

CONSULTATION PAPER

P016-2019

December 2019

Consultation on the Payment Services Act 2019: Scope of E- money and Digital Payment Tokens



Monetary Authority of Singapore

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1 Preface

1.1 The Monetary Authority of Singapore (“**MAS**”) developed the Payment Services Act 2019 (“**PS Act**”)¹ to provide a forward looking and flexible framework for the regulation of payment systems and payment service providers in Singapore. It provides regulatory certainty and consumer safeguards, while encouraging innovation and growth of payment services and financial technology (“**FinTech**”). Payment services such as the issuance of e-money and digital payment token (“**DPT**”) services will be regulated under the PS Act. The PS Act will commence on 28 January 2020 and is available at [this link](#). More information on the policy rationale for the PS Act is contained in the following documents:

- (a) [Second Reading Speech for the Bill](#)
- (b) [Quick Guide to the PS Act](#)
- (c) [FAQs on the PS Act](#)

1.2 The PS Act established the definitions of e-money and DPT, but recent innovations have led to the emergence of new payment instruments that could potentially challenge the prevailing concept of money. Accordingly, this paper² seeks views on the scope of money, e-money, and DPTs, as well as the regulation of payment services based on these emerging forms of payment. The **Annex** sets out a list of questions asked in this paper.

1.3 MAS invites comments from:

- a) Financial institutions – Banks, non-bank credit card issuers, operators, settlement institutions and participants of designated payment systems, money changers, remittance businesses, and holders of SVFs;
 - b) Potential licensees and regulated entities under the PS Act – operators, settlement institutions and participants of payment systems, account issuers, domestic money transfer service providers, cross-border money
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¹ The Payment Services Bill was introduced and passed in Parliament on 19 November 2018 and 14 January 2019 respectively.

² This paper should be read with the paper titled [Consultation on Payment Services Act 2019: Proposed amendments to the Act](#), which sets out MAS’ proposed amendments to parts of the PS Act.

transfer service providers, merchant acquirers, e-money issuers and DPT service providers;

- c) Businesses – Large corporates, billing organisations (e.g. telecommunication and utility companies, town councils, and strata management corporations), small and medium businesses;
- d) Academics – Academics in the fields of law, monetary economics, financial services, and FinTech; and
- e) Other interested parties – Members of the public, consumer associations, government agencies, law firms, trade associations, non-profit organisations, charities and other parties who may be impacted by or interested in the proposed review.

All submissions received will be published and attributed to the respective respondents unless they expressly request MAS to not do so. As such, if respondents would like (i) their whole submission or part of it, or (ii) their identity, or both, to be kept confidential, please state so expressly in the submission to MAS. In addition, MAS reserves the right to not publish any submission received where MAS considers it not in the public interest to do so, such as where the submission appears to be libellous or offensive.

1.4 Please submit written comments by 28 January 2020 to psbconsult@mas.gov.sg.

1.5 Electronic submission is encouraged. We would appreciate submissions in this format to ease our collation efforts.³

³ If you are providing a PDF version of your response, we would be grateful if you could also send a Word copy of your response for our collation.

2 Background

2.1 Technology is transforming the world of payments and has opened up opportunities for transactions to be more convenient, faster and cheaper. At the same time, new payment methods give rise to new risks. MAS monitors the payments landscape in Singapore and internationally to ensure that our regulations continue to meet our objectives of providing regulatory certainty and consumer safeguards, while encouraging innovation and growth of payment services and FinTech. MAS has reviewed its current payments legislation⁴ and developed the PS Act to regulate traditional and new forms of payment services in a single activity-based framework.

2.2 We have observed changes in product development of e-money and DPTs, as well as in the way which the public has been using these modes of payment. In addition, stablecoins have emerged as a new class of cryptocurrencies intended to be relatively stable in value to address concerns over excessive price volatility of the first generation of cryptocurrencies. By exhibiting characteristics typically associated with money, stablecoins may be blurring the line between our e-money and DPT regimes. While no internationally-agreed definition exists for this broad class of cryptocurrencies, the Financial Stability Board (the “**FSB**”) has suggested that a 'stablecoin' can be defined as a crypto-asset designed to maintain a stable value relative to another asset (typically a unit of currency or commodity) or a basket of assets. These may be collateralised by fiat currency or commodities, or supported by algorithms⁵.

2.3 Libra is an example of a stablecoin. According to a whitepaper published by Facebook on 18 June 2019, Libra is a global cryptocurrency that will comprise tokens backed by a reserve of real assets (“**Libra Reserve**”) designed to give it intrinsic value. The Libra Reserve aims to ensure the price stability of Libra. The whitepaper also states that a competitive network of exchanges buying and selling Libra will support the operations of Libra as a token. Users will be able to convert their Libra tokens into local fiat currency

⁴ MAS regulates certain payment services such as money-changing services, remittance services and the provision of stored value facilities under the Money-Changing and Remittance Businesses Act (Cap. 187) (“**MCRBA**”) and the Payment Systems (Oversight) Act (Cap. 222A) (“**PS(O)A**”). These legislation will be repealed on the day that the PS Act comes into force.

⁵ See FSB [note](#) setting out regulatory issues of stablecoins, October 2019.

based on an exchange rate. However, it is not clear from the whitepaper whether a holder of a Libra will have a claim on the issuer⁶, presumably, the Libra Association⁷.

2.4 We are reviewing our approach to e-money and DPT given the potential for certain stablecoins to become more widely used yet not fall neatly into existing definitions of payment instruments. This paper seeks views from the public, financial institutions including the payments industry and academics, on their understanding of money, e-money and DPTs, including features that distinguish these forms of payments from each other. We also seek views on the regulatory treatment of e-money based payment services, and DPT services, including on whether the existing definitions of e-money and DPT in the PS Act remain relevant today and in the future. If appropriate, we may consider further changes to our regulatory regime.

2.5 **Box A** below first presents some background material on what money is as well as its role. This discussion is necessary for us to consider the functions that e-money and DPTs perform, each as a form of payment used by the public alongside fiat currency. Next, **Part 3** of this paper explains the scope of e-money and DPT as we have defined them in the PS Act and discusses the defining characteristics of each form of payment. **Part 4** of this paper sets out a discussion on the regulatory treatment of e-money based payment services and DPT services.

⁶ See [Speech by Yves Mersch, Member of the Executive Board of the ECB, at the ECB Legal Conference, Frankfurt am Main, October 2019](#):

'Libra does not appear to qualify as e-money, as it does not embody a claim of its holders against the Libra Association. If Libra were to be treated as a transferable security or a different type of financial instrument, both the Libra Association and any other entities engaged in providing investment services through Libra coins would fall within the remit of the Markets in Financial Instruments Directive (MiFID II). Alternatively, if Libra were to qualify as a virtual currency then, under the Fourth Anti-Money Laundering Directive, both Calibra and its authorised resellers would become subject to the Directive's anti-money laundering and counter-terrorism financing obligations, and to its registration requirement.'

⁷ It is not clear whether Libra will be pegged to a single currency or multiple currencies. See "[Facebook Open to Currency-pegged Stablecoins for Libra Project](#)" by [Reuters.com](#), September 2019:

'David Marcus, who heads the Libra project for Facebook, told a banking seminar the group's main goal remained to create a more efficient payments system, but it was open to looking at alternative approaches for the currency token it would use. "We could definitely approach this with having a multitude of stablecoins that represent national currencies in a tokenized digital form," he said. "That is one of the options that should be considered." Marcus said he was not suggesting currency-pegged stablecoins were the group's new preferred option.'

Box A: What is money?

1. Conventionally, money is defined by the three main functions it performs (i.e. a unit of account, a medium of exchange, and a store of value). Based on this functional definition, money can take many forms and be issued by either public or private issuers. Indeed, money has varied substantially across time, from commodity money such as silver and gold coins to fiat money, which is money established by government decree that is not convertible into any other assets (e.g. gold). Nevertheless, money is ultimately a social convention that depends on trust.⁸ People are only willing to accept money as payment in exchange for goods and services because they trust that everyone else in the economy will do so as well. People also need to trust that the value of the money they hold will remain broadly stable over time, so that they are able to use it as a store of value and as a medium of exchange in the future.
2. In modern economies, independent central banks are granted monopoly power to issue currencies with legal tender status (i.e. fiat currencies). They also manage monetary policy to maintain price stability, put in place regulations and supervision to ensure financial stability, and serve as the lender of last resort in times of crisis. Two main reasons underpin this arrangement⁹: First, a uniform national currency reduces transaction costs and raises efficiency, since there is no need to retain information about the creditworthiness of multiple means of payment. Second, control of currency creation ensures the stability of its value, consistent with overall price stability in the economy, a responsibility that was deemed important enough to be assigned to a public independent body that is held accountable.
3. From a narrow perspective, fiat currencies refer specifically to banknotes and coins that are issued by the central bank, and are thus a claim on the monetary authority. As legal tender, they are recognised by law to be a valid means of payment for settling debts. More generally, fiat currencies are the unit of account in the

⁸ McLeay, M, Radia, A, Thomas, R (2014) "Money in the Modern Economy: An Introduction", *Bank of England Quarterly Bulletin*, 2014 Q1.

⁹ MAS (2019), "Digital Currency Economics and Policy Workshop", *Macroeconomic Review*, Special Feature A, Vol. XVIII Issue 1, April.

economy, i.e. the measure by which goods and services are priced, assets valued and financial accounts maintained.

4. Money comprises other payment instruments that are denominated in and readily convertible into fiat currencies on demand. Of these, bank deposits (also known as commercial bank money) are the most prominent example. Bank deposits are a claim by households and firms on commercial banks, rather than central banks, and are thus a privately-issued form of money. However, they are trusted by the public because the central bank provides a backstop through, strict regulations and supervision to ensure the soundness of the banks, implementation of deposit insurance schemes, and its role as a lender of last resort.

5. Every so often, there is a need to reassess what constitutes money in the economy, and even who can or should issue money. Technological and financial innovations can lead to the emergence of new modes of payment that can potentially play the role of money. For instance, the ability to electronically debit and credit funds on the accounts in banks allow bank deposits to become a form of money. More recently, increasing usage of e-money alongside the rise in e-commerce and the development of mobile payment solutions have also led to its recognition as money. With the emergence of stablecoins, which are not denominated in existing national fiat currencies but could potentially fulfil all three functions of money if they become widely-used, it is timely to review our understanding of what forms money can take.

3 The Scope of E-money and Digital Payment Tokens

3.1 E-money is defined in the PS Act as any electronically stored monetary value that –

- (a) is denominated in any currency or pegged by its issuer to any currency;
- (b) has been paid in advance to enable the making of payment transactions through the use of a payment account;
- (c) is accepted by a person other than its issuer; and
- (d) represents a claim on its issuer,

but does not include any deposit accepted in Singapore, from any person in Singapore.

3.2 E-money, as a digital representation of fiat currency, encompasses the monetary value of that fiat currency that it is denominated in. It similarly also takes on the monetary value of the fiat currency that it is pegged to by its issuer (i.e. it has a fixed exchange rate to a given fiat currency, e.g. one token = \$2). This is to address the risk that issuers may circumvent e-money related regulations under the PS Act through re-labelling¹⁰. In its current definition, e-money can only be pegged to a single currency, but not multiple currencies.

3.3 When MAS first drafted the PS Act, there existed first generation digital tokens like Bitcoin and Ether that were used for payments – these were commonly known as “virtual currencies” or “cryptocurrencies”. We brought these cryptocurrencies within scope of the PS Act by defining a DPT to be any digital representation of value (other than any excluded digital representation of value) that –

- (a) is expressed as a unit;
- (b) is not denominated in any currency, and is not pegged by its issuer to any currency;

¹⁰ For example, with the original definition of e-money, an e-money issuer may have circumvented e-money regulations by naming the e-money as X-dollars and pegging it to a currency instead of denominating it in a currency.

- (c) is, or is intended to be, a medium of exchange accepted by the public, or a section of the public, as a payment for goods or services or for the discharge of a debt;
- (d) can be transferred, stored or traded electronically; and
- (e) satisfies such other characteristics as the Authority may prescribe.

3.4 There are therefore two defining characteristics that differentiate e-money and DPT:

- (a) e-money is a **digital representation of a single fiat currency**, whereas DPT is simply a representation of value, without necessarily any reference to fiat currency; and
- (b) e-money must represent a **claim on the issuer**, whereas DPTs need not (and in several instances a DPT may not be issued by an issuer, e.g. bitcoin).

3.5 “Money” is defined under the PS Act to include e-money but not DPTs. As e-money has fiat currency as its unit of account, there is a tight nexus between e-money and the predominant forms of money in the economy today, i.e. physical cash and bank deposits. In contrast, the first generation of DPTs have a distinct unit of account that is non-fiat currency based. As such, they are not commonly used by the public as a medium of exchange for payment of goods or services or for the discharge of debt. The first generation of DPTs are generally a poor store of value as their exchange value against fiat currencies have been very volatile. The price volatility also limits the use of the first generation of DPTs as a mode of payment. At the same time, the claim by the holder of e-money on the e-money issuer for the monetary value of the e-money is indicative of contractual rights of the e-money holder (against the e-money issuer) that a DPT holder may not have. In summary, e-money is congruent with how money is traditionally viewed, while DPTs are new forms of payment instruments that are unable to fulfil the three main functions of money.

3.6 Stablecoins are a new class of cryptocurrencies designed to maintain a stable value relative to another asset (typically a unit of fiat currency or commodity) or a basket of assets. Without the excessive price volatility of the first generation of DPTs such as Bitcoins, stablecoins could potentially perform the functions of money, especially if they were to gain widespread acceptance. Stablecoins could also vary in terms of accessibility (whether to retail or wholesale customers) and ability to be traded on the secondary market. Accordingly, stablecoins could present a challenge to the way we distinguish

between e-money and DPT for regulatory purposes. We will need to address the following issues relating to stablecoins when we consider how to delineate e-money and DPTs:

- (a) Whether the value of a stablecoin can be preserved through methods other than being pegged to a single fiat currency, such as being pegged to more than one currency in a ratio fixed by the issuer. However, it should be noted that the permanence of such arrangements may vary according to how robustly that value is backed.
- (b) The liability of the issuer of the stablecoin and the ability of stablecoin holders to redeem for fiat currency can also vary, e.g. issuers may be able to secure trust even without stablecoin holders having a claim on the issuer or redemption rights, perhaps by ensuring that a market always exists for holders to redeem for fiat currency. The certainty with which stablecoin holders are able to redeem for fiat currency may also vary, e.g. market liquidity for holders to redeem for fiat currency may tighten in times of crisis.

3.7 We therefore seek views on the scope of e-money and DPTs, and whether their definitions remain appropriate in view of the emerging class of stablecoins. These issues are set out for public feedback. We will consider the feedback in our ongoing analysis of the scope of e-money and DPTs, particularly whether the reference to a single fiat currency and the claim on the issuer are still appropriate defining features to distinguish e-money and DPTs. Respondents may choose to answer any or all of the questions posed in this consultation paper.

Question 1. Defining characteristics.

- (a) Does it matter whether e-money is pegged to only one currency or more than one currency? Why or why not?
- (b) Do you agree that a claim on the issuer is a necessary defining characteristic of e-money? If there is no claim on the issuer, then what other arrangements might be required to maintain confidence in the use of e-money?

Question 2. Other defining characteristics. Are there any other characteristics that will effectively distinguish e-money and DPT which MAS should consider?

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Should such characteristics be in lieu of or in addition to a reference to fiat currency and claim on the issuer?

Question 3. Regulation of stablecoins. If stablecoins fulfil the functions of money in the way e-money does, then do holders of stablecoins deserve the same regulatory protections as e-money (e.g. float protection)? What other regulations should be introduced to maintain the stability of the value of a stablecoin (e.g. how that stable value is determined, whether stablecoin holders have any right to redeem such value, who is liable to make good on such value if the stablecoin were to be redeemed by the holder)?

3.8 We clarify that we are not proposing to amend the definition of e-money or DPT during this consultation. We will study views from the public in the feedback to this consultation before assessing if it is necessary to amend the definitions.

4 Regulation of E-money Based Payment Services and Digital Payment Token Services

4.1 We developed the PS Act as a risk-focused, activity-based framework that enables MAS to regulate the provision of payment services according to the risks that the service poses. We observed that the risk posed by DPT services and e-money based payment services (including e-money issuance) are different.

4.2 DPT services posed primarily money-laundering and terrorism financing (“ML/TF”) risks whereas e-money based payment services posed a range of risks and concerns, including user protection. We therefore regulate DPT services and e-money based payment services differently to mitigate different sets of risks. The risks identified for each type of activity and overview of risk mitigating measures are set out in Table 1¹¹.

Table 1: Risk Identification and Risk Mitigation Measures

Activity	ML/TF	User Protection	Interoperability	Technology Risk
Activity A Account issuance services	Anti-Money Laundering and Countering the Financing of Terrorism (“AML/CFT”) requirements for certain providers	Protection of access to funds	Access regime, common platform, common standards	Cyber hygiene requirements and technology management guidelines apply where relevant
Activity B Domestic money transfer services	AML/CFT requirements for certain providers	Safeguarding of funds in transit	-	

¹¹ We set out the same table in the November 2017 [Consultation Paper on the Proposed Payment Services Bill](#).

Activity C Cross-border money transfer services	AML/CFT requirements for certain providers	Safeguarding of funds in transit	-	
Activity D Merchant acquisition services	-	Safeguarding of funds in transit	Access regime, common platform, common standards	
Activity E E-money issuance services	-	Safeguarding of float	-	
Activity F Digital payment token services	AML/CFT requirements for all providers	-	-	
Activity G Money- changing services	AML/CFT requirements for all providers	-	-	

4.3 **Table 2** illustrates some key differences between the regulatory treatment of e-money based payment services and the regulatory treatment of DPT services.

Table 2: Examples of differences in regulatory treatment

Type of measure	E-money based services ¹²	DPT services
AML/CFT	There are low risk e-money activities which do not attract AML/CFT requirements.	There are no low risk DPT services. All DPT service providers will be subject to AML/CFT requirements.
Safeguarding of customer money	Safeguarding requirements will apply in respect of e-money issuance service, domestic money transfer service, cross-border money transfer service and merchant acquisition service.	These do not apply to DPT services. MAS may consider imposing other user protection measures appropriate to DPT services in future.
Cash withdrawal and personal e-wallet restrictions	The cash withdrawal and personal e-wallet restrictions will apply in respect of accounts that contain e-money.	Cash withdrawal restrictions do not apply to wallets containing DPT. In order for MAS to consider imposing such measures as appropriate to DPT services in future, we are proposing to include a power in the PS Act to impose restrictions on DPT service providers (including those that provide custodial wallet services).
Measures relating to payment systems	E-money transfer systems or other systems that facilitate the circulation of e-money are “payment systems” that may be designated as designated payment systems (“DPS”) but DPT transfer systems or other systems that facilitate the circulation of DPT are not “payment systems” that can be designated for DPS (as “money” includes e-money but not DPTs).	

¹² Account issuance service, domestic money transfer service, cross-border money transfer service, merchant acquisition service and e-money issuance service.

4.4 We developed the above regulatory frameworks for e-money based payment services and DPT services, including the differences in regulatory treatment, before stablecoins emerged. It is therefore timely for us to review whether the existing regulatory regime set out in the PS Act is relevant and appropriate going forward, with the possible advent of global stablecoins, i.e. stablecoins with potentially global user reach and use.

Question 4. Appropriate user protection measures. MAS seeks views on whether the user protection framework for holders of e-money and holders of DPTs are still appropriate. Should holders of certain types of DPTs be afforded protection of their assets or the value of their assets in the same way that e-money holders are protected?¹³

Question 5. Thresholds for application of user protection requirements. Under the current PS Act, major payment institutions that issue e-money are required to safeguard customer money. Should DPT service providers that issue custody wallets be required to comply with user protection measures if the service providers hold DPTs above a certain threshold? What qualitative or quantitative thresholds would be appropriate?

4.5 International bodies are studying the regulation of stablecoins, in particular, global stablecoins. The G7 has identified various risks pertaining to global stablecoins, while the FSB is doing work to identify regulatory gaps. For example, given the potential for stablecoin arrangements to be widely adopted as a medium of exchange or store of value, the FSB has initiated a stock-take of supervisory and regulatory approaches in stablecoins, with a focus on cross-border issues. Based on the stocktake, the FSB will also consider whether existing approaches are adequate and effective in addressing financial stability and systemic risk concerns, and advise on possible multilateral responses if deemed necessary.

¹³ See section 23 of the PS Act that requires every major payment institution to safeguard e-money float and funds in transit, where they provide relevant payment services, against the institution's insolvency.

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4.6 MAS will continue to participate in international work on the regulation of stablecoins, and will continue to monitor trends and developments in payment services including stablecoins, so as to be able to appropriately mitigate new risks as they arise.

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