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This Framing Note is the third in a series exploring various dilemmas which policymakers face across several topics of great importance to financial inclusion. In the field of prudential regulation, as in the other areas of financial regulation discussed in the other Framing Notes in this series, policymakers therefore face another manifestation of the regulator's dilemma: how to safeguard the health of the financial system, while encouraging access to financial services. The latter objective may require that there be a diversity of financial institutions with different risk and cost profiles but it is not easy to supervise numerous diverse entities. The dilemma is especially acute since small savers who have access only to informal often less stable alternatives, may be at greater risk of loss.

Prudential regulation came under a harsh spotlight in 2008. The dramatic collapse or near collapse of a number of large banks in the U.S. and Europe, after years with low rates of bank failure, has vividly demonstrated that prudential regulation alone does not—indeed cannot—prevent bank failures. It can however reduce the risk of failure that can lead to depositors losing their savings.

Summary

Like all forms of regulation, prudential regulation imposes costs on regulated institutions, on their clients and on society as a whole. These costs may cause deposit taking entities to be less willing or even able to take on poor customers with small value deposits. Policymakers face the ongoing dilemma of how best to protect deposits while also protecting and expanding access to deposit taking services.

Other Framing Notes in the series will consider policies towards consumer protection, competition and interest rates. Clearly, these topics are closely linked, at least in perception if not always in reality. For example, capping interest rates had traditionally been seen as a means of consumer protection; and while competition in credit markets can bring many benefits, it can also result in abuse of borrowers leading to calls for protection.

Policy Framing Note 3: Prudential Regulation in Microfinance

A number of developing countries, such as Nigeria, Philippines and Uganda which are highlighted in this paper, have over the past decade sought to extend the reach of prudential regulation by amending existing regulations or enacting new laws to open special "windows" for microfinance. These windows allow for the regulation and supervision of new types of financial institutions such as microfinance banks as part of strategies to enable greater access to financial services. In most cases, it is too early to judge whether the introduction of new tiers has in fact improved access or not.

Extending the supervisory net without increasing the capacity of supervisors undoubtedly raises reputational risks for regulators. This may translate into fiscal burdens when the state is forced to reimburse deposits following failure of regulated entities. Finding the right balance of when to regulate new classes of entities, and how, is not easy. On the one hand, recent research using cross-country data has gone so far as to suggest that greater regulatory intervention may have the perverse effect of decreasing both the safety and the efficiency of the financial system. On the other hand, recent events in developed countries have been widely ascribed to a failure to regulate sufficiently or supervise effectively.

Meanwhile, the nature of deposit taking itself is changing in many developing countries as technological developments have enabled new models for expanding access, such as the use of on-line correspondent networks and of new instruments like pre-paid cards and mobile phone enabled wallets. These developments change the nature of risks faced by small depositors and regulators.

Introduction

Prudential regulation aims to reduce the risk that depository institutions will fail. However, as dramatic events in 2008 in the U.S. and Europe have shown, even relatively well established regulatory systems cannot prevent bank failure. Economies benefit from sound prudential regulation through having more robust and deeper financial systems; depositors benefit through having safer depository institutions. All regulation imposes costs on regulated institutions: directly, for example by imposing minimum standards for capital and risk management in excess of what is necessary; and indirectly, by limiting or discouraging innovation. The result of prudential regulation may be a genuinely lower risk of bank failure; but often at the cost of excluding small depositors and savers whom (Tier 1) regulated institutions find it uneconomic to serve. (Cull et al 2009).

The desire to balance better the traditional regulator's objective of financial stability with the rising policy goal of expanding financial access has led a number of developing countries in the last ten years to introduce

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Policy Framing Note 3: Prudential Regulation in Microfinance

new tiers of legislation or amend regulation to make space for specialized microfinance institutions in their financial systems. However, this approach does not in itself solve the underlying dilemma: it may even heighten the reputational risk carried by bank supervisors, who are seen by the public to endorse and safeguard the newly regulated institutions, even though their capacity to supervise effectively large numbers of small institutions may be very limited. One recent school of thought (Caprio et al 2006) has even questioned the basic rationale for prudential regulation because of the perverse effects (or at least the lack of empirically observable positive effects) on financial stability which they observe across countries: they argue more active regulation often results in more, not less, risk of systemic failure. This school instead favors applying market discipline rather than new prudential regulation—in other words, leaving the monitoring of financial institutions to private investors, with the regulator functioning as an enforcer of transparency. In some ways, this represents an application at the high end of the financial system of the peer monitoring approach commonly used in poorer communities around the world to secure members' interests in small informal savings groups or savings cooperatives. Peer monitoring can be effective when sufficient information is available and markets are very liquid, so that market perceptions are translated into observable price changes in listed instruments; or else very local: when financial institutions grow beyond a local community, individual member-depositors lose the ability to monitor effectively. Prudential regulation creates a specialized entity, the bank supervisor, which can perform this function on behalf of depositors.

From an access perspective, the core question therefore remains how to protect poor people's savings, and their access to formal savings. In the presence of limited supervisory capacity in most developing countries, this amounts to a choice of when and how best to regulate new institutions which hold out the promise of increasing access to financial services.

This Framing Note will set out the theory and practice for navigating the dilemma implicit in this question. In the next section, we set out the theory of prudential regulation together with an assessment of the current good practice. Section 3 will consider available evidence of the effect of prudential regulation. In Section 4, we focus especially on the structure of special microfinance windows which have been introduced or proposed in a range of countries in recent years; and where available, report on the evidence of the impact. Finally, in Section 5, we consider some of the new challenges which are challenging the boundaries of prudential regulation.

Theory and good practice in prudential regulation

Prudential regulation takes two main forms:

- Macro-prudential is concerned with the stability of the financial system as a whole: and
- *Micro-prudential* is concerned with the health of the individual deposit taking institution.

Clearly, because of the networked nature of the financial system, the two forms are linked: the failure of one bank can set off a run on other banks and lead to a sequence of failures which may threaten the financial system. Small financial institutions are generally not regarded as a source of systemic risk although they are at risk of individual failure. This Framing Note concentrates on the case for micro-prudential regulation since it most directly has to grapple with the dilemma outlined above.

The basic rationale for regulation derives from the underlying nature of intermediation: depository institutions take liquid deposits from the public on the one hand, and transform these into potentially risky illiquid investments (loans) on the other, raising the possibility that the deposits may not be available for repayment when they become due. Microprudential regulation aims to reduce the risks that may cause the depository institution to fail. It does this through requiring licensed institutions to adhere to prescribed standards of capital adequacy and risk management; and through creating the capacity to supervise the regulated institutions, and ensure compliance.

At the level of micro-prudential regulation, there are two underlying economic rationales for the role of the bank supervisor. First, having one supervisor monitor a deposit taking institution reduces the overall transaction costs through eliminating the duplication which would otherwise take place if each small depositor had to monitor the health of her institution. The value of centralized supervision is enhanced since special investment in skills and knowledge is required to supervise effectively. Second, even if small savers were able to monitor banks effectively, there would be a high risk of coordination failure if they were required to take collective action, especially at times of stress to the institution. Having one central authority with the required powers, such as requiring prompt corrective actions, backed-up by the ability to apply sanctions for non-compliance overcomes this problem.

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Policy Framing Note 3: Prudential Regulation in Microfinance

However, the case for prudential regulation cannot be justified purely on these fundamentals alone: since there are costs of regulation (both for the regulator and the regulated institutions), any particular prudential regulation must be justified on the grounds that its overall benefits to society exceed its costs.

HOW PRUDENTIAL REGULATION WORKS

How does prudential regulation work to reduce risk of failure of a depository institution? Prudential regulations establish and enforce minimum standards for doing deposit taking business in areas such as these:

- *Minimum capital requirements:* setting how much capital and reserve in absolute and/or relative terms a depository institution must maintain as a first loss layer to protect depositors.
- Risk standards: defining proscribed types of business or limiting the scale of activity, or weighting the risk of different asset classes in a standardized way; and then requiring standardized provisioning for credit risk.
- Fit and proper requirements for directors and officers: prohibiting known incompetent or corrupt managers from running a depository institution for their own benefit at the cost of depositors;
- Minimum liquidity requirements: requiring that a depository institution hold a minimum level of specified liquid assets to meet basic ongoing claims against it;
- Reporting and supervision requirements: enabling monitoring of risk on an ongoing basis by requiring depository institutions to report regularly in a standardized way to supervisors; in addition, supervisors are empowered to undertake more detailed on-site inspections to ensure adherence to regulations.

By setting these minimum standards, besides seeking to enforce prudent management of existing institutions, prudential regulation creates substantial barriers to enter the deposit-taking business.

THE BASEL FRAMEWORK

One of the traditional instruments of prudential regulation is a minimum capital requirement. Under the so called Basel 1 framework of the Bank for International Settlements (BIS), the minimum was equivalent to 8% of risk weighted capital. However, in this era in which large multinational banks are more exposed to risks from financial markets and new financial instruments, this approach was considered obsolete. Following some years of discussion and negotiation, member countries adopted the so-called 'Basel 2' approach in 2004, which is being implemented at different speeds in different countries: Europe requires all credit

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Policy Framing Note 3: Prudential Regulation in Microfinance

institutions (banks) to adhere from 2008; while other countries will follow at their own pace: a recent study showed that some 95 countries were scheduled to implement Basel 2 provisions by 2015.² This approach has three core pillars:

- 1. New capital requirements based on finer calculation of different risk categories such as market risk and operational risk;
- 2. Supervision; and
- 3. Market discipline: based on the view that in active, complex financial markets, counter-party surveillance by financial players is likely to be more effective than external regulation which will always involve a time lag from assessing a new piece of information to acting on it.

The great turbulence and large losses experienced by many developed banking systems in 2008 have called into question the adequacy of this approach; and it is likely to be reviewed as part of a comprehensive re-examination of how to manage the risk, especially of traded market instruments such as credit derivatives.

- Financial Stability Institute, Bank for International Settlements, Occasional Paper No. 6: Implementation of the new capital adequacy framework in non-Basel Committee member countries. September 2006.
- Chatterjee, A. "From exclusion to inclusion: Challenges to developing enabling policy and regulatory frameworks for microinsurance", in ADB's Finance for the Poor, June 2008. Volume 9. Number 2.

Box A: Prudential regulation of insurance

While this Framing Note addresses specifically the case of depository institutions, the case for the prudential regulation of insurance companies is similar; after all, they too take a form of savings and also may fail, causing loss to policy holders. Common concerns and issues include supervisory capacity, regulatory arbitrage, tiering, capital requirements, activity-based or institutional-based approach, and generally striking a balance between extending access to low-income segments and protecting their investments and confidence.³ However, Plantin & Rochet (2007) have pointed out several important differences between insurance companies and banks:

- The production cycle of insurers is inverted; that is, they usually receive premium revenue long before paying out claims so that short-term liquidity is not usually the problem for insurers that it is for banks; however, insurance claims may have a long "tail" for which insurers must adequately provide;
- Insurers lack a "tough claim holder" such as a large depositor which is able to move funds out of a bank quickly if necessary, precipitating quick failure, so insurers fail only when their ability to pay claims ultimately fall short, which may be a long time after problems set in;
- Also, there is no systemic risk attaching to insurers per se, since a failure of one insurer is not likely to lead to the failure of others; and even if it did, the liquidity characteristics of insurance policies differ greatly from deposits. However, when insurers assume banking-type risk through writing or buying credit derivatives on a large scale, they may become part of a chain of failure with systemic consequences: the bailout of insurer AIG by the U.S. government after earlier allowing a large investment bank to fail in the same week has shown how severe these risks can be.

Despite these differences in type of risk, the insurance sector also needs appropriate prudential regulatory frameworks which extend access to micro-insurance. Increasing attention is being given to proposing what this means; and recent proposals in countries like South Africa favor a tiered approach to insurance regulation as well (Genesis 2006).

GUIDELINES FOR MICROFINANCE

In the microfinance sector, in 2003, Christen, Lyman and Rosenberg set out "good practice" guidelines for the prudential regulation of microfinance. These so-called CGAP Guidelines covered a number of important issues which had become generally accepted wisdom within microfinance, including:

- If a microfinance institution (MFI) does not take retail deposits, there is no need for prudential regulation to apply to it;
- Even if it does, there are risk-based grounds for exempting small community-based institutions which do take deposits (since only a small number of people are affected and it is relatively hard for a supervisor to oversee small institutions);
- Regulation should be by function rather than by type of institution: for example, whether a microloan is made by a bank or by a specialized lender, it should be treated the same in risk weighting terms;
- Regulations which preclude existing financial institutions from offering microfinance services (or even from lending to MFIs) should be amended.

The guidelines also accepted, with some reservation, that there may be a case for opening "special windows" for new types of financial institutions to extend access to financial services, rather than simply relying on conventional banks to do so:

"As a general proposition, incorporation within the existing framework will better promote integration of the new license and/or permit into the overall financial system. ... Moreover adjusting the existing framework may be technically easier, and may be more likely to facilitate the entry of existing financial institutions into microfinance. However, local factors will determine the feasibility of this approach. In some countries, for example, policymakers may be reluctant to open up the whole banking law for amendment because it would invite reconsideration of a whole range of banking issues which have nothing to do with microfinance." CGAP 2003: p. 9.

Since 2003, legislators in a range of countries including Uganda and Nigeria have passed legislation to introduce new tiers of regulation to cater explicitly for microfinance institutions. Most recently, India is considering joining these ranks with a draft Microfinance Bill tabled in 2007. The rationale for tiering the financial system rests on trading off reduced prudential requirements (that is, lowering the barriers to entry and ongoing compliance burden) in return for restrictions on size and/or scope of activity on the basis that these restrictions reduce the risk and consequences of failure of the institution on the financial system. The rationale

holds if there is a category of specialized deposit taking institution which is able to serve underserved clients more efficiently and effectively at smaller scale than commercial banks, but which is restricted in its ability to take deposits as a means of funding and of serving its clients. However, even if the level of oversight established for new tiers is basic, newly licensed entities may be numerous and widely distributed which requires that supervisors have extra capacity to be able to assume the new responsibility.

This section has set out the theoretical case for and methods of prudential regulation. The next sections will consider the available evidence of the effect of prudential regulation—first, in general in Section 3, and in Section 4 in certain selected countries which have opened special windows for microfinance.

The effect of prudential regulation

Evidence suggests that the poor do save, in a variety of ways.⁴ Hence, one way to assess the effect of prudential supervision is to consider first what happens in its absence. Researchers have found a high incidence of loss of savings through the collapse of informal or unregulated savings entities of the type which are very common in developing countries: "For countries in which the question was asked, personal experience of loss as a percentage of those who use an informal (savings) instrument ranged from as high as 20% in Botswana to 3% in Uganda.⁵ Perhaps as a result of these losses, some ambivalence towards group-based mechanisms emerges from the data, with around a third of those using informal instruments expressing mistrust in them, although the framing of this question differs across countries and affects comparability with Uganda" (BFA 2008). The risks of failure may be high even among semi-formal entities like savings and credit cooperatives (SACCO), which may have incorporated legal status but are often unregulated. Box B relates the recent case of the high profile failure of a SACCO in Uganda which led to pressure on financial regulators to step in.

^{4.} See, e.g., Collins, D., Morduch, J., et al, *Portfolios of the Poor*, Princeton University Press 2009.

Note that this number for Uganda is lower than the finding by Wright and Mutesasira (2001) that some 26% of clients from focus group and individual interviews had lost savings in the informal sector.

Policy Framing Note 3: Prudential Regulation in Microfinance

Box B: Unregulated deposit taking is a risky business

In February 2005, Front Page Microfinance ("FPM")—then a new savings and credit cooperative (SACCO) in Uganda—had 238 members; two years later, it had over 20,000 "members" making deposits through 14 branches, with some—but not all —receiving loans. As of June 2007, at least on the surface, FPM appeared to embody much of the Government of Uganda's (GoU) aspirations for so-called "Tier 4" institutions, that is, a notch below the three regulated tiers in existence. FPM's managing director proudly declared: "We have helped the Ugandan government to mobilize people to embrace saving and accessing credit."

FPM attained rapid growth through aggressive marketing: combining advertising and promotional campaigns to attain high visibility (e.g., sponsoring social events and sports teams) with advertised low-interest, no collateral credit programs.

FPM was allowed to engage in savings mobilization activities since it was a SACCO, serving only its "members". As such, it essentially slipped through a wide crack in a system that prohibits unregulated institutions from accepting "public deposits", because members are not considered the public. Second, by taking deposits that were to serve as 'cash collateral' for existing or promised future loans to the same depositor, this provided FPM with grounds to justify its "deposit" mobilization activities; the theory here is that the depositor is not at risk of losing the deposit because she owes the financial institution more than she is owed by the financial institution.

By September 2007, FPM's aggressive growth model was showing strain: members seeking to withdraw their savings were being denied withdrawal requests, or were receiving merely 20-25% of their savings balances. Based on these reports, the police began investigating FPM and its managers. In November, the central bank (Bank of Uganda, or BoU) published a proclamation reminding the public that they "risk loss of their money deposited...with unregulated institutions [and BoU] will not protect [such unregulated] deposits". The proclamation contained a list of regulated institutions, and FPM was not on the list. In early December, within two weeks of this proclamation, "a mob of about 800 [FPM] clients...besiege[d] the company's headquarters" demanding return of their money, destroying a FPM's manager's vehicle, forcing employees to lock themselves in the bank for their own physical safety, and leading to police intervention. By the end of December, a local newspaper describing the events stated: "The microfinance bubble that has been building for years finally burst in dramatic fashion."

Though details of either FPM's current status are unclear following the December 2007 runs and riots, it appears FPM has closed. Investigations continued in 2008, including a police "hunt" for FPM's managing director.

BALANCING ACT

As explained earlier, the mere fact that informal or semi-formal mechanisms may place poor people's savings at risk does not in itself justify prudential regulation of these mechanisms: implementing prudential regulation may bring costs greater than its benefits. Barth, Caprio, Levine ("BCL", 2006) conducted empirical research on the effect of prudential regulation by collecting data about the characteristics of each bank supervisory regime across approximately 150 countries at three different times (1999, 2002, 2006). They used the data to create indicators of overall restrictions (on bank activities), entry requirements, official supervisory powers, extent of private monitoring and capital regulation. BCL's most provocative finding is that strengthening capital standards and empowering direct official supervision of banks (Basel Pillars 1 and 2) do not boost bank development, improve bank efficiency, reduce corruption in lending or lower banking system fragility. In other words, the benefits of prudential regulation may be illusory. In fact, they suggest that increasing the oversight and disciplinary powers of bank supervisors may have the opposite effect, especially in countries with weak

- Businge, G. "Company Profiles: Front Page Microfinance

 —A Revolution in Microfinance Provision", June 2007,
 accessed at http://www.ugpulse.com/articles/daily/
 print.asp?ID=633.
- Three other unregulated SACCOs/MFIs experienced the same troubles at the same time (September–December 2007)
- 8. In hindsight, perhaps another sign of trouble was the following: In August 2007, despite objections by government officials, FPM instituted a controversial employee recruitment initiative: it stated it was seeking to hire hundreds of new employees, but would select them only from its members, thereby implicitly encouraging thousands of non-member job-seekers to become members by making minimum deposits.

Policy Framing Note 3: Prudential Regulation in Microfinance

government transparency or democratic institutions. Instead, they find that supervisory and regulatory policies that facilitate greater private sector monitoring of banks (i.e. linked to the third pillar, market discipline) do improve bank operations.

The implications of BCL's thesis have been much debated. Some argue that their finding is descriptive, rather than prescriptive. Insofar as the prescription holds, it may not be valid for developing countries with thin markets for traded bank instruments and less capacity for analyzing and monitoring. While few would argue that improving the level of market information and monitoring in developing countries is a bad thing, the real question is perhaps the optimal balance of public supervision and market discipline at different stages of development of a country.9

Special windows for microfinance

In this section, we review the special windows created¹⁰ between 2001 and 2007 in four different countries—India, Nigeria, Philippines and Uganda in order to understand the diverse ways in which this supposedly access friendly approach to prudential regulation has been applied.

The four countries differ considerably in the level and scale of licensed microfinance entities in each; and in the nature of the tiers created.

Uganda has the longest standing specific Tier 3 law, introduced in 2003; whereas on the other extreme, India with its massive microfinance sector has yet to pass its proposed bill, and may not do so. India's inclusion is indicative of a desire to legitimize certain deposit-taking activities already happening among MFIs,11 at the same time that the bank regulator has implemented much stricter measures to control retail deposit taking by non-bank financial companies: some of these like Sahara Financial (see Box C) have very extensive deposit taking networks, although these are now being constrained from taking new deposits. Nigeria has more than 700 registered microfinance banks (MFBs) of two types:

- community MFBs with a minimum capital requirement as low as \$170,000 (per branch) but with limits on their geographic scope;
- · state-wide MFBs are allowed multiple branches and in return must hold a higher minimum capital of \$8.5 million.¹²

Most of Nigeria's MFBs were former community banks which were required to comply with the new law over a two year period to 2007: its tier is the result less of creation than of conversion of what was previously a weak tier. 13 Unlike others in this sample, the Philippines used regulatory rather than legislative means to create a space for

- 9. See helpful notes by Laura Brix, CGAP from a conference discussion on the subject 2007; also see Rochet, J., Why are there so many banking crises?, Princeton University Press 2008 (p. 13).
- 10. Or still proposed in the case of India.
- 11. Bhattachariee & Staschen (2004)
- 12. In the analysis which follows. Statewide MFBs are considered effectively Tier 2 retail deposit taking entities; and Community MFBs Tier 3.
- 13. As an indication of the weaknesses of community banks, in the policy document ushering in the MFB window, the central bank stated: "The weak capital base of the existing institutions, particularly the present community banks [which in aggregate held deposit liabilities of \$181 million at the end of 2004], cannot adequately provide a cushion for the risk of lending to micro entrepreneurs without collateral.... [O]nly 75 out of [615] community banks whose financial statements of accounts were approved by CBN in 2005 had...shareholders' funds unimpaired by losses" of "up to" \$170,000, which is the minimum capital threshold for MFBs.

Table 1: Salient characteristics of special windows for microfinance

	INDIA	NIGERIA	PHILIPPINES	UGANDA
New entity allowed	Microfinance organization	Microfinance Bank	Microfinance-oriented bank	Microfinance deposit-taking institution
Name and date of enabling legislation	Micro Financial Sector Bill (proposed in 2007; not yet enacted)	Microfinance Policy; Regulatory and Supervisory Framework for MFBs (2005)	Regulatory and Supervisory creating modified framework i	
Regulator	NABARD (National Bank for Agriculture and Rural Development) ¹⁴	Central Bank of Nigeria (CBN)	Bangko Sentral ng Pilipinas (BSP)	Bank of Uganda (BoU)
What deposit- related activity is allowed?	The bill proposes to allow registered MFOs to accept savings/"thrift", which is otherwise prohibited for unregulated entities. (The term "thrift" is not clearly defined in the bill.)	All MFBs can accept demand deposits (as well as savings and time deposits), and can process domestic remittances.	All Thrift Banks & Rural Banks can accept savings/ time deposits, with special BSP approval required to accept demand deposits. The microfinance-oriented amendments did not affect this.	MDIs can accept demand deposits (as well as savings and time deposits), which is otherwise prohibited for unregulated entities (but see Box B for some 'loopholes' for cooperatives and cash collateral).
Definition of microfinance	Under proposed bill, credit < \$1,150 (or < \$3,450 for housing) and a monetary cap for thrift is not yet defined, but the bill indicates one would be set.	Credit < \$4,250; credit per individual borrower < 1% of the institution's capital;	Credit < \$3,400	Credit per individual borrower < 1% of the institution's capital
What is the significance of "microfinance" definition?	The bill seems to indicate that only an organization whose primary business is providing microfinance services below the defined thresholds will be considered for receiving approval to accept thrift.	requirement for license "MF-oriented" (and certain		Concentration limitation is a requirement for license compliance.
Number of entities registered (as of 2008)	N/A—not passed, but thousands of entities would be required to register if passed	774 (mostly converted community banks)	9 (5 rural banks; 4 thrift banks)	4
Minimum capital required (US\$)	\$11,750 (only initial capital; no express ongoing minimum capital requirement)	\$170,000 per branch for a "Community MFB"; as \$117,000 for more remote \$8,500,000 for a RBs; as high as \$8.5 million for a Metro Manila TB		\$307,000
Liquid asset requirement	None	20% (compared to 40% for commercial banks; and 30-35% for the predecessor community banks)	MFB is same as regular TBs or RBs, respectively; RBs: 6% (demand) or 2% (time); TBs: 8% for all deposits; (compared to Tier 1 CBs: 19% for all deposits))	15% (compared to 20% for both higher tiers)
Is deposit insurance available for deposits?	Not discussed in bill.	Yes: MFB deposits qualify for d/i (up to \$850); funded by a mandatory 0.5% fee paid by all MFBs	Yes: All "bank" (including RBs & TBs) deposits are covered by d/i (up to \$5,680); funded by 0.2% fee paid by all banks	BoU "to establish" a fund for depositors in MDIs; details unknown as yet

^{14.} Worth noting is that NABARD is distinct from the RBI, India's central bank; whereas the respective central banks are the responsible supervisory entity for the microfinance institutions in the other three countries reviewed here.

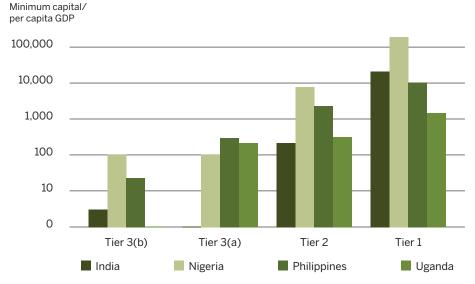
"microfinance oriented banks" within the existing provision for rural banks (Tier 3) and thrift banks (Tier 2), of which the Philippines has, like Nigeria, a large number. Measures included an easier process to approve new branches (in the context of a strict new branch moratorium environment for banks) and lowering the risk-weight allocation applicable to microloans in the portfolio.

Table 1 below introduces a broad comparative overview of the special microfinance window opened in each case. This window is typically considered the third tier of the formal banking system, where the first tier is commercial banks and the second is specialized finance companies, often non-banks, which may take deposits on some basis.

CAPITAL REQUIREMENTS

One way of comparing the tiers is by the minimum capital requirements set for each across the countries. Does the new tier in fact add a stepping stone to the hierarchy in the financial system? Figure 1 shows the minima from Table 1 above, but relative to GDP/ capita (and using a log scale to accommodate the often dramatic scale of differences).

Figure 1: Minimum capital requirements across deposit taking tiers by country



Source: Country legislation; GDP per capita: WDI (2007). Note: to achieve a level of standardization, the absolute amounts were converted to a multiple of the respective country's per capita GDP as at 2007. Also, note the vertical axis is scalled logarithmically to be able to capture the steep differences between Tier 1 and lower tiers, especially in Nigeria.

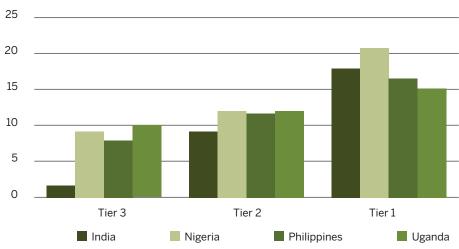
As expected, Figure 1 shows an upward sloping line across countries across tiers, although the countries clearly differ in the size of the step across tiers: in most, but especially India and Nigeria, the difference in minimum capital required for Tiers 1 and 2 is extreme, while the difference is less marked between Tiers 2 and 3.

Policy Framing Note 3: Prudential Regulation in Microfinance

Minimum absolute capital requirements are only one characteristic of prudential regulation: other factors to consider include liquid asset ratio; cash reserve ratio; and reporting intensity. We combine these factors with the capital requirements into a simple index of stringency across the tiers through methodology explained in the Appendix, as a means of assessing the extent to which tiering achieves distinct lightening in the burden of regulation. Figure 2 below presents this index across the tiers by country.

Figure 2: Index of prudential stringency across tiers by country





Source: BFA calculations in Appendix.

What effect has the creation of third tiers had on the newly regulated microfinance institutions, and through them on the broader objective of expanding access to financial services? In most cases, the new window was created too recently to judge.

In Uganda, four years after the passage of the MDI Act, Friends Consult (2007) undertook a recent review of its effect. This was a partial review: ideally, a full retrospective regulatory impact assessment is required. None is yet available. 15 Only four institutions (MDIs) had registered under the Ugandan Tier 3 law by late 2007. Of these, at least one (UML, recently acquired by Kenya's Equity Bank) is likely to convert to a Tier 1 bank within a few years. In many ways, the MDI law was designed with these four particular institutions in mind, and they played a role in advocating for the new regulation. 16 Indeed, given the significant regulatory compliance hurdles and costs incurred even at Tier 3, there are only three more unregulated institutions with a realistic prospect of registering in the foreseeable future; and of these three prospects, at least two are considering leapfrogging Tier 3 to join Tier 2 or even Tier 1, because they perceive the additional

^{15.} Consultant Stefan Staschen expects to complete his PhD on the subject by end 2008, which will be a welcome contribution to the theory and practice of analysis of the impact of these special windows.

^{16.} Friends Consult Study, p. 11.

Policy Framing Note 3: Prudential Regulation in Microfinance

benefits of those tiers worth the relatively negligible higher compliance costs. The ongoing demand in Uganda for Tier 3 registration appears limited therefore, and at best, the MDI Act may have created a temporary stepping stone towards higher status for the first four institutions alone.

The Friends Consult study reveals some mixed results in terms of the impact of access to financial services after the first four years under the new dispensation. The total number of savers across all doubled in this period to 250,000,¹⁷ although the number of borrowers increased by far less. Average savings balances and loan sizes have risen quite substantially, suggesting that growth came from pursuing wealthier clients, which some would call mission drift away from the purpose for which they were licensed.¹⁸ In addition, considerable cost and effort took place (and continues) within the regulator and MDIs to achieve the status. In general, the case of tiering in Uganda fails yet to show compelling evidence that this has made a material difference to access to safe financial services.

Meanwhile, given the still high barrier to entry, more than 750 "Tier 4" institutions, mostly SACCOs and NGO-MFIs, remain unregulated in Uganda. Prompted by high profile failures like that of FPM (see Box B), the Minister for Microfinance announced that a legislative bill regulating the fourth tier was to be introduced in 2008, but we have seen no evidence of this bill to date.¹⁹

In the Philippines, at the end of 2007, there were only 9 officially-recognized microfinance-oriented banks (with a combined asset base of \$22 million and deposits of \$15 million), although another 187 rural banks and thrift banks were engaged in microfinance, but these are not deemed

- 17. The pre-legislation base was not zero because these institutions had taken certain deposits, either in the form of 'member' deposits, cash collateral or perhaps otherwise without authorization.
- 18. Friends Consult pp. 30-34.
- Olanyo, J., "Government to set up law for SACCOs", The Daily Monitor (Uganda), 15 January, 2008, accessed via http://www.monitor.co.ug/artman/publish/business_ power/Government_to_set_up_law_for_SACCOS.shtml.

Box C: Regulating non-bank (Tier 2) deposit takers: Sahara Financial in India

India's biggest "non-bank" deposit-taking institution is a Residuary Non Bank Finance Company (i.e. Tier 2 institution), regulated by the Reserve Bank of India (RBI): Sahara Financial. Sahara was founded in 1987. By 2007, Sahara held \$4 billion of deposits across 40 million deposit accounts, mobilized with the help of an army of tens of thousands of "doorstep" deposit collectors, often collecting one rupee at a time (arguably making it one of the world's largest mobilizers of microsavings).

Sahara's business model is to profit from the spread between relatively low rates paid to depositors and the higher rates earned from a mix of relatively lower- and higher-risk lending. Some speculate that Sahara's business model evolved over the years into one that served merely as a funding vehicle for a conglomerate-like expansion of unrelated but affiliated "Sahara Group" businesses, such as real estate, entertainment and media. Over time, RBI became concerned that public deposits were being used in such potentially risky ways.

Growing friction between regulator and regulated entity came to a head in June 2008. Sahara had allegedly failed to allocate the investments as conservatively prescribed by RBI, hence RBI took the extreme measure of issuing a formal order for Sahara to immediately 'cease and desist' deposit-taking activities. After a short court battle, encouraged by India's Supreme Court, RBI and Sahara essentially negotiated a settlement whereby Sahara would wind-down its entire deposit-taking business in stages by 2015, as well as immediately meet certain governance, consumer protection and "Know Your Customer" (KYC) requirements.

"microfinance-oriented" because microcredit constitutes less than 50% of their loan portfolios. Since the country did not have to go to the same lengths as Ugandan regulators to create a new legislative framework, the costs of this approach have been much less. And, although there is not rigorous evidence, there appear to be benefits from tiering: as the CGAP Country Savings assessment in 2005 comments: "Through graduated minimum capital and other requirements, the Philippines' tiered banking structure has made it possible for banking institutions to serve low-income clients in remote areas. The [Tier 3] rural banks in particular can operate in areas where potential profits may not meet the hurdle rates imposed by mainstream [Tier 1] commercial banks."²⁰

New trends which challenge the boundaries of traditional prudential regulation

While legislators and regulators have been drafting and implementing frameworks to enable new tiers for prudential regulation of microfinance, two other trends have been changing the landscape of access to financial services in ways which raise new questions for prudential supervision. The first is the use of agents or correspondents to provide banking services; the second is the spread of electronic money issuance by entities which are not banks.

BANK CORRESPONDENTS

The use of local shops and merchants as agents for the distribution of banking services is not new: in common law countries, unless the use of agents for this purpose was explicitly prohibited, common law principles of agency allowed it. However, the lack of communications technologies which allowed for cheap real time connection between banks and their remote agents often raised the costs and operational risks beyond the economical point. The growth of wireless technology, first through V-SAT connections and increasingly through mobile phone channels, has changed the economics of agency for banks. In a civil code country, such as Brazil, a series of specific regulations were enacted, starting in 1999, which allowed banks there to appoint agents for certain types of banking business. Led by the large state-owned retail bank, Caixa, which has an extensive distribution footprint, Brazilian banks rapidly expanded their correspondent network (e.g., through lottery sales retail outlets), with substantial outcomes for geographic access: "At end 2000, of the 5,636 municipalities in Brazil, 1,659 had no bank services (branches or bank service outposts), and 10 were served solely by bank correspondents... By the end of 2003, thanks to correspondents, no municipalities remained without services..." (Kumar et al 2006).

Policy Framing Note 3: Prudential Regulation in Microfinance

The success of the Brazilian correspondent model has led other countries in Latin America to follow suit: inter alia, Peru and Colombia have introduced regulations enabling the appointment of agents. In India, the RBI issued guidelines allowing banks to appoint bank correspondents in 2006, but restricted this role to non-profit entities or the Post Office, limiting the potential outreach achieved.

At one level, the prudential consequences of appointing agents are limited: after all, agents do not assume ultimate liability for the deposits which they take on behalf of regulated deposit takers. If a customer were to lose money as a result of the failure (or negligence) of an authorized agent, the principal bank would be required to make this good. If agents run out of liquidity to pay out cash, the reputational risk for the bank is not considered the same as if the bank's own branch were to run out of cash. Consequently, the agents are usually not directly prudentially supervised although regulators may impose rules on which entities may serve as agents and on their practices: for example, agents are commonly not allowed to charge add-on fees to the customer, but must be paid by the principal. These rules usually have more to do with market conduct addressing concerns about consumer protection for example—than the risk of agent failure. However, principal banks maintain their own level of prudential oversight of agents, usually requiring agents to maintain floats for real time clearing and settlement of transactions.

The prudential risk to a bank of any one agent failing would be limited much as one bad loan will not sink a bank because of portfolio diversification. However, emerging structures for managing agents may add new types of risk. Some agents networks are dependent on a few super-agents (such as chain stores or specialized network managers in Brazil) to manage the underlying agents. If a bank were to depend excessively on any one agent network for business, the failure of that network, or even extended communications down-time for transactions on that network, could have prudential consequences for the bank. Similarly, fraud may be committed on a scale which could affect the health of the bank. In addition, if agents are allowed to offer credit on behalf of the bank, as opposed to account opening and transactional services only, agents create credit risk for the unwary principal. The growth in loan origination by mortgage brokers who were not prudentially regulated and not required to hold equity against bad loans they wrote (no "skin in the game") is one of the reasons for the large losses incurred on the sub-prime lending channel in the U.S. For this reason, while regulators should welcome and enable the growth of non-bank networks for their positive effect on access, they should monitor the growth of agent networks carefully; and review emerging risks, both consumer protection and prudential, as part of their supervision of the principal banks.

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Policy Framing Note 3: Prudential Regulation in Microfinance

E-MONEY ISSUANCE BY NON-BANKS

In the past two decades, various issuers have experimented with electronic media, such as smart cards, which can store electronic value for purchase or redemption at point of sale. However, outside of mass transit situations (where they offered convenience and often cheaper pricing over cash tickets), special e-wallets or e-purses have generally failed to take off. Neither the business proposition to the issuer nor the value proposition to the user, who could only use the card in restricted circumstances, made sense. However, the proliferation of pre-paid airtime around the world has changed this position dramatically, especially in developing countries where as many as 90% of cell phone subscribers have only pre-paid subscriptions. Large widespread distribution chains of airtime resellers have developed, even in remote areas, at which customers can purchase airtime in real time; and even transfer it to other users.

Purchasing a product by making a payment to the seller in advance is not considered "deposit taking" for purposes of triggering prudential regulation and is not therefore per se a prudential concern: the same applies to airtime. However, when the pre-paid balance is used to purchase goods and services other than those provided by the issuer, this process may constitute de facto issuance of e-money. Various definitions of e-money exist but usually have in common the following elements: it is a claim on the issuer for monetary value which is

- · stored on an electronic device:
- · issued on receipt of funds; and
- accepted as a means of payment by undertakings other than the issuer.²¹

As value added services, some provided by third parties, are increasingly made available via the cell phone to pre-paid subscribers, so mobile networks are becoming de facto issuers of electronic currency. This is an issue of prudential concern, since the failure of an issuer could cause loss of deposits made by its clients unrelated to any particular purchase transaction. In Europe, extensive debate on this issue has led to a boundary ruling that, as long as the purchased service was delivered to or via the mobile phone (e.g., purchasing ring tones), it would be considered a closely related service and hence not the issuance of e-money requiring the issuer (the telco) to register as a regulated issuer. In many developing countries, however, there is no legal definition for e-money; and regulators have questionable authority to control its issuance. The definition of 'banking' or 'deposit-taking' business in many countries, and therefore the trigger for prudential regulation, is when an entity, as a regular part of its business, takes deposits from the general public and on-lends those deposits (or otherwise puts them at risk). In such jurisdictions, e-money issuers which do not on-lend the deposits are therefore not undertaking

^{21.} This is based on the EU definition in the Electronic Money Institute Directive 2000/46/EC.

Policy Framing Note 3: Prudential Regulation in Microfinance

such banking or deposit-taking business and therefore, are often not subject to prudential regulation at all.²² This may be a source of prudential risk if the e-money balances grow to substantial size.

In addition to a general absence of a clear definition for e-money, the concept of a "payment" and a "payment service provider" is not clearly defined either in many developing countries. Clients of payment providers (in general, payors) are also subject to a limited form of prudential risk: if the provider fails before a payment has been completed, the payor may lose the benefit of being credited for the payment; this is because the payee never received it and the failed intermediary was the payor's agent—not the payee's agent—and so the payor bears the risk of loss. New e-money models have developed in the unclear gap between deposit taking (usually defined) and payment provision (often not). This "gap" is illustrated in Table 3 below, which highlights the differences between the concepts of payment, e-money and bank deposits, using the European norm since this has an explicit developed framework for each.

22. While there is some evidence that airtime transfers are being used as a substitute for money for making remote payments in places with limited electronic banking infrastructure, this practice is essentially a form of barter and not likely to become pervasive because of the airtime commission structure (airtime vendors and networks themselves get no benefit from re-selling 'second hand' airtime) and transaction taxes on airtime which make the value transferred considerably less than the face value.

Table 3: Comparing the concepts

	PAYMENT	E-MONEY	DEPOSIT BANK ACCOUNT
Who may provide?	Payment providers, if concept is defined	Banks, and e-money issuers if the concept is defined	Banks
Repayable?	Only on narrowly-defined terms	Yes	Yes—fully
Maximum time held by service provider	Typically a limit such as 3 days	Typically limited only by agreement between customer and issuer	Limited only by agreement between customer and bank
What may the provider do with the money?	Very limited	Limited; no intermediation	Intermediation as permitted in banking law
Interest paid	No	Depends	Permitted
Subject to deposit insurance (if available)	No; but limitation on liability	Depends	Yes
Subject to reserve requirements	No	Depends	Yes
Subject to liquidity requirements	No	Depends	Yes
Relevant legislation	Payment services directive 2007 (implemented from 2009)	EMI Directive 2000	Credit Institutions Directive 2000

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Recognizing that non-banks can play a useful role in issuing e-money for transactional purposes, supplementing the role of banks, the EU has taken the approach of explicitly enabling this through the EMI Directive which created a special window for non-bank issuers. They are subjected to a lightened scheme of prudential regulation, which does nonetheless require reporting and minimum capital requirements. However, a review of this Directive in 2006 suggested that premature passage of such explicit legislation had had the undesirable effect of hindering innovation—few e-money issuers have been licensed under the EU law, rather like the experience with the Ugandan MDI Act described earlier. The U.S. has taken the opposite path, not passing federal legislation but rather allowing widespread experimentation with pre-paid card issuance by non-banks (which are subject to regulation of widely varying intensity at the state level). This has stimulated growth and innovation in the sector but there is increasing uncertainty about various boundary issues.

Table 4 lists the considerations with respect to e-money in the sample of four countries considered in the last section. In India, a committee has explored the topic, recommending that e-money issuance be restricted to banks only. Only in the Philippines has an e-money issuance model, developed by the second largest MNO Globe Telecom, been explicitly approved by regulators. As Box D explains, this takes place under a voluntary quasi-prudential framework specially developed by the regulator for network operator G-Cash. G-Cash is subject to regular reporting

Table 4: E-money status across the four developing countries

	INDIA	NIGERIA	PHILIPPINES	UGANDA
Definition of deposit or deposit taking business		Not specifically defined in Bank & Other Financial Institutions Act or the MF Policy documents.	Not specifically defined in General Banking Law, Thrift Bank Act or Rural Bank Act.	"Deposit means a sum of moneypaid on terms under which it will be repaid, with or without interest, on demand or at a time agreed; [except funds] referable to the provision of property or services or the giving of security" (same in MDI Act & F/I Act).
ls non bank e-money issuance allowed?	No	No	Yes	No
If so, is it regulated?			Yes	
Has guidance been provided?	RBI Working group (2002)	E-banking regulations of 2003 restrict issuance to regulated FIs	Circular 642 of 2009	East African Payment Systems Harmonization Committee (EAPSHC) documents from 2000–2002.

Policy Framing Note 3: Prudential Regulation in Microfinance

requirements and to the requirement that the balance of funds in mobile money accounts is reconciled daily to the value of the wholesale deposit float held by G-Cash in Filipino banks. Kenya's M-Pesa model offered by major MNO Safaricom is substantially similar in many respects; however, rather than specifically authorizing the model, the Central Bank of Kenya issued a qualified "no objection" letter which allowed M-pesa to start up in 2007 in return for voluntarily reporting to the CBK.²³ However, in 2009, the CBK announced moves to introduce a regulatory regime for non-bank mobile payments.

Box D: Regulating non-bank e-money: G-Cash in the Philippines²⁴

In 2004, Globe Telecom (the second largest mobile network operator in the Philippines) launched "G-Cash", a new mobile payment service involving the issuance of e-money by Globe subsidiary GXI. As of the end of 2007, G-Cash had 500,000 active users, though the actual cash flowing through the system has been small).

G-Cash is a nonbank-based model, in that there is no contractual relationship between the client and a prudentially regulated financial institution. Clients may load cash into electronic wallets through handing cash over to G-Cash agents, of which there are thousands appointed throughout the country. They may then transact on this balance, for example, transferring value in real time to other G-Cash clients and even non-clients. The value stored in G-Cash accounts is pooled and deposited by GXI across several commercial bank accounts. As long as the balances in the bank accounts equal the total G-Cash liability of GXI, the prudential risk is limited to the insolvency of GXI or its parent Globe when all assets including amounts on deposit may be subject to claims of creditors under bankruptcy law.

Because GXI does not on-lend the funds stored on behalf of its clients, it does not fall under the Filipino definition of a "bank"—"entit[y] engaged in the lending of funds obtained in the form of deposits" and thus is not subject to BSP prudential regulation/supervision, and is not otherwise covered because the Philippines does not have a national payment systems law.

However, the special consensual framework created by BSP to accommodate G-Cash has enabled the innovation to be launched and tested. After allowing a period to test the innovation, the BSP introduced an e-money circular in 2009 which defines the basis on which non-banks may become licensed e-money issuers.

Conclusion: Navigating the dilemmas: old and new

Often supported by donors, policymakers and regulators have invested considerable effort in designing new windows for specialized microfinance entities during the past decade as a way of navigating the prudential-access dilemma. This Note has described how some of these efforts vary greatly in their nature and scope; and also in their outcome on expanded access to financial services. While there is a lack of rigorous evidence and most special windows are too recent to evaluate anyway, in some cases like Uganda, there is at least cause for questioning the cost-benefit ratio of this approach because the modest effect on access to safe financial services does not seem to return the considerable investment of time and money by regulator and regulated entities.

- 23. The conditions which are contained in a letter from CBK to Safaricom have not all been disclosed.
- 24. This "Box" is drawn primarily from the following two sources: Porteous, David. March 2008. "Case Study: The Central Bank of the Philippines and G-Cash". CGAP May 2008. "Notes on Regulation of Branchless Banking in the Philippines."
- 25. General Banking Law (2000), section 3.1.

Policy Framing Note 3: Prudential Regulation in Microfinance

The new approaches described here—the appointment of non-bank agents and the issuance of non-bank e-money—which are proliferating in the retail financial systems of an increasing number of developing countries may reduce the need for time consuming, expensive legislative changes and supervisory burdens. These approaches carry different prudential risk implications, and indeed, in the case of e-money, challenge the boundaries of regulatory authority. They require regulators to make clear choices to manage the possible trade-off between exploiting the innovation for the purposes of extending access while not allowing prudential risks to rise too rapidly: not to do anything is a choice.

Regulators should in general regulate activities rather than institutional form.

For regulators seeking to navigate the prudential dilemma of how to protect poor people's savings and their access to formal savings, the essential logic of the 2003 CGAP principles of prudential supervision still remain valid. Regulators should in general regulate activities rather than institutional form: "as much as possible, prudential regulation should be focused on the type of transaction being conducted, not the type of entity conducting it." This view is also echoed in the recent guidelines (2008) issued by the World Savings Bank Institute, the trade body representing some of largest institutions taking savings from the poor around the world.

Regulators should embrace both agents and e-money issuance as potentially powerful forces for expanding access to financial services. But this means:

- Identifying precisely which activities pose prudential risk;
- Defining e-money clearly;
- Considering the case for special windows for non-bank e-money issuers;
- Monitoring both the consumer protection and operational risk questions arising in new correspondent networks, regardless of the legal form of the principal.

All of these require that regulators build the internal capacity to understand and supervise the new risks. Sharing lessons and experience through regular forums among regulators may assist this process of capacity building.

While the new approaches deserve attention, they do not necessarily replace the need for special windows for microfinance. This case must be considered on a country-by-country basis, depending in large part on whether there is a sufficient number of entities willing and capable to take small deposits which are presently restricted from lawfully doing so; and whether the costs of supervising these entities are lower than those of other strategies for incentivizing existing regulated entities to push down market. At very least, the case for new special windows requires more

rigorous ex ante assessment. Full cost benefit evaluations of the impact of existing microfinance windows may help to support the view that they have a useful role to play in access to financial services.

Finally, in a world deeply shaken by the prospect of major system failure, it is highly unlikely, for a while at least, that the approach of Caprio et al. (2006) towards less state regulation and merely more market oversight will have much traction. Closer supervision of large banks is likely, stretching already limited capacity to supervise small institutions further. There may also be less attention given to innovations which improve access in an environment in which stability is prized. However, as external investment in microfinance entities continues to grow, supervisors may be able to harness the benefit of the oversight provided by experienced external investors to help them protect microfinance depositors. The shocks suffered by banks in wholesale money markets are likely to create renewed impetus for retail deposit funded strategies by large commercial banks, creating a force for downscaling. It remains to be seen whether this new impetus, combined with the earlier initiatives in many countries, like the four considered here, to allow new and smaller entities like MFIs to take retail deposits, will result in greatly expanded access to safe depository services.

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Appendix: Four cases of interest rate regime changes

Four categories of prudential regulations are included in the measurement, which are assigned scores (the higher the score the more stringent the regulation), as follows:

Minimum capital requirement

MEASURE	SCORE
Capital requirement < 30x GDP per capita	1.0
30x GDP per capita < capital requirement < 300x GDP per capita	2.0
300x GDP per capita < capital requirement < 1,000x GDP per capita	3.0
1,000x GDP per capita < capital requirement < 5,000x GDP per capita	4.0
5,000x GDP per capita < capital requirement < 10,000x GDP per capita	5.0
10,000x GDP per capita < capital requirement < 50,000x GDP per capita	6.0
Capital requirement > 50,000x GDP per capita	7.0

Liquid assets requirment²⁶

The score is determined by multiplying the required liquid asset percentage by 20. Thus, for instance, a regulation requiring an institution to maintain liquid assets equal to at least 10% of deposits would yield a score of 2.0.

Cash reserve requirment²⁷

Cash reserve requirement:²⁶ The score is determined by multiplying the required cash reserve percentage by 20. Thus, for instance, a regulation requiring an institution to maintain cash reserves equal to at least 10% of deposits would yield a score of 2.0.

Reporting/auditing requirements²⁸

MEASURE	SCORE
None or minimal	0.0
Only an annual audit (however an audit is locally defined)	1.0
Quarterly "Light" (i.e., balance sheet and profit & loss only)	2.0
Extensive quarterly or monthly (more documents than B/S and P&L)	4.0
More frequent than monthly and/or additional audits	5.0

25

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²⁶ There is no accounting here for different definitions of the numerator (i.e., exactly what investments qualify as acceptable liquid assets) or denominator (i.e., exactly what types of deposits are included).

²⁷ Again, there is no accounting here for different definitions of the numerator or denominator.

²⁸ Whereas there is wide variation in reporting/auditing requirements from country to country and even within a given country across tiers, there is an element of subjective judgment in how to classify within the described scoring classifications. The author has tried to be as objective as possible, with the information available.

Appendix: Table of country & tier scores

INDIA	MICRO FINANCE INSTITUTE	NON-BANKING FINANCIAL COMPANY	COMMERCIAL BANK
Minimum capital	1.0	2.0	6.0
Reporting/audit requirments	1.0	4.0	5.0
Liquidity requirements	0.0	3.0	5.0
Reserve requirements	0.0	0.0	1.8
Total	2.0	9.0	17.8

NIGERIA	COMMUNITY MICROFINANCE BANK	STATEWIDE MICROFINANCE BANK	UNIVERSAL BANK
Minimum capital	2.0	5.0	7.0
Reporting/audit requirments	3.0	3.0	5.0
Liquidity requirements	4.0	4.0	8.0
Reserve requirements Not required		Not required	0.8
Total	9.0	12.0	20.8

PHILLIPPINES	MICROFINANCE-ORIENTED RURAL BANK	THRIFT BANK (METRO MANILA)	COMMERCIAL BANK
Minimum capital	1.0	4.0	6.0
Reporting/audit requirments	5.0	5.0	5.0
Liquidity requirements	0.8	1.6	3.8
Reserve requirements	0.8	1.2	1.8
Total	7.6	11.8	16.6

UGANDA	MICROFINANCE DEPOSIT- TAKING INSTITUTION	NON-BANK FINANCIAL INSTITUTION	COMMERCIAL BANK
Minimum capital	2.0	3.0	4.0
Reporting/audit requirments	5.0	5.0	5.0
Liquidity requirements	3.0	4.0	4.0
Reserve requirements	0.0	0.0	1.9
Total	10.0	12.0	14.9

Note: No information was found regarding cash reserve requirements for Indian MFIs (probably due to the fact that the MFI bill has not yet been enacted) or for Ugandan MDIs or NBFIs. For each, the assumption is that there is no cash reserve requirement, and thus a score of zero is entered.

Summary

	INDIA	NIGERIA	PHILIPPINES	UGANDA
Tier 3	2.0	9.0	7.6	10.0
Tier 2	9.0	12.0	11.8	12.0
Tier 1	17.8	20.8	16.6	14.9

www.financialaccess.org 26