shocks or adverse events in the stablecoin ecosystem. In unregulated markets, for example, difficulties faced by stablecoin issuers can hinder timely governmental responses, exacerbating investor concerns and potentially triggering widespread panic or sell-offs. Additionally, regulators and policymakers may feel compelled to implement forceful interventions in stablecoin markets where data gaps are prevalent to address anticipated vulnerabilities or risks, especially their materialization in the economy.

Given these considerations, regulatory oversight becomes paramount for promoting stability, resilience, and trust in the stablecoin market [45]. However, the approach to regulation may vary depending on the country and the stance of its regulatory authorities towards cryptocurrencies.

Embedded in these ideas are the potential transmission channels where risks stemming from data gaps can propagate and affect relevant stakeholders and participants, as well as the financial system. For instance, data gaps may prompt financial and monetary authorities’ intervention in stablecoin markets to assess and mitigate expected or unexpected risks to enhance transparency and investor protection. Such interventions, through means like higher disclosure requirements or oversight mechanisms, can influence market dynamics. Moreover, insufficient and untraceable data on crypto asset transactions can facilitate the propagation and materialization of several risks within the stablecoin ecosystem, affecting market confidence and stability. On the one hand, investors may face difficulties assessing stablecoin issuers’ creditworthiness, impacting demand and withdrawal decisions.

On the other hand, failures by stablecoin issuers to assess financial health or maintain reserves could erode investor trust, especially in jurisdictions with prevalent data gaps. In an unlikely scenario, widespread loss of confidence in stablecoins, particularly in jurisdictions with data gaps, could disrupt payment systems, causing liquidity shortages and broader financial instability. Such failures in stablecoin markets could potentially spill over to other segments of the cryptocurrency market or the broader financial system, depending on the interconnectedness between traditional financial and crypto markets.

In the rapidly evolving landscape of digital assets and the growing prominence of stablecoins, a comprehensive understanding of the risks associated with their adoption is paramount. This analysis has delved into the multiple facets of stablecoin risks, including their risk factors, and transmission channels, particularly within the context of Emerging Market Economies. Mitigating these risks requires a nuanced approach, combining robust regulation, international cooperation, and innovative solutions. Furthermore, addressing risk factors involves implementing preventive measures to reduce vulnerabilities, while managing risk catalysts necessitates proactive risk management practices to mitigate their impact on stablecoin ecosystems. As the digital asset landscape continues to evolve, ongoing refinements of risk assessments are imperative to address emerging challenges and opportunities. An

informed and proactive approach is essential to navigate the complex terrain of stablecoin adoption and regulation in the context of EMEs and beyond.

5 Regulatory challenges and potential responses

5.1 Major challenges

Stablecoins pose several regulatory challenges, which can vary depending on the specific design and usage of the stablecoin. For instance, regulators may struggle when trying to determine their legal status (i.e. whether to categorize them as securities, commodities, currencies, or something else entirely). The diversity of actors in the ecosystem may introduce additional complexity when trying to determine the addressees of the different requirements, as well as the relevant authorities. Furthermore, the fact that they can operate across borders makes it particularly difficult for individual regulators to assert control. Finally, ensuring that stablecoin transactions comply with AML and KYC regulations can also be challenging, especially when transactions are conducted across borders.

Striking a balance between fostering innovation and maintaining financial stability is essential. Regulatory challenges associated with stablecoins require a nuanced and adaptable approach. Collaboration between regulators across sectors, industry participants, and other stakeholders, both at national and international level, is crucial to address these challenges effectively while fostering innovation in the crypto asset space. Regulations should be designed to protect consumers, maintain financial stability, and ensure compliance with existing laws while also allowing room for responsible innovation.

Identifying the appropriate entry points for regulation in the stablecoin ecosystem is essential to achieve effective results. For instance, stablecoin issuers could be required to register as financial institutions or obtain licenses to operate, disclosure of issuer information and reporting requirements could be established, and the management of reserves backing stablecoins could be regulated to ensure transparency and solvency (e.g. by establishing minimum reserve requirements and require regular audits by independent third parties).

The specific entry points for regulation may vary by jurisdiction and depend on the unique characteristics of stablecoins in that region. It is crucial for regulators to engage with industry stakeholders, conduct thorough risk assessments, and adapt regulations as the stablecoin ecosystem evolves. This adaptive approach can help strike the right balance between fostering innovation and safeguarding financial stability and consumer protection on an ongoing basis.

Box 4 – Cross-sectoral regulation and its importance

Cross-sectoral regulation refers to the coordination and collaboration of regulatory bodies across different sectors and industries to address complex issues that span multiple domains. In the context of stablecoins, cross-sectoral regulation is of paramount importance due to the diverse and interconnected nature of the stablecoin ecosystem.

Firstly, stablecoins can have systemic implications for the broader financial system. To mitigate these risks, the different financial regulators must collaborate to establish safeguards, such as reserve requirements, capital buffers, and risk management standards, as well as consumer protection measures (e.g. disclosure requirements, dispute resolutions).

Furthermore, the fact that stablecoins operate at the intersection of finance, technology, and crypto assets creates the need to obtain input and expertise from multiple regulatory bodies, including, not only financial regulators, but also technology authorities, and consumer protection agencies. For example, money laundering and terrorist financing risks associated with stablecoins necessitate cooperation with law enforcement agencies, as other financial activities, but also technology and cybersecurity experts. Data privacy issues in the stablecoin domain also raise the need for cooperation with data protection authorities. Cross-sectoral regulation ensures that all relevant aspects are considered.

Finally, regulators from different sectors can also work together to provide educational resources and outreach programs to inform the public and industry stakeholders about the risks and benefits of stablecoins.

In conclusion, stablecoins are a complex and multifaceted financial innovation that demand a holistic approach to regulation. Cross-sectoral regulation brings together the expertise of various regulatory bodies to ensure that the stablecoin ecosystem operates safely, transparently, and in compliance with relevant laws. Effective cross-sectoral collaboration is essential for achieving these goals and maintaining the stability and

Regional Experience

In general, there are no specific regulatory frameworks on crypto assets and stablecoins in the jurisdictions covered by the survey, with Brazil (Law 14, 478 establishing rules for virtual asset providers) and Spain (AML regulation, Securities Market Law and European Markets in Crypto Assets Regulation) being the exception. Nevertheless, there are ongoing efforts to regulate them in other countries (Colombia, Trinidad and Tobago, Uruguay).

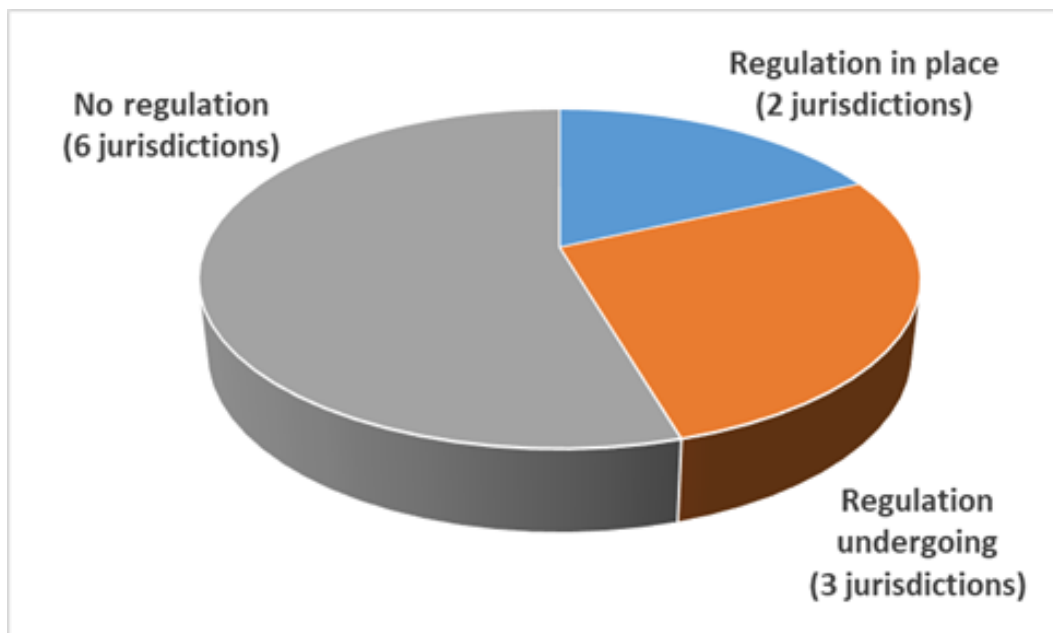


Figure 4: Regulatory frameworks on crypto assets and stablecoins in the region. Source: Author's own

Despite the lack of specific regulation, there is an understanding in certain jurisdictions (Brazil, Jamaica, Spain, Uruguay) that activities conducted with stablecoins that resemble financial activities/assets (e.g. electronic money, security, deposit) could fall under existing regulation. In the case of Uruguay, this conceptual framework for the regulatory treatment of crypto assets has been communicated to the public. The Securities Commission in Brazil has also issued a Guiding Opinion, in October 2022, defining which virtual assets are considered securities. Finally, in certain countries (Colombia, Costa Rica, Ecuador), there is clarity as regards the fact that stablecoins cannot be attributed the rank of money.

In conclusion, although some efforts have been observed in the regulatory/guidance area, at the time of the survey most countries lack a specific legal framework and/or guidance related to the regulatory treatment of stablecoins.

In contrast, communication efforts to the public about the risks have been abundant, with all countries issuing some sort of warning. Nevertheless, it should be noted that these warnings have addressed, in all countries, crypto assets in general, with no stablecoin-specific public release been issued so far. In addition to explaining the risks, these communications have focused on clarifying that they are not considered legal tender, they are not backed by the central bank, they are not supervised or regulated and lack appropriate consumer protection arrangements.

5.2 Potential responses - International experience¹⁴

Given the cross-border nature of stablecoins, the work of international financial standard-setting bodies is particularly relevant. In recent years, these organizations have coordinated various lines of work aimed at promoting a coherent approach in the regulation and supervision of these assets.

¹⁴This subsection has been drafted using the publicly available information up to September 2023.

Their actions have been guided by the general principle of trying to find a balance between not undermining the opportunities that financial innovation can lead to and ensuring that the necessary measures are put in place to avoid, or minimise, the risks that this type of new financial product poses. They have also followed the principle of “same activity, same risk, same regulation”, which advocates that, if an activity related to crypto assets performs an economic function equivalent to another in the traditional financial system, it must also be subject to equivalent regulation.

This work has resulted in the adoption of a series of agreements and standards some of which, as described below, are relevant for stablecoins while also being more directly related to the competences of central banks (specifically, those developed in the areas of the FSB, BCBS, CPMI-IOSCO and FATF).

In parallel to the work carried out by these international organizations, some domestic regulatory authorities have made progress in drafting rules applicable to issuers or service providers related to stablecoins (e.g. EU, UK and Japan). These initiatives -from the angle of what may be relevant for the addressees of this report- as well as a general overview of the regulatory developments in the U.S. in this field are summarized below¹⁵.

5.2.1 International Standard Setting Bodies

a. The Financial Stability Board (FSB).

Focusing mainly on mitigating potential risks to financial stability, the FSB published, in July 2023, the final version¹⁶ of its regulatory framework for crypto asset-related activities. This framework comprises two sets of high-level recommendations on the regulation and supervision of: (1) crypto asset activities and markets [33], and (2) global stablecoin arrangements (GSC)¹⁷. This differentiation hinges on the assumption that stablecoins that are likely to be used as a means of payment and/or store of value in multiple jurisdictions may present particular financial stability risks.

These recommendations are inspired by the principles of: (i) “same activity, same risk, same regulation”; (ii) sufficient flexibility for national authorities to implement them on account of local specificities; and (iii) technological neutrality.

Additionally, the recommendations for GSCs address aspects such as:

- (a) the need to have recovery and resolution plans (included, in the case of crypto assets, in the risk management recommendations);
- (b) that regulatory and supervisory requirements are fulfilled before starting operations (included, in the case of crypto assets, in the powers of the authorities’ recommendations);
- (c) specific features of stablecoins: (i) redemption rights (providing the user with a clear legal claim against the issuer and/or reserve assets, at par if it is a GSC referenced to a single fiat currency); (ii) the need for an stabilization mechanism (which does not rely on algorithms and that, in the case of being based on reserve assets, complies with requirements in relation to its composition and custody); and (iii) the need to apply prudential requirements to ensure the effectiveness of the stabilization mechanism, loss absorption and liquidity to meet repayments²⁴.

¹⁵A wider analysis of policy measures adopted in 19 jurisdictions in the field of crypto assets up to March 2023 can be found in [39].

¹⁶In October 2022, the FSB published prior versions for public consultation until December 2022. The results of the public consultation are summarized in [32].

¹⁷[34]. This document is an update of the recommendations published by the FSB in October 2020.

¹⁸This regulatory framework served as input for the publication, in September 2023, of a joint document by the FSB and the IMF [38] that, in response to a mandate from the Indian presidency of the G20, summarises the recommendations that each of these international organizations has made in the field of crypto assets to tackle the financial stability (FSB) and macroeconomic [44] risks posed by them and describes how the two sets of recommendations interact. It does not set new recommendations or expectations.

¹⁹In the case of GSC, it specifies that those powers should allow for the prohibition of services related to them, if necessary, and that the application of the authorities’ powers should be proportionate to the risks and complexity of the GSC.

²⁰Including through segregation and record-keeping requirements that minimizes the risk of loss, misuse or delay in access to assets.

²¹That is, the objective of the mechanism, its structure, participants, as well as confidentiality and legal restrictions.

²²For the case of GSCs authorities should require that the issuance be governed and operated by one or more identifiable legal entities. Also, if the GSCs rely on third parties, the governing body must evaluate and disclose how this does not hinder their compliance with the regulation.

²³In the case of GSCs, particular emphasis is placed on operational, cybersecurity, and anti-money laundering safeguards. Also, there is the need to have tools to deal with large reimbursement requests.

²⁴In turn, the general recommendations for crypto assets contain one specifically dedicated to the monitoring of the interconnections

Table 2: Main aspects covered by both sets of FSB recommendations¹⁸

(a)	The assignment to authorities of adequate powers and tools to regulate and supervise crypto asset activities and markets, including GSC ¹⁹ , and to enforce regulations in this regard.
(b)	The deployment of crypto asset regulation and supervision on a functional basis , proportionally to the financial stability risks. In the case of GSCs, authorities must also require an adequate safeguard of the assets, keys, and property rights of customers ²⁰ .
(c)	The collaboration between authorities both at national and international levels to foster communication and information sharing and to encourage consistency in regulation and supervision. For GSCs, specific considerations for the design ²¹ of the cooperation mechanism are suggested.
(d)	The requirement that crypto asset issuers and service providers have and disclose governance frameworks with clear and defined lines of responsibility and accountability, proportionate to the risk and complexity of the activity (including procedures for identifying and managing conflicts of interest) ²² .
(e)	The requirement that crypto asset service providers have comprehensive risk management frameworks that are proportionate to the risks and complexity of the activity they carry out. These should include, among other things, business continuity plans and anti-money laundering measures, and in the event that they are involved in asset custody, protect customers' property rights ²³ .
(f)	The requirement that crypto asset issuers and service providers have robust frameworks for collecting, storing, and transmitting data , commensurate with their risks and complexity, and that authorities can have access to such data to fulfill their mandates.
(g)	The requirement that crypto asset issuers and service providers disclose to users and stakeholders clear information about their governance framework, operations, risk profile, financial conditions, and products and activities and, in the case of GSCs, aspects related to redemption rights, the stabilization mechanism, the amount in circulation, and the value and composition of reserve assets, among others.

Also included in the recommendations for GSCs is an appendix that describes the elements that could be taken into account when determining whether a stablecoin is a GSC (number of users, number of transactions, number of jurisdictions in which it circulates, value of reserve assets, etc.).

In 2025, the FSB will conduct a review of the status of implementation of these recommendations²⁵.

b. The Basel Committee on Banking Supervision (BCBS).

With a focus on ensuring that banks that take on exposures to crypto assets have sufficient minimum own funds to deal with the set of risks that these assets pose, the BCBS published, in December 2022, the final version of its framework for the prudential treatment of crypto assets exposures [7], which has an implementation date of January 1, 2025. Under this prudential framework, banks²⁶ must classify crypto assets into two groups (Group 1 and Group 2), based on whether they fully meet a series of conditions or not. If they do not meet them (Group 2), they are considered to be riskier than those which do (Group 1) and, therefore, are subject to a more conservative prudential treatment²⁷.

One of the conditions that must be met to be classified in Group 1 has to do with the very nature of the crypto asset. As a result only traditional tokenized assets (Group 1a) or stablecoins with an effective stabilization mechanism at all times (Group 1b)²⁸ fall within this category. The latter stablecoins, must have been issued by a regulated and supervised entity subject to capital and liquidity requirements and also pass the so-called “redemption risk test”²⁹, among other requirements.

The classification within Group 1 also requires compliance with other conditions such as the clear definition and legal enforceability of the rights and obligations related to the crypto asset, the existence of mechanisms that manage and mitigate the risks associated with the network on which the crypto asset operates, and the application of regulation, or appropriate risk management standards to the entities providing the main functions (redemption, transfer, storage, etc.). Stablecoins and tokenized traditional assets that do not meet the above conditions would fall within Group 2, along with all unbacked crypto assets³⁰.

The framework is complemented by a number of other key elements³¹. One of the most relevant for stablecoins is an add-on to risk-weighted assets (RWA) to cover infrastructure risk for Group 1 crypto assets (which authorities can trigger if they see weaknesses in such infrastructure, e.g. a DLT).

As part of the monitoring of the implementation of this framework, the BCBS will pay particular attention to certain issues which, if recommended by future work and analysis, could be modified.

As set out in the BCBS work plan for 2023-2024, the Committee continues to work on assessing bank-related developments in the crypto asset markets, including the role of banks as stablecoin issuers or crypto asset custodians and the interconnections between the traditional banking system and the crypto asset ecosystem³².

between the crypto asset ecosystem and the wider financial system and another one related to crypto asset providers with multiple functions (none of these two recommendations appear to have a clear direct matching with any of the specific recommendations for GSC but, as all the general recommendations for crypto assets, are applicable to GSC).

²⁵After the cut-off date for the information of this report, the FSB published a paper [35] where it describes the key characteristics of these intermediaries, it assesses their financial stability risks and it presents implications for policy consideration, such as assessing whether the risks identified are adequately covered by the FSB and standard-setters’ recommendations described in this report and considering ways to address information gaps and to enhance cross-border cooperation.

²⁶Banks must inform supervisory authorities their classification decisions. Supervisors have the power to override such decisions if they do not agree with them.

²⁷A more detailed description of the BCBS framework for the prudential treatment of crypto asset exposures can be found in [3] A.

²⁸Algorithm-based stablecoins would not satisfy this condition.

²⁹The objective of this test is to ensure that the reserve assets are sufficient to allow the crypto assets to be redeemable at all times for the peg value, for which a number of requirements related to the value, composition, quality and management of those reserve assets must be met.

³⁰Depending on whether certain hedging recognition criteria are met or not, these crypto assets would, in turn, be classified in Group 2a or Group 2b. The prudential treatment applicable to those in Group 2b is more conservative.

³¹Non exhaustively, it can be pointed out that there is also a limit to Group 2 crypto asset exposures, as well as disclosure requirements and indications on how to apply the requirements for operational risk, liquidity risk, leverage risk and large exposures to crypto asset exposures. Additionally, together with quantitative requirements, there are requisites related to risk management and the supervisory review.

³²After the cut-off date for the information in this report, the BCBS published: (i) a consultative document for comments until the 31st January 2024 on the “Disclosure of crypto asset exposures” (October 2023); (ii) a consultative document titled “Crypto asset standard amendments” (December 2023), for comments until the 28th March 2024, on proposed amendments to its standard on banks’ exposures to crypto assets.

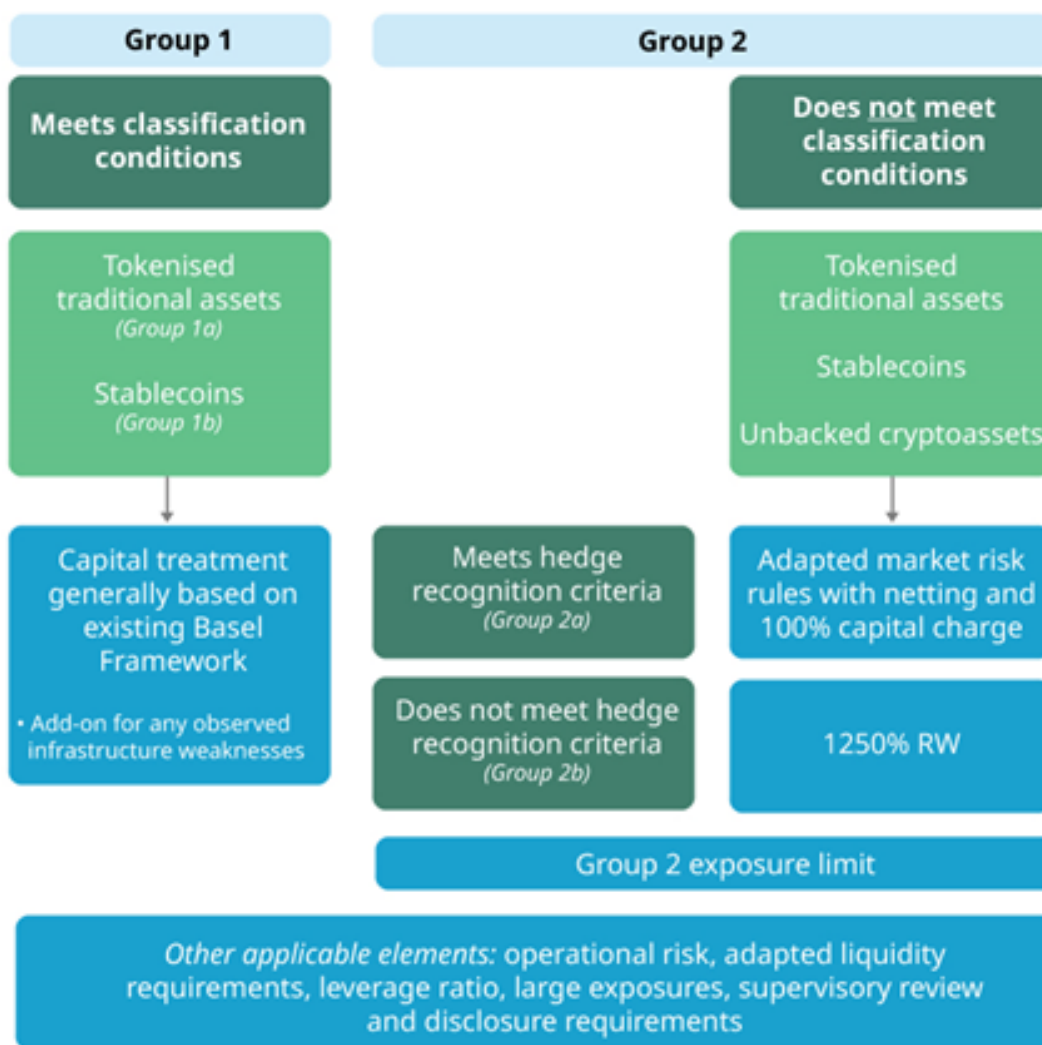


Figure 5: High-level overview of the BCBS's prudential treatment of crypto asset exposures. Source: BIS website (2023)

c. **The Committee on Payments and Market Infrastructures and the International Organization of Securities Commissions (CPMI/IOSCO)**³³

In July 2022, the CPMI and IOSCO jointly published their guidance [16] on how to interpret the “Principles for Financial Market Infrastructures” (PFMIs) to accommodate systemically important stablecoin arrangements (SA)³⁴. This guidance does not lay out additional standards but rather seeks to provide more clarity on how these arrangements should proceed in complying with the PFMIs.

In particular, the transfer function of an SA is viewed as similar to the transfer function performed by other types of financial market infrastructures. Therefore, an SA performing that function should be considered as a financial market infrastructure for the purposes of the application of PFMIs. If, it further classifies as systemically important, the SA as a whole should comply with all the relevant principles.

The document provides a series of considerations to guide authorities in determining whether an SA is systemic (size, risk profile, interconnections, and substitutability), as well as guidance to help SAs when seeking to observe the PFMIs, in particular as regards those that are more directly related to the differential characteristics of those arrangements in comparison to traditional financial market infrastructures.

These differential characteristics have to do with: (i) the use of settlement assets that are neither central bank nor commercial bank money; (ii) the multiple interdependent functions performed by an SA; (iii) the degree of decentralization of operations and governance; and (iv) the use of DLT technologies.

In line with the above, the CPMI and IOSCO develop in their joint guidelines aspects related to Principles 2 (governance), 3 (framework for the comprehensive management of risks), 8 (settlement finality) and 9 (money settlements)³⁵.

d. **The Financial Action Task Force (FATF)**³⁶

In the field of anti-money laundering and counter-terrorist financing (AML/CTF), so-called virtual assets (VAs)³⁷ and related service providers (VASPs) were incorporated in the FATF standards³⁸ in 2018.

Broadly speaking, national authorities are called to assess and mitigate the AML/CFT risks of financial activities around virtual assets, to establish a regulatory regime for VASPs, to require a license or registration for the exercise of their activity, to supervise the sector, and to have sanctioning tools in case of non-compliance with the requirements in relation to the AML/CFT. In addition, preventive measures are imposed on VASPs (due diligence, reporting of suspicious transactions, etc.) including the need to securely transmit the information of the originator and the beneficiary when making transfers of these VAs (what is known as the Travel Rule).

The standards are complemented by FATF guidance, originally published in 2019 and updated in 2021, on how to adopt a risk-based approach when implementing them [22]. This guidance seeks to assist national authorities in developing regulatory responses in relation to VAs/VASPs and to guide private sector entities wishing to engage in activities around these assets in understanding their obligations under AML-CFT.

The 2021 update clarifies, among other things, how to apply FATF standards to stablecoins, reaffirming messages previously addressed in the 2020 FATF to the G20 on stablecoins [23] (e.g. the fact that this type of assets, in addition to sharing potential AML/CFT risks with other VAs, are exposed to particular risks, such as mass-adoption).

Furthermore, it is recalled that stablecoins are covered by the FATF standards, either as a VA or as a financial instrument. The guidance also reviews the entities that may be involved in a stablecoin arrangement (central

³³In the field of securities markets, IOSCO has also been intensely working on crypto-asset-related issues. Being this document focused on the initiatives more directly related to central banks' competences, IOSCO's work has not been described here.

³⁴The guidance does not cover aspects specific to multicurrency stablecoins (i.e. pegged to a basket of fiat currencies). It is foreseen that this will be covered in future works.

³⁵After the cut-off date for the information of this report, the CPMI published a document [15], which discusses features of these arrangements that are relevant regarding cross-border payments, highlights challenges, analyzes potential interactions with other payment methods and evaluates potential implications on monetary policy, financial stability and payment functions of central banks.

³⁶For a comprehensive view of FATF's work on virtual assets, see Table 1.1 of [21].

³⁷FATF defines “virtual asset” (VA) as a digital representation of value that can be digitally traded or transferred, and used for payment or investment purposes, and that does not include digital representations of fiat currencies, securities and other financial assets that are already covered elsewhere in the FATF Recommendations.

³⁸FATF Standards [24] were adopted by its Plenary in February 2012. Since then, they are regularly updated. The content related to VA can be found in Rec. 15 (updated in October 2018) and in the INR.15 (adopted in June 2019).

Table 3: Main aspects to consider when applying certain PFMI to systemically important SAs

<p>Principle 2 (governance)</p>	<p>A systemically important SA should consider how:</p> <ul style="list-style-type: none"> • its ownership structure and operation allow for clear lines of responsibility, • its governance allows for timely human intervention when needed, and • its ownership structure and operation allow the relevant Principles to be met.
<p>Principle 3 (framework for the comprehensive management of risks)</p>	<p>A systemically important SA should:</p> <ul style="list-style-type: none"> • regularly review the risks that the financial market infrastructure function bears from, or poses to, other functions, and • develop risk management frameworks and tools to address those risks.
<p>Principle 8 (settlement finality)</p>	<p>A systemically important SA should provide clear and certain final settlement, and at a minimum by the end of the value date (where necessary or preferable, intraday or on a real-time basis).</p> <ul style="list-style-type: none"> • clearly define the moment at which a stablecoin transfer becomes irrevocable and unconditional, • ensure that there is a clear legal basis that acknowledges the finality of the transfer, • have mechanisms in place to avoid a misalignment between the state of the ledger and legal finality, and • ensure that, once legal finality has been reached, it is maintained regardless of the state of the ledger.
<p>Principle 9 (money settlements)</p>	<p>If the systemically important SA is used for money settlements it must have zero or very little credit or liquidity risk.</p> <ul style="list-style-type: none"> • Furthermore, when assessing the risks, aspects that should be taken into account include to what extent users have a claim on the issuer and/or reserve assets to convert the stablecoin at par (as soon as possible, at minimum at the end of the day and, ideally, intraday) in liquid assets and if robust procedures are in place to meet user requests under normal and stressful conditions. • Additional details are provided for conducting this assessment.

governance body, exchange, custodial wallet services, etc.) and clarifies the extent to which they can be considered under the scope of the standards³⁹. It is noted, however, that a case-by-case analysis should be carried out.

In any case, the AML/CFT risks of stablecoins need to be analyzed on an ongoing basis and, in the development of new products, obliged entities have to assess such risks and implement mitigation measures prior to launch. Authorities should examine such mitigants both before granting a license and in their ongoing supervision. They will also need to pay particular attention to cases where it is argued that no stablecoin-related entity qualifying as VASP exists to comply with AML/CFT standards. Especially in the pre-launch phase, the guidance considers that it is unlikely that the creation process can be automated.

The potential for a stablecoin to be widely used is also mentioned as a relevant factor to be considered in the licensing or registration process. And it is indicated that stablecoins should be supervised in the same way as other VAs or financial assets, depending on the category in which each case falls, and that, given the cross-border nature of VAs, international cooperation is very important.

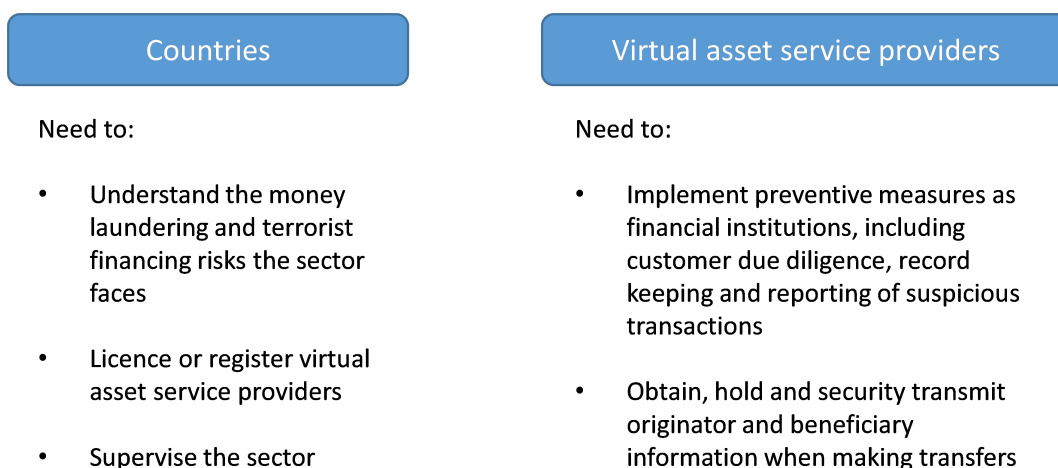


Figure 6: How do FATF Standards apply to Virtual Assets? Source: FATF website: <https://www.fatf-gafi.org/en/topics/virtual-assets.html>

In terms of the degree of compliance with FATF standards, the June 2023 monitoring exercise [21] reveals that about 75% of the jurisdictions assessed do not comply or only partially comply with the requirements and 73% are not conducting adequate risk assessments. With regard to the implementation of the Travel Rule, FATF considers that progress in its implementation is also insufficient⁴⁰. To promote improved compliance, a series of recommendations for the public sector⁴¹, for the private sector and for implementing the Travel Rule have been issued. Moreover, the FATF has also reflected on emerging risks (e.g. NFTs, DeFi, P2P transactions) which also covers briefly stablecoins. In particular, it is stated that mass adoption could lead to a reduction in the use of entities subject to compliance with AML/CFT standards to carry out transfers or custody of these assets.

5.2.2 Country/Regional specific approaches

a. European Union Regulation on Markets in Crypto assets (MiCA)⁴²

MiCA’s goal is to provide a common regulatory framework for those crypto assets that, until now, fell outside

³⁹Either as a VASP or as a financial entity.

⁴⁰After the date of the survey, the EU approved a regulatory framework on VASPs (MiCA) and implemented the Travel Rule. See section on MICA below.

⁴¹For example, jurisdictions that have not yet conducted an assessment of the risks posed by VAs/VASPs should carry it out, and all jurisdictions should monitor the VASP sector and take action in the event of non-compliance.

⁴²For further details, see [3].

the scope of the existing financial services regulations in the EU⁴³. As such, MiCA⁴⁴ lays down a number of relevant requirements on: (i) transparency and disclosure related to the issuance, offering to the public and admission of crypto assets to trading on a trading platform; (ii) the authorization and supervision of crypto asset service providers, issuers of asset-referenced tokens and issuers of electronic money tokens (explained below), as well as for their operation, organization and governance; (iii) the protection of holders of crypto assets and clients of crypto asset service providers; and (iv) the prevention of market abuse.

MiCA does not apply, among others, to NFTs (crypto assets that are unique and non-fungible with other crypto assets), CBDCs, and what is known as decentralized finance (DeFi), if provided in a truly decentralized manner. It does, however, cover a broad range of crypto assets, including so-called utility tokens⁴⁵.

MiCA pays particular attention to the regulation of crypto assets that purport to maintain a stable value, which are classified as (i) asset-referenced tokens (ARTs)⁴⁶ or (ii) electronic money tokens (EMTs)⁴⁷. In comparison to other crypto assets covered in the Regulation, ARTs and EMTs are subject to more stringent requirements as regards their offering to the public or seeking their admission to trading in the EU.

In particular, MiCA establishes that offerors to the public and persons seeking admission to trading of an ART in the EU must be the issuer of the ART and, in addition, be either (i) a legal person or company established in the EU and authorized by the competent authority, or (ii) a credit institution that meet a series of requirements⁴⁸. Issuers must meet a series of requirements in terms of own resources, sound governance arrangements, AML/CTF control mechanisms and procedures, business continuity policies, internal control mechanisms and risk management procedures, safeguarding the confidentiality of data, etc.

Chief to MiCA is that it mandates the drafting of a white paper prior to an ART launch which shall further be submitted for authorization. Refusal is possible where there is a serious threat to financial stability, smooth operation of the payment system, monetary policy transmission or monetary sovereignty. In addition, MiCA dictates rules on the compulsory endowment of reserve of assets, their custody and management (e.g. segregation, composition, valuation, regular independent audits) as well as on the rights of holders (redemption at all times, no interest, recovery plan) and how marketing communications should take place (e.g. fair, clear and consistent with the white paper).

Over and above, MiCA sets out a cap on the average number and average aggregated value of transactions per day associated to the use of an ART as a means of exchange. When reached, issuance should be stopped and a plan be submitted to the authority to remain below the threshold.

As regards EMTs, those who offer them to the public or seek their admission to trading in the EU must be the issuer and, in addition, be a credit institution or an electronic money institution. A white paper must be drafted and notified to the authorities prior to its publication. Holders of EMTs have a claim against the issuers with the right to redemption at any time, at par value, without fees and without granting interest. The drawing up and maintenance of a recovery and repayment plan is required. Marketing communications are subject to similar requirements than for ARTs and funds received in exchange of EMTs must be invested in accordance with policies laid out in MiCA⁴⁹.

Finally, MiCA regulates the activity of providing services related to crypto assets in the EU⁵⁰ by requiring

⁴³That is, those that could not be considered as securities, deposits, pension products or others.

⁴⁴Regulation (EU) 2023/1114 of the European Parliament and of the Council, of 31 May 2023, on markets in crypto assets, and amending Regulations (EU) No 1093/2010 and (EU) No 1095/2010 and Directives 2013/36/EU and (EU) 2019/1937.

⁴⁵Crypto assets used only to give access to a good or service provided by their issuer.

⁴⁶Non-EMT crypto assets intending to maintain a stable value by referencing another value or right or a combination thereof, including one or more official currencies.

⁴⁷Crypto assets that purport to maintain a stable value by referencing the value of an official currency.

⁴⁸Those requirements are described in Article 17 of MiCA and include, among others: drawing up a white paper, which shall be approved by the competent authority; notifying that authority, before issuing the ART for the first time, certain information on the business model, governance arrangements, etc.

⁴⁹a) at least 30 % of the funds received is always deposited in separate accounts in credit institutions; (b) the remaining funds received are invested in secure, low-risk assets (denominated in the same official currency as the one referenced by the EMT) that qualify as highly liquid financial instruments with minimal market risk, credit risk and concentration risk.

⁵⁰The list of regulated services includes: (i) the custody and administration of crypto assets on behalf of clients; (ii) the operation of a trading platform for crypto assets; (iii) the exchange of crypto assets for funds or other crypto assets; (iv) the execution of orders for crypto assets on behalf of clients; (v) the placing of crypto assets; (vi) the reception and transmission of orders for crypto assets on behalf of clients; (vii) the provision of advice; (viii) the provision of portfolio management; and (ix) the provision of transfer services for crypto assets on behalf of clients.

an authorization. If an institution is already licensed to provide financial services, a notification suffices⁵¹.

b. The United Kingdom

The UK has followed a sequential approach in its work to define the regulatory framework applicable to crypto assets. In this way, it has gradually expanded the existing regulatory perimeter, based on a continuous analysis of the emerging risks of these assets. As such, fiat-backed stablecoins have been prioritized over other stablecoins and crypto assets, given their potential to be widely used as means of payment.

In the absence of a specific regulatory regime, applicable regulations to crypto assets have been determined on a case-by-case basis: i.e. analysing whether the asset in question (and the related activities) fall within the regulatory perimeter defined in pre-existing financial regulations. To facilitate this analysis, the FCA published a guidance in July 2019 [25].

Since 2020, certain crypto asset related activities (exchange and custody wallet providers) have been subject, in general, to AML/CTF regulations in force. In 2023, the Financial Promotions regime was amended to incorporate certain crypto assets (called “qualifying crypto assets⁵²”) into it.

In June 2023, as part of a broader legislative amendment to the Financial Services and Markets Act the necessary foundations and authorizations were laid to be able to incorporate fiat-backed stablecoins used for payments (in particular, their issuance, custody and payment-related activities) into the regulatory perimeter. Other interesting aspects tackled by the legislation are those aimed at being able to define as systemic certain payment systems or service providers related to digital assets which are used to settle payments (“digital settlement assets⁵³”).

In the near future, a series of new regulated activities will be defined and tailored to the features of crypto assets, yet comparable to regulated ones as regards traditional financial services (e.g. admission to a crypto asset trading platform or public offer, exchange of crypto assets for fiat or other crypto assets, dealing in crypto assets as principal or agent, custody, etc.). Novel crypto asset activities would also be identified for which the pre-existing regulatory framework would not be an appropriate reference. Efforts will be place on those with a higher risk from a consumer and market perspective as well as those that offer the greatest growth opportunities to the UK. In February 2023, a document detailing the regulatory proposal was published for consultation [40].

Future phases will depend on developments in the market. The ultimate goal is to ensure that risks that are comparable to those in the field of traditional finance receive similar regulatory treatment⁵⁴.

c. Japan

Japan was one of the first countries to adopt crypto asset standards. In the period 2016-2020, it introduced some regulatory modifications (in the field of payments, financial instruments and AML-CTF), to incorporate provisions related to crypto asset exchange service providers, crypto asset derivatives transactions, and consumer protection (rules related to advertising, among others) [29]. In 2022 (with an effective date of June 2023), its Payment Services Act along with other Acts (Banking Act, Trust Business Act) were modified to address fiat-referenced stablecoins⁵⁵. Issuance of these stablecoins can only be done by banks, fund transfer service companies and trust companies. Issuers must comply with user protection (e.g. they must provide users with clear redemption rights) and ALM/CFT requirements.

Also regulated is the provision of intermediation services related to this type of stablecoin⁵⁶ (buying/selling, exchanging, intermediating, custody, transfer) in the sense that registration is made compulsory as well as compliance with requirements similar to those applicable to crypto asset exchange service providers. Among

⁵¹MiCA also contains provisions to prevent market abuse and regarding supervision powers. Further details can be found in [3].

⁵²A ‘qualifying crypto asset’ is: “any cryptographically secured digital representation of value or contractual rights that is transferable and fungible, but does not include crypto assets which meet the definition of electronic money or an existing controlled investment” [28].

⁵³“A digital settlement asset comprises only those crypto assets that can be used for the settlement of payments (and in fact covers assets other than crypto assets that can be used for the settlement of payments too)”. For further details, see [40]

⁵⁴After the cut-off date for information for this report, relevant developments took place, as the publication by the HM Treasury of their plans for the regulation of fiat-backed stablecoins and by FCA and the Bank of England of proposals for regulating stablecoins, for consultation until February 2024.

⁵⁵Tokens that are issued at a price linked to the value of one or more fiat currencies and secured its redemption at par.

⁵⁶“Electronic Payment Instrument Exchange Service Provider”, according to the term used in the Japanese regulatory framework.

others: (i) operate only with stablecoins that have clear rules on the transfer of rights, comply with anti-money laundering requirements and adequately protect the users' rights (such as the revocation of transactions and compensation for losses in the event of bankruptcy of the issuer or intermediary), and (ii) sign a contractual agreement with the issuer ensuring the sharing of liability for losses [30].

The financial regulations in Japan also provide regulatory coverage to: (i) the so-called security tokens⁵⁷ (which would be included under the Financial Instruments and Exchange Act), and (ii) the so-called "crypto assets"⁵⁸, in relation to which the Payment Services Act regulates the requirements of crypto asset service providers (that must be registered with the FSA and whose activities encompass the purchase/sale, brokerage, custody and management of crypto assets on behalf of a third party).

d. The United States of America

So far, there is no specific regulatory framework for crypto assets. The provision of related-products and services may fall under the scope of a wide range of federal (SEC, CFTC, FinCEN, OCC or FDIC, among others) and/or state authorities. In fact, large part of the effort made by the financial authorities in the U.S. has consisted of issuing guidance, interpretations or joint statements, carrying out public consultations and adopting enforcement measures.

In the specific area of stablecoins, the President's Working Group on Financial Markets (PWG), together with the OCC and the FDIC, published a report [55] in November 2021 urging Congress, to enact legislation to ensure that, when used as a means of payment, stablecoins are subject to a national prudential framework. Such a framework should address key prudential concerns, like the protection of users from mass withdrawals (it is suggested that stablecoin issuers are insured depository institutions subject to regulation and supervision) or the risks typical of payment systems (it is recommended that custodial wallet providers be subject to federal oversight and that providers of critical functions for stablecoins meet appropriate risk management standards).

Until the advent of this legislation, the PWG advocated for supervisory agencies to ensure compliance with existing legal obligations and recommended that the Financial Stability Oversight Council assessed whether it had actions within its reach to mitigate the risks identified (e.g., designating some of the activities associated with stablecoins as systemic).

In March 2022, the government issued an Executive Order on digital assets⁵⁹ (including stablecoins), outlining what the future national policy would be and prescribing a series of tasks with short deadlines. In September 2022, the Government issued a press release summarizing the conclusions and recommendations of the work carried out in response to the prescribed tasks⁶⁰.

As far as legislative activity is concerned, in recent years, several bills have been presented in the U.S. Congress which are related in some way to digital assets. Stablecoins have also been the specific object of attention in some cases⁶¹. According to some digital media, the Clarity for Payment Stablecoins Act, approved by the House Financial Services Committee in the summer of 2023 would represent, to that date, the one that had made the most progress on a congressional authorization of a stablecoin regulatory framework.

On the other hand, at the State level and non-exhaustively, it can be mentioned that the New York Department of Financial Services (DFS) published, in June 2022, a guide to emphasize certain general requirements applicable to U.S. dollar-backed stablecoins issued under its supervision⁶². These requirements focus on issues related to reserve assets (and redemption policies).

However, the DFS takes into account additional aspects before authorizing the issuance of a stablecoin, such as operational risks, consumer protection, anti-money laundering or technological considerations, among others.

⁵⁷ "Electronically recorded transferable rights", according to the term used in the Japanese regulatory framework.

⁵⁸ Understood as tokens that are neither stablecoins nor security tokens.

⁵⁹ For more information, see <https://www.whitehouse.gov/briefing-room/presidential-actions/2022/03/09/executive-order-on-ensuring-responsible-development-of-digital-assets/>

⁶⁰ For more information, see <https://www.whitehouse.gov/briefing-room/statements-releases/2022/09/16/fact-sheet-white-house-releases-first-ever-comprehensive-framework-for-responsible-development-of-digital-assets/>

⁶¹ For example, the so-called Stablecoin Transparency Act or the so-called Stablecoin Trust Act.

⁶² For more information, see https://www.dfs.ny.gov/reports_and_publications/press_releases/pr202206081

5.3 Main lessons to be drawn from the international regulatory experience

Stablecoin, and more broadly crypto asset regulation, is a gaining traction worldwide with notable efforts both at domestic/regional level and in the context of international standard setting bodies. To a large extent, such initiatives tend to follow the principle of “same activity, same risk, same regulation” by identifying when a crypto asset related activity can be assimilated to an equivalent economic function already existing in the traditional financial system. As a result, similar requirements are being issued and expected to be complied with taking into account the necessary proportionality.

When adopting their standards or recommendations, SSBs seem to place emphasis on a variety of topics as a reflection of the priority areas they are focused on. In general, requirements addressed to national financial authorities call for: (i) being proactive in performing an assessment of the risks related to crypto asset activities (including stablecoins) in their respective jurisdictions, (ii) fostering cooperation across authorities, (iii) extending existing principles and practices where applicable (e.g. the transfer function alike any financial market infrastructure), and (iv) standing ready to issue specific regulation.

Regarding the latter, a number of common themes arise such as requesting issuers and service providers of crypto assets: (i) to have and disclose governance frameworks, (ii) to design and deploy comprehensive risk management frameworks (covering, e.g. market, liquidity and AML-CFT risks as well as conflict of interests, business continuity plus orderly wind-down plans), (iii) to collect, store and share relevant data with the authorities, and (iv) to disclose to their customers clear and up-to-date information about the products and services they offer.

In addition, more specifically to stablecoins, international authorities cover different aspects such as: (i) establishing and maintaining a reserve of assets with an appropriately sound coverage in all circumstances, (ii) safekeeping of customer assets and funds, including by segregating ownership, (iii) applying prudent management and conscious choice of custodians, (iv) avoiding reliance on algorithms as stabilization mechanisms, (v) clarifying and underpinning user’s redemption rights (generally at par and at all times, against the issuer and/or against the underlying reserve).

National and/or regional regulatory initiatives aim at aligning with the previous considerations and other specific measures such as: (i) seeking previous licensing or registration of key players, (ii) applying prudential requirements with potential add-ons based on perceived underlying infrastructure risk, (iii) ruling out any possible remuneration, (iv) prescribing to act honestly, fairly and professionally in the best interest of their clients, (v) defining marketing and advertising practices, (vi) exercising supervision over those actors, (vii) entitling authorities with adequate sanctioning powers, (viii) ensuring an adequate control of outsourced tasks, (ix) expecting the availability of appropriate customer redress mechanisms.

6 Concluding Remarks

The presence of stablecoins in the LAC region is quite low for the time being. Nevertheless, market dynamics, the economic context and the potential that stablecoins could offer to revolutionize payment systems in the region could boost their adoption and rapidly shift this situation. Given the risks they can present in terms of consumer protection, AML and KYC compliance, market integrity or systemic risk, to name a few, the development of regulation or the setting up of other kind of measures may be considered by the central banks and/or other financial authorities in the region. Nevertheless, stablecoins pose several regulatory challenges. For the time being, most jurisdictions do not seem to have a specific legal framework in place, although certain steps have been taken in order to try to clarify the applicable law, at least in certain cases.

As the stablecoin market evolves and develops, central banks in the LAC region may want to consider how to address this new development. In order to do so, consideration could be given to the following questions:

- Is there quality data available? Reliable and frequent information on the size of this market and its level of interconnectedness with the financial sector would help better assess the risks and the potential need to take measures. Qualitative information, such as the main use cases, would also improve the authorities’ knowledge of the market and the challenges it poses.
- Is the existing legal framework applicable to stablecoins? To which extent? Certain stablecoins replicate services that are currently being offered under proper regulation in the traditional financial system. Using a new technology to carry out virtually equal activities should not be reason enough to circumvent the existing legal framework. Authorities can leverage the classification framework included in this report, work

with industry stakeholders to develop their own and/or carry out a case-by-case analysis of the different stablecoins in order to determine whether they resemble existing activities. The conclusions of this exercise could be published as regulatory guidance, which would help clarify the applicable law and reduce the level of uncertainty.

- How to adopt international standards? What domestic experiences could be taken as a reference? Stablecoins are a global phenomenon and many jurisdictions and international organizations around the world are working on developing standards and legal frameworks. These experiences could be incorporated into the national framework, adjusting them to the local/regional specificities. In this sense, cooperation with other authorities is key in order to learn from their experience, but also to ensure proper coordination when regulating and supervising these, often global, stablecoins.
- Is there any particular issue that should take priority? Stablecoins pose a variety of challenges (AML, consumer protection, financial stability, among many others) and some consideration on their level of urgency may be helpful in order to adopt a staggered and flexible approach towards their regulation. This would contribute to finding the right balance between fostering innovation and maintaining financial stability.

In summary, stablecoins feature a wealth of potential benefits but also give rise to a number of risks and challenges for financial authorities. This requires a nuanced and adaptable approach, leveraging international standards and experiences and adapting them to national needs and specificities. Collaboration among authorities, as well as with industry participants and other stakeholders, is crucial to effectively address the challenges posed by stablecoins. The regulatory approach should be designed to protect consumers, maintain financial stability, and ensure compliance with existing laws, while also allowing room for responsible innovation.

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A Questionnaire

Brief questionnaire on Stablecoins

To facilitate the discussion on stablecoins, as part of the Fintech Forum meeting, you are requested to please fill in, to the extent of your knowledge, the following questionnaire aimed at illustrating which is the regional experience with regards to these digital assets.

1. Use of stablecoins
 - (a) Percentage of the population that holds/uses/has used stablecoins⁶³. In the absence of statistical information, you may provide a qualitative estimate according to the following range: high, medium, low.
 - (b) If they exist, please point out the more frequent use cases (payments, lending, investment) and, in particular, specify which relevance stablecoins have in the field of remittances.
 - (c) If available, please enumerate the three most used stablecoins in your jurisdiction.
2. Regulatory framework
 - (a) Brief description of the regulatory framework applicable to issuers of stablecoins and stablecoins service providers in your jurisdiction and, if any, of the legislative proposals under way.
 - (b) Have regulators in your jurisdiction issued interpretative criteria or guidance relating to the regulatory treatment of stablecoins?
3. Statements
 - (a) Have financial authorities in your jurisdiction issued any statement relating to stablecoins? Description of the main messages conveyed.
4. Innovation facilitators (sandbox, innovation hub, ...)
 - (a) Has there been any project where a stablecoin played a relevant role?
5. Regional coordination
 - (a) In addition to the CEMLA’s Fintech Forum, is there any other forum or coordination mechanism (either multilateral or bilateral) relating to stablecoins or cryptoassets?
6. Other
 - (a) Any other relevant information relating to stablecoins in your jurisdiction (for example, projects to improve available statistics).

B Answers

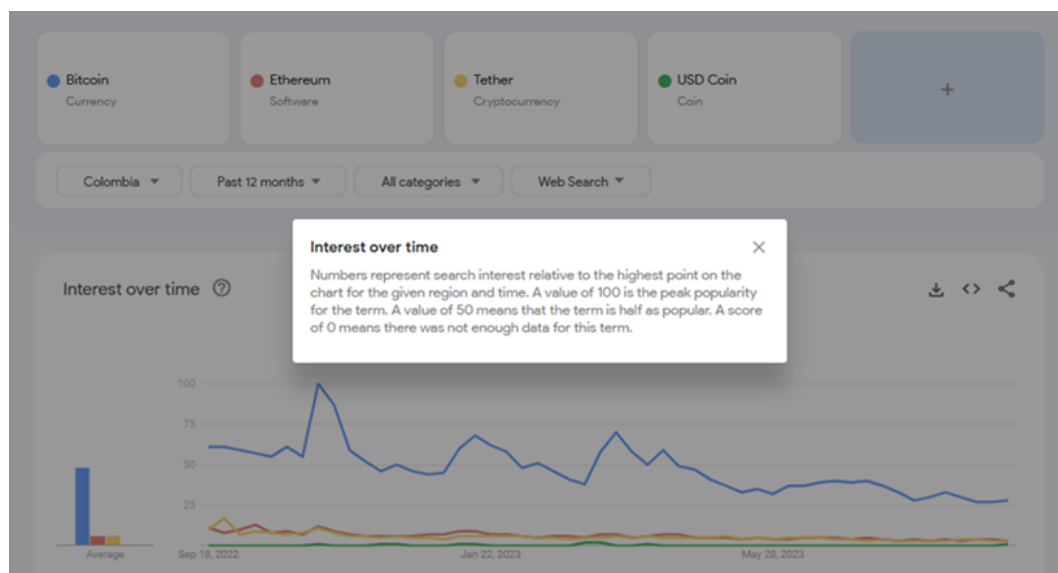
1. Use of stablecoins

Percentage of holdings

- **Country 1:** The Central Bank estimates that a low percentage of the population uses stablecoins, based on limited interaction with entities seeking to issue stablecoins.

⁶³If possible, please specify the source of information used (survey, crypto asset-related statistics provider, consulting report, ...).

- **Country 2:** Stablecoin usage is reported to be low.
- **Country 3:** Stablecoin usage is estimated to be low.
- **Country 4:** Stablecoin usage is reported to be low.
- **Country 5:** Approximately 34% of reported crypto transactions in January 2023 involved stablecoins. However, this figure might be underestimated due to unreported transactions through exchanges outside the country.
- **Country 6:** Interest in stablecoins appears low, as indicated by Google Trends data. Government agencies lack granular data on stablecoin usage.



- **Country 7:** No specific information is available, but stablecoin usage is considered to be very low.
- **Country 8:** Information on stablecoin usage is not available.
- **Country 9:** While no statistical information is available for stablecoins, the percentage of the population using or owning crypto assets is estimated to be low, based on general crypto asset trends and surveys.
- **Country 10:** No specific data source is available.
- **Country 11:** Stablecoin usage is estimated to be low.

Overall, stablecoin usage appears to be varied across the region, with some countries reporting higher usage based on available data, while others have limited information but estimate low usage.

Three most used Stablecoins

- **Country 1:** The Central Bank is aware of two stablecoins being used in the region. The first is Carib\$, a regional stablecoin reportedly involved in a pilot project with companies in the Country 1 and Barbados. The second is Circle's USDC.
- **Country 4:** While specific information is not available, it can be assumed that the most widely used stablecoins are Tether (USDT), USD Coin (USDC), and Binance USD (BUSD), which are commonly used internationally.
- **Country 5:** The most traded stablecoins in the country as of January 2023 were USDT, USDC, and BRZ. USDT accounted for 84% of the total value of all reported crypto asset transactions to the Federal Revenue Office of the country. BRZ is noteworthy as the first stablecoin .

2. Regulatory framework

Regulatory framework

- **Country 1:** Country 1 currently lacks a specific regulatory framework for stablecoins. However, activities conducted may fall under existing frameworks, allowing the Bank of Country 1 to apply relevant regulations.
- **Country 2:** Currently, there are no legislative projects to regulate stablecoins in the Country 2.
- **Country 3:** The Central Bank is drafting a Payment Systems Bill, which may address virtual assets, defining them as digital representations of value that can be digitally transferred for payment purposes.
- **Country 4:** While Country 4 lacks specific regulation for stablecoin activities, existing regulations may apply if stablecoins meet the definition of security, electronic money, or deposit. The Central Bank is studying a bill to regulate virtual assets and service providers.
- **Country 5:** Until December 2022, there was no specific legislation or regulation for stablecoins or service providers. However, Law 14,478 was passed in December 2022, establishing rules for virtual asset providers (VASPs). The specific mandates for regulators like the Central Bank and the Securities Commission are yet to be defined.
- **Country 6:** As of now, there is no specific regulatory treatment for crypto assets in Country 6. Efforts have been made to regulate crypto exchanges, with a bill introduced in Congress in 2019 and updates issued by the Ministry of Finance and the Financial Superintendency of Country 6 more recently.
- **Country 7:** There is no particular regulatory framework for stablecoins in Country 7, and no legislative projects are underway. However, stablecoins cannot be attributed the rank of money in the country.
- **Country 8:** Stablecoin-related services are not regulated in Country 8. The country's regulatory framework, as per the Organic Monetary and Financial Code, exclusively authorizes the Central Bank to manage the national currency.
- **Country 9:** Country 9 has regulations concerning the prevention of money laundering and the financing of terrorism applicable to providers of virtual currency exchange services and custody services of electronic wallets. Securities market regulations also govern advertising on crypto assets. Additionally, the European Markets in Crypto Assets Regulation (MiCA) applies.
- **Country 10:** There is no specific regulatory framework for stablecoins in the country.
- **Country 11:** Country 11 lacks a regulatory framework for stablecoins, and there are no legislative projects underway.

Interpretive criteria or guidance related to the regulatory treatment of stablecoins.

- **Country 1:** No specific guidance on stablecoins has been issued in the country.
- **Country 2:** The Monetary Board, through the Regulation of Payment Systems, has prohibited payment service providers from offering products and services based on virtual assets.
- **Country 3:** Specific guidance on stablecoins has not been issued. The Payment System Bill may address the regulatory treatment of stablecoins from a payments perspective.
- **Country 4:** A conceptual framework has been issued for the regulatory treatment of virtual assets in general, including stable virtual assets. However, no specific guidance on stablecoins has been provided.
- **Country 5:** The Securities Commission (CVM) issued a Guiding Opinion in October 2022, focusing on defining which virtual assets are considered securities under the legal framework of Country 5. However, specific guidance on stablecoins is not provided.
- **Country 6:** Although no specific guidance on stablecoins has been issued, various government agencies have published documents highlighting the risks, challenges, and potential impacts of cryptocurrencies. The Central Bank of Country 6 has emphasized that cryptocurrencies are not recognized as legal tender or currency.

- **Country 7:** Only warnings have been issued regarding cryptocurrencies, but no specific criteria or guidance have been defined for stablecoins.
- **Country 8:** No regulation or guidance has been issued regarding stablecoins.
- **Country 9:** No specific guidance on stablecoins has been provided.
- **Country 10:** No interpretative criteria or guidance related to the normative treatment of stablecoins have been issued.
- **Country 11:** The Central Bank of Country 11 has not issued any interpretative criteria or guidance regarding the regulatory treatment of stablecoins. It has only stated that it does not supervise or guarantee operations with cryptocurrencies as means of payment.

3. Communication to the public

Messages and public releases of the authorities

- **Country 1:** The Bank of Country 1 has not issued specific releases regarding stablecoins but has issued advisories cautioning against the use of virtual currencies due to associated risks and lack of appropriate governance and consumer protection arrangements.
- **Country 2:** The Monetary Board authorized the Central Bank to publish a communiqué warning about the risks associated with the acquisition of virtual assets, intended for financial intermediaries, remittance and exchange agents, and the general public.
- **Country 3:** Regulatory Authorities issued a joint statement cautioning against providers of cryptocurrencies/virtual currencies, stating they are neither regulated nor supervised and lack legislative provisions for consumer protection.
- **Country 4:** The Central Bank of Country 4 has issued general communiqués on virtual assets, advising users to conduct thorough risk assessments before trading, emphasizing that they are not legal tender, not backed by any central bank, and not subject to specific regulation.
- **Country 5:** The Central Bank of Country 5 has issued warnings about the risks associated with crypto assets but has not made specific statements about stablecoins.
- **Country 6:** The country's tax agency, along with the Central Bank and the financial system's supervisor, has issued warnings to the general population regarding the risks of buying and using crypto assets. These warnings emphasize that crypto assets are not considered legal tender, and there is no obligation to accept them as a means of payment.
- **Country 7:** No public releases related to stablecoins have been made, as it has not been deemed necessary so far.
- **Country 8:** No public releases have been issued related to stablecoins.
- **Country 9:** While no specific statements about stablecoins have been made, the Bank of Country 9 and the CNMV have issued warnings about the risks associated with crypto assets in general, emphasizing their speculative nature and potential for fraud.
- **Country 10:** The Superintendency of Banks has issued a press release cautioning against virtual currencies, stating that they are not backed by the State of Country 10 and are not considered legal tender.
- **Country 11:** The Central Bank of Country 11 has issued several statements cautioning against the use of crypto assets, emphasizing that they are not regulated, not backed by the laws of the country, and transactions made with them are at the risk of the individual.

4. Innovation Enablers (sandbox, innovation hub, ...)

Projects

- **Country 1:** No stablecoin-related projects have been undertaken in Fintech Regulatory Sandbox of the Country 1, although two stablecoin issuers have inquired about approval to test in the Sandbox.
- **Country 2:** No projects involving stablecoins have been reported.
- **Country 3:** No projects involving stablecoins have been presented.
- **Country 4:** Two projects involving the issuance of electronic money using distributed ledger technologies have been received. One project is in the process of being authorized, allowing the entity to issue electronic money units using decentralized ledger technologies.
- **Country 5:** In 2022, an innovation hub involving the Central Bank selected two projects that utilized stablecoins (or similar virtual assets) to provide liquidity between financial assets.
- **Country 6:** The Financial Superintendency of Country 6 launched a sandbox in 2021, where selected deposit-taking institutions facilitated cash-in and cash-out activities for consumers buying/selling crypto assets. While no specific stablecoin was mandated, this initiative allowed for transactions involving various crypto assets.
- **Country 7:** No projects involving stablecoins have been presented.
- **Country 8:** Resolution JPRM-2023-014-M issued by the Monetary Policy and Regulation Board in August 2023 outlines the implementation mechanism of a regulatory testing environment (SANDBOX) applicable to Fintech companies or participants in auxiliary payment systems. However, no specific stablecoin-related projects are mentioned.
- **Country 9:** The Monei EURM project was submitted to the Country 9 financial sandbox in the fourth cohort (September-October 2022). As of the date of finalization of this report, the project was in the testing phase within the sandbox. It is a payment solution for natural persons that uses DLT and allows to pay small amounts with a purportedly stable token referenced to the euro (EURM).
- **Country 10:** No projects involving stablecoins have been presented.
- **Country 11:** There have been no projects involving stablecoins.

5. Regional coordination

Other forum or coordination mechanism

- **Country 1:** No specific mention of other forums or coordination mechanisms related to stablecoins/crypto assets besides the CEMLA Fintech Forum.
- **Country 2:** The response does not provide information on other forums or coordination mechanisms.
- **Country 3:** No information is provided regarding other forums or coordination mechanisms.
- **Country 4:** No additional forum or coordination mechanism is mentioned apart from the CEMLA Fintech Forum.
- **Country 5:** No specific mention of other forums or coordination mechanisms besides the CEMLA Fintech Forum.
- **Country 6:** No additional forum or coordination mechanism is mentioned apart from the CEMLA Fintech Forum.
- **Country 7:** The response does not provide information on other forums or coordination mechanisms.
- **Country 8:** There is no mention of other forums or coordination mechanisms related to stablecoins/crypto assets besides the CEMLA Fintech Forum.

- **Country 9:** The Central Bank of Country 9 actively contributes to the international discussions and work on cryptoassets that takes place at international forums (e.g., BCBS, FSB).
- **Country 10:** No information is provided regarding other forums or coordination mechanisms.
- **Country 11:** The response does not mention any additional forum or coordination mechanism beyond the CEMLA Fintech Forum.

6. Other

Any other relevant information

- **Country 1:** While there is no additional information regarding stablecoins in Country 1, the Bank continues to monitor and conduct surveillance to assess potential risks stemming from the adoption and usage of cryptocurrencies or stablecoins.
- **Country 2:** No further information is provided regarding stablecoins in the Country 2.
- **Country 3:** There has been an effort towards the development of CaribCoin (Carib\$), described as an asset-backed Complementary Currency (CC) that maintains a stable value and is fully convertible to the region's national currencies.
- **Country 4:** No additional information is provided regarding stablecoins in Country 4.
- **Country 5:** The appointment of a government body to regulate virtual asset service providers is expected, as mandated by Law No. 14478/2022. Projects related to stablecoins and other crypto matters are anticipated to be released after this appointment.
- **Country 6:** The central bank is engaged in a project to obtain crypto information from an external provider and is working on regulating stablecoins, possibly requiring information reporting through exchanges.
- **Country 7:** There is a perception that the use of stablecoins is practically nonexistent in Country 7, thus no further action or projects have been perceived as necessary.
- **Country 8:** No information is provided regarding stablecoins in the Country 8.
- **Country 9:** No additional information is provided regarding stablecoins in the Country 9.
- **Country 10:** No further information is provided regarding stablecoins in Country 10.
- **Country 11:** No information is available regarding stablecoins in Country 11.