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FINTECH BRIEF

PREPAID CARDS

A CASE STUDY OF JAPAN, THE UNITED STATES AND THE EUROPEAN UNION

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PREPAID CARDS: A CASE STUDY OF JAPAN, THE UNITED STATES AND THE EUROPEAN UNION

Executive Summary

Prepaid cards have a relatively long history compared to other Fintech products. Over the last half a century, prepaid cards have been issued as telephone cards, cards substituting for subway tickets, etc. Prepaid cards may broadly cover cards through which value is stored, and for which the holder has paid the issuer in advance. While this concept of prepaid cards is broader than IADI's definition of e-money, it is essential to note that respective jurisdictions/regions may have their own definitions, scope and/or concepts of e-money and/or prepaid cards.

The objective of this brief is to present a case study in Japan on prepaid payment instruments stipulated in the Payment Services Act. The brief also looks into prepaid-type payment instruments issued under the legal frameworks of the U.S. and the EU.

Prepaid cards have evolved together with their legal frameworks in the respective jurisdictions/regions. Differences among jurisdictions/regions are observed not only in their legal frameworks for prepaid cards, but also in the scope and concepts, similarities to deposits, impacts on depositors, functions and risks of issuing institutions, and other relevant elements concerning prepaid cards. It can be said that there is no single approach that could be applied universally for supervision and protection of prepaid cards, nor for the appropriate relationships with deposit insurance. Respective jurisdictions/regions have been developing their own approaches as appropriate in accordance with their legal frameworks and other relevant elements, including social needs.

It is considered essential that a one-size-fits-all approach is not taken in considering measures for supervising and protecting prepaid cards and their appropriate relationships with deposit insurance. With all of the variations in the treatment of prepaid cards, one should begin by understanding the legal frameworks in the respective jurisdiction/regions, including their development stages and historical backgrounds, and then carefully analyse and sort out relevant elements of prepaid cards. It may also be useful to apply this approach in assessing new Fintech products that may be developed in the future.

1 Background

1.1 General Description and Scope of Prepaid Cards

While Fintech is evolving at a rapid pace, prepaid cards have a relatively long history of about half a century. Prepaid cards have evolved in various manners as they spread through the social lives of different jurisdictions/regions, even before the term "Fintech" was used. Typically, prepaid cards are instruments that are issued against payments from card users (cardholders), record amount or unit for use, and are used by the cardholders for purchasing goods and/or services. Prepaid cards are considered to be the original instruments of state-of-the-art Fintech products available today.

Since the 1970s, prepaid cards with magnetic stripes have been issued as telephone cards for paying call charges, cards substituting for subway/train tickets, etc. Around 1990, prepaid cards using an Integrated Circuit (prepaid IC cards)[1] were issued in a number of jurisdictions (e.g. Australia, Belgium, Canada, China, Germany, Japan). As technology progressed, advanced types of prepaid cards have been issued, including reloadable prepaid IC cards, prepaid cards that record value on the issuer's server (server-type prepaid cards), and intangible ones that exist only on an electronic device like smartphones without any issuance of physical cards. Typical examples of prepaid cards covered in this brief include,

[1] IC-cards use an embedded micro-chip that allows the storage of data in a way that is safer than magnetic stripes.

but are not limited to: Starbucks Card, Octopus Card (Hong Kong), Paysafecard (UK, EU, etc.), Direct Express (U.S.), and Visa Prepaid Card.

This brief considers prepaid cards under an international concept, which is broader than the IADI-concept for e-money in at least two ways.[2,3]

First, whereas e-money in the IADI context covers the electronic store of value on a technical device only, the international context of prepaid cards is broader and is not necessarily restricted to cases where the value is stored electronically, or whether the value is stored on a technical device or not. This international concept of prepaid cards has evolved along with technological progress. The Committee on Payment and Settlement Systems (CPSS) defined "prepaid card" in its 2003 Glossary[4] as "a card on which value is stored, and for which the holder has paid the issuer in advance" presuming that its value is stored on a physical card itself. Subsequently, in 2012, CPSS broadened the concept of a prepaid card to include storing value on the issuer's server.[5] In 2017, the Committee on Payments and Market Infrastructures (CPMI[6]), the successor to the CPSS, specified that "cards" (including prepaid cards) are not limited to those with physical presence, and include prepaid instruments that store the number (e.g., that can be used to initiate a payment) only on smartphones or virtually without a physical device.[7]

Second, e-money in the IADI context is defined as an open-loop system that allows making payments to entities other than the e-money issuer. Prepaid cards are neutral in this respect. They were originally issued in many jurisdictions for one's own business, used only for purchasing the issuer's goods and/or services ("closed-loop"), but may also be accepted as means of payment by third parties.

However, it is essential to note that respective jurisdictions/regions may have their own definitions, scope and/or concepts of "e-money" and/or "prepaid cards". Since they may respectively differ from IADI's definition of "e-money" and the international concept of "prepaid cards", it is essential to follow their own definitions, scope and/or concepts carefully.

Based on the international concept of a prepaid card, this brief will broadly cover cards through which value is stored, and for which the holder has paid the issuer in advance. Cards are not limited to those with physical presence and include prepaid instruments that store the number. However, the definitions, scope and/or concepts of prepaid cards in the case studies on Japan, U.S., and EU in this brief are domestic/regional and they differ among respective jurisdictions/regions (see Section 1.2 "Development and Legal Framework of Prepaid Cards").

The followings are some of the major elements for categorising prepaid cards.

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[2] IADI does not define prepaid cards. The IADI Glossary defines "e-money" as an electronic store of monetary value on a technical device that may be widely used for making payments to entities other than the e-money issuer. The device acts as a prepaid bearer instrument that does not necessarily involve bank accounts in transactions.

[3] A research paper produced by IADI (IADI (2020)) describes digital stored-value products (DSPs) in its list of key terms as "financial products that allow consumers to store value in a digital format; this value can be added and drawn down by the owner of the funds and performs several of the functions of a deposit (payment, liquidity, value storage) regardless of the type of entity offering the product. These products are accessed through non-branch physical channels, which may include mobile phones, agents or correspondents, and digital transactional platforms. Products may include mobile money, card-based electronic money and internet-based electronic money, but do not include mobile banking, closed-loop stored-value gift cards, or virtual or crypto currencies." Similarly, the international concept of prepaid cards is broader than the IADI-concept for DSPs.

[4] CPSS (2003) p.39

[5] CPSS (2012) p.47

[6] The Committee on Payments and Market Infrastructures (CPMI) is an international standard setter that promotes, monitors and makes recommendations about the safety and efficiency of payment, clearing, settlement and related arrangements, thereby supporting financial stability and the wider economy. The CPMI also serves as a forum for central bank cooperation in related oversight, policy and operational matters, including the provision of central bank services.

[7] CPMI (2017) p.2,4,7

Elements for categorisation	Type	
Range of payable goods and services	Prepaid card for one's own business (Closed-loop[8]) - used only for purchasing the issuer's goods and/or services.	Prepaid card for third-party business (Open-loop[9]) - can be used for purchasing goods and/or services from a party that is not the issuer
Method of storing value	Storing value on its physical medium including a card	Storing value on the issuer's server
Form of access device initiating settlement	Tangible prepaid card - tangible prepaid card may be further sub-categorised into "with card issuance" or "without card issuance."	Intangible prepaid card
Reloadability	Reloadable prepaid card - whose value can be reloaded by a cardholder	Non-reloadable prepaid card - whose value cannot be reloaded by a cardholder
Cash-redeemability	Cash-redeemable card - that can redeem stored value in cash to a cardholder	Non-cash-redeemable card - that cannot redeem stored value in cash to a cardholder

Among cashless payment services, credit cards (post-paid services) and debit cards linked to bank deposit accounts (instant payment services) are outside the scope of this brief since they are not prepaid instruments. Payment services provided by payment institutions in the EU and equivalent services in other jurisdictions are also excluded from the scope of this brief.

This brief presents a case study in Japan on prepaid payment instruments stipulated in the Payment Services Act, and also looks into the legal frameworks of prepaid-type payment instruments in the U.S. and the EU for comparison. In the remainder of this chapter, the brief reviews how legal frameworks and concepts of prepaid cards have been formed in Japan, the U.S., and the EU by referring to their relatively long history. It showcases how jurisdictions/regions have (or have not) defined and regulated prepaid cards as early Fintech product in a different way. Subsequent chapters deal with the motives for using prepaid cards (chapter 2), issuers of prepaid cards (chapter 3) as well as protection of users and impact on deposit insurers (chapter 4). Chapter 5 concludes.

Some of the observed differences concern scope of regulation, redeemability, necessity of license, and protection mechanisms relating to prepaid cards. Prepaid cards are not state-of-the-art Fintech products. However, prepaid cards are considered to be one of the original Fintech products, and should enable us to learn aspects of Fintech's roots. Regardless of how rapidly Fintech may continuously evolve, this brief is expected to provide important clues to future Fintech discussions.

1.2 Development and Legal Framework of Prepaid Cards

Legal frameworks of prepaid cards have been formed in the respective jurisdictions/regions along with the progress of information technology (IT), and by interacting with the strength of needs for financial inclusion. Developments and the legal frameworks of Japan, the U.S., and the EU are as follows:

1.2.1 Japan

- The origin of prepaid cards in Japan, including non-electronic prepaid cards, goes back more than 200 years. It is said that the original prepaid cards were issued as paper-based gift cards for purchasing "tofu" (bean curd) in a

[8] There is a slight difference in the meaning between prepaid card for one's own business in Japan and closed-loop prepaid card in the U.S. Please refer to page 4, "1.2.2 U.S." for further explanation. As this paper is basically a case study of Japanese prepaid cards, and to avoid misunderstanding, we use the term "prepaid card for one's own business".

[9] There is a slight difference in the meaning between prepaid card for third-party business in Japan and open-loop prepaid card in the U.S. Please refer to page 4, "1.2.2 U.S." for further explanation. As this paper is basically a case study of Japanese prepaid cards, and to avoid misunderstanding, we use the term "prepaid card for third-party business".

region where people customarily exchanged tofu as gifts at the end of each year. Since it was not convenient to receive a large amount of tofu at once, paper-based gift cards were introduced to enable people to purchase tofu from time to time using the cards.[10] Various paper-based gift cards have been in use since then, including nationwide department store gift cards (issued by department stores), book gift cards (issued by bookstores), and beer gift cards (issued by liquor shops).

- Telephone cards were the first prepaid cards that stored value electronically in Japan. They were originally issued in 1982, using magnetic stripe technology for value storage. However, magnetic stripe technology had limited information-storing capability and faced anti-counterfeiting security challenges. Many companies including railroad companies (such as Japan Railways) introduced prepaid IC cards in the 1990s. Felica, technology invented by SONY enabling high-speed processing without contact, was introduced into many prepaid IC cards. Prepaid cards became convenient tools for making small payments since Felica enabled settling transactions in a short period of time. This led to increased use of prepaid cards for third-party business, not only by railroad companies but also by retail stores. Thereafter, server-type prepaid cards storing value in the issuer's server and mobile-type prepaid cards (mobile SUICA, etc.) storing card information on mobile phones have come into use.
- Currently, prepaid cards are widely used, and their transaction amounts have increased remarkably in Japan. The number of prepaid cards issued by eight major companies issuing prepaid IC cards reached 470 million (2021). On average, each Japanese citizen has about four prepaid cards. In the last ten years (from 2010 to 2020), the total settlement amounts of prepaid cards have increased about 3.7 times (total settlement amounts in 2020: about 6 trillion yen <roughly equivalent to 60 billion U.S. dollars>).[11]
- The legal framework for prepaid cards in Japan has evolved along with technological progress. Prepaid cards were initially regulated by the Gift Card Control Act (enacted in 1932) stipulating protection of cardholders of paper-based gift cards issued by department stores. In the 1980s, in response to the surge of the issuance of magnetic stripe prepaid cards (e.g., telephone cards), the Act on Regulation, etc. on Advanced Payment Certificate (renamed from the Gift Card Control Act in 1989) was enacted by adding electronic prepaid cards to the scope of regulation.
- In 2010, the Payment Services Act [12] was enacted. The Act expanded its regulatory scope of "prepaid payment instruments" to cover not only card-type prepaid cards but also server-type prepaid cards. Under the Act, prepaid payment instruments are those that satisfy the following conditions: (1) the amount or unit for use is recorded on a paper voucher, IC card or server, etc. (storing value); (2) the access device is issued in exchange for the receipt of consideration corresponding to the amount or unit for use recorded through the device; and (3) the access device is used for conducting payment for purchase of goods or services.[13]
- The Payment Services Act clarified the prohibition of cash redemption of prepaid cards in principle.[14] It is considered that prepaid cards do not have deposit characteristics, since they are not cash-redeemable. With the historical background of prepaid cards originating from gift cards for purchasing the issuer's goods and/or services, the Japanese legal framework applies to both prepaid cards for one's own business and for third-party business, and protects cardholders of prepaid cards for one's own business as well as for third party business.[15]

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[10] Watanabe (2010) p.98
[11] Bank of Japan (2022) p.14
[12] The Act on Regulation, etc. on Advanced Payment Certificate was abolished and the Payment Services Act was enforced in April 2010.
[13] Article 3, paragraph 1 of the Payment Services Act
[14] Even before the enactment of the act in 2010, issuers of prepaid cards, in principle, did not redeem in cash value stored on prepaid cards. If they redeemed in cash, the value stored on prepaid cards was likely to be categorised as "deposit," and receipt and refund of the stored value through prepaid cards were likely to be categorised as fund transfer business. Issuers of prepaid cards are prohibited from deposit taking activities by the Act Regulating the Receipt of Contributions, the Receipt of Deposits, and Interest Rates unless the issuers of prepaid cards are banks or other institutions legally permitted to take deposits by special stipulation. They are also prohibited from conducting fund transfer business, unless the issuers of prepaid cards are banks.
[15] If a prepaid card is issued by several closely related issuers (The other issuer is a controlling shareholder including a parent company, a relative in the case of issuance by an individual, a corporation with the same parent company, or a person who provides goods or services that are provided as integral parts of goods or services of the issuer), this prepaid card is considered to be a prepaid card for one's own business in Japan.

1.2.2 U.S.

- "Prepaid" refers to an access device that has been loaded with funds when it is first provided to a consumer. While these access devices may take many different forms (a physical card, an app, a QR code) and may or may not have a physical manifestation, they are frequently referred to as "prepaid cards."
- Prepaid cards can be "open-loop" or "closed-loop." These categorisations refer to where a card can be used. An open-loop card uses the Visa, Mastercard, American Express, Discover, or other payment network and can, in most cases, be used at any retailer using these networks. Closed-loop cards can only be used at certain locations, such as specific retailer, college campus, shopping mall etc.
- The evolution of prepaid cards began in the United States in the 1970s with prepaid phone cards, used to make long-distance phone calls, and continued in the 1980s and 1990s with the introduction of prepaid gift cards. A major transition came in the 1990s when the federal government began issuing benefits on prepaid cards, rather than with paper checks. The first open-loop cards, able to be used at multiple retailers, began appearing in 1999. At present, prepaid cards have a wide range of functions and uses. The most common prepaid cards may include general purpose reloadable (GPR) cards, gift cards, or incentive cards. Prepaid products are used increasingly to streamline payroll disbursements and the distribution of certain types of benefits, including from government sources. There are also prepaid cards used for receiving disaster relief financial assistance, etc. Consumers use GPR prepaid cards as both a supplement and a substitute for traditional checking accounts. Many prepaid cards offer them the ability to pay bills, direct deposit income, and perform other transactions in a similar manner to checking accounts. Prepaid cards are also used at ATMs to withdraw funds similar to debit cards tied to checking accounts.[16]
- The legal framework of prepaid cards differs, depending on whether prepaid cards are open-loop or closed-loop, and whether prepaid cards are issued by banks or not.

  Open-loop electronic prepaid cards, issued by non-banks, are regulated as money remittance services. Prepaid-type money remittance services are generally regulated by state laws to supervise and protect cardholders in the U.S.[17] However, to address inconveniences arising from applying different state laws (on Money Transmitter Acts), the National Conference of Commissioners on Uniform State Laws (NCCUSL) developed the Uniform Money Services Act (UMSA), with an aim to harmonise state laws on money transmitters. The NCCUSL recommends that respective states adopt the UMSA. By 2016, 12 states[18] adopted the UMSA as their state law. A license is required for engaging in money transmission business specified by the UMSA. The rules on stored-value payment instruments stipulated in the UMSA do not specify where value should be stored, nor what access devices should be used. They also do not provide any indication that stored-value payment instruments should be prohibited from cash redemption. Accordingly, stored-value payment instruments are generally cash-redeemable based on the UMSA. Under the UMSA, holders' protections are stipulated relatively modestly and are more dependent on contracts between issuers and holders.

  Prepaid cards issued by banks are outside the scope of the UMSA, since they are governed by the banking laws. As for closed-loop prepaid cards, there are less regulations imposed in the U.S. (in comparison to open-loop prepaid cards)[19].

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[16] Bennett (2015), Fuchida (2017)

[17] In addition, at the federal level, from anti-money laundering and know-your-customer identity verification perspectives, supervision and regulation are imposed by the Bank Secrecy Act. The Electronic Funds Transfer Act ("EFTA") of 1978 and Regulation E specify information provision requirements and cardholder's protection. The Credit Card Accountability Responsibility and Disclosure Act of 2009 specifies cardholder's protection relating to fees, expiration dates, and information provision requirements.
These acts and related rules have been enacted and amended several times including following amendments. In 2012, the Consumer Financial Protection Bureau (CFPB) issued a consumer protection rule on remittance transfer providers (which covers providers of certain prepaid accounts) by amending Regulation E.(https://www.federalregister.gov/documents/2012/02/07/2012-1728/electronic-fund-transfers-regulation-e) The CFPB enacted a new rule effective April 1, 2019, amending Regulation E and Regulation Z, which requires financial institutions to provide disclosures at the time of sale of prepaid card. Among these disclosures are the fees charged, linked overdraft services, and a statement regarding registration and FDIC or NCUA insurance. (https://www.federalregister.gov/documents/2018/02/13/2018-01305/rules-concerning-prepaid-accounts-under-the-electronic-fund-transfer-act-regulation-e-and-the-truth)

[18] 12 states include the Autonomous Commonwealth of Puerto Rico and the self-governing territory U.S. Virgin Islands.

[19] To protect cardholders, the Credit Card Accountability Responsibility and Disclosure Act of 2009 imposes gift card regulations on fees, expiration dates, and information provision obligations and others. The Bank Secrecy Act is also imposed to closed-loop prepaid card, if stored value amount is over a certain threshold.

1.2.3 EU

- Prepaid cards were introduced as substitutes for coins in the EU. For instance, in Germany, there have been instances where prepaid cards were used as payment instruments for train fares or parking fees without entering passwords (Geldkarte).
- EU-law defines prepaid cards as "a category of payment instruments on which electronic money is stored".[20] E-Money itself – whether card-based or not – is regulated by an EU legal framework (the E-Money Directive), but only when it is used in an open-loop system.[21] Closed-loop prepaid cards are covered by legal frameworks of the respective jurisdictions in the EU. Though the legal framework for e-money does not specify where value should be stored, nor what access devices should be used, it stipulates a strict holder protection framework, including full protection of unused balances and the obligation to redeem cash to holders[22] (details explained in Section 4 "Protection of Prepaid Cardholders and Impact on Deposit Insurers"). Payment services offered through an open-loop prepaid card system[23] are also covered by the European Payment Service Directive, which sets out a number of consumer protection measures including on cost transparency and refunds.

2 Motives for using prepaid cards

Prepaid cards are mainly used for small-value settlements, and their average transaction amount is generally small.[24] They often substitute and/or complement cash, deposits, debit cards linked to deposits, and credit cards.

One of the factors affecting their substitutability and/or complementarity to deposits may be their cash-redeemability of the value stored, which may also affect their similarities to deposits. Moreover, if value stored on prepaid cards are regarded as deposits under one's legal framework, it is considered that their degree of substitutability and/or complementarity to traditional deposits is higher than prepaid cards not regarded as deposits.

Prepaid cards are considered to have a high degree of substitutability and/or complementarity to deposits, and are instruments for financial inclusion[25] of the unbanked. This is particularly the case when the creditworthiness of cardholders need not to be evaluated since their use is limited to prepaid value, and/or when value can be loaded or redeemed through channels other than banking channels (where permitted to do so). The degree of substitutability and/or complementarity of prepaid cards is considered to be higher especially in jurisdictions/regions where there are relatively large populations of the unbanked that do not have deposit accounts.

- According to a 2019 Federal Deposit Insurance Corporation (FDIC) survey, prepaid cards are used more frequently by unbanked households (27.7%) than by banked households (7.4%).[26]
- In Japan, the average settlement amount (per transaction) of prepaid cards is as small as 1,040 yen (about 8 USD, in 2021).[27] Their substitutability and/or complementarity to deposits are considered to be lower in Japan owing to their non-cash-redeemable nature, compared to the U.S. and the EU where prepaid cards are cash-redeemable. In Japan and the EU, prepaid cards are not categorised as deposits (see Section 4 for details). In Japan, there seems little need to promote financial inclusion by prepaid cards since the percentage of adults who have bank accounts is relatively high.

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[20] Regulation on interchange fees for card-based payment transactions (EU) 2015/751, Art. 2 (35)
[21] Second E-Money Directive (2009/110/EC) Article 2 (2)
[22] Issuers' obligation to redeem in cash on request from a holder was introduced by the first E-money Directive (2000/46/EC). This obligation was maintained in the second E-money Directive (2009/110/EC).
[23] Second Payment Services Directive (EU) 2015/2366, Art. 3 (k)
[24] Federal Reserve Board (2019_a), Federal Reserve Board (2019_b), European Central Bank (2020)
[25] Other than Japan, the U.S., and the EU, in Nigeria and Kenya, for example, ID cards with a prepaid card function have been issued as their national projects to promote financial inclusion. In India, Rupay debit card (in 2012) and Rupay prepaid card (in 2014) have been issued as its national project to promote financial inclusion.
[26] Federal Deposit Insurance Corporation (2020)
[27] Bank of Japan (2022) p.14

3 Issuers of Prepaid Cards (banks and non-banks)

In Japan, the U.S., and the EU, there are cases where banks, as well as companies of various business segments issue prepaid cards.

- In Japan, various business segments including retailers, restaurants, hotels, and tourist agencies, issue prepaid cards for one's own business as well as for third-party business.[28] Major issuers of prepaid cards for third-party business include not only financial institutions (such as credit card companies) but also retailers and railroad companies. Banks are permitted to issue prepaid cards under the Banking Act as an ancillary business and need to conduct their business operations on issued prepaid cards under the Payment Services Act.
- In the US, closed-loop prepaid cards are issued by a diverse array of retailers. Some open-loop prepaid cards are issued by money transmitters, but most are issued by banks. In many cases, overall operations of prepaid cards are divided into affiliated companies.[29] For instance, issuing banks[30] often outsource post-issuance administration tasks to program managers.[31] A payment network[32] is provided by international brands such as VISA and MasterCard. Transmission of payment instructions is conducted by payment processors[33], and distribution of prepaid cards to new cardholders is conducted by distributors[34] such as retailers[35].
- In the EU, closed-loop prepaid cards are mainly issued by railroad companies and retailers. The First E-money Directive (2000/46/EC) imposed strict regulations on issuers of e-money including issuers of open-loop electronic prepaid cards, owing to the deposit-like nature of e-money. However, on reflection on the limited use of e-money[36], the Second E-Money Directive (2009/110/EC) removed the restriction prohibiting concurrent business of e-money issuers[37] and noted that the issuance of e-money did not constitute deposit-taking activities.[38] These developments led to an increased number of e-money issuers in the EU jurisdictions. Issuers are mostly banks and financial institutions whose main operation is to conduct payment and settlement business. The Directive applies to open-loop systems only.[39]

Issuers of prepaid cards including banks are considered to benefit from a larger customer base by providing additional small-value settlement services through issuance of prepaid cards. At the same time, issuers of prepaid cards including banks face additional burden to comply with supervisory and regulatory requirements (including protection of funds received from cardholders, as mentioned later) as well as to take anti-money laundering measures under the respective jurisdictions/regions' regulations. In jurisdictions/regions where prepaid cards have a high degree of substitutability and/or complementarity to deposits, banks that do not issue prepaid cards may be affected by the increased competition in deposit acquisition against those that issue prepaid cards.

4 Protection of Prepaid Cardholders and Impact on Deposit Insurers

To protect cardholders, supervisory measures to ensure the soundness of prepaid card issuers may be taken as a first step to prevent problems and/or failures of issuers.

Measures to protect cardholders vary depending on the legal frameworks in the respective jurisdictions/regions. Some jurisdictions/regions require issuers to introduce protection measures such as a deposit (e.g. to government), guarantee,

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[28] Japan Payment Service Association (2020) p.1
[29] In the U.S., the prepaid card industry is divided into multiple roles. Banks can play multiple roles, as noted in this paragraph.
[30] Issuing bank is a bank that offers network branded prepaid products to consumers and may serve as the holder of funds that have been prepaid and are awaiting instructions to be disbursed.
[31] Program manager runs the program's day-to-day operations. This entity may or may not also be the entity that creates the program and designs the features and characteristics of the prepaid product.
[32] Payment networks clear, settle and process transactions.
[33] Payment processor is the entity that tracks and manages transactions and may be responsible for account set-up and activation; adding value to products; and fraud control and reporting.
[34] Distributor is an organisation that markets and distributes prepaid products.
[35] Retailer is also called a seller, e.g. a convenience store, drugstore, supermarket, or location where a consumer can buy a prepaid product.
[36] European Commission (2008) p.3
[37] Second E-Money Directive (2009/110/EC) Article 6 (1)(e)
[38] Second E-Money Directive (2009/110/EC) Article 6 (3)
[39] Second E-Money Directive (2009/110/EC) Article 2 (2)

trust, insurance, asset separation, and/or investment in safe assets, without using deposit insurance. Other jurisdictions/regions provide protection measures through deposit insurance. Japan belongs to the former. In the U.S., money transmitters are required to keep a certain amount of funds as guarantee for their failure. In case of the failure of the bank with which money transmitters deposited their money received from the cardholders, cardholders are protected by deposit insurance (using the pass-through approach) when certain conditions are met.[40] In the EU, Electronic Money Institutions[41] are required to protect users mainly through own funds serving as guarantee and through safeguarding requirements, including strict separation of assets.[42] There is no specified approach in the EU laws about protection through deposit insurance. It depends on each jurisdiction whether pass-through approach is taken or not. In some jurisdictions including Germany, Italy and Spain, cardholders are not protected by deposit insurance at all.[43]

The following elaborates the situations of Japan, the U.S., and the EU.

4.1 Japan

- Soundness of issuers is ensured through supervisory and other measures by the authorities, which includes obligation for notification[44] and registration[45], on-site inspections[46] and business operation improvement orders[47].
- Issuers are required to either deposit with the Legal Affairs Bureau[48] not less than one-half of the cardholder's unused balance (required amount of deposit) as a security deposit for issuance ("security deposit")[49], or in lieu of a deposit with the Legal Affairs Bureau, enter into a guarantee contract[50] with financial institutions, etc., or a trust agreement of security deposit with trust companies, etc.[51] to the same amount. Cardholders have the right to receive preferential repayment from the security deposit, which provides a certain degree of protection in case of an issuer's insolvency. If a bank issuing prepaid cards is financially sound, it is exempted from the requirement for making a security deposit with the Legal Affairs Bureau.[52]
- The cardholders' funds protected as a security deposit with the Legal Affairs Bureau are managed by the government.
- Only sound financial institutions, etc. can enter into guarantee contracts with issuers. They are subject to certain prudential standards and supervision. This prevents the insolvency risk of the card issuer. In the event they become no longer financially sound, the issuer must either deposit the required amount with the Legal Affairs Bureau as a security deposit, or enter into a guarantee contract with another financially sound institution etc., or a trust agreement of security deposit with a trust company, etc.
- When trust companies, etc. enter into trust agreements of security deposit with issuers and receive funds, they need to hold the funds in trust and manage them separately from other assets.

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[40] For example, in the U.S., banks are subject to capital adequacy and other supervisory regulations by competent authorities, and money transmitters are subject to minimum capital adequacy requirements, the requirement to hold a certain amount of funds as guarantee in the form of bonds or other secured forms, and the requirement to invest in certain assets within the scope permitted by state law, and are subject to supervisory regulations by the authorities. FDIC (2008), International Association of Deposit Insurers (2020).

[41] An Electronic Money Institution is a legal person authorised to obtain a license to issue electronic money under required conditions by the E-money Directive. Credit institutions (Banks), post office giro institutions, central banks, public authorities, and Electronic Money Institutions are authorised to issue e-money in the EU.

[42] Second E-Money Directive (2009/110/EC) Article 7 (1)

[43] As of 2018, European Forum of Deposit Insurers (2018) p.15

[44] Issuers of prepaid payment instruments for one's own business are obliged to notify the Financial Services Agency if the unused balance of cardholders exceeds 10 million yen at the end of March or September. Article 5, Article 3, Paragraph 2, Article 14, Paragraph 1 of the Payment Services Act, Article 6 of the Order for Enforcement of the Payment Services Act.

[45] Issuers of prepaid payment instruments for third-party business are obliged to register with the Financial Services Agency before starting business. Article 7 and Article 8 of the Payment Services Act

[46] Article 24 of the Payment Services Act.

[47] Article 25 of the Payment Services Act.

[48] The Legal Affairs Bureau is one of the local organisations of the Ministry of Justice. They are responsible for, among other things, civil administrative affairs, such as registration.

[49] Article 14 of the Payment Services Act

[50] Guarantee contract is a contract in which financial institutions, etc. promise "that security deposits will be made on behalf of the issuer of prepaid payment instruments in response to an order by the authority". Article 15 of the Payment Services Act

[51] Article 16 of the Payment Services Act

[52] Article 35 of the Payment Services Act

- In fact, cardholders' filed claims have fully been returned in most insolvency cases of prepaid card issuers in Japan, owing to cardholder protection measures and actions taken. This included, where necessary for cardholders' protection, an order by the supervisory authorities to deposit with the Legal Affairs Bureau[53], the statutory preferential treatment of the repayment from the security deposit[54], and articulation of procedures on repayment from the security deposit.[55]
- Prepaid cards (or their stored values) are not regarded as deposits since they are not cash-redeemable, and are not protected by deposit insurance.
- Under the afore-mentioned supervisory and regulatory framework, prepaid card issuers hold business models that are different from those of banks whose deposits are covered by the deposit insurance scheme. Prepaid card issuers are exposed to relatively contained risks originating from liquidity mismatch, maturity mismatch, and credit risk transformation function that may cause bank run. On the other hand, these risks that may cause bank run are concentrated in the banking system. To ensure the stability of the banking system, these risks are addressed by the existence of robust financial safety-net including deposit insurance system and lender of last resort function as well as the implementation of prudential policy for banks. Accordingly, it is considered that whether (or how much) prepaid card holders should be protected by financial safety-net including deposit insurance is more or less affected by the functions, business models and risks of prepaid card issuers.[56]

4.2 U.S.[57]

- When banks issue prepaid cards as part of their banking business under the banking laws, they are subject to supervision stipulated in the banking laws. Money transmitters, on the other hand, issue prepaid cards based on the Money Transmitter Act of the respective states. For example, in New York State[58], money transmitters are subject to supervision and inspection by the New York State Department of Financial Services, and are required to maintain minimum capital, keep specified amounts of funds in surety bonds or other secured forms, and make investment within the asset range permitted by the state act for protecting cardholders.
- When banks issue prepaid cards in affiliation with program managers, in most cases the program managers deposit funds received from cardholders at the card issuing banks. When money transmitters issue prepaid cards, there are cases where contracts between affiliated companies stipulate that funds received by the money transmitters from the cardholders shall be deposited with their affiliating partner banks. Regardless of whether issuers are banks or money transmitters, cardholders' funds deposited with banks are insured based on FDIC rules up to the Standard Maximum Deposit Insurance Amount of $250,000. Pass-through insurance recognises the owners of a stored value card (or other access mechanism) like a prepaid card as the owner of the deposit in an insured depository institution, if the following regulatory requirements are met[59]:

(i) The account records of the insured depository institution must disclose the existence of the agency or custodial relationship.

(ii) Records of the bank, custodian or other party must disclose the identities of the owners of the funds and the amount owned. Information identifying the owner and ownership interest, if not in bank records, must be provided to the FDIC in the event of the bank failure (pass-through insurance).

(iii) The prepaid cardholder must own the deposits under the agreements among the parties.

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[53] Article 17 of the Payment Services Act
[54] Article 31 of the Payment Services Act
[55] Persons holding the right must state their claims within a certain period specified to be not less than 60 days. After public notice of the distribution table regarding the security deposit, distribution is implemented 110 days after the public notice. (Refers to Article 31 of the Payment Services Act and Article 11 of the Order for Enforcement of the Payment Services Act). There have been 23 cases of repayment of security deposit since 2010, and all but one have achieved 100% refund (as of December 2020).
[56] Financial Services Agency (2019), Study Group on Payment and Settlement (2007)
[57] Keitel (2011)
[58] Regulations of money remittance are specified in 13-B of the New York Banking Act.
[59] FDIC (2008) (describing applicability of FDIC's pass-through regulations at 12 CFR Part 330 to stored value cards and other non-traditional access mechanisms).

If the pass-through insurance requirements are satisfied, each cardholder's funds deposited at the bank would be separately insured for up to the Standard Maximum Deposit Insurance Amount, currently $250,000.

4.3 EU

- When banks (credit institutions) issue prepaid cards, they are subject to supervision and regulation of the Banking Act and business conduct regulation of the E-money Directive.
- When Electronic Money Institutions issue prepaid cards, they are subject to business conduct regulation and the capital adequacy requirement under the E-money Directive. Electronic Money Institutions are required to hold users' funds isolated from those of non-users and of the electronic money institution. They must be held on bank accounts or be invested in low-risk assets and shall be isolated from other creditors' claim on the electronic money institution in case of insolvency. Alternatively, a guarantee agreement with insurance companies can be entered into.[60]
- According to the Second E-money Directive (2009/110/EC)[61], e-money is not directly protected by deposit insurance since it is considered to be an electronic surrogate for making payment usually of a limited cash amount and not as a means of saving, and does not constitute a deposit. As for pass-through approach upon failure of the bank holding users' funds, there is no specification in the EU laws. It depends on each jurisdiction whether pass-through approach is taken or not. For example, pass-through approach is not adopted in some jurisdictions including Germany, Italy and Spain.[62]

5 Conclusion and Potential Next Steps

As noted above, prepaid cards have evolved interactively with the legal frameworks of the respective jurisdictions/regions over a relatively long history as payment instruments. Differences among jurisdictions/regions are observed not only in their legal frameworks for prepaid cards, but also in the scope and concepts, similarities to deposits, prudential regulation, impacts on cardholders, functions and risks of issuing institutions, and other elements of prepaid cards. It can be said that there is no single approach that could be applied universally for supervision and protection of prepaid cards and identification of their appropriate relationships with deposit insurance. Respective jurisdictions/regions have been developing their own approaches as appropriate in accordance with their legal frameworks and other relevant elements.

For instance, Japan, the U.S., and the EU do not limit the form of access nor the value storage medium of prepaid cards to be physical cards. However, the cash redemption policy and cardholder's protection mechanisms of prepaid cards differ among them.

In Japan, the Payment Services Act stipulates that both prepaid cards for one's own business and those for third-party business are regarded as prepaid payment instruments and are not allowed to be redeemed for cash in principle. Accordingly, they do not hold deposit characteristics, and are not eligible to be covered by deposit insurance, neither directly (deposit insurance covers holders of deposit accounts directly in case of the failure of the card issuer) nor indirectly via pass-through (deposit insurance coverage passes through from the holders of deposit accounts to reach each cardholder in case of the failure of the bank holding cardholders' funds).

In the U.S., prepaid-type money remittance services, including open-loop electronic prepaid cards, are stipulated under the Money Transmitter Act of the respective states. Such services may involve products that are generally cash-redeemable. Deposit insurance coverage only applies to the extent funds are held at an FDIC-insured bank. there is no direct deposit insurance coverage. The risk of failure of the bank holding cardholders' funds is covered by pass-through deposit insurance if certain conditions are fulfilled.

In the EU, open-loop electronically-storing prepaid-type payment instruments are stipulated under the E-money Directive as electronic money and are obliged to cash-redeem in response to cardholder's requests. However, as they

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[60] Second E-money Directive (2009/110/EC) Art. 7 in conjunction with Directive (EU) 2015/2366 Art. 10.
[61] Second E-money Directive (2009/110/EC) Preamble (13)
[62] As of 2018, European Forum of Deposit Insurers (2018) p.15

are not categorised as deposits, there is no direct coverage by deposit insurance.[63] In some EU-Member States, the risk of failure of the bank holding e-money users' funds is covered by pass-through deposit insurance.[64]

There is no one-size-fits-all approach that can be taken in considering measures for supervising and protecting prepaid cards and their appropriate relationships with deposit insurance. Instead, as noted in the brief, one should begin by understanding the legal frameworks in the respective jurisdictions/regions, including their development stages and historical backgrounds, and then carefully analyse and sort out relevant elements of prepaid cards. It may also be useful to apply this approach in assessing new Fintech products that may be developed in the future.

The potential next steps for further analysis are as follows:

- Conduct a fact-finding exercise and categorise prepaid cards issued in various jurisdictions/regions (including those besides Japan the U.S. and the EU), and a deeper analysis on aspects that were less covered in this brief (e.g. closed-loop prepaid cards) as appropriate. Take stock of the legal frameworks of the respective jurisdictions[65],/regions, and review whether prepaid cards are protected by deposit insurance or not. If they are protected by deposit insurance, identify their reasons and their scope of protection (also shed light on institutional types/differences of issuers).
- Take stock of measures for dealing with failures of prepaid card issuers, roles to be played by deposit insurers , their effectiveness in contributing to financial system stability and protecting deposits
- From deposit insurers' perspectives, consider possible challenges when prepaid card issuers (including banks, etc.) fail, and sort out lessons learned (from actual cases of issuer failures).

[63] Crosetta (2021) p.5
[64] European Banking Authority (2021) p. 5
[65] As for the latest development on legal framework of prepaid cards in Japan, the Payment Services Act was revised in June 2022. Revisions include rules stipulating a certain type of prepaid cards for third-party business that enables to transfer large amount of value electronically as high-value e-transferable prepaid payment instruments. For preventing fraudulent use of those prepaid cards and/or money laundering through those prepaid cards, the revised act places an issuer of those prepaid cards under obligations to submit business implementation plans on issues specified in the bill, verify the identity of the cardholders, report suspicious transactions to the authorities.

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