International Association of Deposit Insurers

IADI Fintech Briefs provide high-level overviews and key takeaways on Fintech topics of relevance to deposit insurers.

FINTECH BRIEF

MISDIRECTED MONEY TRANSFERS
THE ROLE OF THE
KOREA DEPOSIT INSURANCE CORPORATION

NO. 12

SANGJAE LEE AND JEONGEUN PARK

November 2022

IADI Fintech Briefs are written by Members of the IADI Fintech Technical Committee (Fintech TC), and from time to time by other authors, and are published by IADI. They provide high-level overviews and key takeaways on fintech topics of relevance to deposit insurers. The views expressed are those of the authors and do not necessarily represent the views of IADI or the institution to which the authors are affiliated. The authors are grateful to Bert Van Roosebeke for helpful comments.

The editor of the IADI Fintech Brief series is Bert Van Roosebeke (IADI).

This publication is available on the IADI website (www.iadi.org).

International Association of Deposit Insurers (IADI), C/O Bank for International Settlements,
Centralbahnplatz 2, CH-4002 Basel, Switzerland. Tel: +41 61 280 9933 Fax: + 41 61 280 9554

Sangjae Lee
Korea Deposit Insurance Corporation
leesj@kdic.or.kr

Jeongeun Park[1]
Korea Deposit Insurance Corporation
jeje_park@kdic.or.kr

MISDIRECTED MONEY TRANSFERS IN KOREA

Executive Summary

Korea's fintech market is expanding with the rise in non-face-to-face financial transactions triggered by the development of mobile banking along with the COVID-19 pandemic.

This Brief discusses the risk of misdirected money transfers and recent legislative changes in Korea mandating the Korea Deposit Insurance Corporation (KDIC) to assist in recovering such misdirected payments.

Within the new scheme for supporting the recovery of misdirected payments, KDIC will have the powers to upon request by the payment sender, subrogate into its claim and in lieu of the latter attempt to collect the money through a payment order issued by the court. Upon recovery of the misdirected payment, the KDIC will pay out the amount to the sender after deducting relevant expenses incurred in making notifications and managing the Scheme.

1 Introduction

Misdirected money transfers refer to cases where the sender makes a payment to the wrong account by accident. In most cases, the sender mistypes the account number or selects the wrong beneficiary bank. If the recipient of the payment refuses to return the money, the sender cannot get the misdirected payment back.

Before the introduction of simple transfers, wire transfers were more difficult to use and were mostly conducted via bank wire. With the development of mobile banking and fintech, it has become much easier to make wire transfers. According to the Bank of Korea's *Usage of Electronic Payment Services in 2021*, the average value of simple transfers made on a daily basis reached KRW 505 billion in 2021, up 41.5% from the previous year's KRW 357 billion.[2]

However, the easiness of transfer may bring about drastic increases of misdirected money transfers, e.g. if – as is the case in Korea – transfers can be made instantly by using account numbers only. In most cases, misdirected transfers happen when the sender inadvertently enters the wrong account number for the recipient's account. In addition, the widespread use of fintech in various fields in Korea is another reason for more cases of misdirected money transfers. Section 2 deals with fintech and misdirected money transfers in Korea, Section 3 with Schemes of KDIC to support the recovery of misdirected money transfer, and Section 4 with implications for KDIC.

---

[1] Ms.Haien Lee contributed to this brief while she worked at the KDIC as an intern.
[2] Bank of Korea (BOK) (2021).

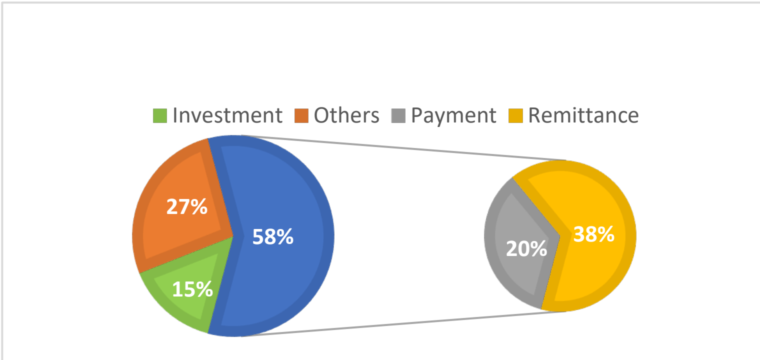
2 Fintech and KDIC-Misdirected Money Transfers

2.1 Growing Payment and Remittance Services

Payment and remittance sectors account for the largest share in the country's fintech market (see Figure 1), which may be attributed to the following two factors. First, non-banks and individuals are allowed to run a fintech company in the payment and remittance sectors, which brings in more entrants. Second, the market expanded as large high-tech companies (Samsung and Naver) entered, bringing with them a sizable consumer base.

The volume of simple payments[3] and simple money transfers[4] has been steadily growing since 2017 and is expected to maintain its growth trajectories in the post-COVID-19 era. According to the Bank of Korea's *Usage of Electronic Payment Services in 2021*, the volumes of simple payments and transfers continue to rise in Korea, marking a growth of 36.3% and 33% year-on-year, respectively.[5] The amounts processed through simple payments and simple transfers also showed a steady growth in 2021, up 35.2% and 41.5%, respectively, from the previous year.

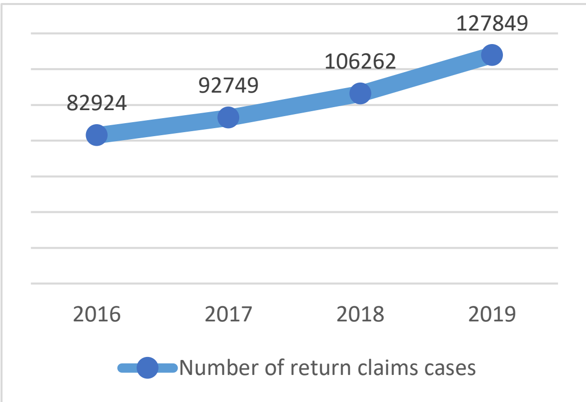
Figure 1: Payment/Remittance Industry Within K-Fintech, on a total of 302 companies



Source: KISA (2020)

Damage from misdirected simple transfers steadily increased since 2016, and return claims have been rising, but the number of the misdirected payments that have actually been returned remains low (see Figures 2 and 3).

Figure 2: Filed Return Claims from Misdirected Payments



Source: Financial Supervisory Service

As a side effect of the convenience brought on by the simple payment and transfer services, the number of misdirected payments is growing each year by a higher margin. In 2020, there were 200,000 cases valuing KRW 464,6 billion (USD 336 Mio) of misdirected money transfers reported. Among them, 101,000 cases valuing KRW 211 billion (USD 153 Mio) remain unreturned (unreturned rate of 50.4% of cases).

In particular, according to the Bank of Korea's *Survey on the Use of Payment Methods and Mobile Financial Services*, consumers in 2021 placed a much greater value on safety when choosing their payment method, compared to 2019.[6] Such elevated level of concerns among consumers indicate the presence of safety-related side effects of simple payments and simple transfers, as opposed to the convenience the services bring to the users.

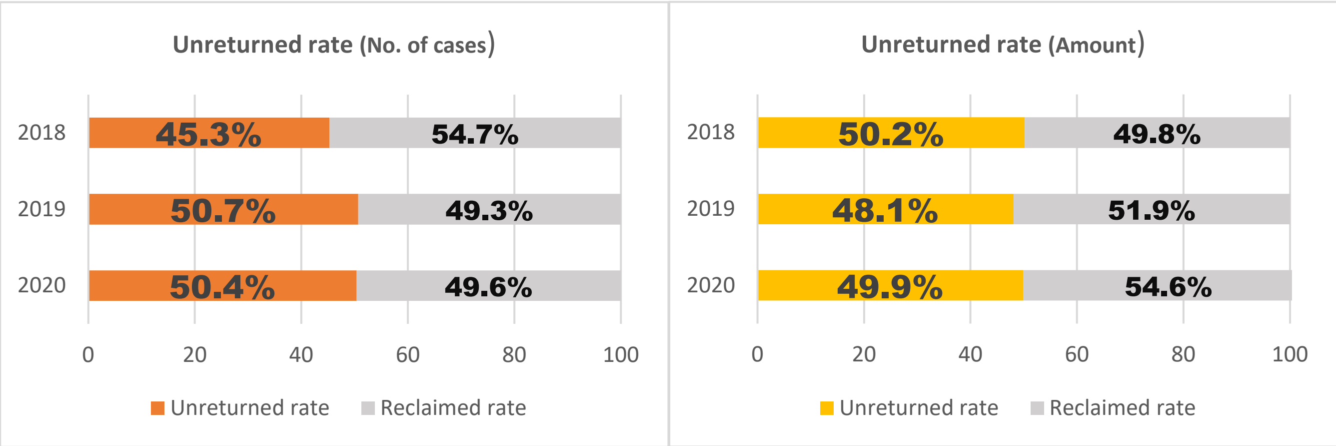
Consequently, the increase in the number of misdirected transfers cannot be construed as irrelevant to the rising volume of simple payment and simple transfer services.

Until recent legislative changes, there was a lack of protection measures on misdirected payments. Under the current deposit insurance scheme, the senders are not protected and must file a lawsuit to claim the misdirected payments back. However, as expenses associated with the lawsuit in most cases surpass the claimed amount, senders reclaim the

[3] A service that allows users to register payment card information with the payment service provider and make payments for goods and services using means of simple authentication (e.g., password and biometric information such as fingerprints and facial image).
[4] A service that allows users to wire funds using means of simple authentication (e.g., password and biometric information such as fingerprints and facial image) to beneficiaries' phone numbers (via message) and prepaid accounts with money charged in their prepaid accounts.
[5] Bank of Korea (BOK) (2021).
[6] Bank of Korea (BOK) (2021a).

misdirected payments by asking the recipient to return the money in question but have no other option if the recipient refuses to do so.

Figure 3: Unreturned Misdirected Payments Over the Last Three Years



Source: Korea Financial Telecommunications and Clearings Institute

2.2 A Task for KDIC

In Korea, KDIC has been charged with the responsibility of running a scheme to support the return of misdirected money transfers. The involvement of KDIC and the public sector has been called for, given and the sentiment that misdirected transfers can be seen as a side-effect from the continuous development of financial transaction systems and all citizens may potentially fall victim to erroneous money transfers.

Role of Public Institution. In Korea, the KDIC has successful performed its role as a safety net player within the financial markets. After the 1997 Asian financial crisis, the KDIC—as bankruptcy trustee—has improved the fundamentals of the financial industry through efficient resolution of financial companies.[7] Over the years, the KDIC has proven itself to be capable of resolving challenges in the financial system.

Responsibilities as a Public Institution. Public institutions are in place to deliver services that are required in the society but may not be profitable based on market terms. As misdirected money transfers become more prevalent in recent days due to the simplification of payment systems, the need for a scheme to support the return of misdirected money transfers gained ground. However, rising social costs and low possibility of profit-making made it difficult to entrust the role of running the scheme to the private sector.

Reduction in Policy Costs. As the KDIC takes charge of the scheme to support the return of misdirected money transfers, financial consumers may have greater confidence in public institutions as well as national financial policies. Such improvements in policy confidence may lead to enhanced policy results and reduced costs associated with building a safety net in the financial markets in the mid-to-long term.

The KDIC, with its track record in addressing issues in the financial system, has come to take on the role of serving the financial consumers troubled by misdirected money transfers.

[7] KDIC (2016), History of KDIC, 2016, p.31

3 Scheme to Support the Recovery of Misdirected Money Transfers

The biggest challenge confronting Korea's deposit insurance system with regard to fintech is misdirected transfers. To protect the depositors, the KDIC proposed an amendment to the Depositor Protection Act in September 2020, including regulation on redressing losses from misdirected money transfers.

The revised bill passed the plenary session of the national Assembly on December 9, 2020 and came into effect on July 6, 2021. The new rules on the damage caused by misdirected transfers include regulations that allow the ex-post purchase of claims by KDIC for restitution of unjust enrichment and making voluntary return requests.

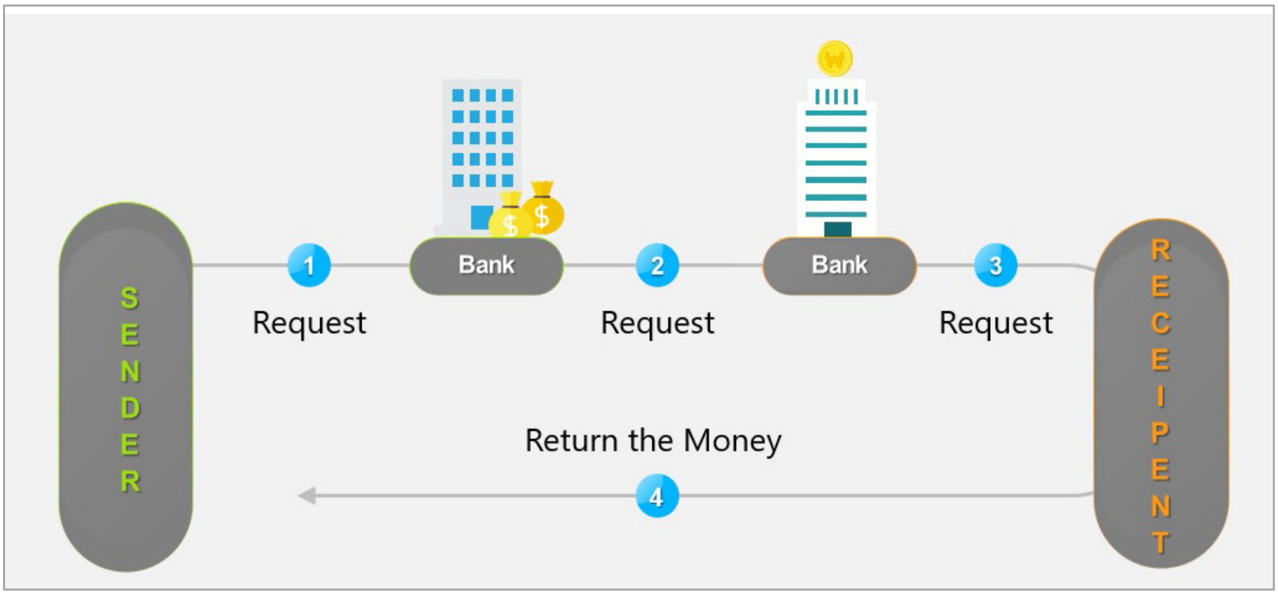
As measures to protect individuals from such misdirected money transfers have just been put in place in Korea, the role of the KDIC has become all the more important.

Currently, the KDIC is working on building the IT system and other necessary infrastructure for the "Scheme to Support the Recovery of Misdirected Money Transfers" as planned. The following sets out the key aspects of the existing Scheme as well as the new Scheme.

3.1 Current Scheme

Under the current system, which will remain in effect following the legislative changes, when a payment is made to the wrong bank account, the sender can reclaim the misdirected amount by contacting the beneficiary via the sending bank. If the sender (account holder) reports a misdirected payment to the sending bank, the bank contacts the beneficiary bank, which in turn contacts the beneficiary with a request to return the funds. If the contacted beneficiary agrees, the amount incorrectly transferred is returned to the remitter through the beneficiary bank. This Scheme entails no involvement by the KDIC.

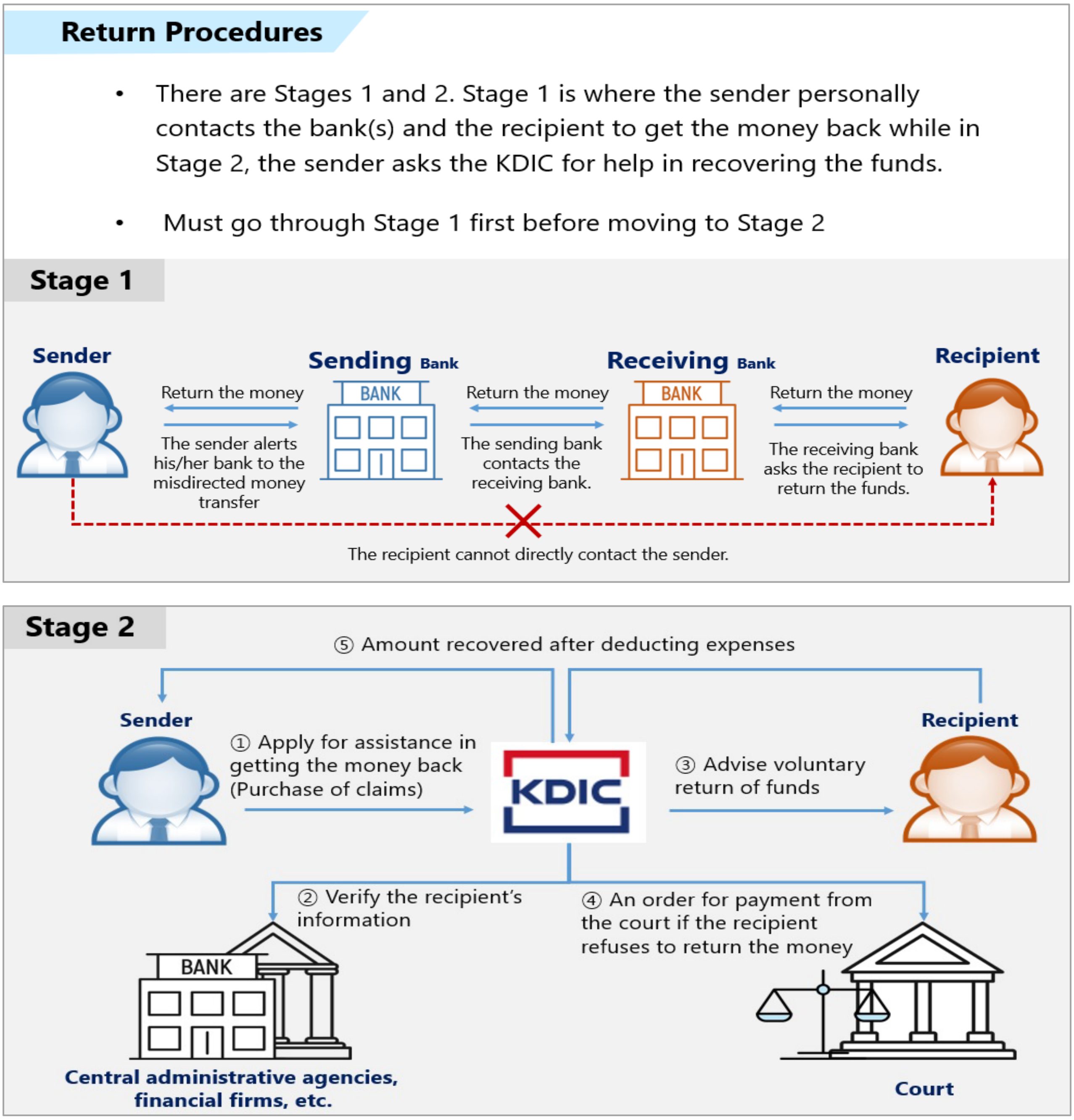
Figure 4: Current Return Procedure



3.2 New Scheme

Under the new legislation, if the beneficiary does not return the misdirected payment despite a request made through the involved financial institutions (this includes banks and non-banks), the sender may apply to use the KDIC's "Scheme to Support the Recovery of Misdirected Money Transfers". Upon the sender's request, the KDIC may subrogate into the sender's claim and if so, will notify the beneficiary to return the incorrectly transferred funds to the KDIC. KDIC may attempt to collect the money through a payment order issued by the court. Once the misdirected payment is recovered, the KDIC pays out the amount to the sender after deducting relevant expenses incurred in making notifications and managing the Scheme.

Figure 5: Future Return Procedure



3.3 Eligibility

The Scheme entails a minimum and maximum amount for claims to be considered by KDIC. The lower cap is set as to exclude cases where expenses incurred in the recovery process would surpass the claim itself. The upper cap is set in view of the fact that it may be more effective to directly recover the funds for misdirected payments made in large amounts through legal address. The reason going to court is more efficient for claims above the upper cap is because of the fees and expenses involved in the recovery process. The KDIC charges an indirect fee of between five to ten percent of the recovered amount while the court fees for small claims cases like the one involving a misdirected wire transfer are about KRW 1 million. If the claimed amount exceeds KRW 10 million, the fees payable to the KDIC are likely to exceed the costs of proceedings that the sender would have incurred had the case been taken to a civil court. As of the end of September 2021, the lower cap is KRW 50,000 and the upper cap is KRW 10 million.[8]

[8] KRW 50,000 is USD 41 and KRW 10,000,000 is USD 8,255 as of the end of December 2021.

However, support for the recovery of misdirected payments will be suspended if, in the process, the payment in question is found to be associated with normal commercial transactions, loans and repayments, pursuant to the relevant rules and regulations.

3.4 Importance of Introducing the Scheme to Support the Recovery of Misdirected Money Transfers

The implementation of the Scheme will allow remitters who made misdirected money transfers to rely on the KDIC to reclaim their funds in an effective and prompt manner.

When the sender applies for the use of the Scheme, the KDIC can collect the transferred amount by requesting the beneficiary to return the funds. If the beneficiary does not return the funds, the transferred money can be recovered in a traditional and typical manner by the KDIC through the court's payment order system.

If the sender directly files a lawsuit against the unintended recipient of the payment, it takes approximately six months to recover the funds, but if the KDIC steps in with the guidance on voluntary return of misdirected payments as well as the court's payment order, most of the money incorrectly transferred may be recovered within two months. The reason for the KDIC's involvement comes from the expectation that when the request for refund comes from a public organisation, as opposed to an individual, the recipient would feel more compelled or obliged to return the money, which reduces the chance that the case will be taken to trial and makes it more likely that the money will be returned smoothly.

In addition, the scheme to support the recovery of misdirected money transfers has the effect of further strengthening the protection of financial consumers in response to the spread of mobile banking and other non-face-to-face financial transactions. KDIC's support scheme is expected to reduce litigations and other unnecessary social costs and help shape a social climate where ill-gotten gains are returned to their rightful owners.

4 Implications for KDIC

In summary, the KDIC introduced the scheme to support the recovery of misdirected money transfers to ensure financial consumer protection amid the rapid growth of fintech and evolving financial landscape. There are three points that the KDIC expects from the adoption of the recovery of misdirected money transfers.

First, in most cases, senders of misdirected money transfers will be able to get back their funds in a less costly and speedier manner. The recipients of misdirected money transfers have a greater motivation to return the misdirected payment to its rightful owner when contacted by a trusted public institution, the KDIC, compared to when asked by a bank.

Second, as people begin to see that it is in everyone's interest to return unjustly earned money to its true owner, there will be fewer cases filed in court and thus less social costs.

Third, the scheme will complement the weaknesses in non-face-to-face financial transaction systems and enhance depositor protection.

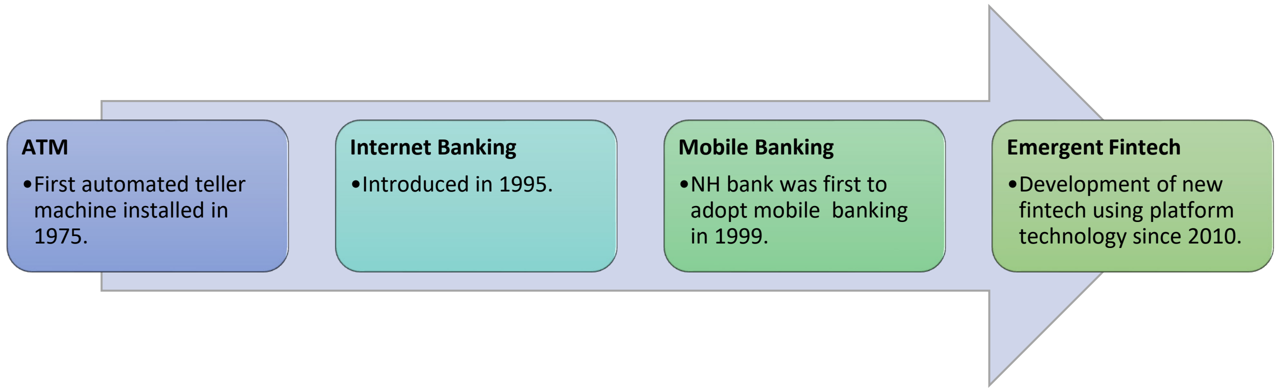
It will help to reduce the downsides of the transition to digital banking, and open new frontiers in depositor protection without impacting the KDIC financial position negatively since the recovery of the misdirected bank transfer is available on the condition that the receiver of the transfer agrees to return the fund.

5 Appendix: Fintech in Korea

5.1 Korea Fintech

Korea began to develop its fintech industry later than other fintech leading countries. The following figure depicts the development process of fintech in Korea.

Figure 6: Growth of Fintech in Korea



Emergent fintech[9] from Figure 6 is a new type of fintech based on platform technologies that grew significantly based on measures to simplify e-commerce transactions. These made mobile transactions even simpler with the removal of public key certificates[10] from the market. Such simplification in the payment process attracted more consumers to the online market, which in turn led to further advancement in payments and transfers related fintechs in Korea.[11]

The fintech industry may be categorised into three major groups (payment, transfer, and investment) as shown in the table below. The table includes both Korean and global companies for each of the categories for better understanding.

Figure 7: Fintech Landscape in Korea

	Korea	Global
Payments	Samsung Pay Naver Pay Kakaopay	ApplePay Alipay
Transfer	Toss KakaoPay	M-Pesa
Investment	Banksalad Finset	Robo-adviser AngeList

[9] According to the Korean Financial Services Commission (FSC) as opposed to traditional fintech – the technology-based innovative financial services–, "emergent fintech" refers to the direct provision of financial services by non-financial institutions, based on new technologies and Deep Tech on platforms.

[10] Public key certificates are a type of digital ID used to authenticate users in transactions carried out in the cyber space, etc. The requirements were abolished in 2020 when various problems such as technological weaknesses and difficulty in use were revealed.

[11] Payments refers to money transactions using bank accounts. Transfers refers to money transactions between a sender and a receiver with the help of non-banking institutions.

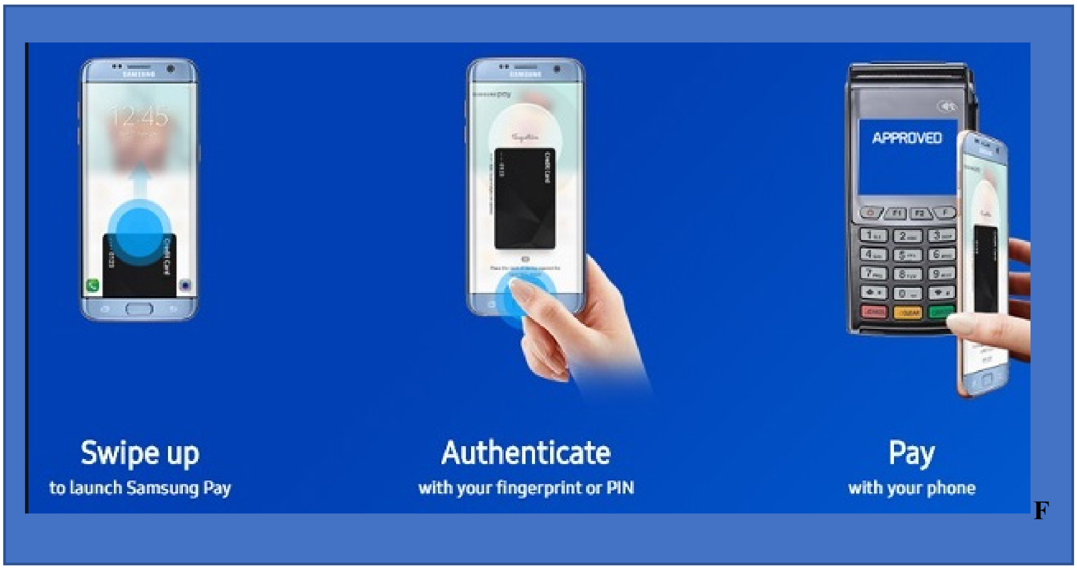
The fintech industry in Korea has high growth potential given the advanced financial infrastructure and the widespread uptake of smartphones with most of the services offered in the payment and lending space. In other developing markets, fintech companies engage in the broader market encompassing other financial services such as insurance and investment. Further details will be provided in each of the cases that follow.

5.2 Payments – Samsung Pay

In the payment category, Samsung, Naver and other large high-tech companies are the main service providers. In 2020, Samsung, Kakao and Naver made up a combined share of 65.3% of the market. In particular, Samsung set up a simple payment service by linking cards and bank accounts to its platform and built up a loyal customer base.

Card details are entered in the mobile phone and payments are made using PIN or fingerprint authentication. Samsung Pay not only enables transactions between bank accounts on the mobile, but also allows payments in the NFC method[12] by tapping the device on the terminal at the point of sale. With its services, Samsung Pay expanded the reach of fintech from the mobile platform onto the physical world.

Figure 8: Samsung Pay Process Flow



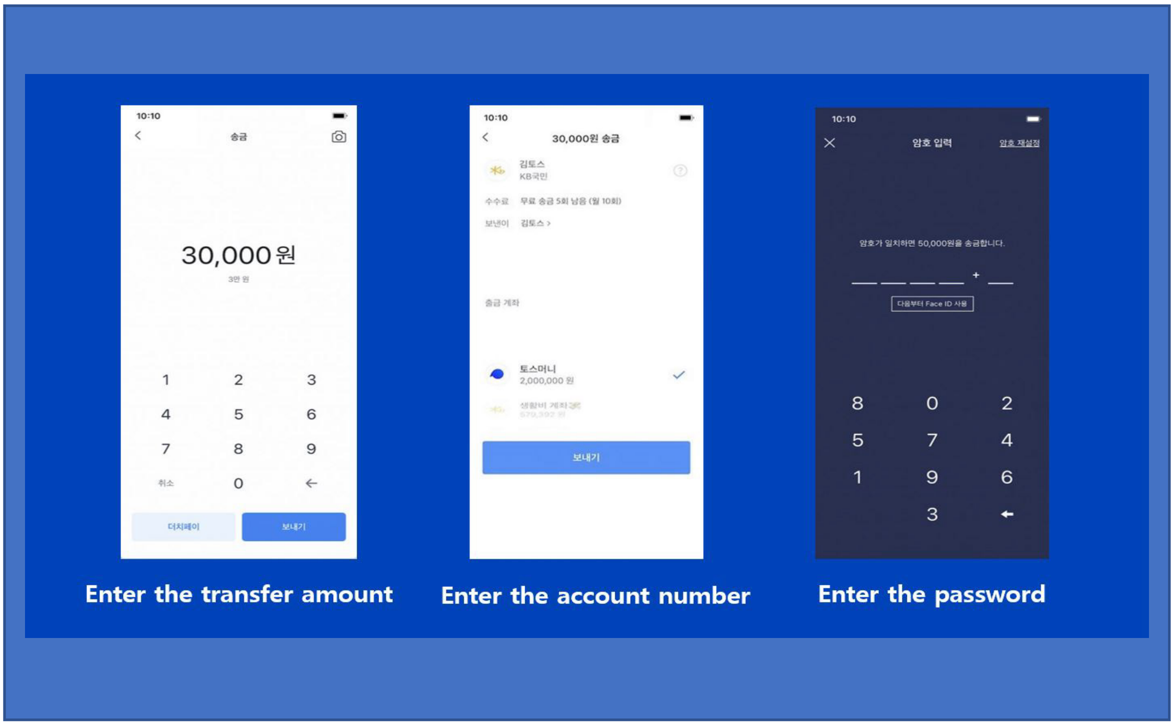
F

5.3 Transfers – Toss

Toss has the biggest consumer base among the fintech companies in Korea, with a monthly active user (MAU) figure of 14 million as of end 2021. It is not a bank but a fintech company that allows for money transfers between its users. With a simple identification, users can link their bank accounts to Toss. Once a user has been identified, Toss allows for money transfers with a simple PIN entry or biometric authentication.

[12] Samsung Pay supports both magnetic secure transmission (MST) and near field communication (NCF) payments while Apple Pay supports NFC only and requires an NFC-capable terminal. This makes it difficult for merchants without such a terminal to use Apple Pay.

Figure 9: Toss Process Flow



5.4 Investment – banksalad, etc.

A number of fintech companies that provide digital wealth management services have entered the local market since 2012, but the investment sector only accounts for a small proportion of the fintech market.

Likewise, there are only two internet banks offering digital investment services (Kakao Bank and Toss). Korean regulation restricts[13] the joint offering of commercial and financial services, which has kept many fintech companies out of the financial sector. According to the *2019 Fintech Companies in Korea*[14], only 21 out of the 302 fintech companies provide investment services, excluding Robo-adviser.

Nonetheless, the introduction of robo-advisors, digital platforms that provide artificial intelligence (AI)-powered investment services, in 2016 has helped to drive the growth of the fintech investment market. To spur innovation, the Korean government also allowed other regulatory flexibilities for investment fintechs, including not-in-person signing of a contract for discretionary investment management, relaxation of capital requirements, fund management, and entrustment of managing funds and discretionally managed portfolios, which leads to expectations for the rapid growth of the market.

[13] This relates to the legal principle mandating the separation of financial capital (represented by banking) and industrial capital (represented by manufacturing), banning them from owning or controlling each other. This complicated matters for IT companies wanting to enter the financial services market, which is the reason for the late arrival and small number of internet banks in Korea.
[14] This was published by the Korea Internet & Security Agency (KISA).

6 References

Bank of Korea (BOK) (2021). Usage of Electronic Payment Services

Bank of Korea (BOK) (2021a). Survey on the Use of Payment Methods and Mobile Financial Services

Financial Service Commission (FSC) (2018). Financial Innovation Support Act, pages 4-31

KDIC (2016), History of KDIC, 2016, p.31

KDIC (2020). Brief on Global Political Issues, pages 2-9

Korea Internet & Security Agency (KISA) (2020). 2019 Fintech companies in Korea』, pages 21-32

Previous issues in this series

No. 1 September 2021	Introductory Brief Challenges for deposit insurers	Rachel Youssef, Rose Kushmeider, and Diane Ellis (FDIC)
No. 2 September 2021	Data Standardisation	Daniel Hoople (FDIC)
No. 3 September 2021	Machine Learning Methods Potential for Deposit Insurance	Ryan Defina (IADI)
No. 4 September 2021	E-Money in the United Kingdom A Case Study	Paola Crosetta (FSCS)
No. 5 November 2021	Central Bank Digital Currencies The Motivation	Bert Van Roosebeke and Ryan Defina (IADI)
No. 6 December 2021	E-Money and Deposit Insurance in Kenya	Ryan Defina, Bert Van Roosebeke (IADI) and Paul Manga (KDIC)
No. 7 April 2022	Beneficiary Accounts: Challenges for Deposit Insurance Schemes	Carlos Colao (FGD) and Roman Kahanek (GSFT)
No. 8 June 2022	Introductory Brief (Part II): Opportunities for Deposit Insurers (DepTech)	Edward Garnett, Rachel Youssef, and Daniel Hoople (FDIC)
No. 9 August 2022	E-Money in Ghana: A Case Study	Samuel Senyo Okae (BoG) and Eugene Yarboi Mensah (GDPC)
No. 10 September 2022	Prepaid Cards: A Case Study of Japan, the United States and the European Union	Hiroaki Kuwahara and Kazuaki Hara (DICJ)
No. 11 September 2022	Islamic Fintech: Nascent and on the Rise	Mohamad Hud Saleh Huddin, Mark Lee and Mohd Sobri Mansor (PIDM)