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FINANCE

EQUITABLE GROWTH, FINANCE & INSTITUTIONS NOTES

Insolvency of Mobile Money Firms in Developing Countries

Overview for Policy Makers

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Overview

Insolvency of Mobile Money Firms in Developing Countries

This Note provides an overview of the challenges policy makers may encounter when a mobile money firm becomes insolvent. Such firms would likely be subject to corporate insolvency laws. Existing mitigation tools meant to safeguard customers' funds may face legal and logistical problems unless they are coordinated with the country's standard insolvency system. Customers may lose funds and/or not have quick access to them. The Note also highlights several areas requiring further research.

Address insolvency in the regulation of mobile money to protect users and the economy

E-money services[1] have become increasingly popular, particularly in developing countries. These services, offered by providers other than traditional banks, enable customers to deposit, store, transfer value, and, in some cases, convert e-money back into cash. A key e-money service is mobile money.[2] For the purposes of this Note, the term *mobile money* refers to an electronic payment service, provided by nonbank entities, that enables people to deposit, store, transfer, and withdraw electronic funds back into cash.[3] The term *mobile money firm* refers to firms providing mobile money. Depending on the regulatory framework, these firms include mobile network operators (MNO), subsidiaries of MNOs, and firms unrelated to an MNO. First launched in 2004, mobile money accounts now number over one billion in 95 developing countries and process a combined US$2 billion in transactions daily. The COVID-19 pandemic accelerated the use of mobile money and other e-money services, as many countries lowered transaction costs and increased limits to incentivize contactless transactions.

Mobile money has greatly benefitted millions of people in developing countries. The service has been especially impactful where customers have less access to traditional bank accounts and mobile phone penetration is high, providing users with an alternative way to store, transfer, and pay with mobile money. At the same time, the rapid growth of mobile money raises some regula-

tory concerns. The service is beneficial as long as customers can quickly and readily access their funds. But what if a mobile money firm becomes insolvent? Will customers still be able to use funds during the firm's insolvency process? Do they risk losing funds?

This Note provides an overview for policy makers of the risks of not having robust mechanisms in place to deal with mobile money firm insolvency. A broad perception in the market is that most of the risks associated with such insolvencies are mitigated by regulatory measures, known as fund safeguarding rules, imposed to protect funds provided by customers ("funds"). The closer analysis provided here shows that a country's policy makers may conclude that current risk mitigation arrangements may be inadequate, especially when evaluated in the context of the national corporate insolvency systems under which these arrangements would be activated. This Note focuses solely on corporate insolvency issues related to mobile money firms; it does not analyze other relevant areas, such as financial supervision, several of which are also important and could be the subject of a separate study.

In most countries, no specific laws or regulations address the insolvency of a mobile money firm. By default, then, if these companies become financially distressed, their insolvencies (including possible reorganization of viable firms and liquidation of firms that cannot be saved) would fall under the domestic corporate insolvency law of the country in which the mobile money firm is incorporated.[4] Critically, therefore, for each country in which mobile money firms operate, the insolvency rules may not fully recognize the asset segregation of fund safeguarding rules nor give priority to mobile money account holders relative to other liabilities. This could result in a loss of value and loss of liquidity to the account holders.

The recent insolvency of the British e-money firm Ipagoo in which United Kingdom electronic money regulations were put to the test (explored further below) illustrates this. Domestic courts addressing the insolvency provided guidance on fund safeguarding rules, finding that certain protections the regulator said were in place were not properly constituted.[5] Shortly after this case, the UK established specific regulations addressing the insolvency of e-money firms.

In a developing country where mobile money plays a critical role in servicing low-income populations, the insolvency of an e-money firm like Ipagoo could cause loss or delay in access to funds for those who need them the most. In severe cases, such an insolvency could damage the credibility of the mobile money system and the economy more broadly. While we are not aware of a mobile money firm insolvency in a developing country, it is important for policy makers to put in place, review, and, where necessary, strengthen fund safeguarding frameworks that ensure adequate coordination with applicable insolvency rules. Ideally, policy makers should review fund safeguarding rules *before* a mobile money firm becomes insolvent. Waiting until an insolvency occurs would likely compound loss and disruption for customers. This is because there may be an extensive delay while courts and other actors clarify what protections are available and how effectively they operate.

Several tools commonly used to protect funds can serve as starting points for analyzing the effectiveness of a country's fund safeguarding framework. See the Appendix for a list of questions policy makers can use to begin the review process. This Note does not provide recommendations on which tools to use, nor does it exhaustively cover all the issues that may arise following the insolvency of a mobile money firm. Furthermore, a policy maker should consider the specific operational, regulatory, and legal context of the country when examining the problems raised below. The key issues introduced by this Note are:

1. The importance of reviewing the treatment of mobile money firms under a country's insolvency framework;
2. Major risks to funds; and
3. Key mitigation tools to safeguard funds and the possible limitations of these tools vis-à-vis the corporate insolvency system.

The Treatment of Mobile Money Firms in Domestic Insolvency Frameworks

A **key regulatory difference** between banking and mobile money is the insolvency regime to which each is subject. These usually break down as follows:

- Banks are subject to special resolution tools that maintain access to services during times of financial distress and provide a special regime for customers.
- Mobile money firms are subject to a country's regular corporate insolvency regime.

Given that the mobile money industry is relatively new, most corporate insolvency laws[6] do not contain specific provisions regarding the insolvency of a mobile money firm. Mobile money firms are unique among non-bank businesses in that they receive considerable amounts of funds provided by customers who then rely on the firms to provide functionality to complete day-to-day transactions through services similar in many ways to those provided by the banking industry. Like funds held in a bank, a person can deposit, store, transfer, and, in some cases, withdraw cash from their mobile money account; in some instances, mobile money accounts pay interest.[7] However, while banks have specialized insolvency resolution regimes to address the specific needs of depositors, most mobile money firms would come under general insolvency laws that do not give special status to account holders similar to that given to bank depositors. Mobile money account holders are likely to be classified as unsecured creditors (despite the issuer's mobile money account nominally being backed by cash or securities), unless structures to safeguard funds exist and are enforceable under the general bankruptcy law. For these reasons, it is important that regulators properly understand the dynamic between their country's corporate insolvency system and whatever mechanisms are in place to mitigate the negative impacts on customers caused by the insolvency of a mobile money firm.

Despite the similarities noted, banks and mobile money firms are regulated differently,[8] including with respect to the applicable insolvency regime. In most countries, default of a bank is treated considerably differently than default of a mobile money firm. Banks are usually subject to a range of emergency regulatory tools that exempt them from the corporate insolvency law.[9] Such tools

usually include a combination of deposit guarantee schemes, emergency liquidity assistance facilities, and special resolution regimes.

While to date no major mobile money firm has become insolvent, firms providing other e-money services have failed, demonstrating the importance of clarifying fund safeguarding rules. One such e-money firm is Ipagoo LLP ("Ipagoo"), the subject of the recent England and Wales Court of Appeal case[10] *Re Ipagoo LLP (In Administration)* (2022) EWCA Civ 302, in which the fund safeguarding rules applicable to e-money were put to the test. The case highlighted a key lesson: if an e-money firm fails, and it is not subject to bank regulation, it will likely be subject to a country's regular corporate insolvency law, exposing customers' funds to a range of risks.

In August 2019, Ipagoo became insolvent and went into administration.[11] The UK Electronic Money Regulations (2011) ("EMRs"), which implemented the European Union Electronic Money Directive, required Ipagoo to safeguard the funds provided by customers. It was not possible for the Administrators to determine whether the funds were properly safeguarded, and Ipagoo was likely in serious non-compliance with the EMRs.[12] Once Ipagoo became insolvent, it, like other e-money providers, was subject to the UK's regular corporate insolvency regime. The Administrators of Ipagoo asked the Court for guidance on how to distribute the funds and whether the EMRs created a statutory trust that would segregate the funds provided by customers from other assets of the company. One of the key issues for the Court to decide was whether the EMRs' insolvency provision[13] would be applicable, rather than the regular creditor payment priorities established by the corporate insolvency law. Ultimately, reviews at the trial- and appeals-court levels were required to clarify the precise operation of fund safeguarding rules, causing a two-year delay between Ipagoo's insolvency and the final decision regarding distribution of funds to customers.[14]

The Ipagoo case also involved two European Union (EU) directives related to e-money: Electronic Money Directive (EMD) (2009/110/EC) and the Second Payment Services Directive (PSD2) (2015/2366/EU). As with all EU Directives, these provisions had not immediately been made part of the domestic legislation of the member countries: each member country is required to transpose them to national legislation. The e-money Directives required EU Member States to establish national legislation to safeguard funds, including provisions that the funds not be commingled with other funds provided by e-money users. Further, that the funds "shall be insulated . . . against the claims of other creditors of the payment institution, in particular in the event of insolvency."[15] Ultimately in the Ipagoo case, the EMRs were "construed as a means chosen to implement the insulation provisions."[16] The Court found that the EMRs and the EU Directives provide that e-money holders are granted rights in priority to other creditors; e-money holders are "intended to stand apart from the normal insolvency regime and should only bear the costs associated with distributing it."[17] Further, even though not necessary for the final decision, the Court found that the insolvency provisions in the EMRs, given their status of transposing an EU Directive,[18] could have the potential to change the priorities in the corporate insolvency law.[19] A key conclusion from the case is important to highlight: the application of the EU rules had the ultimate effect of protecting customers who provided the funds. Had the EU legislation not been applicable to the Ipagoo case, the solution would have been different. It is likely that the provisions contained in the UK's EMR would have been insufficient to ensure that the funds were sufficiently protected in the case that Ipagoo did not meet the requirement to segregate those funds—which is what happened in practice.

Since Ipagoo went insolvent, the UK has tried to fix this problem by introducing new regulations for this industry: an insolvency procedure (called "special administration") for payment institutions and for electronic money institutions, which is discussed below.[20] Many other countries, particularly in the developing world, have not introduced specialized insolvency regimes for mobile money firms or updated their basic fund safeguarding rules. This could put funds at risk. For example, Kenya and Tanzania, two countries with major mobile money sectors, have not amended their fund safeguarding rules since 2014 and 2015 respectively, despite significant growth of this service and its importance to the countries' economies.[21] Although both Kenya and Tanzania have a range of protections against loss of value and illiquidity, as explained below, it is unclear how some tools will operate in practice, such as accelerated funds dispersal.

For several reasons, inadequate fund safeguarding rules would likely create more serious problems in developing countries than the Ipagoo insolvency created in the UK. First, mobile money, by enabling people to use it as a form of savings, has a wider functionality than Ipagoo's service. Further, mobile

money services normally have a network of agents, which enable users to convert mobile money into cash without having a traditional bank account. In Sub-Saharan Africa, 15 percent of adults have used a mobile money account to save.[22] This is because some mobile money services enable customers to store funds in their accounts and even to obtain interest.[23] This could mean that the insolvency of a mobile money firm can cause people in these countries to lose a portion of their longer-term savings in addition to their transaction funds.

Second, in many developing countries, regulatory and legal frameworks for insolvency, and their implementation, often fail to comply with existing good international practices, such as those set out in the World Bank Principles for Effective Insolvency and Creditor/Debtor Regimes.[24] This means it is even more difficult for policy makers to predict how a court and related bodies will resolve a failing mobile money firm. In turn, this means it is difficult to predict how fund safeguarding rules will operate, particularly regarding the extent to which the rules protect funds. Even in countries where the insolvency system works well, issues may arise related to trust law or the way that the specific trust (or fund-separating mechanism) has been established.[25]

Third, mobile money plays a more significant role in the economies of many developing countries than in those of developed countries, to the point that the service may represent a form of "systemic risk." This means that failure of one or more mobile money firms may significantly damage the financial and wider economic system of a developing country. For example, by 2014, M-Pesa processed 66.56 percent of the volume of national payments in Kenya. Collapse of this service would therefore have a comparatively bigger impact in Kenya than it would in jurisdictions where mobile money is less widely used. While no mobile money firm in a developing country has become insolvent, occasional short-term outages of e-money services (ranging in duration from one to two hours to three to four days) have occurred in several countries, and each of these outages imposed significant costs on the affected communities. The extent of such costs suggests that the insolvency of a major mobile money firm, which might cause a disruption of several years, could be seriously damaging to local economies.[26]

Major Risks to Funds as a Result of Insolvency

A country's corporate insolvency regime can expose funds provided by customers to two types of risk: loss of value and illiquidity.[27] These risks depend on how the domestic legal framework classifies the customers who provided those funds, particularly whether they are treated as creditors of the insolvent debtor or remain "outside" the corporate insolvency proceeding. This classification will depend on a range of domestic factors.[28] However, without any regulatory mechanisms in place that deal with these creditors specifically, it is likely that mobile money customers will be classified as unsecured creditors.[29] The extent to which the insolvency regime complies with good international practices also impacts the scale of these risks.[30]

Many countries have implemented mitigation tools (analyzed in Section 3 below) designed to address some of the risks. The discussion in this section focuses on the possible difficulties that the application of the corporate insolvency law could generate in the absence of any mechanism to safeguard the funds provided by customers.

2.1 Loss of Value Risk

The most likely scenario, in the absence of specific rules to prevent it, is that customers that provided funds to the debtor will be treated as unsecured creditors. In most countries, insolvency law contains provisions giving unsecured creditors a share in any distribution of the debtor's assets on a *pro rata* basis, after distribution to secured creditors and other priority creditors. This creates **loss of value** risk because such unsecured creditors face a potential write-down in the value of their funds during insolvency proceedings.[31]

Customers holding mobile money have 'purchased' those balances by providing funds, usually via some cash-in mechanism (agent network, bank transfer, etc.). The mobile money issuer is supposed (in certain legal systems) to hold those funds in a dedicated bank or trust account, matching sound assets in the company's trust account against the customer liability represented by the mobile money balance in customer accounts. However, even where the mobile money account is backed by assets held in a bank or investment account, unless that asset and the paired mobile money liability to customers is segregated or set aside from the overall bankruptcy estate, in a liquidation scenario, some or all the funds provided by customers, may become part of the in-

solvency estate. If the mobile money balances and the assets backing them are commingled with other liabilities and assets of the company, the available assets may be used to repay debts owed by the mobile money firm to third parties, including secured creditors. Since in many insolvency proceedings the total liabilities exceed total available assets, there would not be enough assets to repay mobile money holders in full.

Professional and other fees that customers incur in making their claims, as well as the usually substantial expenses of insolvency proceedings, may also reduce the value of funds ultimately available to customers in a liquidation.

In East Asia and Pacific countries, for example, the average cost of an insolvency is 20.6 percent of the debtor's estate.[32] Delays in distribution may also mean that assets depreciate, leaving less available for collective distribution. The average recovery rate for secured creditors in sub-Saharan Africa is 20.5 cents on every dollar recovered during insolvency proceedings.[33] This means customers, when classified as unsecured creditors, would be likely to recover little, if any, of their funds.[34]

2.2 Illiquidity Risk

Customers also face delays in receiving their funds because of the time it takes to conclude insolvency proceedings. In most developing countries, corporate insolvency procedures, unlike bank resolution frameworks, take years to complete. Illiquidity risk arises because most corporate insolvency regimes contain a rule suspending enforcement action against assets held by the debtor while insolvency proceedings take place. The suspension provides parties with time to thoroughly examine the debtor's financial and management situation. In this case, mobile money customers, as unsecured creditors, would be subject to such a rule and thus unable to obtain their funds until insolvency proceedings conclude. Such a delay before final distribution of assets can be considerable, spanning the typical timeframe for a civil or commercial judge to be appointed,[35] and any hearings held, motions considered, claims reviewed, before a decision is made regarding a restructuring plan or the liquidation to be performed and finalized.

Illiquidity risk can be particularly problematic in developing countries; judges and other legal professionals are not usually specialists in handling complex insolvencies and are unlikely to be able to provide the kind of support required for the effective and efficient insolvency of a mobile money firm.

Infrastructure problems and customers' lack of financial experience could make this delay even longer. A significant portion of mobile money customers in the developing world do not have bank accounts and have had little experience with financial documentation and procedures. Many live in rural areas, far from the physical location of commercial courts.[36] This means customers may expend significant time performing procedural steps, such as filing a claim. Also, once insolvency proceedings are complete, a significant delay may follow while customers are identified, and cash is physically retrieved.[37]

3

Mitigation Tools

This section provides a starting point for policy makers to review the potential challenges that may arise when applying mitigation tools to address the risks of loss of value and of illiquidity. The predominant mechanisms, most of which can be used in combination to strengthen the safeguarding of customer-provided funds, are discussed below.

Application of these tools depends on the type of corporate entity providing mobile money. In some cases, MNOs provide mobile money, alongside other products, such as communication and mobile phone services. In other cases, as in Uganda and Tanzania, MNOs applying to launch mobile money must provide this service through a subsidiary company.[38] This separation is aimed at, among other goals, insulating mobile money customers from the insolvency of the MNO.[39] Regulation often requires such subsidiary companies to store funds in a trust and to comply with other fund safeguarding rules.

3.1 Trust Model

Many countries use legal instruments to separate funds from the estate of the insolvent mobile money firm. Common law jurisdictions, particularly, tend to require mobile money firms to store funds in a trust. Kenya, Malawi, Rwanda, Tanzania, and Uganda require mobile money firms to store funds in a trust.[40] In theory, funds, as trust assets, are segregated from assets of the mobile money firm. This approach should address loss of value risk because it means such funds are unavailable for distribution to firm creditors during insolvency proceedings. However, trusts have certain limitations that may make them insufficient to fully address the risks mentioned above.

a. Legal compatibility

In many countries, a potential conflict may exist between the mobile money trust requirements and other legislation, particularly insolvency and trusts. This can mean that mobile money trust requirements are insufficient to legally protect funds against loss of value risk. The uncertainty around the creditor classification and rights of customers in an insolvency scenario may leave funds exposed to loss of value and illiquidity risks. For example, this can be the case if the way the trust was established or the trust structure the regulator has set is found to be improperly constituted.[41]

b. Inadequate governance rules

Many trust documents do not contain such important rules as standards of competence for trustees and reporting requirements. Inadequate governance rules mean trusts are less likely to operate effectively in practice. In addition, monitoring of safeguarding requirements, such as segregating of funds provided by customers from other funds, may be inadequate. If mobile money firms required to segregate funds disregard those provisions, the funds will likely be commingled with other assets and liabilities, leaving customers who provided funds unsecured or unprotected.

c. Illiquidity risk

Trusts, in themselves, do not address illiquidity risk. This is because the trustee of the mobile money trust may have inadequate administrative mechanisms for returning funds. Customers may then face a lengthy delay while trust funds are either transferred to a solvent mobile money firm or the trust assets are liquidated and returned to them. Further, litigation during the insolvency proceedings may delay the return of funds. For example, in many countries, the court may be asked to examine whether a preferential transfer of property or a transfer at under value were effected through a trust.[42]

To remedy aspects of this risk, a small number of countries have implemented what appears to be an accelerated funds dispersal mechanism for mobile money in the event of operator insolvency. Kenya introduced such a scheme in 2014 through its National Payment Systems Regulations.[43] Upon the insolvency of a mobile money firm, the Central Bank of Kenya can distribute trust assets to customers. A few other countries have since introduced the tool as well, with the aim of enabling a policy maker (usually the central bank) or other actor to return funds more quickly than if a collapsing mobile money firm enters the country's regular corporate insolvency proceedings.[44] For example, in the event of revocation of a mobile money firm's license, the Bank of Tanzania (Tanzania's Central Bank) can require the firm to (a) distribute to customers the funds held in the special account in which funds are stored, and (b) pay any shortfall in the special account.[45] The precise legal operation of accelerated funds' dispersal mechanisms have yet to be tested, particularly the extent to which they fit with a country's wider insolvency regime.

d. Challenges for civil law countries

Traditionally, trust instruments with identical effects to those typical in common law countries have not been available in civil law countries. Research suggests that a combination of fiduciary contracts, mandate contracts, and direct regulation can achieve protection comparable to that provided by trust instruments, but very careful legal and regulatory drafting is required.[46] Furthermore, like the custodian model and trusts, these legal instruments can only potentially address loss of value risk; customers may still face significant illiquidity risk. This is because, like a trustee, the actor administering the fiduciary or mandate contract may not have adequate administrative mechanisms to promptly return funds to customers or reliable information on the mobile money customer's account.

3.2 Custodian

A custodian model means a firm performs all operational mobile money functions but delegates one function—safeguarding of funds—to another actor who has "custody" of the funds. This custodian is often also mandated to store customer funds in a trust. Under the custodian model, a mobile money customer has no direct legal claim against the provider of the mobile money service. Instead, at least in theory, that customer has a claim against assets of the custodian. This mechanism intends to address loss of value risk because the separate firm holds the funds, which are then assumed to be unaffected by the mobile money firm's failure.

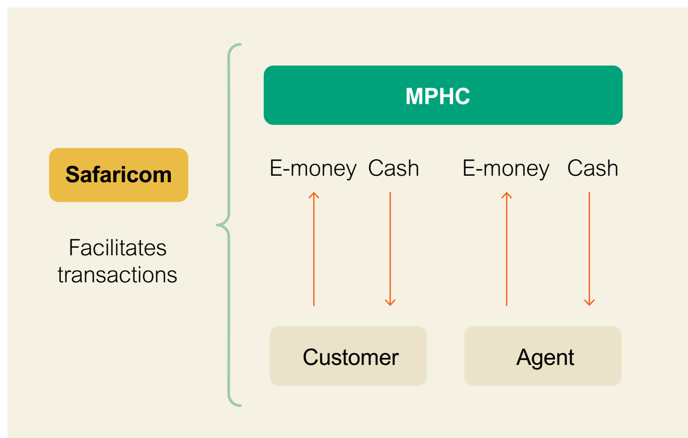
Safaricom's M-Pesa service in Kenya uses the custodian model. Safaricom (an MNO) never receives funds from customers and agents. Instead, funds are paid directly to another firm called the M-Pesa Holding Company (MPHC), a nonbank entity that has custody of the funds and stores them in a trust account.[47] This approach creates the following distinction: Safaricom performs mobile money services and facilitates mobile money transactions, but legally, MPHC performs the actual payment functions, because MPHC, not Safaricom, accepts, stores, transfers, and pays out funds.

The United Kingdom's EMRs, which were the subject of the *Ipagoo* case, also provide an option for a custodian arrangement. Such regulations require an e-money issuer to store funds in a separate account with an authorized credit institution or an authorized custodian.[48]

Some unexplored challenges accompany use of a custodian to address loss of value risk.

> > >

FIGURE 3.1: **Safaricom Structure**



a. Unclear effectiveness

Unlike what regulators may assume, under certain exceptional conditions, insolvency of the mobile money firm can be extended to other companies within the same group, including a holding company. These circumstances can include "piercing the corporate veil," a phrase that describes a court holding a shareholder responsible for the actions of the corporation as if the corporation's actions were the shareholders'. Other circumstances include commingling trust assets with assets of the mobile money firm[49] and, potentially, fraud. In France, for example, courts have allowed creditors of a group's subsidiaries to request payment of their debts from the holding company where the creditors may have validly assumed that both companies formed only one single entity or that they were united by a community of interest.[50]

b. Administrative limitations leading to "liquidity risk"

A custodian model cannot, in itself, address potential liquidity risks to funds in the event of the collapse of a mobile money firm: additional funds transfer mechanisms are likely required. Liquidity risk means customers face a *delay* in accessing their funds for the purposes of performing mobile money functions, even if the actor with legal title to such funds has not entered insolvency proceedings. In this context, the delay arises because the custodian may not have the administrative capabilities to provide mobile money services without the support of the parent company, that is, of the mobile money firm. This means collapse of the mobile money firm may lock up funds with the custodian until an alternative arrangement is designed and implemented.

Several alternative arrangements are possible, but each may take time to initiate, imposing a delay in mobile money performance. One arrangement involves transferring the custodian—which by extension means transferring funds—to a solvent mobile money firm. This firm can then take the place of the original (now insolvent) mobile money firm and provide the administrative structures required for the custodian to perform mobile money transactions. Alternatively, the custodian could directly distribute funds to customers in cash, although this firm may not have the mechanisms required to do so or reliable information on the individual positions of the mobile money customers.

3.3 Specialized Regimes

The UK recently released the Payment and Electronic Money Institution Insolvency Regulations 2021("Regulations"),[51] which established a new insolvency procedure (termed special administration) for payment or electronic money institutions. The Regulations take a direct and holistic approach to dealing with the insolvency of an institution. Among other grounds, if the institution "is, or is likely to become, unable to pay its debt" an application for special administration can be made.[52]

The Regulations allow the special administrator to keep an insolvent institution operational, with the aim of ensuring continuity for consumers and prioritizing the return of funds.[53] The administrator's objectives are to ensure (i) return of relevant funds as soon as reasonably practical; (ii) timely engagement with payment systems operators and regulators/authorities; and (iii) either rescue of the institution as a going concern or wind it up in the best interests of the creditors.[54] Under the Regulations, claims by holders for electronic money held by the institution are paid from an asset pool in priority to all other claims, except for the costs of distribution and third party fees and expenses for operating the funds account, subject to certain conditions.[55] In the event of a shortfall, it should be "borne pro rata by all users or holders for whom the institution holds" the electronic money within the specific asset pool.[56] The administrator also may set bar dates for the submission of such claims.[57] Finally, the Regulations also allow the UK Financial Conduct Authority (FCA) to direct the administrator under certain conditions to prioritize one or more of the objectives[58] in the public interest.[59] Further research is required into this mechanism and others implemented in other countries.

Conclusion

Addressing issues related to the insolvency of mobile money firms is particularly important for developing countries because of the size of their ever-increasing mobile money sectors and because many lower-income communities (where few have bank accounts) use the service extensively and may be particularly vulnerable to its failure.

Additional work is required to better understand what could happen in the event of a mobile money firm's financial distress and possible formal insolvency proceedings. The conclusion that emerges at this early stage of the analysis, however, is that policy makers should carefully review the regulatory mechanisms in place to protect funds stored in mobile money firms and to mitigate the risks highlighted in this note.

Appendix

Starting Point: Questions for Policy Makers

A range of issues arise in the context of the laws and regulations applicable to mobile money. Policy makers wishing to strengthen regulatory frameworks for their mobile money sectors can begin, however, by seeking answers to the following questions:

Legal status of mobile money customers

- What is the legal status of a mobile money customer in relation to the mobile money firm that she uses?
- In particular, is she a secured, priority, or general unsecured creditor, or does she have some other legal classification?

Structural separation

- Do you require firms wanting to provide mobile money to establish a subsidiary firm? Does that subsidiary firm provide the service?

Custodian

- Do you require mobile money firms to store funds with a regulated financial institution?
- Can mobile money firms store funds with a separate firm that is not a regulated financial institution?
- If yes, what are the qualification criteria for such a firm to be able to store funds, and how do you supervise that governance arrangement?
- What is the interaction of the separate firm with an insolvency process?

Trust and trust-like arrangements

- Common law countries: Is the mobile money firm required to segregate funds from the firm's other assets, such as by using a trust, escrow, and/or another type of legal instrument?

- Civil law countries: Is the mobile money firm required to segregate funds from the firm's other assets, such as by using a fiducia?
- How are these instruments treated in an insolvency process?

Facilitating funds dispersal

- Do you have an efficient and transparent mechanism to accelerate the process of dispersing funds during insolvency?
- If so, how does it work? Are system interoperability and information-sharing protocols in place?

Operation of insolvency framework

- Do you have an insolvency law that conforms to most international good practices, such as those in the World Bank Principles for Effective Insolvency and Creditor/Debtor Regimes?[60]
- If so, do stakeholders understand the framework and use it effectively?

Endnotes

1. Electronic money (e-money)-based instruments: In general terms, these instruments involve the payer maintaining a prefunded transaction account with a payment service provider, often a nonbank. (Nonbanks are the exclusive focus of this Note.) Specific products include online money when the payment instruction is initiated via the internet, mobile money when initiated via mobile phones, and prepaid cards. See CPMI-World Bank Payment Aspects of Financial Inclusion (2016).
2. Mobile money differs from privately issued digital currencies such as cryptocurrencies. Unlike cryptocurrency, which is typically not operated/issued by a single issuer, mobile money is one form of e-money issued/operated by a particular mobile money issuer/operator. Both can be exchanged for fiat currency, but while the value of cryptocurrency fluctuates, mobile money value is stable and can be converted into fiat on a one-to-one basis. Moreover, cryptocurrency is a speculative asset; it is not insured, not backed by fiat currency, and in some countries not regulated in any way. Mobile money, on the other hand, is usually regulated and safeguarded, as it is often held in dedicated escrow commercial bank accounts (in some rare cases in central bank accounts) and is also sometimes insured. Attempts have also been made to compare mobile money to central bank digital currencies (CBDC). One of the main differences between them, however, is that CBDC is a central bank liability, while mobile money is a liability of the private entity that issues it, even in the rare cases where the fiat value of mobile money is held in central bank accounts on behalf of the mobile money issuer.
3. See, for example, Jonathan Greenacre (2018), "Regulating Mobile Money: A Functional Approach," Background Paper 4, Blavatnik School of Government, Oxford University; https://pathwayscommission.bsg.ox.ac.uk/sites/default/files/2019-09/regulating_mobile_money.pdf.
4. Or, in some cases, where the company has the "main center of interests", depending on the jurisdiction determined by the applicable corporate insolvency law.
5. In particular, a statutory trust. See Ipagoo, CoA, para. 90.
6. Also called "bankruptcy laws"; in this note, if applied to companies, the terms are considered synonyms.
7. See, for example, J. Greenacre, "What Is Mobile Money?" Blavatnik School of Government, The Regulation of Mobile Money, Oxford Blavatnik School of Government: Pathways for Prosperity Commission on Technology and Inclusive Development (2018).
8. Other important regulatory differences include that mobile money firms are usually subject to lighter capital requirements and are prohibited from credit creation.
9. Policy makers tend to justify using such tools based on a range of factors, including the vulnerability of bank balance sheets to destabilizing runs and negative externalities associated with bank failure — including potential collapse of the payment system and transmission or magnification of financial shocks under conventional bankruptcy proceedings. See https://scholarship.law.cornell.edu/facpub/1715/.
10. Ipagoo was authorized "to issue [e-money] and to provide multi-country and cross-currency payment account services and was regulated by the FCA accordingly. It offered a payment card and mobile telephone 'app' which enabled customers to manage accounts in multiple currencies and carry out international transfers of funds in real time in multiple EU countries." Ipagoo Court of Appeal, para. 2. This is a slightly narrower functionality than mobile money, which also provides a mechanism for storage and savings, as discussed in the introductory section of this note.
11. A restructuring procedure under the UK insolvency system.
12. Ipagoo, Appeals Court Judgement, para. 10.
13. This provision, triggered by the insolvency of the e-money institution, grants e-money holders rights in priority over other creditors (even most insolvency expenses). See EMR, Art. 24.
14. Ultimately, the UK Court of Appeal found that the safeguarding rules set out in the EMRs did not create a "statutory trust" over the e-money holders or funds managed by an e-money issuer. A statutory trust is a trust imposed by statute (e.g., trusts declared of certain sums improperly received by directors as compensation for loss of office; see ss. 217, 218, 219, and 222 of the UK Companies Act, 2006). Given that the EMRs implemented an EU Directive, it was decided that such rules apply rather than the standard insolvency rules on priority. This meant that customers of an insolvent e-money firm had a right to be paid ahead of other creditors. This contrasts with an earlier High Court decision (in *Re Supercapital Ltd* (2020), EWHC 1685 (Ch)), which held that customer funds of insolvent UK-authorized payment services firm were held on trust, and UK FCA guidance (pursuant to the UK's Electronic Money Regulations 2011), stating that both e-money and payment services firms hold their customer funds on trust.
15. See PSD2, Article 10.
16. Ipagoo, Court of Appeal, para. 102.
17. Ipagoo, Court of Appeal, para. 94–96.
18. The reconciliation of the different order of priorities contemplated in the UK EMRs and the one contemplated in the corporate insolvency law was interpreted, in Ipagoo's case, in an EU-specific context. When the electronic money regulations and the insolvency law contain contradictory orders of priorities in developing countries, the court will consider the country's relevant domestic elements and, in absence of clear rules, may legitimately conclude that the insolvency law prevails, depending on the country's legislative and regulatory system.

19. Ipagoo, Court of Appeal, para. 96.
20. See Payment and Electronic Money Institution Insolvency Regulations 2021, https://www.legislation.gov.uk/uksi/2021/716/contents/made.
21. Kenya, National Payment System Regulations; Tanzania: Electronic Money Regulations 2015 (E-Money Regulations).
22. Global Findex Database 2021, Executive Summary, p. 3.
23. See, for example, MTN Rwanda, https://www.mtn.co.rw/mtn-rwanda-pays-out-interest-to-mobile-money-subscribers/.
24. The World Bank Principles for Effective Insolvency and Creditor/Debtor Regimes, together with the UNCITRAL Legislative Guide on Insolvency, are the internationally recognized benchmarks for ICR. See https://openknowledge.worldbank.org/handle/10986/35506.
25. See the example of Ipagoo above, which deals with the issue of a statutory trust.
26. For example, on December 7, 2018, the M-Pesa mobile money service in Kenya experienced a six-hour network outage that immediately halted service, which in turn disrupted transaction processing of an estimated 679.3 million Kenyan shillings every hour (https://www.nation.co.ke/kenya/business/safaricom-probed-over-costly-m-pesa-outage-117140). Millions of Kenyan M-Pesa customers could not make payments to utility firms, hospitals, banks, government agencies, and other actors. More recently, disruptions of M-Pesa occurred on June 23, 2021 (see https://allafrica.com/stories/202106240072.html) and October 7, 2021 (see https://businesstoday.co.ke/m-pesa-outage-hits-bank-services/). Previously, on February 18, 2016, the Ugandan government ordered mobile money firms to disable mobile money systems for four days. At the time 35% of Uganda's adult population, or 6.7 million people, had mobile money accounts. Anecdotal evidence revealed that large numbers of people were unable to pay bills, transfer money to relatives, and generally manage their financial and economic affairs. (See https://www.cgap.org/blog/impact-shutting-down-mobile-money-uganda.)
27. Awrey, Dan and van Zwieten, Kristin, The Shadow Payment System (April 21, 2017). 43 Journal of Corporation Law, Oxford Legal Studies Research Paper No. 55/2016.
28. The classification and resulting operation and scale of risks will also depend on the nature of the funds being deposited, the terms of the relationship between customers and the mobile money firm (the debtor), other contractual arrangements, and the order of priorities in the domestic law that governs these terms.
29. This was the case in the Mt. Gox insolvency in 2014. Note customers may be placed in many other legal classifications, even potentially being considered "equivalent" to depositors, unsecured creditors, or creditors with a right of separation in countries where those mechanisms are contemplated.
30. See https://openknowledge.worldbank.org/handle/10986/35506. The World Bank Principles for Effective Insolvency and Creditor/Debtor Regimes provide a benchmark good practice approach.
31. See https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2843772.
32. This is measured in a hypothetical case by the archived 2020 World Bank Doing Business report, Resolving Insolvency indicator; the methodology is available at https://archive.doingbusiness.org/en/data/exploretopics/resolving-insolvency.
33. This is measured in a hypothetical case by the archived 2020 World Bank Doing Business report, Resolving Insolvency indicator, the methodology of which is available in https://archive.doingbusiness.org/en/data/exploretopics/resolving-insolvency.
34. Alternatively, some laws might grant customers recognition as the "owners/depositors" of the assets with the debtor, thus giving them a right of separation that would grant them a de facto priority status, possibly excluding their assets from the debtor's estate. Several countries apply the law of trusts to the protection of funds, including Afghanistan, Kenya, Malawi, Sri Lanka, and several Pacific islands. Trusts law seeks to *isolate* funds from the rest of the debtor's assets, allowing the customer to retain beneficial ownership in the trust assets. For a detailed discussion on how trusts achieve fund isolation, see Jonathan Greenacre and Ross Buckley (2014), "Using Trusts to Protect Mobile Money Customers," *Singapore Journal of Legal Studies,* pp. 59–78.
35. This does not apply in those countries where the insolvency process is run by an administrative entity.
36. For example, the World Bank's 2017 Findex Report states that almost half of mobile money users in Sub-Saharan Africa do not have an account with a financial institution. See globalfindex.worldbank.org.
37. While it is likely that customers receive access to their funds faster in a successful restructuring than in a liquidation, the process of approving and implementing a restructuring plan can also take many months, if not years.
38. Tanzania: Under the Payment Systems Licensing and Approval Regulations, 2015, firms need a license as a PSP and e-money issuer before they can start operations (see E-Money Regulations 2015, Part II). See NPS Act 6.-(1), Uganda, National Payment Systems Act, cl 48.
39. In some circumstances, however, MNO insolvency could potentially affect the separate firm as well.
40. The following laws require the countries' mobile money firms to protect customer funds by storing them in a trust: Kenya National Payment System Regulations 2014, Sections 25 (3) (a) & (b); Malawi Payment Systems (e-money) Regulations 2019, Part IV; Rwanda Regulation N° 05/2018 of 27/03/2018 Governing Payment Services Providers, Article 6; Tanzania 2015: Electronic Money Regulations, Part V; and Uganda, National Payment Systems Act, cl 49.
41. See *Ipagoo,* Court of Appeal. Even though the regulator asserted that a statutory trust protected the funds of e-money holders, the Court found no such trust.
42. For example, see s. 95-96 of the Canadian Bankruptcy and Insolvency Act, 1985.
43. See https://www.centralbank.go.ke/images/docs/legislation/NPSRegulations2014.pdf.
44. These include, for example, Tanzania's Electronic Money Regulations (2015) and Ethiopia's Licensing and Authorization of Payment Instrument Issuer's Directive (2020).
45. The trigger for using the accelerated bankruptcy regime is revocation of mobile money firm's license, which may involve bankruptcy. This is because one of the grounds for revocation is breach of the E-Money Regulations and or any other written law, which may give the Bank of Tanzania the power to revoke an e-money issuer's license in the event of institutional distress and bankruptcy (E-Money Regulations, s 11(2)).
46. https://www.academia.edu/36191665/International_and_Comparative_Law_Quarterly_Protecting_Mobile_Money_Customer_Funds_In_Civil_Law_Jurisdictions_Protecting_Mobile_Money_Customer_Funds_In_Civil_Law_Jurisdictions.
47. The M-Pesa Holding Company stores funds in one or more commercial banks and/or in government bonds.
48. Electronic Money Regulations 2011 (EMRs), section 21(2)(b). In this sense, the EMRs differ from most regulation of mobile money that rely on storing funds in a trust (discussed below).
49. See https://pathwayscommission.bsg.ox.ac.uk/sites/default/files/2019-09/regulating_mobile_money.pdf.
50. See https://cms.law/en/media/international/files/publications/guides/cms-guide-liability-holding-companies?v=1.
51. See https://www.legislation.gov.uk/uksi/2021/716/contents/made.
52. Reg. 9 (1)(a), UK Payment and Electronic Money Institution Insolvency Regulation 2021.

53. See Explanatory Memorandum, https://www.legislation.gov.uk/uksi/2021/716/pdfs/uksiem_20210716_en.pdf.
54. Reg. 12 (1)-(4), UK Payment and Electronic Money Institution Insolvency Regulation 2021.
55. Reg. 18, UK Payment and Electronic Money Institution Insolvency Regulation 2021.
56. Reg. 19, UK Payment and Electronic Money Institution Insolvency Regulation 2021.
57. Regs. 20 & 21, UK Payment and Electronic Money Institution Insolvency Regulation 2021.
58. Reg. 38, UK Payment and Electronic Money Institution Insolvency Regulation 2021.
59. The public interest in "(a) the stability of the financial systems of the United Kingdom; (b) the maintenance of public confidence in the stability of the financial markets, payment systems and payment services and electronic money sectors of the United Kingdom; (c) securing an appropriate degree of protection for users or holders." See Reg. 38, UK Payment and Electronic Money Institution Insolvency Regulation 2021.
60. Available at https://documents.worldbank.org/en/publication/documents-reports/documentdetail/391341619072648570/principles-for-effective-insolvency-and-creditor-and-debtor-regimes.

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