HSBC's Response to the Applicability of the Principles of Financial Market Infrastructure to SAs

1. **Is it clear when SAs are considered FMIs for the purposes of applying the Principles of Financial Market Infrastructure (PFMI)?**

As noted in the paper, stablecoins can provide multiple functions, and these are sometimes interdependent. The most widely used existing stablecoin arrangements (SA) are those where coins act as a bridge to enable the purchase of digital assets from fiat, or vice versa. However, use cases are continually evolving, and SAs can be used for other forms of payment. The range of potential backing assets varies widely. These points make SAs a unique challenge to manage from a supervisory perspective.

While we agree that the principles approach is the correct one, the risks of a 'digital run' from, or into, a systemically important SA, and the impact that this could have on the wider financial system, are very significant. Given this, we think that there are some areas where further context may be needed in the CPMI's guidance.

We agree that the transfer function of an SA should be treated as Financial Market Infrastructure (FMI) for the purpose of applying the PFMI. It is also understood that there is significant variation among existing FMIs business and operational models that provide similar functions. However, the risks related to SA liquidity and credit and its legal status are of particular concern. This is especially true of an SA that could grow quickly and become systemically important, including internationally, in a short period of time, particularly since regulations evolve more slowly.

The guidance on settlement in section 3.5 provides some necessary clarity. However, we think that the bridge role that SAs already play between fiat and more volatile digital assets requires further scrutiny and guidance from the CPMI, in order to ensure that credit and liquidity risks associated with this activity are minimised.

We also think that a widely available SA that is tied to a reserve currency could have important impacts on smaller emerging market (EM) currencies. During times of market stress in such EM economies, individuals may decide to convert domestic currency into a SA tied to a reserve currency. The ability to do this instantly would mean that existing risks during times of stress could be exacerbated, with potentially severe impacts on that economy. The CPMI may want to consider further recommendations specific to smaller EMs, which may not have appropriate tools to manage these risks.

The report states that there are scenarios beyond its scope where an SA may meet the definitions of other types of FMI included in the principles. The SA landscape is evolving rapidly. There is currently no SA that would meet the definition of systemic, either domestically or internationally. SAs are used primarily as a bridge between fiat and more volatile digital assets. It makes sense for authorities to rely on existing standards and principles where SAs fall into existing market functions. It also makes sense to delineate the scope of the guidance at hand but we would encourage monitoring of types and roles of the SAs, and drawing out more clearly the point in 1.3.3 about application of the PFMIs to other FMI use cases.

Finally, given all of this, it will be critical that the CPMI continues to observe this topic to ensure that the principles remain relevant in a fast evolving FMI ecosystem.

<u>**Considerations for determining the systemic importance of an SA**</u>

2. Are the suggested considerations for determining the systemic importance of SAs clear, comprehensive and useful? Are there any risks or considerations missing?

Yes, we agree with the considerations put forth. The size, nature and risk profile of activity, interconnectedness, interdependencies and substitutability are all suitable means of determining the systemic importance of a SA.

However, we would like to propose some additional aspects for consideration, some of which may require combined assessment alongside prudential liquidity factors:

a. **Size.** The paper notes that *"At their discretion, authorities may consider the potential growth and future state of an SA in determining the systemic importance of an SA that is under development".* Larger technology companies with hundreds of millions of customers could reach systemic status rapidly. An important test may also be the number of customers that may potentially use an SA on any platform seeking to launch one. We think that this should be specifically considered and highlighted.

b. **Interconnectedness and interdependencies, and deposits.** We think it important to also consider the resulting impact on deposits. A reduction in deposits at banks would lead to an increase in cost of credit for consumers. Some SAs may be able to operate independently of existing payment platforms and networks and could be preferred by some consumers, at least under certain circumstances. The impact on existing deposits of this proposal should be highlighted under the interconnectedness consideration for considering the systemic importance of an SA. Existing or traditional payment platforms do not share this exact type of risk as they are account based and are typically managed to minimise exposures or residual balances on an end of day basis at least, with the transferred cash residing either with commercial or central banks.

c. **Interconnectedness and interdependencies, entry/exit.** The entry and exit into a SA from other FMI involves establishing the transfer of cash and/or other backing assets to/from the SA from/to other FMIs and institutions. The potential necessity to convert between different types of financial instrument brings additional interconnectedness and liquidity related considerations. These should be further considered.

d. **Substitutability of the SA, liquidity bifurcation.** Additional FMIs bring additional liquidity requirements causing bifurcation of liquidity pools and intraday liquidity when multiple different FMIs exist serving similar purposes. The potential impact should be assessed in the short, medium and long term to consider whether there should be limitations on the number of SAs serving similar purposes.

e. **Substitutability, concentration risk.** A users' ability to easily substitute SAs is critical. Considering the speed at which a stablecoin could become systemic as a means of payment, we recommend that the guidance explicitly notes concentration risk and highlights that users should be able to move easily between SA platforms. If an SA becomes widely adopted as a means of payment this could present concerns about anti-competitive effects whereby customers would have difficulty switching to other SAs. It would also raise concerns related to increased systemic and resilience risks associated with concentration. We note the recent findings of the President's Working Group for Financial Markets (PWG) in the US with respect to competitive dynamics[1].

Governance

3. **Is the guidance provided on governance clear and actionable to inform how SAs will need to ensure clear and direct lines of accountability and set up governance arrangements to observe the PFMI?**

We agree with the statement in the report that *"a systemically important SA should observe all relevant principles of the PFMI and refer to the principles, key considerations (KC) and explanatory notes when considering its governance, design and operating model."*

The principle of 'same activity, same risk, same regulation' and the establishment of clear rules under which proposals can be developed will be essential.

An SA must have a governance framework with natural individuals who are accountable, regardless of the technology underpinning the SA. This is critical for combating financial crime and ensuring that risks are appropriately supervised. Based on the principle of 'same activity, same risk, same regulation', we think that there is a clear equivalence with commercial bank money, and we think that the same standards of governance should be recommended for SAs by the CPMI. Again, we note the recent findings of the PWG in the US in this respect.

There is a need to safeguard consumers by requiring SAs to implement organizational structures and accountability that have legal certainty in all relevant jurisdictions. For example, there is notable risk of the use of novel governance structures such as Decentralised Autonomous Organanisations (DAOs) as they currently lack legal certainty. SAs should be required to release information on their governance framework that is transparent and explainable.

One analogy would be the need for firms to be able to explain sufficiently how Artificial intelligence may function in specific product or service. As outlined in IOSCO's Sept 2021 report on artificial intelligence and machine learning, it is not acceptable for a 'black box' AI/ML algorithm, where a firm may be unable to explain adequately its decisions to supervisors and/or customers, to be used on financial service customer data. Guidance issued by multiple regulators highlight these tools must be developed and used in a way that is sufficiently explainable and also accountable. Considering the potential impact an SA could have on the wider financial system and society, firms must ensure that the design of the SAs and related entity structure allows for human accountability and supervision. Any governance performed by software must be sufficiently explainable and contain functions to allow for the system to manage evolving risks.

[1] PWG for Financial Markets Stablecoin Report: [Report on Stablecoins (treasury.gov)]

We note the statements on smart contracts. We support the exploration of smart contract capabilities, and in general think it important that the principles put forth by the CPMI facilitate innovation. The guidance should be more explicit regarding the need for board (or equivalent) level accountability, governance and oversight in ensuring that smart contract capabilities are developed with effective risk and controls. This is outlined in detail in the report but the guidance itself does not refer to those issues. Language in the guidance noting its importance should ensure that supervisors would consider them effectively.

We also agree that *"the execution of effective governance is not possible by a smart contract alone (i.e. without human intervention)".* Effective governance requires human intervention, or at least oversight, on an ongoing basis and not just in times of stress of where there is an identified problem or error with the software implementation, and that the guidance should make this clear. It will be essential that an SA has the ability to make changes to the smart contract, protocols and associated software on an ongoing basis to manage evolving risks. The CPMI may want to be more explicit in the guidance regarding the associated governance of this, as supervisors should favour SAs that put in place governance to allow for this form of adjustment, compared to ones that do not. Supervisors should require ongoing control and governance of systems and software in any SA that is an FMI.

Further, PFMI 17, KC Two on operational risk, refers to an FMI's board of directors. We recommend CPMI include guidance that in the case of an entity that uses a novel governance structure, references in the PFMI to board of directors, management or similar should be equally applicable to that governance structure, unless other guidance imposes a different or higher standard.

4. **What are the challenges that SAs may face due to the use of distributed and/or automated technology protocols and decentralisation, when seeking to observe Principle 2 on governance, in particular when ensuring the clear allocation of responsibility and accountability?**

It will be important that any implementation of the PFMI principles by financial supervisory bodies is carried out in a technologically neutral way that supports the principle of same risk, same regulation. Developments related to various forms of digital money should be allowed to be explored within an appropriate, safe framework. The framework should be technologically agnostic, while ensuring that FMIs looking to innovate fall under the same regulatory guidance as SAs that are FMIs.

5. **Is the guidance on Principle 3 clear and actionable to inform how SAs will need to comprehensively manage risks from other SA functions and entities and their interdependencies?**

The report states that *"depending on the SA's organisational structure, the entities that perform other SA functions may be independent from the entity performing the transfer function and/or may not qualify as either participants or service providers to the FMI. Yet, other SA functions and the entities that perform them can have risk implications (legal, credit, liquidity, business, operational, and other risks) on the transfer function, and vice versa."*

It is difficult to imagine a scenario where a SA could be appropriately supervised where SA functions are separate from the entities bearing the risk. This concept has similar challenges to those related to appropriate accountability and governance. For consumer protection, SAs should be responsible for their own acts and omissions as well as the acts and omissions of their service providers (i.e. similar to outsourcing rules and regulations across the financial services sector). Supervisors should be encouraged to consider these points when they draft their own rules and the guidance should reflect that point.

The FMI principles (para 3.2.14) state that: "*It is essential that an FMI's risk-management personnel have sufficient independence, authority, resources, and access to the board to ensure that the operations of the FMI are consistent with the risk-management framework set by the board. The reporting lines for risk management should be clear and separate from those for other operations of the FMI, and there should be an additional direct reporting line to a non-executive director on the board via a chief risk officer (or equivalent).*"

New types of stablecoins are evolving that rely on a decentralized model. While the guidance on Principle 3 does add clarity to specifically how SAs should consider risk management, it may be necessary to more comprehensively outline issues related to how the separation of functions, entities and risks could be appropriately managed. As noted in our response to a3, the references to 'Board' level functions may need to be reviewed and updated to reference equivalent governance structures that may evolve with new models.

In terms of the custody of underlying assets, it is suggested to consider (1) the location of where such underlying assets are being held; and (2) the domicile / licensing status of the entity which acts as the custodian of assets. A supervisory authority may have better oversight if the underlying assets are held within their jurisdiction. Where assets are held in different jurisdiction or custodian entity is registered/licenced in certain jurisdiction with less regulatory oversight risks of limitations on recourse may increase.

Additionally, it will be important that firms that are involved in the storage function of an SA are covered under appropriate risk management and governance requirements. As this function is separated in some popular SAs, for instance between coins and wallets, it is critical that the risks involved, including cyber, privacy and resilience, are taken into account by relevant FMIs. Once again, we note the recent findings of the President's Working Group for Financial Markets (PWG) in the US with respect to coins and wallets.

Lastly, consideration should be given to whether separate regulatory coverage of risk factors related to the multiple functions of an SA is appropriate, or whether an overarching regulatory framework should be defined. Delineation between PFMI and other prudential regulatory risk frameworks may create gaps or unidentified or unmonitored sources of systemic risk.

Settlement finality

6. **Is the guidance on Principle 8 on settlement finality clear and actionable to inform how SAs will need to manage risks arising from a misalignment between technical and legal finality?**

   Yes, we feel that the guidance is appropriate. It is vital to ensure that the point at which a transfer on the ledger becomes irrevocable (i.e. legal finality) and technical settlement happens is aligned; that any scenarios where there could be a misalignment are identified; and that proper transparency of this process is provided.

Money settlements

7. Is the guidance on Principle 9 on money settlements clear and actionable to inform how SAs will need to manage risks associated with the use of a stablecoin as a settlement asset? In particular, is the guidance clear on the considerations which an SA should take into account when choosing a stablecoin as a settlement asset with little or no credit or liquidity risk as an appropriate alternative to central bank money?

The guidance paper provides substantial detail regarding how an SA could be exposed to credit and liquidity risk. It clearly outlines the considerations an SA should take into account when choosing a stablecoin as a settlement asset.

However, we think that the paper could explore in more detail (in section 3.5.7) the forms of potential stablecoin backing arrangements that would appropriately mitigate these risks. Although we accept that the paper cannot be highly prescriptive in this regard, we think at least an outline of how different backing arrangements could best address these risks would be appropriate. We think that the recent Bank of England 'New Forms of Digital Money' consultation provides a good model on the various potential arrangements[2]. We also believe that the paper could more directly encourage SAs to consider the systemic nature of their activities and how it could specifically impact the wider financial sector.

In general, the sufficiency of the regulatory and supervisory framework that applies to the issuer, reserve manager(s) and/or custodian(s) of the reserve assets will be critical to manage effectively the associated risk. Without appropriate regulation, stablecoins and other types of digital money could undermine confidence in the financial system. The risks that new forms of digital money pose to liquidity, credit and the money market could be serious and are, as of now, untested. Therefore, great consideration should be given to the interactions of existing systems with new forms of digital money. We would therefore like to outline some concerns regarding SAs and credit, liquidity and resilience risks.

Firstly, one of the potential benefits of new forms of digital money and digital platforms is the acceleration of payments. However, as SAs grow in popularity and become, potentially, systematically important, so will their potential impact on the existing banking system. It is vital that new forms of digital money do not lead to potential 'digital bank runs', potentially threatening overall financial stability and that this point is considered in the paper. The paper does note the possibility of a 'run risk' (section 3.5.9) due to a loss of confidence, but we feel that it is important to outline the various potential impacts on various parts of the financial sector, particularly under different stress scenarios. These outcomes will need to be weighted according to their potential for systemic risks (e.g. rapid wide-scale deposit shifting). This may be especially true for non-banks that lack the infrastructure and experience of traditional banks to rapidly adjust to major shifts in consumer preferences. We think that this important topic needs further development and guidance from the CPMI.

[2] New forms of digital money | Bank of England

Secondly, the potential global nature of SAs may create a more complex set of interactions than has been experienced under the existing financial system. As money becomes increasingly digital, public confidence and transactional activity in different jurisdictions may "spill-over" into other jurisdictions introducing new sources of risk to financial stability. We think that the paper should consider these effects.

Thirdly, and as touched on in the response to question two, additional FMIs bring additional liquidity requirements causing bifurcation of liquidity pools and intraday liquidity when multiple different FMIs exist serving similar purposes. This may also be more pronounced for SAs as, depending on the backing arrangements and entry/exit mechanisms, use of as SA FMI network may involve transfer between different financial instruments (i.e. cash at commercial or central banks into other types of liquid assets). The potential impacts should be assessed in the short, medium and long term to consider whether there should be limitations or additional monitoring at a macro level around the number of SAs serving similar purposes.

We raise the above points because we believe that the level of protection and confidence in digital forms of money in general, including SA, will rely on the sufficiency of the regulatory and supervisory framework that applies to the issuer, reserve managers and custodians of reserve assets. As digital money becomes more popular, supervisors should propose regulatory formats to manage the risks of SAs without negatively impacting the potential for innovation. SAs should specifically consider the potential for a systemic impact on the wider financial system when seeking to manage risks associated with the use of their SA as a settlement asset.

General

8. Are there other issues or principles of the PFMI where additional guidance for SAs would be useful? If so, what is the issue identified and how is it notable for SAs?

As discussed earlier in this response, the guidance should specifically consider legal risk in relation to the application of PFMI 1, particularly the fact that the legal status of an SA may not be clear in one or more jurisdictions of use as this could interfere with the FMI's ability to satisfy PFMI 1. When preparing regulation on SAs, relevant authorities should (i) take account of any clarification that may be required in law and/or regulation to clarify the legal status of SAs, and (ii) prepare their rules in a way that allows flexibility and adaptation as technology, arrangements, legal status and regulation of SAs develop, both locally and (where relevant) in other jurisdictions. (iii) consider issues related to governance,

It would be helpful if the guidance could provide further clarity on how these risks should be navigated in the absence of specific legislation.

We think guidance would be useful regarding PFMI 3, KC 2, that *"An FMI should provide incentives to participants and, where relevant, their customers to manage and contain the risks they pose to the FMI."* We would recommend clarification that reference to participants and customers should be extended to include third party providers of interdependent functions and other relevant stakeholders.

We recommend additional guidance about the principles on credit risk (specifically, PFMI 4 KC7): the multijurisdictional nature of SAs is potentially relevant here because it heightens the impact of credit risk issues.

Principle 15 states that *"An FMI should … hold sufficient liquid net assets funded by equity…"* However, the consultation notes at para 3.2.5 that *"SA governance may be partially or fully decentralised and there may be no legal entities and persons in control of the FMI function. In particular, the transfer function can be set up as a smart contract on a permissionless public ledger."* We would recommend that guidance is developed around the application of Principle 15 in the case where SA performing the transfer function is not a legal entity that can issue equity. Either the guidance should require that there is a legal entity with equity-funded liquid net assets to which the FMI and (in the event of wind-down) its stakeholders have access, or that any non-legal entity structure establishes a fund of similar assets that have the same effect as equity-funded liquid net assets.

Lastly, we would also suggest ensuring that SA's are aligned to other CPMI IOSCO guidance and work such as the "Enhancing cross-border payments building blocks from the G20" and "The Committee on Payments and Market Infrastructures (CPMI) call for ideas on solutions to expand PvP settlement". As the stablecoin market matures, there will be an increased number of cross-border use cases. Aligning with that work where possible will be important.

9. Are there any terms used in this report for which further clarification would be useful for SAs when seeking to observe the PFMI?

We have identified none at this stage.