Payment System Regulation for Improving Financial Inclusion

Maria Chiara Malaguti

Abstract

Drawing from existing domestic experiences and the first results of the international debate, this paper tries to identify some high-level recommendations on how the payments system should be regulated to best achieve the particular goal of inclusion. The approach to be taken shall strongly depend on the existing institutional framework of a country and its economic and social context. However, some common trends can be identified. In particular, it emerges that regulation in the field would require a general consideration of relevant issues within the wider context of regulation and oversight of the retail payments system of a country, and that only a safe and efficient national payments system can guarantee effective financial inclusion of a durable nature. In this wider context, the main issue is how specific measures to achieve these several objectives can converge: that is to say, how, when trade-offs are shown between inclusion and the other objectives of soundness, integrity and efficiency, these should be addressed, as well as how, when trade-offs do not specifically emerge, regulation adopted to achieve other objectives can also best address that of inclusion. An adequate combination of general ex ante measures and individual ex post interventions by relevant authorities according to the concrete evolution of the market might ensure such a degree of flexibility to permit that short- or medium-term trade-offs be addressed as to converge towards long-term "sustainable inclusion."

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Center for Global Development
2055 L Street NW
Fifth Floor
Washington DC 20036
202-416-4000
www.cgdev.org

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Foreword by Liliana Rojas-Suarez

Driven by advances in technology, innovations in digital payment systems have enormous potential to reach financially under-served populations. In addition to meeting the payment needs of individuals, digital payment systems can also serve as a stepping stone for the take up of other financial services, such as savings, credit, and insurance. An enabling regulatory environment is key to allowing new players and models to compete and cooperate for the provision of payment services.

This paper was commissioned by CGD to support the work of the Center's Task Force on Regulatory Standards for Financial Inclusion. It focuses on the role of regulation in maximizing opportunities and mitigating risks that accompany the emergence of innovative players in the digital payments space. For example, how can regulators balance the creation of an inclusive payments system with maintaining its stability, integrity, and safety? This balance is crucial to encourage sustainable usage of payment services by large sections of the population. The paper draws on a wide variety of country experiences to recommend how payment systems should be regulated. While this paper recognizes that every country and region needs regulations that are specific to its conditions, there are some high-level principles that can be adopted to broaden financial inclusion. One of Malaguti's central recommendations is to encourage adoption of a risk-based approach to regulation. For example, low-value services that are also low-risk should be regulated using lighter standards. Moreover, she recommends that the regulatory framework should create a level playing field between different forms of payment service providers. This can be done by applying similar regulations to functionally-similar services regardless of the institutional forms of the payment service providers.

The CGD Task Force on Regulations for Financial Inclusion has met three times since early 2014. The Task Force comprises some of the world's leading experts on the role of regulation in advancing inclusive financial services. In early 2016, the Task Force will publish a report containing regulatory recommendations for policy makers and standard-setting bodies for broadening financial inclusion.

1. Introduction and Scope of the Paper

It is commonly understood that the payments system is the gateway to financial inclusion. Responsibility for achieving this goal in the field of payments is usually primarily attributed to central banks, which are also vested with the duty to promote and maintain a safe and efficient payment system.

Efficiency includes, among others, fair access to the market, a level playing field, support to innovation and some level of interoperability, all elements that are also seen as pre-conditions to financial inclusion. On the other hand, trust is a prerequisite for a payment system to function as a reliable infrastructure for real economy, and trust requires soundness and integrity.

If the above assumptions are correct, financial inclusion is to be seen to some extent as a side-product of a safe and efficient payment system, since these elements would favor better access to services and an environment more friendly to the invention of new products responding to the needs of new sectors of the demand and better reach out the population. On the other side, since there are some trade-offs between efficiency and soundness, any possible trade-offs between financial stability (at the basis of soundness) and financial inclusions could be said to be already solved within oversight policies for a safe and efficient payments system.

Within this context, the general understanding is that an enabling legal environment should be established to achieve a safe and efficient payment system, to be as little intrusive as possible: regulation should mitigate legal or administrative barriers and guarantee a level playing field, only intervening as far as to reduce relevant risk. Following this approach, intervention also as for financial inclusion should be reduced to a minimum and *de facto* limited to mitigation of risk.

However, under the undeniable evidence that wide sectors of the population in the most of developing countries are factually excluded from the formal financial sector and that this compromises their ability to improve their economic and social status, in the most of cases regulators have concluded that specific policies need to be put in place to defeat financial exclusion.

Under these premises, specific objectives need to be defined within the specific socio-economic context of a country as well as the shape of its supply and demand side to achieve the specific goal of inclusion, and concrete measures to be undertaken.

Starting from the above findings, this paper indeed tries to evaluate, based on existing countries experiences and the main result of the international debate, how the payments system should be regulated to best achieve the particular goal of inclusion:

Part 2 will set the scene, trying to describe the development of regulation of the payments system since central banks were firstly charged with the task of oversight. This starting point strongly affects the general understanding of when and how to regulate the payment system and permeates the toolbox of the regulator. Further, a general description of market products is provided, to see how regulators and scholars usually interpret these having financial inclusion as a benchmark. This introduction will take us to identify the elements of ubiquity, convenience and trust as the main requisites of products for sustained client uptake, and that of a safe environment as a prerequisite for inclusion.

Part 3 will offer an overview of different regulatory approaches currently undertaken at domestic level: since the primary focus of regulators has traditionally been that of safety and efficiency, regulatory efforts have addressed either innovation as for how this would modify the parameters of risk in instruments and systems, or service providers as for how they would undertake functions traditionally provided by banks and other non-bank financial institutions. Some shortcoming of either approaches are evidenced and some often repeated classifications of regulatory approaches criticized, in the hope of helping to understand the real essence of innovative products and business models in general, as well as for the specific goal of financial inclusion. Finally, specific pro-active policies undertaken by a number of central banks are considered to see how concretely the general oversight tools can be refocused for financial inclusion or new measures adopted. This Part concludes that, notwithstanding the general principle that regulation must be as little intrusive as possible is not challenged, specific action for financial inclusion is required since there are market failures that need to be addressed by regulation. An inevitable consequence is that these policies result as more intrusive than those otherwise adopted in the payments sector and may also directly affect the shape of the market.

After having reached the conclusion that specific regulation for financial inclusion is needed and that this may exceed the level of regulation usually adopted for achieving a safe and efficient payment system, **Part 4** yet claims that financial inclusion needs to be fully integrated with the other objectives of oversight and follow as a matter of principle the same methodological tools: in the first place, this means that a risk-based approach should still be the primary basis for regulators to consider when and how to intervene in the payments system, and for doing this a functional approach must be followed. Indeed, this Part shows how there is a convergence towards this approach in all international standards relating to payments. In addition, this helps to identify which regulatory entity in a country should be responsible for oversight of what functions and risks, as well as better focus on the proportionality of a measure. Finally, it makes easier to evaluate trade-offs under the different objectives in a way to permit the best achievement of all such objectives in the long-run. Indeed, while in a number of cases efficiency and inclusion do not present any evident trade-offs, financial stability and financial inclusion do.

Part 5 will elaborate on these assumptions by identifying some high-level regulatory standards for financial inclusion. Albeit strongly arguing that there are a number of constraints to reach general recommendations, since the described matters strongly depend on the characteristics of the country at stake and the policy choices made, it concludes for standards of "sustainable inclusiveness", *i.e.*, the elaboration of standards for inclusion as an integral part of the general oversight policy, since only a safe and efficient national payments system can guarantee effective financial inclusion of a durable nature. Where trade-offs exist, a balance of relevant short- and medium-term objectives should be identified to permit a convergence between goals in the long-term. As a final element, the paper claims for a legal and regulatory framework that permits flexibility so that relevant authorities can adjust their measures according to the development of the market and emerging needs in the short- and medium-term to ensure the concrete achievement of long-term convergence.

2. Setting the scene

2.1 Payments and Financial Inclusion

Payment systems have been the object of various policy considerations and scholarly studies. Traditionally this was for the evaluation of their efficiency and the influence they could bear on financial stability as well as the stability of markets in general. Indeed, the international debate has produced various international standards with the specific goal of ensuring their smooth functioning as essential to the overall efficiency and stability.[1] In addition, central banks have developed autonomous functions, and most of them actually created a specific department of oversight within their own operational structure.[2]

Originally, the scope of oversight and regulation was limited to wholesale payment systems, *i.e.*, those systems that execute large-value transfers between financial institutions, as these are considered to be systemically relevant to the financial markets. However, the focus has been extended in the course of the years to also

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[1] See CPSS-IOSCO, *Principles for financial market infrastructures*, 2012 (BIS Publication), upgrading, among others, the previous CPSS *Core principles for systemically important payment systems*, 2001 (BIS Publication), which provided 10 principles for the safe and efficient design and operation of systemically important payment systems.

[2] See CPSS (now CPMI), *Central Bank oversight of payment and settlement systems*, 2005 (BIS Publication): "*1. Oversight of payment and settlement systems is a central bank function whereby the objectives of safety and efficiency are promoted by monitoring existing and planned systems, assessing them against these objectives and, where necessary, inducing change. 2. Payment and settlement systems enable the transfer of money and financial instruments. Safe and efficient systems are fundamental to money being an effective means of payment and to the smooth functioning of financial markets. Well designed and managed systems help to maintain financial stability by preventing or containing financial crises and help to reduce the cost and uncertainty of settlement, which could otherwise act as an impediment to economic activity. Payment and settlement systems thus play a crucial role in a market economy and central banks have always had a close interest in them as part of their responsibilities for monetary and financial stability*" (p. 1).

cover retail payment systems, on the one hand, and retail payment instruments, on the other[3]:

- *Retail payment systems.* Although these, as opposed to wholesale payment systems, process low value transactions,[4] they might still become systemically relevant because of the large number of transactions they can execute within short periods of time.[5] In that context, efficiency and stability are still the main goals of regulation and oversight.[6]

- *Retail payment instruments*, *i.e.,* those means of payment that are meant to be alternative to cash and are generally used for low value transactions, are relevant in the much wider context of providing society with more articulated and diversified means of payment, saving and credit. Retail payment instruments often rely on retail payment systems, specifically devoted to the processing, clearing and settlement of such transactions. Thus they deserve regulatory consideration independent from any concern on (financial) stability.[7]

It is within this latest context that payment systems and instruments also play a role for financial inclusion:

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[3] In fact, the focus has further widened towards oversight of payment activities, to also cover payment services as a general category including any activity bearing a relevant role in the chain of fund transfers. As it will be seen in the course of this paper, the focus of regulation and oversight, originally directed towards retail payment instruments, was often shifted to service providers. This was particularly true when it was realised that pure regulation of technology did not address some of the relevant issues concerning structure of the market, and that consistent oversight would also need a focus on actors.

[4] "*A payment system is generally categorized as either a retail payment system or a large-value payment system (LVPS). A retail payment system is a funds transfer system that typically handles a large volume of relatively low-value payments in such forms as cheques, credit transfers, direct debits, and card payment transactions. Retail payment systems may be operated either by the private sector or the public sector, using a multilateral deferred net settlement (DNS) or a real-time gross settlement (RTGS) mechanism.*": CPSS-IOSCO, *Principles for financial market infrastructures*, supra, para. 1.10.

[5] CPSS, *Policy issues for central banks in retail payments*, 2003 (BIS Publication) "*At the level of clearing and settlement arrangements, this report concentrates on policy issues relating to systems that specialize in carrying large numbers of low-value payments and so may be regarded as wholly or predominantly retail payment systems. Retail payments are most commonly made through such systems, … although in some instances systems in which large-value payments predominate also handle significant numbers of retail payments. The boundary between large-value and retail payment systems is acknowledged to be imprecise and changeable. The characterization of a "systemically important payment system" in the report Core Principles for Systemically Important Payment Systems highlights this issue. Such systems are defined primarily by their risk characteristics, but the boundary between systems which are systemically important and those which are not is not always clear-cut in practice. Categorization is a matter of judgment for each central bank in relation to the relevant national market. If, for example, a country has only a single payment system handling payments of all values, that system is typically considered to be systemically important. The aggregate value of payments handled by a system may also be relevant, irrespective of the values of individual payments. This means that in some instances, a "retail payment system" may be judged to be systemically important and therefore should comply with all the Core Principles for Systemically Important Payment Systems ("the Core Principles"), although this is not typically the case*". (para. 2.4)

[6] See European Central Bank (ECB), *Oversight standards for Euro retail payment systems*, 2003.

[7] See CPSS, *Policy issues for central banks in retail payments*, *supra.* Also, CPSS-WB, *General principles for international remittance services*, 2007 (BIS Publication).

a) *It is commonly understood that one of the main methods to allow the most disadvantaged (and typically unbanked) population to access financial services, is to offer them new instruments to transfer and receive money, in particular small amounts of money*. This would not only improve the speed and safety of remittances and payments, thus addressing the specific need of such population to execute money transfers of a very small value, but would also induce those same people to consider the use of other retail financial services. If for instance the adoption of a new payment instrument is accompanied by the provision of a simplified (bank) account, this might lead to the habit of saving money for future needs. Along the same line, new payment instruments may also be enriched by micro-credit functions to satisfy immediate needs that could not otherwise be addressed. If the market develops satisfactorily, it could also be that other financial services, such as micro-insurance schemes, are channeled through those same instruments.[8]

b) *Technology has played an extremely relevant role in this process, in light of the widespread use of innovative communication tools*. Use of innovative communication tools is widespread within the most disadvantaged population and this has come to be seen as a fitting tool to provide financial services. The most mentioned example of developments in this field relates to the use of mobile devices. These devices have allowed for the exchange of domestic (and international) remittances, potentially in real time, and the possibility for people in remote areas to cash-in and cash-out at local stores with the money received from third parties using the mobile phone as the device to access the service.[9] Further, some payment service providers have started offering simplified accounts to be used for the sole purpose of executing small value payments. These accounts are subject to various limitations but still permit the client to store very small amounts of money for a short period. Finally, some financial institutions (payment service providers and/or micro-finance institutions) have begun to offer further financial services by way of the same instruments, such as micro-credit and micro-insurance.[10]

c) *This has also been applied to new business models, where non-financial institutions play a relevant role, widening the range of products offered and the ability to reach even the most remote populations*. Mobile payment products are only one, although currently the most considered, of many innovative payment instruments serving financial inclusion.

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[8] See, among the latest, World Bank Development Research Group, the Better Than Cash Alliance, Bill & Melinda Gates Foundation, *The Opportunities of Digitizing Payments – How digitization of payments, transfers, and remittances contributes to the G20 goals of broad-based economic growth, financial inclusion, and women's economic empowerment* (by the G20 Global Partnership for Financial Inclusion), August 2014.

[9] Alliance for Financial Inclusion (AFI), *Mobile Financial Services – Regulatory Reporting* (Guideline No 3, March 2013): "*Mobile banking and mobile payments have filled an important space in the financial services landscape, especially in transforming and driving financial inclusion. Financial services delivered via mobile phones can help to reach the large percentage of the world's population that has access to these devices but which remains unserved by formal financial services*" (p. 1).

[10] See CGAP Focus Note No 62, *Microfinance and Mobile Banking: The Story So Far* (2010) and Focus Note No 88, *Microfinance and Mobile Banking: Blurring the Lines?* (2013).

> The retail payments sector is continuously evolving by way of adopting new technologies to widen the reach of their services and answer new needs. This also applies to new business models and consequently to the direct involvement of non-financial institutions, which are able, because of technology, to offer services previously considered to be the sole domain of banks (or other existing financial institutions). This has led to a great variety of business models, many of which are of a cooperative nature between financial and communication operators.

Within this context, financial inclusion has become a key policy objective of most governments and central banks, both at the national and international level:

At the November 2010 Seoul Summit, the G20 leaders approved the "*Financial Inclusion Action Plan*", which recognizes the commitment of the financial sector's standard-setting bodies to "*support financial inclusion,*" elaborating standards and giving advisory guidance that directly or indirectly affects the payment landscape.[11]

Among the most recent collaborative efforts in the field of (retail) payments and financial inclusion at the international level, the joint task force of the Committee on Payments and Market Infrastructures (CPMI) and the World Bank (WB) on *Payment Aspects of Financial Inclusion* (PAFI) is planning to issue a report for public consultation in the second half of 2015. In addition the CPMI published two relevant reports, one on *Innovations in retail payments* (May 2012)[12] and one on *Non-banks in retail payments* (September 2014).[13] These touch upon the two main elements, evolution and the importance of the new market structure, by offering interesting elements of comparison and analysis.[14]

In parallel, at the state level it has been estimated that about two-thirds of regulatory and supervisory agencies are now charged with enhancing financial inclusion and that in recent years, some 50 countries have set formal targets and goals for financial inclusion, which also include retail payments.[15]

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[11] It is known that in Seoul the Global Partnership for Financial Inclusion (GPFI) was established to move the financial inclusion agenda forward, which includes several work streams and a number of implementing partners. Many of the reports and recommendations discussed in this paper come from joint efforts within the framework established by the G20 and GPFI. As also known, the standard setting bodies are the Basel Committee on Banking Supervision (BCBS), the Committee on Payment and Settlement Systems (CPSS), now re-named Committee on Payment and Market Infrastructure (CPMI), the Financial Action Task Force (FATF), the International Association of Deposit Insurers (IADI), the International Association of Insurance Supervisors (IAIS), and the International Organization of Securities Commissions (IOSCO).

[12] CPSS, *Innovations in retail payments, Report of the Working Group on Innovations in Retail Payments*, 2012 (BIS Publication).

[13] CPMI, *Non-banks in retail payments*, 2014 (BIS Publication).

[14] For update on these works see T. Lammer, *Transaction Accounts for All & the Payment Aspects of Financial Inclusion*, Presentation at the ITU workshop held in Geneva on December 4th, 2014.

[15] WB, *Global Financial Development Report 2014 – Financial Inclusion*.

Before getting into the issue of regulatory stances linked to financial inclusion, a quick review of current conceptualization of existing new products or business models is needed. As mentioned, the market of retail payment instruments and services has recently undergone several changes, both in terms of products and of operators. Many such changes were a result of the attempt by the market itself to reach sectors of the population that were un-serviced or under-serviced. These new trends have thus been considered for their relevance in terms of financial inclusion in a specific country.

2.2. Market Products and their Relevance for Financial Inclusion

As for what is relevant for financial inclusion, three main categories can be identified among existing products and/or business models from a factual point of view:

a) *Money-transfer services for a wider target.* Some products clearly target the most disadvantaged population and aim at providing basic transfer services. They do this by focusing in particular on the primary need of providing cash to people in remote areas. *Cash-in/cash-out services* are thus provided, for money transferred by domestic (and in some cases international) remittances.

b) *Payment services for more focused targets.* Others try to address the part of the unbanked population who are slightly more sophisticated and are required to *execute payments for underlying transactions*. This may be the case for individuals, but also for micro businesses, managed individually or by a small group of people, that have to pay for supplies or be paid for their activities.

c) *Articulated e-payments as a systemic solution.* Others finally aim at addressing the market at large by satisfying more articulated needs, such as paying *utility bills* by way of innovative payment instruments, or permitting employers such as utility companies or the Government *to pay salaries or distribute social benefits* without the need for the beneficiary to have a bank account.

Sometimes a product only offers one of these services and only addresses one demand sector, and sometimes the same product can also be used for other needs and potentially offer the whole range of services.[16]

When new products were first developed, scholars and regulators tried to classify them according to different features:

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[16] The case of M-Pesa in Kenya is emblematic of the interaction and development of these models. As we know, M-Pesa was originally intended as a pilot project for a microfinance institution (MFI)-based loan disbursal and repayment system. Since it proved too difficult to integrate easily with MFI systems, this was rather transformed into a purely money transfer service (domestic remittances and cash in/cash out). In light of the success obtained, the service was then enlarged to include bill payments, group salary payments, school fees, and currently it also provides micro-loans in cooperation with a bank. See AFI Case Study, *Enabling mobile money transfer. The Central Bank of Kenya's treatment of M-Pesa*, 2010.

a) Additive versus transformational. The first distinction was between "additive" and "transformational" products/services:[17]

– Whereas in the first case *a new channel is added to traditional ones for an existing client to access its account*, such as remote access to one's account by internet or phone/mobiles, or through an ATM;

– In the second case, *the service aims to reach new clients through new channels*. For instance, when the remote access includes the offering of a new service, such as new channels used to access simplified/low cost accounts devoted to the use of that channel. This would provide availability to potential customers who would not have access to traditional services.

This distinction is quite relevant within the context of financial inclusion policies. According to the originators of this distinction, only in the second case has access actually been widened and new (low-cost) products offered to answer needs that were left unanswered. In the first case, use of an already existing financial service has only been made more efficient, or accessible, to customers that could have potentially had access to traditional financial services.[18]

Unfortunately, this does not add much in terms of market structure for the supply side, which is extremely relevant to the overall efficiency and competitiveness of the sector, and consequently, for effective financial inclusion policies (as will be discussed further).

Indeed, what has emerged from the market is that in "additive" models traditional financial institutions (primarily banks) keep providing the relevant financial services, while network operators providing the new channel only manage the communication services. In the "transformational" model the financial service could also potentially be offered by the actual provider of the communication network or a subsidiary thereof.[19]

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[17] See DFID, *The Enabling Environment for Mobile Banking in Africa* (2006).

[18] In the Report by Oxford Policy Management, *Branchless Banking – Testing remote access models for Southern Africa*, the distinction between "additive" and "transformational" products is presented in different degrees: *purely additive* would include expanded functionality for existing fully served clients. *Purely transformational*, on the other end, would instead mean "*serving the un-served outside branched areas*". In between, the model could aim at a) extending functionality for existing partially served clients, b) extending the reach of those served outside branched areas, and c) redesigning products to serve more in branched areas. Within this categorization, a model can be judged as being *more or less transformational* according to the specific context, as well as identified financial inclusion policy goals.

[19] The most common case is when a mobile network operator (MNO) or the subsidiary of an MNO uses the top-up mechanism not just to offer communication services, but rather to (also) provide payment services in favor of third parties, or permits users to cash out money that was stored in the SIM-card.

b) Bank-led versus MNO-led. To reflect such structural difference, the distinction between "bank-led" and "MNO-led" models was then elaborated:[20]

– In the first case, the product or scheme is created and *primarily managed by a financial institution*.

– In the second case, the product or scheme is created and *primarily managed by a telecom/mobile network operator*.

This distinction does not focus on the direct impact of a model on financial inclusion, in the way that the distinction between "additive" and "transformational" models does. In a general sense, the provider offers new products to the market in both cases, so both would indeed potentially offer "transformational" products.

This approach focuses on who is actually providing the financial services. This may appear abstract or irrelevant in terms of financial inclusion. In fact however it bears a relevant role regarding the concrete structure of the market, as it gives indications towards which sector of the market is playing a more active role in innovation.

In many instances these two categories were used not to refer to who was actually providing the financial services, but rather to which operator would directly deal with the final customer, irrespective of the actual functions performed by each party:

– In an MNO-led model the customer only interacts with the MNO (or its agents), whereas

– In the bank-led model the customer interacts directly with the bank (or its agents).

This way of distinguishing a bank-led model from an MNO-led model has many implications for financial inclusion because the MNO is able to directly offer the payment services to its existing clients, which far outnumber those who have bank accounts. However, this does not permit an accurate reconstruction of the actual structure of the supply side as for who actually provides the financial service (as opposed to provision of the communication services). This reduces the efficacy of the distinction in terms of either model's contribution to the development of the market (and identification of sources of risk, as will also be discussed).

Irrespective of the specific meaning given to this categorization, its inherent limit lies in the fact that it pictures *two extremes of a much more articulated reality:*

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[20] See for instance CGAP Focus Note No 38, *Use of Agents in Branchless Banking for the Poor: Rewards, Risks, and Regulation* (2006).

– First, in a purely "MNO-led model" the banking sector is potentially out of the picture (since money transfers could be executed with no need for any bank account). In reality this may only be true as far as the customer is concerned, since at least settlement, but often also clearing, still does occur through the banking system (by direct or indirect access to a payment system). Concordantly, in a purely "bank-led" model the bank still uses the MNO network as a means of communication, and often also benefits from its ancillary services for processing transactions, and can partially outsource its activities to a MNO. The MNO in turn can provide those services exclusively to that bank or more probably jointly to several of them, and in doing so provide the banking community with a platform to execute all processing and clearing services (often for a range of instruments).

– Second, actual business schemes usually incorporate a certain degree of cooperation between a bank and an MNO. For instance, a *hybrid model* may be implemented under which the scheme is used to access bank accounts when the client has one, and to execute payments with no account when the client has none. The users of the product would be alternatively either a client of the bank or a client of the MNO, although they factually interact with only the MNO or its agents network to access the service.

Finally, as for effects on financial inclusion, it should be considered that from a factual point of view it has been stated that MNO-led models tend to be limited to money transfer services, and since MNOs do not have a history or a culture of financial services, they might decide to expand the kind of financial services they provide, by linking with a financial institution (a bank or a micro-financial institution). This "upgrading" of the service would lead to the offering of a range of services under different patterns, and allocation of roles and responsibilities between the organizations which cannot fit the straightforward categories of "bank-led" as opposed to "MNO-led" model.

These latest considerations on types of services offered lead to the last classification of models which is relevant to financial inclusion:

c) Money-transmission versus balance sheet expansion. "Money transmission models" have been contrasted by some scholars to "balance sheet expansion models":[21]

– *Money transmission models* help clients move spending power across space to support transactions. In this case, the main supplier focus would be on the infrastructure that allows money to be moved securely.[22]

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[21] Report by Oxford Policy Management, *Branchless Banking – Testing remote access models for Southern Africa, supra.*

– *Expanding the balance sheet* instead involves existing financial service providers adapting their offering and using their balance sheet capacity to transfer savings and premium income into lending and risk cover, as well as to provide payment mechanisms.

This categorization is particularly relevant in connection to distribution networks of payment service operators. As mentioned, the provider of the payment instrument may directly deal with the client, but more often it builds up a distribution network composed of one or more categories of agents to reach remote areas and reduce costs.

– This is a phenomenon that started, especially in Latin America, to address the problem of banks needing to reduce branches and permit some (basic) banking services to be provided by third parties linked to the bank by a principal-agent relationship (usually referred to as "*banking correspondents*") at low cost.[23]

– The same patterns of agency networks are mirrored in payments by MNOs, which use their existing distribution network to provide some payment services, possibly including cash-in and cash-out.

– In both cases, the agents are non-banks.[24] The main relevance of this to financial inclusion is that the agents are usually individuals or small business entities who are already active in the market, either managing stores or other small businesses, and are well-established in the territory where they operate.

The agency or correspondent model for banking services is read as the implementation of a "balance sheet expansion model", and is consequently distinguished from the agency networks used by MNOs which only provide money

[22] The Oxford Policy Management Report adds a further factual distinction, helping to identify the drivers of subsequent innovations: "*Money transmission models have come about in three different ways. Some owe their genesis to changes in social payment policy, others are driven from the remitting end of international migrant transfers; and others arise from a need for domestic money transmission*" (p. 4)

[23] One of the first countries to establish such a model was Brazil, where since 2000 banks deliver financial services in the whole country through retail agents, including supermarkets, pharmacies, post-offices and lottery kiosks (whereas some services were permitted beforehand only in regions where there were no branches). Banking correspondents have now become the most used access channel for credit transfers and the payment of public utility and other bills, and are used by government agencies to pay social benefits (see CPSS *Innovations in retail payments*, *supra*, Box 10). Latin America is, of course, not the only region where the model was implemented: in India banks were permitted to use post offices, specialized micro-finance institutions, NGOs and cooperatives as retail agents, which are called "business correspondents" since 2006.

[24] In many instances the network is divided into primary and secondary agents, where the first category has wider responsibilities and scope of activities, including that of management of secondary agents. As known, this is also the pattern used by international remittance services, which often only establish themselves in a country through their own agents.

transfer services, while the first are a component of a wider plan for financial inclusion.[25]

Setting aside the similarities between agency networks of banking services by financial institutions, and those of innovative payment services by MNOs in terms of their business and contractual features, a distinction can be seen between the consequences of each on financial inclusion. In this distinction there is a tendency to potentially favor those schemes that involve financial institutions, as they are able to provide financial services in addition to intermediation in money transfers.

This interpretation of alternative models is predicated on a reading of "financial inclusion" as encompassing more than expanded provisions for payment services. These models should only be considered as a starting point for the discussion of financial inclusion, which encompasses the potential availability of a wide range of articulated financial services.

The categorizations described above focus on different characteristics of business models currently present in the market, and address the issue of their role for financial inclusion according to different parameters (and possibly a different understanding of what "financial inclusion" concretely means). At first sight, it may be said that they mainly focus on the *efficacy of their penetration* in the market, both geographically and as an adequate response to unanswered needs.

2.3. Ubiquity-Convenience-Trust, and a Safe Environment to Encourage Sustained Clients Uptake

In order to address the issue of efficacy of instruments or business models in combating financial exclusion, a further articulation is yet needed, which would balance the reasons for efficiency with those for safety. This would imply that efficacy of penetration in combating financial exclusion would not only depend on the specific structure of the product or business model, but also on the regulatory environment.

With the aim of creating an enabling regulatory environment, regulators and overseers of the payments sector have indeed focused on creating a safe environment to encourage sustained client uptake. Indeed, as a synthesis of underlying thinking in this context, it has been asserted that, "*since the success of any payment system is predicated on*

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[25] The authors of the Report tend to consider this model more "transformational" by the very fact it potentially offers financial services beyond fund transfers: "*These models tend to be transformational both in expanding the number of people with access and in the quality of service offered, as the suppliers make a relatively full offering across the range of services that are the focus of the debate about access, that is payments, savings, credit and risk cover*".

ubiquity, convenience and trust, it is necessary to address emerging risk issues in order to maintain public confidence".[26]

Thus a minimum level of regulatory intervention seems to rely on these three elements:

a) *Ubiquity*. Inclusion means accessibility, and accessibility means, in the first place, proximity. This would imply a wide coverage of the geographic population, in addition to the availability of a number of alternative products which address different needs by different sectors of the population. Ubiquity in this more articulated meaning would also imply the existence of adequate infrastructure and possibly portability of products.

b) *Convenience*. Second, accessibility means *affordability*: since money involved in transactions by the target population is of an extremely low amount, it cannot be expected that the cost of the service be high in proportion to the amount transferred.

c) However, measures enforcing inclusiveness, such as potential coverage of the whole of the territory of a country to provide services to very remote areas, would potentially increase costs for the provider. Measures raising the level of protection for customers, and other mechanisms to incentivize the use of innovative instruments by the un-banked population would also tend to increase costs for the service providers and possibly lead to inefficiencies. Therefore convenience should simultaneously make the product *affordable to the user and commercially viable to the provider*.

d) *Trust*. Finally, specifically when dealing with an unbanked population, one has to cope with the fact that people are usually unfamiliar with the functioning of financial services. Most often they are illiterate and are consequently more easily exposed to abuses by the providers of services. Because of this, the widening of instruments and products would also require better care for consumer protection in order to reinforce trust.

Moreover, trust of new instruments and the payment environment as a whole would require mitigation of risks:

- *Information Technology Risk*. In the first place, new instruments are the consequence of new technology, in the devices they use to permit the user to authorize the transaction, and/or in the networks and platforms they use to process and settle transactions. This technology ensures potentially immediate

[26] Federal Reserve Bank of Atlanta Working Paper, *Mobile Money Transfer Services: The Next Phase in the Evolution in Person-to-Person Payments* (2010).

transfers of money from one person to another, yet introduces a number of IT risks. Since these instruments are meant to be a substitute for cash, they need to potentially be at least equally safe. Indeed, people need to trust such instruments as they are used to trusting cash.

- *Financial risks*. In the second place, new technologies have also permitted non-banks to offer payment services. However, a number of risks are linked to the provision of such services, which are financial in nature, such as liquidity, credit, insolvency, and even reputational risk, the latter of which is mainly linked to the use of agent networks. The extension of types of intermediaries in the market thus opens competition and contestability, but also new regulatory issues to be addressed concerning the level of protection provided for the user and the users' funds. Indeed, trust is affected not only when users feel at risk because of the use of new technology, but also when they feel they could lose their funds because of the very fact that an intermediary is executing the money transfer.

- *Legal risk*. Finally, the whole environment is made more complex by the fact that business models that offer payment services are based on a variety of different cooperative schemes between the financial sector and those other economic sectors offering innovative products, such as telecom companies or MNOs. As described, the allocation of functions highly differs according to the business scheme, and it is made less transparent by the frequent recourse to outsourcing, which permits the transfer of a single or a set of activities to a third party by maintaining the primary responsibility for offering product to the users. This articulation of business schemes is the result of innovation and competition and enriches the range of services to be offered and their modalities. However, this implies various combinations of possible allocations of liabilities and risks, sometimes exposing users to unexpected risks because of the impossibility of concretely identifying who would be responsible for a specific (mis)deed.

At a minimum, the values of ubiquity, convenience and trust produce trade-offs which need to be addressed by regulators responsible for financial inclusion, balancing - to reach *sustainable inclusiveness* - the assurance of an enabling environment that is conducive to innovation and economic development on the one side, against consumer protection concerns on the other.

2.4. Some Cornerstones

From these introductory considerations it is already apparent how the issue of payments system regulation and financial inclusion is in fact many-fold, and the aspects relevant to regulation somewhat difficult to unravel:

First, the whole analysis is influenced by the concrete policy goals that a country wants to achieve, and their prioritization. As briefly seen, different models potentially address different needs and types of population, with the consequence that different goals may be achieved according to underlying policy choices (either the expansion of very basic services for an as-wide-as-possible population, or of more articulated products which specifically focus on selected sectors or activities, such as micro-businesses, in order to favor their formal insertion in the national economy? Or, what combination of these at a given time?). Also, when long-terms objectives are commonly agreed upon at the international level and best practice identified, short-term objectives might vary according to the context, and be attained following different prioritization schedules. This is especially true according to the shape of the demand side. These short- and mid-term policy decisions will influence regulation and the progressive upgrading of legal and regulatory measures.

Second, the existing structure of the supply side plays a role in the ways that the sector might better develop for both financial inclusion and the upgrading of the payment infrastructure, for the general benefit of the whole financial market. Issues such as integration and/or competition, access to services and to systems, barriers to new entrants, and interoperability are all of extreme relevance to the shaping of the market. Consequently they are also extremely relevant to financial inclusion, since an effective offering of new services and products can only develop if supported by adequate infrastructure and a dynamic supply side.

Third, financial inclusion requires that risks inherent in the working of new instruments and services be adequately addressed, since financial inclusion can only fully produce its effects and allow the population to rely on new products and services in the context of confidence and stability.

Finally, it must be considered how pervasive regulatory intervention should be. An enabling regulatory environment can be established, with little regulatory intervention, so as to leave the market free to adopt those products or business models they judge convenient. Alternatively market choices can be directed towards the realization of specific financial inclusion targets by the imposition of a number of restraints and conditions, or a combination of the two. Although preference should be given to the establishment of an enabling regulatory environment leaving the market free to innovate, the concrete implementation of such a regulatory environment will be subject to the institutional constraints of a country and the shaping of its legal order.

3. Trends in Domestic Regulation

Given that there are no common standards for such enabling regulatory environment, different regulators have responded in different ways.

3.1. Focus on Technology: Regulation of Innovative Payment Instruments or Products

The activity of transferring money was traditionally not one that received autonomous consideration. Payment services were activities broadly linked to the opening of bank accounts and consequently considered to be, by default, a banking activity. Banks were thus performing payment activities within their license, and banking supervisory authorities would check upon such activities within their supervisory powers.

When technology permitted the use of innovative instruments (meaning all non-paper based instruments based on new information technologies), and left aside the adoption of specific legislation to recognize enforceability of electronic transfers and the storage of electronic data, regulatory authorities started to regulate individual instruments or products based on the specifics of their design. This was the case with first (i) cards, especially when the market introduced in addition to credit cards also debit and further pre-paid cards, then (ii) internet payments, including the specific use of ATM machines, and finally, at least until now, (iii) cellular devices.

There have been two trends identified as being followed by regulators to tackle innovation:

a) The so-called "ex-ante approach", i.e., tackling the issue of provision of innovative payment instruments directly, by introducing general categories:

- This approach has the advantage of broadly defining the features (of potentially more instruments and products) it intends to cover in general, under a technologically neutral approach.[27] This would avoid different treatment of instruments which are potentially in competition, and directly address the issue of risks inherent in each feature and/or function as a general category.

- However, the aim of defining general categories could result in too abstract a definition of identifying or qualifying relevant features. This increases the risk of lacking adequate regulation for any foreseeable ramifications of a similar feature or market development, and could possibly result in higher regulatory density, making the overall regulatory environment inadequate for the concrete needs of a specific context.

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[27] Whereas (7) of the EU 2009 E-money Directive: "*It is appropriate to introduce a clear definition of electronic money in order to make it technically neutral. That definition should cover all situations where the payment service provider issues a pre-paid stored value in exchange for funds, which can be used for payment purposes because it is accepted by third persons as a payment*." Whereas (8): "*The definition of electronic money should cover electronic money whether it is held on a payment device in the electronic money holder's possession or stored remotely at a server and managed by the electronic money holder through a specific account for electronic money. That definition should be wide enough to avoid hampering technological innovation and to cover not only all the electronic money products available today in the market but also those products which could be developed in the future*."

This first approach is that followed by the *European Union* (EU) in the adoption of the 2000 E-Money Directive, where criteria were established *ex ante* to issue an e-money product. This example teaches us some useful lessons. While representing one of the first attempts to regulate the matter through a general and technology neutral approach, it also showed a number of inherent shortcomings, to the point that the EU Commission in 2009 had to substantially amend the Directive (see Table I).

b) The so-called "ex-post approach", *i.e.*, to proceed step by step, in conjunction with the introduction of new products in the market, and regulate new instruments once they are launched in the market and the risks in their operational features have emerged:

- This approach reacts more specifically to the individual features of an instrument, and permits the regulator to adapt its policies to the circumstances.

- However, this is not technologically neutral and thus might easily generate regulatory discrimination, as well as result in fragmented, or to some extent redundant, regulation. Another consequence is that this approach might also potentially hamper innovation. Moreover, being an *ex post* approach, it would by definition always intervene once the product has entered the market. In a context where technology advances at an extremely rapid speed, the concrete risk is that regulation addresses situations that have already been overcome by new technologies. Regulation would continuously strive after business advances and result in piece-meal approaches.[28]

Among countries having followed this second approach, *Indonesia* (Table II) and *India* (Table III) are amongst the most interesting. However, both appear to have slightly modified their approach when the market matured. It appears that technology was in fact blurring differences between individual instruments, and making it possible to process different instruments within the same platform/system, and that regulatory differentiations might have lowered the pace of diffusion of some new products.

However, the difference between an *ex-ante* and an *ex-post* approach should not be over-emphasized:

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[28] See CPMI Report on *Innovation in retail payments*, *supra*: "*Two approaches using regulation to promote innovation can be observed. The first is a proactive ex ante approach. […] Alternatively, regulators can adopt a more cautious wait-and-see approach, taking necessary action only after specific developments have been identified. Both approaches have advantages and drawbacks. On the one hand, it is difficult for regulators to predict the future consequences of their decisions. Moreover, such an approach might lead to a higher regulatory density. On the other hand, in the case of the second approach, regulators might not be able to react swiftly enough once certain developments have occurred. In both cases, it seems necessary to monitor the regulatory framework at certain intervals to assess whether it is still appropriate for the retail payment market. In either case, the speed of innovation is a major challenge for regulators as it makes the payments market a moving target.*" (para. 4.1.6. p. 37).

a) *Pros and cons in both approaches*. Besides the fact that both have specific advantages and disadvantages, and have proved to have potential shortcoming in concrete regulation of innovation, these are strongly dependent on the institutional and regulatory context in which they are adopted.

b) *Combined approach*. A combination of the two could instead provide adequate results. High-level principles could be established using general measures covering the generality of instruments, services or products, and be tailored with some flexibility left to the regulatory authority to implement such high-level principles in concrete situations, and to adapt to the progressive modernization of the market.

Australia could be considered a benchmark for such a "combined approach": this is one of the first countries to have adopted legislation on payments, and one of the few which recognizes a high level of flexibility to the Central Bank as far as authorization of individual providers and instruments. General statutory definitions are thus implemented according to actual products characteristics in the market according to Central Bank evaluations and policy decisions (Table IV).[29]

An exclusive focus on technology would still lead to a somewhat short-sighted regulation. Both efficiency and safety of payments, on the one side, and financial inclusion, on the other, need a much more articulated consideration. Focus must also be put on the structure of the market and the role of various stakeholders, putting innovative instruments within the wider context of retail payments as a whole, or the even wider context of the national payment system.

3.2 Focus on Service Providers: Regulation of Non-bank Operators

Those countries that have, at least initially, made the choice of directly focusing on technological innovation in their regulatory policies to address the new retail landscape, have all been obliged at some point to also address the issue that provision of innovative payment instruments implies an important role for non-bank operators:

a) Payment exclusively as a banking activity by law. The choice to allow payment services only to banks may be forced. This occurs in cases where domestic legislation on banking explicitly includes the provision of payment services within the sole domain of banks, as in *Cambodia* (Table V). This restraint could be overcome only by statutory amendment to the relevant legislation.

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[29] Australia is a common law country, and consequently its approach has to be understood within that context, which grants more autonomy to regulatory authorities than civil law countries (at least in principle) would.

b) Payment services as a regulated activity open to any operator so authorized. In other countries, the legislation on banking is ambiguous, in the sense that execution of money or payment transfers is not specifically mentioned as an exclusive prerogative of banks. In this case, it is up to the regulators to decide which entities should be allowed to provide payment services.

Within this second context, the history of normative changes undertaken in the *EU* is of paradigmatic interest (Table VI). In addition, as the first attempt to consistently regulate non-bank payment service providers, the EU model is often used as a benchmark[30]:

- The EU approach was originally that of regulating the market by *institution*. First it regulated credit institutions, then institutions only providing e-money (E-Money Institutions: EMI, see Table I), and finally institutions generally providing payment services (Payment Institutions: PI).

- However, the latest standards, as established by the 2007 Payment Services Directive (PSD), and then confirmed by the 2009 E-money Directive rely on *functions* performed by each institutions.

- More precisely: a) the PSD regulates payment services, and then establishes that such services can be provided by either credit institutions or PI; b) PI, on their side, need to respect requirements concerning initial capital, at different levels according to the kind of services performed, and also for on-going capital (own funds), to be calculated under three different methodologies to permit some flexibility; c) on the other hand, the main difference between a PI and an EMI is that the latter offers payment services by way of store-value devices. This implies the imposition of additional requirements and restrictions (in particular for the protection of customers' funds and mitigation of insolvency risk) by the E-Money Directive, which for the rest simply refers to the PSD.[31]

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[30] Among countries that referred to this model as a benchmark, *Turkey* has recently adopted a general statutory measure: Table VII.

[31] Whereas (9), (13) and (14) of the 2009 E-money Directive read: "(9) *The prudential supervisory regime for electronic money institutions should be reviewed and aligned more closely with the risks faced by those institutions. That regime should also be made coherent with the prudential supervisory regime applying to payment institutions under Directive 2007/64/EC. In this respect, the relevant provisions of Directive 2007/64/EC should apply mutatis mutandis to electronic money institutions*"; *"(13) The conditions for granting and maintaining authorization as electronic money institutions should include prudential requirements that are proportionate to the operational and financial risks faced by such bodies in the course of their business related to the issuance of electronic money, independently of any other commercial activities carried out by the electronic money institution. (14) It is necessary, however, to preserve a level playing field between electronic money institutions and credit institutions with regard to the issuance of electronic money to ensure fair competition for the same service among a wider range of institutions for the benefit of electronic money holders. This should be achieved by balancing the less cumbersome features of the prudential supervisory regime applying to electronic*

c) Leaving payment services as an unregulated commercial activity. The choice of the EU and countries having followed similar paths has been to regulate non-banks providing payment services. This opens the market, but still ensures it is regulated. This approach has proven effective, since it permitted a balanced consideration of both efficiency and competitiveness of the market, on the one side, and safety, on the other. Once a domestic legislation does not make payment services a prerogative of banks, however, it might also be assumed that any commercial entity can freely provide such service.

This was for instance the original approach in *Kenya* when M-Pesa entered the market (Table VIII):

- The product was introduced to the market without the need for any specific license or authorization. Nor was this "designated" under a different mechanism such as those that can be found in countries where payment instruments are somehow assimilated by payment systems.[32] Many commentators attribute the success of M-Pesa to this element (the lack of regulation), although others elaborate on the analysis and also consider the traditionally low penetration of the banking sector in Kenya.

- Today the regulatory landscape in Kenya has completely changed because of new legislation (2011), which also presents a number of elements of extreme interest. The Act is indeed quite articulated and covers all main components of a national payment system. In particular, it provides for a) designation of payment systems, b) designation of payment instruments; and c) authorization of payment service providers. The definition of both payment instrument and payment service provider is apt to cover any possible means and activity to transfer money. In addition, whereas authorization of payment service providers is subject to compliance with a number of prudential and regulatory standards and is needed by any operator intending to enter the market, designation of payment instruments only occurs when the Central Bank of Kenya (CBK) is of the opinion that a) the instrument is of widespread use and consequently may affect the payment systems in the country, b) the designation is necessary to protect the interest of the public, or c) such designation is in the interest of the integrity of the payment instrument. Designation implies subjection to those criteria that the CBK might decide in light of each specific case. The National Payment System

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money institutions against provisions that are more stringent than those applying to credit institutions, notably as regards the safeguarding of the funds of an electronic money holder".

[32] In fact the Central Bank of Kenya issued a no objection letter, but it was apparently agreed that this was not formally required: AFI Case Study, *Enabling mobile money transfer. The Central Bank of Kenya's treatment of M-Pesa*, *supra.*

Regulations, (2014) then elaborate on many issues, such as agents and cash merchants, outsourcing, interoperability, and risk management.

- It appears clear how the new regulatory framework of Kenya has turned from nothing into one of the most articulated regulatory systems in the world. It established, on the one hand, a general regime for payment service providers, which are defined as regulated entities, and subject to conditions that are meant to be consistent with those of banks in order to ensure a level playing field, and, on the other hand, a designation mechanism for systems and instruments that leave the CBK room for flexible solutions according to the concrete situation.

- Of course the question cannot be answered, whether, had the current regulation existed since the times when M-Pesa was launched, this latter product would have had the same penetration, or whether a more articulated scenario would have been produced by the entry of other competitors. In the same vein it is too early to judge how such deep reform could change the scenario, although it appears that Zein, the traditional M-Pesa competitor, is step-by-step acquiring some market share.

As for the relevant authority in charge of regulation, one final element emerges in the comparison of the above models of regulation. A "technology-based" approach (focused on instruments) would imply the central bank of the country was to be the regulator, since central banks are responsible, among others, for financial stability (either directly, or indirectly as the guardians of monetary policy). Since the use of technological innovation adds risks into the operation of payment systems, the central bank is required to oversee the results of innovation in order to mitigate such risks. A regulatory framework that instead requires the licensing of providers, also based on function, requires the determination of prudential standards and a specific attention not only to the activities provided, but also to the provider itself. As a result, in many countries choosing this second approach, the banking or financial supervisor, either alone or in cooperation with the central bank is the main regulator in charge. This determines a number of coordination and cooperation issues that will be discussed further on.

3.3. Pro-active Regulations for Financial Inclusion

The regulatory approaches that have been considered in the previous pages seem to be broadly based on the assumption that financial inclusion can be ensured by providing an enabling regulatory environment, where measures are taken by the relevant authorities to balance conduciveness to innovation and economic development against consumer (user) protection concerns (as it was synthetically referred to above, to reach "sustainable inclusiveness"). Following this logic, regulators of payment systems and services contribute to financial inclusion by holding the very same objectives of efficiency and safety that traditionally characterize oversight of the national payment system.

However, as was mentioned, financial inclusion has entered the agenda of both governments in general and, more specifically, the payment sector through central bank and banking supervisors, although under different patterns and levels of intensity according to each country:

a) Gradual measures to enlarge service providers and instruments, and lower regulatory constraints.

Colombia, *Brazil* and *Mexico* are specific examples among the many countries where central banks and banking supervisors take into consideration financial inclusion in the establishment of their general policies:[33]

The approaches followed by *Brazil* (Table IX) and *Colombia* (Table X) were to favor financial inclusion by adopting gradual measures of enlargement of service providers and instruments, on the one hand, and by lowering regulatory constraints, on the other. In both cases, following the successful implementation of the scheme of banking correspondents (non-banks providing some banking services, in particular related to payments, on behalf and in the name of banks), they moved to a system which allowed for direct provision of payment services by non-banks.

Mexico, on the other hand, has recently actively intervened to encourage financial inclusion. In 2011, financial authorities, including the Ministry of Finance (SHCP), the National Banking and Securities Commission (CNBV) and the Bank of Mexico, issued regulations that allow banks to establish schemes to facilitate financial inclusion via cooperation with non-banks. This regulation also allows users to open low-risk banking accounts remotely (via a phone call or the internet) with the provision of basic identification information. Such accounts have limits on monthly deposit amounts and may be linked to the user's mobile phone number, allowing the mobile phone to serve as a channel for payment instructions. The 2011 regulation was followed by new amendments and provisions regarding mobile payments, which were issued by Bank of Mexico at the end of 2013 (Table XII).

b) The combination of enabling regulatory measures conducive to innovation and modernization, and of more pro-active actions

[33] Among many, it is interesting to note the new policies by *China*. Indeed, in the 2013 China Banking Regulatory Commission (CBRC) *Notice on Improving Financial Services for Migrant Workers* it is stated: "*We should accelerate the establishment of a modern payment and settlement network that covers most rural banking institutions and promote the application of modern payment instruments such as online banking, mobile banking and telephone banking in rural areas. We should strengthen the publicity and education of financial knowledge for migrant workers and constantly raise financial awareness and enhance the capacity of using modern financial instruments and products*". See CGAP, *China: A New Paradigm in Branchless Banking?*, March 2014. To the same end, see Table XI for a summary of new policies in *Indonesia*.

The approach of RBI in *India* is much more pervasive than those just described. In particular, the RBI 2012-2015 Vision Statement for payment systems shows a combination of enabling regulatory measures conducive to innovation and modernization, and of more pro-active actions, directly intervening on specific aspects such as pricing. This was designed to address efficiency and safety as a main concern, yet also intervene when the market did not reach the projected goals. This is an articulated plan in which the continuous monitoring of partial results by the RBI is a key component (Table XIII).[34]

3.4. Some Initial Comparisons

A comparison amongst domestic regulations shows that, at least at first, national regulators tend to react to those market innovations that encourage financial inclusion. They do so by addressing technology issues, and by addressing issues linked to market structure, particularly in reference to regulatory standards for providers of payment services.

Those countries that only deal explicitly with the issue of technology still make a (conscious or unconscious) policy choice on market structure: either that of keeping the market closed to non-banks, through legislation which defines payment services as a banking activity, or by leaving it unregulated, through legislation that does not limit payment services to banks. However, experience shows that all countries tend to address the issue from both angles at some point, at least when the question of whether the raising of stored-value products amounts to deposit-taking activity is asked directly.

It also appears that consistent and effective regulation of innovative retail payment instruments would require the adoption of an articulated policy, which takes into account a wide number of interrelated issues to be addressed holistically. That type of advancement in regulation would mainly be the result of oversight culture and the implementation of efficiency and soundness as goals.

As said, such an approach would be broadly based on the assumption that providing an enabling regulatory environment would be the way to ensure financial inclusion, where measures are taken by the relevant authorities to balance conduciveness to innovation and economic development against consumer (user) protection concerns. Following this logic, regulators of payment systems and services contribute to financial inclusion by the very objectives of efficiency and safety that traditionally characterize oversight of the national payment system.

[34] For the sake of completeness, *Indonesia* reforms also include some more pervasive measures than those described in Table XI: some limits on charges to customers are imposed, service providers are obliged to open branches in the eastern part of Indonesia, and agents are ordered to partner with only one service provider.

However, current trends show that more and more central banks and regulators do not limit themselves to establishing an enabling regulatory environment, but pro-actively intervene to promote financial inclusion.

This means that regulation can have a stronger direct impact on market structure, and that the regulator can influence the pace of change and the predominance of one instrument or product (or category of) over the other(s). If the establishment of an enabling regulatory environment fundamentally aims at reducing regulatory barriers, then conversely regulation aiming at financial inclusion may also directly affect the shape of the market.

In this second case, instead of asking the question whether the authority should regulate the sector at all (and we answer in the positive so long as the aim is to ensure efficiency and safety), we would ask to what degree it has to intervene, and in which ways its action should impact the market.

4. Financial Inclusion within the More General Framework of Oversight

A further step needs to be taken in this more articulated context to fully evaluate the relevance and impact of payment regulation on financial inclusion. Also its interaction with the other pillars of public policy in payments, *i.e.*, financial integrity and financial stability must be taken into account.

4.1. Financial Stability, Financial Integrity and Financial Inclusion in Light of International Standards: Convergence towards a Risk-based Approach

The G20 Financial Inclusion Action Plan explicitly states that *"[f]inancial inclusion is not only an end in itself. It is also required for, and complementary to, financial stability and financial integrity. … In this context, the G20 notes the overarching and cross—cutting nature of financial inclusion*".[35] On the other hand, in terms of domestic policies, the RBI Vision Statement (discussed above), clearly highlights the need for financial stability and financial integrity in order to reach sustainable financial inclusion.[36]

It seems to be commonly understood by regulators therefore, that financial inclusion cannot be achieved without both financial stability, since only sound and strong institutions can promote financial inclusion in a sustainable manner, and financial

[35] P.2 sub Section 2. *Introduction and background.*

[36] This is developed in many other RBI Publications. In particular, this was widely articulated by H.R. KHAN in *Financial Inclusion and Financial Stability: Are They Two Sides of the Same Coin?*, *supra.* See also H. KHAN, *Issues and Challenges in Financial Inclusion: Policies, Partnerships, Processes and Products*, RBI Monthly Bulletin (August 2012)

integrity, since lack of financial integrity would impair the general public trust. This applies directly to the instrument, and indirectly to the national payment system as a whole.

Such an integrated approach would call for the adoption of a functional approach, which would in turn set the groundwork for a risk-based approach, in which each function is identified in order, then to be used to evaluate what regulatory parameters key activities fall under:

Functional approach: this approach would reduce the risk of regulatory arbitrage, which in turn distorts competition. Indeed, as already illustrated, since banks were traditionally the sole providers of payment services, non-banks – although at some point being permitted to provide the same kind of services - were often regulated in ways which were inconsistent with the treatment of recognized banks. This detracts from the establishment of a level playing field among providers of same services (with discrimination potentially occurring on both sides according to the specific context, as in the two cases of the EU and Kenya).

In addition, only a regulation based on the specific relevance and features of individual activities/services would allow for the concrete determination of the risks involved in each of them, and the actual role that each player is performing in a given situation.

Finally, this exercise allows us to compare very different and complex business models under common parameters since they can all be traced back to basic patterns.[37]

Risk-based approach: this approach would indeed derive from the traditional elaboration of risk under financial stability regulation (*recte*: oversight). However, a clear definition of risk would also assist in minimizing the impact of regulatory measures concerning the provision of payment services, since those aspects that bear no relevance to risk

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[37] A concrete example on how a functional approach can directly benefit financial inclusion comes from the EU: as summarized in the CPMI *Report on Non-banks in retail payments* (p. 31), the E-money Directive and the PSD cover only institutions with activities that involve customers' funds. Activities carried out along the payment chain without involving customers' funds are not yet regulated. After the PSD came into force, advances in technology and changes in user habits have resulted in new services being offered by unregulated entities. In particular, as-yet unregulated third-party providers have provided users with account information or payment initiation services by means of online access to their payment accounts. To bring such services and providers under the scope of the PSD, a proposal for review was issued in July 2013, requiring third-party providers to be licensed and supervised as payment service providers, whether or not their activities involve customers' funds at any time. Specific provisions establish the conditions and requirements on which third-party providers may access information on payment accounts, and the respective liability of third-party providers and account servicing payment service providers in the case of unauthorized transactions. An accurate functional approach would exactly identify the services described above and allow for evaluation as to what extent these would need to be regulated, and under which standards.

could remain potentially unregulated, unless other policies intervene (but in that case a risk-based approach would make it clear that autonomous policy goals were being targeted).

In addition, risk profile can change when dealing with non-banks as opposed to banks, and a specific methodology might therefore permit a better assessment of behaviors in a modified scenario, as is the one now shaping the payments sector.[38]

Finally, risk analysis has become quite articulated over the course of years, and expanded to include categories such as reputational risk, which bears an extremely relevant role in financial inclusion and public trust. On the other hand, legal/regulatory risk is also part of the assessment, which allows for a concrete evaluation of economic and social consequences of regulation (and contributes to an assessment of under- or over-regulation in a specific situation).

Within this context, and starting with the knowledge that non-banks may offer their services at all stages of the retail payments process, the 2014 CPMI *Report on Non-banks in Retail Payments* established a grid of functions to try and identify the role of non-banks in each stage (Table XIV). The fact that non-banks proved, in the fact-finding exercise which underlies the report, to be actively involved in each of the described functions (although to different degrees) would seem to confirm that these have business autonomy, and can consequently be treated separately, at least as a first assumption.

The grid offered by the Report is the most recent international collaboration of regulators comparing their domestic experience. It was drafted to keep in mind the exact interconnections between the traditional thinking and standards for financial stability, on one hand, and the regulatory needs for financial inclusion, on the other. This grid should be considered a concrete benchmark for the consideration of common parameters and also more general evaluations of regulatory standards for financial inclusion as applied in the payment sector.

On the other side, the 2013 Guidance by Financial Action Task Force (FAFT) study on a risk-based approach for pre-paid cards, mobile payments and internet-based payment services shows how the same rationale is currently applied to the formation of regulatory standards for financial integrity in those cases where they have to interact and find a balance with financial inclusion stances, since these specifically draw from both the 2013 FATF *Guidance on Anti-Money Laundering and Terrorist Financing Measures and Financial Inclusion* and the G20 *Principles for Innovative Financial Inclusion* (Table XV). The main goal of the taskforce is to elaborate on a method by

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[38] See also AFI, *Mobile Financial Services – Regulatory Reporting, supra* ; AFI, *Mobile Financial Services – Supervision and Oversight of Mobile Financial Services* (February 2014); AFI, *Mobile Financial Services – Consumer Protection in Mobile Financial Services* (March 2014).

which the needs for financial integration can be balanced with those of financial inclusion, which is done by proposing a risk-based approach.

In particular, the 2013 Guidance for a Risk-based Approach involving innovative payment instruments offers an analysis of risk factors and risk mitigation measures, and of the impact of regulation on the market:

- Risk factors:
    i. Non-face-to-face relationships and anonymity;
    ii. Geographical reach;
    iii. Methods of funding;
    iv. Access to cash;
    v. Segmentation of services.

- Mitigation measures:[39]
    i. Customer Due Diligence;
    ii. Loading, value and geographical limits;
    iii. Sources of funding;
    iv. Record keeping, transaction monitoring and reporting.

Within the context of weighing risk factors on one side, and mitigation measures on the other, the FATF Guidance paper then reflects on the need to monitor how regulation may affect the market. In particular, countries should seek to ensure that AML/CFT regulatory measures remain in proportion to the ML/TF risks associated with the innovative payment instruments. They must also ensure that the regulatory regime does not unintentionally, or unnecessarily, have a negative impact on the operation of existing products, nor should they limit the development of new products. The recommendation is to consider not only the impact of regulation on the payments market, but also whether such regulation would impact financial inclusion.

The risk analysis and the identification of mitigation measures of the guidance paper are AML/CTF-specific. However, as such the approach and the methodology (which is based on a functional approach as a condition to a risk-based approach) can be transposed. In addition, the exercise shows a fruitful balancing of stances pertaining to financial integrity and financial inclusion.

Finally, the two together, the 2014 CPMI Report on Non-Banks in Retail Payments and the 2013 FATF Guidance, show a communality of approaches and an underlying understanding of the payments sector as a unified entity, which is to be considered

[39] A Risk Factors Matrix is finally provided combining risk factors with risk mitigation measures: Table 1, p. 19.

holistically. This leads to the consideration that these reports should be used as a guiding measure concerning financial inclusion for an inclusive concept of *oversight*.

4.2. Allocation of Regulatory Responsibilities and their Coordination

On the other hand, this holistic and integrated approach leads to the question of which authorities should be responsible for establishing relevant policies and adopting consequent regulations.[40]

The regulatory stances described in the previous pages concerning innovative instruments potentially touch upon the competence of many different regulators:

First, responsibilities may vary according to the regulatory approach being followed in a specific country. As already mentioned, if innovation is tackled by regulating the instruments themselves, this is usually recognized as the domain of the Central Bank within its role of payment systems overseer. If, on the other hand the regulatory framework is based on regulation of the service provider, its oversight/supervision might become the responsibility of the Banking Supervisor (or the Financial Supervisor, according to the institutional organization of the country). When the Central Bank is also the Banking Supervisor, the issue will only be internal, as far as which department is accountable. The risk, however, is that in regulatory contexts characterized by fragmentation, competences are shared or differently allocated according to the specific instrument. In a situation where authorization or licensing is required for both the provision of payment services and the issuance of a payment instrument, it might easily be that the same entity is regulated by two different authorities, such as the Banking Supervisor due to its role as payment service provider, and the Central Bank under its role as an issuer of a payment instrument.

The issue is, however, more complex in the event that the non-bank providing payment services is not regulated as a financial institution. In this case there may instead be regulation by the telecom authority. More often, they are subject to double regulation and oversight, both by the Central Bank for its payments activities and by the telecom operator for its management of the communication network or provision of voice services.[41]

In order to avoid any potential conflict or inconsistencies in situations where multiple authorities have regulatory powers over the same entity, or where their powers partially overlap but their objectives stay independent, authorities usually stipulate memoranda of understanding. Many examples are available in all regions.

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[40] See Table XVI for how this issue is addressed in international Reports and Principles.

[41] A comparative analysis can be found in World Bank, *Innovation in Retail Payments Worldwide: a Snapshot - Outcomes of the Global Survey on Innovations in Retail Payment Instruments and Methods*, October 2012, p. 45.

At least one situation needs specific consideration to definitively understand the dynamic allocation of competences and cooperation. In instruments based on technological innovation, it may be a complex task to identify which specific authority a certain situation should be delegated to. Reference is made in particular to security of communication networks, on one side, and communication tariffs, on the others:

- In the EU, the ECB issued *recommendations for the security of internet payments* in 2013. In November 2013 it then issued a further recommendation for the security of mobile payments for public consultation. Finally, in 2014 recommendations for the security of payment account access services were published. Similarly, the *Turkey* Banking Regulation and Supervision Board has adopted the *Communiqué on Information Systems Management and Supervision on Payment Institutions and Electronic Money Institutions*. In both cases, the Central Bank has issued measures for the security of underlying communication networks and their tariffs.

- In April, 2012, the Telecom Regulatory Authority of India (TRAI) issued the *2012 Mobile Banking (Quality and Service) Regulations*. This prescribed standards for quality of services for mobile banking, to ensure faster and reliable communication in order to enable banking through mobile phones. This is one of the first direct interventions by a telecom agency into the payment sector. It is also a clear attempt to use regulatory powers in the telecom arena to address issues related to the safety and efficiency of the payment sector. Within this context, TRAI issued measures to ensure high availability of associated communication services. Since mobile banking consists of banking transactions and the use of mobile networks through mobile phones by the customer for such transactions it depends entirely on the capability of the mobile network to deliver a fast, reliable and cost effective method of communication. Inbuilt audit trails and desired levels of security for transmission, were also deemed important by TRAI. It can be seen that the regulatory functions of the TRAI and its powers are clearly oriented towards policy issues related to safety and efficiency of payment systems and services, and also take into account their consequences on financial inclusion (Table XVII).

The concrete allocation of responsibilities among regulators would depend solely on the institutional framework of a country. However, many advocate for the central bank to play the main role of overseer of payments. Without disregarding the specific abilities of each authority and its policy objectives, the rule should be that the Central

Bank maintains the task of integrating and balancing all such policy objectives, in order to find a middle ground between the stances of all other regulators.[42]

4.3. Lessons to be Learned from the Most Recent Examples of Legal and Regulatory Reforms to the National Payments System

Many countries have recently begun to consider the national payment system as an autonomous concept which deserves a holistic approach and consistent oversight policy. These are mainly developing countries trying to build a solid regulatory framework, which makes them apt to address most of their concerns regarding relevant policies while remaining consistent with international standards and international best practice. Notwithstanding the differences that distinguish each of them in terms of size and characteristics, some basic features seem to be shared:[43]

- *National Payments System Law.* A recent trend of countries adopting a general law on the national payments system can be seen. This includes all aspects of the payments industry, from operators, to systems, to instruments and services.

- *Oversight functions of the Central Bank.* Such a statutory act would also expound upon the *oversight* of the national payment system, always allocating such tasks to the Central Bank. Oversight in these cases would not only include entry-standards (usually a licensing or an authorization mechanism), but also on-going monitoring and the establishment of oversight strategies.

- *Central Bank intervention in the market.* The Central Bank would also be permitted to have a pro-active role in the national payment system when needed.

- *Financial inclusion as one of the Central Bank objectives.* Very often, the statutory act would also include consumer protection and financial inclusion among the functions of the Central Bank.

Within such a context, a functional approach can be established which follows an *ex-ante* approach:

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[42] See WB, *Developing a Comprehensive National Retail Payments Strategy*, 2012.

[43] The new legislation of *Kenya* (2013) has already been commented on. See also *Seychelles*, *National Payment System Act*, 2014; *Papua New Guinea*, *National Payments System Act*, 2013; *Kosovo*, *Law on Payment System*, 2013; *Bangladesh*, *Payment and Settlement System Regulation*, 2013. The latter is much more lengthy and detailed than the statutory acts adopted by the other mentioned countries, because of the different nature of this country's legal tradition. However, main content of the Act and policy lines are consistent with the others. On the other side, Kosovo has adopted legislation structurally similar to that of EU countries (as it is often the case for Eastern European and Balkan countries), which is still very closed to the model described here. Finally, many other countries are in the process of adopting analogous statutory acts.

- The Central Bank often gives an authorization (or a license) to any entity intending to provide payment services, provided that they satisfy relevant standards.

- Such standards are founded on a risk-based approach, but also take into consideration protection of users (and their funds), data protection, market access and competitiveness.

- Payment service providers are those entities that provide payments, under a general definition, and also serve the basic function of intermediation in transfers of money.

- Beyond the authorization given to the provider, *oversight* is also executed on activities. Since prudential requirements also need to be imposed under some circumstances, the burden of supervision falls to the Banking Supervisor.

- Oversight and supervision stances are usually combined by way of cooperation amongst the two entities (sometimes also leading to a joint authorization).

Notwithstanding the described *ex-ante* approach (broadly applied), legislation usually only establishes high-level standards, while relegating the power to adopt all relevant secondary measures necessary to implement the National Payments System Act to the central bank, and leaving it a high degree of flexibility:

- This high level of flexibility permits to the central bank to adjust its policies according to the developments of the market, up to and including the establishment of standards and conditions for specific situations.

- In addition the central bank usually operates with the assistance of an advisory committee consisting of all stakeholders in the market. The goal of this committee is to adopt shared decisions and to allow all interested parties to assess its policy directly.

- The statutory act also grants the power to undertake all necessary means of cooperation with regards to all other relevant authorities, and to permit articulated cooperation and joint policies to the central bank. The role of the central bank as the primary authority responsible for the general *oversight* of the national payment system would thus be declared by law and exercised by way of MoU and other forms of cooperation.

- This high degree of flexibility would also permit the central bank to assess the impact of its own regulation on the market and consequently dose its measures to realize an enabling regulatory environment. This would limit its impact on business choices, while maintaining the chance to adopt a more pro-active approach when deemed necessary (such as for incentivizing financial inclusion).

Of course this legal and regulatory structure does not affect the concrete policy choices and regulatory standards to be adopted. Within such architecture we still have interesting examples of regulation of retail payments, jointly combining financial inclusion, financial stability and financial integrity:

- In *Jamaica,* the Bank of Jamaica (BOJ) has recently issued the 2013 *Guidelines for Electronic Retail Payment Services*, in accordance with the 2010 *Payment, Clearing and Settlement Act*, under which the BOJ holds responsibility for oversight of the national payment system. Objectives of the Guidelines include financial inclusion, as well as the fostering and maintenance of public confidence in electronic means of payment and subsequently cover any electronic retail payment service in order "*to promote consistency of treatment for all electronic retail payment services*" (*i.e.*, following an *ex-ante* approach, or in any event, an approach based on a functional definition of electronic payment service)

- The general oversight standards established by the BOJ correspond to the main risks and issues mentioned in the course of this paper. They cover financial inclusion, financial stability and financial integrity (Table XVIII). However, to a great extent such standards are established as high-level principles, to be evaluated by the BOJ on a case-by-case basis. The concept is that the market is left free to choose whatever business scheme and cooperation agreement it prefers as long as it can convince the BOJ that the scheme satisfies the standards. Once the subject responsible for each detected risk is clearly identifiable, it will be able to operate under BOJ authorization (and further monitoring of its activities).

- Although these Guidelines have been in force for less than two years, and before their adoption there was legal uncertainty as to whether non-banks could provide electronic retail payment services, these measures seem to foster a smooth development of innovative instruments and their satisfactory penetration in the country, including less developed areas.

4.4. Some Benchmarks

Both the international standards for financial stability and financial integrity tend towards consideration of the role of financial institutions as the basis of their functions. This implies that the focus is concentrated on activities rather than the institutional characteristics of an entity providing payment services. This consideration also leads to a risk-based approach, since every function is considered and then regulated for the risks it might present for the market.

A risk-based approach also helps to qualify a measure in terms of proportionality. Regulation shall be deemed to be proportionate once it limits itself to those requirements that are needed to mitigate the relevant risk.

Financial inclusion is not just a matter of risk. However, it has been stressed that financial inclusion can only fully produce its effects in an environment of confidence and stability, allowing the population to rely on new products and services. As a consequence standards concerning financial stability and financial integrity would play a relevant role in the evaluation of the regulatory environment of payments which further financial inclusion.

In addition, a functional approach seems to be of help in promoting a clear understanding of the roles of each player in the market, and consequently identifying who could be better placed to act in the interest of financial inclusion. Indeed, the most recent thinking of international bodies, as described in the 2013 FATF Guidance and the 2014 CPMI Report, use those conceptual parameters to evaluate trade-offs between financial inclusion and financial integrity and financial stability, respectively.

A functional approach for the identification of players and their role in the performance of all relevant activities in the market seems to have been effectively combined, in some countries, with an articulated regulation of instruments where an *ex-ante* approach provided general definitions on the basis of the economic functions of a product. This was mitigated by the power granted to the central bank to implement regulation with some flexibility on a case-by-case basis. This combined approach balances the pros and cons of the two (*ex ante* and *ex post*) approaches.

Oversight of central banks and their interactions with other relevant authorities for the purpose of financial stability and financial integrity can also work as a benchmark for allocation of responsibilities. When considering financial inclusion, it clearly emerges that none of the described policies can be fully implemented by a sole authority, and objectives need to be attained under joint efforts.

Regulatory Standards for Financial Inclusion

5.1. General constraints

Tailor-made regulation. Every country needs tailor-made legislation and regulation according to its concrete financial inclusion needs, the structure and maturity of the market, its size and main economic and social features, as well as its institutional and regulatory tradition.

Needs of developing countries. Developed countries have specific needs for financial inclusion, since they have a wider banked population and can thus often tackle the issue by way of action focused on specific sectors. Consequently, they potentially obtain financial inclusion as a sort of by-product of efficiency. The situation may be different for countries where the percentage of unbanked population is rather high, and where consequently financial inclusion would need special attention and pro-active measures.

Differences according to regions... In this second case, regulatory approaches might also strongly differ according to the specific structure of the country or the region: Latin America, as well as India and other Asian countries traditionally have a strong and quite widespread banking system. In these countries, financial inclusion has been primarily driven by this sector. In African countries, where in contrast, MNOs reached a penetration for voice services that greatly surpassed that of banks, financial inclusion was mainly served by this market sector.

…and to institutional framework. Regulation would thus follow such social and economic patterns, and also adapt concrete tools to the pace of the relevant context. In addition, regulation would depend on the country's legal tradition: while common law countries would easily accept a model where the regulator disposes of wide autonomy in taking regulatory decisions, in other countries with a very articulated administrative system, it is more likely that general rules would be established with more limited powers relegated to authorities.

High-level recommendations can yet be made. The above general constraints need to be kept in mind during any consideration of possible recommendations for payment system regulation aimed at improving financial inclusion. In addition, regulatory stances for financial inclusion in payments need to be evaluated within the wider framework of regulatory stances for the retail payments sector, since services to the poor cannot be insulated from development of the overall payments infrastructure which serves the whole community. However, the articulated experiences that have been described and commented on in this paper could still lead to a number of high-level principles.

5.2. How to reach sustainable inclusiveness

Convenience

Supporting innovative payment instruments. First, innovative payment instruments and services must be supported and incentivized. It has been proven that these are, in principle, very effective in reaching out to the un-banked population and can be conveniently used to transfer small amounts of money.

Adopting a technology-neutral approach and ensuring a level playing field by avoiding regulatory arbitrage. To do so, regulation must not be driven by specific technologies, nor be biased towards one. For instance, electronic payment instruments should be regulated as a whole rather than mobile payments in particular, since it is understood that these have common features that could be generally addressed. Stored-value products, in comparison, would require additional regulation as far as management of users' funds. This approach would also foster a level playing field and avoid regulatory arbitrage.[44]

Maintaining flexibility: a combination of the ex-ante and ex-post approach. To implement general principles on a wider scale and still allow for some level of flexibility to address individual features or peculiarities, it is advisable that a combination of *ex-ante* and *ex-post* approaches be selected. This could lead to the statutory adoption of general principles while leaving the regulator some level of flexibility to implement them according to the specific features of a product and the development of the market.

Adopting a functional approach. In order to identify the general principles which are applicable to individual functions, activities and services must be separately identified. This is done by following a path such as that suggested by the 2014 CPMI Report on non-banks in retail payments.

Ubiquity

Supporting alternative distribution channels. Second, ubiquity of such instruments should be favored. To reach such a goal, alternative distribution channels (as opposed to traditional bank-branches or agents) should be incentivized, as has been the case for so-called "banking correspondents". Requirements for these channels would not only be that these non-banks should already be performing commercial activities in a specific territory, but also that these new players would use electronic devices and new technologies to execute money transfers and other related services (such as cash in/cash out).

Avoiding a piece-meal approach. In this case, regulatory arbitrage must also be avoided, and a level playing field guaranteed. This would require that individual functions and activities be identified and consistently regulated, in particular avoiding any piece-meal approach.

Recognizing the role of the processing, clearing and settlement infrastructure. Ubiquity also requires that an adequate infrastructure exists in the country in order to process, clear and settle transactions and allow different systems fair and open access. Innovative retail payment instruments must be fully integrated into the national payments system to allow the user the possibility of using any instrument they wish, since they are potentially interoperable.[45]

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[44] See M. Cirasino & M.C. Malaguti, *From Remittances to M-payments: Understanding "Alternative" Means of Payment within the Common Framework of Retail Payments System Regulation*, Financial Infrastructure Series Payment Systems Policy and Research, World Bank 2012

[45] The question of how to clear and settle is primarily left to the market. Because of technology, digital transactions are executed in real time, which is something that is highly desirable. However, while this occurs

Trust

Eliminating legal uncertainty. Third, convenience and ubiquity would not be sufficient unless trust is also ensured. For this, any form of legal uncertainty needs to be eliminated and instruments and services regulated under a risk-based approach. The functional approach proposed above would be the best to identify risks and establish mitigation instruments, as it is presented in the 2013 FATF Guidance on Anti-Money Laundering and Terrorist Financing Measures and Financial Inclusion (point 41 above).

Managing trade-offs between convenience, ubiquity and trust

Adopting lighter standards for low-value services. Convenience, ubiquity and trust present trade-offs, which need to be addressed. In light of the small amounts carried in innovative stored-value, some general oversight standards might be lowered and regulatory burdens lightened. This is now generally accepted as far as AML or KYC requirements, where a distinction is usually made between regular and non-regular clients of a service provider, or according to the number and/or value of transactions, as well as in terms of access regimes (different capital requirements or entry requirements, up to request of sole registration).

Adopting alternative regulatory requirements to aid flexibility. Alternate regulatory requirements can also be established to balance the lowering of oversight and/or regulatory standards. In the case of stored-value products, users' funds are protected by a number of alternative measures that also permit reduction of capital requirements for institutions which only provide payment services. Experience shows that a regulator, using a combination of tools within the above advised flexible approach to implementation of general standards, would better fit individual situations.

Regulatory approaches better servicing inclusion

Preference for a regulated market open to any authorized provider. Finally, the functional approach recommended above should also be extended to payment service providers.

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between payee and payer, it does not mean that the transaction is also executed in real time with the banking (payments) sector, since it is up to the individual service provider to decide whether to settle on a net or a real time basis. In that respect this will be part of the national infrastructure for clearing and settlement and be subject to general policies.

Similarly, while there is a clear public interest to have a RTGS run by the Central Bank, since this system is also used for monetary policy, no such motivation exists for retail. As a consequence, there is a tendency to have these systems run by the private sector. However, when the market is unwilling or unready to build the relevant infrastructure, it may be necessary for the public sector (usually the Central Bank) to build one, preferably in cooperation with the private sector. When this occurs, the Central Bank often privatizes the system in a later stage.

As a principle, the public sector should only intervene when there is a market failure, since its role is better served as that of a regulator/overseer than operator.

In principle, it is advisable to permit provision of payment services to any entity that has obtained an authorization from the regulator. Once the provider satisfies all oversight requirements imposed by the regulator, they can provide the relevant service. Such an approach would permit any entity willing to provide the mentioned services to do so, with the condition of due regulation and oversight by the responsible authority.

Experience shows that there are satisfactory alternative regulatory frameworks. Some countries have chosen to follow a different approach, and only open some activities to non-banks, usually as agents of banks. This scheme has permitted cooperation between banks and non-banks and has been proven to serve financial inclusion well. However, it must be noted that all countries which chose this approach, besides all being countries with a widespread banking system that would permit such an approach, have in fact adopted this as a temporary measure and have subsequently permitted a wider number of services to non-banks. Therefore this was not a final policy choice, but the implementation of a step-by-step approach.

However, such alternative approaches have some limits. Two shortcomings can yet be seen in that latter approach: on the one side, a step-by-step approach makes it more difficult for new entrants to acquire market shares against the incumbent. On the other side, the regulator might be predisposed towards granting supervision or oversight tools only to the bank (as the only regulated entity), whereas activities involving relevant risk are instead performed by the non-bank as an agent (or often by way of outsourcing).

Advantages of an open yet regulated market. In contrast, a more open approach would permit the market to choose the business schemes they prefer, with the consequence that market structure would be the result of business decisions and not of regulation. In addition, of course, this approach could also be mitigated, and specific activities only permitted to a specific entity if they are deemed to be in the general interest of the market.[46]

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[46] For instance, clearing and/or settlement activities can be allowed to only specific entities. In that case, access rules to systems must be carefully scrutinized: rules for access should be left to the payment system managers, since these are a business matter. However, these rules should be objective, non-discriminatory and proportionate, andnot inhibit access more than is necessary to safeguard against specific risks and to protect the financial and operational stability of the payment system. As a benchmark, payment systems should not impose on payment service providers, users or other payment systems any of the following requirements: a) any restrictive rule on effective participation in other payment systems; b) any rule which discriminates between authorised payment service providers or between registered payment service providers in relation to the rights, obligations and entitlements of participants; c) any restriction on the basis of institutional status. The requirements above are imposed by regulators, for the purposes of efficiency and market competitiveness since financial inclusion is not directly linked to criteria for accessing systems. However, these are of great importance to the efficient working and competitiveness of the sector, which is one of the milestones which marks an environment conducive to financial inclusion.

An open-yet-regulated market to better permit free market choices in regards to business models. The proposed regulatory approach would also answer the question of whether "transformational" versus "additive", or "balance sheet expansion" versus "money-transmission" models should be favored. The choice of product selection would be left to the market, since regulation would, in principle, not be biased towards any of these.[47]

Why the market should not be left unregulated. Leaving the sector unregulated, on the other hand, would hamper the trade-off between convenience, ubiquity and trust which is essential to sustained uptake of clients.

5.3. How pervasive regulatory intervention should be

The establishment of an enabling regulatory environment as a benchmark ... Regulation of the market must lead to an enabling regulatory environment. As a consequence, regulation should be proportionate and regulators should avoid both under-and over-regulation.

… *and maintaining proportionality.* In addition, if the functional approach recommended above is applied, any piece-meal approach is inherently avoided, since like-activities are treated alike. To the same extent, if reasons for regulation are clearly identified (as for risk-based approach), proportionality is easier to maintain.

Still, there is room for more intrusive measures which would benefit financial inclusion. Whereas the general principle is that regulation should not influence the direction of the market, and should consequently leave it free to the possible maximum extent, financial inclusion might require more pervasive policies. For instance, to guarantee lower prices and access to products for potentially all consumers, or ensure that the financial sector accepts responsibility, at least partially, for qualified misconduct on the part of the user in order to incentivize the latter's use of the instrument. This method is often employed to support the use of electronic payments, by reducing the responsibility of the user in some cases of a mistake or fraud.

The need for a clear statement of vision for financial inclusion in payments. Limited regulatory intervention should remain the rule in this case, and proportionality should be

[47] Concerning the fact that a merchant might be incentivized to receive payments through one payment product or channel in lieu of another due to the direct costs of each , the general policy should be that the customer should be free to use any means of payment they wish. A general standard could thus be imposed upon merchants so that they cannot refuse payment solely on the basis that it is executed through use of a specific product or channel. A more specific issue is whether a merchant could be permitted to surcharge the final user for the use of a specific instrument: this would indeed amount to a form of dis-incentivization of an instrument, but its solution is much more controversial. In the EU, prohibition of surcharge has not been imposed as a rule, but has been linked to the capping of interchange fees for card-based transactions.

carefully evaluated. However, as a general benchmark it would appear that negative effects of more pervasive public intervention can be mitigated if, as was the case in India, the regulator adopts a clear statement of vision where it indicates its short- and long-term objectives, and applies these within its usual oversight tools, *i.e.* through a constant dialogue with the market.

5.4. Financial Inclusion within General Oversight

A holistic approach

There is no financial inclusion without a sound and efficient payment system. Financial inclusion cannot effectively be reached unless it can be integrated within a wider vision of development and continuous upgrading of the national payment system. In fact, it could even be stated that financial inclusion is a by-product of efficiency and soundness of the national payments system, although corrective measures might be needed in cases where it would not be economically convenient for the market to reach all members of the relevant population.

Any decision that benefits financial inclusion should be made in accordance with the general policies of oversight, and these should be made while bearing financial inclusion in mind. In addition, financial inclusion, financial integrity and financial stability are strictly interconnected, and respective standards need to be balanced and consistently evaluated. As a consequence, it would be advisable that any decision concerning the benefit of financial inclusion be made in accordance with the general policies of oversight of the Central Bank, as well as the Central Bank considering financial inclusion among its goals.

Flexibility

An approach with a combination of general measures and flexibility in its implementation is recommended for oversight in general: this would also address the needs of financial inclusion. Within such a context, the described approach of adopting general measures that contain high-level principles (*ex ante* approach) and of implementing acts by the overseer according to the concrete product and/or situation (*ex-post* approach) would also lead to a better adoption of financial inclusion policies. The drafting of a Vision Plan would allow for transparency regarding policy targets as well as short- and long-term objectives. This makes it more acceptable for the overseer to maintain some level of flexibility in adopting specific measures according to circumstances. The described functional, risk-based and technology-neutral approaches that apply to oversight in general would perfectly fit the need of financial inclusion.

Managing trade-offs between objectives

Combined measures to ensure a more flexible approach. Indeed, it is imperative that there be a global understanding of the national payments system whenever enabling regulatory measures conducive to efficiency and stability are used in combination with more pro-active actions specifically adopted to achieve financial inclusion.

Pricing and interoperability. In more detail, measures on pricing, such as those adopted by Australia, have been criticized as wrongly affecting competition in the market, much like measures on interoperability potentially could. However, these measures might still be legitimate under certain circumstances and their validity could be determined based on their scope and context.[48]

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[48] The issue of pricing needs to be diversified in terms of cost to users, on one hand, and interchange fees, on the other (the latter not being directly connected to financial inclusion). As for pricing for users, price conditions need to be transparent and actual fees kept as low as possible to enhance the use of digital payment instruments. However, it is often stated that pricing should be an issue that is left to the market to decide, since this component is extremely relevant in business choices. In a competitive environment, providers will compete on pricing, giving them an incentive to lower theirs to expand the scope of their clients. As a consequence, the real issue is to avoid collusion in the market or abuse of dominant positions, which may affect free business choices and bar new entrants. As a general benchmark, it can be said that pricing policies should be in line with the payment service provider's actual costs for provision of the services. However, since the unbanked population often resides in remote areas it is not ready to pay high fees for payment services,especially since the money it transfers is usually of extremely low value. It might be that the product ends up unprofitable if it is not subsidized some way, or unless costs are covered by the operator through other means. To avoid scarcity of diffusion of a product in remote areas because of untenable fiscal goals, the regulator might have to construct a much more articulated competition and pricing policy that permits mechanisms for recovery of losses or offers incentives.

Interoperability should be a cornerstone in financial inclusion, since this ensures that transfers can be executed independently from the communication network and the PSP used by the users. Also, this would facilitate the alternative use of different access devices at the same entry point, and processing of different instruments within the same platform. However, interoperability may occur at different levels; as a consequence, the real issue is not whether interoperability should be guaranteed, but to what extent and at what levels in the chain. In this respect, the needs for financial inclusion and efficiency have to be balanced against proprietary rights to technology and IP, as well as protection from risk.

Tables

TABLE I - EUROPEAN UNION 2000 E-Money Directive
The first version of the E-Money Directive, as adopted by the EU in 2000, is an example of "ex-ante approach". In hindsight, however, this measure turned out to be a barrier to innovation by setting overly strict legislative hurdles. Consequently, the directive was revised in 2009 to allow for less stringent requirements. One of the declared aims of the 2000 E-Money Directive was to regulate the matter in order to avoid hampering innovation because of lack of legal certainty. However, when the EU Commission assessed its application in 2005, it received confirmation that the e-money market had developed more slowly than expected, and was far from reaching its full potential: certain restrictions and requirements imposed by the Directive, and, in some cases, their national implementation and interpretation were likely to have hindered the development of the market at least to some extent. In addition, legal uncertainty as to the applicability of the Directive to certain business models had restrained the development of certain products. Although the overall EU approach was thus commendable, too strict requirements and some loopholes in definitions not only did not support innovation, but somehow hampered it. (See EU Commission Staff Working Document *on the Review of the E-Money Directive*, SEC (2006) 1049, 19 July 2006)

TABLE II

INDONESIA

In 2009, the Bank of Indonesia (BOI) issued a regulation on electronic money (Bank Indonesia Regulation 11/12/PBI/2009) recognizing that the previously issued regulations on pre-paid cards would need to be upgraded: "*considering (a) whereas development of means of payment in the form of electronic money previously regulated as a prepayment card is not only issued in the form of a card but has also developed in other forms, … (c) whereas to improve the uninterrupted flow and security for all parties in maintaining electronic money it is deemed necessary to have a more comprehensive regulation*".

In parallel, legislation and implementing BOI regulations had been issued on Funds Transfers (Law No. 3 of 2011 and BOI Regulation No. 14/23/PBI/2012).

To realign these instruments, very recently BOI also issued a regulation amending that on electronic money of 2009, "*considering whereas the provisions on electronic money need to be aligned with the provision of fund transfers*" (BOI Regulation 16/8/PBI/2014 as of 8 April 2014).

One of the reasons for these reforms is that, despite BOI recognized past advanced approach towards e-money, permitting issuance of e-money products to both banks and non-banks since long, none of them, either banks or non-banks, had developed branchless business models that would satisfy the needs for financial inclusion.

Indeed, one of the limits seemed to be that BOI would not permit banks to provide financial services through agents (other than limited payment services for existing customers in regions that are already serviced by a bank's branch), and that restrictions equally existed on non-banks' use of agents, including the requirement that any agent offering money transfer or cash withdrawal services be licensed as a money transferor.

These restrictions and differentiated regulatory treatment were considered to limit the ability to achieve the necessary scale to make a low-value transaction business sustainable (CGAP, *Update on Regulation of Branchless Banking in Indonesia*, January 2010), and consequently financial inclusion.

Indeed, in the above-mentioned 2014 Regulation amending regulation on e-money to make it more consistent with that on funds transfers, express mention is made to financial inclusion: "*whereas to support inclusive finance, it is necessary to expand access for the community to obtain financial and payment system services by increasing the use of electronic money as one of the instruments in digital financial services*".

BOI path shows a step-by-step approach where at some point the regulator realized that in order to obtain the most from innovation in terms of both efficiency and financial inclusion, it had to consider the retail market as a whole, reduce possible regulatory barriers and guarantee a level playing field.

TABLE III

INDIA

The Payment and Settlement System Act, 2007 recognizes to the Reserve Bank of India (RBI) the function of regulating and supervising payment systems (Law No 51 of 2007).

The Indian Law has a broad definition of a "payment system" as including every elements of a system to enable to effect payments from a payer to a beneficiary, and expressly includes credit cards, debit cards and smart card operations, as well as credit transfers and money transfers in general. Specific provisions are established for "electronic funds transfers", including POS transfers, ATM transactions, direct deposits or withdrawal of funds, as well as transfers initiated by telephone, internet and card payments.

Within these competences, the RBI has progressively issued instructions on credit, debit and co-branded pre-paid card operations of banks, which apply to all scheduled commercial banks, with the only exception of regional rural banks.

Every 1st of July the RBI issues a so-called Master Circular containing the consolidated text of all instructions issued up to that moment. The most recent instructions on this matter are those contained in the *Master Circular on Credit Card, Debit Card and Rupee Denominated Cobranded Prepaid Card operations of Banks*, July 1st, 2014. These contain, for each type of card, a number of requirements in terms of fair practices, interest rates, protection of customers' rights, internal controls and monitoring systems.

However, in the first place, no need for a prior approval is required for banks willing to issue a new card product. In the second place, some differences exist in the regulation of the different kinds of cards: as for debit cards, banks may issue only online debit cards, including co-branded cards where there is an immediate debit to the customer's account and where straight through processing is involved. Security and risk mitigation management provisions only exist for this kind of cards. In case of co-branding, which is permitted with financial and non-financial institutions, the role of a non-bank entity is limited to marketing/distribution of the cards or providing access to the cardholder for the goods and services that are offered. Moreover, the card issuing bank would be liable for all acts of the co-branding partner (which is considered as a form of outsourcing).

The RBI has also separately issued instructions for mobile banking transactions, applicable to all commercial banks, including regional rural banks, as well as cooperative banks. However, only banks that have implemented core banking solutions are permitted to offer the service, and only after obtaining necessary permission from the RBI. Technology and security standards are imposed, interoperability made compulsory (the service "*should be network independent*"), and a never-stopping clearing and settlement infrastructure put in place (this also subject to a prior authorization by RTI). Although non-banks are not allowed to provide the service, these can play the role of business correspondents if these comply with the relevant instructions.

Finally, the RBI has issued for the first time guidelines on issuance and operation of pre-paid payment instruments in India in 2009 (i.e., e-money under the terminology of the above mentioned cases of the EU and Indonesia). These have been substantially revised in Spring 2014, and have a much broader scope than the regulatory instruments addressing credit and debit cards, or mobiles: in the first place, the definition of "*pre-paid payment instruments*" includes all value-stored products, irrespective of the technology used (cards, internet accounts and wallets, mobiles). In the second place, it covers banks and non-banks and establishes general eligibility criteria and basic conditions for operation.

However, some limits still remain, since whereas banks are permitted to issue all categories of pre-paid instruments, non-banks would be permitted to issue only closed and semi-closed system payment instruments. Moreover, only those banks which have been permitted to provide mobile banking transactions are permitted to launch mobile based pre-paid payment instruments. Finally, some products are only permitted to banks, such as pre-paid instruments issued to Government organizations for onward issuance to the beneficiaries of Government sponsored schemes, and pre-paid instruments for credit of cross-border inward remittances and pre-paid instruments issued to corporate for onward issuance to their employees.

TABLE IV **AUSTRALIA**
Australia simultaneously adopted in 1998 two statutory acts, one on payment systems and netting, exclusively devoted to inter-bank infrastructure and multilateral clearing, and another entitled Payment Systems (Regulation) Act, 1998, aimed at providing "*for regulation of payment systems and purchased payment facilities, and for related purposes*". This latter Act covers in general (under the definition of payment system) any fund transfer system that facilitates the circulation of money (*i.e.*, also retail systems), and that "*includes any instruments and procedures that relate to the system*". In the light of this wide definition, the Reserve Bank of Australia (RBA) is empowered to issue regulations on cards and any other payment scheme that would imply processing of transfers. In addition, the Act covers "*purchased payment facilities*", which factually covers stored-value products. Since purchased payment facilities are regulated under the same patterns as systems, the RBA has the authority to individually authorize the facility and impose specific conditions. In terms of entities authorized to offer the products, the Act permits this in general to authorized deposit-taking institutions, and to any other entity exempted by the RBA. Once again, it is within the power of the RBA to decide on a case-by-case basis which entities (other than deposit-taking) to allow to provide the service. Access to the provision of innovative retail instruments is thus regulated by the RBA under its general policy on retail payments. Such policy is subject to a general criterion of public interest, having regard to the desirability of a payment system being (in the RBA opinion) i) financially safe for use by participants, ii) efficient, iii) competitive and iv) not materially causing or contributing to increased risk to the financial system. These goals linked to efficiency and stability are however not exclusive, since the Act permits the RBA to "*have regard to other matters that it considers are relevant*". Although not mentioned, the RBA could thus potentially impose specific requirements coming from financial inclusion concerns, at least as far as these can be reconnected to efficiency. It is well-known that the use of its powers by the RBA has been highly criticized by the market when this decided to address multilateral interchange fees for cards in 2003. These measures also touched upon clauses affecting the behavior of merchants and transparency of conditions to the users. Although this move started a not yet fully settled debate on competences of Central Banks (regulators) to impose rules on pricing as opposed to antitrust authorities, the basic approach as to address individual issues as long as relevant within the more general context of efficiency of the national payment system as a whole, was never contested in itself.

TABLE V

CAMBODIA

The Cambodia 1999 *Law on Banking and Financial Institutions* states that banking activities include also the provision of means of payment to customers and the processing of said means of payment in national currency or foreign exchange, and establishes that any entity carrying out even one of these three types of activities should be considered *de facto* to be engaged in banking.

Consistently with the *Law on Banking and Financial Institutions*, the 2005 *Law on Negotiable Instruments and Payment Transactions* limits the definition of payment transactions to transfers of funds between or from bank accounts.

Non-banks could only intervene in the process as third-party processors, allowed to operate a communication facility, run an inter-bank clearing system, or manage customer accounts. In all cases, the bank is the provider of the services and the third-party acts in its representation.

This legal framework has not impeded new payment products to enter the market. However, this has been objectively cumbersome for market operators, who had to accommodate regulatory constraints. The National Bank of Cambodia (NBC) itself issued *guidelines on outsourcing* to permit non-banks to cooperate with banks in the provision of innovative instruments and additional services, without yet being able to overcome that payment services be a banking activity (Prakas 9-010 (NBC), 11 July 2010).

On the other side, the major innovative product that has entered the market was launched by an MNO which had institutional links with a domestic bank, since a cooperative scheme as that required by the Cambodian legislation would be rather in the reach of such an entity than any other competitors needing to build up relationships anew with domestic banks. Moreover, the scheme of outsourcing would in any event make the bank as the primary responsible of the product, although it was not the bank but rather the MNO to substantially manage the scheme.

Proposals to amend the *Law on Banking and Financial Institutions* are currently under discussion.

TABLE VI

EUROPEAN UNION – STEPS TO REGULATE PAYMENT SERVICE PROVIDERS

The EU normative acts on credit institutions (i.e., banks) have always referred to payment services as an ancillary activity to banking, and consequently have never conceived these as of exclusive competence of a bank. Currently in force Regulation 575/2013 defines "credit institutions" as those entities whose core activities are taking deposits or other repayable funds from the public and granting credits for their own account.

Against this legal background, when e-money products were first launched, the already mentioned 2000 Electronic Money Directive was adopted (see Table I). However, the Directive did not only regulate e-money products as such, but also widely the kind of entities offering such products: the 2000 Electronic Money Directive also established prudential requirements for those service providers that would use payment products not backed by a bank account, but storing value somewhere in a software or a device (so-called Electronic Money Institutions: EMI).

However, two relevant elements emerged afterwards. In the first place, new products had be launched in the market, and it appeared clear that some of these did not necessarily imply value-storing but would still involve financial services requiring regulation. A new directive was thus adopted in 2007 on Payment Services (PSD), covering a wider spectrum of services and imposing lower prudential requirements to institutions called "Payment Institutions" (PI). A distinctive feature of this normative act is the prevision of a "payment account" by a payment institution for the purposes of providing its services, as distinguished from a "bank account", since this can only be used for executing payments and keep money deposited for a limited period of time.

In the second place, as already reported, EMI had never really flew in Europe since the adoption of the 2000 Directive. In addition to those mentioned in the previous section, it was claimed that one of the major reasons for this failure was that prudential requirements were disproportionate in respect of the concrete scope of activities that these institutions would indeed perform. Such prudential requirements had been derived from those of credit institutions, which provide a much wider range of services, some of which of evidently higher risk. On the opposite, PI had to comply with must less stringent requirements.

These considerations took in 2009 to the adoption of a new E-Money Directive imposing regulatory requirements closer to those imposed on PI under the PSD. The PSD is currently under revision, although not specifically as for prudential requirements. The E-Money Directive will soon be, and the combination of the two will tell whether this new approach has indeed produced better results as for development of e-money products.

However, within the EU the project for a Single European Payments Area (SEPA) has made the regulatory framework so much more articulated and has inserted so many more relevant components into the picture to play a role as for the realization of a single market, that it is impossible to operate a comparative analysis that could reliably help in understanding how the sole regulatory standards for payment services could affect the actual development of the market.

TABLE VII

TURKEY- MAIN ELEMENTS OF NEW LEGISLATION

The *Law on Payment and Security Settlement Systems, Payment Services and Electronic Money Institutions* of June 2013, as implemented by the Regulation on *Payment Services, Electronic Money Issuance, Payment Institutions and Electronic Money Institutions* of June 2014, unifies in a single text the PSD and the E-money Directive, and establishes that EMI and other PI be licensed by the Banking Regulation and Supervision Board to operate in Turkey under consistent conditions (including that of establishment in Turkey as a joint-stock company). This approach, at least in general, seems to better guarantee a level-playing field and leave the market more free to agree on any cooperation schemes among the various actors.

According to this new legislation (as in the EU), non-bank payment service providers are prohibited from granting loans of any kind, so clearly establishing a distinction between a payment service provider (being this a PI or an EMI) and a deposit-taking institution. This has been considered as a major point to ensure financial stability, since it eliminates risks inherent to lending activities and can thus permit lower prudential requirements (and consequently more affordable investments for being a service provider). This has yet received critics from many carrying about financial inclusion, on the ground that micro-loans should also be permitted at least to a limited extent. In this respect, it should be born in mind that the solution chosen by the EU or Turkey does not prohibit the offering of loans, but only makes it compulsory to do so in cooperation of a deposit-taking institution (or indeed by becoming a deposit-taking institutions and respect all relevant prudential requirements). The issue is still controversial, although micro-credit as linked to payment instruments is still at its infancy and it is difficult to see how regulatory thinking will develop on this.

International remittance providers are included in the category of PI, whereas in countries where such a general category of payment institutions/payment service providers is not contemplated and regulation is primarily based on technology, remittance providers are often regulated separately, and not rarely because of the cross-border/foreign exchange component of their activities, so potentially generating unjustified regulatory discrimination (see World Bank, *From Remittances to M-payments: Understanding "alternative" means of payment within the Common Framework of Retail Payments Systems Regulation*, Financial Infrastructure Series Payment Systems Policy and Research, October 2012).

These regulations do not specifically address agent networks, but these can be consistently regulated by implementing measures that could impose relevant standards not to interfere with the primary responsibility of provision of the payment services, that stay on the credit institution, the PI or the EMI.

TABLE VIII

KENYA AND THE PHILIPPINES

M-Pesa was launched in the market without the need for any specific license or authorization, nor was this "designated" under a different mechanism as those that can be found in countries where payment instruments are somehow assimilated to payment systems.

Although the debate is still unsettled whether the success of this product was indeed favored by lack of regulation or whether a more stringent regulatory context would not have been of serious detriment to its performances, the high penetration of the product after a few years had yet raised concerns on the potential risks of allowing unregulated money transfer services.

In parallel, the banking sector had claimed for regulatory discrimination, since, on the one side, M-Pesa was not subject to any regulatory burden yet imposed on banks, and, on the other side, this was permitted to use agents for cash-in and cash-out, whereas this was not permitted to banks. Also Zain, a country's mobile network operator which was competing with Safaricom to launch a new mobiles product, complained against the dominant position of the latter, claiming that this was making impossible for him to gain adequate access chances (See AFI Case Study, *Enabling Mobile Money Transfer. The Central Bank of Kenya's Treatment of M-Pesa*).

Within this context, in 2011 a *National Payment System Act* was adopted, which was then recently implemented by the 2013 *National Payment System Regulation*. Accordingly, the Central Bank of Kenya (CBK) issued Guidelines for Application for authorization of payment service providers (June 2014). Non-banks providing payment instruments are consequently not unregulated any longer.

A somehow similar pattern was followed in the Philippines, where the first successful mobile payment service in a developing country was launched in 2004, and where regulation was adopted at a later stage.

It is argued that such delay was due to the fact that regulators intended to regulate the market only once market innovation had satisfied their needs for legal certainty and the creation of a level playing field for new entrants: H.R. KHAN, *Financial Inclusion and Financial Stability: Are They Two Sides of the Same Coin?* RBI Monthly Bulletin (March 2012).

TABLE IX

BRAZIL – NEW ACTORS AND SCHEMES FOR FINANCIAL INCLUSION

Brazil is known for being one of the countries where financial inclusion has been more extensively cultivated by the use of banking correspondents, although payment services were indisputably the realm of banks.

As a further attempt to open up the market for a wider use of non-cash instruments and a diversified offer of products, Law 12865/2013 was recently adopted, according to which payment schemes and payment institutions are part of the Brazilian payment system and consequently subject to the *Banco Central do Brasil* (BCB) supervision and oversight.

Payment institutions now include any persons providing a payment activity, irrespective of its status.

Since many Brazilian banks already had agreements with mobile, telecom or other third-party operators to provide innovative payment instruments, the new legislation is intended to favor new schemes of cooperation, where more responsibility can also be given to non-banks.

According to BCB declarations, it is expected that these new measures will permit banks to further reach unbanked population by way of alternative channels.

It is also argued that the oversight focus on financial institutions with the BCB getting access to all data on the agents indicates the intention to lower the regulatory pressure on the network, while also attempting to give financial institutions enough freedom to articulate the relationship with the agents on their own terms: H.R. KHAN, *Financial Inclusion and Financial Stability: Are They Two Sides of the Same Coin?*

TABLE X

COLOMBIA –Sociedades especializadas en depósitos y pagos electrónicos

Colombia is a prominent example of a country including financial inclusion as a priority in its national agenda since a very early stage, by the creation of a unique national agency dealing exclusively with financial inclusion and education since 2006. It approved policy and regulatory reforms focused on promoting a greater financial inclusion by using correspondent agents (municipal agents), and the use of mobile banking to deposit conditional cash transfers to social programs beneficiaries.

In particular, on 21 October 2014 Colombia adopted Law 1735 "*por el cual se dictan medidas tendientes a promover el acceso a los servicios financieros transaccionales y se dictan otras disposiciones*", which created a new type of financial institution (Specialized Electronic Deposit and Payment Institutions), subject to a new deposit-taking license that can be incorporated by a natural person, postal service offices and/or mobile network operator or another non-bank company.

New non-bank electronic deposit funds are covered by deposit insurance and can earn interest.

The law also allows for remote opening of electronic deposit accounts by only requiring the client to use his/her national ID.

Finally, the law envisions that electronic deposit services will primarily be provided via correspondent agents and also provides an incentive for clients using the service by exempting electronic deposits (within limits) from banking transaction taxes.

TABLE XI

INDONESIA – BRANCHLESS SERVICES FOR FINANCIAL INCLUSION

Indonesia is currently undertaking a specific exercise to regulate branchless financial services to strength financial inclusion: the Financial Services Authority (FSA), which is responsible since December 2013 for supervision of financial institutions, has recently made public a draft regulation on Branchless Services for Financial Inclusion (August 2014) as a tool to implement the National Strategy for Financial Inclusion (which has branchless banking as one of its pillars).

The way to contribute to financial inclusion by regulation of branchless banking is by lowering customer due diligence standards, permitting service providers to offer a wide array of products such as savings, micro-loans and micro-insurance, and by making eligible to provide branchless financial services a wider range of providers and permitting them to appoint agents, so modifying the e-money regulations as currently in force.

The FSA thus plans to intervene by liberalizing the market both in terms of products and kinds of providers, basically favoring smaller banks and financial institutions until now suffering from a regulatory environment privileging big entities.

TABLE XII

MEXICO – NEW COOPERATVE SCHEMES AND LOW-VALUE ACCUNTS FOR FINANCIAL INCLUSION

Under the Credit Institutions Act, a bank may establish business relations with a banking correspondent (such as a retailer or store), so that the latter is authorized to offer financial services to its customers on behalf of the bank.

The CNBV regulation allows banking agents to undertake activities such as receiving public utility and credit payments, cash deposits and withdrawals, issuance of payment cards, cheque deposits, balance inquiries and statements from accounts, or opening low risk banking accounts.

In addition, some mobile payment services in Mexico are offered by banks in cooperation with mobile phone operators, which play a fundamental role in providing the necessary communication services between account holders and their banks.

Moreover, the mobile operators may also provide services such as bank account information hosting and clearing of transactions in the case that two or more banks operate a mobile payments clearing house.

Regulations issued by Bank of Mexico at the end of 2013 prescribe that legal entities that intend to operate as mobile payments clearing houses must apply for authorization by the Central Bank, which will assess the fees charged to participants, entry conditions for new participants and risk management plans submitted with the application, and will ensure that the clearing house operates under competitive conditions.

Mobile payments clearing houses are required to participate in the Mexican RTGS system to ensure that all participants are interconnected.

(see also CPMI, *Non-banks in retail payments*, *supra*, Box 3)

TABLE XIII

INDIA – RBI Vision Statement for Payment Systems until 2015

RBI vision statement for payment systems from 2012 to 2015 was entitled "*To proactively encourage electronic payment systems for ushering in a less cash society in India and to ensure payment entities and settlement systems in the country are safe, efficient, interoperable, authorized, accessible, inclusive and compliant with international standards.*" (RBI, *Payment Systems in India. Vision 2012-15*, October 1st, 2012. The Vision Document for 2009-2012 had as a more limited target that payment and settlement systems be safe, secure, sound, efficient, accessible and authorized. No mention was made of electronic systems, nor to values such as inclusiveness and interoperability)

Indeed, this establishes a number of objectives and parameters that would directly influence the RBI policy approach in regulating payments for the period. In the first place, a "less cash society" would require efforts to convey towards the accomplishment of the so called 7A: accessibility (to the formal payment systems), availability (beyond the banking sector), awareness (of alternative products and their use), acceptability (multipronged strategy based on ease of use, convenience, interoperability, language neutrality and incentive factors), affordability (to all segments of the society), assurance (to be reached by an appropriate level of security in the use of instruments, "with a zero fail rate") and finally appropriateness (to adapt to the social and cultural milieu).

In the second place, the document establishes concrete and detailed courses of action for increasing the efficiency of the payment system by improving standardization, portability and interoperability, addresses risks, and promotes forms of access and inclusion. To this latter extent, RBI also establishes the objective of developing a pricing strategy and, after an articulated analysis of pros and contra of pricing regulation, it recognizes its needs in case of market failures and declares that pricing of payment services need to be guided by the two parameters of i) payment services being a "public good", and ii) self-sustaining and viable business proposition.

Finally, the Vision Document recognizes that promotion of innovation must be continued by RBI to achieve the goals of inclusion, accessibility and affordability, while remaining technology neutral. The regulatory stance is interesting in this context: "*in the Indian context most innovations during the past few decades have been driven with the regulator at the helm and have taken place in a calibrated and gradual manner. We have now reached a stage where the payment systems are poised to jump into a higher trajectory which will be driven largely by new technologies, new business models and demographic factors and social factors*".

TABLE XIV **2014 CPMI Report on Non-banks in retail payments – Scheme of functions within process of payments**
The payment process is broken down into five stages: i. *Pre-transaction*, consisting in all activities involved in creating the initial infrastructure required for payments (customers acquisition, provision of actual payment instrument, provision of related hardware, software or network infrastructure). ii. *Authorization*, including the process and activities that enable a payment transaction to be authorized and approved before it can be completed. iii. *Clearing*, enabling the submission of claims by members in the payment system against each other and calculation and dissemination of information on transfers. iv. *Settlement*, consisting of activities directly related to the posting of credit and debits. v. *Post transaction*, mainly including the processes and activities related to various value added services for statement generation, reconciliation, and disputes resolution. vi. (Each of these functions is further broken down into sub-activities)
Against this background, and in addition to the traditional identification of risks directly linked to each of the activities that compose the payment chain, the Report also identifies other key issues to be of potential concern to regulators, mainly focusing on the structure of the market: i. *Concentration issues*. One or two big players would impact on the evolution of the market differently than numerous players of medium to small size. However, economies of scale and scope are an issue for costs. Interoperability and access to systems are also of relevance in this context. ii. *Outsourcing issues*. Outsourcing can improve the efficiency of a system, but because of contractual agreements, responsibility might lie on a different subject than expected. iii. *Operational complexity issues*. Technology makes extremely difficult to identify exact allocation of roles and risks. The higher the number of players is, the more security breaches can occur (the more nodes at which security breaches or other operational problems could take place would exist). This also raises the issue of which specific services or activities should be of competence of financial markets regulators, and which of other regulators, such as those in charge of communication infrastructures. iv. *Consumer protection issues*. Ownership of consumers' data is one of the relevant issues within this area. v. *Level playing field issues*. Regulatory discrimination may affect competition. But also interoperability and concentration of the market may be an issue. vi. *Stakeholders' involvement*. In the light of the extremely fragmented landscape of products, services, players, ensure involvement of all stakeholders to identify relevant issues may not be easy.

TABLE XV **2013 FATF Guidance and 2010 G20 Principles for Innovative Financial Inclusion – risk based approach and proportionality**
In February 2013, the FATF published the *Guidance on Anti-Money Laundering and Terrorist Financing Measures and Financial Inclusion*. Although not focusing on payment methods specifically, this Guidance paper refers to mobile payments and prepaid cards as payment instruments that may facilitate financial inclusion. Its main goal is to elaborate on a method to balance the needs for financial integration with those of financial inclusion, by proposing a risk-based approach: the promotion of formal financial systems and services is indeed central to any effective and comprehensive AML/CFT regime. However, applying an overly cautious approach to AML/CFT safeguards can have the unintended consequence of excluding legitimate businesses and consumers from the formal financial system. FATF has therefore adopted the Guidance paper to provide support in designing AML/CFT measures that meet the national goal of financial inclusion, without compromising the measures that exist for the purpose of combating crime. In so doing it tried to make explicit the flexibility that the FATF Recommendations offer, in particular the risk-based approach (RBA), enabling jurisdictions to craft effective and appropriate controls. (The Guidance paper was initially published in 2011 and was revised following the adoption of the new set of FATF Recommendations in 2012)
The *G20 Principles for Innovative Financial Inclusion* of 2010 promote the application of the proportionality principle as the right balance between risks and benefits by tailoring regulation to mitigate the risk of the product without imposing an undue regulatory burden that could stifle innovation. G20 Principles also recognize the specific relevance of innovative payment instruments as a potential tool for financial inclusion, recommending an *ad-hoc* regulatory regime geared to the risks inherent in the type of service involved. Within this context, a proportionate regulatory approach may open the market to increased participation by both service providers, and the un-banked.

TABLE XVI **Allocation of regulatory responsibilities and integration of functions according to international Reports and Principles**
In the 2012 PAFI *Report on innovations in retail payments*, it is acknowledged that many Central Banks take an interest in retail payments as part of their role in maintaining the stability and efficiency of the financial system and preserving confidence in their currencies. Indeed, although most retail payment systems are not considered systemically important, their potential weaknesses with regard to security and reliability could nonetheless affect the financial system and the economy. Innovation in retail payments can therefore raise policy issues for Central Banks. However, the Report also takes stock of the fact that, as the role of non-banks is increasing and cooperation among various market players gaining importance, Central Banks are, in most cases, no longer the only authorities with an interest in payments. In this context, the Report identifies different objectives (security, solvency of providers, efficiency, innovation and financial inclusion) and different regulatory dimensions (*oversight*, supervision and other regulatory functions) in relation to various public authorities (Paragraph 6.4(ii), p. 54). However, it also registers a trend towards convergence of objectives and tools.
In the same line, the 2012 CPSS-IOSCO *Principles for financial market infrastructures* (FMIs), which devote quite a substantial consideration to roles and responsibilities of Central Banks, market regulators and other relevant authorities for FMIs, recognise general common objectives, but seem to require an effort of integration of functions to fully ensure financial stability: paragraph 4.2.1. clearly states that "*central banks, market regulators, and other relevant authorities generally share the common objective of ensuring the safety and efficiency of FMIs. However, regulation, supervision, and oversight of an FMI are needed to ensure that the FMI fulfils this responsibility, to address negative externalities that can be associated with the FMI, and to foster financial stability generally*".

TABLE XVII
INDIA - TRAI Regulations

In the first place, the TRAI Regulations require every access provider i) to facilitate banks to use Short Message Service (SMS; also including Multimedia Message Service: MMS), Unstructured Supplementary Service Data (USSD) and Interactive Voice Response (IVR) to provide banking services to their customers, ii) to deliver the relevant message within an established time frame, iii) to guarantee delivery of confirmation reports of the message, and iv) to ensure customers to be able to complete transactions such as cash deposit, cash withdrawal, money transfer and balance enquiry, in no more than two stages. These requirements seem to primarily address issues of efficiency and protection of final users.

In the second place, they address security and data protection issues by imposing respect of privacy and security of m-banking communication, and to ensure the confidentiality of end-to-end encryption, integrity, authentication and non-repudiation of such communication.

Finally, the Regulations were drafted within a common effort by relevant authorities to promote financial inclusion. The *Explanatory Memorandum to the Regulations* indeed states that penetration of banking services in rural areas in India has been a major element of concern to the Government. Consequently, this has been considering leveraging the growth of mobile service in rural areas to provide basic financial services to unbanked citizens of the country by riding on mobile infrastructure, by constituting an Inter-Ministerial Group (IMG) in 2009 to work out relevant norms and modalities for the introduction of a mobile based delivery model for delivery of basic financial services and to enable finalization of a framework to allow financial transactions using mobile.

TABLE XVIII **JAMAICA - BOJ GUIDELINES on standards to provide electronic payment services**
i. The Guidelines permit the provision of electronic payment services to any entity having previously obtained an authorization, to be received upon compliance of the following standards: ii. Capital requirement (net worth of USD 100,000.00, subject to any change the BOJ might establish) iii. Liquidity requirement (not less than three times the maximum daily value of amounts required to settle customers transactions, and liquid funds of not less than six months gross operating expenses) iv. Adequate governance arrangements, and a satisfactory risk management framework to mitigate risks (requiring at a minimum to identify relevant risks, risk management and mitigation, audit functions) v. Operational requirements (also in case of outsourcing) vi. Prudent management of customers' funds (to be deposited in a separate custodian account not to be commingled with that of the service provider) vii. Management of agents networks, their education and imposition of transparency obligations viii. Imposition of limits (not directly imposed by the Guidelines but permitted in terms of extent and nature of operations, limits on monetary value, or money to be stored) ix. Consumers protection (including privacy, education and redress procedures) x. Respect of AML/CFT requirements (by reference to relevant measures adopted by the competent authority)