



## ENHANCING FINANCIAL SECTOR SURVEILLANCE IN LOW INCOME COUNTRIES (LICS)—CASE STUDIES

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## Case Studies<sup>1</sup>

This supplement presents ten case studies, which highlight the roles of targeted policies to facilitate sustainable financial deepening in a variety of country circumstances, reflecting historical experiences that parallel a range of markets in LICs. The case studies were selected to broadly capture efforts by countries to increase reach (e.g., financial inclusion), depth (e.g., financial intermediation), and breadth of financial systems (e.g., capital market, cross-border development).

The analysis in the case studies highlights the importance of a balanced approach to financial deepening. A stable macroeconomic environment is vital to instill consumer, institutional, and investor confidence necessary to encourage financial market activity. Targeted public policy initiatives (e.g., collateral, payment systems development) can be helpful in removing impediments and creating infrastructure for improved market operations, while ensuring appropriate oversight and regulation of financial markets, to address potential sources of instability and market failures.

The role of maintaining macroeconomic stability is demonstrated by the case studies for Mexico and Turkey, where stabilization policies were necessary for debt market development. The expansion of bank intermediation in transition economies also underscores this role in spurring intermediation.

The role of public policy in removing impediments and inefficiencies, and providing infrastructure is evident in Kenya, the Philippines, and Uganda, where the use of mobile technology was encouraged and supported by flexible regulation to foster access. Similarly, policy initiatives allowed for regional bond market development among the Association of Southeast Asian Nations (ASEAN) countries and in the West African Economic and Monetary Union (WAEMU). At the microstructure level, the introduction of auction markets and efforts to improve debt issuance in Nepal and primary dealers in Turkey, and other arrangements and policies for liberalization geared to helping, credit and insurance market operations underscore the role of policy in market development.

Regulation and supervision, including market conduct and consumer protection regulation, must accompany financial deepening since, in expanding the number, range and coverage of players, the latter can increase market inefficiencies. The cases illustrate the need for a widening of the regulatory perimeter to include nonbank financial service providers for sustainable financial inclusion. In the transition and other economies both micro- and macroprudential regulation proved necessary as systems deepened, as well as in response to challenges created by developments in established markets. The cases of Uruguay and transition economies also demonstrate that adequate cross-border arrangements are essential to support sustainable financial liberalization.

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<sup>1</sup> The case studies were prepared by an interdepartmental team led by Mary Zephirin (MCM) and Ritu Basu (SPR), with input from Era Dabla-Norris (SPR), comprising Sarwat Jahan (SPR), Abdullah Al-Hassan, Arto Kovanen, Obert Nyawata, Maria Oliva, and Wilson Varghese (all MCM), Mame Diouf, Francois Boutin-Dufresne, Rogelio Morales, and Yibin Mu (all AFR), under the guidance of David Marston (SPR), S. Kal Wajid (MCM), and Anne-Marie Gulde-Wolf (AFR).

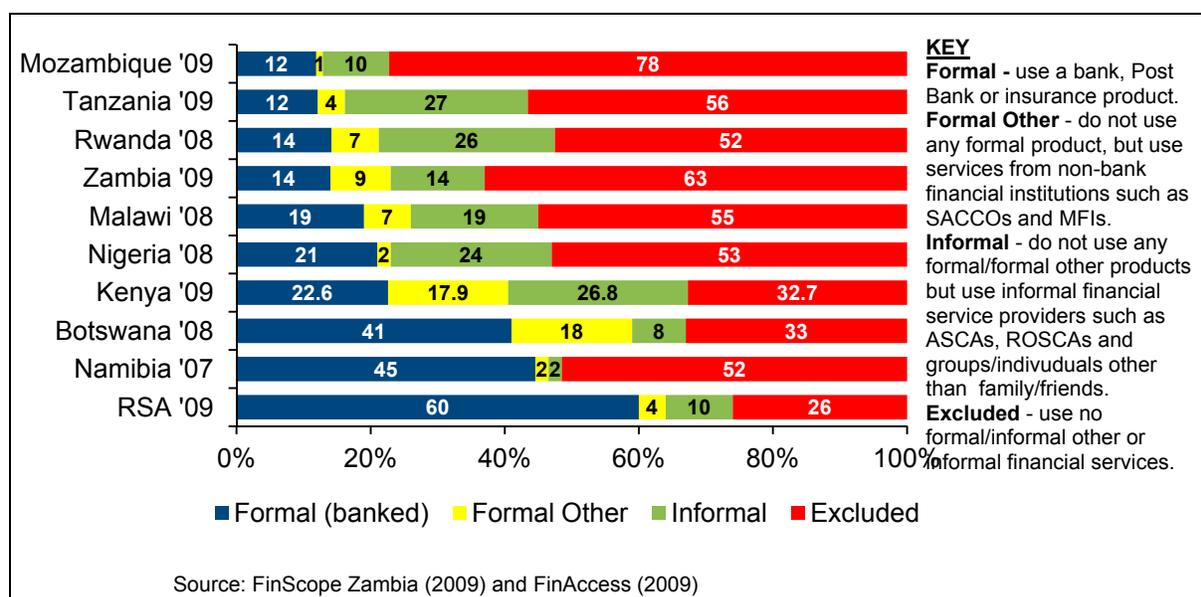
# I. FINANCIAL INNOVATION IN KENYA: THE M-PESA EXPERIENCE<sup>2</sup>

The introduction of M-Pesa in 2007 enabled customers to transfer money quickly and at a low cost via mobile phones, without the need to hold a bank account. The widespread use of M-Pesa has helped reduce transaction costs, and facilitated personal transactions. It has also contributed to an increase in the use of services of financial intermediaries, as the demand for banking services by the low-income segment of the population expanded aided by the dynamism of mobile phone-based financial transfers.

## A. Background

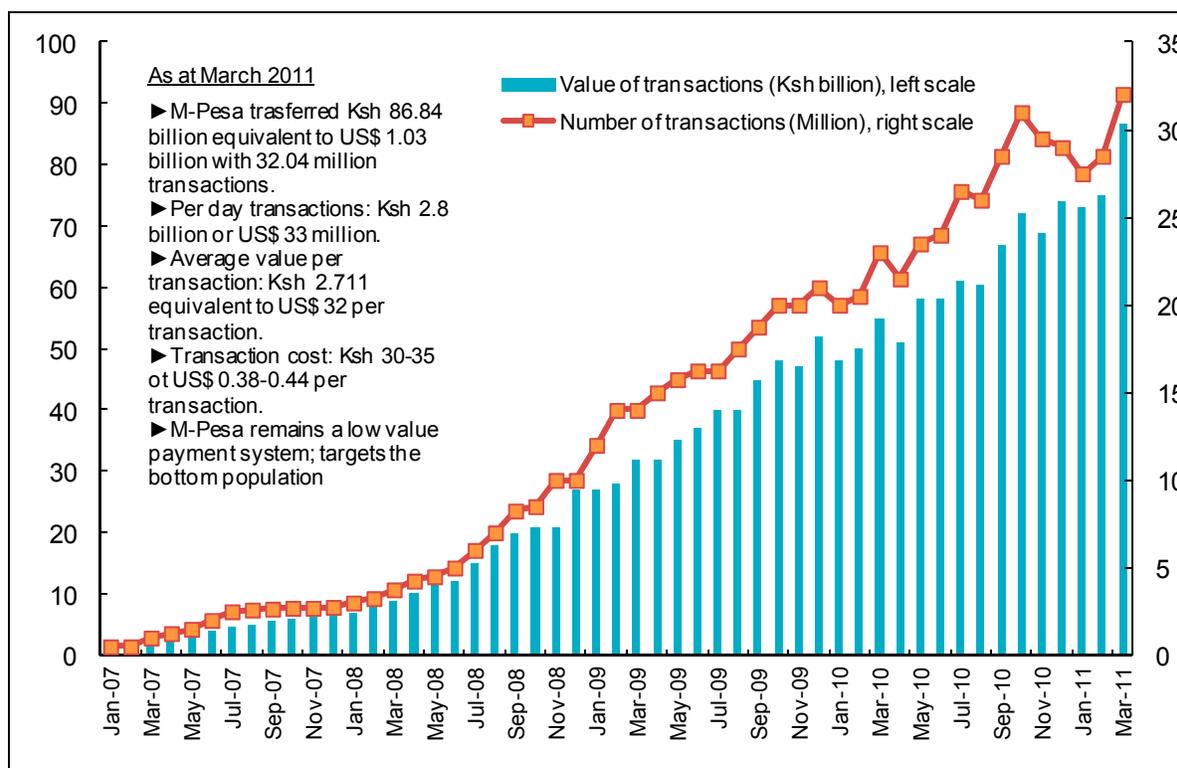
1. **In Kenya, the “mobile-transfers revolution” has contributed to the increase in the use of services of financial intermediaries.** As a result, Kenya shows the lowest percentage of the population excluded from financial services in a sample of comparable SSA countries. This is despite the fact that 46 percent of the population lives in absolute poverty or on less than US\$1.25 a day, and 32.7 percent are still unbanked (Figure I.1).<sup>3</sup> Annual transfers via mobile technology and the number of users have increased exponentially (Figure I.2).

**Figure I.1. Sub-Saharan Africa: Cross-Country Comparison of Financial Access**



<sup>2</sup> Prepared by Rogelio A. Morales (AFR)

<sup>3</sup> Kenya Integrated Household and Budget Survey and 2009 Kenya’s National FinAccess Survey, respectively.

**Figure I.2. Kenya: Growth of M-Pesa**


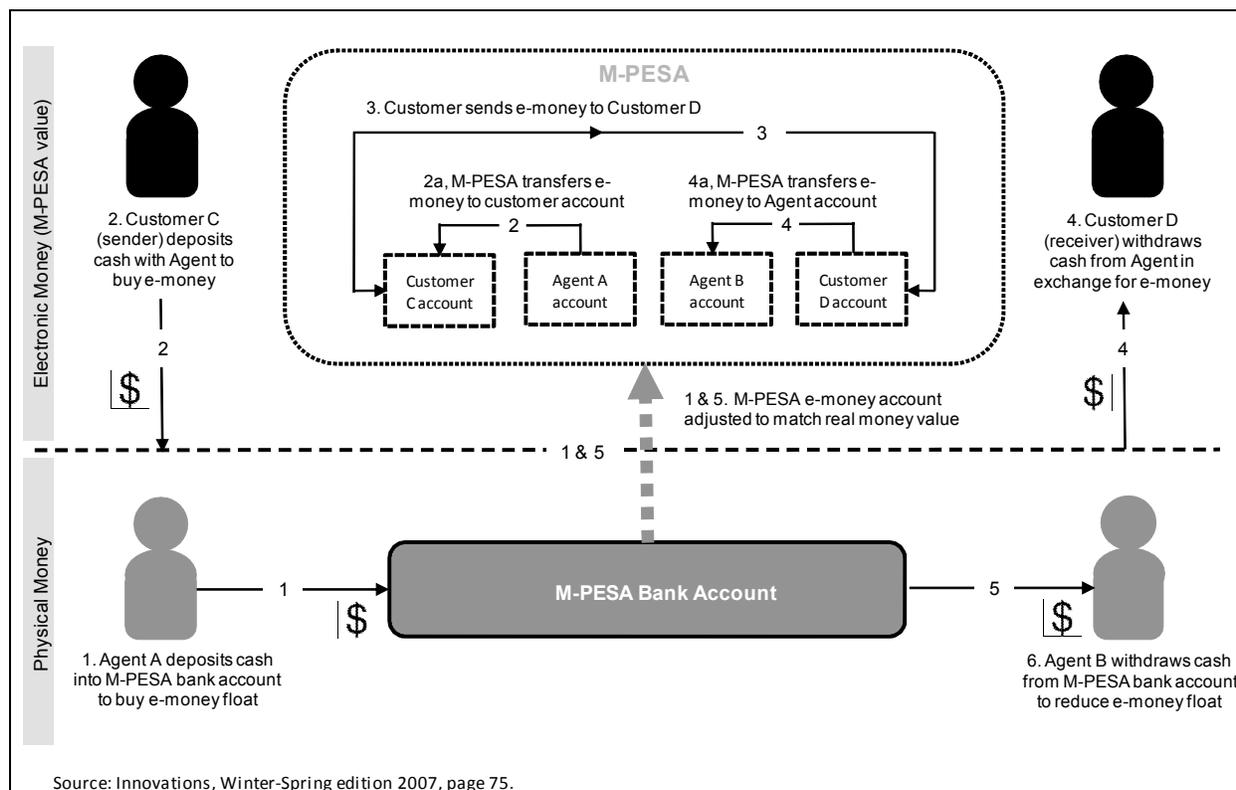
Source: Central Bank of Kenya, 2011.

2. **Mobile phone transfers confer myriad benefits that contribute to increasing access (Jack and Suri, 2009).** The users can deposit money into an account recorded in their cell phones and transfer it using SMS technology to other users, including businesses (Figure 1.3). This creates outstanding balances (e-float) against which charges are deducted when payments take place. Money can be uploaded and withdrawn from a network of agents for airtime purchases, transfers, and bill payments. Not only can customers purchase cell phone credit or “airtime” without moving locations, the technology helps to reduce transaction costs as bills can be paid remotely, also reducing the risk of cash losses experienced in currency transfers over long distances. Mobile technology facilitates person to person transactions by enabling a network for instant “on demand” payments. Finally, it allows for a more efficient allocation of human capital, as households in remote locations have more time to spend on productive activities.

## B. Main Features of Mobile-Based Transfers in Kenya

3. **Origin:** M-Pesa started as a DFID-funded pilot project supporting microfinance. The pilot project started with 500 clients instructed to repay their loans to Faulu, a Kenyan microfinance institution. In its current form, M-Pesa was developed by Vodafone and launched commercially by its Kenyan affiliate Safaricom, the leading mobile-transfer institution in Kenya, with 80 percent of the market (followed by Zain and Orange), in March 2007 (Mas and Radcliffe, 2010).

**Figure I.3. Kenya: M-Pesa Transactions**



4. **Users:** M-Pesa’s users in April 2011 reached 14 million (40 percent of Kenya’s population) and mobile phone-based transfers (Figure I.2) were equivalent to 11 percent of GDP (The Economist, June 2010). A household survey identifies the following main features of the populations using M-Pesa services (Jack and Suri, 2009):

- Within the low-income segment of the population, M-Pesa users are wealthier than non-users, but the difference is declining over time. In 2008, annual expenditures of M-Pesa users were 67 percent higher than that of non-users, and asset holdings were 113 percent higher. A survey update in 2009 shows that the average income of M-Pesa users has declined over time as new segments of the population have joined the system.
- M-Pesa users are normally part of the “banked” population. Around 72 percent of households have at least one bank account among users, compared with 36 percent for non-users. However, the percent of the banked population using M-Pesa has increased significantly as new users have opened bank accounts, and as banks started allowing consumers to link their M-Pesa and bank accounts in 2009.

**Recent developments:**

- In 2010, a mobile phone-based deposit account (M-Kesho) was introduced. This product has been introduced in partnership between Safaricom and Equity Bank (leading commercial bank providing microfinance) with significant potential to broaden the range of money services and mobilize resources, while further reducing the need to hold cash. So far 700,000 accounts have been opened, with around US\$8 million in total deposits.
- Competition between banks and mobile phone operators has increased. In the last two years, mobile phone platforms became increasingly integrated with banking platforms. Other banking products using mobile phone technology were introduced by three other banks (KCB Connect, Pesa-Connect and Family Bank's Pesa Pap). Likewise, other mobile phone operators have launched mobile money products (Zap by Zain, and Yu Cash by Essar).

**C. What Explains M-Pesa's Success?**

5. **Key factors explaining M-Pesa's success are:** (i) the dramatic expansion in the use of mobile phones; (ii) the inexpensive and flexible use of technology; (iii) favorable conditions for banks' penetration of new markets; and (iv) government policies.

**Rapid expansion in mobile phone use**

6. **The expansion of mobile phone use supported M-Pesa services.** The significant cost difference between line calls and mobile phone calling rates added to M-Pesa's low transaction costs, which in turn encouraged further the use of mobile phones. Indeed, mobile phones increased from virtually zero in 1999 to nearly 21 million in 2010. This compares to an increase in the number of landlines from about 300 thousand to around 450 thousand over the same period. Kenya is currently the most developed mobile phone market in East Africa (World Bank, 2010).

7. **Kenya's demographic profile also supports strong demand.** In Kenya, 17 percent of households depend on remittances as their primary income source. Also, with a moderate urbanization ratio (22 percent) rural-urban ties are strong enough to require significant transfers between rural and urban areas.

**Inexpensive and flexible use of technology**

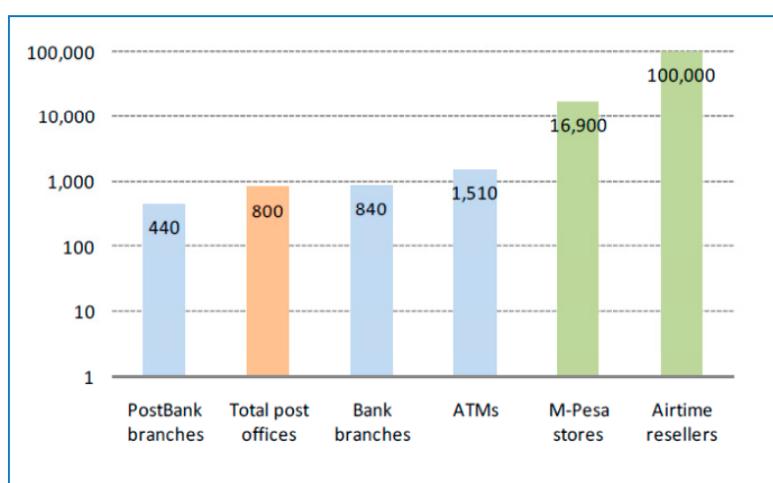
8. **The presence of Safaricom as a leading operator with strong market presence facilitated M-Pesa's expansion.** Safaricom's strong brand recognition helped to gain trust among the population, while its widespread presence ensured a large network of airtime resellers that quickly became M-Pesa agents, and incorporated cash-in/cash-out operations into their business. Safaricom's strategy to introduce M-Pesa was kept simple, flexible, and inexpensive.

- M-Pesa was originally conceived as a means of facilitating micro-credit. The need for familiarity with cell phones proved a potential constraint, while the strong demand for transfers was an

incentive for use. The product was quickly adapted (marketing relied on three words: “send money home”).

- M-Pesa deploys its services using an agent-based system, with an average of 500 users per agent. Agents are organized into groups, based on physical locations, with or without a centralized “aggregator” which could be a bank branch or a leading nonbank agents. In April 2011, there were about 28 thousand M-Pesa outlets offering financial services in Kenya.
- Economies of scale help keep costs low. M-Pesa registration is free, and customers pay a flat fee of around US\$.40 cents for transfers (US\$.33 cents for withdrawals).

**Figure I.4. Kenya: Alternative Financial Service Outlets, 2010**

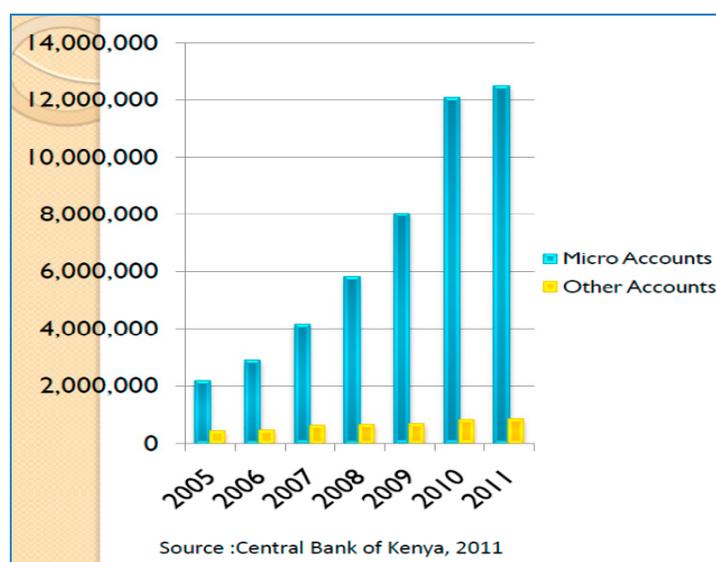


Source: Mas and Radcliffe, 2010.

### Favorable conditions for banks’ penetration of new markets

9. **The macro environment provided incentives for banks to follow this expansion strategy.** Banking business driven by large customers declined as most large-scale investments were postponed following the 2007 political riots. Moreover, unusually large excess reserves held by commercial banks at the central bank led to low interest rates and low margins that justified the search for alternative lines of business.

10. **Banks were proactive in expanding business to previously unattended segments of the population.** Mobile-based transfers have benefitted from the increasing availability of bank branches, while banks have been able to penetrate untapped markets in tandem with the surge in mobile-based transfers, including by lowering costs for low-income customers.

**Figure I.5. Kenya: Number of Bank Accounts**

11. **Equity Bank played a key role in driving financial access to the previously unbanked population.** In 2010, the bank had 5.4 million customers in Kenya (57 percent of the banked population). It has also led the way in allowing customers to not only make transfers using mobile phones, but also to originate and pay loans, and to apply and pay for insurance. Parallel to the development of mobile phone-based transfers, Equity bank was proactive in making deposits and loans accessible to population at large by lowering fees, eliminating minimum requirements, and using a flexible approach to collateral. Equity bank holds 12 percent of bank branches, but the number has doubled in the last three years.

### Government policies

12. **The Central Bank of Kenya (CBK) was involved from the beginning in the implementation of M-Pesa.** The CBK allows Safaricom to operate M-Pesa as a parallel payments system, requiring only that customers' funds be deposited in a regulated financial institution. Safaricom deposits and earned interest are placed in a not-for-profit trust account. The CBK also introduced limits on transaction sizes to comply with anti-money laundering (AML) criteria.

13. **The legal framework for M-Pesa operations was kept open.** A trust company was created to run M-Pesa services in Kenya, operated locally by Safaricom, but owned, hosted and developed by Vodaphone (Hughes and Lone, 2007). The incorporation of M-Pesa settlements of transactions into the payment system framework is awaiting approval of the new National Payments Bill.

14. **In the last two years, the central bank has introduced policies to further deepen financial intermediation.** These include:

- In 2010, approval of a new scheme enabling third parties or "agents" to conduct banking activities on behalf of financial institutions. Currently, 8,800 agents operate, of which 6,740 are

related to mobile-banking operations (67 percent in rural areas). This allows banks to provide services directly comparable with M-Pesa.

- In 2009, introduction of three currency centers to help reduce cash in transit costs for commercial banks' branch networks across regions. These serve 172 commercial banks' branches and account for over 12 percent of currency transfers in the country.

## D. Lessons and Risks Management Issues

15. **M-Pesa has shown that leveraging mobile technology is a promising vehicle for extending financial services.** This is especially promising for Africa, where mobile phone penetration has increased from 3 percent in 2002 to 48 percent currently, and is expected to reach 72 percent by 2014. The potential of using alternative services is significantly large once a customer is connected to a mobile phone system. This capability can be used not only for savings, transfers, and payment purposes, but also to receive pensions, social welfare payments, loan disbursements, and repayments.

16. **Transplanting Kenya's success to other jurisdictions requires adaptation to different economic circumstances.** A study comparing the experiences in Kenya and Tanzania, found that although remittances from abroad are larger in the latter, some factors impede achieving the same degree of success as in Kenya (Camner and Sjöblom, 2009). These factors include lower density of population in Tanzania, better banking infrastructure in Kenya, and the absence of a national ID system in Tanzania, among others. Differences in the macroeconomic environment at the time of launching M-Pesa may have also played a role. Moreover, an environment of low competition may be less favorable for the expansion of mobile phone-based transfers through banks.

17. **Risks associated with M-Pesa's expansion have been largely contained.** However, the growing size of operations justifies further measures to prevent major failures in risk prevention:

- M-Pesa operations need to be formalized in the new National Payments Systems Bill. In addition to provide a sounder legal basis for M-Pesa operations, the planned bill ensures customer protection. Currently, money stored in M-Pesa accounts is uninsured, unless they are linked to a deposit account.
- Operational risks were covered through regulations addressing in detail the technological capabilities and control processes needed for security. As new operators enter into the market, and as the technology evolves, coverage of operational risks would need to be updated regularly.
- The use of M-Pesa services by microfinance institutions is increasing, but it is still small. However, regulation and supervision for microfinance should explicitly incorporate credit, liquidity and operational risks associated with M-Pesa transfers, as well as consumer protection provisions.

- With similar schemes being introduced in neighboring Tanzania and Uganda, cross-border payments may open significant opportunities for intra-regional trade and services, but new risks may emerge that would require strong coordination among country regulators.

## E. Conclusion

18. **Key lessons:** The M-Pesa experience has shown that leveraging mobile phone technology is a promising way to extend financial services to a large proportion of the population. The potential of using other financial services is significantly larger once a customer is connected to a mobile phone network.

19. **Key policies:** Policies have been flexible to allow for the rapid introduction of mobile transfers throughout the country, while at the same time regulations and control processes needed to provide security have helped keep risks largely contained.

20. **Key risks:** The legal framework needs to be enhanced, including by incorporating M-Pesa operations as part of the National Payments Systems. Operational risk remains a continuous challenge, especially as new operators enter into the market. Supervisory authorities need to update security systems as the technology evolves.

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## II. PHILIPPINES: MOBILE PAYMENTS<sup>4</sup>

*The emergence of the Philippines as an early pioneer in mobile payments was the result of the initiative of two mobile network operators, facilitated by the support of the central bank. Mobile payments have led to a substantial drop in the cost of money transfers in a country where remittances are 10 percent of GDP. Further expansion of mobile financial services has the potential to reduce the high financial costs of financial services in areas of low population density and limited transport infrastructure.*

### A. Initial Conditions

21. **Access to finance in the Philippines via the formal banking sector is limited.** A frequently-cited quote is that the Philippines had fewer ATMs in the country at the end of 2006 (6,867) than islands constituting the archipelago (approximately 7,100). There are 17 million bank depositors in the country out of a total population of 88.7 million (as of end 2006). Even for individuals with bank accounts, access to financial services is difficult. A trip to the bank or to pay a bill can sometimes take two days, and might require a boat. The alternative is a “collector,” someone who goes from island to island collecting bills and the money to pay them for a commission.

22. **In recent years, mobile payments have provided another option, with mobile phones as payment platforms.** The emergence of the Philippines as an early pioneer in mobile payments reflected the needs of overseas Filipino workers (OFWs) to send remittances home. OFWs sent home approximately US\$18 billion in remittances in 2008 (approximately 11 percent of GDP). Many OFWs also came from provinces where formal financial infrastructure was limited and payments were often entirely in cash. The high SMS literacy rate of the Filipino mobile users (75 percent of the population are mobile phone subscribers and send a billion text messages a day) would make it a natural candidate for implementing mobile payments. Mobile payments were also seen as a means of reaching deeper into rural areas without costly investments in infrastructure, while reducing the cost of payments services.

### B. Boosting Financial Access Through Technological Innovation

23. **Mobile payments service was initiated by the two largest telecommunication companies (Smart Communication and Globe Telecom).** But, they were able to flourish with the support of the central bank of the Philippines (BSP). The BSP supported the development of network operator-led mobile payments by allowing technological innovation to take place and putting in place the appropriate regulations to protect both consumers and the banking system. Both mobile network operators provide electronic money products, although their modes of operation are different (see Box II.1 for details).

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<sup>4</sup> Prepared by Sarwat Jahan (SPR).

### Box II.1. Electronic Money Products in the Philippines

**Smart Money** was launched in 2000 as a reloadable payment card that can be accessed either through a Smart mobile phone or a MasterCard "power card" that is similar to a debit/cash card. Smart's bank partners hold the Smart Money accounts, and Smart's bank partners are responsible for securing approval from and reporting to the BSP. Through Smart Money customers can do the following: prepaid reloading, bill payment, funds transfer, checkbook request, balance inquiry and other transactions otherwise done through ATMs. Customers can also use a reloadable electronic card that works with the phones; it can be used at any ATM of a partner bank. This allows payments to be made with the Smart Money card at any existing point-of-sale device that accepts MasterCard. Currently, Smart is working with 21 banks: all the banks utilize Smart's mobile banking platform and three utilize Smart Money's e-money platform and issue smart money.

By contrast, Globe Telecom launched **GCash** in 2004, but not in cooperation with a bank. GCash clients load cash onto electronic "wallets" from which they then make payments (via SMS) to other GCash clients using their Globe mobile phone. Value in GCash accounts, and information about transactions, is held by a wholly-owned subsidiary of Globe Telecom that is registered with BSP as a remittance agent. Customer funds are pooled and deposited by the subsidiary in several commercial bank accounts held in the subsidiary's name. The subsidiary follows an internal policy of matching the value in GCash accounts on a 1:1 basis with funds deposited in subsidiary's bank accounts.

Source: Notes on Regulation of Branchless Banking in the Philippines, January 2010, CGAP.

24. **The significance of these innovations was that mobile technology was able to transform cash into e-cash, eliminating the physical distance constraint.** This achievement let the unbanked population make and receive mobile payments. The common features of these two mobile payment systems are:

- Any mobile customer can sign-up and get a "mobile account" which is not a bank account.
- User can make cash deposits, withdrawals, and purchases.
- Person-to-person (P2P) credit transfers as well as international transactions can be made.

25. **The major difference between these two systems is that Smart issues a debit card or MasterCard in partnership with banks (Box II.1), while Globe assumes responsibility for the financial aspect.** This eliminates the need for a banking partner, but poses regulatory issues.

## C. Addressing Bottlenecks and Mitigating Risks

**The main challenge resulting from this product innovation was the lack of a supportive legal and regulatory framework. Further, there was risk that a correct balance would not be struck in putting in place the supervisory and regulatory framework.** These risks (Box II.2), and unlike risks

recognized by conventional bank regulators and supervisors,<sup>5</sup> take on a special importance when customers use agents rather than bank branches to access banking services, such as for making mobile payments. Therefore, it was necessary to put in place an appropriate supervisory and regulatory framework that ensured protection of, and yet supported product innovation. The current framework in the Philippines seems to have struck the right balance and has been used as an example for others to follow or to adapt to their own country circumstances.

### Regulatory framework for agents

26. **The BSP required both mobile operators to be registered as remittance companies to conduct mobile payment activities.**<sup>6</sup> Mobile operators and the sub-set of remittance agents who act on their behalf must: (i) apply to the BSP for registration, which entails the submission of legal documents and the payment of a fee; and (ii) have officers and personnel directly involved in the cash operations undergo training by the Anti-Money-Laundering Council (AMLC). All registered remittance agents must: (i) for each remittance, complete a know-your-client (or Customer Due Diligence) process on the sender, which entails the client completing an application form and presenting a government-issued identity document; (ii) maintain records of all transactions for five years; and (iii) report specified and suspicious transactions. The authorities also modified the regulations to reduce compliance costs. For example, rather than requiring AML training in Manila, the authorities allowed the mobile operators to conduct their own AML training as long as it followed the AML Act and was certified by the AMLC. This has contributed to an increase in the registration of agents and consequently increased mobile banking services.

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<sup>5</sup> These include the risks recognized by the Basel Committee. See Basel Committee on Banking Supervision 2006, for details.

<sup>6</sup> Banking regulations in the Philippines prohibit outsourcing of inherent banking functions (defined as servicing deposit transactions). Smart's arrangements with its bank partners are not in violation of the banking regulation as Smart Money balances are classified as accounts payable and not deposits. But this required Smart to become a remittance agent.

### Box II.2. Risks of Delivering Financial Services to Unbanked

Increasing access to financial services for the unbanked needs to be provided through a proper regulatory and supervisory framework with a view to mitigating the following risks:

**Credit risk.** Simply stated, it is the risk that one party to a financial transaction will not receive the money that is owed to them when it is due. When banking transactions do not settle immediately, and when additional parties are interposed between the customer and the bank, opportunities for credit risk multiply.

**Operational risk.** Refers to potential losses resulting from “inadequate or failed internal processes, people and systems or from external events.” For banks and nonbanks that use retail agents and rely on electronic communications to settle transactions, a variety of potential operational risks arise. For example, customers or retail agents could commit fraud.

**Legal risk.** Financial service providers will invest in a new delivery model only if they can predict and manage how relevant laws, regulations, and legal agreements will be applied and enforced, and how these things may change over time. But because regulators have had little experience with new innovations and are still adjusting existing rules to address them, some level of legal and regulatory uncertainty remains.

**Liquidity risk.** Relatively small, unsophisticated, and remote, retail agents may not have enough cash to meet customers’ requests for withdrawals. Agents may lack experience in the more complex liquidity management required for offering financial services. To manage liquidity effectively, retail agents must balance several variables, including turnover of cash, ease of access to the retail agent’s bank account, and processing time of transactions, among others.

**Reputational risk.** When retail agents underperform, banks’ public image may suffer. Many operational risks mentioned (such as the loss of customer records or the leakage of confidential customer data) also can cause reputational risk, as can liquidity shortfalls in the retail agent’s cash drawer.

**Consumer protection.** Any of the foregoing categories of risk triggers consumer protection concerns if the resulting loss falls on customers. Use of retail agents may also increase the risk that customers will be unable to understand their rights and press claims when aggrieved.

**Anti-money laundering and combating financing of terrorism (AML/CFT).** Whenever account opening and transaction processing is outsourced to retail agents, AML/CFT regulations generally require agents to conduct some aspects of customer due diligence and suspicious transaction reporting. The bank bears the risk that customers are improperly identified and that they use the retail agent to launder money or channel funding to terrorists (with or without the retail agent’s knowledge or complicity). Outsourcing account opening and retail transaction processing to what may be unsophisticated retail agents also may make it difficult for the bank to observe and report suspicious transactions.

Source: Lyman et.al, (2006).

## Regulatory framework for e-commerce/e-money

27. **BSP allowed mobile operators to develop their mobile banking model prior to establishing a regulatory framework exclusively for e-commerce or e-money in the mobile banking system.** Mobile banking started in 2004 under the close supervision of the BSP, but the associated regulatory framework for e-money was not adopted until 2009.

### *Stage 1: System of regulation prior to adoption of e-money circular*

28. **In 2000, an Electronic Commerce Act (the “E-Commerce Act”), which recognized the validity of electronic transactions and electronic signatures and provides the basis for the prosecution of electronic crime, was introduced.** Mobile operators were made subject to this act, providing a measure of security to the client. Otherwise, the regulation of mobile banking was initially ad-hoc. For example, the General Banking Law of 2000 gave BSP full authority to regulate the use of electronic devices in connection with the operations of a bank, but the issuance of e-money by nonbanks was not formally regulated. As a result, when Globe submitted its GCash model to BSP for approval, an integral part of the proposal was that it would at all times hold bank deposits equivalent in value to the outstanding GCash in issue. Further, Globe placed all the GCash operations in a separate legal entity (which does no other trade).

### *Stage 2: System of regulation after adoption of e-money circular*

29. **In 2009, after observing Smart Money and GCash in operation, the BSP issued an e-money circular which harmonized rules for both banks and nonbanks who offered e-money.** The circular established a definition of e-money and laid out prohibitions on charging interest on e-money, set limits on the aggregate monthly-load for e-money (PHP 100,000 or US\$866, and required complete and accurate records of e-money transactions. E-money issuers could only engage in e-money and related businesses such as remittances. If these institutions did other business, they were required to issue e-money through a separate dedicated entity (e-money issuer). In addition, customer funds were protected by requiring these non-prudentially regulated e-money issuers to keep sufficient liquid assets equal to the amount of outstanding e-money issued. For this purpose, liquid assets included bank deposits, government securities and any other assets allowed by the BSP. Licensed nonbank e-money issuers were required to be incorporated with a minimum capital of US\$2 million.

### **Other measures**

30. **The BSP has taken a number of steps in recent years to build its own capacity for regulating and supervising branchless banking.** Despite these new regulatory and supervisory standards, more needs to be done to mitigate risks in the system. For example, it is not clear how the resolution process would take place if any one of the mobile operators were to fail.

- BSP created an internal group, the Core Information Technology Supervisory Group (CITSG) to: (i) address electronic banking issues, including mobile-payments; and (ii) supervise institutions providing these services.
- BSP’s Inclusive Finance Advocacy Staff act as a general “innovation unit,” drawing on cross-country experiences to ensure the optimal evolution of payment and banking models to serve low income groups.
- BSP also created a Payment Systems Unit to oversee implementation of the Philippines real time gross settlement (RTGS) system.

## D. Impact

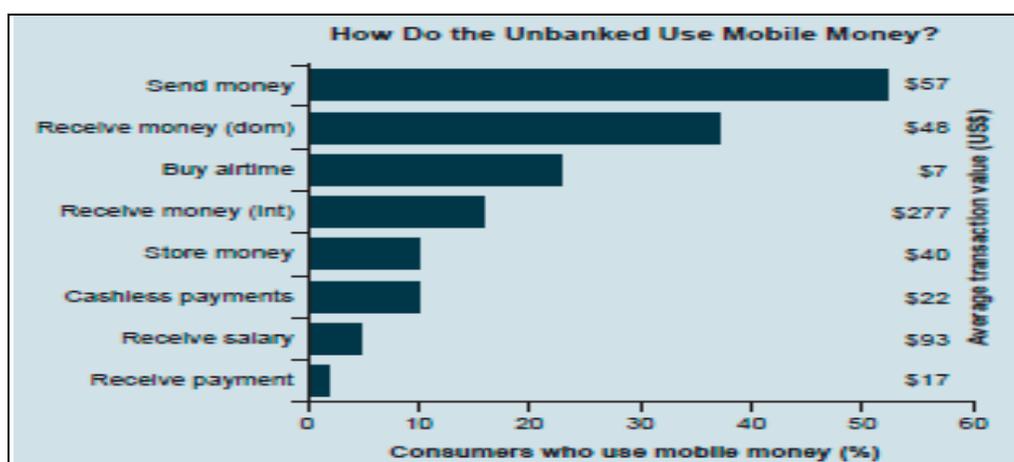
31. **It is difficult to quantify the exact impact on financial access, but available evidence suggests that access has increased.** Currently, there are over eight million users of e-money (Smart Money and GCash). The number of banks offering mobile payments has increased from zero prior to 2005 to 47 rural banks in 2010. Some banks have lowered their interest rates on micro-finance loans for clients that use ‘text-a-payment’ platform by 50 basis-points on monthly rates.

32. **Mobile payments have also provided lower cost channels for sending remittances.** The average inbound remittance to the Philippines is US\$300 and typically costs the sender US\$7–US\$33 (between 2.5 percent and 10 percent of the value). If routed via GCash or Smart Money, the cost is less than one percent of the value. In the Philippines, a bank branch transaction costs US\$2.50, but only US\$0.50 if the transaction is done via a mobile phone.<sup>7</sup>

33. **Mobile phone based financial transfers have increased.** Low-income Filipinos are primarily using mobile payments to send and receive domestic remittances. Moreover, a third of the users use mobile payments to make purchases remotely, providing evidence that the banked will pay for financial services that go beyond remittances.

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<sup>7</sup> For details see CGAP, 2010.

**Figure II.1. The Philippines: Use of Mobile Money by the Unbanked, 2010**

Source: "Window on the Unbanked: Mobile Money in the Philippines, CGAP 2010.

34. **Despite this success, more needs to be done to increase financial inclusion.** The success of mobile payments depends on the number of physical access points associated with the system. These cash-in/cash-out points are nonbank agents that enable customers to add value or to convert stored value back into cash. These points number approximately 15,000, in addition to most of the country's 7,500 ATMs. An untapped avenue for additional points of sales is the two million total airtime sellers. Some reasons for this include cumbersome registration processes for cash-in/cash-out points, difficulties in processing group registrations for networks of merchants, and delays in the provision of required AML/CDD training for nonbank agents outside of Manila.

## E. Conclusion

35. **Key lessons:** The experience of the Philippines has shown that the central bank can effectively support innovations in mobile technology to increase financial inclusion by working with the mobile network operators, while developing prudential regulations. It demonstrates that a combination of market-led initiative and an enabling regulatory framework can be an effective means of increasing access to payments services.

36. **Key policies and impact:** The emergence of the Philippines as an early pioneer in mobile payments was the result of the initiative of two mobile network operators and the support of the central bank. The BSP first let the mobile payments system develop and then gradually adopted a legal and regulatory framework. As a result financial transaction costs were reduced and financial access to the unbanked increased.

37. **Key risks:** Legislation must adapt to new technologies as the rapidly evolving technologies can be powerful engines of access. But a lack of legal clarity may impede the adaptation of these technologies. Government needs to keep legislation up to date, not only to assure contracting parties that what they intend will be enforceable, but also to prevent legislation from discouraging new innovations.

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### III. FINANCIAL MARKET ACCESS: THE UGANDAN EXPERIENCE<sup>8</sup>

*The Ugandan experience highlights the importance of broadening the channels for financial inclusion. The growth of microfinance institutions has contributed to enhanced access to financial services for the underserved and rural population. The high penetration of mobile payments in the underserved rural communities, and their integration with the formal financial and retail payments is proving to be a viable vehicle for delivering financial services to remote areas. However, legislative and regulatory gaps (e.g., gaps in land titling and property rights) limit the collateral mechanism for loans, and the recent proliferation of savings and credit cooperatives (SACCO's) pose risks.*

#### A. Financial System Background

38. **The predominant characteristics of the pre-2004 Ugandan financial system was small size and underdeveloped finance with low levels of financial intermediation.** Commercial banks, predominantly subsidiaries of foreign banks, accounted for 83 percent of the system assets as compared to four percent for other credit institutions, and one percent for microfinance institutions (including credit cooperatives). While indicators of banking depth were at levels similar to those in Tanzania, they were below those in Kenya, and the average for sub-Saharan Africa (Table III.1). Moreover, the share of total commercial bank loans and advances to agriculture had steadily declined from over 20 percent at the end of the 1980s to less than five percent in 2004 (Mugume, 2005, and Meyer et al., 2004).

**Table III.1. Financial Intermediation Across SSA Countries, 2001**

(In percent)

	Private Credit/GDP	Bank Deposits/GDP	Liquid Liabilities/GDP	Loan-Deposit Ratio	Overhead Costs	Interest Margin
Uganda	5.8	19.3	14.9	38.9	7.9	12.7
Kenya	22.6	42.9	34.9	60.1	6.1	9.2
Tanzania	6.8	22.2	16.7	40.9	7.0	7.5
SSA (avg.)	19.1	31.3	23.6	74.2	6.1	7.9

Sources: Beck et al. (2011).

39. **Despite growth in the formal banking system, financial access remained limited.** By 2004, tier 1 to 3 financial institutions were in 51 of the 55 districts in the country, serving about

<sup>8</sup> Prepared by Wilson Varghese (MCM).

87 thousand people per bank branch.<sup>9</sup> The banking sector grew rapidly between 2006 and 2010, with assets nearly doubling to 28 percent of GDP. This growth, however, did not translate into improvements in efficiency or enhanced financial services outreach. In particular, the formal financial sector remained unable to significantly enhance access for the rural and unbanked segments of the population, reflecting, in part, the inability of a small financial system to exploit economies of scale.

## B. Addressing Issues

40. **The lower penetration of the formal financial sector into the rural areas allowed for the emergence of other players, including informal financial institutions.** In this regard, the semi-formal and informal service providers (microfinance institutions, non-governmental organization-led entities, and a large number of other informal operators) emerged as vehicles for financial outreach, particularly in the rural sector. Table III.2 provides an estimate of the size of the microfinance sector based on an incomplete data set. It should be noted that microfinance institutions (MFIs) here refer not to the type of institution but to the market segment served.<sup>10</sup>

41. **MFI loans and deposits were concentrated in accounts of relatively small size, primarily in the rural areas.** Average loan balances were 54 percent of GDP per capita for tier 4 institutions as compared to 146 percent of GDP per capita for tier 1 institutions. Deposits were even smaller, with average balances in tier 4 institutions of around 10 percent of GDP per capita (Siebel, H.D., 2003). Table III.3 shows the relative importance of various players. According to a 2007 FinScope survey, 62 percent of Uganda's population (about 18 million people) had no access to financial services of any form and 65 percent of those without access were in rural areas. For the 38 percent that had access to financial services of some form, non-regulated institutions were the predominant source of access (20 percent), with 58 percent of the urban and 65 percent of the rural population outside the reach of financial services.

<sup>9</sup> Financial institutions are classified as: tier 1 – commercial banks; tier 2—credit institutions; tier 3—micro deposit-taking institutions (MDIs); and tier 4—SACCOs, NGO-MFIs and other non-regulated MFIs.

<sup>10</sup> The term MFI is used here to cover all financial entities operating in the microfinance sector—cooperatives and other member-owned organizations (SACCOs), specialized state financial institutions, NGOs, microfinance companies, and MDIs. This is consistent with the CGAP definition in: *Measuring Access to Financial Services around the World*, CGAP, 2009, p. 7.

**Table III.2. MFI activity as of end-2003<sup>11</sup>**

	SACCOs			Total SACCOs	NGOs 1/	Total Tier 4
	UCSCU	UCA	AMFIU			
Number of institutions	14	57	3	74	5	79
Number of members/clients	10,207	28,468	42,248	80,923	71,192	152,115
Share capital Ush (000) 2/	520,032	324,689	2,823,434	3,668,155	2,771,171	6,439,326
Deposits Ush (000)	3,457,919	583,873	1,169,075	5,210,867	1,157,986	6,368,853
Loan portfolio Ush (000)	2,210,073	621,720	5,243,635	8,075,428	11,391,611	19,467,039
Number of loans 3/				20,231	64,821	85,052
Average loan Ush (000)				399.2	175.7	228.9
Percent of GDP per capita				93.9	41.4	53.9
Average deposit Ush (000)				64.4	16.3	41.9
Percent of GDP per capita				15.1	3.8	9.9

Sources: UCSCU, FSDU project (UCA and AMFIU), and SPEED |  
1/ Participants in SPEED not in tier 3.  
2/ Compulsory savins in NGOs  
3/ ASSUMES 1/4 of SACCO members are borrowers.

**Table III.3. Various Players in Rural Finance (by Market Share)**

(in percent)

	Savings	Loans
Bank/credit institutions (excl. MDIs)	14.1	2.4
SACCO	2.7	1.3
MFI (MDI and other MFIs)	3.7	2.4
NGOs	0.7	0.2
ASCA	4.3	1.6
Savings Club	3.6	0.7
ROSCA	8.4	-
Welfare Fund	3.2	0.3
Investment Club	2.1	0.2
Family of friend	12.7	8.4
Shops	0.7	18.0
Employer	0.2	0.2
Hidden savings	68.4	-
Informal money lender	0.1	0.5

Source: Johnson, S and Max Nino-Zarazua, 2009.

<sup>11</sup> **UCSCU**: Uganda Cooperative Savings and Credit Union, **UCA**: Uganda Cooperative Alliance, **AMFIU**: Association of Microfinance Institutions in Uganda, **NGO**: Non Governmental Organization, **FSDU**: Financial Sector Deepening Project Uganda, **SPEED**: Support for Private Enterprise Expansion and Development.

42. **The government played an active role in supporting MFIs.** Supportive government initiatives included passage of the MDI Act, amendments to the Financial Institutions Act to enhance the supervisory capacity at the Bank of Uganda (BOU), allowing the relatively larger MFIs to transition into institutions regulated and supervised by the BOU, and establishing SACCOs in every district and providing financial subsidies to them. Conversion to a regulated institution allowed MFIs to raise resources more cost-effectively as well as to expand the volume and range of products on offer. Changes such as allowing MDIs to operate as “microfinance banks,” easing branch requirements, and allowing for agency banking were expected to allow for differentiation based on the value of banking charters, increase the benefits of regulation and make service provision in rural areas more cost-effective.

43. **The Rural Financial Services Strategy (RFSS) rolled out in 2008 represented a proactive policy stance to support SACCOs.** To enhance the lending capability of the SACCOs, new SACCOs were created in every sub-county. Existing SACCOs were strengthened by encouraging rural households to hold saving accounts and to access credit through them. In addition, funding for the SACCOs was increased by providing subsidized credit, with the aim of having them on-lend the funds to their members at government-determined interest rates.

44. **These policies contributed to an exponential growth of SACCOs.** The number of registered SACCOs doubled in less than two years. By end-July 2011, the broad array of tier 4 institutions included about 180 Non-governmental Organizations (NGOs), several microfinance companies, and around 2,800 SACCOs. The total savings and share capital of all SACCOs was about two percent of banking system savings, with 1.5 million paid-up members. The largest of these institutions had around 800,000 loan accounts and 2.5 million sanctioned deposit accounts. Over a short period of time, these MFIs became the dominant financial institution in many rural communities.

45. **While the policy bias supported the organized microfinance sector, it was unable to displace the role of the unorganized informal service providers.** A 2009 FinScope study indicated that the number of people accessing financial services (both formal and informal) increased from 57 percent in 2006 to 72 percent in 2009. However, informal service providers—village savings and loan associations, accumulated savings and credit associations, rotating savings and credit associations, money lenders, etc.—accounted for a significant proportion of the increase. It was also evident that, while savings increased, credit allocation by SACCOs had grown even faster.

46. **The potential for emerging new technologies to facilitate access to finance was another important development.** Mobile payments—payments originated via mobile phones—also changed the financial services delivery landscape. The relative ease and convenience of storing and transferring monetary value resulted in the product finding ready acceptance amongst a wider segment of the population (average monthly growth in new customers was about five percent). Continuing progress in mobile communications technology and encryption systems, and further evolution along the mobile payments-to-branchless banking continuum, is rapidly expanding the number of people able to access these services—further reshaping the underlying economics of financial service delivery, particularly in remote areas.

47. **As in the case of microfinance, the BOU’s strategy was to support innovation and evolution of the mobile payments product.** The resultant light-touch regulatory stance may have, to some extent, allowed mobile operators to offer different variants of the product, including the parallel evolution of what is akin to a payment switch, as well as its growing integration with the formal payments infrastructure.

### C. Assessing Impact

48. **Uganda’s financial deepening and inclusion efforts traditionally relied largely on the formal banking sector.** Reinforcing this effort, the Government formed the first indigenous bank, the Uganda Commercial Bank (UCB). The UCB’s losses in nearly all the rural branches caused these branches to be closed, before the resolution/reconstitution of UCB itself in 1998. The demise of the UCB, alongside the growing constraints in lending to the rural areas underlined the difficulties in offering commercially viable financial services to these areas. Commercial banks continued to demonstrate limited tolerance for agricultural sector risk, the predominant rural activity. However, some growth in commercial bank lending to agriculture arose out of a partial agricultural credit guarantee mechanism where the credit risk was shared on a 50–50 basis between banks and the guarantor. Some growth in lending also resulted from a relatively more innovative lending practice of at least one bank (Centenary Bank), with over 80 percent of its clients in the microfinance portfolio.<sup>12</sup>

49. **The emergence of the MFIs and mobile payments, combined with the impact of the broader favorable institutional and macroeconomic environment resulted in an enhancement of access to finance for unbanked, rural and remote communities in Uganda.** The MFI sector has grown from insignificant in the 1990s to a notable subsector within a span of about 20 years. Moreover, between 2005 and 2009, the traditional bank-based access indicators in Uganda improved and now compare favorably to its neighbors.

50. **Placing the MDIs within the regulatory ambit of the BOU allowed for increased financial services with safe lending practices.** Apart from the enhanced competition in the microfinance sector, the licensing/transformation of MDIs resulted in these institutions becoming more business oriented and innovative. A study conducted two years after the first MDI was licensed highlighted that “the integration of MDIs into the formal financial sector has meant that more people have access to formal financial services” (Friends Consult Ltd., 2008.)

51. **The larger number of MFIs, however, did not translate into significant gains in terms of reducing the proportion of the un-banked.** A 2009 FinScope study indicated that the number of people accessing financial services (both formal and informal) increased from 57 percent in 2006 to 72 percent in 2009. However, informal service providers—village savings and loan associations, accumulated savings and credit associations, rotating savings and credit associations, money

<sup>12</sup> To engage in agricultural lending, Centenary Bank accepted collateral such as dated checks, equipment acquired through micro-leasing and animal traction loans for purchase of ox ploughs and oxen. See the Centenary Bank Annual Report of 2007. The DFCU Bank also used a similar strategy to expand access to finance—the leasing of machinery and equipment.

lenders, etc.— accounted for a significant proportion of the increase. Given the low population density in many rural areas, poor access to roads, electricity and cellular networks and low income levels, many communities will likely not be able to attract MFIs, limiting further gains in financial access. The lack of skills at all levels and low financial literacy may also be a restricting factor. Furthermore, legal and regulatory frameworks may not be adequately supportive of the development of affordable products tailored to the needs of the rural areas.

52. **Along with the expanding networks of formal, semi-formal and informal financial and other institutions, the growing use of mobile payments is bringing rudimentary financial services to rural areas.** For example, the numbers of bank, credit institutions and MDI branches have expanded more than two-fold since 2007. Complementing this financial deepening, the spread of mobile payments service providers is increasing.

#### D. Institutional Constraints and Risks

53. **The microfinance sector shows promise in terms of its potential for enhancing financial access to rural and remote communities, but there are a number of constraining factors.**

##### Institutional constraints

54. **A legal and regulatory framework for MFIs and SACCOs is lacking (Box III.1).** The failure of some of the MFIs, leaving their customer's with no recourse, and undefined lines of business of some of the smaller entities led the Government to work on an MFI-specific bill. When approved, the new legislation would allow for the development of a suitable regulatory and supervisory framework for MFIs. The institutional capacity for supervising and regulating SACCOs is very limited. In an effort to enhance its capacity to oversee these entities, the Government chose the Uganda Cooperative Savings and Credit Union (UCSCU) as the apex umbrella entity for all SACCOs. The UCSCU is responsible for the self-regulation and supervision of SACCOs, but lacks institutional capacity to carry out these duties effectively. According to CGAP, the issue of the effectiveness of apex entities "cannot be answered categorically" because of limited evidence, varying national contexts, and legitimate differences of view as to apexes' objectives (Box III.2).

55. **Collateral availability and quality continue to remain key impediments to rural lending.** The paucity of collateral, credit information and proliferation of uninsured risks are barriers in expanding intermediation. In many countries, land titling, registration and security of land tenure are issues that prevent the use of land as collateral for loans. Uganda is no exception in this regard (Meyer et al., 2004). The impact this has had on rural lending is not insignificant. It can serve to limit credit extension and increase loan delinquency, both equally detrimental to increasing access to finance.

**Box III.1. Summary of Guiding Principles on Regulation and Supervision of Microfinance**

- Prudential regulation and supervision are necessary for the microfinance industry to reach its full potential
- Supervisory capability, costs, and consequences should be examined earlier and more carefully than is sometimes the case
- Minimum capital needs to be set high enough so that the supervisory authority is not overwhelmed by more new institutions than it can supervise effectively
- A micro lending institution should not receive a license to take deposits until it has demonstrated that it can manage its lending profitably enough to cover all its costs including the additional financial and administrative costs of mobilizing the deposits it proposes to collect.

Source: CGAP, Microfinance Consensus Guidelines: Guiding Principles on Regulation and Supervision of Microfinance, 2003.

56. **The paucity of borrower information continues to be problematic for MFIs, including SACCOs.** The absence of a sound credit culture, prevalence of multiple borrowing<sup>13</sup> and loan defaults are issues impacting SACCO performance. With institutions facing difficulty in authenticating prospective borrower identity, and accessing reliable credit/borrower information, they have to rely on “relationship” banking to assess credit risk. In 2008, a credit reference bureau (CRB), useful for evaluating customers already in the system, was launched. The existence of a CRB, however, does not help address the issue with respect to new customers. Further, some MFIs (including the SACCOs) have no access to CRB.

57. **New technologies may engender network externalities that may bring with them the drawbacks of a natural monopoly.** In the case of the growing mobile payments industry, these innovations could also bring to the fore legal, regulatory and oversight issues that the central bank would need to tackle, but for which it may be ill equipped.

<sup>13</sup> FinScope Survey of 2007 found that at least 22 percent of Ugandans that borrowed from formal financial institutions, borrowed from more than one institution.

### Box III.2. Global Lessons from Apex (Wholesale) Facilities<sup>14</sup>

- Apexes (apex institutions) expand the supply of resources available for unlicensed microfinance institutions, at least in the short term.
- However, microfinance development in most countries is held back more by a shortage of strong microfinance institutions at the retail level than by a shortage of wholesale funding.
- Apexes have not been successful in building bridges between MFIs and commercial funding sources. Indeed, the incentive to seek commercial funds is weakened by the availability of easier funding from the apex.
- Apexes for unlicensed microfinance institutions (such as NGOs) are most likely to be useful when they are created in response to the existence of a critical mass of competent retail MFIs, as the case with PKSF in Bangladesh.
- Planning documents for apexes typically overestimate the number of retail MFIs that will be strong enough to channel the apex's funds effectively.
- Donors and governments tend to create unrealistic disbursement pressure for apexes. It would usually be preferable for initial funding of an apex to be modest, with larger amounts added later in response to demonstrated demand and capacity.
- Political interference is a common problem in apexes, despite assurances to the contrary at the planning stage. The best protection will usually be to keep state participation in the governance of the apex to the minimum level possible.
- The most important function of apex management is probably the selection of MFIs to be funded. Because the number of qualified MFIs is usually limited, managers have trouble applying proper selection criteria when they are faced with political pressure of pressure to disburse large amounts quickly.
- In the apex's supervision of the MFIs it funds, focusing on institutional performance targets that are few in number, precisely defines, and seriously enforced is probably more effective than requiring massive reporting on detailed uses of funds.

Source: CGAP, Apex Institutions in Microfinance, CGAP Occasional Paper 6, 2002.

<sup>14</sup> These are wholesale mechanisms that channel funds, with or without supporting technical services, to retail microfinance institutions in a single country or an integrated market. Kenya's K-REP (established in 1984) and Uganda's Center for Microenterprise Finance (CMF) and Uganda Cooperative Savings and Credit Union (UCSCU) are examples of apex institutions.

## Risks related to new institutions

58. **Considering their combined size and the structure of the existing linkages of these entities with the formal financial sector, the underlying risks do not appear systemic in nature.** However, other risks remain.

- The creation of new SACCOs may risk fostering a potentially detrimental proliferation of small entities, challenging prudential capacity. Even where a SACCO may be warranted, the potential for politicization may cloud perspectives.
- The past failure of some SACCOs left their membership with no mechanism to recover their deposits. More failures could create a crisis of confidence.
- The subsidization of SACCOs and other savings and credit institutions erodes incentives for mobilizing savings, and may weaken lending standards.
- Efforts to enhance financial access through subsidization could have disadvantaged the “non-SACCOs” and could replace market-led channels with directed lending.
- Directed lending by the Government introduces distortions and, in the long run, could undermine the viability of MFIs and SACCOs.

### **With respect to mobile payments, the following risks are evident:**

- Where a national payments system law encompassing more recent technology developments is absent, the central bank’s regulatory and oversight actions could be challenged resulting in payments and reputational risk.
- The overtly cautious regulatory and oversight actions by the central banks could create regulatory gaps that allow monopoly product and pricing strategies and elements of retail payments infrastructure to develop without adequate and appropriate standards.
- In the event of operational failures, financial transactions completed without a legal basis for electronic signatures can pose particular risk not only for the development of mobile payments, but, where mobile-led payments environment integrate with the formal and regulated retail payments infrastructure.
- The lack of collaboration between the BOU and the Uganda Communications Commission (the telecom regulatory authority) allows the mobile operators and their products to grow without an assessment of the adequacy and appropriateness of the technology.

## E. Conclusion

59. **Key lessons:** The Ugandan experience demonstrates that the government should adopt an enabling policy stance to enhance access, and that it is important to work with both formal and informal channels to achieve the broader financial inclusion objective.

60. **Key policies and impact:** The authorities adopted a policy of active encouragement of microfinance and SACCOs, supported with adaptive regulation. While the policy was successful in generating an expansion of these institutions and extension of services, unregulated institutions continued to be an important source of savings and credit services. The private development of mobile payment facilities, assisted by initial light regulation, has helped outreach and its adoption by banks is extending the formal system.

61. **Key risks.** Official policies were not without drawbacks; i) a proliferation of small SACCOs have challenged regulatory and supervisory capacity, resulting in failures; ii) government subsidization and directed credit can create moral hazard, reducing the incentive for appropriate credit risk assessment, possibly discouraging market-led services. Mobile systems require regulation both from the payments and telecommunications perspectives, and while an initial light approach may be appropriate, national payment laws and oversight as well collaboration with telecommunications regulatory authority are necessary to avoid payments risks. The proliferation of microfinance institutions, all focused on the least sophisticated rural population may result in unsustainable levels of rural indebtedness—what is now commonly referred to as the “Andhra Pradesh” phenomenon.

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## IV. FORMAL BANKING INTERMEDIATION IN TRANSITION ECONOMIES<sup>15</sup>

*The experience of transition economies offers a unique experiment for examining the factors driving financial intermediation. This case study focuses on the development of a modern banking sector in these countries.<sup>16</sup> It examines the key factors that influenced the evolution of intermediation, pointing to the importance of macroeconomic stability as a prerequisite. Further, regulatory and institutional reforms are critical for successful deepening and the avoidance of banking failures. While foreign bank penetration and access to cross-border financing has been an important catalyst for financial deepening in many transition countries, it was a source of vulnerabilities in the run up to the global crisis.*

### A. Initial Conditions

62. **Modern banking institutions were virtually non-existent in the planned economies of central Europe and the former Soviet Union.** Following the collapse of the Soviet Union, transition economies faced the challenge of creating functioning market-based banking systems. In centrally planned economies, the “mono-bank” system created and distributed claims and monitored transactions mandated by the central plan.<sup>17</sup> Banks had little capacity to carry out financial intermediation and there were no securities markets. Direct control of the mono-bank’s activities by the state substituted for prudential regulations and supervision of financial institutions.

63. **The birthing process of modern banking systems took place amidst massive macroeconomic collapse and considerable economic uncertainty.** Macroeconomic fluctuations led to precipitous declines in the standard of living, owing to the rapid rise in prices and deep contraction in real output in these countries. Inflation in CEE countries and the Baltic States averaged 200 percent in 1992, and, in some countries, inflation rates were well above 1,000 percent (Macedonia and Lithuania). On average, inflation was substantially higher among the CIS countries, where average inflation reached 1,400 percent in 1992, and, in some countries, exceeded over 2,000 percent (Kazakhstan, Moldova, Russia, and Ukraine). Collapsing real output, together with widening fiscal deficits (on account of shrinking revenue bases and inflexible expenditure structures) that were monetized, contributed to inflationary outcomes.

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<sup>15</sup> Prepared by Arto Kovanen (MCM)

<sup>16</sup> Transition economies include countries of Central and Eastern Europe (CEE), the Baltic States, and countries of the Commonwealth of Independent States (CIS), which was formed after the break-up of the Soviet Union. We also include in the CEE group several southern European states (Albania, Croatia, Serbia, Slovenia, Macedonia, Montenegro, and Bosnia and Herzegovina).

<sup>17</sup> Two-tier banking systems did not exist in most countries as the distinction between the central bank and deposit money banks was blurred.

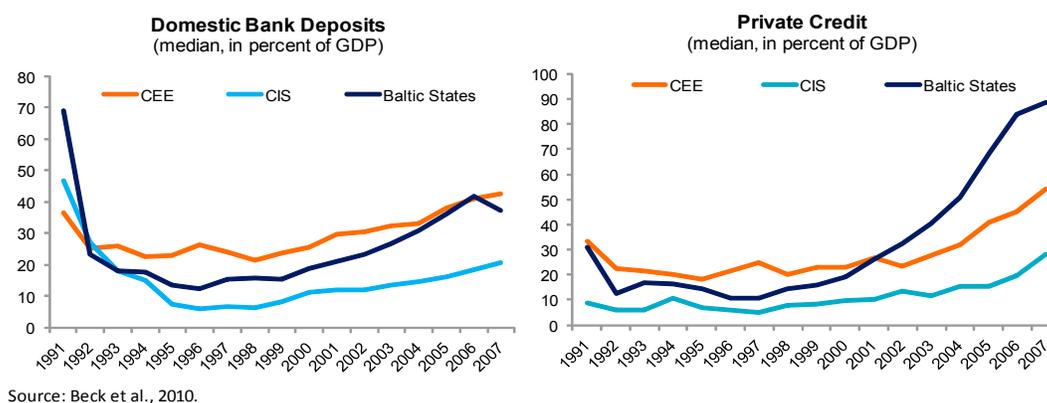
64. **The transition process involved a deep transformation in the role played by commercial banks.** A fairly common feature of this transformation involved three phases (Cottarelli et al., 2003): (i) the writing-off of a large share of the loans extended by public banks, mostly to state enterprises, (ii) the sale of banks, primarily to foreign investors; and (iii) the beginning of more standard banking operations, including increased lending to private enterprises. The timing of this process varied across countries, in line with the pace of transformation of banking institutions and structures.

## B. Growing Intermediation: Variable Speeds

65. **The banking sectors of transition economies have exhibited considerable growth since the late-1990s (Figure IV.1).** However, patterns in financial deepening have varied widely across countries and regions, reflecting a range of factors. While financial deepening advanced at different speeds, banks remained the most important form of financial intermediation in these countries, similar to the situation in Western Europe where banks dominate credit creation.

66. **Macroeconomic conditions, institution-building and banking sector reforms, and overall institutional quality and structural reforms played were key factors in banking sector deepening.** EU membership provided a strong impetus for reforms, in the transition countries. At the same time, the prospect of EU membership (and ultimately the adoption of the euro) made these under-served banking markets attractive to European banks once macroeconomic stability was attained and proper regulations were in place (Bonin et al., 2008).

**Figure IV.1. Financial Deepening in Transition Countries, 1991–09**



## Macro stability

67. **Macroeconomic stability was generally achieved during the 1990s.** The depth of the initial decline, as well as the subsequent recovery, however, varied across countries. The CEE and Baltic countries generally recovered faster than the CIS countries and, once a stable macroeconomic environment was established, credit expansion took off. This reflected containing high and volatile inflation which obscured the signaling role of prices and, created uncertainty about investment

returns, and discouraged demand for financial assets. In general, credit expansion and deposit mobilization were typically lower in regions where inflation remained high (IMF, 2007; EBRD, 1998).

68. **While all regions experienced falling inflation rates in the wake of significant macroeconomic stabilization, the disinflation processes differed across regions.** Among CEE and the Baltic countries, inflation declined relatively rapidly, averaging single digits by the late 1990s, as sound macroeconomic policies (particularly fiscal consolidation) helped bring internal and external balances to more sustainable levels. In CIS countries, on the other hand, inflation was more entrenched. The average improvement in inflation performance across regions masked important differences among countries, as well as setbacks in some (e.g., in Russia, the collapse of the ruble in 1998 contributed to rising inflation). In countries where disinflation was achieved more rapidly, private credit expansion since the mid-1990s also reflected increased deposit mobilization (rising deposit-to-GDP ratio).<sup>18</sup> In CIS countries, the ratio of bank deposits to GDP (a measure of both banking sector development and public confidence in the banking system) picked up significantly after 2000, as greater progress with macroeconomic stability was achieved.

69. **Real interest rates also fell sharply in line with disinflation, particularly after 2000.** This decline was most pronounced in the Baltic countries and followed the easing of credit conditions, which then fueled credit expansion. Similar trends were also observed in the CEE and CIS countries, but the real cost of borrowing remained substantially higher in the CIS countries than in others during this period, reflecting weaker macroeconomic environments and the impact of more expansive fiscal policies.

### **Institution-building and banking sector reforms**

70. **The dismantling of old mono-bank systems, which had started during the 1990s, took different approaches.** In the Soviet Union, where the banking sector was one of the first economic sectors to be liberalized under perestroika, joint ventures and semi-private cooperative banks emerged in 1987, which led to the subsequent rapid growth in the number of banks. Low capitalization requirements that did little to deter new entry into the banking system, combined with inadequate regulations, led to the frequent failures of many banks. In contrast, the approach taken by many CEE countries was founded on the strategy of spinning-off commercial banks from the state-owned mono-bank system, while limiting the entry of new banks.

71. **Banking failures and systemic crisis affected almost all transition countries in the liberalization process.** The problems included serious bad loan management and inadequate regulation and supervision in the early to mid-1990s. In the absence of independent market-oriented banking institutions, the flow of new bad loans continued to accumulate against the backdrop of considerable macroeconomic uncertainty. The proliferation of new, often undercapitalized, banks placed an added burden on an underdeveloped regulatory structure

<sup>18</sup> Cottarelli et al. (2003) note that in Bulgaria, Hungary, and Croatia, the increase in deposits and decline in credit to government allowed banks to improve their net foreign asset positions, while in other countries (Estonia, Latvia, Poland, and Slovenia), the rise was supported by increased foreign borrowing.

Regulators did not have proper incentives or the requisite expertise to cope with this problem. To some extent, the transition-induced recessions and the severe real sector shocks were mirrored on the balance sheets of the banks. However, lax supervision and rudimentary regulation of newly liberalized financial institutions, combined with a volatile macroeconomic environment, led to widespread banking sector problems and crises.

72. **Rapid progress in bank privatization and consolidation took place in the late 1990s and early 2000s, usually with the participation of foreign banks.** In the aftermath of bank failures, banks were privatized and often sold to foreign owners.<sup>19</sup> Among the Baltic and the CEE countries, a large part of the banking sector became foreign-owned. By mid-2000s, the privatization process was mostly complete in the CEE and Baltic countries, and progress was made in strengthening supervisory and regulatory arrangements. The return of sound growth, together with banks' restructuring and balance sheet rehabilitation, contributed to growth in credit demand and encouraged banks to reassess borrowers' creditworthiness, and find new lending opportunities. Foreign bank penetration in the CIS countries, however, did not take place until mid-2000s, in part reflecting slower progress with institutional reforms and macroeconomic risks and uncertainties (Nagy and Fox, 2008).

73. **From the mono-bank systems, transition countries moved towards two-tier banking systems.** Each country's financial restructuring program involved hiving off the commercial bank portfolio of the national bank to establish the two-tier system. However, there were substantial differences across countries regarding the speed of banking sector reforms. For some countries, improvements in bank regulation and investments in the banking sector took place rapidly in order to qualify for EU membership. For instance, in the Baltic and CEE countries, substantial progress had been achieved during the late 1990s in establishing appropriate frameworks for banking supervision and regulation, as well as legal frameworks for bank solvency. While interest rate and credit controls were liberalized in the CIS countries, progress in upgrading supervisory and regulatory frameworks lagged.

### **Institutional structural reforms**

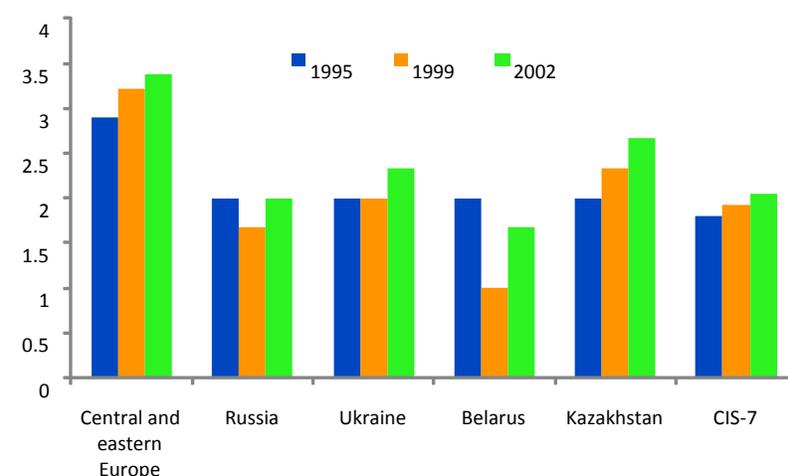
74. **Although the basic legal framework for modern banking was established early in the transition, other crucial elements for its effective functioning took more time.** The latter included a functioning credit information system, encompassing a credit registry and ratings agencies, and a reliably functioning court system to mediate contract disputes. Other aspects such as sound institutions and the enforcement of laws which influence the ability of the financial system to effectively trade and intermediate claims on assets and use collateral to extend credits also evolved more gradually.

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<sup>19</sup> Policies toward foreign bank participation, both in establishing subsidiaries and in purchasing equity stakes in state-owned banks, differed considerably across the transition countries (Bonin et al., 2008). For instance, by 1995, foreign financial institutions held almost 42 percent of banking assets in Hungary, compared to 16 percent and 4 percent in the Czech Republic and Poland, respectively.

75. **Here again, EU accession considerations played a crucial role in spurring reforms in the Baltic, and many of the CEE countries.** EBRD data show that by mid 2000s, CEE countries were more advanced with respect to banking sector and financial market reforms than the CIS countries (Figure IV.2). The EU accession states were the first to establish effective banking supervision and competitive banking systems, and make significant inroads in providing longer-term lending to the private sector. In the 2000s, the CIS states made headway in strengthening frameworks for banking supervision and regulation. This helped to increase private banking presence. These reforms contributed to the expansion of private sector credit since mid-2000s. While substantial progress has been made in establishing the legal underpinnings for effective intermediation, laws addressing bank solvency and the rights of creditor often remain weak and incomplete.

**Figure IV.2. EBRD Banking Sector Reform**



Source: EBRD.

### C. Banking Developments in the Run Up to the Crisis

76. **Rapid credit growth has been a feature of several transition economies since the 2000s.** In many countries this reflected strong “catch-up” convergence effects, driven by easing credit conditions (easier availability of credit and lower financing charges), rising incomes, and confidence, boosted by optimistic expectations in the CEE and Baltic countries (Enoch and Ötker-Robe, 2007). Crowding-in (reduced public sector borrowing), together with progress in structural reforms (e.g., legal protection of creditor rights), and increased private participation in the banking sector (e.g., foreign bank entry), contributed to the growth of banking activities, even in the CIS. Competition, particularly in retail deposit taking, also served to strengthen banks’ ability to mobilize domestic savings and customer orientation. Banks with lower market share and with foreign participation expanded their customer lending more rapidly than other banks (IMF, 2011).

77. **Households were the main beneficiaries of bank lending.** The 2006 EBRD Transition Report notes that in 2000-05 domestic credit to household was much higher in the CEE and the Baltic states than in the CIS region, although it remained below advanced country standards. Mortgage financing, as a share of total bank lending to the private sector, remained small, particularly among CIS countries. This reflected the rapid growth of consumer lending in these countries, while weak property rights and unclear title deeds affected the feasibility of mortgages. Furthermore, in the CEE and Baltic states, loan maturities lengthened, suggesting greater confidence in the financial system, whereas in the CIS countries loan maturities remained short. Enterprises had more limited access to bank credits, particularly in the CIS countries, with internal funds remaining an important source of financing (around 60-70 percent) working capital and investment.

78. **The rapid expansion of credit posed risks for the banking sectors and the wider economy.** A substantial share of bank loans was denominated in foreign currencies, as banks substituted foreign financing (wholesale funding) for the limited domestic deposit base, increasing exposure to foreign exchange (FX) risk. This was an important feature in the Baltic countries, as well as in several CEE countries (particularly countries in Southern and Eastern Europe that experienced hyperinflation in the 1990s). In some countries (e.g., Croatia), mortgages were denominated in euros (Bonin, 2008). Even though the deposit base of banks in these countries was also in euros, FX risk was not eliminated because a domestic slowdown or exchange rate shock could affect the ability of domestic borrowers to repay in euros. Close parent-subsidiary relationships combined with high foreign concentration in local banking sector also left some transition countries vulnerable to economic shocks in parent countries (IMF, 2011),

## D. Conclusion

79. **Key Lessons.** The experience of transition countries suggests that macro stability is a pre-condition for financial intermediation to take-off. In addition, macroeconomic stability, regulatory and institutional reforms were critical for deepening. Participation of foreign banks and access to cross-border financing has also been an important catalyst in financial deepening.

80. **Key policies and impact.** Countries where macroeconomic stability was established earlier, and where financial reforms progressed further were experienced financial deepening more quickly. The deepening was associated with the establishment of strong regulatory and supervisory regimes (to forestall crises) and strengthening of contractual and informational frameworks.

81. **Key risks.** Cross-border flows and foreign presence in banking led to important vulnerabilities, both to the banking system and the broader economy. These included sudden capital flow reversals, the household sector's inability to service debt obligations, including those denominated in foreign currency, and greater exposure to transmission of macro-financial risks.

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## V. NEPAL: DEVELOPING INTERBANK MARKETS AND CENTRAL BANK OPERATIONS<sup>20</sup>

*The Nepalese authorities have sought to improve the effectiveness of monetary and FX operations and made efforts to improve debt management, with the ultimate aim of improving the conduct and transmission of monetary policy. Developing functioning interbank money and FX markets should help establish market determined interest rates, but the process takes time and sustained reform efforts.*

82. **The Reserve Bank of Nepal (NRB) took steps to strengthen the functioning of domestic money and FX interbank markets and the design of central bank facilities.** It developed instruments to enhance the effectiveness of its monetary operations while seeking to encourage market determination of interest rates. In particular, to improve liquidity management, the NRB adapted its money market operations and instruments and improved public debt management

83. **The NRB's efforts are set against the backdrop of a financial system that is structurally weak and its rapid expansion since 2007 has strained the capacity of the NRB.** Limited independence of the NRB adversely affects the enforcement of regulations and monetary policy. State-owned banks have negative net worth and high levels of non-performing loans, while the large number of institutions stretches the NRB's regulatory capacity and contributes to excessive risk taking by the banks. These pose significant challenges for the development of vibrant interbank markets in Nepal and the working of transmission channels for liquidity management and monetary instruments.

### A. Enhancing Domestic Market Operations

84. **The NRB improved its facilities to manage domestic liquidity—these include outright purchase and sales auctions, repo and reverse repo auctions.** The maximum maturity for repo and reverse repo auctions for open market operations was increased to 45 days from 28 days in order to better manage rollover risks and adverse effects on liquidity conditions. Commercial banks and other financial institutions continue to act as counterparties to the NRB's liquidity management operations using treasury bills (t-bills) as collateral (see Annex 1 for other country experiences). To provide greater flexibility to the NRB in conducting open market operations, the existing stock of non-interest-bearing securities held by the NRB was converted to 91- and 364-day t-bills.

85. **A standing repo facility is in place to provide temporary liquidity support to banks for up to seven days.** The interest rate on this facility is 50 basis points higher than the 91-day t-bill weighted auction rate. The NRB also has a general refinance facility that is priced at the Bank Rate

<sup>20</sup> Prepared by Obert Nyawata (MCM)

and there are a number of other refinance facilities, including export credits in foreign currency, and loans to industries and rural development banks.

86. **In 2010, the NRB introduced a refinancing facility to address liquidity pressures at commercial banks and financial institutions and to maintain financial stability and public confidence in the payment system.** This complemented the lender of last resort facility available to banks and financial institutions for a maximum period of six months, but acceptable collateral was widened to include other than government securities. Other steps have been taken to liberalize the financial sector, although real interest rates have tended to be negative. These include the removal of most interest rate controls and the administrative allocations of credits. While the NRB has generally allowed interest rates to be set by market forces, limits are imposed on the banks' interest rate margins.

## B. Public Debt Management

87. **The authorities have taken steps to improve the issuance of marketable securities and establish a benchmark yield curve.** The Nepalese government issues t-bills of various maturities (28, 91, 182 days and 364 days) and various types of bonds. Development bonds are issued by the NRB on behalf of the government with maturities up to five years and carry a coupon rate which is paid semi-annually, and are issued at par on a subscription basis to financial institutions only. National Savings Certificates (NSC) are issued only to individuals and carry coupon interest and a maturity of five years.

88. **Efforts have been made to separate government debt management objectives from monetary policy objectives.** The projection of the government's cash requirements are being made to strengthen liquidity management, although the Ministry of Finance's capacity in the area of cash management needs to be improved further. The NRB Open Market Operations Committee plays a central role in public debt management. It prepares an annual plan for managing the debt, on the basis of the global ceiling on domestic financing determined as a part of the budget approval. The authorities' debt management strategy has been to foster market determination of interest rates in a sufficiently wide maturity spectrum of debt instruments so that a benchmark yield curve can be developed. The authorities also imposes a limit on net financing of the government by the NRB which is helpful in liquidity management

89. **Substituting marketable instruments for nonmarketable instruments has been an important contribution to market development.** A major remaining challenge for the authorities is the multiplicity of securities with different terms and non uniform tax treatment. Longer term securities with maturities of two to three years could facilitate the extension of the yield curve and market development.

## C. Foreign Exchange Market

90. **The FX market is fairly liberal and the banks are allowed to engage in various FX transactions.** However, the fixed exchange rate regime and NRB's operational arrangements in the FX market complicates the development of the interbank FX market.

91. **Banks are free to fix exchange rates for transactions with their clients for prescribed convertible foreign currencies, except for Indian rupees.** As of December 31, 2010, about 3,660 institutions were licensed to deal in FX with the public. Large banks and financial institutions are allowed to engage in FX transactions with the NRB in order to maintain their foreign currency positions. There are no limits on bid-ask spreads or commissions. While the NRB does not participate in the forward FX market, banks may provide forward exchange cover for current account transactions under mutually agreed terms and conditions with their clients. Banks and some other financial institutions may enter into derivatives and other transactions, such as forward operations, swaps, options, and futures. They may also invest their convertible FX in various financial instruments with any maturity.

92. **Nepal’s intervention strategy in the FX market poses some challenges.** While the intervention generally seeks to maintain exchange rate parity, the market for currencies other than the Indian rupee is cleared at intervals of generally one to two weeks. Transactions are carried out at the mid rate of the average of commercial banks’ published US\$/NR mid-rates.

93. **At present, there is no active interbank FX market in Nepal.** Banks conduct occasional trades between themselves to meet their foreign currency positions. There are no market makers and no commitment on behalf of the commercial banks to quote two-way prices. The turnover in this market is dwarfed by the NRB, which provides a daily standing window with a buy and sell rate around the parity rate and this does not foster the development of interbank activity. Furthermore, the channeling of commercial banks’ requests to transact with the NRB through the Foreign Exchange Dealers Association of Nepal (FEDAN) is viewed as a bottleneck, which can take up to five days.

94. **The development of an active interbank FX market in Nepal is complicated by the exchange rate peg and frequent interventions of the NRB in the market.** Furthermore, the one-way nature of foreign currency flows makes market development difficult. Traders lack training and experience in the market.

## D. Conclusion

95. **Key reforms and impact.** The reforms have resulted in the standard set of tools to manage liquidity, including reserve requirements, standing facilities, and open market operations. Debt markets have started to develop, and a liberal exchange control system allows foreign currency trading. However, liquidity management has often led to swings in liquidity conditions, with an overall bias toward excess liquidity

96. **Key lessons.** The development of active interbank markets requires sustained reform efforts, to put in place appropriate infrastructures and incentives to encourage dealings in these markets. Access to the NRB facilities should be at penalty rates and the NRB should only deal with market participants in the interbank market and at market rates. The interventions by the NRB, reflecting its fixed exchange rate policy, complicate the development of the interbank FX market.

### Annex V.1. Developing Money and Interbank Markets: Selected Country Experiences<sup>21</sup>

97. The **Maltese** lira money markets, at the start of the 2000s, consisted of an unsecured cash market and a t-bill market with no interbank repo or sell/buy-back markets, and no other instruments such as commercial papers or certificates of deposits. Certain institutional elements were introduced to expedite market development, such as: (i) dematerializing t-bills (to make them more usable as collateral, accessible to foreign investors, and to encourage the development of a repo market), (ii) actively using public debt management to develop more liquid securities markets (by reducing the amount of fragmentation in the debt stock), and (iii) privatizing deposit money banks (in particular, the sale of one large bank to a foreign owner, which increased the degree of competition).

98. The **Kyrgyz Republic's** experience—with reliance on money market operations for the conduct of monetary policy—overcame the shortage of securities and conventional collateral by relying on FX operations (FX swaps). Besides increasing the quantity of t-bills through phased securitizing of government debt, the National Bank of Kyrgyz gradually increased the stock of marketable government securities to develop open market operations.

99. **Ukraine's** experience in the 2000s benefited from developing government domestic debt market. The underdeveloped debt and securities market and the absence of a sufficient amount of securities with which to conduct sterilization and collateralized operations effectively rendered many of the money market operations inoperable. In addition, weaknesses in the banking system, the absence of suitable instruments to use as collateral, and the poor intervention strategy of the National Bank of Ukraine also complicated the development of a money market.

100. In **Turkey**, in the 1980s the banking system was highly segmented, with public banks reluctant to lend to private banks and limited activity in the interbank market. The central bank developed a framework for an interbank market in which it was acting as a blind broker—borrowing only when it could on lend the proceeds at the same interest rate—as the counterpart of all transactions. In order to cover the credit risk, all transactions intermediated by the central bank had to be backed by acceptable collateral, such as government securities.

101. In **Thailand**, a repurchase market with the central bank was created in 1979 with a view to further developing the fledgling money market, and provides the central bank with a mechanism to monitor and, if necessary, intervene in the market. Participants were allowed to place buying and selling orders with the central bank, indicating the amount, interest rate and maturity of the desired transactions. Then, the central bank tried to match the orders and determine a single “market” repurchase rate (that is, a fixing).

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<sup>21</sup> IMF. (2005) Monetary Policy Implementation at Different Stages of Market Development: An Overview, IMF Occasional Paper 244, December 20, 2005.

102. In **Korea**, in the late 1980s, the central bank promoted the establishment of brokers and dealers for call transactions in order to enhance the adjustment function of the interbank market and break the segmentation of the existing call market between bank and nonbank financial institutions (NBFIs).

103. The case of **Georgia** (2007) underlines the need to develop a well-functioning money market and with a yield curve across a wide range of maturities to achieve effective monetary policy implementation. Ideally, a central bank should be equipped with a balance sheet which enables it to implement monetary policy both in terms of instruments and income to cover the cost of monetary policy.

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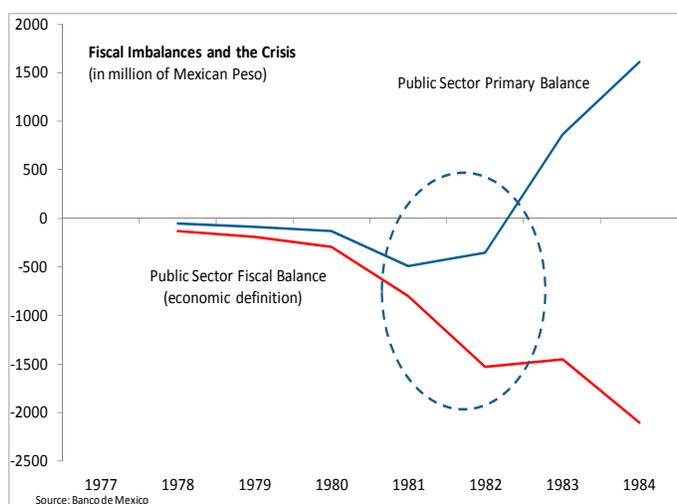
## VI. THE DEEPENING OF MEXICO'S LOCAL DEBT MARKET<sup>22</sup>

*This case study examines the development of domestic debt markets in Mexico. While financial crises in the 1980s and 1990s played a catalytic role for undertaking reforms, the adoption of macro-economic and structural reforms, and ensuing fiscal discipline, inflation control, sound regulatory, supervisory and prudential frameworks and improvements in the underlying market infrastructure, including pension reform and pro-market investment regulations, were crucial for facilitating market deepening. The development of domestic debt markets in Mexico has contributed to reduced macro-financial vulnerabilities.*

104. **Mexico's domestic debt markets can be traced back to the late seventies, but markets have since evolved to be one of the most advanced among emerging market countries.** The first sovereign peso-denominated fixed rate Treasury securities (CETES) were issued by the Federal Government in January 1978, with the secondary market only becoming operational in 1982. By 2003, Mexico was ranked as one of the most advanced government bond markets among emerging market countries. The 2011 outstanding federal government securities amounted to 25 percent of GDP, more than half of which was in development bonds (discontinued in 2010), 18 percent in Udibonos (inflation-indexed development bonds), and 4.5 percent in CETES (t-bills, amounting to around 3 of GDP). In August 2011, the federal government issued a US\$1 billion bond, the "Bonos Global," with maturity of 100 years. In 2010, Mexico was included in Citigroup's World Government Bond Index, Macroeconomic policies and progress in the regulatory framework did play a major role in the deepening of Mexico's domestic debt market.

### A. Crisis and Debt Markets: Initial Conditions

105. **A concentration of USD-denominated borrowing contributed to the build-up of currency mismatches that preceded the 1982 Mexican crisis.** The 1976 oil discovery and rising oil prices encouraged fiscal expansion and foreign debt tolerance. Much needed fiscal reforms to increase revenues lagged behind. With the decline in oil prices in the early eighties, growing fiscal deficits had to be financed by the central bank and sovereign debt issuance. Crowded out of domestic credit, the private sector and state-owned

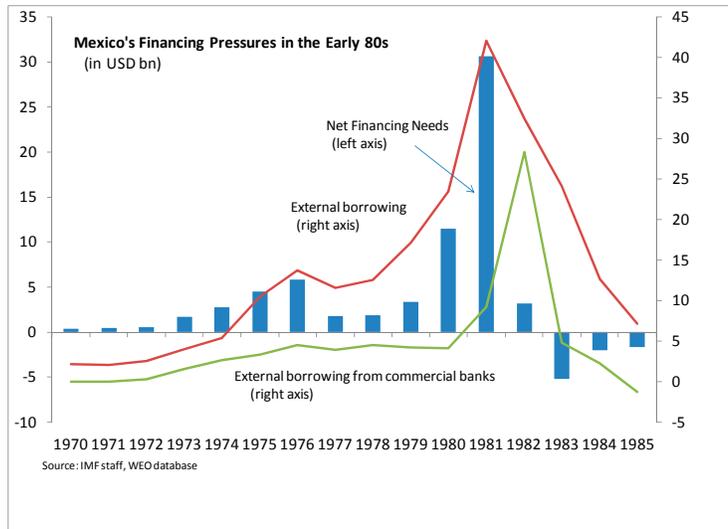


<sup>22</sup> Prepared by Maria Oliva (MCM).

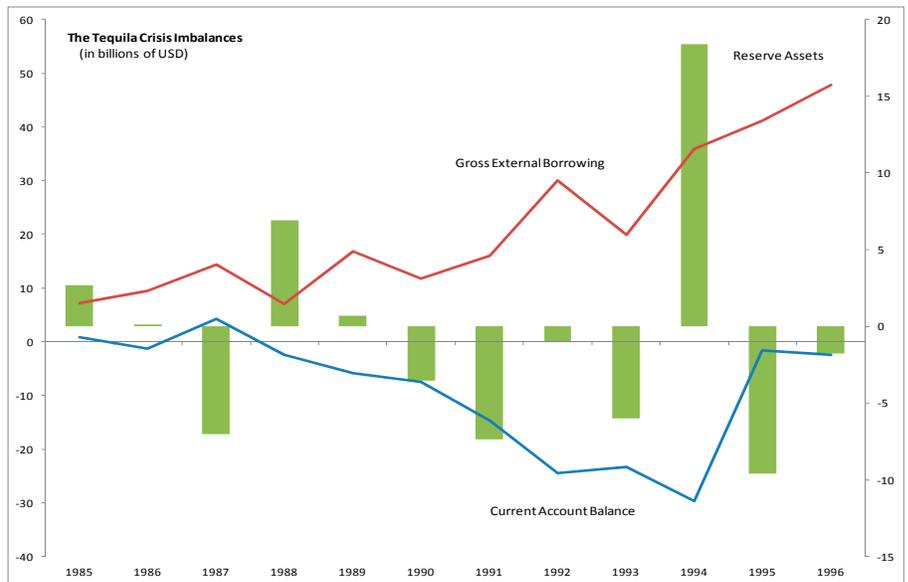
corporations sought financing abroad, borrowing heavily in U.S. dollars and in short-term maturities. Furthermore, commercial and development banks also resorted to external borrowing. Between 1976 and 1982, private and sovereign debt levels more than tripled.

106. **By the early 80s, the debt levels proved unsustainable, leading to a debt crisis.** The peso was devalued in 1982 and a temporary moratorium imposed on debt payments. An IMF program followed to stabilize the economy. In an effort to stop capital flight, the authorities nationalized all domestic commercial banks. In the wake of the crisis, a policy of liberalization, privatization, and fiscal adjustment was adopted. Restrictions on foreign investors were significantly eased, including in strategic sectors such as banking, insurance companies, telecommunications, and tourism. By end-1990, non-residents were allowed to invest in the stock market and purchase sovereign fixed-income instruments.

107. **Deficits continued accumulating in the late eighties, financed with short- (mostly CETES) and medium-term domestic debt issuances.** The economic outlook in the second half of the eighties was characterized by weak growth and lack of access to external financing. Until 1988, government financing relied on commercial bank borrowing and central bank financing, (including through higher reserve requirements), which further compressed private sector activity. The restructuring of the Mexican debt in 1989 and the signature of the Brady Plan in February 1990 renewed access to international capital markets, playing a key role in the development of debt markets at the time.



108. **The roots of the Tequila crisis can be found in the liberalization of financial markets in the absence of appropriate oversight.** In the late eighties, after years of economic stagnation and high inflation, the Mexican government adopted a series of pro-growth reforms. These targeted a six percent growth rate supported by measures ranging from higher government investment to the re-privatization of the banking system, and deregulation of the economy. The signing of the North American Free Trade Agreement (NAFTA) and lower international borrowing costs



facilitated access to foreign borrowing. The implementation of the stabilization policies fueled fiscal expansion and short-term portfolio investment inflows. Poor oversight facilitated rapid credit expansion, the build-up of asset-liability mismatches in the banking sector, concentration of market risks, and related lending. The surge of Tesobonos (bonds denominated in pesos but with coupons and principal repayments indexed to the U.S. dollar at the spot rate at the issuance date) exposed the country to significant FX risks. Moreover, at the time, Mexico had a pegged exchange regime and a growing balance of payments deficit that needed to be financed. Pressures built up when international reserves were depleted. At the onset of the crisis in 1994, the authorities moved to a floating exchange regime in order to regain monetary policy control and tame inflation (Best, 2011).

109. **The deepening of Mexico’s domestic debt markets crystallized post 1994–95, with a major series of reforms to facilitate market development.** The Tequila Crisis prompted important policy actions in the government securities market, but also in the macroeconomic and structural reforms arena. On the macro side, the ensuing fiscal discipline (adoption of the fiscal responsibility law), inflationary control and adoption of the inflation targeting regime, and the introduction of the floating exchange rate regime facilitated market deepening, lengthening of sovereign debt maturities, and the creation of benchmark issuances. On the structural side, improvements in the regulatory environment including the reform of the pension system and adoption of pro-market investment regulations also contributed to the development of a sound debt market. Mexico obtained an investment grade rating in March 2000, and access to low cost financing in foreign markets.

## **B. Reforms: Debt Markets in Mexico (2000–08)**

110. **In the early 2000s, domestic debt markets were dominated by government debt.** Private security markets were undersized and shallow, and the secondary market for private sector debt (non-financial institutions in particular) was illiquid.<sup>23</sup> The government debt market, in contrast, was deeper and liquid, even though most of the daily trading was still in short-term instruments and in interest-rate indexed securities. Debt issuances, however, were not confined to the Ministry of Finance. In 2000, the monetary authorities also issued 1- and 3-year floating rate debt instruments. In the 2000s, the deposit insurance agency started issuing floating rate debt with government guarantees. The first public mortgage-backed securitization took place in 2003.

111. **Domestic securities markets played a small role in private sector financing.** In 2000, investors in corporate securities accounted for merely one percent of the population. At the time, private institutional investors invested in government securities and bank liabilities, while large companies relied on international debt and equity markets for financing. Instruments were few, highly fragmented—a feature that made them susceptible to price volatility—and of short duration. Mexican banks relied on government paper to reap profits and large companies continued accessing international capital markets and relying on inter-company credit to finance operations.

<sup>23</sup> Even today, fixed income markets are still mostly sovereign bond markets; corporate debt markets remain small in relation to the size of the Mexican economy.

**112. Policy initiatives to develop both the interbank and government securities’ markets played a catalytic role in debt market development. These included:**

- Issuance of higher volumes of one-day repo transactions, a large share of which were collateralized with government securities. Market makers were authorized to operate, which contributed to deepen and expand liquidity in both the primary and secondary markets in government securities. Both these policies helped enhance liquidity management and the monetary policy transmission mechanism.
- The yield curve on government securities was expanded with the issuance of 3- and 5-year fixed coupon bonds in 2000.
- The structure of debt was shifted away from foreign-currency denominated instruments. This helped reduce currency mismatches, an important source of risk in past crises.
- Funding resources were diversified and a pre-announced calendar of government security auctions approved.

**Infrastructural reforms also played an important role**

- The institutional and prudential framework was reinforced with the creation in 1995 of the National Banking and Securities Commission (CNBV).
- To enhance bank intermediation, in May 2000, the authorities reformed the secured lending framework and passed the Commercial Insolvency Law, providing a new framework for corporate reorganization and bankruptcy. A debt information registry was also adopted.
- In 2001, the Securities Market Law, the CNBV Law, and the Mutual Funds Law were approved. These reforms were intended to give the CNBV greater oversight capacity and to facilitate the number and type of vehicles available in credit and liquidity markets.

**113. Measures were also adopted to facilitate creation of new markets (OTC derivatives and insurance and mortgage markets).** The OTC derivatives market surged in response to the abandonment of the exchange rate peg in 1994/95. By 2005, the OTC and exchange-traded derivatives markets were fully integrated with the global derivatives market. In line with IMF staff suggestions, the supervision and regulatory framework was strengthened, and the industry of private mortgage originators operating in the mortgage-backed security segments and in the market directly surged.

**114. The presence of a growing investor base played an important role in spurring market development.** Primary market participants, mostly banks but also other institutional investors (e.g., insurance companies and mutual funds), were particularly active in the secondary market for government debt securities. The private pension fund system (created in 1996) became a key institutional investor in the domestic debt capital markets. In 2005, pension funds accounted for about 35 percent of all domestic fixed income securities placed by private issuers. Foreign participation also increased over time; foreign holdings of government securities were only 1.3 percent in 2000, rising to 25 percent by November 2011, and 29 percent in February 2012.

115. **In tandem, a number of reforms were undertaken to enhance investor confidence and reduce vulnerabilities.** Reforms targeted three major issues identified during the crises: (i) lack of transparency; (ii) lack of market discipline; and (iii) weak regulatory and supervisory frameworks. Reforms in these three areas supported the deepening of both domestic and corporate bond markets in Mexico.

116. **Reform efforts to increase transparency focused on improvements in accounting and disclosure standards in the financial system.** In the early 2000s, there were important weaknesses in the area of public availability of information. For instance, the CNBV did not report on its overall performance on banking supervision activities, and the National Banking and Commission Securities (CNSF) did not publish externally audited balance sheets or its annual report. In addition, there was a need for greater coordination among the regulatory and supervisory bodies, openness to public scrutiny on banking supervision activities, and improvement in financial reporting. These were addressed through appropriate legislation and reforms, and a new Law of Management and Transparency of Financial Services approved in June 2007.

117. **Reform efforts to foster market discipline focused on increasing investor confidence in debt markets.** In June 2001, a number of legal reforms were passed to strengthen market discipline. For instance, the reform of Mexican secrecy rules facilitated greater cooperation with foreign regulators through the CNBV. Enacted legal reforms also included changes in corporate governance practices and uniform treatment in addressing issues affecting the functional regulation of comparable investment vehicles. The Securities Market Law (LMV), passed in 2005 (and fully operational since June 2006), further strengthened CNBV's authority, enhanced the corporate governance of publicly listed companies, and eased conditions for small and medium-sized companies to raise capital. Legislation to increase the flexibility of banks' operations was passed in February 2008. With the CNBV in charge of the authorization of bank operations, the reform aimed at enhancing competition across banks' product lines and business activities.

118. **Furthermore, efforts were made to strengthen the institutional framework for financial oversight.** The Payment System Law was enacted in 2002; the central bank became the supervisory and regulatory authority of the country's systemically important payment systems (SIPS). The law also regulated the finality of systemically important payment and settlement systems; the protection of netting schemes and of collateral arrangements; and the BoM's oversight power. Secured lending and bankruptcy laws aimed at improving risk management practices, enhance understanding of the payments system, and improve the bankruptcy process. The Mexican regulatory and supervisory framework was also significantly enhanced. By 2006, the CNBV had improved its capacity to license, oversee and regulate capital markets and to address violations of securities' laws.

## Outcome

119. **At the eve of the global financial crisis, the Mexican economy was characterized by strong fundamentals and significantly reduced macro-financial vulnerabilities as compared to the past.** Lower debt levels, limited exposure to exchange and roll-over risks, and lengthened debt

maturities were important contributing factors. Public, private, and financial balance sheets were sound (IMF, 2011). In particular, the government debt level was manageable and corporate and households leverage modest. Past efforts to improve the structure of the public debt, in particular, the lengthening of the average maturities to above 6 years, also contributed to the soundness of the economy.

## C. Conclusion

120. **Key lessons:** Macroeconomic imbalances, government’s control of financial market operations and reliance on foreign borrowing can constrain domestic debt market development. In addition, inadequate infrastructure, absence of supporting markets and investor base, and lack of appropriate oversight are also important limitations.

121. **Key reforms, impact, and lessons.** The debt crises of the 80s and 90s were the key triggers of reform. Improvements in policy frameworks, lower currency mismatches and foreign debt exposures, enhanced effectiveness of regulation and supervision, and notable improvements in the underlying market infrastructures played a crucial role in spurring local bond market development in Mexico and in lengthening of the yield curve. The deepening of the domestic debt markets in turn served to increase resilience to shocks, as evident by the country’s experience during the recent global crisis.

122. **Key risks:** Mexico’s experience with the crises of the 80s and 90s suggests that the deepening of the domestic debt markets is not a substitute for fiscal responsibility and sound macroeconomic policies. The case shows the adoption of prudential frameworks and a sound financial oversight and regulatory framework are basic components of stability and credibility, and necessary conditions to deepen the domestic debt markets. While sound domestic debt markets may help ameliorate the impact of negative shocks to the economy by building buffers, they cannot prevent defaults and could, instead, magnify the effects of poor policies and imbalances.

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## VII. TURKEY: DOMESTIC DEBT MARKET DEVELOPMENT<sup>24</sup>

*The case study documents the development of the domestic debt market in Turkey. Economic stability and low inflation together with regulatory reforms laid the foundations for development of the domestic debt market since 2000s. While past crises played a catalytic role for undertaking reforms, fiscal consolidations, central bank autonomy, improvements in market infrastructure and transparency, and the adoption of a sound regulatory, supervisory framework played a crucial facilitating role. Development of debt markets played an important role in securing financial stability by building resilience through market diversification. Space for policy flexibility was created by lengthening the maturity profile of e-government debt and reducing reliance on external financing.*

### A. Initial Conditions and Constraints

#### Historical overview: boom-bust cycles 1940–2000

123. **During the second half of the twentieth century, the Turkish economy experienced significant economic volatility and repeated crises.** Hyperinflation and balance of payment crises were common features in every decade. Before 1980s, the financial system was characterized by interest rate controls (in place since the 1940s), directed credit, and entry barriers. Because of rising inflation and low real interest rates, financial intermediation declined. In 1980, following another severe balance of payment crisis, Turkey adopted a stabilization and liberalization program aimed at improving its balance of payments position, and reducing inflation, fiscal deficits and government dominance of the economy. The Turkish lira was devalued to increase competitiveness. Despite initial improvements, persistent fiscal deficits were a key factor in the government's inability to deal with macroeconomic imbalances and rising inflation (inflation averaged around 50 and 80 percent in 1980s and 1990s, respectively) until the early 2000s.

124. **Liberalization of the Turkish financial markets started in the 1980s.** Interest rate liberalization, began in 1980, taking eight years to complete. Turkish residents were allowed to hold foreign currency deposits in 1984, and the capital account was fully liberalized by 1990. In the absence of fiscal discipline, however, the opening of the capital account attracted capital inflows in response to a large risk premium on government securities. Both residents (including financial institutions) and non-residents borrowed abroad and lent to the Treasury, taking advantage of the interest rate differential. The Central Bank of Turkey (CBRT) provided banks with liquidity to finance the growing government debt, which reached 77 percent of GDP by end-2000. Prudential limits on FX exposures were not enforced and the economy became highly dollarized (over 60 percent in 2000–01).

<sup>24</sup>Prepared by Abdullah Al-Hassan (MCM).

125. **The underdeveloped local capital markets remained largely unsupervised until 2000s.** The 1980's liberalization of interest rates generated fierce competition among banks which began issuing certificates of deposits to brokers, who re-sold them to the public, to attract deposits. Unlicensed brokers issued their own promissory notes and sold/bought corporate bonds and made loans. This evolved into a Ponzi scheme, leading to the collapse of five banks and financial crisis in 1982 (Denizer et al., 2000). This crisis exposed the lack of institutional frameworks and inadequate regulation of the capital markets. As a result, the government established the Capital Market Board and opened the Istanbul Stock Exchange in 1986. In 1987, commercial paper was introduced and mutual funds entered into the markets. Nonetheless, the real returns and tax treatment of government securities made them very competitive to hold as compared to corporate bonds.

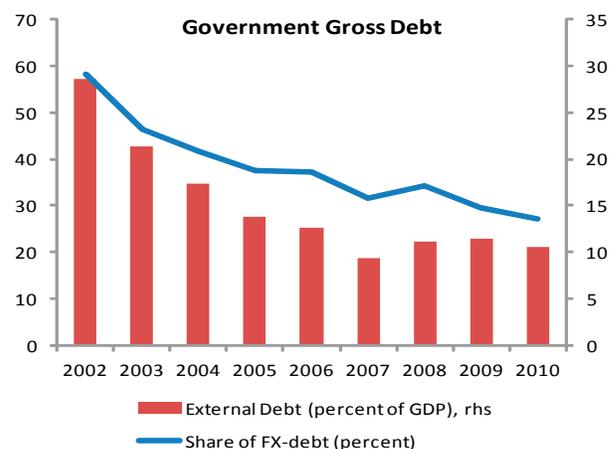
126. **The weak banking system and its over-reliance on foreign inflows made the system vulnerable. In 2000, portfolio losses and liquidity problems in a few banks led to a generalized loss of confidence in the banking system.** The liquidity crisis in the banking system led to a massive loss of foreign reserves through capital outflows. The speculative attack on the lira in February 2001 forced the government to float its currency. The crisis resulted in a sharp depreciation of the exchange rate, high inflation, a surge in interest rates, a jump in government debt, and a sharp contraction in economic activity.



Source: International Financial Statistics.

## B. Addressing the Challenges

127. **The crisis spurred action to develop the domestic debt market, so as to reduce reliance on external financing and central bank financing of government.** The government adopted fiscal reforms to consolidate the fiscal balance and reduce government debt. Gross government debt to GDP declined from 53 percent in 2000 to 41 percent in 2010, owing to improved economic performance and a drop in interest rates. Further, as the domestic debt market developed, the Treasury reduced the share of FX-denominated debt in the total gross public debt by nearly 30 percentage points in the decade ending in 2010.



Source: IMF Staff estimates.

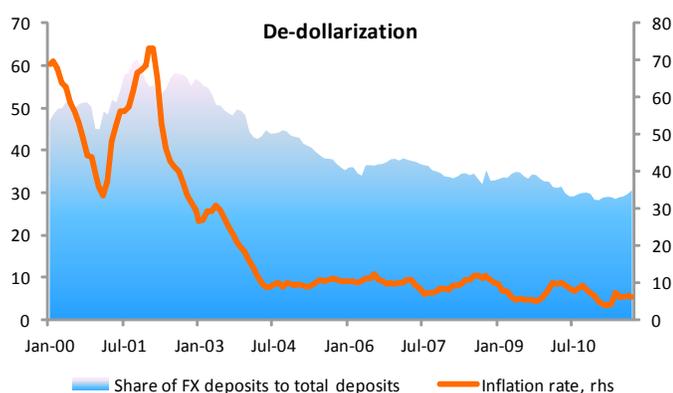
128. **In 2001, Central Bank of Turkey (CBRT) was granted greater autonomy.** Price stability was made the sole primary objective of the CBRT. In early 2006, the CBRT formally adopted an

inflation targeting framework to anchor inflation expectations, after three decades of hyperinflation. Central bank direct financing of the government was prohibited. In 2005, to enhance the efficiency of the money market as a key component in capital market development, the CBRT sterilized capital inflows heavily in order to maintain price stability.

129. **Treasury coordination with the CBRT was increased and market transparency enhanced.** A monthly meeting between the Treasury and CBRT staff was instituted to discuss borrowing plans and liquidity conditions within the financial market. In 2006, the Treasury also started publishing an issuance calendar with monthly borrowing plans, along with a debt profile report describing various securities to be issued in the next 12 months. The government approved an Action Plan in 2005 to harmonize regulations among domestic regulators as well as with the EU's *acquis*, and the Capital Market Board began modernizing the Capital Market Law.

130. **A primary dealer system was introduced in late 2002 to develop and enhance liquidity in the debt market.** Twelve banks were appointed to act as primary dealers (PDs) for government securities. PDs participated in the auctions of government securities to reduce rollover risk, and provide two-way prices as market-makers to increase liquidity in the secondary market. To support the PD market, the CBRT provided both overnight and weekly repo facilities at pre-announced interest rates.

131. **Providing access to local currency denominated assets helped in domestic market development, and in lowering dollarization.** Since 2001, dollarization has been on a downward trajectory (text figure). Economic stability, lower inflation, easy access to domestic currency financial assets, and prudential measures, all helped to reduce the levels of dollarization in the economy from 60 percent in 2001 to around 30 percent in 2010.

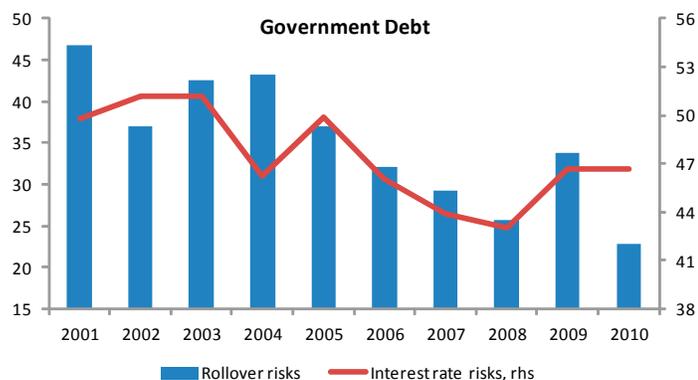


Sources: Central Bank of Turkey and IFS.

**132. In tandem, the maturity profile of debt was actively extended.**

As the fiscal position improved, inflation and real interest rates fell sharply, supporting the Treasury’s efforts to extend the maturity of government securities and reduce the share of indexed-securities. The 2006-08 strategic benchmarks for the debt portfolio set the following limits: (i) mainly lira instruments; (ii) fixed rates; (iii) discontinuing issuance of FX-indexed bonds and roll-over of no more than 80 percent of FX-indexed debt; and (iv) increasing the average maturity of domestic borrowing.

To achieve these benchmarks, the Treasury introduced new instruments and extended debt maturity to reduce rollover risks. Moreover, it introduced a 2-year fixed coupon lira-bond in 2002 and a 5-year fixed coupon bond in 2005 to reduce interest rate risks. Instruments with floating rates also helped to extend the maturity of the debt portfolio. In 2010, the Treasury introduced its first 10-year bonds—in fixed rate and CPI-indexed.



Source: IMF Staff estimates.

**133. The establishment of derivative markets and local rating agencies supported the development of debt markets.**

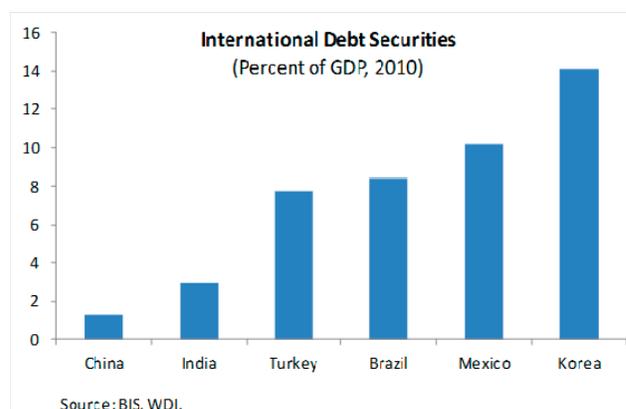
PDs’ market-making role required holding an inventory of government securities, and hedging tools (e.g. forward, futures, swap, and options) to help mitigate resulting interest rate risks. The Turkey Derivative Exchange (TurkDEX) officially became operational in 2005, but currently offers only two interest rate futures contracts. Nonetheless, it has been growing substantially with trading volume rising 2.5-fold between 2005 and 2010 (albeit from a low base). Furthermore, there are nine credit rating agencies (licensed and overseen by the Capital Market Board (CMB)) that disseminate credit information on bond issuers. The ratings assist in the development of bond markets by providing information infrastructure on the credit-worthiness of bond issuers and minimum standards for information disclosure.

**C. Assessing Impact**

**Bond Market Developments**

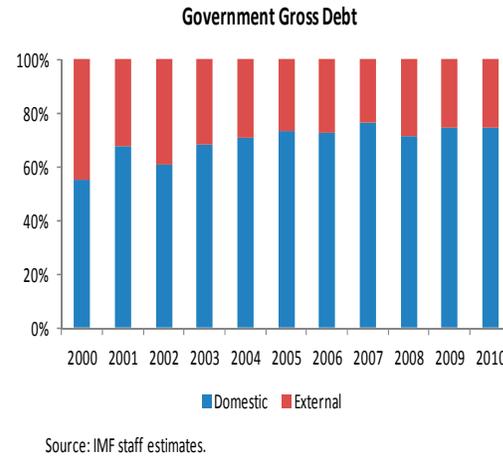
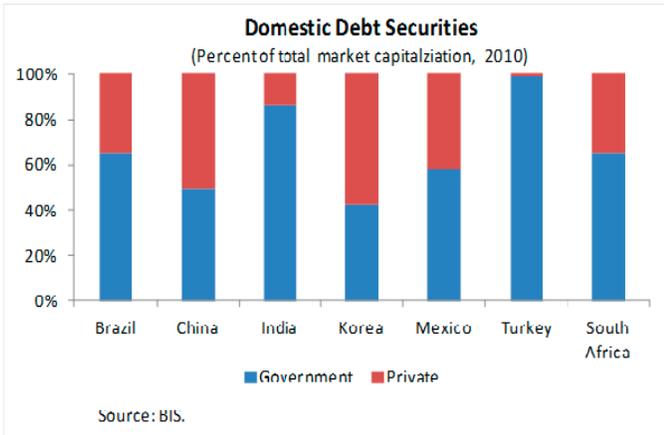
**134. Turkey’s foreign debt (about 80 percent sovereign) market is liquid and among the top emerging market (EMs) bond markets.**

It accounted for around 10 percent of the J.P. Morgan Emerging Market Bond Indices (EMBI), market capitalization of the EMBI in 2010, and Turkish euro-denominated are listed on “EuroGlobalMTS” trading platform. Outstanding international debt securities accounted for eight percent of GDP in 2010, comparable to the other EMs, such as Brazil and Mexico.

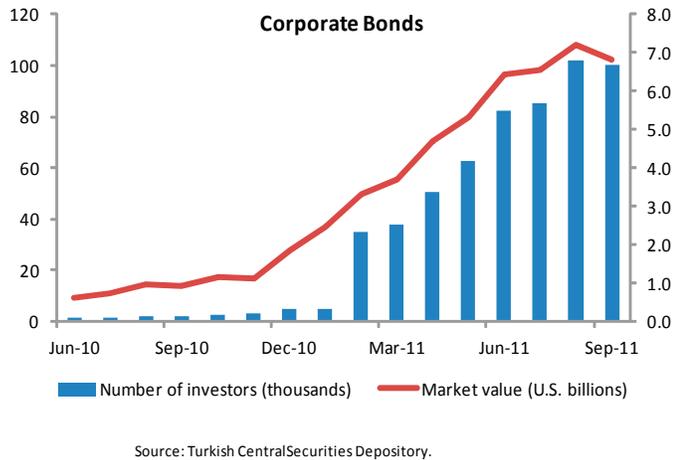


Source: BIS, WDI.

135. **The domestic government debt market is well-developed.** The share of domestic borrowing in government financing has grown substantially from about 55 percent in 2000 to over 75 percent in 2010, reflecting in large part past stabilization policies to reduce inflation and interest rates. Outstanding domestic government securities accounted for 99 percent of market capitalization.



136. **Nonetheless, the corporate bond market remains nascent.** Up until mid-2010, there was a low appetite for corporate bonds, as investors were accustomed to investing in government securities. However, with declining fiscal dominance and interest rates, corporate bonds have provided an alternative class of assets for investors. In early 2011, to encourage demand for corporate securities, the government eliminated the withholding tax on income from bonds with maturities of over five years, while reducing that tax from a flat 10 percent to seven percent and three percent for 1–3 year and 3–5 year bonds, respectively.



the government eliminated the withholding tax on income from bonds with maturities of over five years, while reducing that tax from a flat 10 percent to seven percent and three percent for 1–3 year and 3–5 year bonds, respectively. The first corporate lira-denominated bond was issued in August 2006, and in October 2010 the Banking Regulatory and Supervision Agency (BRSA) permitted banks to issue lira-denominated bonds. Nonetheless, in 2011 outstanding corporate bonds represented merely six percent of the capital market, with an average maturity shorter than that of government bonds (Dalla, 2011).

137. **Banks are the major players in debt markets along with their affiliated intermediaries (mutual funds).** This, in part, reflects the dominance of banks in the financial system, with around 65 percent of total financial assets (Dalla, 2011). In 2010, 32 percent of banks’ assets were held in

government securities. Nonbank financial institutions (i.e., pension funds, insurance companies, and mutual funds) usually affiliated with banks, provided easy access to their parent banks' deposits.<sup>25</sup> Mutual funds mainly invested in government securities, which accounted for over 80 percent of their portfolio compared to four percent in equities at end-2010. The introduction of private pension saving funds in 2003 helped to provide long-term resources in the capital market. Though the role of institutional investors has been growing over the last few years, their assets represented only 6.6 percent of GDP in 2009, compared to 80 percent in Brazil and 40 percent in South Korea (Dalla, 2011).

## D. Policy Lessons

138. **Past crises were key drivers of government's macroeconomic reform efforts of which debt market development was a key component.** The substantial growth of the domestic debt market over the last decade was a policy choice to reduce reliance on external financing, given the stabilization of inflation since 2003, improved regulation, and the prospect of European Union (EU) accession. Economic stability and regulatory reforms over the last few years further laid the foundations for the development of domestic capital market.

139. **Over the last decade, macroeconomic stability and growth have provided capital markets in Turkey with the basis for growth.** Per capita GDP increased from USD4,200 in 2000 to over USD10,000 at end-2010, although Turkey's saving rate is still small compared to other EMs (15 percent compared to an average of 30 percent in other EMs at end-2010). The holding of lira-denominated assets by foreign investors has gained momentum, given higher yields and strong economic indicators over the last few years.

140. **As the CBRT gained credibility, the Treasury has been able to introduce additional government securities and extend the maturity of these instruments.** Investors, however, especially banks, continue to strongly prefer short-term instruments with floating interest rates, reflecting, in part, past history of economic volatility and hyperinflation.

141. **Banks' dominance in the government debt market exposes the sector to sovereign risks.** Banks have substantial holdings of government securities (around 35 percent of their total assets), exposing their balance sheets to Turkish sovereign risks in case of a sudden rise in interest rates on government securities. Fiscal dominance in the banking sector also crowds out lending to the private sector, and could hinder economic development and growth.

142. **Continuing to widen the investor base beyond banks can assist in development of the capital markets.** A wider investor base with different time horizons, risk preferences, and trading motives will continue to provide additional resources for economic development, and reduce volatility that could result from foreign portfolio investment.

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<sup>25</sup> The largest four mutual funds managed about 67 percent of mutual funds total assets (FSSA 2007).

## E. Conclusion

143. **Key constraints.** Macroeconomic instability, fuelled by fiscal indiscipline, together with financial sector and capital account liberalization, encouraged foreign-funded financing of the deficit and risky financial sector behavior in the past. Given the premium on government debt relative to foreign interest rates, banks had a strong incentive to source their funding from abroad. The resulting liquidity crisis prompted government's determination to develop the domestic market for traded debt as a more stable form of funding.

144. **Key policies and impact.** The policies permitting the development of the domestic debt market took place on two fronts—on the macro front (fiscal control and a credible anti-inflation policy); and on the micro front, actions to develop the money market, issuance of a spectrum of government securities, tax incentives, and the establishment of risk-mitigating arrangements (derivative markets, rating agencies) all facilitated market development.

145. **Key lessons.** Credible control of inflation and macroeconomic stability are the foundations for development of bond markets. Organizational (coordination between treasury and central bank, market makers), money market and other supporting arrangements, as well as effective oversight of the capital market are all components required to stimulate bond market development. The paucity of institutional investors can be a constraint on bond market growth.

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## VIII. REGIONAL DEBT MARKETS: LESSONS AND POLICY IMPLICATIONS FOR LICS<sup>26</sup>

*The main force behind the Asia regional bond market initiative was the strong commitment of the participating countries to develop the regional bond market as a means of promoting macro stability and enhancing the efficiency of financial markets. The authorities coordinated purchases of government and quasi-government securities and established a series of funds targeted to different market segments and a guarantee facility for corporate bonds. The West African Economic and Monetary Union (WAEMU) authorities established the regional market to respond to the financing needs of the governments in the region and of private corporations. Regional institutions for surveillance, trade and settlement were established and additional initiatives are underway to improve international marketability of government securities and equalize tax treatment. The Asian bond market has contributed to efficient liquid bond markets in the region and the WAEMU market has been successful in improving government financing.*

146. **Building a “regional market” is often identified as one way to address the challenges raised by the small size of an individual country’s financial system.**<sup>27</sup> The potential benefits might include expansion of the investor base, reduced unit costs of financial infrastructure, transfer of technology, other scale efficiencies and overall reduction in transaction costs. In particular:

- **Adopting common transaction technologies can contribute to economies of scale for the issuer or local market authorities**, while helping to reduce the barriers to entry for investors or market intermediaries. It helps to spread the costs of market infrastructure such as clearing and settlement systems or trading systems, but could also encourage marketing factors such as joint promotional road-shows to showcase the region.
- **Expanding the investor base is likely to bring substantial benefits, especially for smaller economies.** Regionalization could boost the ability of these markets to mobilize local and international capital for investment (both public and private). More generally, a diverse investor base is likely to be able to support a broad range of instruments, enabling issuers to achieve their desired financing structures.
- **Pooling resources, and channeling them across a region could help mitigate external vulnerabilities.** The risk of capital flight of investors is likely to be relatively smaller in a regional market, possibly due to “home-region investment bias.” From an issuer’s perspective, there may also be a degree of name recognition that will help reduce the cost of issuing to a regional investor class.

<sup>26</sup> Prepared by Abdullah Al-Hassan (MCM), Francois Boutin-Dufresne, Mame A. Diouf, and Yibin Mu (all AFR).

<sup>27</sup> A regional market can be formed as a single centralized market place (e.g., the Eastern Caribbean Currency Union (ECCU) and WAEMU), with a single regulator, clearing and settlement depository (CSD), and payment system. Alternatively, the Asian Bond Market Initiative and the Euro Zone have a collection of local markets that utilize common infrastructure and/or harmonized approaches to regulation, taxation, and issuance.

- **Enhancing cross-border trading of government securities.** Effective cross-border trading should enable investors, both from within the region but also with a more global focus, to build pan-regional portfolios without incurring excessive transaction costs.

## A. The Asian Bond Market Initiative

### Initial conditions

147. **The main initial motivator for developing a local currency bond market in East Asia was the financial crisis in the late 1990s.** Dependence on bank financing with insufficient oversight had led to short-term investment and foreign currency funding of long-term investment. The resulting maturity and currency mismatches contributed to banking stress and the 1997 Asian financial crisis. A broad consensus developed among policy makers that well-functioning bond markets help diversify the sources of funding and complement bank financing. While banks are more adept at lending to smaller firms, bond markets enjoy a comparative advantage in servicing larger and more established companies. Asian governments therefore actively undertook initiatives to promote domestic local currency bond finance.

148. **Another motivation for regional bond market development was to enhance the liquidity of domestic debt markets.** The high fixed costs of operation and inability to achieve secondary market liquidity impeded the development of domestic local currency bond markets in some East Asian economies. Aware of the benefits of wider markets, East Asian economies coordinated policies at the regional level to promote a regional bond market.

### Reform initiatives

149. **Since 2002, a number of initiatives have been undertaken to develop local regional markets.** Among these are the initial Asia Bond Market Initiative (ABMI) and the Asian Bond Funds 1 and 2 (ABF1 and ABF2) launched in 2003 and 2005, respectively, by the regional association of central bankers—for Australia; China, P.R.; Hong Kong, SAR; Japan; Korea; Malaysia; New Zealand; the Philippines; Singapore; and Thailand. The bond funds (ABF1 and ABF2) are aimed at strengthening macro stability, providing investors with a transparent and cost-effective way to access local bond markets.

150. **ABF1 invests in a basket of US dollar-denominated bonds issued by sovereign and quasi-sovereign issuers in eight EMEAP (Executives' Meeting of East Asia-Pacific Central Banks) markets—China P.R., Hong Kong, Indonesia, Korea, Malaysia, the Philippines, Singapore and Thailand.** The ABFs allocate a portion of the regional central banks' reserves to the purchase of government and quasi-government securities. Eleven very different economies of different sizes, with different economic structures and stages of economic and social development, cooperated for the first time to set up a bond fund and lay the foundation for promoting the development of regional and domestic bond markets in the Asian region. ABF2 extends the concept to bonds denominated in Asian currencies.

151. **To facilitate regional corporate bond market development, the Credit Guarantee and Investment Facility (CGIF) was established in November 2010.** The CGIF is a trust of

US\$700 million. The primary function is to provide guarantees for local currency-denominated corporate bonds issued by firms in the region.

## Conclusion

152. **Key policies and impact.** The Asian regional bond has made significant progress over the past decade as a result of strong political commitment and the attention paid to infrastructure and the design of bond funds. The prudent macro policies in East Asia and investor confidence have played a key role in the success of the official initiatives. The initial commitment of central bank funds, the market infrastructure design and arrangements made to provide investors with a transparent and cost-effective means to access local bond markets contributed to the success. Explicit attention was paid to issuance for particular market segments, varied issuers and bond products. The Asian bond market has contributed to improving liquidity in bond markets in the region.

153. **Key challenges.** The main challenges going forward include: (i) further efforts at strengthening regional economic and financial integration; (ii) efforts at eliminating the legal and regulatory barriers to market integration; and (iii) harmonization of market infrastructure/institutions such as clearing and settlement, credit rating, trading and risk mitigation arrangements

## B. The WAEMU Regional Securities Market

### Initial conditions

154. **The WAEMU securities market became operational in 1999.** Its creation followed the decision of the WAEMU Council of Ministers to establish a regional financial market to respond in a more transparent, efficient, and harmonized manner to the financing needs of WAEMU countries and private corporations. The region's monetary and economic integration, relatively high macroeconomic and political stability—notwithstanding the crisis in Cote d'Ivoire—and the peg of the CFA franc to the euro have been the key facilitators of financial integration in the last decade.

155. **The WAEMU local currency debt securities market is part of a regional securities market that also includes the stock market.** It is currently mainly useful in sustaining treasuries' cash flow needs in a context of uncertain and volatile aid flows and the scarcity of regional bank financing. With the BCEAO's decision to phase out statutory advances in 1998, the issuance of government securities accelerated.<sup>28</sup> Issues by private corporations and regional institutions remained marginal however.

156. **The WAEMU securities market is structured around regional institutions:** the Regional Council for Public Savings and Financial Markets<sup>29</sup> (CREPMF), the Regional Stock Exchange Market

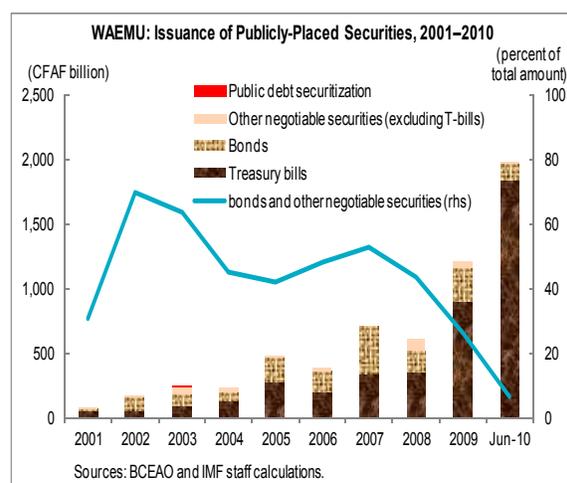
<sup>28</sup> Among WAEMU countries, only Guinea-Bissau has not issued t-bills in the market.

<sup>29</sup> Conseil régional de l'Épargne Publique et des Marchés Financiers (CREPMF).

(BRVM),<sup>30</sup> and the Central Deposit and Settlement Organization (DC/BR).<sup>31</sup> The CREPMF is a surveillance body in charge of managing initial public offerings and regulating market participants. The BRVM insures the quotation and negotiation of transferable securities and supplies information to market participants. The DC/BR acts as a fiduciary for securities holders and also acts as a clearing house. Active commercial operators on the market include asset managers, asset custodians, and business developers. The BCEAO auctions government securities.

157. **Four types of institutions are allowed to issue in the regional debt market:** (i) member countries' treasuries (t-bills and t-bonds); (ii) private enterprises which issue corporate bonds; (iii) regional institutions which list their bonds on the "regional segment" of the BRVM; and (iv) issuers who reside outside of WAEMU which list on the Kola bonds market segment.<sup>32</sup> The West African Development Bank (BOAD) is the main issuer of regional bonds, while the International Finance Corporation (IFC) was the first international agency to issue Kola bonds at end-2006.

158. **Securities issuance is dominated by short-term government paper.** In 2009, Treasuries in the region issued about 96 percent of the securities traded in the market, most of those being t-bills with less than 6-month maturities. Governments from Benin, Cote d'Ivoire, Senegal, Burkina Faso, and Mali are the most active on the market. The BOAD issued about 20 percent of the total long-term securities in the period 1999–2010. Bond issues by private corporations remain rare, representing only 12 percent of total bills and bonds issued during the period.<sup>33</sup> Despite the steady increase in market activity since 1999, total bills and bonds issued in the market represented only 1.7 percent of the region's GDP over the period, while activity in the secondary market remained marginal.



159. **A number of initiatives and reforms are underway to support the further development of the regional financial market.** As part of a strategy to attract greater and more diverse capital flows, some of the region's governments have sought from the services of credit rating agencies. Nevertheless, as of December 2010, only Benin, Burkina Faso, and Senegal had their local currency t-bills rated by internationally recognized agencies,<sup>34</sup> while only Senegal had obtained a rating for its local currency bond. In addition, the Economic Community of West African States (ECOWAS) launched a process in 2010 to harmonize the taxation of securities listed on the regional financial

<sup>30</sup> Bourse Régionale des valeurs mobilières SA (BRVM.sa).

<sup>31</sup> Dépositaire Central/Banque de Règlement (DC/BR).

<sup>32</sup> Kolas bonds are issued by non-residents by syndication on the WAEMU market.

<sup>33</sup> Most of the long-term securities have five- to seven-year maturities.

<sup>34</sup> T-bills issued by Benin, Burkina, and Senegal are rated 'B' from Standard and Poors, which is considered a "highly speculative" bond and Senegal bond is rated B+.

market.<sup>35</sup> Government securities are tax-exempt, increasing their attractiveness. Lastly, several member states have started using national cash flow plans to improve their treasuries' liquidity management and are increasingly coordinating their bill and bond offerings, thereby improving market conditions for participants on both sides of the market.

160. **Key challenges:** The regional bond market would benefit from a broader investor base. The lack of regional savings pools and/or institutional investors (pension and social security funds) limits the demand for long-term financial assets in the region. Foreign investors are largely absent from the market owing to exchange regulations, and yield spreads that may be too narrow relative to those in Europe (Sy, 2010) Transactions costs in WAEMU also seem high.

161. **Financing costs on the regional market are relatively high given investor' preference for short term paper.** Governments may have difficulty implementing optimal debt management strategies given the lack of interest in securities with long term maturities and the high rollover rate of short term government debt. Less than optimal financing conditions could yield higher returns for investors, (mostly commercial banks) at the expense of governments.

162. **The development of the WAEMU regional bond market has heightened banks' cross-border regional exposures and hence potential systemic risk in the region's banking system.** Net bank holdings of government debt amounted to about 10 percent of total banking system assets over the 2000–10 period, an amount that was roughly equivalent to the ratio of regulatory capital to risk weighted assets. During the 2010 political standoff in Cote d'Ivoire, the country's outgoing government interrupted its issues and bond repayments on some of its debt. Bondholders feared that debt payments would cease until political stability was restored. Bond values plummeted, posing a temporary solvency threat to some banks in the region. In the event the BCEAO did offer to rollover maturing securities in the face of probable defaults on Cote d'Ivoire government securities to prevent systemic banking failures in the region.

## C. Conclusion

163. **Key policies and impact:** The WAEMU regional bond market has been successful in improving government financing. Regional institutions for surveillance, trade and settlement were established and additional initiatives are underway to improve international marketability of government securities and equalize tax treatment.

164. **Key risks:** Going forward, while the t-bill market is operating well, the WAEMU regional market faces several constraints which inhibit its ability to provide long-term financing.

- The market's efficiency is adversely affected by the uncoordinated bill and bond issuance schedules. Although governments are required to provide their issuance schedules to the BCEAO at the beginning of each year, the latter are neither binding nor coordinated amongst members.

<sup>35</sup> See ECOWAS directive n°02/2010/Cm/Uemoa.

- Current prudential regulation classifies t-bills as liquid and risk free investments which qualify as 'bank capital' for capital adequacy purposes, encouraging banks to hold t-bills rather than longer term securities.
- The combination of excess liquidity in the financial system, the lack of alternative investment instruments and the narrow spectrum of bill and bond maturities tend to encourage investors to adopt a "buy and hold" strategy on the market, thus limiting the development of a secondary market.
- The limited availability of regional savings pools (social security and pension funds) and the high financing costs borne by actual or potential borrowers further hinders the development of the regional bond market.
- Despite the region's relative economic stability and the high level of monetary and economic integration, there are few foreign investors, as evidenced by the low level of foreign portfolio inflows into the WAEMU region over the period.<sup>36</sup>

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<sup>36</sup> According to BCEAO data and IMF staff estimates, an average of only US\$40 million (0.1 percent of the region's 2011 GDP) of net portfolio flows entered the WAEMU region (on an annual basis) between 1998 and 2010.

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## IX. INSURANCE MARKET DEVELOPMENT— RESPONDING TO CHALLENGE<sup>37</sup>

*A well functioning insurance market is important for mobilizing long-term savings and investment and offering individuals and businesses protection against various risks. Experience with insurance market development in LICs has been heterogeneous and the sector typically has lagged behind banking. The case studies below—India, Barbados, and South Africa/Botswana—suggest that liberalization of the sector can be beneficial for its development, but needs to be supported by strong prudential and market conduct regulation and supervision. The lack of such oversight can be an impediment to the healthy development of the sector.*

### A. India

#### Initial Conditions

165. **Until 1999, the insurance sector in India was state dominated and suffered from major weaknesses.** The single state-owned life insurance company offered limited and inflexible life insurance products which were marketed as a means of reducing tax liability, rather than as a tool for mitigating risk. General insurance was characterized by poor pricing and incurred losses in specific business lines. Rates were fixed without regard to risk classification, did not adjust to underwriting and claims experience, and did not take account of new conditions. As a result there was widespread cross-subsidization and mispricing in the affected business lines.

#### Reform Initiatives

166. **In 1994, the authorities initiated efforts to reform the sector in order to improve service and efficiency and mobilize resources for development.** An independent committee (Malhotra) was tasked to assess the strength and weaknesses of the sector, review its regulation and supervision, and suggest regulatory reforms. The committee identified the following key areas for reform:

- Competition and pricing
- Regulation and supervision
- Improved access (for the rural and disadvantaged population)
- Expansion of products/and improved services to increase savings

167. **Upon the recommendation of the committee (Table IX.1), the sector was privatized in 1999.** The Insurance Regulatory and Development Authority (IRDA) Act repealed the monopoly status of the Life Insurance Company of India (LIC) and the General Insurance Company of India

<sup>37</sup> Prepared by Mary Zephirin, with research assistance by Kay Chung (both MCM).

(GIC) and allowed licensing of private companies. Liberalization of the sector was accompanied by strengthened regulation and supervision.

**Table IX.1. India: Insurance Sector Post 1999: Identified Reforms and Actions**

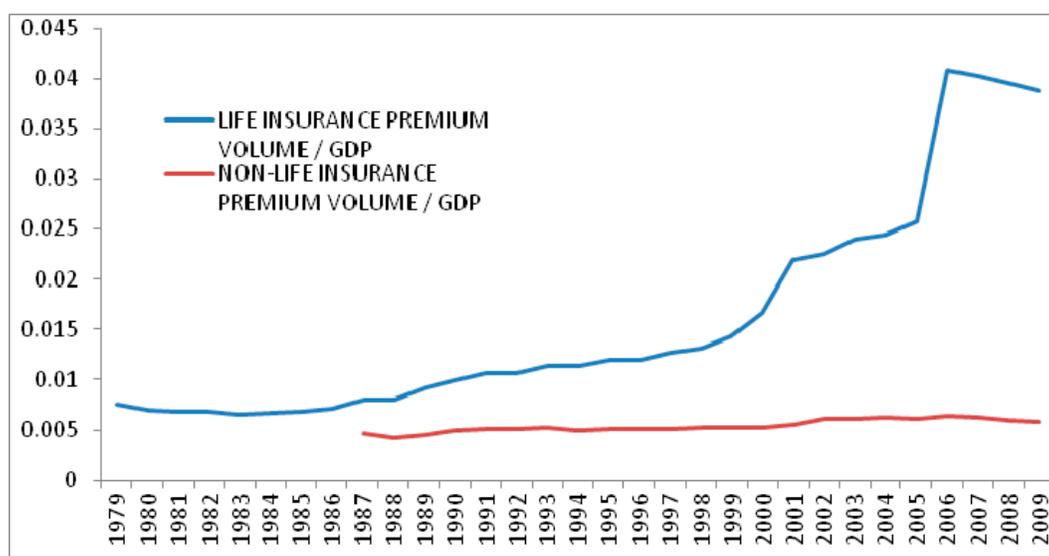
<b>Issue</b>	<b>Measure</b>
Private sector entry with foreign entry allowed	1999 IRDA given powers to license private insurance companies, foreign joint ventures allowed up to 26 percent of paid-up capital and licensing of private companies began in 2000.
Establishment of an independent regulatory agency	Insurance Regulatory and Development Authority Act, 1999 established the agency (see box)
Mandatory life companies investments in government securities to be reduced from 75 to 50 percent, and limits on general	1938 Insurance Act had gone into abeyance with the nationalization. Section 27 sets assets in terms of life insurance liabilities to be kept in GoI (25 percent) and GoI or other approved (25 percent) securities.
Set up Tariff Advisory Cttee (TAC) as separate statutory body	The TAC was now under the control of the IRDA which began to collect new data. In 2007 (see IRDA Annual Report) fixing of tariffs (de-tariffing) for non mandatory general insurance ceased, transactions data had been developed to provide information to insurers and premiums fell in the non-life insurance market, and health insurance grew.
Structuring agents' commissions to provide incentives for rural, personal and non-obligatory lines of business	The objective of increased rural business appears to have been addressed through requirements imposed on licensees. A 2002 regulation defined rural and social sectors and other disadvantaged groups, and fixed requirements in terms of proportion of total policies (life) or gross premiums (general) for new insurance companies. Regulations mandating insurance for these sectors or groups, and reporting requirements, have been issued periodically since then.
Co-operative societies to offer life insurance at state level	Insurance (Amendment) Act, 2002, permitted co-operative societies to carry on insurance business
GIC as reinsurer only	The four subsidiaries of the GIC were separately incorporated, remaining in the public sector and the GIC was established as the sole reinsurer with the objectives, inter alia, of maximizing retention within the country and developing adequate capacity
Insurance companies to introduce unit-linked pension plans	New life insurance companies introduced unit-linked contracts (unit-linked insurance plan, ULIP) tied to stock market performance
Institution of professional surveyors/loss adjusters – removal of licensing requirements	Professional association established in 2005.
Restructuring of industry	Through privatization of the two government-owned companies

Source: Insurance Regulatory and Development Authority of India, and Sinha (2005 and 2007).

## Impact of reforms

168. **The reforms stimulated rapid growth in the insurance sector with improved products and efficiency.** Private firms entered the market, almost invariably with foreign participation, drawn by India's large population and growing economy. Bancassurance became an important method of life insurance distribution. The rapid growth of the sector is evidenced by premium growth (Figure IX.1). While the public LIC continues to dominate the market, its share has been steadily declining. Regulatory requirements for rural and social sector business have contributed to extension of activities in these market segments. Policies sold in rural areas represented 13 percent (see Sinha, 2007) of all private company policies in 2003. The high regulatory ratios for investment in government and approved securities,<sup>38</sup> however, have tended to inhibit investment in corporate securities.

**Figure IX.1. India: Insurance Penetration, 1979 to 2009**



Source: Swiss Re

169. **A very wide range of insurance policy options have become available across private companies competing on policy features.** A notable trend in the market has been the rapid growth in life business with private companies introducing unit-linked insurance plans (ULIPs) whose returns are linked to stock market performance. This product grew very rapidly between 2004/05 and 2009/10 with the booming stock market and aggressive marketing.

170. **The liberalization of the sector also brought its own challenges.** Poorly informed agents were paid high commissions and sold plans to uninformed consumers who bought unsuitable

<sup>38</sup> For example, in life insurance 2008 regulations the solvency margin component of shareholders' funds must be invested in not less than 25 percent in government securities and 50 percent in government securities plus other approved securities where other approved securities include state government bonds, guaranteed loans and guaranteed equity.

policies, often did not renew policies, and incurred high cancellation fees.<sup>39</sup> Private life insurers therefore had very high expenses, which were covered at the expense of customers (Table IX.2). Thus, insurance was not serving as the reliable saving/pension vehicle it was intended to be. When the rapid stock market run-up stopped, the market for ULIPs lost its buoyancy. In October 2010, the regulator imposed consumer protection rules on linked products, including an extension of the locked-in period from three to five years, thus making them more of a long-term instrument, forced spreading of front-end charges over the locked-in period, and limits on expense allowances and introduced a consumer affairs department. These rules have helped to reduce numbers of uninformed sales agents, encouraged policy renewal by existing customers, and a shift towards more traditional products by new customers. In addition, insurers were required to guarantee a return on pension products, which would reduce investment in equities, and could discourage pension products. Some private life insurers have withdrawn from the ULIP business.

**Table IX.2. India: Insurance Companies' Expense Ratios**

(In percent)

	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
All life insurers	0.19	0.37	0.31	0.20	0.18	0.17	0.18	0.19	0.17
LIC	0.18	0.34	0.29	0.29	0.15	0.13	0.12	0.13	0.13
Private non-life	0.33	2.03	2.62	2.88	2.92	2.86	2.63	2.69	2.88
State-owned non-life	0.28	0.34	0.40	0.39	0.42	0.36	0.35	0.38	0.39

Source: IRDA Annual Reports.

Note: Expense ratio measures expenses as a percentage of premiums.

## Conclusion

171. **Key issue:** Reforms were implemented to develop an insurance sector capable of mobilizing funds for long-term development and providing efficient insurance services to consumers and extending them to disadvantaged groups.

172. **Key policies and impact:** Starting from a state-owned system, private firms were allowed to enter and form partnerships with foreign insurers. Insurance regulations mandated both minimum investments in government securities and sales to target social groups. Rapid growth of the sector followed.

173. **Key concerns:** Although the liberalization and expansion of the sector were supervised, a poorly informed competitive market led to consumer abuses that have been addressed by consumer protection rules.

<sup>39</sup> See The Economist of October 29, 2011

## B. Barbados

### Initial conditions

174. **Barbados boasts a well-established and profitable insurance industry with one of the highest non-life insurance penetration ratios in the world.** Major insurers originated from the agencies of major U.K. and Canadian insurers many which evolved into insurance companies in the 1970s and 80s with U.K. companies acting as reinsurers. Other companies are small, domestically-owned or affiliates of other Caribbean companies. In 2005 there were 20 companies writing non-life insurance, with 60 percent of non-life premiums concentrated in three companies. Of the 11 life insurance companies, one had a market share of 50 percent.

175. **Government ownership has been limited—the state established the Insurance Corporation of Barbados as a statutory corporation in 1978.** Initially, this was part of an effort to reduce the FX outflows resulting from the operations of foreign-owned companies, but the state sold its majority share in 2005. Life products consist of the traditional mix of individual and group life with annuities increasing in line with retirement income demand. Non-life products are dominated by motor insurance and accident and sickness. Exposures to hurricanes, high property values, and compulsory motor third party liability requirements have driven the non-life sector. There are no restrictions on reinsurance cessions and companies are free to make their own arrangements overseas.

176. **As a result of a shortage of longer term assets, the asset composition of the insurance companies is unusual—their exposure to mortgages is relatively high (Tables IX.3 and IX.4).** The industry played an important and unusual role as a major supplier of mortgage finance in the 80s and 90s—its share of residential mortgages averaged 29 percent throughout the 80s and early 90s before dropping to 25 percent and 16 percent in 1995 and 2000, respectively. This exposes them to higher than usual credit risk. Their contribution to the mortgage market continues to fall but mortgages were 23 percent of life insurance assets in 2006.

**Table IX.3. Barbados: Distribution of Residential Mortgages by Mortgagee**

(In percent)

	Commercial Banks	Trust and Mortgage Companies	Credit Unions	Insurance Companies	Total
1980	11.3	59.1	na	29.6	100.0
1985	9.8	60.6	na	29.6	100.0
1990	6.5	65.9	na	27.6	100.0
1995	5.9	68.8	na	25.4	100.0
2000	30.7	52.9	na	16.4	100.0
2005	40.2	35.7	15.8	8.2	100.0
2006	42.5	34.4	15.4	7.7	100.0

Source: Central Bank of Barbados, Annual Statistical Digest, 2007.

**Table IX.4. Barbados: Distribution of All Insurance Company Assets**

(In percent)

	Government Bonds	Corporate Shares	Mortgages and Loans	Real Estate	Cash	Other	Total
1980	19.1	6.4	32.6	10.5	18.5	12.8	100
1985	14.7	5.3	37.1	11.5	30.3	1.0	100
1990	12.0	6.2	41.1	19.5	18.2	2.9	100
1995	16.0	8.8	33.4	18.6	17.8	5.4	100
2000	15.4	20.5	19.5	14.4	21.3	8.8	100
2005	34.8	19.3	16.7	10.0	14.3	4.9	100

Source: Central Bank of Barbados, Annual Statistical Digest, 2007.

**Excessive risk-taking and reform initiative**

177. **Until recently, insurance supervision was inadequate and carried out by an office in the Ministry of Finance.** Relatively good sector performance was considered attributable to the experience and good corporate governance of the local companies. In 2009, however, the collapse of the CL Financial Ltd—a major Caribbean conglomerate headquartered in Trinidad and Tobago and holding company for an investment bank and two regional insurance companies (the Colonial Life Insurance Company, CLICO, and the British-American Insurance Company, BAICO)—had repercussions throughout the region. While the catalyst for the group’s collapse was the global financial crisis, the financial problems have been attributed to excessive related party transactions not covered by regulation, aggressive high risk investment, much in illiquid form, including real estate, high leveraging of group assets (Williams, 2009). While the parent supervisor in Trinidad and Tobago had been aware of these problems for some time, attempts to address them were stymied by inadequate legislation.

178. **The second and third largest life insurance companies in Barbados in 2005 were CLICO International Life Ltd (CIL) and BAICO with 37 percent and 6 percent of the market, respectively.** CLICO International General Insurance had 7 percent market share in terms of premiums. In February, 2009, the Central Bank of Barbados provided liquidity support to CLICO subsidiaries in Barbados, in April it agreed to contribute to a liquidity support fund for CLICO subsidiaries in the smaller Caribbean countries and in June the sale of CLICO subsidiaries was placed in the hands of a Government-controlled committee (ECLAC, 2010). A forensic audit had been ordered by the judicial managers to check unverifiable assets of the company, and legal action against CIL directors was being considered as a result of their failure to observe a 2009 order by the supervisor of insurance to cease issuing new policies.

179. **As a result of the shortcomings in insurance regulation and supervision evidenced by the CLICO collapse, Barbados created a nonbank supervisor, the Financial Services Commission in 2011.**

## Impact of reforms

180. The reform has substantially strengthened the supervisory framework for insurance in Barbados, although the full impact of the reform is as yet unclear. The effects on policyholders, fiscal and economic performance remained to be fully gauged by late 2011, although policyholders were advised that CLICO's their coverage was still effective while restructuring plans had been presented in court ([www.clicoinfo.com](http://www.clicoinfo.com)).

## Conclusion

181. **Key issue:** The Barbados case illustrates the importance of adequate supervision for the sustainable development of the insurance industry. In this case, in the face of inadequate supervision, the sustainability of the industry's expansion depended on good management in the firms themselves. The market initially had few investment assets for companies or sources of mortgage finance.

182. **Key policy and impact:** Unhindered by regulation, the industry responded to market constraints by acting as a major supplier of mortgage finance, until banking markets assumed this role. The lack of supervision allowed the development of systemic cross-border risks.

183. **Key risk:** The absence of supervision allowed the development of systemic risks through foreign-headquartered companies that were inadequately regulated both in the home jurisdiction and locally.

## C. South Africa/Botswana

### Initial conditions

184. **South Africa and Botswana are discussed together since insurance companies based in South Africa dominate the industry in Botswana and both countries have a high incidence of HIV/AIDS.** The insurance industry has found innovative ways to address the extraordinary effect that the virus had on mortality and morbidity.

185. **The South Africa insurance market is dominated by retirement funds which are important investors and heavily influence equity market capitalization.** The market has also been successful in HIV/AIDS modeling and introducing policies for affected customers. South Africa has no public retirement provision but employers provide retirement benefits through funds held by long-term (life) insurance companies. Most companies are domestically-owned). In general, the legislation, regulation and supervision of the sector have been kept up to date. In the late nineties the Long-term Insurance Act, 1998, and the Short-term Insurance Act, 1998, and the Financial Services Board's (FSB, the regulator) enabling legislation was amended several times.

186. **Botswana's insurance sector is heavily influenced by trends in South Africa since insurance companies there are owned by South African parents.** The incidence of HIV/AIDS is very high and life insurance market has been expanding, influenced by growing customer awareness and customer base. In addition to savings plans, retirement annuities, funeral and life coverage the industry offers credit life insurance which insures the value of outstanding debt in the case of the

policyholder's death, disability, retrenchment. Until 2008, when a nonbank supervisor was established, the sector was supervised by the Registrar of Insurance in the Ministry of Finance.

### Market innovations

187. **The sector has been innovative in modeling the effects of HIV/AIDS.** The Actuarial Society of South Africa has an Aids Committee which developed an AIDS and demographic model in 1989 with subsequent revisions.. Among the measures taken by the industry to deal with HIV/AIDS are:

- Requirement of periodic HIV testing with high rates for those who did not take the test or tested positive.
- Funeral insurance with higher than normal rates but low benefits or minimum waiting periods.
- Universal life policies with increased flexibility tailored to individual circumstances.

188. **The credit life insurance product became popular in Botswana; it was traditionally available in South Africa for consumer credit retail and sales to low income customers.** In Botswana, banks, term lenders and retail creditors required this insurance for loans. It covered death from HIV-related causes and hence permitted loan extension despite the high uncertainty generated by HIV/AIDS (Bester et al, 2007). Although very expensive it allowed loans to individuals who may otherwise have been excluded from the market. The practice suffered from moral hazard and adverse selection since HIV positive individuals could freely borrow without testing and the lenders had no incentive to control the risk. As a result companies pulled out of this market.

### Impact of market innovations

189. **With some 40 percent of the adult population HIV-positive in Botswana, credit insurance likely permitted the continued operation of the credit market.** Insurers also improved their practices by requiring an HIV test—if the test is negative on inception, the policy will continue to be honored if later infected. In 2005 a South African insurer began offering more affordable insurance to the HIV positive individuals based on the knowledge that steady monitoring and treatment greatly improves the insured's risk profile. Conditions of coverage required regular testing and use, as needed, of antiretroviral medication.<sup>40</sup>

190. **The industry also improved its risk-management.** The ability of the industry to address the insurance needs of the low-income has been under examination for some time and the FSB is placing increased emphasis on consumer protection.<sup>41</sup> 3

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<sup>40</sup> See The Economist, "South Africa Rethinks," November 9th, 2006.

<sup>41</sup> Note that, unlike the Basel Core Principles for banking, the IAIS principles stress market conduct supervision.

## D. Conclusion

191. **Key issue:** HIV/AIDS epidemic whose morbidity and mortality effects were so severe as to cause both credit (as result high, unmeasured default risk) and insurance market failures. In the early years, the industry response was to use credit life insurance to allow for continuing credit and later to undertake the research to allow the insurance market to operate.

192. **Key challenge:** Credit life insurance was expensive and created perverse incentives for both borrowers and creditors. In response, South Africa adopted a consumer credit regulation. A new regulator for nonbank financial institutions was set up in Botswana in 2008.

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## X. URUGUAY: BUFFERING AGAINST GLOBAL LINKAGES<sup>42</sup>

*This case study examines the role of prudential oversight in reducing financial system vulnerabilities in Uruguay in the wake of the 2002–03 Argentinean crisis. In the late 1990s, Uruguay had achieved significant financial deepening and had become a regional financial hub, with significant cross-border linkages, but deepening had occurred in the absence of a sound macro-prudential framework, creating risks for financial instability. This was apparent when the 2002–03 Argentinean banking crisis spilled over to the domestic banks in Uruguay. In response to the crisis, accompanied by implementation of a stronger macroeconomic framework, Uruguay decided to overhaul its prudential framework to reduce risks of future crisis. The measures that Uruguay had implemented had both traditional and innovative components.*

### A. Initial Conditions

193. **In 2000, Uruguay’s banking system ranked among the deepest in the region.** The credit-to-GDP ratio (51 percent) ranked only below Brazil and Chile. Uruguay was also one of the most financially integrated emerging markets (as measured by the sum of external assets and liabilities over GDP). It had a highly liberalized capital account and often attracted capital flows in times of turbulence in neighboring countries.

Figure X.1. Domestic Credit to GDP, 2000  
(In percent)

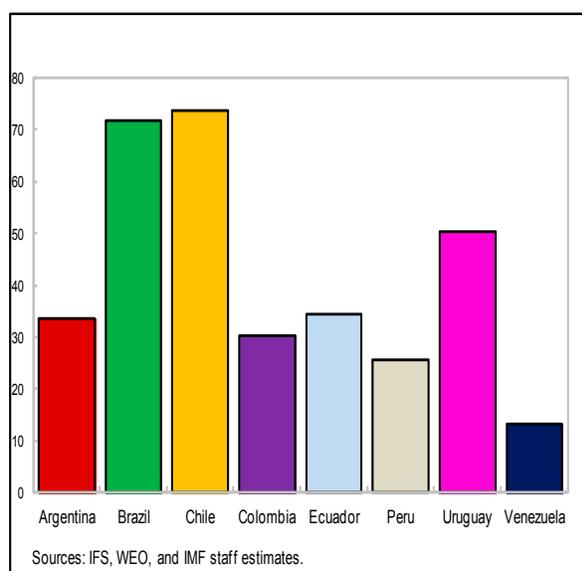
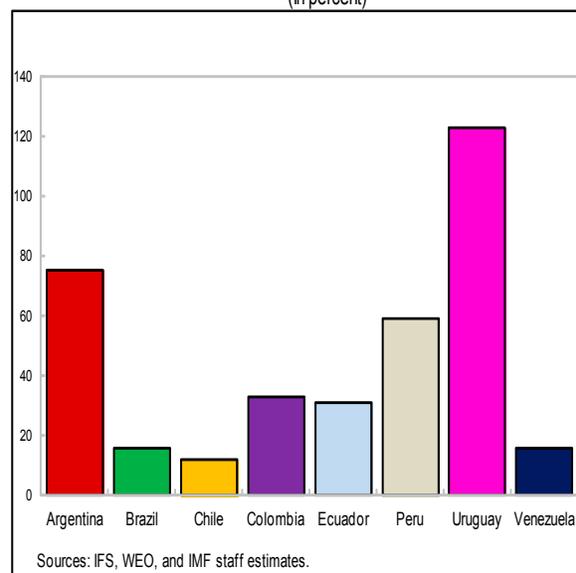


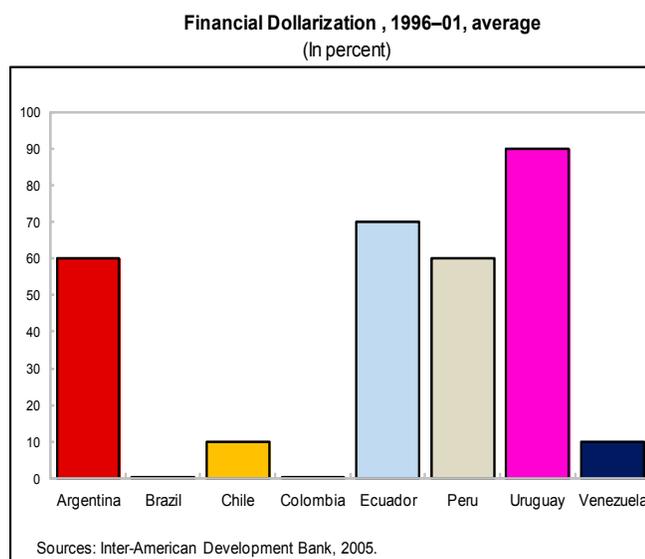
Figure X.2. External Liabilities to GDP, 2000  
(In percent)



<sup>42</sup> Prepared by Sarwat Jahan (SPR); research assistance from Sibabrata Das is greatly acknowledged.

194. **Substantial dollarization and regional dependence characterized the banking system.**

The banking system was highly dollarized and, thus, vulnerable to exchange rate depreciation. It was also characterized by substantial regional dependence, particularly to Argentina, as Uruguay had increasingly become an important regional financial center. Around 45 percent of dollar deposits in the banking system were held by non-residents abroad as of end-2001 (text figure). Of these deposits, nearly 80 percent were in branches or subsidiaries of foreign banks.



## B. The 2001–02 Crisis

195. **Uruguay’s significant financial linkages with neighboring countries in the absence of an adequate prudential oversight gave rise to sizeable cross-border risks in the wake of the Argentine crisis.**

In 2001–02, Uruguay suffered a general bank run triggered by the banking crisis in Argentina. The crisis erupted in December 2001 when the Argentine government imposed capital controls and deposit freezes on its nationals. Cash-strapped Argentine depositors began to withdraw their funds in Uruguay from the two largest private banks. The ensuing liquidity problems evolved into a bank run. By March 2002, 12 percent of total bank deposits in Uruguay—mostly from non-residents—had left the country.

196. **The second wave of bank runs occurred in April 2002 as a result of deterioration in domestic sentiment following Uruguay’s downgrade from investment-grade status.** Domestic depositors were concerned that the Uruguayan government would impose a freeze. Further, since the banking system was almost completely dollarized, it was evident to the public that the central bank did not possess sufficient international reserves to provide banks with the liquidity required to cover large deposit withdrawals. As a result, deposit withdrawals spread to include resident depositors withdrawing their funds from public banks. By the end of July 2002, a cumulative 38 percent of total deposits had been withdrawn from the system, with 51 percent of deposits held by non-residents leaving the country. In addition, the peso depreciated by 57 percent over the same period,<sup>43</sup> and a majority of the banks had become technically insolvent. Credit to the non-financial sector shrank by 37 percent during 2002, greatly contributing to a GDP contraction of 10.7 percent for that same year.

<sup>43</sup> The unfolding crisis continued exerting pressure on the Uruguayan currency and eventually it had to be floated in June 2002.

### C. Sowing the Seeds of Vulnerability

197. **Although Uruguay had achieved significant financial depth, it was susceptible to the Argentine crisis.** This was on account of two distinct features: (i) significant cross-border banking exposure and high dollarization; (ii) weak financial condition of the domestic banking sector. Cross-border banking exposures in Uruguay were not properly supervised and the majority of the cross-border bank flows (both loans and deposits) were concentrated with one country—Argentina. The absence of consolidated supervision and formal information sharing between Uruguayan and Argentine supervisors contributed to an underestimation of the vulnerability of the Uruguayan banking system and, subsequently, to the seriousness of the 2002 crisis.

198. **The financial system was intrinsically vulnerable to external shocks due to its balance sheet structure.** As of December 2001, total deposits in the system amounted to US\$15.4 billion (83 percent of GDP), of which 90 percent were foreign currency deposits, with 47 percent of these deposits being held by non-residents. Despite this skewed deposit structure, the Uruguayan Central Bank (Banco Central del Uruguay, or BCU) lacked specific prudential regulations regarding foreign currency-denominated deposits held by non-residents. There were no specific liquidity requirements or limitations on such deposits, and supervision of the state-owned banks was generally weak and untimely.<sup>44</sup> Further, dollarization was not limited to the banks' liabilities, but extended also to their asset side. Over 70 percent of foreign currency loans had been extended to residents, even though the vast majority of them did not earn revenues in a foreign currency, and loans were unhedged.

199. **Dollarization constituted a mixed blessing in the expansion of the Uruguayan financial sector.** Although dollarization encouraged comparatively high levels of financial intermediation and enabled Uruguay to attract substantial amounts of deposits by foreigners, particularly from Argentina, it was a significant source of vulnerability (see Box X.1). In particular, the Uruguayan economy was exceedingly exposed to sudden reversals of capital flows ("sudden stops"). In the context of high domestic liability dollarization, and economic openness, Uruguay was thus highly vulnerable to an external shock such as the Argentine crisis. Vulnerabilities associated with a high level of dollarization were amplified due to currency mismatches including indirect mismatches (to un-hedged borrowers).

200. **Vulnerabilities were compounded by the weak financial condition of the banking sector.** The system was highly segmented into two large public banks (Banco de la República Oriental del Uruguay, or BROU and Banco Hipotecario del Uruguay, or BHU, together accounting for 40 percent of the system's assets) and a group of approximately 30 private (mostly foreign) banks, including some local investment banks and savings and loans cooperatives. Among these, Banco Galicia Uruguay (BGU) and Banco Comercial (BC) dominated the segment, with combined assets representing approximately 20 percent of the overall banking system. The system was characterized by inadequate oversight, internal controls, and risk management systems in state financial institutions.

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<sup>44</sup> "Third Review under the Stand-By Arrangement and Request for Modification and Waiver of Applicability of Performance Criteria", Supplementary Information, IMF, June 2003, page 2.

201. **Within the banking system, the financial condition of the two largest public banks (BROU and BHU) was very weak.** These two banks had questionable lending practices and weak corporate governance. As a consequence, their level of NPLs and costs was higher than that of the rest of the system, and their profits lower. In fact, as of December 2001, the ratio of non-performing loans to total loans for the public banks was 39.1 percent, versus 5.6 percent for the private banks, while after tax return on equity was minus 4.5 percent for the public banks, versus minus 0.9 percent for the private banks.

#### **Box X.1. Financial Stability in Dollarized Economies**

Dollarization itself largely arises as protection against exchange rate risk and inflation. Domestic borrowers and lenders prefer to denominate contracts in foreign currency when that currency is expected to provide a more stable and thus less risky medium for intermediation. Yet, dollarization can give rise to (a) systemic liquidity risks caused by perceived increase in country risk or banking risk; (ii) solvency risk caused by currency mismatches in the event of large depreciation. Frequently, in bi-currency systems, banks, investors and supervisors do not sufficiently recognize or internalize the prudential risks associated with foreign currency operations. The problem is acute in countries where the exchange rate has been tightly managed for a long time, partly out of concern for the potentially adverse balance-sheet consequences for the financial system of large exchange rate fluctuations. Additional exchange rate flexibility, gradually introduced, could be useful under these circumstances for the private sector to strengthen their ability to assess FX risk, re-assess interest rate premium for domestic currency and foster de-dollarization (e.g., Peru 2011). Typically, improved fundamentals will foster de-dollarization allowing the exchange rate to play a larger role as shock absorber.

There would be definite prudential advantages for dollarized countries from taking measures to promote the use of local currency. In particular, steps should be taken to support the acceptance of the local currency as an intermediation medium, including through a more visible commitment to protect its purchasing power and through structural measures to promote the development of markets and instruments in local currency. Within this context, it is also worth stressing that the risk of banking crisis in highly dollarized economies, as in other economies, can be limited by sound macroeconomic policies and good bank supervision.

The pace, nature, and extent of both prudential and market reforms are likely to be country specific and differ according to the degree of dollarization and its trend. To limit adjustment costs and risks, more gradual and careful policy reforms are probably called for in countries that are already highly dollarized. Countries where dollarization is still marginal but rising rapidly should take more forceful and decisive actions.

Source: Financial Stability in Dollarized Economies, IMF Occasional Paper No. 230, 2004.

## **D. Overcoming the Crisis and Addressing Vulnerabilities**

202. **The authorities responded to the crisis in two waves.** In the first wave, targeted intervention was used to stem the bank runs by providing liquidity to the banking system and to restructure and/or liquidate the troubled institutions. Once deposit withdrawals had receded and the banking system resumed a normal operating environment, the authorities undertook a series of initiatives aimed at strengthening the financial sector's regulatory and supervisory framework (Adler

et al., 2009). Uruguay's regulatory framework was gradually strengthened to address shortcomings (see Box X.2 for a summary) identified during the 2002–03 crisis and to better equip it for future challenges. Reforms that were implemented included:

- **Reserve requirements were differentiated by residence of depositors to address risks stemming from reliance of financing by non-residents.** In particular, the authorities addressed one of the main causes of the crisis deposit withdrawal by raising reserve requirements on non-resident deposits.
- **Loan classification and provisioning system** was refined to account for specific characteristics of loans, including maturity and currency mismatches. A seven-tier loan classification system was introduced to better categorize loans based on their riskiness for repayment. The new provisioning regulations required that the repayment capacity of large debtors be assessed not only according to their credit history and country risk rating (in case of foreign borrows), but also through distinct sensitivity analyses/stress tests accounting for potential economic downturns as well as interest rate and exchange rate mismatches, with a penalizing categorization for debtors failing the test. The new provisioning system was innovative as it had both ex-post criteria and forward-looking elements. The system also featured dynamic provisioning by effectively linking provisioning to credit growth in order to reduce lending pro-cyclicality. Uruguay was among the first countries in the world (the first in the region) to introduce dynamic provisioning in 2001.
- **Stronger liquidity requirements** were introduced to bolster the system's buffers against liquidity shocks. This measure was innovative as it introduced a specific liquidity regime based on different bands of deposit maturities.
- **Exposure to creditor concentration and country risks** was mitigated by capping the limits on exposure to a single borrower, single sector and single country.
- **Cross border banking regulation** improved as subsidiaries and branches of foreign banks and offshore offices were made subject to the same prudential, inspection, and regulatory reporting requirements as domestic banks. The BCU has the authority to require the closing of a foreign bank entity, including offshore offices, if it determined that host-country supervision was inadequate. To this end, it signed MOUs with several regulatory authorities.
- **Supervisory measures** included requirement for an integrated risk management system by banks, disclosure requirements on banks' internal risk management practices, and periodic stress testing of corporate debtors.
- **Market development measures** included establishment of a comprehensive credit bureau to inform about debtors' risk classification and consolidated loan amounts. This allowed the evaluation of the quality of consumer and mortgage loans on a monthly basis, and not only at the time a loan is made, rolled over or restructured.
- **De-dollarization was targeted** through increased liquidity requirements on non-resident deposits. The authorities also issued more index-linked local currency debt to promote de-dollarization. As a consequence of the increased preference for peso-denominated assets, the

share of domestic currency denominated debt rose about 30 percentage points between end-2002 and end-June 2010. In recent years, the authorities introduced prudential regulations<sup>45</sup> to encourage de-dollarization in the banking system (e.g., higher reserve requirements on foreign currency deposits; larger capital requirements for foreign currency loans; limits on banks' foreign currency exposures, and tighter loan provisions for lending in foreign currency to consumers and large corporations). Since March 2009, the BCU is also supporting the development of exchange rate hedges to further foster de-dollarization.

**Box X.2. Measures Taken to Address Risks to Stability**

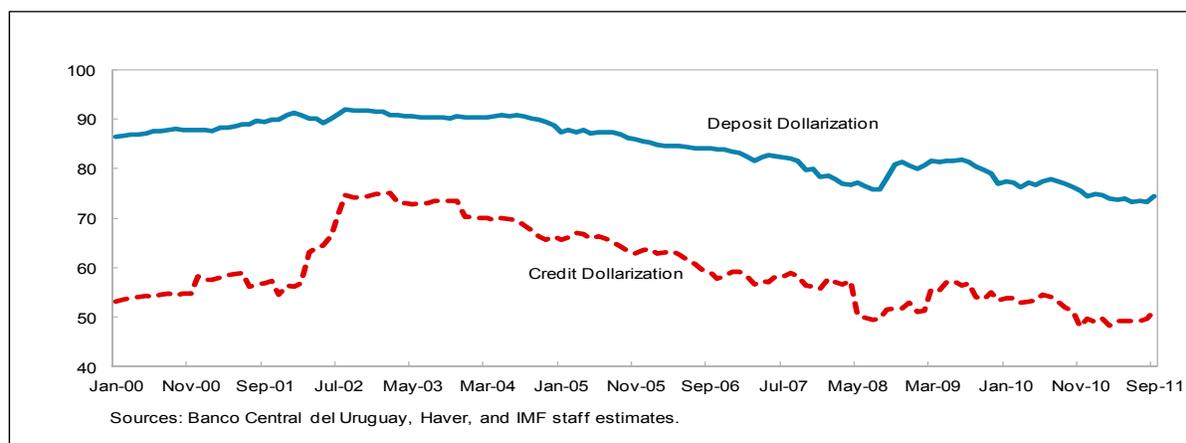
Risks to be Addressed	Measures Taken
Liquidity risk arising from dollarization Liquidity risk arising from cross-border exposure Credit risk arising from dollarization	Imposed higher reserve requirements on FX deposits Increased the liquidity requirement arising on nonresident deposits Imposed higher capital requirements for foreign currency credit; increased risk weight of FX loans. Amended loan classification and provisioning rules to take into account the capacity to repay to changing market conditions, including movements in the exchange rate.
Credit risks arising from cross-border exposures FX risks and currency mismatches	Imposed strict criteria for classification of foreign currency consumption and housing loans Set limits on country exposures Imposed capital requirements for FX open positions including higher risk weight for loans extended in foreign currency to un-hedged borrowers.
Cross-border risks, including risks from the operation of cross-border financial conglomerates	Signed MOUs with Spain, Argentina, and other countries

Source: Uruguay: Financial System Stability Assessment, IMF Country Report No. 06/439.

**E. Assessing Impact**

**De-dollarization:** Uruguay has experienced a decline in banking sector dollarization since the 2002 crisis. In December 2002—October 2010, deposit and credit dollarization decreased by 15 and 24 percentage point, respectively, although the levels still remain high.

<sup>45</sup> Prudential regulation is, of course, one of the many factors that may have contributed to de-dollarization. For example, a recent study finds that in the last decade, a group of Latin American countries (Bolivia, Paraguay, Peru, and Uruguay) experienced a gradual, yet sustained decline in financial dollarization. It finds that the exchange rate appreciation has been a key factor explaining deposit de-dollarization. The introduction of prudential measures to create incentives to internalize the risks of dollarization (including an active management of reserve requirement differentials), the development of a capital market in local currency, and de-dollarization of deposits have all contributed to a decline in credit dollarization. For details see García-Escribano et al.,(2010).

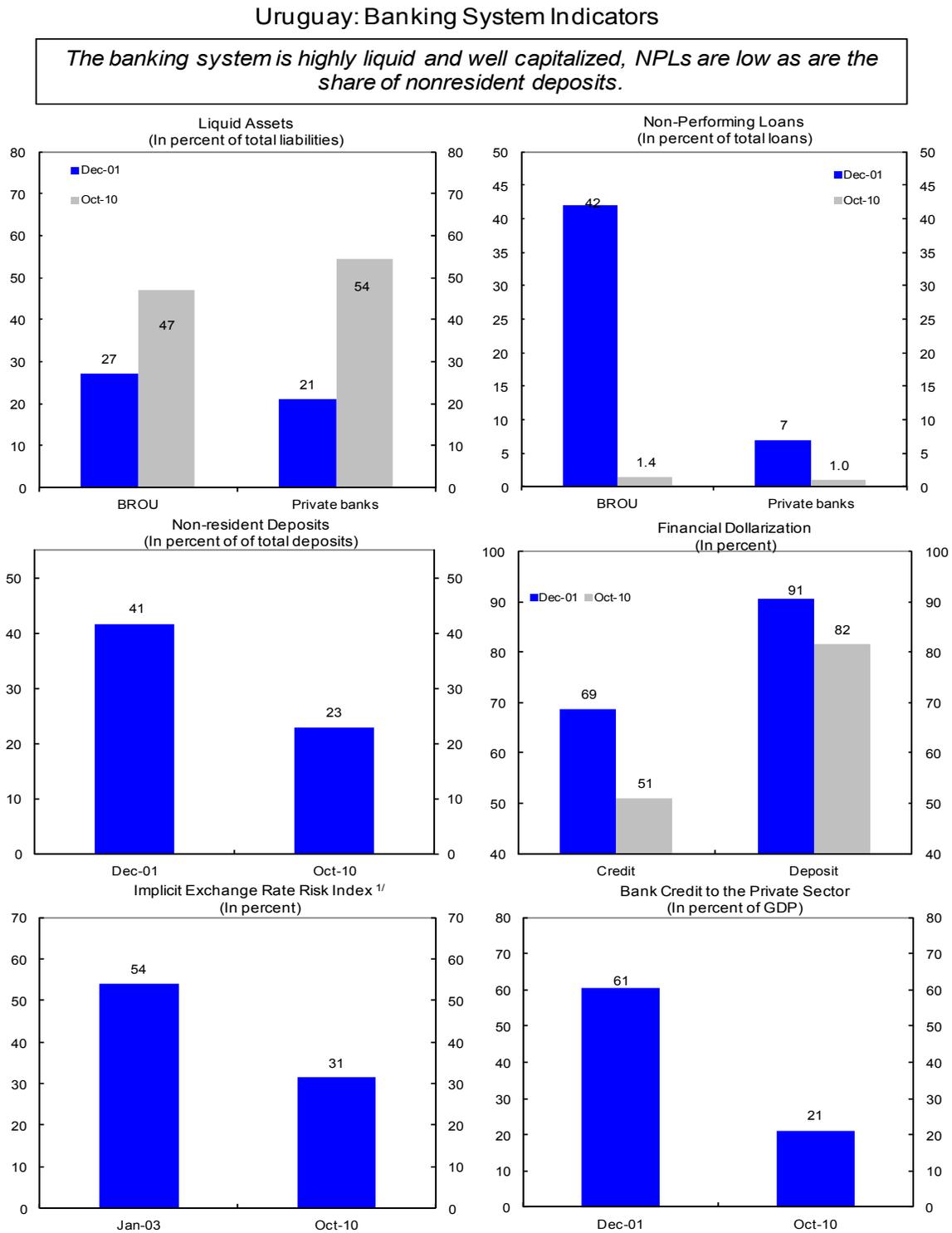
**Figure X.3. Uruguay: Deposit and Credit Dollarization, 2000–11**

203. **Policy effectiveness:** The de-dollarization process has also served to strengthen the monetary transmission. A recent study (Santiago and Coble, 2011) finds that differences in the effectiveness of the monetary transmission mechanism in Chile, New Zealand, Peru and Uruguay owe, in part, to the high degree of dollarization in the latter two countries. In Peru and Uruguay, the exchange rate channel still plays a more substantial role in controlling inflationary pressures, reflecting the still limited impact of the policy rate in controlling inflation, in combination with a relatively large and persistent exchange rate pass through. Importantly, as these two countries embarked on a substantial de-dollarization process, the relevance of the exchange rate channel is shown to decrease over time, and the interest rate channel to improve.<sup>46</sup>

204. **Financial soundness:** Due to the regulatory reforms undertaken after the 2002 crisis, macro-financial vulnerabilities remained low even in the wake of the 2008 global financial crisis. Banks rely on deposit funding, maintain substantial liquidity cushions, and carry little leverage. Capital adequacy ratios still exceed the regulatory minimum (eight percent) by a wide margin and compliance is ensured even under the strong shocks in the BCU's stress tests. Overall loan-loss provisions stand at about six times the historically low level of nonperforming loans, partly reflecting dynamic provisioning. Despite a significant presence of Spanish banks, funding pressures faced by the parent banks have not spilled over to Uruguay, in part because the authorities decided to limit the exposure of the subsidiaries to the parent banks through the above mentioned changes in the regulatory system. The macro-prudential framework has also likely helped contain the credit risk associated with high credit growth during 2006–08 through (i) stringent loan classification and ample provisioning that are based on forward-looking criteria; (ii) explicit limits on individual and sectoral credit risk exposures, and (iii) a strong liquidity system.

<sup>46</sup> Prudential regulation has also been accompanied by strong macroeconomic frameworks, including a credible nominal anchor and certain degree of exchange rate flexibility to buffer against external shocks. The Uruguayan authorities continue to work on increasing the credibility of policy frameworks and strengthening the nominal anchors (as reflected by the introduction of an inflation targeting framework in 2008).

**Figure X.4. Uruguay: Banking System Indicators**



Sources: Banco Central del Uruguay and IMF staff calculations; and IMF Country Report No. 11/62

<sup>1/</sup> Foreign currency credit to the non-tradable sector as a percentage of total credit.

## F. Conclusion

205. **Key Risks:** Despite significant financial deepening, Uruguay found itself exceedingly vulnerable to the fallout from the Argentine crisis. The high level of dollarization made the economy highly exposed to exchange rate shocks. Cross-border banking rendered the banking system susceptible to contagion from its partners. The domestic banking system was susceptible to external shocks, given the substantial currency and maturity mismatches in its balance sheets.

206. **Key Policies and Impact:** In the wake of the 2002 crisis, Uruguay overhauled its prudential framework to reduce the future risks of a crisis. Regulation and supervision of the financial system, in particular of the banking sector, have improved significantly. Various measures were undertaken to internalize risks from dollarization and cross-border activities, increasing the capacity of the financial system to withstand shocks. Effectiveness of macro-economic policy also improved as the de-dollarization process strengthened monetary transmission through the interest rate channel.

207. **Key Lessons:** The key lesson from the Uruguay experience is that financial deepening should be accompanied with appropriate prudential regulation and supervision to reduce risks. Proactive monitoring and oversight and enabling policies played a key role in lowering dollarization in the banking system, reducing cross-border exposures, and strengthening financial soundness.

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