Notes on Regulation of Branchless Banking in Brazil February 2008

Brazil's long history of bank outsourcing, which has benefited significantly from the central bank's issuance of supportive regulation governing the use of agents, has resulted in an outstanding increase in access to financial services such as bill payments, transfers and deposits. Most significantly, there is in each of the country's 5,567 municipalities at least one agent or branch office of a prudentially licensed and supervised institution. However, there remain obstacles to the expansion of banks' use of agents for the delivery of credit and savings to the poor. Specifically, "simplified accounts," which can be handled by agents, are subject to various transaction limitations that restrict profitability; interest rate caps and other account-related costs render microcredit unprofitable for banks; and there is poor credit information, especially for lower-income borrowers. Additionally, two unintended consequences of widespread outsourcing threaten the continuity of the agent model itself: agents' non-compliance with consumer protection rules and legal demands from unions seeking wage equality between bank employees and agent employees. The Central Bank is acting to solve these two problems, but has so far not proposed or implemented changes addressing the other obstacles.

In contrast to the use of retail agents by banks (known as "bank-based branchless banking"), nonbank-based branchless banking is only in its incipient stage in Brazil. However, there is remarkable space for nonbanks to compete for customers with low value accounts, since approximately 80 million adults still lack access to bank accounts. Brazil has an excellent opportunity to adjust its regulatory framework to fine-tune the balance between openness, safety and service continuity by (i) taking the necessary measures for retail agents to expand further the access to banking services and (ii) opening the doors to nonbanks while setting adequate minimum requirements and principles for their participation in the supply of low-value financial services.

These notes offer further detail on CGAP's findings as a result of its branchless banking regulatory diagnostic in Brazil. CGAP has conducted similar assessments in other six counties in 2007.[1] An overall analysis and policy recommendations resulting from these diagnostics are found in the recently released CGAP Focus Note 43 ***"Regulating Transformational Branchless Banking: Mobile Phones and Other Technologies to Increase Access to Finance".***[2]

BACKGROUND: CGAP, BRANCHLESS BANKING AND THIS SERIES OF POLICY DIAGNOSTICS

CGAP is a global resource center for microfinance standards, operational tools, training, and advisory services. Its members – bilateral, multilateral, and private donors – are committed to building more inclusive financial systems for the poor. The CGAP Technology Program is a multi-year learning initiative co-funded by the Bill and Melinda Gates Foundation to find and test promising technology solutions to improve access to finance.

CGAP defines branchless banking as the delivery of financial services outside conventional bank branches using information and communications technologies and retail agents. Because of the potential to reduce radically the cost of delivery and increase convenience for customers,

[1] The other countries are India, Kenya, Pakistan, Philippines, Russia and South Africa.
[2] Focus Note 43 and the country-specific Notes are available at www.cgap.org/policy/branchlessbanking.

branchless banking can expand coverage to new, previously underserved segments of the population. Technology can help a range of market actors to push the boundaries of access to finance, including not only banks but also microfinance institutions, mobile phone operators and technology companies.

Two models of branchless banking – bank-based and nonbank-based – can be distinguished. Both make use of retail agents such as merchants, supermarkets or post offices to deliver financial services outside traditional bank branches. In the **bank-based model**, every customer has a direct contractual relationship with a prudentially licensed and supervised financial institution - whether account-based or involving a one-off transaction - even though the customer may deal exclusively with a retail agent who is equipped to communicate directly with the bank (typically using either a mobile phone or a point-of-sale (POS) terminal).

In the **nonbank-based model**, customers have no direct contractual relationship with a fully prudentially licensed and supervised financial institution. Instead, the customer exchanges cash at a retail agent (or otherwise transfers, or arranges for the transfer of, funds) in return for an electronic record of value. This virtual account is stored on the server of a nonbank, such as a mobile operator or an issuer of stored-value cards.[3] The balance in the account can be used for making payments, storing funds for future use, transferring funds or converting back to cash at agents. If the system relies on a POS network and plastic cards, customers must visit a participating retail agent to conduct a transaction. If the system is mobile phone-based, customers need to visit a retail agent only to add value or to convert stored value back into cash. A more limited version of the nonbank-based model can be found in payment networks, which involve a technology provider or other nonbank institution offering a network of "payment points" (for example, payment terminals, ATMs or retail agents equipped with POS devices) where a customer can make payments to third parties or a governmental entity can make payments to beneficiaries.

1. Introduction

From June 18 to 27, 2007, CGAP conducted a mission in Brazil to analyze the policy, legal and regulatory environment for branchless banking.[4] This document summarizes CGAP's initial findings and suggestions.[5] It is based on analysis of existing and upcoming legislation and regulations relevant to branchless banking and on insights from 27 interviews with approximately 90 representatives of a wide range of stakeholders. Interviews were carried out with the Central Bank of Brazil (CBB), the National Agency of Telecommunications (Anatel), the Conselho de Controle de Atividades Financeiras (the Financial Intelligence Unit or FIU), the Council on

[3] The stored-value card, like other stored-value instruments, is often referred to as "e-money." There are various definitions of e-money, including the following from the European Union's Electronic Money Institutions Directive (2000): "monetary value as represented by a claim on the issuer which is: (i) stored on an electronic device; (ii) issued on receipt of funds of an amount not less in value than the monetary value issued; (iii) accepted as a means of payment by undertakings other than the issuer."

[4] CGAP Consultant Hennie Bester, Policy Advisory Consultants Denise Dias and Ernesto Aguirre and CGAP staff members Mark Pickens and Klaus Prochaska conducted the field portion of the mission. Mrs. Dias and CGAP Policy Advisory Consultant Kate Lauer authored these Notes. The Brazilian law firm of Felsberg & Associados provided advice on the interpretation of various laws and regulations.

[5] This document summarizes results from the study of the legislation and regulation relevant to branchless banking and is subject to the limitations of such an approach.

Economic Defense (CADE), mobile network operators (MNOs), commercial banks, payment service providers and other participants in the payments system, lawyers, bank associations, technology providers and other knowledgeable parties. The list of persons met is annexed.

Brazil was selected as one of CGAP's series of diagnostics because of its long history of banks outsourcing various services to agents (also known as "nonbank correspondents"). The CBB has been progressively expanding the agent model since 1999 by allowing more services to be rendered by agents and expanding the list of financial institutions that may use agents. Nowadays, any CBB-licensed institution is permitted to partner with any type of legal entity to deliver a wide array of financial services in any location. The result: in each of the country's 5,567 municipalities, there is at least one agent acting on behalf of a prudentially regulated and supervised institution. (In 1999, 1,679 municipalities lacked banking services.) The value of this arrangement in improving the lives of the urban and the rural poor -- in terms of access to the payments system and basic bank services -- is widely recognized and praised by government bodies and the private sector. The model has been less successful in promoting savings and credit.

Highlights

- Any CBB-licensed institution may partner with any legal entity to deliver a wide array of financial services. These institutions, which are prudentially regulated and supervised by the CBB, use over 95,000 agents to deliver financial services.
- Legal disputes with unions threaten the continuity of the agent model.
- Foreign remittances are considered foreign exchange and local money transfers can only be provided by banks to bank account holders.
- Nonbanks are not permitted to issue e-money and there is no clarity regarding their engagement with open-use prepaid cards that do not involve repayable funds.
- Pending legislative initiatives introduce uncertainty to electronic transactions, such as law on e-crimes and e-signatures.
- Taxation of value added services vis-à-vis mobile banking is a potential obstacle for mobile network operators to engage in prepaid schemes.

2. State of Play: Government Authorities

2.1 Policy for financial inclusion: microfinance and bank agents

The overall policy for financial inclusion, set by the central government, rests on two pillars: microfinance and retail agents. Regarding initiatives to expand the credit offer to low-income customers (traditionally offered by credit cooperatives[6] to their more than 3 million members), the government has since 2003 required commercial banks to direct 2% of the demand deposits to microcredit as defined in specific regulation. Banks can satisfy this requirement by originating microloans, transferring the amount to other institutions for the same purpose, or acquiring microcredit portfolios from other entities, including NGOs. The amount that a bank fails to invest is deposited in the CBB without remuneration. In addition, the government has constructed a legal framework that enables banks to make payroll-consigned loans, a fast-growing line of business which is channeled chiefly through nonbank agents.[7]

[6] There are approximately 1,450 credit cooperatives, which are prudentially regulated and supervised by the CBB.
[7] Law 10820/2003 (Crédito Consignado). A payroll-consigned loan is repaid directly out of the borrower's salary.

Parallel to efforts on the credit side, in 2004 the CBB permitted a new special type of bank account – the simplified account – to be offered primarily by retail agents.[8] These accounts, which can be held only by individuals who do not have other bank accounts, have a maximum balance of R$ 1,000 (approximately US$ 500) or, if the depositor has a microcredit, then the maximum is R$ 3,000 (US$ 1,500). (Microcredit is the only type of loan that can be channeled through a simplified account.) In addition, there is no charge for the first twelve transactions per month and no maintenance fee. The accounts are subject to a relaxed customer due diligence procedure, but there are transactional limitations imposed by the regulation in order to avoid money-laundering (see Section 5.5). In 2004, 4.16 million simplified accounts were opened. As of December 2006, 4.82 million were active, 95% of which were checking accounts with an average balance of US$20.[9]

Simplified accounts are viewed as unprofitable by private banks due to the above-noted limitations, which increase bank costs by requiring additional controls. The following factors also affect the appeal of the microcredit business**:** (i) interest rate caps, (ii) size and term limitations; (iii) poor credit information on potential microcredit borrowers; and (iv) other indirect costs on lending such as the high reserve requirements. As a result, the overwhelming majority of simplified accounts have been opened by Banco Popular, a state-owned bank.

Created in the 1970s, the framework for retail agents was reformed in 1999 to increase efficiency in the area of welfare payments.[10] Specifically, the range of services that could be outsourced to agents was expanded from receiving loan applications, analyzing credit and personal information of loan applicants, collecting loan payments and processing data to include: receiving account opening applications; performing deposits and withdrawals; and performing bill payment. In that year, Caixa Econômica Federal (Caixa), a state-owned bank, partnered with over 9,000 lottery outlets in what became the first large-scale retail agent scheme in the country. With further regulatory changes in 2000 that removed the prohibition on banks using agents in locations with bank branches,[11] Caixa rapidly covered all municipalities in the country. The total number of agents being used by banks reached 64,000 by year end 2000. New regulations were issued in 2003 as part of the government's financial inclusion policy, permitting any financial institution to hire agents. Today, there are more than 95,000 registered agents throughout the country delivering financial services on behalf of licensed and supervised entities.

The agent model has not only brought convenience and safety for low-income families that receive government benefits,[12] but it has also worked as an economic development tool for isolated communities: instead of shopping in the cities where they would have traveled to receive their benefits, benefit recipients withdraw cash, pay bills and shop locally. However, the model has not yet been so successful in channeling credit and savings. A few banks, notably ABN Amro

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[8] Resolution CMN 3211/2004, Resolution CMN 3213/2004 and Resolution CMN 3260/2005.

[9] Marques, Marden S. e Sobrinho, Abelardo D. de M. (2007), Microfinanças: *O Papel do Banco Central do Brasil e a importância do cooperativismos de crédito*. Brasília, BCB, 2007.

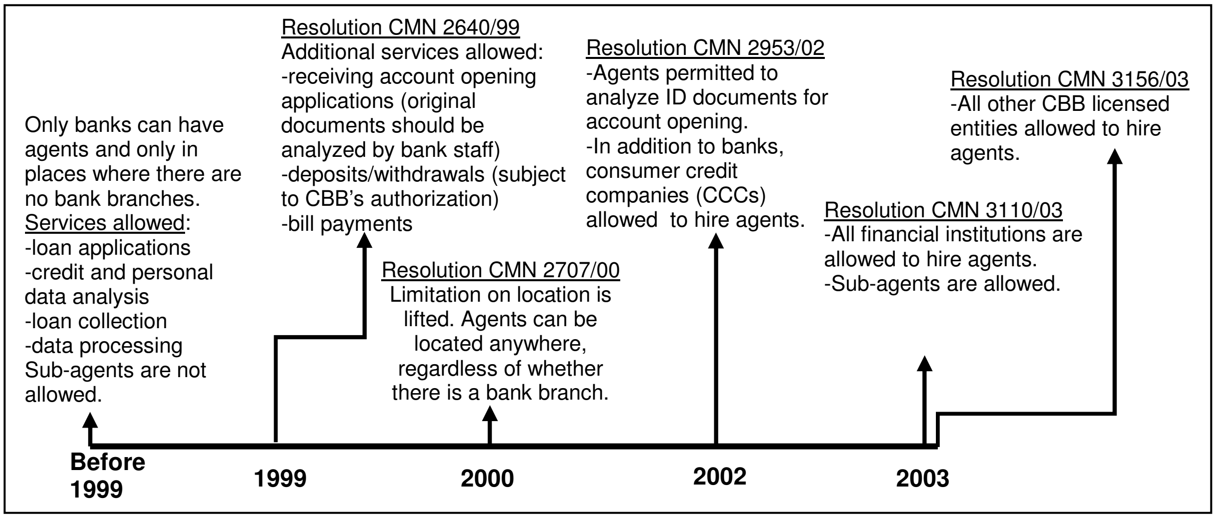
[10] Resolution CMN 2640/1999.

[11] Resolution CMN 2707/2000. Previously, agents could only be used in places with no bank branches at all.

[12] Caixa makes approximately 300 million benefits payments per year (more than US$ 1 billion) to more than 16 million families through over 19,000 points of assistance, more than 13,000 of which are agents. Source: Caixa Econômica Federal, *Annual Report 2006*. Brasília.

and Banco Popular, are experimenting with microcredit through agents and the results of the main provider (Banco Popular) have so far been poor, particularly in terms of default rates.[13] The reasons (as identified by banks) behind this slow move towards credit are the regulatory limitations applicable to simplified accounts and microcredit mentioned above.

Use of Agents – regulatory evolution



2.2 Nonbank-based branchless banking and the authorities

The CBB's Department of Banking Operations and Payments System is open to new models within the retail payment system and is currently considering regulations and/or guidelines on electronic stored value accounts based on the experience of countries such as the Philippines and South Africa. However, the CBB has not issued any position or taken any measure regarding electronic payment services initiatives or open-use prepaid cards that do not involve repayable funds.

The CBB has started talks with Anatel about the entrance of MNOs into mobile banking in order to set minimum requirements, but there is little coordination on this subject among the various departments of the CBB or between the CBB and Anatel. In fact, Anatel has shown little interest in intervening in mobile banking precisely because the CBB is the competent authority for financial services. Nonetheless, in 2006 Anatel initiated a research project ("Micro Top-up") analyzing mobile banking models and published the following preliminary conclusions: (i) there are no technological barriers for micro-payments and airtime transfers between users; (ii) these services are highly desirable in terms of social impact; and (iii) the lack of interoperability of mobile phone services poses challenges to the desirable results in the long run.[14]

[13] According to Banco Popular, the current default rate in microcredit is 17%. It was 24% in 2002, when the bank started operating.

[14] Agência Nacional de Telecomunicações – Anatel, Gerência Geral de Comunicações Pessoais Terrestres: Projeto Micro-Recarga no Serviço Móvel Pessoal – SMP. Relatório Parcial – Produto I, Julho 2006. Two policy papers resulting from the study will be released soon.

3. State of Play: Industry

3.1 The banking sector

In 1994, following years of hyperinflation, Brazil successfully implemented a stabilization plan. Banks, which had for decades been relying heavily on inflationary gains, were suddenly forced to "become banks" again, i.e. offer credit and savings. Notwithstanding the ups and downs of this process – credit crunch, bank failures, privatization, entrance of foreign competition and international crises – the reshaped banking industry is now regarded as one of the most technologically advanced in the world. (Hyperinflation and high interest rates led to the development of a communication system that enabled fast and reliable check clearing and bill payments). Brazil is a bank-centric economy, with most of financing streaming from this sector. However, only approximately 30% of the adult population has bank accounts (there are 102.6 million checking accounts and an estimated 40 million account holders against an adult population of 128 million) and credit in relation to GDP remains around 34%.[15]

There are 130 banks operating through more than 150,000 points of assistance.[16] Over 80% of the 37 billion total bank transactions in 2006 were processed by electronic channels (over 30% in the 147,000 ATMs[17]) and in the network of 1.95 million POS (which includes agents). The ratio of ATMs to inhabitants (797:1,000,000) is comparable with that of developed countries, but the proportion of 7,287 POS per million inhabitants is far behind.[18] The CBB has been using persuasion instead of regulation to push for interoperability of POS and ATM networks in order to increase coverage, but progress has been slow. Non-competitive pricing is thought to have adversely affected the expansion of POS networks and consequently, the CBB has initiated a joint study with the competition authorities to investigate pricing practices in the card industry.

Internet and mobile banking are currently restricted to bank account holders.[19] All of the largest banks provide mobile phone banking; yet, interoperability is hindered by disagreement between banks and MNOs regarding both technology (whether MNOs will use a common software or whether banks will have to purchase and install separate software for each MNO) and profit-sharing (specifically, whether an MNO will receive anything beyond the charge for telecommunications services, which in fact is all that MNOs are currently providing). In this respect, Visa's M-Payment project, to be launched in 2008, intends to create a single platform for mobile banking in the industry, allowing bank account holders to use mobile phones to effect purchases (debit or credit card functions) at one million merchants already connected to the Visa network. Interoperability in mobile banking is a topic being negotiated between bank associations

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[15] Instituto Brasileiro de Geografia e Estatística – IBGE: *Pesquisa Nacional por Amostra de Domicílios*, 2006; Federação Brasileira de Bancos – Febraban, "O Setor Bancário em 2006".

[16] Points of assistance include bank branches, agents and other bank "establishments" where a client can engage in all transactions except foreign exchange (which is only permitted in bank branches). Federação Brasileira de Bancos – Febraban, *Dados do Setor Bancário*, 2006.

[17] Some ATMs are located in points of assistance, others are not. Not all points of assistance have an ATM.

[18] Banco Central do Brasil, "*Diagnóstico do Sistema de Pagamentos de Varejo do Brasil, Adendo Estatístico 2007*".

[19] Mobile phones cannot be used to perform foreign exchange transactions, or to pay housing loans or other large value loans (the specific amount being determined by each bank in its sole discretion).

and MNOs, without CBB involvement. It is worth noting that banks have recently started using e-CPF (digitally certified taxpayer number) in internet- and mobile-based transactions. This could have long-term positive impact for mobile banking, since it increases security by combating identity theft.

3.1.1 The use of retail agents

There are more than 95,000 registered agents throughout the country delivering financial services on behalf of CBB-licensed and supervised entities, including credit cooperatives. Most agents are commercial establishments such as groceries stores, post offices, notaries and lottery outlets, but a financial institution may also act as an agent. The main networks processed approximately US$ 104 billion in 1.5 billion transactions in 2006.[20] Although showing a significant growth from 190 million transactions in 2004, this amount still represents only 4% of the 37 billion total transactions in the banking sector.[21]

In 2006, based on the seven largest agent networks, bill payments constituted 70% of the transactions and 46.52% of the total value, followed by withdrawals/deposits (13.15% of transactions, 25.57% of total value) and credit operations (0.45% of transactions, 12.01% of total value).[22] The customers might or might not have a bank account and can transact in any point of assistance of the bank, typically using cash or debit cards, although only bank account holders can receive payment transfers.

Agents are used for various reasons. Usually the motivations are a mix of cost-cutting (agents have become the cheapest way to reduce congestion in branches and avoid the fines that are imposed when customers are left waiting in line for more than a certain amount of time) and enlargement of the client base through geographic expansion. The largest agent networks are Caixa's and Banco Postal, a joint venture between Banco Bradesco (the second largest private bank) and the postal service. Banco Postal has opened more than 5 million new checking accounts since 2002 through over 5,460 postal points. Four of the largest banks transact extensively with agents, but some banks (notably Banco Itau, the largest private bank) are still reluctant to use agents given the operational risk and the potential conflicts with labor unions. There are a few banks that operate *exclusively* through agents: Banco Popular, Lemon Bank and GE Capital. Most banks use agents for bill payments, withdrawals and deposits, as well as loan repayments and disbursements. ABN Amro and Banco Popular are also experimenting with microcredit through this channel.

The agent networks can be managed directly by the bank or outsourced to a third party, which is then considered an agent by the CBB. A network manager provides a wide range of services, including selection of agents, training related to Anti-Money Laundering/Combating Financing of Terrorism (AML/CFT), maintenance of POS, software development, cash handling, and marketing.

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[20] Marques, Marden S. e Sobrinho, Abelardo D. de M. (2007), Microfinanças: *O Papel do Banco Central do Brasil e a importância do cooperativismos de crédito*.

[21] Federação Brasileira de Bancos – Febraban, Dados do Setor Bancário, 2006.

[22] The seven banks (whose networks comprise over 70% of the retail agents in the country) are: Bradesco (Banco Postal), BMG, Lemon Bank, Banco Nossa Caixa, Caixa Econômica Federal and ABN Amro. Sources: Marques, Marden S. e Sobrinho, Abelardo D. de M. (2007), Microfinanças: *O Papel do Banco Central do Brasil e a importância do cooperativismos de crédito*. Brasília, BCB, 2007 and Banco Central do Brasil: Relatório de Estabilidade Financeira, Maio 2006.

Notwithstanding the benefits to consumers of expansive agent networks for the provision of financial services, the CBB has identified many breaches by agents of the consumer protection rules. These include: charging extra fees and not disclosing fees; not disclosing their status as mere intermediary between bank and client; advancing cash to clients and guaranteeing loans (not permitted); selling client's information to third parties; and committing fraud (e.g., keeping clients' funds and not making bill payments).

3.1.2 Microcredit

There is a low level of compliance with the requirement that banks use 2% of their demand deposits for microcredit.[23] The banking sector states that the interest rate ceiling is too low in light of (i) the lack of comprehensive positive and negative credit information on low-income borrowers,[24] (ii) high reserve requirements (approximately 45% of demand deposits) and (iii) the high interbank rate. These hurdles and other challenges (i.e., high administrative costs across the banking sector and frequent robberies of branches) produce an average banking spread (i.e., the difference between the applicable interest rate and the interbank rate) of 39.6 pp for personal loans,[25] one of the highest in the world.

3.2 The mobile phone industry

In Brazil, the mobile phone industry is burgeoning but still relatively immature. Four operators answer for 95% of the market share (divided roughly equally among them) and GSM technology dominates the industry. In November 2007, there were 114.7 million cell phones in use, 80% of which were prepaid and every month approximately 1.8 million new clients are added to the system.[26] Online top-ups are customarily made both through a vast network of MNO agents as well as banking agents. Value-added services such as text messages are not regulated under (or defined in) the Telecommunications Law although they are increasingly used as a customer retention tool.

It is noteworthy that in contrast to the banking network, which reaches every municipality through bank agents, 2,200 municipalities do not have access to mobile phone services (although more than 90% of the population is covered by the existent wireless network). Taking this into account, Anatel has set specific coverage requirements in recent auctions for third generation (3G) services: the winners of the most attractive areas must cover the least attractive ones, such as the Amazon region. Also, to increase competition, Anatel put for public consultation a draft regulation on number portability,[27] but the topic is highly controversial among MNOs.

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[23] Marques, Marden S. e Sobrinho, Abelardo D. de M. (2007), Microfinanças: *O Papel do Banco Central do Brasil e a importância do cooperativismos de crédito*. Brasília.

[24] There is no specific legislation on the use of positive information from entities outside the financial system, such as public service companies. Bill 836/2003 addresses this issue but it is not expected to pass soon.

[25] Banco Central do Brasil, "*Relatório de Economia Bancária e Crédito, 2006*".

[26] Anatel: "*Notícias, 23 de novembro de 2007"*.

[27] "Number portability" refers to the consumer's ability to change service providers while keeping the same telephone number.

3.3 Payment systems and instruments

3.3.1 Payment systems

There are two high-value settlement systems, one operated by the CBB and one by private banks. Ultimately, all payments end in the CBB's Reserve Transfer System (RTS), which is only accessed by entities with reserve accounts held at the CBB. Currently, the only entities permitted to have reserve accounts are banks and clearinghouses; other entities establish agreements with one or several banks in order to have indirect access. To lower access barriers and strengthen oversight, the CBB plans to allow a variety of entities to have reserve accounts and settle directly in the RTS.

All clearing and settlement services providers are banks or entities controlled by banks, and the largest ATM and POS networks are also controlled by the largest banking conglomerates. The rules for accessing these systems are set in self-regulation (which is analyzed by the CBB in its supervisory process). Interoperability within the 25 ATM networks or the 4 POS networks is almost nonexistent. (For example, in order to accept transactions with Visa and Mastercard cards, a merchant must acquire two POS devices.) However, there is a fair level of interoperability among bank branches (customers of one bank can make deposits via another bank's branch). The dominance of large banks and the inefficiency created by lack of interoperability in the retail payments systems is driving small and medium banks to create an independent automated clearinghouse (ACH) for low value electronic transactions including mobile banking. The project is encouraged by the CBB but is in its infancy.

3.3.2 Payment instruments

Cash is the primary medium for small value payments. The extensive agent and ATM networks have increased the convenience of cash and its use in recent years. Person to person transfers are the most used type of non-cash transaction (46% of volume) and commonly rely on the "boleto", a bar-coded payment order (paper or electronic) which can be paid by any person at any bank (although the recipient of a payment transfer must have a bank account). The use of credit and debit cards is increasing but the low penetration and high costs of POS networks are considered significant barriers. Prepaid cards are present but relatively confined to specific purpose cards such as phone, meal, gift and travel cards. Visa International and smaller participants have been experimenting with open-purpose prepaid cards, but the use has not yet reached significant scale.

The paper-based culture is only partly explained by client's preferences and level of sophistication. It is also linked to inefficiencies and lack of innovation in the retail payment system, according to the Payment System Department of the CBB. Since cash handling is the main cost of agents in remote areas, the evolution of this branchless banking model will necessarily demand the CBB to push for competition, efficiency and interoperability of electronic payment systems in order to diminish the use of cash.

3.3.3 Mobile payments

Contenders are emerging outside the banking and the mobile phone sectors with virtual wallets in mobile phones that will substitute for plastic cards and POS terminals. An example is Paggo, a technology provider which, through a subsidiary, services credit card companies. The services provided include: credit analysis and collection services for the card issuer, acquiring merchants, processing and storing in its systems information regarding credit card purchases, billing customers and making payments to the merchants. After a credit card issuer enters into an agreement with Paggo, the credit card is "inserted" into a virtual wallet that is stored in the SIM card of customers' mobile phones.[28] There were, in December 2007, 340,000 customers and 19,000 merchants effecting US$ 2.5 million of purchases per month through Paggo. The Payment System Department of the CBB is aware of Paggo but the dialogue between the two has not evolved to date.

Although it is designed to process prepaid accounts and e-money, Paggo currently does not accommodate prepaid cards due to the lack of clarity regarding whether a prepaid scheme constitutes deposit-taking (which may only be undertaken by a CBB-licensed institution). (As discussed below, if a prepaid scheme clearly involves the issuer collecting repayable funds, the issuer *must* be a CBB-licensed institution.) This fact requires merchants to have a bank account to participate in the Paggo system. Consequently, a great part of the informal urban economy is excluded.

There are other examples of emerging prepaid schemes such as a pilot being conducted by Universidade de São Paulo (USP) where cash would be recycled in bank agent networks through the use of electronic accounts stored in mobile phones, and the small MNO CTBC's project "Mobile Card", which envisions virtual credit card wallets and e-money issuing. The CBB has not taken an official position with regard to such schemes.

4. State of Play: Clients

Most low-income and unbanked Brazilians participate in the enormous informal economy, which employs 1/4 of the urban population.[29] There is no integrated national identification system and many do not have official identification documents issued by each of the 26 states. (There are no estimates on this number.) The only nationwide document is the taxpayer number, which is commonly required for account opening and loans.

The penetration of technology in the daily life of the poor is discouraging: internet is accessed by only 3% of the population[30] and PC ownership is hindered by high prices. The most pervasive form of communication technology is prepaid mobile phones, which have been heavily subsidized by the MNOs – mobile phones can be purchased for as little as US$ 0.50, while calls are still relatively expensive.

There is preference for paper and little understanding of electronic means of payments. Many factors contribute to the existence of a paper-based culture and a population that has a high percentage of uninformed and unbanked: low levels of literacy, lack of ID in low-income segments, high bank and mobile phone fees, non-interoperable retail payment systems, a long inflationary history that nurtured the cash culture and a distrust of banks remaining from a fairly

[28] To use Paggo's services, both the merchant and the customer must be registered and possess a mobile phone from Oi, the only MNO currently working with Paggo. To effect a sale, the merchant uses his mobile phone to input the purchase information and the customer's mobile phone number in Paggo's system and provides a personal password. An SMS is immediately sent by the merchant to the customer, who confirms or rejects the transaction and provides her password, triggering another SMS to the merchant with the confirmation/rejection. From this point on, everything works exactly like any credit card: the customer receives statements to be paid in the banking system and the merchant is paid on a monthly basis. Paggo bills the customer and pays the merchant on behalf of the issuer.

[29] Instituto Brasileiro de Geografia e Estatística – IBGE: *Economia Informal Urbana 2003*.

[30] Estimate for year end 2007 from www.camara-e.net.

recent episode of freezing deposits.

In a cash-based society like Brazil, demography plays a crucial role in the economic viability of the agent model. The population is concentrated in urban areas, which are, in turn, also highly concentrated on the coastline. This way, banks subsidize losses of the few agents in remote locations with numerous profitable agents in densely populated areas. The use of technology such as electronic accounts stored in mobile phones to substitute cash has great potential to lower the costs of cash handling in this context and enlarge the agent network.

5. Analysis of the regulatory environment for branchless banking

5.1 The use of agents by banks and other CBB-licensed institutions

All CBB-licensed institutions are permitted to channel the following services through legal entities functioning as bank agents: deposits, withdrawals and transfers; consultations; prepaid mobile phones top-up; bill payments; receiving, reviewing and forwarding applications for account openings, loans and credit cards; preliminary credit analysis; and loan collection. CBB authorization, issued following an analysis of the agency agreement, is required if the agent will engage in "banking services" – namely checking and savings account transactions (i.e., account opening applications, deposits, withdrawals, investment funds, and payments).[31] Other services (except foreign exchange services) may also be outsourced if CBB-authorized. In order to prevent a bank from closing down a branch and replacing it with the less-costly agent alternative, the CBB regulations prohibit the use of an agent whose primary or sole activity consists of services that require CBB authorization. An agent may subcontract all or part of the services to a sub-agent, who is subject to all of the rules applicable to agents.

The principal is fully responsible for the services rendered by its agent(s). The CBB requires the principal (i) to control the activities of each of its agents by setting transaction limits and implementing mechanisms to block transactions remotely when necessary and (ii) to ensure compliance with all applicable legal and regulatory provisions such as AML/CFT, customer protection and data privacy. An agent must post a notice in its establishment that it acts on behalf of the bank.

The agency agreement as well as all supporting documentation related to the services rendered by the agent are open to scrutiny by the CBB, which conducts onsite and offsite inspections through the principal. If necessary, the CBB may conduct inspections directly (for example, if customers are charging an agent with fraud, if the principal's controls are deemed weak or if the principal does not have sufficient supporting documentation regarding the transactions carried out by the agent). Although the systemic risk is deemed low, there is great concern with avoiding large-scale wrongdoing.

Although the framework for the use agents by financial institutions is based on CBB's regulations, the CBB does not have a clear mandate under law to regulate outsourcing. The Labor Law therefore has precedence over the CBB's regulations on agents. As a consequence, there are

[31] Resolution CMN 3110/2003, Article 1. CBB authorization is also required if the agent's name includes the word "bank." Services not requiring authorization include bill payments (e.g., for utilities), receiving loan and credit card applications, analysis of credit history and personal data of loan applicants, collection services and data processing. Ibid. If CBB authorization is not required, then the financial institution simply inputs the details of the agent and the service-level agreement into the CBB's system.

Regulatory provisions to minimize agent risks and permit supervision of the CBB:

- The delivery of banking services (account opening, withdrawals and deposits) by an agent is subject to CBB authorization.
- If banking services are delivered, being an agent cannot be the main or only business of the agent.
- An agent cannot use the word "bank" in its name without CBB authorization.
- The CBB has unrestricted access to all information and documents relative to agents and subagents. The CBB can also directly inspect agents if necessary.
- Regulation sets obligatory clauses to be included in the service agreements.
- Financial settlements must occur at least every 2 business days (accounting settlements are real time).
- Agents cannot give cash advances to clients, guarantee transactions or charge extra fees.
- An agent is required to post (and the Bank is required to ensure compliance of this requirement):
    - a notice indicating its status as a service provider for the bank
    - the telephone numbers of the bank ombudsman and bank customer care representative
    - fees

The CBB monitors and evaluates the largest agent networks by focusing on agent's internal controls and information technology (IT) infrastructure as well as governance by the principal, which must set transactional limits for each agent and implement mechanisms to remotely block transactions when needed.

several actions against banks (brought by agents and by bank employee unions) demanding wage equality between bank employees and agents. Most rulings so far have been in favor of the banks but the continuity of the agent model is threatened by these demands, since its core feature – low cost – is potentially in jeopardy. The CBB is studying changes in the regulation of agents such as requiring banks to include in their service level agreements a clause to clarify the nature of the relationship, and has opened dialogue with the Ministry of Justice and bank associations in order to resolve this issue.

The CBB should consider requiring the service agreement between the bank and agent to specifically state the nature of the agency relationship. This measure could increase certainty of agency relationship and reduce legal actions against banks, although the root of the problem can only be solved definitively if the CBB's authority to regulate bank outsourcing is clarified. A possible solution is to include in the Banking Law an express authorization for the CBB to regulate outsourcing in financial institutions, which would stop contestation of the CBB's regulations in the face of the Labor Law.

5.2 Banking business and e-money

There are two primary legal principles governing banking and e-money. First, pursuant to the Banking Law, the business of collecting, intermediating or investing funds from third parties – cumulatively or not, exclusively or not, habitually or not – is reserved to CBB licensed, regulated and supervised entities.[32] Based on this provision, three groups of entities fall under the umbrella of the CBB:

a) financial institutions that collect demand deposits (banks and credit cooperatives);
b) other financial institutions (deposit-taking or not), such as investment banks;

[32] Banking Law (Law 4595/1964), Articles 17, 18 and 44, and the Financial Crimes Law (Law 7492/1986), Article 1.

c) other intermediaries and fund managers, such as brokers.

Second, all deposit-taking entities are subject to licensing and supervision. The basic concept of deposit, as set forth in the Civil Code, is a contract through which the depositor hands funds to a third party and has the right to reclaim the funds at a later date.[33] Demand deposits are repayable at any time and time deposits are repayable after some agreed upon lag of time, but all deposits are repayable funds.

Although prepaid cards may not fall under the definition of deposit (because the prepaid funds may not be repayable), the requirement of the Banking Law that only CBB-licensed and supervised institutions are permitted to *collect* funds from third parties is generally viewed as prohibiting nonbanks from issuing e-money or other stored value instruments, such as electronic accounts stored in mobile phones.

The CBB has not issued regulations or other guidance on nonbank prepaid schemes that do not involve repayable funds (which would distinguish such schemes from deposit-taking). In light of the conflicting interpretations of the Banking Law regarding (a) what constitutes collection of funds, (b) whether prepaid schemes could involve collection only or intermediation and (c) how this fits with the legal requirement that only licensed financial institutions may engage in collection and intermediation of funds, it is important that the CBB clarify, by regulation or guidelines, the role of banks and nonbanks on prepaid schemes and design appropriate prudential and non-prudential regulation.

MNOs considering involvement in prepaid schemes are concerned that the balances held in prepaid accounts would be treated as income derived from the provision of telecommunication services and thus subject to value added tax (up to 40% of total sales income). If the CBB allows the direct participation of MNOs in the banking business, there should be clarity on the rules applicable to value added services vis-à-vis mobile banking. (Currently, there are no regulations on value added services.).

5.3 Payment System Regulation

The Payment System Law provides the CBB with a clear mandate to supervise the National Payment System, defined as including entities, systems and procedures linked to funds and securities transfers or payment processing, clearing and settling. The law also authorizes the CBB to license certain types of service providers. Pursuant to CBB regulation,[34] clearinghouses and other entities engaged in clearing and settlement services are subject to CBB authorization and supervision, while other participants of the payments system (i.e., payment service providers handling payment transfers as well as providers of payments infrastructure, technology and other accessory services) may be supervised at the CBB's discretion. In determining whether a service should be subject to supervision, the CBB takes into consideration the importance of the service, both in terms of transaction volume and number of customers. Based on these criteria, the largest ATM and POS networks (which are today controlled by banks) are supervised by the CBB while the few small ATM and POS networks (which today are not controlled by banks) are not.

The regulation sets out guiding principles for the infrastructure, governance and risk management

[33] Civil Code (Law 10406/2002), Articles 627 and 586.

[34] Resolution CMN 2882/2001 and Circular BCB 3057/2000.

for all participants in the payments system and gives the CBB a high degree of discretion to establish minimum standards for all participants. Clearing and settlement service providers operating systemically-important systems (a status open to the CBB's judgment) are subject to stricter minimum capital, liquidity and operational standards than other participants as they act as a central counterparty for all transactions.

Taking into consideration the low level of interoperability of POS and ATM networks and the slow response of banks and other payment service providers to the CBB's pressure on this topic, a more stringent measure could be considered by the CBB at this point, i.e. requiring interoperability through regulation. Interoperability has the potential to increase considerably the number of merchants and retail agents connected to Visa, Mastercard and other card networks without imposing undue costs on merchants. As a result, retail agents would be able to provide services for multiple banks using one POS device, which would also result in reduced cash handling costs.

5.4 Money transfer services

There is no regulatory provision for money transfer services. Foreign remittances are considered foreign exchange transactions and local money transfers can only be provided by banks to account holders. (The sender does not need to have a bank account in order to send money to an account holder.) Consequently, money transferors such as Western Union and Money Gram may only offer foreign remittances services in partnership with CBB-licensed institutions specifically authorized to operate foreign exchange (banks, exchange houses and brokers).[35] The postal service has a special dispensation to operate foreign exchange without a CBB forex license, although it is only permitted to send and receive remittances to and from other national postal services.[36]

The CBB's forex regulation requires the exchange rate to be set upon receipt of the funds. This is deemed a barrier to foreign remittances since most jurisdictions apply the "fix on send" rule, not to mention that it requires the receiver to deal with a topic which can overwhelm many customers. Last, money transferors typically require immigrants (whether they are sending or receiving) to present their taxpayer card and prove their legal status in Brazil, since foreign exchange providers are responsible for ensuring the legality of each transaction in accordance with CBB regulations. Western Union believes this keeps 80% of the outbound remittances in the informal and illegal markets.

The private sector has urged the CBB to create, in its regulation, a new category for money transfer services in order to differentiate these from foreign exchange and bank transfers. The CBB has been receptive to discussing the issue, but no regulatory change has occurred to date.

The CBB might consider introducing the proposed regulatory reform in order to permit a broader range of institutions to engage in money transfers and to permit providers to use additional delivery channels, such as retail agents and mobile phones, in order to increase competition and reduce prices. The government could consider allowing the postal service to provide foreign remittances to/from entities other than foreign postal services by reforming the Postal Service Law.

[35] Forex Regime (Resolution CMN 3265/2005 and amendments).

[36] Postal Services Law (Law 6538/1978).

5.5 AML/CFT requirements

The FIU centralizes and analyzes reported transactions and suspicious transaction reports related to all sectors covered by the AML/CFT Law, which applies to a wide variety of legal entities, including banks and other financial sector institutions as well as other legal entities engaged, or dependent upon those engaged, in the financial sector, the stock exchange or the insurance market.[37] The CBB is responsible for setting and enforcing AML/CFT rules applicable to CBB-supervised entities. (The FIU has access to the CBB's reporting system.)

To open a bank account, a customer is required to present to the bank or its agent a government-issued official ID, a taxpayer card and the following information: marital status, parents' names, profession, date and place of birth, address, and telephone number.[38] For the opening of a simplified account (see Section 2.1 above), a bank may accept alternative supporting documents and ID, such as records made available by government agencies responsible for welfare payments. However, the customer must present a government-issued ID within six months of the account opening to avoid the account being closed by the bank.[39] To counterbalance the relaxation of customer due diligence requirements, simplified accounts are subject to a monthly balance limit of US$ 500 (although if the depositor has a microcredit, then the limit is US$ 1,500). If the balance or the total sum of deposits exceeds US$ 500 more than twice within a year, the account must be automatically blocked by the bank. Whether the account is opened at a branch or an agent, records must be kept by the bank for at least 5 years.

Most banks do not apply the prescribed relaxed customer identification procedures to open simplified accounts due to the banks' perception that the procedures will increase costs and increase the risk of not promptly identifying fraud. As a result, to open a simplified account, a client must present an official ID (which low-income customers may not have), taxpayer number and, for some banks, proof of address. To address this situation, the government and the CBB could consider the following steps: (a) undertaking a nationwide effort to issue IDs in partnership with banks and local governments; (b) setting up a nationwide integrated ID system accessible by financial institutions and nonbanks registered in the CBB; and (c) encouraging or enforcing risk-based customer due-diligence for simplified accounts.

MNOs are currently not covered by the AML/CFT law. The FIU believes that as MNOs' participation in the banking business increases, they should be required to report suspicious transactions to the CBB.

Taking into account the convergence of mobile phone and banking services, AML/CFT law could be amended to reflect a service-based approach in which AML/CFT procedures are based on the risk of the service provided rather than the nature of the provider. This approach would permit a wide array of actors (including MNOs) to provide financial services to low income populations within clearly established limits while maintaining proportionate security measures against the use

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[37] Law 9613/1998.

[38] Resolution CMN 2025/1993 and amendments.

[39] Resolution CMN 3211/2004.

of such services for money laundering and financing of terrorism.[40]

5.6 Consumer protection

There is no specialized financial consumer protection body, but an active network of government entities, known as Procon, enforces the Consumer Protection Code in the financial sector. In addition, the newly created Ombudsman of the CBB has the power to require prompt correction of non-compliance with the Consumer Protection Code and with the Bank Client Protection Code. Although banks are liable for the conduct of their agents, clients have the right of redress against both under the Consumer Protection Code.

Banks must post fees and the telephone number for the CBB's Ombudsman and their own customer care service in all facilities where services are delivered, including agent facilities.[41] Agents are required to post information that discloses their agency status. Under the Bank Secrecy Law, agents face criminal and civil charges for misusing client's information (as do MNOs in the case of mobile banking).[42]

As a result of the recent findings regarding agent abuses and the outcry in the media (see Section 3.1.1 above), the CBB is currently overhauling the regulation and the supervisory process regarding consumer protection vis-à-vis banks and bank agents. For instance, in July, 2007 the CBB required the institutions themselves to create ombudsmen[43] and issued stiffer regulations on price transparency which also apply to agents, such as standardization of the names of bank fees and the disclosure of the effective annual interest rate on loans. The CBB has also taken measures to increase competition in the banking sector such as instituting loan portability (the borrower's prerogative to transfer loan balances from one bank to another), but it admits the effects have been limited due to inadequate education and communication efforts.[44]

Further efforts may be needed in order to increase coordination among regulatory agencies (the CBB, Anatel and Procon) in the enforcement of consumer protection rules in the financial sector and in the design and implementation of nationwide financial consumer education initiatives.).

5.7 E-commerce

The Civil Code provides for recognition of electronic signatures. Digital certificates are issued by certifying authorities licensed by a Root Certification Authority. However, the E-signature Law[45]

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[40] See forthcoming "Mobile Phone Financial Services: The Making of a Safe and Sound Enabling Environment: A Contribution from World Bank Staff to Policymakers' Discussions on Addressing Money Laundering and Terrorist Financing Risks," Chatain, Pierre-Laurent, Raúl Hernández Coss, Kamil Borowik, and Andrew Zerzan, Washington D.C.: World Bank.

[41] Resolution CMN 2303/1996 amended by Resolution CMN 2343/1996 and Resolution CMN 2747/2000. This framework will be substituted by Resolution CMN 3518/2007 and Circular BCB 3371/2007 from April 2008.

[42] Law 9296/1996.

[43] Resolution CMN 3477/2007.

[44] Banco Central do Brasil, Relatórios "*Economia Bancária e Crédito*", 2003, 2004, 2005, 2006.

[45] Provisional Measure 2200/2001.

does not expressly establish criteria for validation of authenticity and integrity of electronic documents. Instead, each certifying authority sets its own standards. Although this absence of uniform standards has no major impact today (due to the fact that one certifying authority - Certisign - issues the vast majority of the certifications in the country), it could become problematic as the market expands and competition increases in the certification business.

There is a 2002 bill that adequately addresses this issue by setting validation standards based on the United Nations International Trade Model Law. Unfortunately, the bill is unlikely to be passed while Congress remains gridlocked with other major reforms and corruption investigations.

According to banks and payment service providers, the greatest obstacle to the security of electronic commerce is not the lack of validation standards but the lack of a legal framework for prosecuting crimes related to electronically authorized transactions. There has been an exponential escalation of e-security crimes (identity theft, phishing, spam and viruses) and some successful prosecutions brought charges under the Penal Code as well as under laws on wiretapping, bank secrecy and AML/CFT, although through a slow and costly process. At least fifteen draft laws on e-crime have been waiting for years in Congress to solve this issue.

A robust legal framework would increase certainty in electronic financial transactions, allowing for banks and nonbanks to invest in cost-effective alternative electronic delivery channels with the potential to increase access by low-income clients.

5.8 Regulation of microcredit

Banks are required to direct 2% of demand deposits to microcredit operations, as defined by and subject to the following limitations set forth in CBB's microcredit regulation: (As previously stated, microcredit is the only credit operation that can be offered to a simplified account holder.)

Resolution 3310/2005 – Microcredit Operations

<table>
<tr><th>Borrower</th><th>Maximum amount of the loan</th><th>Minimum duration of the loan</th><th>Maximum opening fee</th><th>Maximum annual interest rate</th></tr>
<tr><td>- Simplified account holders or other account holders with average monthly balance below US$ 500.
- Low-income individuals registered in wealth transfer programs (below the poverty line)</td><td>Up to US$ 300</td><td>120 days</td><td>2%</td><td>24%</td></tr>
<tr><td>- Individuals who want to finance enterprise and legal entities classified as micro-enterprises</td><td>Up to US$ 750</td><td>120 days</td><td>4%</td><td>24%</td></tr>
<tr><td rowspan="3">- Loans classified as supervised productive microcredit (Law 11110/2005) to individuals and legal entities considered micro-entrepreneurs. The purpose of the loan should be financing working capital.</td><td rowspan="3">Up to US$ 5,000</td><td>30 days</td><td>1%</td><td rowspan="3">48%</td></tr>
<tr><td>31 to 119 days</td><td>2%</td></tr>
<tr><td>From 120 days</td><td>3%</td></tr>
</table>

Despite the enormous impact of the agent model on providing the population with access to transaction-based financial services such as bill payments, deposits and withdrawals, banks have not equally invested in using agents for credit and savings. Discontent, the government has been threatening to close the joint venture Bradesco-Correios (Banco Postal) in order to form a new state-owned postal bank that would fill the gap.

As opposed to foreclosing on the joint venture, a more appropriate measure would be to create profit-motivated incentives for banks to use simplified accounts and retail agents to deliver credit *to low-income customers. Among other things the government and the CBB might consider:*

- *Revising the transaction limitations imposed on simplified accounts and lower (or eliminate) the reserve requirements related to their balances (demand and savings);*
- *Pushing for the approval of Bill 836/2003, which would establish rules and provide legal security for credit bureaus carrying positive and negative information from a wide array of sources such as utility companies;*
- *Removing or modifying the regulatory limitations on microcredit.*

6. Summary of suggestions

Challenges and Obstacles	Recommendations
E-money, other prepaid schemes and mobile banking - E-money not permitted for nonbanks. - Lack of clarity regarding nonbanks engaging in prepaid schemes that do not involve repayable funds. - Lack of clarity in value added services provided by mobile network operators vis-à-vis financial transactions.	- *Central Bank*: issue policy paper on prepaid schemes, clarifying the nature of this activity vis-à-vis deposit-taking and the role of nonbanks, as well as the regulatory framework applicable, including AML/CFT requirements, maximum thresholds and consumer protection rules. - *Central Bank*: issue prudential (minimum capital, operational standards and limits, liquidity levels) and non-prudential regulations (reporting and registering) for nonbanks involved in e-money issuance. - *Anatel*: issue regulations/guidelines to clarify the offer of financial services as value added services by mobile network operators. - *Tax Authority*: clarify the tax regime applicable to nonbanks engaging in prepaid schemes, including mobile network operators providing value-added services such as electronic accounts stored in mobile phones (balances that can be used for purchases in a wide array of establishments).
Use of agents - Legal actions against the Central Bank due to the lack of clear mandate to regulate outsourcing. - Class actions demanding wage equality between bank employees and agent employees. - Cash handling costs in retail agents and lack of interoperability of POS and ATM networks.	- *Central Bank and Government*: amend the Banking Law in order to clarify the Central Bank's competence regarding outsourcing in regulated entities. - *Central Bank*: require agency agreements to clarify the nature of the agency relationship to increase legal certainty in this business. - *Central Bank*: require interoperability and encourage the use of electronic accounts stored in mobile phones or smart cards to

Challenges and Obstacles	Recommendations
	reduce use of cash. - Increase coordination among the CBB, Anatel and Procon in the enforcement of consumer protection rules in the financial sector and in the design and implementation of nationwide financial consumer education initiatives.
Money transfers services - Lack of regulatory provision for money transfer services. Foreign remittances are considered foreign exchange and local money transfers can only be provided by banks to bank account holders. - Money transferors working in conjunction with CBB licensed institutions require proof of legal presence in the country and taxpayer number from immigrants. - Agents not permitted to offer foreign remittances. - Postal service allowed to receive/send foreign remittances only from/to foreign postal services.	- *Central Bank*: create new regulatory category for money transfer services in order to distinguish these from foreign exchange and bank transfers. - With the above reform, the Central Bank should: • set requirements and standards for money transferors service providers, such as AML/CFT, reporting, transaction thresholds, and customer protection rules; • encourage risk-based customer due diligence in foreign remittance services, though policy paper and/or guidelines; • allow agents to offer money transfer services, by amending the retail agent regulation. - *Government*: amend the Postal Service Law in order to allow for foreign remittances from/to a wider array of foreign entities such as money transferors.
Electronic transactions -Lack of legal framework for e-crimes. -Lack of standards for e-signature certification.	*Government and Central Bank*: push for approval of relevant bills to create a solid framework for curbing electronic crimes and standardization of e-signature certification.
AML/CFT (banks) - Risk-based flexibility for simplified accounts is not being exercised by banks.	- *Central Bank*: encourage risk-based customer due diligence in simplified accounts, by issuing guidelines and/or policy paper. - *Government*: carry out a nationwide effort to issue IDs for those who do not have them, engaging banks and retail agents. - *Government*: Implement an integrated ID database accessible by financial institutions and nonbanks supervised by the CBB.

Challenges and Obstacles	Recommendations
AML/CFT (nonbanks) - Mobile network operators and other nonbank e-money and prepaid card issuers are not covered by the AML/CFT law (in case these services are eventually permitted under the Banking Law and CBB's regulations).	- *FIU and government*: amend the AML/CFT Law to reflect a service-based approach in which AML/CFT procedures should be based on the risk of the service provided, rather than on the nature of the provider. This approach would permit a wide array of actors to provide financial services (such as mobile network operators) while maintaining proportionate security measures. - *FIU and/or Central Bank*: After the law is passed, issue specific regulations providing a risk-based framework for low value mobile banking transactions, such as differentiated individual account limits. - *FIU*: ensure that the know-your-customer procedures are being properly carried out and that suspicious transactions are being reported by the credit card issuers involved in virtual wallets.

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