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# Protecting the Funds of Mobile Money Customers in Civil Law Jurisdictions

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The Global Economic Governance Programme

## Abstract

The provision of financial services through mobile phones is a powerful tool to foster financial inclusion in developing countries. Yet, it raises important regulatory questions. Given the vulnerability of the vast majority of potential customers of these services, one of the most pressing issues is the protection of customers' funds. In common law countries, trust law is an effective response to these concerns. In civil law jurisdictions however, in the absence of trusts and any directly comparable legal instrument, protection of customers' funds is more difficult. This paper identifies the theoretical and practical problems that regulators in civil law jurisdictions might face when trying to protect customers' funds and explores how fiduciary contracts, mandate contracts and direct regulation might help to achieve that goal. It also offers a series of practical recommendations for policymakers in developing countries that lay out different regulatory options that combine private law and regulation.

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## I. *Introduction*

More than half of the world's adult population has no access to basic financial services such as bank accounts or debit cards.[1] Instead, they rely on informal mechanisms for saving and protecting themselves against risk, e.g. "[t]hey buy livestock as a form of savings, they pawn jewellery, and they turn to the moneylender for credit. These mechanisms are risky and often expensive."[2]

Mobile money provides a powerful tool to facilitate access to financial services. Mobile money can be broadly defined as the use of mobile networks to receive financial services and execute financial transactions.[3] Typically, this is done through the storage of electronic money ("e-money") units in servers that can be accessed through a mobile phone.[4]

The combination of e-money and mobile technology allows consumers to benefit from wider coverage of mobile network operators (MNOs).[5] This has helped to improve the lives of many people in developing countries by helping to increase speed, reduce cost and improve security of financial transfers.[6] It has also granted women an independent place to store and manage funds as a welcome side-effect.[7]

Mobile money continues to be a driver of financial inclusion.[8] At the end of 2014, sixteen markets already had more mobile money accounts than bank accounts, compared to nine the year before. Moreover, there were more than 103 million active mobile money accounts globally with 255 services in 89 countries, with a particularly strong presence in sub-Saharan Africa, and an expected expansion in other developing regions.[9]

As the mobile money industry grows and non-bank providers of e-money (e.g. MNOs) become major promoters of financial inclusion, some questions will become more pressing: Are customers' funds sufficiently protected against the insolvency of their e-money provider? Are they protected against a theft of funds? Is there any framework for the MNO's custody and management obligations?

In 2014, two of the authors published an article in which we proposed the use of trust law to protect mobile money customers' funds in common law jurisdictions.[10] Yet, many civil law countries offer great potential for increased financial inclusion through the use of mobile money.[11] Although civil law countries would benefit from a similar analysis, here the exercise is more complex. In spite of efforts in some jurisdictions to approximate local legal structures to the common law trust, there is no exact equivalent in civil law jurisdictions.[12] Whether such an equalization is possible, or even desirable, is beyond the scope of this paper.[13]

Whereas the common law trust has a "hybrid" regime which regulates both rights *in personam* (e.g. customer rights against the provider of e-money services) and rights *in rem* (e.g. customer rights over funds), civil law countries make a sharp distinction between the Law of Obligations (for rights *in personam*) and the Law of Property or "Real" Rights (for rights *in rem*). As a result, legal institutions conceived to regulate one type of rights may fall short on other rights. We argue here that devising a policy strategy that would provide e-money customers in civil law countries with a similar protection to that provided by the common law trust requires analysis of different legal mechanisms. This complexity determines the structure of the present article.


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Section II will describe the basic structure of an e-money transaction and will identify the main functions that a desirable legal mechanism would need to fulfil to protect e-money customers' funds effectively. It will also describe how the common law trust fulfils those functions and why protecting e-money customers' funds in a civil law jurisdiction will require the analysis of different legal mechanisms.

Section III will develop the actual inquiry in civil law jurisdictions, drawing on examples from regimes in both developed countries (e.g. France, Italy, Spain and Québec in Canada) and developing countries (e.g. Mexico, Colombia, Paraguay and Peru).[14] The purpose will not be to make an exhaustive comparison of every legal aspect in every civil law jurisdiction, but to outline a "civil law benchmark" of legal institutions that (1) could constitute a firm basis for e-money, and (2) could be compatible with the civil law tradition, broadly understood. This section explores two legal mechanisms: one rooted in the Law of Property (the fiduciary contract) and another one rooted in the Law of Obligations (the mandate contract). We will see that none of these mechanisms, however, will fulfil all the necessary functions on their own. Nevertheless, regulators could try to combine them to fill the relevant gaps by enacting specific pieces of legislation. Alternatively, they could rely on insurance contracts as a fall-back option to cover the risks that e-money customers face.

Section IV will explore the different strategies available to regulators and will discuss a series of issues that regulators should bear in mind when attempting to protect customers' funds through regulation. The interaction of new regulations with existing statutory and private law rules could introduce rigidities in e-money transactions by hindering competition between different providers or making cross-border recognition more difficult. Moreover, regulators should also bear in mind that insufficient resources and customers' vulnerability could limit the effective implementation of any regulation. Section V concludes.


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## *II. E-money: transaction structure and risks for customers' funds*

This section defines the problem of protecting e-money customers' funds in civil law jurisdictions and the legal approach for its solution. We begin by outlining the structure of an e-money transaction (A). Then, we identify the main risks for customers' funds and how those risks shape the functions the law has to fulfil. We also describe how the common law trust fulfils those functions, and the reasons why the solution is more complicated in civil law countries (B). Finally, we explain why, despite the rights of e-money customers being normally stipulated in a contract, it is necessary to study how the law treats the e-money transaction (C).

### A. The structure of an e-money transaction

This paper will examine the protection of customers and their funds in mobile money services. Mobile money involves the trade in a type of electronic money ("e-money") that is effected through mobile phones. E-money is typically defined as (i) a stored monetary value, (ii) that is represented by a claim on the issuer and (iii) issued on receipt of funds, (iv) for the purpose of making payment transactions and (v) accepted by a natural or legal person other than the issuer.[15] This paper will focus on e-money as a digital form of legal tender (e.g. euros, US dollars, British sterling, etc.), as opposed to virtual currency schemes, which are a digital form of invented currencies (e.g. Bitcoins, Linden Dollars, etc.).[16]

Different countries have developed different e-money business models, largely dependent on the type of entities that have taken the initiative in providing the e-money service (generally referred to here as "Providers"). Different business models can be classified depending on the level of involvement of banks and non-bank institutions.

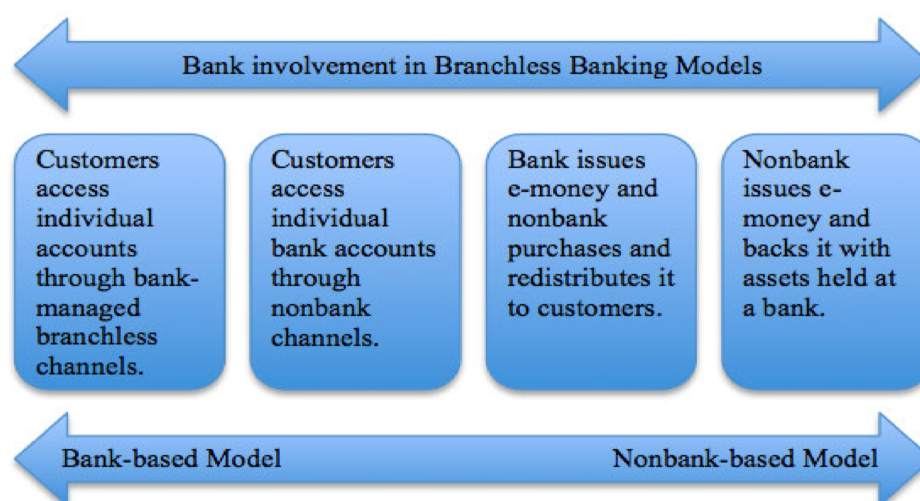


Figure 1. Bank-based versus non-bank-based models[17]

In a bank-based model, customers have a direct contractual relationship with banks, or non-banks act as agents of banks, contracting on the latter's behalf.[18] In some of these cases the


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services have been characterized as bank deposits, subject to deposit guarantee,[19] and restricted to institutions with a banking licence.[20]

In nonbank-based models, customers will not have a direct relationship with a bank, i.e. they will not need a bank account to make financial transactions.[21] In several developing countries, MNOs have become important non-bank Providers of e-money services.[22] Users buy a SIM card with the mobile money application for their phone. The SIM card has an electronic account associated to it. The non-bank Provider issues electronic value that customers will purchase with legal tender. The Provider will often store that legal tender in a bank account. Customers can use this mechanism to deposit money into ("cash in") or withdraw money from ("cash out") their account. They will normally do so through specific access points such as agents of the Provider or habilitated Automated Teller Machines (ATMs). They can also use their mobile phone applications to send or receive money from other service users. The aggregate balance in each user's account is referred to as the "customers' funds".[23] The model is depicted in Figure 2 below.

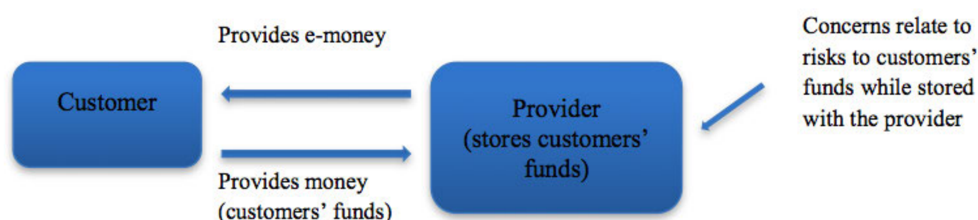


Figure 2. Basic mobile e-money model[24]

Given the limited scope of banking institutions in developing countries, particularly in rural areas, the provision of e-money services by non-bank institutions such as MNOs has a great potential for fostering financial inclusion. However, it also carries great legal challenges for the protection of customers' funds: in these cases, e-money will normally be characterized as a *sui generis* financial product and thus will not be covered by protection mechanisms applicable to more traditional financial products such as deposit guarantee schemes. This paper will explore how civil law jurisdictions could address these legal challenges.

## B. Risks to customers' funds, and legal "functions". How the common law fulfils the functions and what the challenges are for civil law systems

Bearing in mind the transaction structure, we have to focus on the main problems for customer funds, which determine the functional characteristics that the legal institution employed needs to fulfil. These risks (and the corresponding functions) are threefold.

First, if the e-money Provider or the financial institution where the former holds its customers' funds became insolvent, customers would face the risk of not being able to recover their funds ("insolvency risk"). For example, these funds may be used to repay privileged creditors, or distributed *pari passu* among ordinary creditors of the insolvent institution. Any legal mechanism aiming to protect customers' funds from insolvency must fulfil a function of "asset portioning" or "fund isolation".[25] This fund isolation protection raises three issues:

- whether the legal mechanism employed has the effect of segregating customers' assets from the assets of the Provider if the latter became insolvent;
- if the assets backing the customers' accounts are held in a financial institution, whether those assets will be protected from the insolvency of the institution;26
- whether customers will have preferential rights over separate assets, or pro-rata rights over a single asset pool (segregated from the Provider's assets and the financial institution's assets).

Second, customers may not be able to cash out their e-money accounts upon request ("liquidity risk"), e.g. if the ratio between e-money issued and customers' funds is greater than 1:1.[27] The desirable legal mechanisms should safeguard customers' funds by constraining the Provider from using those funds to meet its own liquidity needs or for speculative purposes. This function is closely connected to fund isolation, for if the funds are not segregated it will be extremely difficult to constrain the Provider from using them for its own purposes.

Third, customers' funds may be lost due to "operational risks" such as fraud, theft, misuse, negligence, or poor administration.[28] The function of "protection against operational risk" is closely tied to the previous function, for the prohibition of using funds for its own interests implies the need to limit operational risk.

The response to these risks in common law countries is almost automatically associated with the legal institution of the trust. Two of the authors have proposed that a trust relationship could protect e-money customers against these risks: the Provider could act as trustee of the customers' funds (i.e. trust assets) for the benefit of the customers (i.e. "beneficiaries").

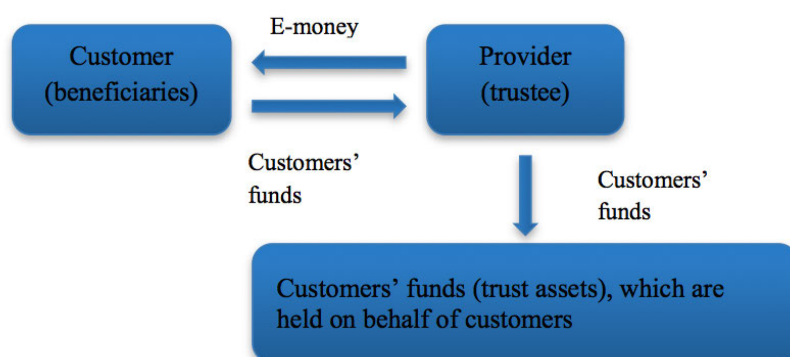


Figure 3. The application of a common law trust to e-money[29]

Despite its complex nature and implications,[30] the features of the trust fit the mobile money industry very well once the trust is seen in the following light:

> *A trust is a legal relationship between a trustee, a beneficiary and trust 'assets'. This relationship may be established by the execution of a Model*


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> *Trust Deed. The trustee has power to use the trust assets. When doing so, the trustee is usually required to comply with a number of duties that it owes the beneficiary. An overarching duty is to use the trust assets for the benefit of the beneficiary. A number of other trustee duties are usually imposed on the trustee, such as to understand and adhere to its obligations under the trust deed, to exercise the skill of a 'prudent' person in the performance of duties under the trust, and not to profit from the office of trustee.*
> *The beneficiary can enforce the terms of the trust deed because he or she has certain rights against the trustee, as well as third parties who obtain, or claim a legal interest in trust assets. The beneficiary can enforce those rights by suing the trustee for failing to comply with the trustee duties.*

A trust can fulfil the previous functions, and protect against (at least some of) the customers' risks in holding e-money. First, a trust isolates customers' funds from other assets held by the Provider. Typically, the Provider is the legal owner of the customers' funds because these are kept in one or more accounts in the name of the Provider, not the customers'.[31] However, the assets may be held in a separate account where customers are the beneficiaries.[32] Isolation from the financial institution's insolvency, and segregation of customer accounts, may be a more complex issue, and will depend on whether the Provider accounts are also trust accounts.

Second, trust law can safeguard customers' funds from liquidity risk: "trustee duties" or fiduciary duties can either be "explicit" (in the contract) or "implied".[33] Such duties may require the Provider/trustee to invest customers' funds in liquid assets, e.g. bank deposits, government or high-credit rating securities; to diversify its portfolio; and to prevent it from using customer funds for its own purposes.[34]

Third, trust law can minimize operational risk in two ways. First, the trustee's duties included in the relevant trust deed could require the Provider to audit the trust accounts and could further specify when and how the Provider should perform such auditing. Additionally, the trust deed could specify that a third person (e.g. the e-money supervisor) could monitor the Provider's compliance with its duties as trustee when customers may not have the capacity to monitor the trustee themselves.[35]

| Function | Specification | Issue | Trust |
| --- | --- | --- | --- |
| Fund isolation | Segregation from the Provider's funds | If the Provider goes insolvent, can the customers separate their assets from the insolvent estate? | Segregation if customers are beneficiaries |
| | Segregation from the financial institution's funds | If the financial institution goes insolvent, can the customers separate their assets from the insolvent estate? | Depends on the use of more trust structures |
| | Segregation from other customers' funds | If either the Provider or the depositary institution goes insolvent, does the individual customer have a claim over specific assets, or do customers have a collective claim over an asset pool? | Depends on the use of more trust structures |
| Fund safeguarding | Liquidity | Can the Provider or the depositary institution dispose of the customer's funds under all circumstances? | Safeguard duties included in the trust deed, backed by implied fiduciary duties |
| Protection of customers' interests | Fiduciary duties | Do the Provider or the depositary institution have a duty to act in the interest of the client when managing the client's account? | Safekeeping duties included in the trust deed, backed by implied fiduciary duties |

Table 1. Functions for the protection of mobile money customers

Unlike common law countries, civil law countries raise more difficult issues, which make it impossible to simply look for “the civil law trust”.[36] The first and most obvious reason is that the trust originated as a device to separate a specific asset, or group of assets, from the assets of the fiduciary, while facilitating the management of those assets by that fiduciary. Thus, common law trusts blur the line between bilateral obligations and property rights in a very “un-civilian way”.[37]

Such incompatibility is far from widely accepted, however.[38] Legal structures such as the *fiducie* in France and the *fideicomiso* in Latin American jurisdictions have often been regarded as the civil law equivalent of common law trusts or, at least, as a close resemblance.[39] Furthermore, trusts set up in common law countries can be subject to recognition by means of the Hague Convention of 1985 on the Law applicable to Trusts and on their Recognition (hereinafter, “the Hague Trusts Convention”), although very few states have ratified the Convention.[40]

The second, and less obvious, reason is that the Anglo-Saxon trust has evolved over centuries and its contours and tenets are easily recognizable (and therefore easily enforced) across common law jurisdictions.

Thus, the quest is not for an equivalent of the trust, but for an institution, or combination of institutions, which can serve customers' needs *in the specific context* of the e-money market, and yet be sufficiently recognizable to be enforced, and provide adequate background rules to confront new situations. We now proceed to explain the relevance of such "recognisability", and such background rules (as well as mandatory rules).

### C. The problem in legal terms: default rules and mandatory rules

Accepting the arguments that e-money services provide great potential for access to finance and economic growth, and that the realization of such potential largely depends on three functions (i.e. "fund isolation", "fund safeguarding" and "protection of customers' interests") this sub-section aims to set the problem in legal terms. If the purpose of this study is to make a comparison between legal rules that fulfil the above functions it is first necessary to define the type of rules we will be looking at. In this study we will be focusing on the so-called (1) "mandatory rules" and (2) "default rules".

To explain what these categories mean, and what their relevance is, consider the following. The relationship between customer and Provider is stipulated in a *contract* (or, in common law countries, by a trust deed). As long as the jurisdictions concerned recognize the principle of freedom of contract (i.e. that the parties can stipulate whatever contract terms they see fit), and *pacta sunt servanda* (i.e. that the content of those terms will be enforced by the courts), this contract will be the main instrument regulating that relationship. In common law countries, in fact, the contents of safeguard and protective duties will be contained in the contract. Civil law systems, like common law ones, recognize freedom of contract and *pacta sunt servanda*. Thus, the ability of the parties to shape their relationship is already a common denominator. However, what matters for the present study are the instances where the solution enforced by the courts may be "contrary to" or "outside" what the parties have agreed. Solutions "contrary to" the agreement are contained in mandatory rules, and solutions "outside" what the parties have agreed are contained in default (or background) rules.[41]

(1) The rationale for mandatory rules is difficult to apply in each case, but easy to explain. A strict enforcement of the terms of the contract in full presumes that (a) the parties are fully rational, (b) that they are fully informed, and (c) that all parties whose interests are at stake are present at the negotiating table. These useful simplifications may provide for results that are sometimes inefficient or unfair. Regarding (a) and (b), mobile money customers may lack financial experience or financial education. They may be unable to understand the terms of the contract, or anticipate how they would apply in all possible contingencies. Fully enforcing the terms of the contract could lead to results that are inefficient, in terms of resource allocation, or seen as unfair.

The typical situation we envisage is one of exploitation of the customer by the Provider, but now let us focus on the third simplification (c), and let us imagine that the Provider guarantees the maximum level of protection: customers will receive their money in full no matter what happens to the Provider. This is surely attractive for e-money customers, but less for the Provider's other creditors, who did not have the chance to negotiate the same level of protection;[42] thus, arrangements that harm third parties may not be enforced.


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(2) The rationale for default rules is more subtle, but even more important. As stated above, the presumption of full information and rationality is useful, but, simply, not true, and even a very sophisticated Provider cannot foresee all possible contingencies. Thus, *pacta sunt servanda* says that courts will enforce contract terms as a "plan A", but courts need a "plan B", in case a contingency arises and is not covered by the contract.

Default rules are "plan B". Law and economics scholars have long discussed what *optimal* default rules *should be*.[43] We will not dispute their conclusions, but, rather, focus on how civil law courts *actually* select default rules. As a first step, in a way similar to common law courts, and to law and economics scholars, they try to ascertain the contract's "meaning" or the parties' "wishes",[44] but there is a point at which the judge is merely guessing what the parties *would have* wanted, and she needs to look for background rules elsewhere.

To select the most suitable default rules, civil law judges will try to subsume the facts into one of the existing categories of legal transactions, by asking themselves a question of the following kind:

> *"Which of the relationships envisaged in the law that have an element of custody or safeguarding (deposit, mandate, etc.) most closely resembles the relationship the Provider has with its customer?"*[45]

In common law countries the link between Provider–customer relationship and the trust may be so clear that judges skip this part, but civil law judges will have to choose between rules for fiduciary transactions, mandates, deposits, or loans as default rules, which may result in different degrees of protection depending on the chosen institution.

The process followed by a civil law judge is summarized in the following decision tree:

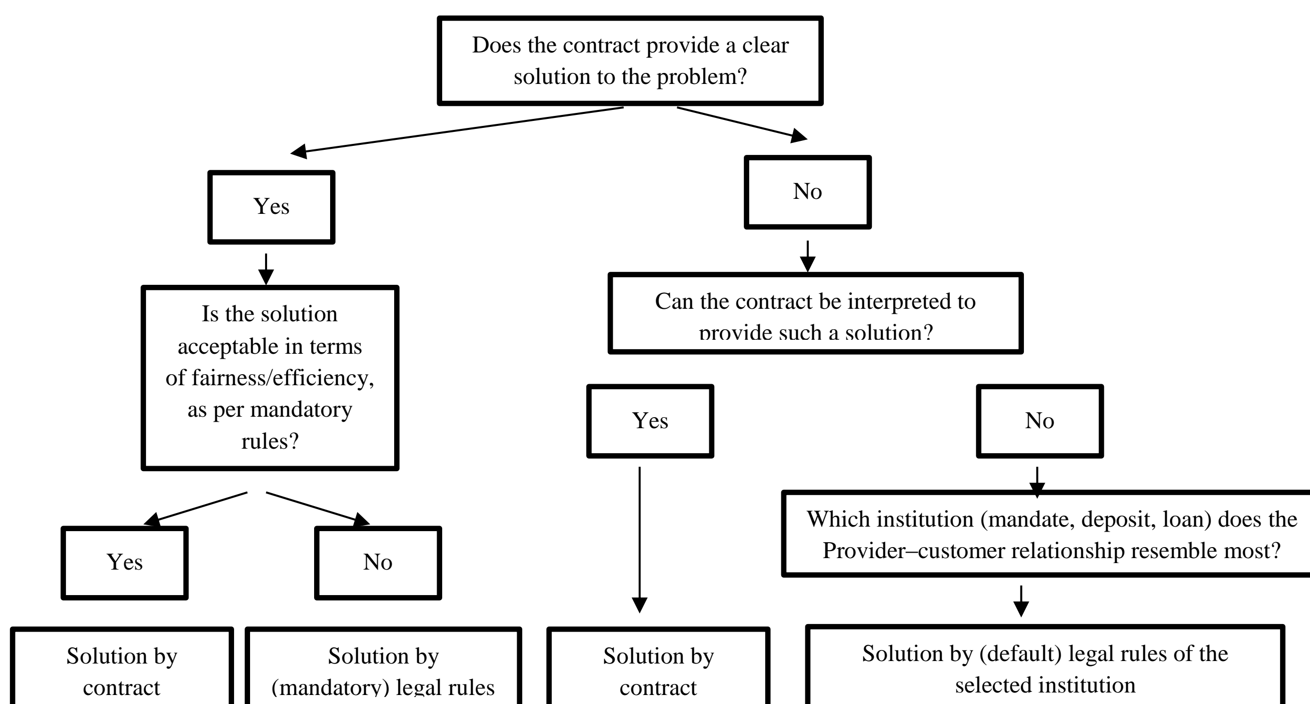



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Figure 4. Civil law judge decision tree

Bearing this in mind, a Provider could simply steer clear of mandatory rules, and try to draft the contract in terms that not only stipulate the explicit solutions to specific problems, but also broader, background rules, to cover unexpected contingencies. However, this decision tree does not sufficiently take into account two important factors, one present in all jurisdictions, and one typical of civil law jurisdictions.

First of all, the decision tree does not take into account that the decision regarding whether there is a clear solution in the contract, or whether the contract can be interpreted to provide such a solution, is made by a judge, who is not a contracting party, nor "neutral" about her preferences between "contract solutions" and "legal solutions". In case of conflicting interpretations of the contract, the judge will have a strong incentive to resort to the legal rules she knows, holding that the contract was not clear enough to derogate from those rules.[46]

Second, in civil law countries, this tendency to resort to the default rules of existing institutions instead of interpreting the contract is often reinforced by the doctrine of the *causa*. *Causa* is not only a validity requirement, equivalent to the common law *consideration*. It has further implications and, under some views, it requires a judgment of correspondence or adequacy between the socio-economic function of the contract, and the socio-economic function of one of the contract "types" (deposit, mandate, loan).[47]

In the Provider–customer relationship, and the rights *in personam* resulting from the agreement, this exercise may simply result in a more obstinate reliance by courts on legal institutions, rather than contract terms. But, in relation to fund isolation, i.e. the protection of customers' funds from the Provider's other creditors, a lack of correspondence between the structure of the customer-and-Provider rights over the funds, and the available structures of rights *in rem* under the Civil code may result in the invalidity of the customer claim over the funds, since, for rights *in rem* the doctrine of *numerus clausus* prevails.[48]

In short, this legal analysis raises three issues. First, although civil law countries acknowledge the parties' freedom of contract, judges will not enforce terms that are contrary to mandatory rules. Second, judges will often resort to the legal rules of one of the legal institutions contemplated in the Civil codes to fill gaps or to confront unexpected situations, rather than resorting to contract interpretation. Third, the lack of correspondence between the structure of rights envisaged in the contract, and the structure of rights envisaged in one of the of the legal institutions contemplated in the Civil codes (i.e. "atypicity") can create friction between the law and the goals of the contract (at best), or render the customer's rights over the funds ineffective against the Provider's creditors (at worst). It is therefore critical to analyse the structure of rights in the existing figures contemplated under the Civil codes. That is the purpose of the following section.

## *III. The Protection of Customers' Funds in Civil Law Jurisdictions: A Combination of Different Legal Instruments*

Bearing in mind the previous analysis, the protection of customers' funds in e-money transactions equivalent to that provided by the common law trust will pose important challenges for civil law systems. Civil law systems make a strong division between the Law of Obligations, which deals with rights *in personam* (such as the rights the customer may have against the Provider) and rights *in rem* (such as the customers' rights over the funds). Different legal figures are conceived to provide the default rules (and some mandatory rules) for the customer–Provider relationship, while other figures are conceived to provide such rules for the relationship of the customer with the funds. On this basis, we will examine "proprietary alternatives" (mainly the rules on fiduciary transactions introduced in some civil law countries) (A), and "contractual/obligational alternatives" (mainly the rules on mandate) (B). It is possible to anticipate that the former will be short on remedies against the Provider, whereas the latter will fall short of proprietary protections. Therefore, we will also examine the possibility of specific regulatory interventions (C) that define e-money as a type of relationship of its own, similar to those which have been conducted in the case of other financial transactions.

### A. Proprietary alternatives: the fiduciary transaction

#### *1. Basic transaction*

Perhaps the legal instrument that bears the closest resemblance to the trust in a civil law jurisdiction is the *fiducia*.[49] The *fiducia* is a broad category that encompasses a wide array of applications. Some jurisdictions regulate *fiducia* expressly; in others, it is only recognized by the courts in the absence of an express legal provision; in other jurisdictions, fiduciary contracts are not recognized at all. Moreover, where the fiduciary contract is recognized, it may be referred to by different names;[50] and, even among those using the same name, its legal structure and effects may vary across jurisdictions.[51] It may be recognized as a product of the parties' free will[52] or it may arise by operation of the law.[53] The formalities required for its constitution may be more or less stringent. Moreover, it may be limited to commercial transactions, mostly with regards to the provision of certain financial services, or it may cover a broader range of situations, including successions, tax and charitable purposes.[54] Some jurisdictions may also impose restrictions on who has capacity to act as fiduciary.[55]

For the purposes of this paper, we shall focus on those applications of *fiducia* that are instrumented by an *inter vivos* deed. We will refer to them as "fiduciary transactions". A fiduciary transaction can be broadly defined as an arrangement under which one party — the settlor — conveys property over one or more assets to another — the fiduciary — and the latter agrees to use those assets for a specific purpose. The fiduciary agrees to transfer the fiduciary assets to one or more beneficiaries upon fulfilment of the agreed purpose.[56] In her use of the fiduciary assets, the fiduciary will be subject to a series of fiduciary duties agreed with the settlor or determined by law.


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Generally, fiduciary contracts fulfil two purposes: a) the administration of the fiduciary assets by the fiduciary; and b) the provision of security for one or more obligations of the settlor. The use of fiduciary contracts in the context of e-money services would normally fall within the first category. Typically, in order to guarantee that customers will be able to recover their funds, the Provider will settle a fiduciary contract by transferring the funds to a fiduciary institution who will hold the assets for the benefit of the customers (i.e. the beneficiaries).[57] Figure 5 depicts this situation.

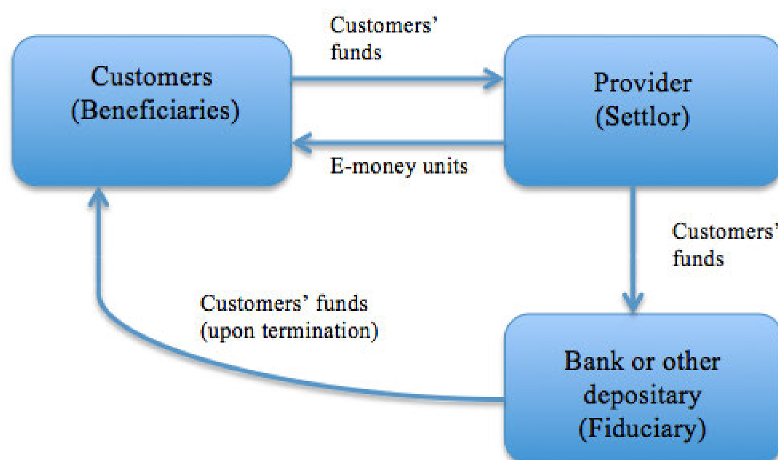


Figure 5. Fiduciary transactions in the context of e-money (I)

In some jurisdictions, customers will transfer the funds to the Provider under a fiduciary contract, where the latter will be held as a fiduciary.[58] If the Provider does not have the necessary infrastructure to assume safeguarding duties, e.g. a MNO, it will normally deposit the customers' assets with a financial institution. In these cases, the latter may not have fiduciary duties under the law, thus potentially undermining the protection of customers' funds. Figure 6 depicts this situation.

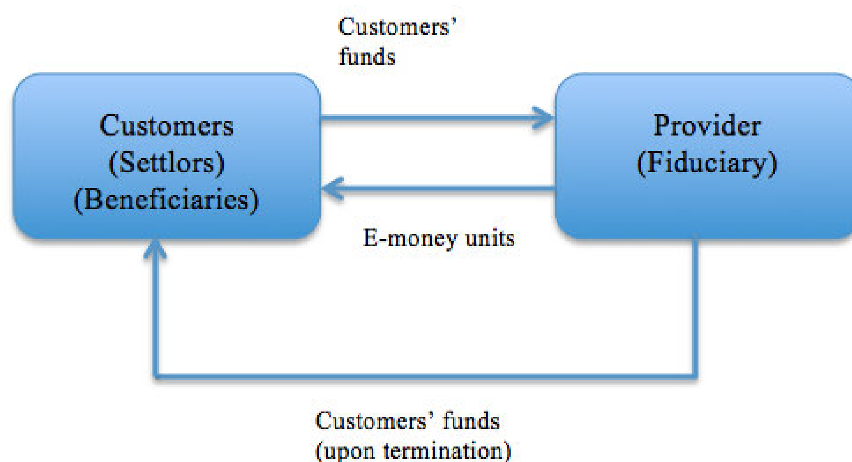


Figure 6. Fiduciary transactions in the context of e-money (II)


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Yet another alternative would be to consider the Provider as the beneficiary, and the bank as the fiduciary. In this case, the question would be how to protect the customers' interest in the funds. One possibility would be for the customers and the Provider to enter into a second fiduciary contract, in which the Provider would be the fiduciary, and customers the beneficiaries. However, customers would face the same problem described in the paragraph above. To the best of our knowledge, no jurisdiction has adopted this approach.

## *2. Fulfilment of functions*

### *a. Fund isolation*

When examining the effects of the insolvency of the Provider or the depositary institution on the customers' funds, the legal implications of the settlor's transfer of property to the fiduciary as described in the definition above become particularly relevant. While some jurisdictions recognize the validity and effects of such transfers of property to the fiduciary, others do not.

In this first category of jurisdictions, there are various ways in which a fiduciary can hold property rights over the fiduciary assets. Some jurisdictions conceive the fiduciary assets as a patrimony[59] of the fiduciary that is separate from her personal patrimony.[60] In these cases, when the fiduciary is involved in an insolvency proceeding, the fiduciary assets do not form part of the insolvent estate. The fiduciary contract is terminated and the assets are transferred to the beneficiary.[61] In some cases, the legislator has introduced express provisions to guarantee the isolation of those assets.[62]

However, a precision must be made. Some jurisdictions allow creditors of the fiduciary patrimony to have recourse against the settlor's patrimony when the former is insufficient to satisfy all claims.[63] There exist alternative solutions, e.g. a contractual provision whereby creditors of the fiduciary patrimony limit their recourses to those against the fiduciary patrimony.[64] Contractual solutions, however, are far from perfect.[65]

A more innovative interpretation is that of the fiduciary assets constituting an independent patrimony from those of the settlor, the fiduciary and the beneficiary. In Quebec, for example, "a *fiducie* involves the constitution of a patrimony by appropriation (*patrimoine d'affectation*), that is to say a patrimony dedicated to a purpose, and the [fiduciary] is characterized as an administrator of the property of another person."[66] The patrimony is independent from the patrimonies of the settlor, the fiduciary and the beneficiary: none of them has any property rights over the assets.[67] As a result, in the event of the fiduciary's insolvency, the fiduciary contract is not necessarily terminated, unlike in the previous cases.[68]

As a result, the regulation of the fiduciary contract will determine the level of protection of the fiduciary assets in the event of the fiduciary's insolvency. Where the fiduciary assets do not form part of the fiduciary's personal patrimony, either as a separated patrimony of the fiduciary or as an independent patrimony altogether, those assets will not form part of the

insolvent estate. In the event that a fiduciary were allowed to hold the fiduciary assets as part of its personal patrimony, the settlor (or the beneficiaries) would encounter serious problems to separate the assets under administration from the insolvent estate. Thus, some civil law countries accompany the rules stipulating the existence of a separate patrimony with insolvency protections that permit the separation of fiduciary assets upon the fiduciary's insolvency,[69] whereas others even provide for the replacement of the fiduciary on an interim basis, when insolvency proceedings may jeopardize the performance of its duties.[70]

In the context of e-money services, this analysis poses different questions depending on how the fiduciary contract is fitted into the e-money transaction. Under the first formula described in Section III.A.1 above, the Provider (i.e. settlor) entered into a fiduciary contract with a financial institution (i.e. fiduciary) under which the latter would manage the customers' funds (i.e. fiduciary assets) for the benefit of the former's customers (i.e. beneficiaries). If property over the funds were transferred to the fiduciary, customers' interests in the fiduciary assets would only be protected against insolvency risk if those assets were separated from the fiduciary's patrimony. If there were no transfer of property under the fiduciary contract, the protection of customers' interests in the fiduciary assets would require the segregation of those assets from the patrimony of the Provider, as settlor.

Under the second formula, property over the customers' assets would necessarily have to be transferred to the fiduciary; otherwise, the fiduciary contract would not fit in the structure of the e-money transaction.[71] As property over the fiduciary assets is transferred to the Provider as fiduciary, the protection of customers' interests in those assets would require the segregation of the fiduciary assets from the personal patrimony of the Provider. Moreover, if the Provider were to deposit the assets with a third party (e.g. a financial institution with the capacity of assuming safeguarding duties), protection of customers' funds would also require the segregation of the fiduciary assets from the financial institution's patrimony. However, as we signalled above, the fiduciary contract between customers and Provider customers would have to include this expressly in their fiduciary contract.

#### *b. Fund safeguarding*

Although this function makes reference to the *personal* obligations imposed on the fiduciary by legal institutions in civil law countries, some of those personal duties are inextricably linked with the fund isolation function, as seen above. In particular, fund isolation can be rendered very difficult if there are no duties and limits on the way the fiduciary keeps and manages the customers' funds. Some of the fiduciary laws studied include express provisions requiring the fiduciary to keep the fiduciary assets segregated,[72] while in the jurisdictions where there is no express stipulation the duty can be deduced from the autonomy of the fiduciary patrimony,[73] and the fiduciary's mandate to manage that patrimony to fulfil the terms of the fiduciary contract.[74]

Like the trustee's duties to the trust, the parties to a fiduciary contract can agree on a series of duties that will bind the fiduciary's use of the fiduciary assets for the projected purpose.[75] Although such fiduciary duties could also be determined by law, most statutes make general references to the duty of the fiduciary to serve the terms of the fiduciary contract, or its duty


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to act with the necessary diligence (and the consequent responsibility for losses incurred in breach of that duty).[76] When fiduciary duties are not expressly included in the law, the courts may have to interpret the duties that are implicit in the adequate safeguarding of assets, but only if the fiduciary transaction is conceived as one where the fiduciary acts in the beneficiary's interest (and not just one where fiduciary and beneficiary hold different interests in a patrimony).

Unlike beneficiaries under a common law trust, who have an equitable right in the trust assets that would allow beneficiaries to trace the assets should the trustee breach her duties,[77] beneficiaries under a fiduciary contract cannot claim any property rights in the fiduciary assets.[78] Nor can the settlor.[79] They will only have a personal claim for damages against the fiduciary.[80]

Nevertheless, beneficiaries will have other rights available to protect their interest in the fiduciary contract. They will typically have a right to information about the fiduciary's use of the fiduciary assets[81] and a right to substitute the fiduciary under certain circumstances.[82] Some jurisdictions specifically provide that the settlor and the beneficiaries may take action against the fiduciary to compel him to perform its obligations, to refrain from any harmful action to the fiduciary patrimony or the beneficiaries' rights, and to impugn any fraudulent acts.[83] In other jurisdictions, however, beneficiaries have very limited rights to protect the fiduciary assets.[84]

These shortcomings should be put in perspective, however. Common law countries' proprietary remedies are not significantly more protective when the assets have been transferred to *bona fide* third parties. Moreover, tracing, as a remedy available to beneficiaries under a trust, which permits to appropriate the proceeds from the original assets, is difficult to apply in case the assets are money moved between bank accounts, due to problems of identification of the property.[85] Also, the civil law remedy of *subrogación real*/*subrogation reéle* works in a similar way to the law of tracing.[86] It originated in the Roman *pignus tabernae* (literally, a pledge over an inn).[87] The institution has not been given much use, and the movement of money between accounts by the Provider or bank poses different technical challenges to those arising from the sale of assets by the innkeeper. However, the problem would lay on the adaptation of the legal mechanism to modern needs, not on the absence of a mechanism.[88]

Similar to the use of "trustee's duties" to outline safeguarding rules, fiduciary duties could provide for specific rules to ensure that the Provider always has a 1:1 ratio between the total outstanding amount of e-money issued (or "e-float") and the customers' funds backing it. There are three main categories of rules that could serve this purpose: a) the parties could expressly restrict the Provider's right to use of customers' funds;[89] b) they could require the Provider to manage the customers' funds within very narrow parameters, e.g. investing the cash in highly liquid[90] assets (e.g. bank deposits, government securities with a high credit rating, etc.);[91] and c) the parties could agree that the Provider will diversify the assets in which it will invest the customers' funds.

These rules can be part of the fiduciary duties included in the relevant fiduciary contract, which will determine how the fiduciary will manage or dispose of the assets to fulfil the purpose agreed in the contract. These duties can be "explicit", which means that they are

contained in the fiduciary contract, in specific e-money regulation, in fiduciary legislation or in general law. They can also be "implied" by the courts to "fill a gap" in the fiduciary contract, particularly in those jurisdictions in which the fiduciary contract has been recognized and developed by case law.

*c. Protecting customers' interests against operational risks*

The fiduciary duties under a fiduciary contract can also serve as a protective mechanism against the operational risks described in Section II.B above. Fiduciary contracts can provide for two mechanisms to reduce operational risk with regards to e-money customers' funds.

First, the fiduciary may be required to keep records of the accounts where it keeps the fiduciary assets and to have those accounts audited by an authorized auditor.[92] These requirements may be expressly included in the fiduciary contract or may be provided by law. The fiduciary contract could even designate a specific auditor or describe the process of designation.

Additionally, the parties may provide for a third party expert to monitor the fulfilment of the fiduciary's duties, especially those relating to fund safeguarding (as described above) and auditing. The involvement of a third party expert in the monitoring of the Provider's duties may be rooted on two different rights of the settlor. First, the settlor[93] and/or the beneficiary[94] under a fiduciary contract may have the power to monitor the fiduciary's compliance with the latter's duties under the contract. Normally, the parties will specify in the terms of their agreement whether the settlor or the beneficiary can delegate their supervisory powers over compliance of fiduciary duties upon a third party ("the Protector").[95] However, some jurisdictions include express provisions that give the settlor and any beneficiaries such possibility.[96]

Second, the fiduciary has a duty to account to the settlor and/or the beneficiary for the management of the fiduciary assets.[97] The parties could agree that such duty to account is to be subject to the review of a third party expert.[98] However, this revision by a third party expert would seem to provide a weaker protection against the mismanagement of customers' funds by the Provider because it would focus only on the accuracy of the information provided by the Provider to its customers and not on the Provider's actions to comply with its fiduciary duties.

The importance of allowing the intervention of a Protector in the supervision of the Provider's compliance with its fiduciary duties is twofold. First, potential e-money customers in developing countries are likely to have very low levels of financial literacy.[99] This deficient financial knowledge could prevent them from monitoring the Provider effectively and could leave room for the latter to act opportunistically and to jeopardize the safety of customer's funds.[100] Second, it could help to reduce the costs of producing and collecting information.[101]

A priori, both public and private institutions could act as Protectors of customers' interests in e-money transactions by monitoring the Provider's compliance with its fiduciary duties. Protectors would have to have a solid financial and/or technological background and a deep understanding of the financial services and/or mobile industries in the relevant jurisdiction.

Within the first category, e-money regulators are evident candidates.[102] Where those regulators do not exist, central banks and securities regulators could be alternative candidates.[103] Within the second category (i.e. private institutions), auditors, banks, law firms or technology consultants could fit the role.

Where a private entity undertakes the role of supervising the Provider's compliance with its fiduciary duties, there is a concern that the third party expert will not act in the best interest of e-money customers, e.g. by acting in its own benefit. Thus, we must query whether such supervisory role implies the assumption of fiduciary duties by the third party expert towards e-money customers. The parties could so agree under the respective agreements. Moreover, mandatory rules could also specify the application of fiduciary duties to protect the interests of e-money customers. However, in the absence of any such agreement or of any mandatory rules, the answer to that question must come on a case-by-case basis. In these situations, courts are likely to resort to default rules to fill this gap in the parties' agreement. However, it would be more difficult to construct the appointment of a protector as an implicit possibility if the law is scant on the duty to account and fiduciary duties.

## B. Contractual/obligational alternatives: the mandate contract

Under a mandate contract, one party (the agent) commits herself to do something on behalf of another (the principal) for a fee, unless otherwise specified.[104] The agent is liable to fulfil mission mandated by the principal in the capacity and under the circumstances so specified in the contract. The mandate contract is a legal mechanism *de minimis*: it provides a basic foundation for other, more complex, legal mechanisms such as deposit and loan contracts, as well as fiduciary mechanisms.

In the context of e-money services, the mandate contract could not regulate the relationship between the customer and the Provider. By purchasing e-money units from the Provider, the customer relinquishes her proprietary rights over its funds in exchange for the right to dispose of the e-money units. Thus, the customer would not have the legal capacity to give the Provider any mandate to dispose of funds that she no longer owns.

However, the mandate contract could regulate the relationship between the Provider and the depositary institution (e.g. a bank, a securities intermediary or a central securities depository). The Provider could mandate the depositary institution to keep custody of the customers' funds in accordance with a series of duties specified in the contract. Like the fiduciary under the fiduciary contract, the agent would be bound by the fiduciary duties specified by the parties in the contract or provided by law. Such fiduciary responsibility vis-à-vis the principal could potentially provide e-money customers protection against liquidity and operational risk. The mandate contract, however, would not provide protection against the risk of the Provider or the depositary institution becoming insolvent. In principle, if the principal became insolvent, the assets would return to its insolvent estate to pay its creditors because the principal was the legal owner of the assets. The segregation of those assets would require an express legal mandate or the creation of a separate patrimony from that of the principal. These are, precisely, the characteristics of the fiduciary contract. If the agent

became insolvent, the assets would not fall into the agent's insolvent estate because they never left the principal's patrimony.[105]

The mandate contract cannot, *per se*, provide e-money customers effective protection against the risk of the Provider's insolvency. However, as a legal mechanism *de minimis*, mandate contracts provide an important body of default rules that regulate the duties of the agent/representative towards the principal. In addition to acting in conformity with the mandate the agent is normally bound to act in the interest of the principal,[106] and to exercise due care and skill.[107]

In Section III.A above, we saw that under certain circumstances, fiduciary contracts can effectively isolate customers' funds in the event of the Provider's insolvency, as well as provide customers with protection against insolvency risks, protection against certain operational risks, and the flexibility to introduce extra duties. Their main handicap was their lack of general background rules regulating the duties of the fiduciary towards the customer. This is the gap that other private law arrangements, such as the mandate contract, seem fit to fill. Actually, it is interesting to note that some countries that defined fiduciary transactions not focusing on their proprietary side (i.e. the relationship of the parties to the assets) but the personal/obligational side (the relationship of the parties with each other) did so by using the mandate and commission contracts as a model.[108]

To hold that the mandate's shortcomings can be corrected by means of better contract clauses would be wrong for two reasons. First, a contract cannot pre-determine the protection of a right upon insolvency unless the right created by the contract belongs to one of the categories that enjoy insolvency protection[109] (so we would encounter the same problem). Second, our concern should not be the rules contained in the contract, but the legal rules that provide the interpretative background for cases not expressly covered by contract provisions. With this in mind, courts confronted with a difficult case of fund isolation (e.g. upon the Provider's or the bank's insolvency) would lack background principles with which to determine whether customers' funds have been properly ring-fenced.[110] As a result, a mandate contract would not be suitable to regulate e-money services;[111] at best, it could provide the basis for the Provider's duties *vis-à-vis* its customers, but not for the rights over the funds.

### C. Regulatory alternatives: regulating functional duties directly and/or requiring insurance

The mechanisms and their respective drawbacks described above give a sense of the difficulty of providing a single solution for the effective protection of e-money customers' funds that is suitable for all or most civil law jurisdictions. Unlike the combination of personal and proprietary remedies provided by the trust,[112] different civil law institutions solve a different range of problems, but none solves them all. In light of this difficulty, policymakers can still resort to two other alternatives that rely on a direct regulation: (1) regulating the functions outlined before directly, e.g. under an ad hoc e-money piece of legislation, to ensure that the depository banks and Providers of e-money services have mechanisms in place to protect customers' interests; and (2) ensuring that, even in the absence of such mechanisms, customers' funds will be protected, e.g. through insurance.

### *1. Direct regulation of functional duties*

The first solution would be to introduce a specific piece of legislation that requires Providers to adopt some of the protective mechanisms described in Section III.B above, e.g. fund isolation, fund safeguarding and protection against certain operational risks. Direct regulation could also grant e-money customers the right to monitor the Provider's compliance with these duties, as well as the right to delegate that supervision upon a third party expert.[113] This would buy some time for courts and legislative authorities before they find the optimal way to draft a new type of arrangement in the landscape of private law figures. In the European Union, the Directive 2009/110/EC of 16 September 2009 (the "E-Money Directive") is an interesting example of direct regulation in this regard.[114] The 2007/64/EC Payment Services Directive also provides for specific safeguarding requirements (in case the payment services provider undertakes other activities),[115] with a specific mandate to avoid commingling of funds, and of protection against the provider's other creditors in the event of insolvency, but without pre-specifying the property arrangements through which this must be achieved.[116] Specific regulatory rules for mobile e-money could also introduce the right of customers to convert money into cash.

Naturally, at first glance, a predominantly regulatory solution looks like the best option. If there is a problem that requires a very specific level of protection and distribution of rights and obligations, what could be better than promulgating a specific set of rules that explicitly solves those problems? The problem, however, is that the specific legal rules also need to be flexible enough to confront new situations as the market evolves and new problems arise. Such flexibility depends on whether the rules can be subject to the kind of interpretation exercise that we described in Section II.C above and on how they interact with other rules. Furthermore, if the duties are regulated in functional terms, this implies that the parties and the courts will still be left with the question of what is the private law arrangement that supports the regulatory duties. It is difficult to consider a regulatory approach as the sole solution, but, as we argue below, the regulatory approach will most likely form a key part of the solution to protecting customers with respect to e-money.

### *2. Insurance*

Regulators could also require the insurance of e-money customers' funds against any of the risks identified in Section II.B above, i.e., the risk of the Provider or the depositary institution becoming insolvent; the risk of them becoming illiquid; and a series of operational risks arising from the mismanagement of customers funds, most notably theft and fraud. This is the approach adopted in the European Union for payment services.[117]

The requirement to insure customers' funds could be introduced by regulation to strengthen the protection that existing legal instruments would provide to customers' funds or to protect customers' funds where no legal instrument in the relevant jurisdiction fulfils the functions identified in section III.A above. In any case, regulators would have to decide whether


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insurance would be provided by the market (e.g. insurance policies to be subscribed with authorized insurance companies) or by public institutions.

Although an insurance policy, either as a complementary or a standalone mechanism, would ensure effective protection to e-money customers' funds, there are important issues to consider.

First, the e-money market conditions may not be ideal for the viability of an insurance scheme, e.g. where the number of potential e-money customers is not large enough[118] or where the number of Providers is very low.[119]

Second, it would not be rare to see Providers passing on the cost of mandatory insurance to customers. This could have a serious impact on the demand for e-money services and on its potential as a tool for financial inclusion. One should expect the cost of insurance covering all the risks described in section II.B to be higher than insurance used as a complementary mechanism to compensate specific deficiencies.

Third, although affected customers may exercise their right to claim compensation under the insurance policy upon the initiation of the insolvency proceedings of the Provider, the insurer may refuse to make such compensation until the specific losses incurred by each customer are determined. This will only happen at the end of the insolvency proceedings of the Provider, which may translate into too long a waiting period for e-money customers, most of whom will have very little to fall back on. Additionally, given the difficulty for many of the potential e-money customers to access the financial services industry, compensations under insurance policies should be made easily available to affected e-money customers.

Fourth, there may be a problem of moral hazard, where Providers will have fewer incentives to comply with the protection rules described herein, especially the rules on restriction of use of customers' funds. Effective monitoring by the competent authorities, as described in Section II, will be essential.[120]

Fifth, insurance will only give customers a personal claim for damages against the insurance company in the event of the Provider's insolvency. This protection is not as strong as that provided by other mechanisms where customers remain the owners of their funds or where those funds, despite being owned by the Provider, are separated from its personal patrimony.[121]

Finally, it is important to note that insurance will not eliminate counterparty credit risk for e-money customers. Insurance will, effectively, substitute the risk of the Provider becoming insolvent with the risk of the insurer becoming insolvent. Any insurance scheme should rely on financially robust insurance companies or ensure the availability of enough public funds to cover the potential losses of customers. Where the insurance industry is not very strong or where the government may be in a situation of financial hardship, access to cash must be available through other means.

Table 2 provides a summary of our findings in relation to the different legal mechanisms available to regulators in civil law countries to protect e-money customers' funds.

| Function | Specification | Fiduciary provisions | Regulatory solutions |
|---|---|---|---|
| Fund isolation | Segregation from the Provider's funds | Undefined in the law | Depends on coordination with insolvency rules |
| | Segregation from the depositary institution's funds | Cash held at a bank: yes. Securities held at an intermediary or central depository: it will depend on the arrangement | *Ibid.* |
| | Segregation from other customers' funds | Yes, if each fiduciary arrangement is contemplated as a separate transaction where the customer is the beneficiary | *Ibid.* |
| Fund safeguarding | Liquidity | Fiduciary duties | Yes (depends on nature of regulated entity) |
| Protection of customers' interests | Fiduciary duties | Fiduciary duties | Yes |

Table 2. The protection of e-money customers' funds under civil law

As we can see, there is no single mechanism that will provide e-money customers an effective protection against the three risks identified in Section II.B above. We can anticipate that any regulatory strategy will result in a combination of different legal mechanisms. In this context, the interoperability of the rules applicable to such mechanisms will be crucial to provide an effective protection. We turn to all these questions now.

## *IV. A Roadmap of Legal Strategies for E-Money*

The previous sections discussed the benefits and risks of using different approaches as a background for e-money systems. None of the private law alternatives (fiduciary or mandate contracts) adequately fulfils *all* the necessary functions, which would make a specific regulatory intervention desirable. We now use the previous conclusions to provide a broader menu of policy choices. First, we begin by exploring the options available to regulators to protect e-money customers' funds (A). Second, we introduce additional arguments about how regulatory certainty should be weighed against the need to foster competition between e-money models and the *legal* interoperability of systems, both on a domestic and a cross-border basis (B). Finally, we address issues of regulatory capacity and financial literacy that, in practice, limit regulatory intervention (C).

### A. A summary of the options available to regulators

Regulators will face different options to protect e-money customers' funds from the risks identified in Section II.B. These options fall into two main categories, depending on whether fiduciary contracts are recognized in the relevant jurisdiction or not.

#### *1. Fund isolation*

The first priority for policymakers should be to guarantee the isolation of customers' funds. Policy strategies will vary depending on whether fiduciary contracts are recognized in the relevant jurisdiction and on the treatment given to fiduciary assets under such recognition.

*Where fiduciary contracts are recognized* in the relevant jurisdiction and fiduciary assets are separated from the personal patrimony of the fiduciary, Providers should rely on fiduciary contracts to protect customers' funds. Lawmakers could include statutory requirements for those Providers to hold customers assets under a fiduciary contract (or including it as a preferred possibility to safeguard customers' funds). Several civil law jurisdictions have implemented this regulatory strategy, often within the broader framework of e-money regulation.[122]

In jurisdictions where fiduciary contracts are recognized but the *separation of assets* from the fiduciary's personal patrimony is unclear, it will be important for regulators to clarify customers' protection against the risk of the fiduciary's insolvency. Direct regulation could be of general reach (for all fiduciary contracts) or narrower in scope (e.g. only affecting fiduciary contracts for e-money accounts). Alternatively, in countries where private law arrangements are difficult to amend without upsetting the whole Civil code system this could be done by introducing specific provisions in the relevant insolvency laws, which would give e-money customers a right to segregate their assets from the insolvent estate.[123] Yet another possibility of achieving such a segregation of assets from the personal patrimony of the fiduciary would be to introduce *ring-fencing* requirements for Providers to require them, for example, to carry their e-money business through a separate legal entity, which would hold the latter's funds under a fiduciary contract.[124] Regulators could also require Providers to


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subscribe an insurance policy to cover the risks for customers' funds as a general fall-back option. This alternative could be complementary to the fund isolation strategies outlined above, or be enacted as a standalone option.

*Where fiduciary contracts are not recognized*, there are more limitations on private parties to create, by their own initiative, the mechanisms of protection necessary to make e-money work. In such context, legislatures could then pass legislation that expressly contemplates e-money as a new type of admissible private law arrangement, without making a broader statement about the admissibility of fiduciary transactions as a whole.[125]

However, there may be reasons why the protection of e-money customers' funds may not justify a full reform of the relevant legal system.[126] In such case, those countries cannot entirely rely on an institution like the mandate, because it presumes, rather than regulates, the separation of funds between principal and agent. The patrimonial relation would normally be seen as a loan or a deposit. This would create some friction, due to the lack of background rules on segregation of assets by the borrower (Provider) under the loan, and the lack of background rules that authorize the depositary (Provider) to dispose of the assets under the deposit.

Table 3 below provides a summary of the options available to legislatures for the protection of customers' funds against the risk of the fiduciary becoming insolvent:

| **Jurisdictions…** | **Regulatory options** |
| --- | --- |
| … where fiduciary contracts are recognized | **Option 1**: where the fiduciary assets are separated from the fiduciary's personal patrimony, to require Providers to hold e-money customers' funds under a fiduciary contract by law. |
| | **Option 2a**: where the fiduciary assets are not separated from the fiduciary's personal patrimony, to introduce specific modifications in the regime of fiduciary contracts to separate the fiduciary assets from the fiduciary's personal patrimony. |
| | **Option 2b**: where the fiduciary assets are not separated from the fiduciary's personal patrimony, to introduce specific modifications to the relevant bankruptcy law to ring-fence the assets in the event of the Provider's insolvency. |
| | **Option 2c**: where the fiduciary assets are not separated from the fiduciary's personal patrimony, to require a separate legal entity from the Provider to hold the customers' funds under a fiduciary contract. |
| | **Option 2d**: where the fiduciary assets are not separated from the fiduciary's personal patrimony, to require the Provider to subscribe an insurance policy to cover the losses of e-money customers' funds that result from the former's insolvency. |
| … where fiduciary contracts are not recognized | **Option 3**: to introduce fiduciary contracts in the relevant jurisdiction, either in the context of e-money services or in a wider array of fields. |
| | **Option 4a**: to require by law that Providers deposit customers' funds in a separate bank account or that they invest customers' funds in low-risk |

| | |
|---|---|
| | securities. This could be complemented with an express provision of preferential status for customers in the event of the Provider's insolvency. |
| | **Option 4b**: to require Providers to subscribe an insurance policy to cover the losses stemming from all the risks faced by customers' funds. Insurance could be a standalone mechanisms or complement more specific regulations. |

Table 3. A summary of policy options to achieve fund isolation

### *2. Fund safeguarding and protection of customers' interests*

The second priority would be to ensure fund safeguarding and to protect customers from operational risk. Some rules on fiduciary transactions provide some broad conduct duties, but many do not.[127] Even if it were possible to conclude that such duties are implicit background duties a background, or default, duty, which can be derogated by contract, and has a very broad content, may not provide a sufficiently firm foundation to foster market confidence. Specific statutory rules could provide the minimum content of the relationship between Provider and customer that is necessary to protect the latter's funds. Such content would not be subject to derogation or waiver in the contract.[128]

Such minimum content could include specific safekeeping duties for Providers e.g. to deposit customers' funds in a separate bank account or to invest customers' funds in safe, low-risk securities in the name of the customers.[129] Regulatory provisions could also specify further the content of safekeeping duties,[130] and be connected with insolvency rules that dispense the protection upon the Provider's insolvency (e.g. rights of separation or priority rights). Such sets of duties would also support fund isolation, and would be of particular importance in countries that do not recognize fiduciary transactions.

Again, another regulatory alternative would be to require Providers to subscribe to an insurance policy that covers the losses of customers' funds in the event that the Provider becomes illiquid or it is not able to return the customers' funds for any reason other than insolvency. This alternative could be complementary to the regulatory strategies outlined in the previous paragraphs or it could be enacted as a standalone option.

In Section III we considered private law and regulatory solutions as alternatives to achieve the same end: one would be driven by the choices of market participants, the other by legislative mandate or regulatory design. However useful that division may have been for illustrating the different choices, the truth is that it would be rare for a country to adopt an "e-money legislative strategy" that is not a "mixed" strategy, in the sense that it combines (a) reliance on the parties' ability to craft a menu of contractual solutions for the market needs, with (b) specific regulatory rules that are tailor-made for the needs of the e-money industry, and (c) private law rules that provide the background for both contract solutions and regulatory rules.

The previous discussion holds important lessons for policymakers as well as for private parties. Rather than an exercise in which we seek *the* best institution to fulfil the necessary


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functions, the answer may be in a *combination* of institutions. Fiduciary transactions are the best private law solution in terms of fund isolation, and in countries that recognize them they should provide the basis for e-money relationships. However, fiduciary transactions, as regulated in most civil law countries, provide limited comfort in relation to liquidity and operational risks given the lack of specificity beyond the most basic fiduciary duties. Mandate contracts, on the other hand, which say nothing about segregation, provide a more sound and flexible basis for operational duties. Thus, the ideal solution should involve some combination of mandate and fiduciary transactions. Policymakers could pass regulation to make a reference to the mandate to fill the possible gaps of the fiduciary's duties in a fiduciary transaction. For private parties this could involve different permutations, which could also give grounds for the Providers to compete between themselves.[131] In any event, requiring the Provider to subscribe an insurance policy could always be contemplated as a complementary fall-back option.

### B. How can legislatures grant protection while fostering competition between different e-money models and ensuring cross-border compatibility?

If the main problem of private law background rules is their lack of certainty (as they are designed for a wide variety of cases), the problem of regulatory rules is their lack of flexibility. Thus, it is important for policymakers to consider the trade-offs between certainty and rigidity, an analysis that is particularly useful when comparing regulatory solutions with private law solutions, but which can also be applied to evaluating the different private law solutions.

Let us begin with regulatory solutions. Regulatory rules are typically mandatory, and their scope of application is normally accompanied by a "reserve of activity" clause, meaning that the provisions under the specific act will be applicable *only* to the entities expressly authorized to provide the regulated service.[132]

This not only requires an active engagement of the financial supervisor, which must be up to the task (see Section IV.D below) especially considering that, in many cases, the zeal by which supervisors control compliance *ex ante* (i.e. before granting the authorization) is greater than that exercised when controlling compliance *ex post* (i.e. fulfilment of segregation, safeguard and management duties), which is arguably the most important.

If the supervisor appointed is the central bank, or a similar banking supervisor, the system is most likely to be bank-biased: especially the procedures for authorization will tend to mirror the characteristics required for the authorization of financial institutions, which will enjoy an advantage in terms of experience with compliance procedures, and, in many cases, access to the supervisor.

Also, even assuming that the supervisor runs the *ex ante* authorization without any bias, it is unclear how it would apply conduct rules *ex post*. Regulatory rules are considered, for purposes of their enforcement, public law rules. This means that, unlike private law rules, their breach entails the payment of a fine, or another public enforcement action. This blunts, to a great extent, the possibility of constructing the rules that regulate the parties' duties flexibly, or imply duties not expressly contemplated in the law: in the face of public enforcement actions the rule of law demands certainty, not creativity, and for good reason.[133]


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Naturally, in addition to enforcement action by supervisors, there is also the possibility that such texts are interpreted by civil courts, which can engage in a construction exercise (see Section II.C above). However, the more specific and self-contained the regulatory rules are, the more difficult it will be for the judge to draw an analogy (which requires an identity between the facts of the case, and the provisions envisaged in the law) with the broader laws of "fiduciary transactions", or "mandate contracts". Regulatory rules provide a more certain answer to the contingencies envisaged in those rules, but there is a sort of "cliff" (from great certainty to great uncertainty) when one moves to unforeseen contingencies.

Furthermore, some rules may actually *require* a classification of the relationship pursuant to private law rules. Insolvency rules, which are the flip side of segregation rules under property rights, normally require that the right of the parties (in this case, the customers) belongs to one of the categories of property/security rights, or, generically, *real* (as in *res*, or "thing") rights to dispense enhanced protection upon the insolvency of the Provider. If there is not a smooth connection between regulatory rules and private law rules, the insolvency court may well conclude that, although the parties' arrangement was regulated by financial provisions, it did not fulfil the requirements under private law to be granted segregation protection.[134]

A country could, of course, decide to introduce safe-harbour rules that expressly protect customer funds without specifying under what private law arrangement they are considered protected. But this would raise uncomfortable questions, if, for example, a Provider were relying on safeguarding techniques that permitted the identification and ring-fencing of the funds, and would merit insolvency protection if it were a recognized right under private law, but did not fulfil all formal requirements. In that case, should the court conclude that, since the basis for protection is the private law arrangement, and the conditions for this have been fulfilled, it deserves protection? Or should it conclude that the basis for protection is the regulatory exception, and, since its conditions have not been fulfilled, the "sanction" should be the absence of insolvency protection? We could place a safe bet in saying that such provisions would come with no clear guidance as to how a court is supposed to apply them in hard cases. In general, we argue that merely filling gaps in insolvency law, before failing to rely on existing categories, is not a sound long-term strategy. After all, insolvency courts need to be able to make sense of all provisions put together, and the more exceptions without clear justification there are, the more sophisticated the courts need to be.

A regulatory approach constitutes a fundamental step towards ascertaining the Provider/custodian duties in e-money services.[135] What we argue here is that, to be really effective, such rules should be seamlessly connected with private law institutions and contract provisions. Otherwise, they will (a) fail to address new situations, thereby requiring new reforms at best, and ossifying the system at worst; (b) introduce restrictions on competition between different e-money models. This is especially true if financial rules introduce a bank-bias (banks have more compliance experience and arguably enjoy scale economies when rules are modelled on bank rules), which can place the model where a MNO is the Provider in a particularly precarious position.

Given the conclusion from the above paragraph, there is no reason for us to stop at regulatory provisions when analysing the "certainty v rigidity" dimension. All rules (public-regulatory rules and private law rules) can be subject to the same scrutiny. And, in so doing,


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it is important to add two further considerations in the analysis. First, when we do not limit ourselves to public v private rules, the issue of "rigidity" becomes one of "interoperability" of rules, i.e. the study of the rigidity/flexibility of the rules should be particularly focused on the ease of those rules, operating together with other rules, and constituting the "building blocks" that give adequate support to e-money.

Technology experts talk about interoperability of technologies, as well as of standards and protocols. We argue here that the law is not qualitatively different when seen from that perspective: if rules are interoperable, network effects are enhanced and the value of the network increases.

This is of particular importance when we consider the cross-border dimension of the problem. By its nature, e-money provides enormous growth opportunities as a system of cross-border payments, but that can only occur if protocols and standards (including legal standards) are compatible. Obstacles to such interoperability and cross-border compatibility can exist if, for example, the rules that grant protection to customer funds presume (a) that the Provider has to be a certain type of entity (e.g. a financial institution); (b) that the Provider needs to employ a specific private law device to safeguard funds (e.g. a fiduciary transaction); (b) that the Provider has to be authorized by the domestic regulator, or (c) that such Provider needs to have the assets subject to custody arrangements under the laws of the country.

We are not arguing that all options should be left open. In some cases where there is great uncertainty, it may make sense for the law to "standardize" some options, especially in the initial stages. What we argue instead is that policymakers should be aware of the costs of standardization, and, within the options that enhance security and certainty, they should choose those which leave more room for competition, and enhance network effects (by allowing different models to operate with each other).

This requires a second closer look at the use of fiduciary transactions as a legal device. Many civil law countries, despite contemplating the *fiducia* as a private law institution, have introduced a subjective restriction, meaning that only banks and financial companies can be fiduciaries.[136] This makes the fiduciary approach half-regulatory, half-private law. It also means that ensuring fund isolation in e-money in those countries will be difficult *unless* a financial institution is enlisted into the scheme. This poses problems for the model where a MNO is the Provider. If the law requires the fiduciary to be a financial institution, the options would be to (a) not use the fiduciary transaction, in which case the protection of funds via a deposit/loan would be precarious in case of the Provider's insolvency; or (b) rely on fiduciary transactions involving a financial institution, in which case there would be a problem with the characterization of the Provider's role. Should the provider be the beneficiary, or only the agent subscribing fiduciary contracts on behalf of customers?

In this second case, there can be problems with the interoperability of the laws of fiduciary transactions, and the laws of mandate. If laws on fiduciary transactions are not flexible, and frame the fiduciary relationship as a direct one between the fiduciary (the bank) and the beneficiary, and the Provider adopts the role of an agent, the protection of that Provider's position would be weak, which would impair the model of MNO-as-Provider, and would contribute to the "bankarization" of e-money.[137] In that case, if the laws of fiduciary


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transactions are rigid, and the Provider acts as the beneficiary, customers would be protected in the event of the *bank's* insolvency, but not upon the insolvency of the Provider. Thus, restricting the role of the fiduciary to a subset of institutions is not a good idea if the goal is to promote interoperability and competition. If the concern is one of safety it would be better to define in the law the safekeeping characteristics that the fiduciary needs to fulfil, and the contents of the duty to account.

Even if the country does not restrict the role of the fiduciary to financial institutions. there can be other rigidities, depending on the assumptions made by domestic legislatures when introducing them. If a country has introduced patrimonial separation as a device to be used by companies to compartmentalize activities and risks, it may be easy to insulate the funds, but more difficult to grant customers the right over them.[138] Also, the introduction of fiduciary transactions via statutory reform is an important first step, but does not automatically create the body of principles that serve as background criteria. If the sense of the principles underlying such rules is not completely clear, to provide for a self-referenced interpretation with which to solve new situations, judges may resort to what they know, and search for solutions in adjacent property/security rights.

The issue can be even more complex in a cross-border context. Customers seeking protection of their funds in a scenario where the fiduciary is located outside their territory may need, as a prior step, the recognition of the patrimonial separation by the laws of a country different from the laws of the country under which the rights were created. Some institutions, like the mandate, are flexible enough, and widespread enough, to enjoy cross-border recognition (it should not be difficult for the courts of one country to recognize a foreign entity as the agent of a customer located in their territory).

But fiduciary transactions are something new and, arguably, an exception, and it is unclear whether by adopting statutory provisions that regulate them, a country is recognizing fiduciary transactions in general (regardless of the country under whose laws they were created) or only the type of transactions regulated under its Civil code. A court confronted with a request for the recognition of the patrimonial separation resulting from a fiduciary transaction subject to foreign law may (a) adopt a pragmatic stance, and acknowledge every transaction that is validated as such by a registry entry or legal opinion in the foreign country; (b) rely on the *nomen iuris*, and recognize it if it is denominated as *fiducia* or something similar; or (c) subject it to a whole test of functional equivalence (to see if all the elements considered relevant by its domestic law are present). If the recognition is sought in a country that does not recognize fiduciary transactions under its domestic law, the problem may be even more difficult. The Hague Trusts Convention was supposed to resolve these cross-border problems but has been ratified by few states.[139]

Thus, the suitability of a legal device (fiduciary transactions) should not make us overlook the rigidities associated with it. Such rigidities will be present not only in the extreme case where the Provider goes insolvent. They may arise in cases where the customer wants to make its e-money units "portable", or usable in different countries. Fund protection should be the same across borders, and not lose strength with every degree of separation. Thus, the legal device employed needs to be carefully considered when building the "infrastructure" for fund safeguarding and fund management between Providers and banks beyond the specific agreement between customers and Providers.

## C. Other variables shaping regulation of e-money: supervisory capacity and customers' vulnerability

In considering the strategy to implement e-money systems within their territory lawmakers should be aware of the different legal mechanisms that serve as alternatives (see Section III above). They should also place those legal mechanisms within a wider regulatory context and be aware of how the different rules interact to enhance certainty and to avoid hindering competition (see Section IV.A above). In this final sub-section, we explore other variables that will shape the capacity of policymakers to regulate e-money: supervisory resources (1) and customers' vulnerability and ability to discern between options (2).

### *1. Supervisory capacity*

The first of these restrictions is of great importance to assess the feasibility of certain models. In cases where resources are constrained, regulators may want to consider *ex ante* supervision through licensing, as well as off-site supervision through reports, licensing/authorisations,[140] or the possibility of supervisory authorities effectively "delegating" some of their supervisory duties to the private sector. Enhanced supervision models, which rely on the active *ex post* monitoring of the Providers' performance duties, and methods like on-site supervision, will require more resources. The possibility of public institutions' direct provision of some of the services, such as the management of the accounts, may also need to be evaluated on this basis.

### *2. Customers' vulnerability*

Although some of the mechanisms examined herein provide fund isolation protection, regard must be given to the situation and vulnerability of customers in each case. If e-money services are regulated as a fiduciary contract, the effective protection of customers' funds may be subject to customers' ability to recover their funds quickly and inexpensively. Upon the insolvency of the Provider, customers must be able to claim their compensations quickly and easily. The fact that many customers live in rural areas and without easy access to technology could hinder effective protection.

Two aspects stand out for their particular legal significance. The former is the delays in insolvency proceedings or high legal costs associated with customers' exercise of legal rights, which can critically weaken the effectiveness of fund isolation protection. In this regard, it would be important for the legislatures to explore not only whether customers have an insolvency protection, but whether customer funds can be separated from the insolvency estate before this is formed (i.e. a separation right, instead of a priority right). The latter is related to the level of protection of customer funds in the form of government backstops, deposit insurance or otherwise.[141]

## *V. Conclusion*

The mobile money industry is growing quickly and it has the potential to improve the lives of many people in developing countries. As the industry develops, the need to protect customers' funds becomes more acute, particularly given the vulnerability of a great proportion of e-money customers.

In Section II we saw that trust law may be an evident choice to protect e-money customer's funds in common law jurisdictions. In civil law jurisdictions, however, there are no such clear-cut solutions. To facilitate the inquiry we have identified the three necessary functions that a legal instrument should fulfil to protect customers' funds effectively: a) fund isolation (i.e. protection against insolvency risk); b) fund safeguarding (i.e. protection against liquidity risk); and c) protection of customers' interests (e.g. protection against certain operational risks such as theft of funds and fraud). Then, we have undertaken a functional analysis of different alternatives.

From the analysis in Section III, we conclude that the civil law division between Law of Obligations and Law of Property creates important challenges in the quest for a viable alternative. Proprietary alternatives, such as the law of fiduciary transactions, could provide deficient protection against liquidity and operational risks because some jurisdictions lack a sound regulation of fiduciary duties. At the same time, while obligational/contractual alternatives such as the mandate contract do provide a sound regulation of fiduciary duties, they do not provide effective fund isolation. Policymakers would feel tempted to resort to regulation to bridge the gaps between the two mechanisms, or even to rely on insolvency as a fall-back option. However, these direct interventions would also face a series of important drawbacks.

Section IV uses these conclusions to elaborate a broader menu of policy choices. The ideal private law structure would consist of a combination between fiduciary transaction and mandate by cross-referencing the regimes in statute, or using both figures to fulfil different functions. This structure could be combined with a specific regulatory intervention to define the Provider's conduct duties more specifically. The advantages of regulatory intervention, however, should be weighed against its rigidities. Policymakers should give careful consideration to the interaction of the new regulation with existing statutes and private law rules: by enhancing certainty through direct intervention regulators could impose a specific model of mobile money services that could hinder competition and cross-border recognition. Finally, issues of regulatory capacity and customers' vulnerability should be borne in mind to plan the transition from early to more advanced stages of implementation of e-money.

The academic analysis of legal institutions is integral to smart policymaking. This article attempt to show that carefully considered legal design can make a valuable contribution to efforts to expand access to finance for millions of people.

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## *Notes*

[1] See Michael J. Casey, 'World's "Unbanked" En Route to Financial Inclusion With Mobile Money' (*Money Beat*, 5 November 2014) <http://blogs.wsj.com/moneybeat/2014/11/05/worlds-unbanked-en-route-to-financial-inclusion-with-mobile-money/> accessed 14 November 2014.
[2] The Consultative Group to Assist the Poor, 'Financial Inclusion' (*Financial Inclusion*) <http://www.cgap.org/topics/financial-inclusion> accessed 13 November 2014.
[3] See Alliance for Financial Inclusion, 'Mobile Financial Services: Basic Terminology' (2013) 1.
[4] Mobile money can thus be regarded as a type of e-money and we will also use this latter term to define it.
[5] The benefits of such coverage to improve access have also been tested with health services and notification of natural disasters. See e.g. World Bank, 'Using Information and Communication Technology to Protect Citizens against Natural Disasters' (27 June 2012) <http://web.worldbank.org/> accessed 14 November 2014; World Health Organisation, 'mHealth: New Horizons for Health through Mobile Technologies' (2011) <http://www.who.int/goe/publications/goe_mhealth_web.pdf> accessed 14 November 2014.
[6] Allegedly, this has also spurred local economies in poor areas where those remittances are received. See World Bank, 'Kenya at the Tipping Point? With a Special Focus on the ICT Revolution and Mobile Money' (2010) Kenya Economic Update 23. Perhaps Kenya is the most prominent example of a successful mobile money industry. For a general overview of the M-PESA system in Kenya, see e.g. Ignacio Mas and Daniel Radcliffe, 'Mobile Payments Go Viral: M-PESA in Kenya' in P. Chuhan-Pole and M Angwafo (eds), *Yes Africa Can: Success Stories from a Dynamic Continent* (World Bank 2011).
[7] See World Bank (n 10) 24.
[8] "Financial inclusion means that households and businesses have access and can effectively use appropriate financial services." The Consultative Group to Assist the Poor (n 6).
[9] In 2014, 53% of live mobile money services were in sub-Saharan Africa. However, half of all new launches in 2014 occurred outside that region, most notably in Latin America & the Caribbean, East Asia & Pacific and South Asia. Competition is also increasing: at the end of 2014, fifty-six markets had at least two or more mobile money services. See Claire Scharwatt and others, 'State of the Industry 2014: Mobile Financial Services for the Unbanked' (GSMA 2015) 14–16.
[10] See Jonathan Greenacre and Ross P. Buckley, 'Using Trusts to Protect Mobile Money Customers' (2014) 2014 Singapore Journal of Legal Studies 59.
[11] All countries in Latin America have a civil law tradition, except for Belize and Guyana. Moreover, the majority of countries in Africa and South East Asia have a civil law system. See Maurizio Lupoi, *Trusts: A Comparative Study* (Cambridge: Cambridge University Press 2000) ch 5.
[12] Legal structures such as the *fiducie* in France and the *fideicomiso* in Latin American jurisdictions have often been regarded as the civil law equivalent of common law trusts or, at least, as a close resemblance. See e.g. François Barrière, 'The French Fiducie, or the Chaotic Awakening of a Sleeping Beauty' in Lionel D. Smith (ed), *Re-imagining the trust: trusts in civil law* (Cambridge: Cambridge University Press 2012); Dante Figueroa, 'Civil Law Trusts in Latin America: Is the Lack of Trusts an Impediment for Expanding Business Opportunities in Latin America?' (2007) 24 *Arizona Journal of International & Comparative Law* 701. The German *Treühander* is commonly regarded as another civil law mechanism that bears great resemblance with the common law trust. For a general overview, see Kötz, "Trusts in Germany."
[13] The question of how to fit trusts in civil law jurisdictions has been extensively debated. For a pioneering analysis, see Lepaulle, "Civil Law Substitutes for Trusts." For more recent analyses, see de Waal, "In Search of a Model for the Introduction of Trusts into a Civilian Context"; Honoré, *On Fitting Trusts into Civil Law Jurisdictions*.
[14] We have selected those jurisdictions in developed countries that are representative of different approaches to the accommodation of common law trusts. In relation to developing countries, we have selected jurisdictions of those countries where there are already regulations of e-money services.
[15] See Directive 2009/110/EC of 16 September 2009 on the taking up, pursuit and prudential supervision of the business of electronic money institutions (hereinafter, the "E-Money Directive"), Article 2.
[16] This difference represents important risks, including a less strict regulation and supervision of virtual currency schemes. For a detailed analysis of the associated risks, see European Central Bank, 'Virtual Currency Schemes' (2012) 16–17 <http://www.ecb.europa.eu/pub/pdf/other/virtualcurrencyschemes201210en.pdf> accessed 14 November 2014.
[17] Based on Michael Tarazi and Paul Breloff, 'Nonbank E-Money Issuers: Regulatory Approaches to Protecting Customer Funds' [2010] *CGAP Focus Note* 2.
[18] In many developing countries, bank branches are not very widespread. They can use the agency network of MNOs to reach out to potential customers.


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[19] In the case of Colombia, for example, see Ley de Inclusión Financiera de 4 de junio de 2014 (hereinafter, "Colombian Financial Inclusion Act"), Article 1.
[20] For example, this is the case in Colombia and Mexico. See Alliance for Financial Inclusion, 'Regulatory Approaches to Mobile Financial Services in Latin America' (2014) 5–7. There are a few cases, however, where non-bank institutions have been allowed to provide e-money services as deposits under a "lighter" banking license. See Ibid.
[21] This excludes e-money services like internet-based payment systems such as PayPal, which require customers to have a bank account.
[22] In Paraguay, for example, see Resolución no. 6 del Banco Central de Paraguay (BCP), de 13 de marzo de 2014, which establishes the Reglamento de Medios de Pago Electrónicos (hereinafter, "Paraguayan E-Payments Regulation"). In Peru, see Ley 29.985 que regula las características básicas del dinero electrónico como instrumento de inclusión financiera (hereinafter, "Peruvian E-Money Act"). The Peruvian E-Money Act was signed into law on 21 December 2012.
[23] This description is based on the M-PESA service in Kenya, one of the most successful e-money services offered in a developing country. For a description of the M-PESA service, see Michael Klein and Colin Mayer, 'Mobile Banking and Financial Inclusion: The Regulatory Lessons' (2011) World Bank Policy Research Working Paper 5664, 7–10.
[24] Source: Jonathan Greenacre and Ross Buckley, 'Trust Law Protections for E-Money Customers: Lessons and a Model Trust Deed Arising from Mobile Money Deployments in the Pacific Islands' (2013) 8 <http://www.afi-global.org/sites/default/files/publications/piwg_knowledge_product_e-money_trust_and_model_trust_deed.pdf> accessed 13 November 2014.
[25] The term "fund isolation" is often used in the context of mobile money services. See Alliance for Financial Inclusion (n 7) 3.
[26] We can expect MNOs to hold their securities in an account with a securities intermediary, who will have an account at the central securities depository.
[27] In other words, there is more e-money in the system than there are customers' funds to support it. See Greenacre and Buckley (n 14) 65.
[28] See Ibid 63–65. There have been recent concerns with the possibility of customers' funds being stolen while stored with the Provider. In 2012, workers at the telecommunications provider MTN in Uganda stole 15 billion Ugandan shillings. See Jeff Mbanga, 'How MTN Lost Mobile Billions' *The Observer* (24 May 2014) <http://www.observer.ug/index.php?option=com_content&view=article&id=18921:how-mtn-lost-mobile-billlions> accessed 14 November 2014.
[29] See Greenacre and Buckley (n 27) 10.
[30] For a thorough analysis of the general principles of the law of trusts, see Geraint W Thomas and Alastair Hudson, *The Law of Trusts* (2nd ed, Oxford University Press 2010).
[31] See Greenacre and Buckley (n 14) 64.
[32] In trusts law, there is an important distinction between legal ownership and beneficial ownership that should be carefully considered.
[33] See Greenacre and Buckley (n 14) 68.
[34] See Ibid 67.
[35] See Ibid 70.
[36] The question of how to fit trusts in civil law jurisdictions has been extensively debated. For a pioneering analysis, see Pierre Lepaulle, 'Civil Law Substitutes for Trusts' (1927) 36 *The Yale Law Journal.* For more recent analyses, see MJ de Waal, 'In Search of a Model for the Introduction of Trusts into a Civilian Context' (2001) 12 *Stellenbosch Law Review*; Tony Honoré, 'On Fitting Trusts into Civil Law Jurisdictions' (2008) 27/2008 <http://ssrn.com/abstract=1270179>.
[37] Lionel D. Smith, 'The Re-Imagined Trust' in Lionel D. Smith (ed), *Re-imagining the trust: trusts in civil law* (Cambridge: Cambridge University Press 2012) 258.
[38] Some scholars argue that differences are relatively unimportant and that there are ways of adapting trusts to civil law jurisdictions. The adoption of trust mechanisms in civil law jurisdictions such as Scotland and South Africa is often regarded as the main evidence of the compatibility of the common law trust in civil law jurisdictions. For an analysis of the suitability of trusts in civil law jurisdictions drawing on the "core elements" of a trust, see e.g. de Waal (n 39) 66. For a comparative approach to the same issue, see Lupoi (n 15).
[39] In France and in many Latin American jurisdictions, these approximations aim at improving the appeal of certain jurisdictions to foreign investors, particularly from England and the U.S. In the case of Latin America, the geographical and economic influence of the U.S. in the culture, trade and investment of the region may be another driving factor. See François Barrière, 'The French Fiducie, or the Chaotic Awakening of a Sleeping Beauty' in Lionel D. Smith (ed), *Re-imagining the trust : trusts in civil law* (Cambridge University Press 2012);


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Dante Figueroa, 'Civil Law Trusts in Latin America: Is the Lack of Trusts an Impediment for Expanding Business Opportunities in Latin America?' (2007) 24 *Arizona Journal of International & Comparative Law* 701. The French *fiducie* and the Latin American *fideicomiso* will be explored in greater detail in Section IV below. The German *Treühander* is commonly regarded as another civil law mechanism that bears great resemblance with the common law trust. However, this concept is not explored in detail here. For a general overview, see Hein Kötz, 'Trusts in Germany', *Trust vs Fiducie in a business context* (2000).

[40] The most relevant civil law country to have ratified the Convention is Italy. For an overview of the particular case of Italy under the Hague Trusts Convention, see Michele Graziadei, 'Recognition of Common Law Trusts in Civil Law Jurisdictions under the Hague Trusts Convention with Particular Regard to the Italian Experience' in Lionel D. Smith (ed), *Re-imagining the trust: trusts in civil law* (Cambridge: Cambridge University Press 2012). Other countries to have ratified the Hague Trusts Convention include Australia, Canada, Luxembourg, Switzerland and the United Kingdom.

[41] "The legal rules of contracts and corporations can be divided into two distinct classes. The larger class consists of 'default' rules that parties can contract around *by* prior agreement, while the smaller, but important, class consists of 'immutable' rules that parties cannot change *by* contractual agreement. Default rules *fill* the gaps in incomplete contracts; they govern unless the parties contract around them. Immutable rules cannot be contracted around; they govern even if the parties attempt to contract around them." Ian Ayres and Robert Gertner, 'Filling Gaps in Incomplete Contracts: An Economic Theory of Default Rules' (1989) 99 *The Yale Law Journal* 87, 87.

[42] The rationale for mandatory rules can be approached from two perspectives: market inefficiencies and protection. From the perspective of market inefficiencies, mandatory rules are justified (1) to prevent externalities, or (2) to resolve a market failure that cannot be resolved through disclosure. See Alan Schwartz and Robert E. Scott, 'Contract Theory and the Limits of Contract Law' (2003) 113 The Yale Law Journal 541, 609–610. From the perspective of "protection", mandatory rules may protect (1) parties outside the contract or (2) parties within the contract. See Ayres and Gertner (n 44) 88. For the sake of simplicity, we can call them "external" and "internal" mandatory rules. Thus, the law should impose itself to the parties' expressed wishes if it is trying to solve a market failure (e.g. providing the customer with the level of fund protection that a party would "reasonably expect" in those circumstances, in the understanding that the customer may not grasp the implications of the contract signed with the MNO).

[43] Different authors would suggest that the judge should try to replicate, as far as possible, either (a) the solution that the majority of parties in the same situation would have agreed to if they had been asked (see Charles J. Goetz and Robert E. Scott, 'The Limits of Expanded Choice: An Analysis of the Interactions between Express and Implied Contract Terms' (1985) 73 *California Law Review* 261.); or (b) the solution that the specific parties would have agreed to if they had had the chance (see Ian Ayres, 'Preliminary Thoughts on Optimal Tailoring of Contractual Rules' (1993) 3 *Southern California Interdisciplinary Law Journal* 1; Louis Kaplow, 'Rules versus Standards: An Economic Analysis' (1992) 42 *Duke Law Journal* 557; Eric A Posner, 'Economic Analysis of Contract Law after Three Decades: Success or Failure?' (2003) 112 *The Yale Law Journal* 829.); unless (c) for some reason, there is the need to make the market more transparent, and force parties to disclose their intentions (e.g. because there is a tendency for operators to hold back their intentions to the detriment of the client), in which case the best is to impose a rule that the parties would not have negotiated, to force them to do so next time (see Ayres and Gertner (n 44); Ian Ayres and Robert Gertner, 'Strategic Contractual Inefficiency and the Optimal Choice of Legal Rules' (1992) 101 *The Yale Law Journal* 729.)

[44] For example, the clauses in the Spanish Civil code tell the judge to interpret the contract clauses according to their literal sense, if this is clear, unless the sense of the words appears contrary to the parties' "obvious" intention (article 1281), the intention of the parties that can be deduced from the set of clauses, understood as a whole (article 1285), which can be identify with the mandate to seek the parties' stated, or implicit, intention; to interpret the contract in accordance with its "nature" (article 1286) as well as taking into account the country's usages and practices (article 1287), which can be seen as a reference to what the majority of parties would have understood; and it also indicates that the obscurity of a clause should not benefit the party that caused such obscurity (article 1288), which can be identified with the "punishing" rule. Similar provisions can be found in most civil codes (see, for example, articles 1156-1164 of the French Civil code, or articles 1362-1371 of the Italian Civil code).

[45] The aim underpinning the exercise is to ensure that the protection dispensed to the customer (and the Provider) is equivalent to the protection dispensed to the parties that occupy a provision similar to that of the customer in similar contract types, i.e. that persons in an equal position are treated equally.

[46] Common law judges are not immune from such biases. In common law countries, resolving a conflict not regulated in the contract is, in principle, a problem of ascertaining the parties' real intention. See GH Treitel, *The Law of Contract* (11th ed, Sweet & Maxwell 2003) 201. However, as the court moves from relying on what

the parties *agreed* to supply an omitted term relying on what the parties *seem to have agreed*, and to what the parties *would have agreed* if the specific question had been asked to them, there is a greater risk that the court will replace the parties' will with the will of the law. This difficulty can be seen, for example, in ascertaining the meaning of the "officious bystander" test (where a term is implied in fact if it is something so obvious that goes without saying, even to an unrelated third party, *Shirlaw v Southern Foundries (1926) Ltd* [1939] 2 K.B. 206 at 227), the business efficacy test (where the term being implied is necessary to give the transaction such business efficacy as the parties must have intended, *Luxor (eastbourne) Ltd v Cooper* [1941] AC 108 at 137), and the "reasonableness" test (a contract term cannot be implied only because it is reasonable, but the insertion of an implied term may be rejected if it is unreasonable, on the grounds that at least one of the parties would not have agreed to it, *Suriya & Douglas v Midland Bank plc* [1999] 1 All ER (Comm) 615). In principle, only the first two can be used to actually imply a term, but it may be difficult to differentiate one exercise from the other. Law and economics scholars (primarily exposed to the experience of American case law) suggest that, in general, when deciding whether to apply default rules, courts tend to be stringent with the requirement that the parties have reached a "sufficient" agreement to derogate from default rules, which means that, in cases where those rules embed criteria of fairness in the eyes of the courts, default rules tend to turn into mandatory rules. See Ayres and Gertner (n 44) 120–123; Goetz and Scott (n 46) 263; Schwartz and Scott (n 45) 564 et seq.

[47] Some view the *causa* as a basic requirement of validity comparable to the common law *consideration*, though the civil law concept of *negotii* is wider than the common law concept of "contract", and it includes, at least, gratuitous promises (the presence of a connection, or *sinalagma* between promises in onerous, or non-gratuitous promises, would fulfill a similar function to the common law *consideration*). See HG Beale, *Cases, Materials and Text on Contract Law.* (2nd ed / Hugh Beale . [et al], Hart 2010) 170–187. In reality the concept of *causa* is the pivot for a much wider range of problems. For one, the contract's *causa* serves to evaluate the validity of the contract depending on whether the *causa* is licit or illicit, moral or immoral, true or false. Under other views, the "concrete" or "specific" *causa* of a contract is whatever is intended to be achieved as the social outcome, and for which legal protection is sought. But, under the "objectivistic" views of the *causa* the latter is also the socio-economic function that the contract performs, and which will be granted protection to the extent that this function can be accommodated among one of the socio-economic functions considered "typical" by the legal order. For a good summary of the different views (which, nonetheless, is critical of the objectivistic view, and proposes to dissociate *causa* from socio-economic "function") see Luis Díez-Picazo, *Fundamentos Del Derecho Civil Patrimonial*, vol I (Thomson Civitas 2007) 266–285.

[48] Under this doctrine, there must be a closed number of rights receiving privileged protection against third parties. A party cannot grant another party a privilege over assets without a good reason (*causa*). Thus, (a) there cannot be categories of "real rights" or rights over things outside those contemplated in the law; (b) if the parties agree on an arrangement that allocates property rights, any gaps must necessarily be filled with resort to one of the "types" contemplated in the law; and (c) if the parties, through contract clauses, de-naturalize the right so that the right contemplated in the contract does not fulfil the economic function associated by the law to that type, the clause (and even the contract itself) may be declared invalid. See Luis Díez-Picazo, *Fundamentos Del Derecho Civil Patrimonial*, vol III (Thomson Civitas 2008) 131 et seq.

[49] There seem to be two legal traditions: the "Roman *fiducia*" and the "Germanic *fiducia*". According to Cámara, "In the 'Germanic *fiducia*', the fiduciary acquires a title resolutory conditioned with *in rem* efficacy (*erga omnes*). Thus, any use contrary to the end sought is useless, since it results, *ipso iure*, in the return of the object to the settlor or the settlor's heirs, even in damage of the third purchaser. In the Roman *fiducia*, on contrary, the power of abuse of the fiduciary is just imperfectly limited by the negative binding obligation." Sergio Cámara Lapuente, 'Trusts in Spanish law' in Madeleine Cantin Cumyn (ed), *Trust vs Fiducie in a business context* (Bruylant 2000) 197. Common law trusts and civil law fiduciary instruments may have a common base in the Roman-Canonical *usus*. See de Waal (n 39) 65; Lupoi (n 15) 185. In general, trusts can serve a broader set of functions, they can be constituted in several different ways, and the judge has larger powers of intervention. Yet, perhaps the starkest difference is the difficulty for many civil law systems to accept the existence of two simultaneous titles of property in the same goods. See e.g. Smith (n 40) 259. As a result, it is generally understood that the beneficiary under a *fiducia* is not equivalent to the beneficiary under a trust. For a more detailed analysis of the difference between manifestations of the *fiducia* and the common law trust, see Figueroa (n 42) 4–7, 23–32; Rafael Sánchez Aristi, *Property and Trust Law in Spain* (Second edition, Kluwer Law International 2014) para 243.

[50] Mexican law talks about *fideicomiso*, taking the term from the *sustitución fideicomisaria*, which gave rise to a sort of trust in *mortis causa* transactions, in succession cases. See articles 381 et seq of the *Ley General de Títulos y Operaciones de Crédito*. See also Act 189-11 of the Dominican Republic. Italian law focuses on the "destination" nature of the patrimony to talk about *"patrimony destinati"*, and *"finanziamenti destinati*" in articles 2447*bis*-2447*decies* of the *Codice civile*.


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[51] Different jurisdictions use similar names to describe their application of *fiducia*, e.g. the *fideicomiso* in Latin America or the *fiducie* in French speaking territories. However, there remain differences between them. For an overview of these differences, see Barrière (n 42); Lupoi (n 15) 273–291; Madeleine Cantin Cumyn, 'Reflections Regarding the Diversity of Ways in Which the Trust Has Been Received or Adapted in Civil Law Countries' in Lionel D.Smith, (ed), *Re-imagining the trust: trusts in civil law* (Cambridge: Cambridge University Press 2012).
[52] See e.g. Cámara Lapuente (n 52) 195–198.
[53] See e.g. French Civil Code, article 2012.
[54] See e.g. Ley 17.703, signed into law on 4 November 2003, regulating *fideicomiso* in Uruguay (hereinafter, "Uruguayan Fideicomiso Act").
[55] Such limitations will normally aim to reserve the capacity to act as fiduciaries to banks and other authorized financial institutions. See e.g. article 2015 French *Code civil*; Luxembourg Fiduciary Contracts Act, Article 4; Mexico's General Act on Credit Transactions, Article 385; Ley Argentina nº 24.441 de 22 de diciembre de 1994 (hereinafter, "Argentinian Act nº 24.441"), Article 5.
[56] The fiduciary contract will specify who these beneficiaries are. In some jurisdictions, it will be common for the settlor or any third party as specified in the contract to be beneficiaries of the *fiducia*. See Cámara Lapuente (n 52) 194; Miguel Virgós Soriano, *El trust y el derecho español* (Thomson/Civitas 2006) para 43. In others, even the fiduciary may be designated as beneficiary. See French Civil code, article 2016. This, however, is prohibited in many Latin American jurisdictions. In Paraguay, see Ley 921/96 de Negocios Fiduciarios (hereinafter, "Paraguayan Fiduciary Contracts Act"), Article 8.1. In Peru, see Ley 26.702, General del Sistema Financiero y del Sistema de Seguros y Orgánica de la Superintendencia de Banca y Seguros (hereinafter, "Peruvian Financial System Act"), Article 265.4.
[57] In Bolivia, for example, see Resolución Autoridad de Supervisión del Sistema Financiero (ASFI) nº 835/2011 (hereinafter, "Bolivian Regulation on M-Money Providers"), Section 5, Article 3. In Peru, see Resolución de la Superintendencia de Banca y Seguros (SBS)nº 6283-2013 that regulates the Reglamento de Operaciones con Dinero Electrónico (hereinafter, "Peruvian Regulation on E-Money Transactions"), Article 15.
[58] At least in Latin American jurisdictions, this case is less common. In Uruguay, see Ley no. 19.210 de Inclusión Financiera (hereinafter, "Uruguayan Financial Inclusion Act"), Article 5.
[59] A patrimony can be broadly defined as an autonomous mass with a set of assets answerable for the set of liabilities. See Barrière (n 42) 251.
[60] Many civil law jurisdictions are built upon the principle of universal responsibility. As a result, the creation of a separate patrimony is excluded from the party's freedom to contract and can only be mandated by law. See Virgós Soriano (n 59) 62. In this regard, for example, recent legislative reforms in France have introduced an exemption to that general principle by allowing fiduciaries to hold separate patrimonies. See *Code Civil Français*, Article 2011. A similar reform was introduced in Luxembourg that is applicable to a series of financial services. See *Loi du 27 Juillet 2003 du trusts et contrats fiduciaires du Luxembourg* (hereinafter, "Luxembourg Fiduciary Contracts Act"), Articles 4 and 6. In these cases, the fiduciary's ownership of the funds is said to be something other than ordinary ownership, i.e. *sui generis*. It is limited in time, limited by the prerogatives conferred upon the fiduciary and limited by the purpose for which the rights were vested upon the fiduciary. See Barrière (n 42) 237. However, like ordinary ownership, fiduciary ownership will also be exclusive: the fiduciary will "exercise his prerogatives with respect to the rights in the *fiducie* without any competitor." See Ibid.
[61] In France, in the absence of any beneficiaries, the fiduciary assets will return to the settlor. See *Code Civil Français*, Articles 2029.2, 2030. In Paraguay, see Paraguayan Fiduciary Contracts Act, Article 41.6.
[62] See e.g. *Code Civil Français*, Article 2024; Luxembourg Fiduciary Contracts Act, Article 6; Paraguayan Fiduciary Contracts Act, Articles 10 and 13.
[63] See *Code Civil Français*, article 2025.
[64] See Barrière (n 42) 250–254.
[65] For an account of some of the problems that these solutions pose, see Ibid. Other solutions have been proposed, but they would not fit the particularities of e-money customers. One such proposal is for the constitution of a shell company which could then act as settlor. See Ibid 252. However, this is clearly not a useful solution for low-income individuals using e-money services in developing countries.
[66] Cantin Cumyn (n 54) 7–8.
[67] See Civil Code of Québec, articles 1261, 1265. Unlike in the French *fiducie*, where the fiduciary has title to the real rights in the property that has been put into the *fiducie*. See Barrière (n 42) 239. In Peru, the fiduciary patrimony also seems to be an autonomous patrimony from those of the settlor, the fiduciary and the beneficiaries. See Texto Concordado de la Ley General del Sistema Financiero y del Sistema de Seguros y Orgánica de la Superintendencia de Banca y Seguros (hereinafter, "Ley nº 26702 SBS Peru"), article 241. The language, however, is somehow confusing as it refers to "fiduciary ownership" (*dominio fiduciario*). In

Paraguay, despite the legal reference to an "autonomous patrimony" (*patrimonio autónomo*), the legal nature and effects of the fiduciary patrimony seem closer to those of a separate patrimony of the fiduciary. An important element in this conclusion is the termination of the fiduciary contract upon the liquidation of the fiduciary. See Paraguayan Fiduciary Contracts Act, Article 41.6.

[68] See Civil Code of Québec, articles 1296 and 1297. A new fiduciary will be appointed according to the terms provided by the settlor in the contract or as determined by the court. See Civil Code of Québec, article 1277. See also Ley 26702 SBS Peru, article 253.

[69] Article 71. VII. E) Mexican Act on Business Insolvency. See also article 2024 French *Code civil*, or article 155 (1) of the Italian Insolvency Act; Bolivian Commercial Code, Article 1410; Paraguayan fiduciary Contracts Act, Articles 10, 13; Peruvian Financial System Act, Articles 241, 254

[70] Article 2027 French *Code civil;* article 155 (2) Italian Insolvency Act.

[71] In an e-money transaction customers purchase e-money units issued by the Provider. The latter will have a proprietary right over the legal tender used to pay for those units. See Section II.A above.

[72] See e.g. article 386 of Mexico's General Act on Credit Transactions, and articles 2447*sexies* and 2447*septies* of the Italian *Codice civile*; article 1259 Quebec *Civil code*.

[73] See e.g. Paraguayan Fiduciary Contracts Act, Articles 10 and 13; Uruguayan Fideicomiso Act, Article 6.

[74] See French *Code civil*, Articles 2021, 2022; Luxembourg Fiduciary Contracts Act, Articles 6, 7.

[75] See e.g. French *Code civil*, Articles 2018.6º, 2022, 2026; Luxembourg Fiduciary Contracts Act, Article 7(3); Uruguayan Fideicomiso Act, Article 4.3).

[76] See e.g. French *Code civil*, Articles 2018.6º, 2022, 2026; Mexico's General Act on Credit Transactions, Article 391. One exception is Argentina: see e.g. Argentinian Act nº 24.441, Articles 4.d), 6 and 7. One imaginative solution is that of Luxembourg, where the *fiducie* is primarily defined on proprietary terms, but a reference is made to the law of mandate contract to fill the gaps in the duties of the fiduciary. See Luxembourg Fiduciary Contracts Act, Article 7 (1).

[77] See Thomas and Hudson (n 32) 33.01–33.120.

[78] Although there exist close equivalents to tracing in civil law, any rights available to beneficiaries to claim the fiduciary assets from the fiduciary (e.g. *acción reivindicatoria* in Latin America and Spain) will not be exercisable against third parties. See Figueroa (n 42) 729–730. In those jurisdictions where the settlor retains a proprietary interest in the fiduciary assets we may arrive to a different conclusion. See Section III.B below.

[79] Where the settlor has transferred the property rights over the assets to the fiduciary, the settlor will not be able to oppose any rights in the fiduciary assets against third parties because the limitations to the fiduciary's property rights stem only from contract. For a description of fiduciary ownership as a form of restriction of absolute property rights rather than a separate ownership, see Ibid 723. We may reach a different conclusion where the fiduciary contract is subject of registration in a public registry. That seems to be the case for security fiduciary contracts in certain jurisdictions. See e.g. Civil Code of Québec, article 1263.

[80] Some jurisdictions expressly provide that the fiduciary will be liable with her personal patrimony. See *Code Civil Français*, article 2026.

[81] See e.g. Argentinian Act nº 24.441, Article 7; *Code Civil Français*, article 2022.

[82] See e.g. *Code Civil Français*, article 2027; Luxembourg Fiduciary Contracts Act, Article 7(6); Code Civil du Quebec, article 1277; Paraguayan fiduciary Contracts Act, Article 33.4.

[83] See Civil Code of Québec, article 1290.

[84] See Figueroa (n 42) 725–726.

[85] See *Westdeutsche Landesbank v Islington* [1996] AC *per* Lord Browne-Wilkinson. For an overview of tracing and the problems that beneficiaries may face, particularly when tracing money through electronic bank accounts and mixed funds, see Alastair Hudson, *Understanding Equity and Trusts* (4th ed, Routledge 2013) 178 et seq.

[86] See e.g. María Luisa Marín Padilla, 'La Formación Del Concepto de Subrogación Real' (1975) 51 *Revista crítica de derecho inmobiliario* 1111; Lluís Roca Sastre, 'La Subrogación Real' [1949] *Revista de Derecho Privado* 281. In France, see Henri Capitant, 'Essai Sur La Subrogation Réelle' [1919] *Revue Trimestrelle de Droit Civil* 25; André Cellar Henry, 'De La Subrogation Réelle Conventionelle et Legalle'.

[87] See Juan Vallet de Goytisolo, 'Pignus Tabernae' [1953] *Anuario de Derecho Civil* 483.

[88] Regardless of the concrete issue of dissipation/replacement of funds, some civil law jurisdictions have remedies available that grant beneficiaries an important level of protection. The problem in these and other jurisdictions may be one of effective enforcement rather than one of lack of remedies. See Figueroa (n 42) 766.

[89] In some jurisdictions, the relevant laws mandate that a *fideicomiso* is settled for 100% of e-money issued and in circulation. See e.g., Paraguayan E-Payments Regulation, Article 15; Peruvian Regulation on E-Money Transactions, Article 15. Brazil represents an interesting case because it requires the Provider to guarantee the e-money issued following a progressive scale with a 20% yearly increase of the total proportion of e-money guaranteed from 2016 to 2019. By 2019, Providers must guarantee that 100% of the e-money issued is guaranteed following the requirements set out in the applicable regulation. See Circular no. 3681 de 4 de

Novembro de 2013 do Banco Central do Brasil (hereinafter, "Circular BC Brasil no. 3681"), Article 12.9. In other jurisdictions, the intermediation of e-money customers' funds deposited in bank accounts is expressly prohibited. See Uruguayan Financial Inclusion Act, Article 6; proposal for a Ley de Inclusión Financiera in El Salvador, prepared by the Banco Central de Reservas and the Superintendencia del Sistema Financiero (hereinafter, "Salvadorian Proposal for a Financial Inclusion Act"), Article 15.

[90] By liquid assets we mean assets that are easily convertible into cash at a value that is very close to the assets' face value.

[91] It is very common among regulators in Latin America to restrict the securities in which e-money customers' funds can be invested to securities issued by the federal government or the central bank of the relevant country. See e.g., Reglamento de Fideicomiso contenido en la Recopilación de Normas para Bancos y Entidades Financieras (RNBEF), Chapter XVII (hereinafter, "Bolivian Regulation on Fideicomiso"), Article 12; Circular BC Brasil, no. 3681, Article 12.1.II; Peruvian Regulation on E-Money Transactions, Article 16.

[92] Auditing of these accounts can help ensure the integrity of the system. See Klein and Mayer (n 26) 13.

[93] See e.g. Paraguayan Fideicomiso Act, Article 17.10.

[94] See e.g. Paraguayan Fideicomiso Act, Article 33.1.

[95] If the delegation of supervisory powers were to be challenged before a court, the latter could find that some default rules also allow the settlor to delegate those powers. See section III.B above.

[96] For example, the Civil Code of Québec provide for the possibility of the settlor or the beneficiary delegating their monitoring powers. See Civil Code of Québec, articles 1287 et seq. Article 2017 of the French Civil Code gives the settlor similar powers but unlike in the previous example, it does not include the beneficiaries.

[97] See e.g. Paraguayan Fideicomiso Act, Article 25.13.

[98] In Brazil, for example, see Circular no. 3682 de 4 de Novembro de 2013 do Banco Central do Brasil (hereinafter, "Circular BC Brasil no. 3682"), Article 22.

[99] Levels of financial literacy are surprisingly low even for many developed countries. See Organisation for Economic Cooperation and Development, 'PISA 2012 Results: Students and Money: Financial Literacy Skills for the 21st Century (Volume VI)' (2014) <http://www.oecd.org/pisa/keyfindings/pisa-2012-results-volume-vi htm>. It is interesting to note that under the Law for Financial Inclusion in Colombia, Article 9 foresees the development of a national programme of financial education as a complement to the progressive development of new forms of financial inclusion, including e-money products.

[100] For example, a Provider could decide to invest customers' funds in risky securities or deposit all customers' funds at the same bank to earn larger profits, thus breaching safeguarding mechanisms. If there was a default under the risky securities or the depository bank became insolvent, the Provider could be in a difficult position to meet its customers' withdrawal requests.

[101] Given the great number of potential customers of a Provider, there is likely to be a coordination problem if all customers try to monitor the Provider at the same time. A great number of customers requesting information at a similar point in time may affect the capacity of the Provider to produce such information in a reasonable time. This is likely to lead both the Provider and its customers to incur greater costs for the production and collection of information, respectively.

[102] For an example of the type of information that supervisors require of e-money issuers in a civil law jurisdiction, see Resolución del Banco Central de Paraguay ("BCP") nº 6 de 2014, Article 20.

[103] This seems to be the most common situation in Latin American jurisdictions. For example, in Peru, the Banking and Insurance supervisor (the Superintendencia de Banca, Seguros y Administradoras Privadas de Fondos de Pensiones, or "SBS") is in charge of monitoring authorized e-money issuers (Empresas Emisoras de Dinero Electrónico, or "EEDE"). See Peruvian E-Money Act, Article 6.3. In Paraguay, the Central Bank undertakes those supervisory functions. See Paraguayan E-Payments Regulation, Article 20.

[104] See e.g. French Civil Code, Article 1984 et seq; Spanish Civil Code, Article 1709 et seq.

[105] A replevying action (*acción reivindicatoria*) will be available to the principal. See Sánchez Aristi (n 52) 252.

[106] See Spanish Commercial code, Article 225; Spanish Supreme Court decision of 5 February 1964; Austrian Civil code, Sections 1009 (para. 1), and 1992 (para.2), and Commercial code, sections 384, 408.

[107] See German Civil code, Section 276; Netherlands Civil code, article 7:401; Italian Supreme Court decisions of 23 December 2003, no. 19778; 8 August 2003, no. 11961; Spanish Civil code, article 1719; Spanish Commercial code, article 255.

[108] In Paraguay, the Paraguayan Fiduciary Contracts Act distinguishes between those fiduciary contracts under which property is transferred to the fiduciary and those under which property remains with the settlor. The latter are referred to as *encargo fiduciario* or "fiduciary mandate". In Spain, courts have found a disproportion between the effect that the parties want (i.e. a transfer of property) and the effect they really pursue with the fiduciary contract (i.e. the management of the property or the provision of security to the fiduciary). As a result, courts have maintained the validity of these contracts by recognising only the narrower effects. See Virgós Soriano (n 59) 51.


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[109] See Section II.C above.

[110] To draw from experience, in the *Lehman Brothers'* saga, English courts had to make a similar decision on whether customers' funds should be protected, and had at their disposal the (arguably vast) legal background of a legal institution such as the trust, which includes both ample fund isolation and safekeeping rules. Yet many customers were left unprotected because the courts considered that, in some cases, the steps adopted had been insufficient to insulate them. See *In the matter of Lehman Brothers International (Europe) (In Administration)*, [2012] UKSC 6; *on appeal from:* [2010] EWCA Civ 917. The first case to be decided was *Lehman Brothers International (Europe) (in administration) v CRC Credit Fund Ltd and others* [2009] EWHC 3228 (Ch). This conclusion was adopted pursuant to fine distinctions that may not be obvious, and certainly were not obvious at the moment of subscribing the contract documents, even to some customers which could be sophisticated financial institutions themselves. Now imagine a similar case in a context where the courts lack clear principles on fund isolation as a background, as it happens under the mandate.

[111] For a distinction between the mandate contract and the common law trust on these grounds, see Figueroa (n 42) 735. An interesting alternative, however, would be for the central bank to issue e-money and to administer and hold custody of the customers' funds. This is the approach adopted by Ecuador in its recent e-money regulation. See Regulación No. 055-2014, articles 1.1 and 1.14. The regulation, however, does not specify how the custody service will be provided. It would be interesting to explore to what extent could a central bank provide such service under a trust scheme in a common law jurisdiction. For a short reflection on the topic, see Buckley et al., "Storing the Trust Account: Should a Trust Account backing an e-float be held in a central bank or a commercial financial institution?", UNSW Research Project (in file with the authors). In principle, this strategy will provide effective protection against the three risks examined in this paper. However, there are a series of drawbacks. First, will customers' funds be pooled into one account or segregated into individual accounts? (The rules on intermediated securities could serve as an interesting proxy to approach this issue). Second, having central banks performing the functions of an administrator would involve several operational challenges as well as additional resources that may not be available. Third, although the profits from the investment of customers' funds will revert into the pooled account, the range of securities in which the central bank can invest in is very limited (e.g. securities issued by national companies and the national government, given that they have a high credit rating). Fourth, central banks offer specific financial services in extraordinary circumstances. They do so on the consideration of what is in the public interest and its comparative advantage. See Ross P. Buckley and Jonathan Greenacre, 'Storing the Trust Account: Should a Trust Account Backing an E-Float Be Held in a Central Bank or a Commercial Financial Institution? (in File with the Authors)' UNSW Research Project para 1. The provision of custody and administration services for customers' funds could thwart the development of the e-money services industry by crowding out private solutions. As a result, it may be worth considering the intervention of the central bank in the provision of these services merely as a temporary mechanism in the early stages of the e-money services industry.

[112] See Lupoi (n 15) 302.

[113] The same considerations made with regards to the possibility of customers delegating their supervisory powers over the fiduciary's duties upon a third party expert would also apply in this case. See Section III.A above.

[114] In the E.U., the Directive 2007/64/EC, of 13 November 2007 (the "Payment Services Directive") adopts such functional approach by imposing upon payment systems (1) safeguard measures, consisting on duties not to commingle assets, and keep them segregated, and adequately insulated at the time of insolvency (article 9(1)); and (2) (extensive) conduct duties of the payment services provider (articles 30 et seq). The Directive 2009/110/EC of 16 September 2009 (the "E-Money Directive") requires similar safeguarding mechanisms by making a general reference to Article 9 of the Payment Services Directive. For duties applicable to e-money issuers in relation to issuance and redeemability of electronic money, see Articles 10 to 13 of the E-Money Directive. In these cases, the division of competences between the European Union and the Member States, with the latter having exclusive competence on matters of private law, has helped the EU develop a functional approach, which can be a useful blueprint for countries struggling with the way to properly implement the different functions in their civil law codes.

[115] Article 9 (1) of the Payment Services Directive states: *"The Member States or competent authorities shall require a payment institution which provides any of the payment services listed in the Annex and, at the same time, is engaged in other business activities referred to in Article 16(1)(c) to safeguard funds which have been received from the payment service users or through another payment service provider for the execution of payment transactions"*

[116] See Article 9 (1) (a) and (b) Payment Services Directive.


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[117] See Payment Services Directive, Article 9.1.(c) (insurance is adopted as an alternative to the prohibition of commingling *and* insolvency protection); E-Money Directive, Article 7.1.
[118] Insurance companies require large numbers of clients in order to avoid correlation of risks that would threaten the insurance company with the need to face numerous payouts that would deplete its resources in a short period of time.
[119] A small number of Providers will make it difficult for the insurance company to diversify its risk. If despite the fund safeguarding protections there is a run-like behaviour, the Provider could be led into insolvency and the insurance company will have to face numerous payments to affected customers of the insured Provider. This could put the insurance company under considerable liquidity pressure. Such pressure could also give incentives to insurance companies to monitor compliance by Providers.
[120] Given the financial pressure born by insurance companies or public entities guaranteeing e-money customers' funds, one could expect these companies and public entities to have a strong incentive to monitor the Provider of m-mobile services.
[121] See Section III.A above.
[122] See Bolivian Regulation on M-Money Providers, Section 5, Article 3; Paraguayan E-Payments Regulation, Article 15; Peruvian E-Money Act, Article 6.1.
[123] This particular approach is likely to have a negative impact on other ordinary creditors of the Provider. Accounting principles should be adapted so that the financial accounts of the Provider reflect a true picture of its solvency.
[124] Instead of isolating funds via a specific property right the law would require Providers to create such separate patrimony through a different entity. This is a common approach in many Latin American jurisdictions, where e-money issuers are required to provide e-money services through a separate institution. The Provider will also need to ensure that each entity carries its own accounting books. See e.g. Bolivian Regulation on Fideicomiso, Article 7; in Brazil, Circulares BC Brasil nº3682 y 3683; in Peru, Resolución SBS nº 6286-2013 (hereinafter, "Peruvian Regulation on E-Money Issuers").
[125] In some countries the regulation of certain financial services, including e-money services, has fostered the development of fiduciary contracts. The specific rules for investment funds prompted debate about the admissibility of fiduciary transactions in countries like Spain. Also, for an account of the early development of *fiducia* in Mexico and Panama in the 1920s to promote the competitiveness of its financial sector and to attract foreign investment, see de Waal (n 39); Figueroa (n 42). For a more general reference to Latin American countries, see Lupoi (n 15) 275, 285, 291.
[126] These reasons include, among others, political reasons, incompatibility within the country's legal tradition or the broader legal system, implications in other areas beyond mobile money services for which the relevant jurisdiction may not be ready, e.g. an underdeveloped financial market or risks of favouring tax avoidance. But also, such a deep reform may take a long time to pass and regulators may feel the urgent need to protect e-money customers' funds.
[127] See Section III.A.
[128] In Paraguay, for example, Article 25 of the Paraguayan Fideicomiso Act expressly enumerates a series of obligations of the fiduciary that she will not be able to delegate.
[129] In the EU, the E-Money Directive has adopted this approach due to the absence of an EU regulatory framework for fiduciary contracts that would guarantee a more or less homogenous regulation of fiduciary contracts in all EU Member States. See EU E-Money Directive, Article 7.1.
[130] For example: whether such contracts would be entered into in the name of the customer or that of the Provider, the type of financial institution where customers funds can be deposited and whether each customer's funds would be deposited into a pool account with other customers' funds or separated from other customer's funds, and the type of securities to be considered as safe and low-risk for the purposes of protecting the customer's funds, among others.
[131] Two of the multiple options available would be (1) to have a "framework" contract subject to the laws of mandate, followed by a fiduciary contract that regulates the transfer and segregation of funds, or (2) a single contract subject to the laws of fiduciary transactions that operates as the broader contract, and which includes specific operational and conduct duties by the Provider, where a specific reference is made to the laws of mandate.
[132] See articles 5 (application for authorization), 6 (initial capital), 7-8 (own funds), 10 (granting of authorization), 12 (withdrawal of authorization), 13 (registration), 14 (maintenance of authorization), 16 (other activities) of the Payment Services Directive, as well as article 10 (reserve of activity) of the E-Money Directive.
[133] The policy-oriented financial rules, and their enforcement, are being recently subjected to legal challenges that pose the broader question of how far should public institutions entrusted with the protection of financial soundness and market integrity be trusted to decide on a discretionary basis, and to what extent fundamental

rights should play a role in limiting their action. See, for example, ECHR *Dennis Grainger and others against the United Kingdom* Application no. 34940/10, 10 July 2012 (public intervention in financial institutions v rights of private property); ECHR *Grande Stevens v Italy* Application no. 18640/10, 4 March 2014 (enforcement of insider trading laws v due process rights).

[134] And the insolvency rules that acknowledge the private law-created rights. Actually, in the above cited case *In the matter of Lehman Brothers International (Europe) (In Administration)*, [2012] UKSC 6, even if part of the controversy involved the interpretation of CASS 7 regulatory requirements on the safeguarding of customers' money, a critical point was that safeguarding and segregation did not, *per se*, give rise to the protection upon the insolvency of the broker-dealer. A declaration of trust was necessary for that purpose.

[135] In Britain the vast body of the trust law is supplemented by very specific rules that regulate financial companies' duties for handling customers' money. See, for example, CASS 7 rule, for prime brokers. For payment services, see, for example, Financial Conduct Authority (FCA) The FCA's role under the Payment Services Regulations 2009.

[136] See note 59 above.

[137] This would not need to occur if the law, for example, requires the rendering of e-money services via a separate entity, which is subject to a special authorization akin to that of financial institutions. MNOs could set up such special subsidiary if the laws on significant shareholdings on financial institutions do not pose any problem. Still, it would arguably increase the costs for non-bank institutions.

[138] For example, in Italy the patrimony of destination is a device given to companies to create segregated pools of assets. See Articles 2447*bis et seq* Italian *Codice civile*. These provisions stipulate the rules for patrimonial separation, but say nothing about the attribution of property/security rights over those assets to specific parties.

[139] See note 44.

[140] See GSM Association, 'Ringfencing and Safeguard of Customer Money' <http://www.gsma.com/mobilefordevelopment/programmes/mobile-money-for-the-unbanked/safeguard-of-customer-money> accessed 15 November 2014.

[141] On the other hand, upon the Provider's default, an insurance company or a public insurer acquiring customers' claims against the Provider and exercising those claims is likely to reduce the costs faced by customers, mainly that of hiring a lawyer to bring their claim before the court.


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