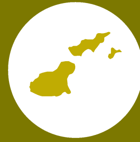
Pacific Islands Working Group



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Techniques for supervising depository microfinance institutions (DMFIs)

Context

The Pacific region has one of the highest unbanked rates in the world, at an estimated 70% across 16 countries. Over half of the nine million inhabitants are engaged in subsistence agriculture with poor market linkages due to the widely scattered island geography and associated challenges with physical infrastructure. Microfinance institutions have been trying to gain a foothold in the region for over twenty years but the outreach has been minimal due to challenging socio-economic and geographic constraints. But new interest by commercial banks, innovative business models implemented by microfinance institutions and savings and loans societies, and new technology such as mobile phones are making a renaissance in microsavings possible in the Pacific.

Central bankers see savings and other microfinance services as a key part of increasing financial inclusion in the region, and are committed to creating the conditions for a safe and sound formal microsavings sector. To advance this, members of the Pacific Islands Working Group (PIWG) requested a training on the supervision and regulation of non-bank deposit-taking institutions which provided supervisors with sound conceptual understanding and practical tools for assessing and determining how best to regulate and supervise such institutions.

The supervision of non-bank deposit-taking institutions is a relatively new area for central banks in the Pacific and is seen as a priority reform in deepening access of the unbanked to safe, relevant and affordable financial services. This paper captures some of the lessons learned at the training and is designed to be a companion resource for supervisors and regulators as they help ensure the availability and soundness of depository microfinance for Pacific Islanders.

About this document and the Pacific Islands Working Group

This document was developed through the activities of AFI's Pacific Islands Financial Inclusion Working Group (PIWG) which is comprised of the central banks from Fiji, Papua New Guinea, Samoa, Solomon Islands, Timor Leste, and Vanuatu. The group's activities on the supervision of non-bank deposit taking institutions included a training, field study in PNG, and this report on supervisory methods. These activities were additionally supported by the Pacific Financial Inclusion Program and AusAID.

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Introduction

Regulators around the world have contributed to a rich body of knowledge about how to regulate depository microfinance institutions (DMFIs).[1] Much less is known about the supervision of DMFIs, however, which has prompted this review of effective supervisory practices and techniques.

As with regulation, supervision techniques must be specially adapted to the DMFI industry. In its 2010 publication, *Microfinance Activities and the Core Principles for Effective Banking Supervision*, the Basel Committee on Banking Supervision (BCBS) highlighted specific core principles to be adapted and issued guidance on applying these principles to DMFIs. It begins by affirming the central premise of the core principles: *non-banks that mobilize deposits from the public should be subject to regulation and supervision commensurate to the type and size of their transactions.*[2]

Four themes are especially relevant to supervisors building oversight capacity for DMFIs:

- Supervision must be resource-efficient given the small size of sector assets and the large number of financial institutions relative to the financial system.
- Supervisory teams need specialized knowledge of microfinance operations.
- Supervisors need to account for proven control and managerial practices that differ from conventional retail banking.
- Regulations need to clarify what activities are permitted in various types of institutions.

The Basel Committee principles are distilled from decades of innovation and practice in regulated microfinance industries. The supervisory techniques outlined here provide a general approach for implementing the Committee's *Supervisory Approach* (Principle 19) and *Supervisory Techniques* (Principle 20) and can be used to address the Basel principles related specifically to areas of risk in depository microfinance.

This document aims to serve as a toolkit for addressing both the operational and economic challenges of effective supervision. Most supervisors will be able to adapt many of their own techniques, so the focus is on those that require specialized skills or are especially important. This provides a cost-effective approach to risk-based supervision, which is especially important in small jurisdictions or for supervisors working in an emerging DMFI industry.

Box 1: DMFI supervision in the South Pacific

In Papua New Guinea, DMFIs have been licensed under an existing provision in the Central Banking Act for finance companies. In Timor-Leste, the regulator issued a special instruction creating a license for "other deposit taking institutions". Both regulators face the challenge of developing supervision capacity for sectors that are highly specialized but not likely to include more than three or four small institutions. For these regulators, supervision techniques must be risk-based and cost-effective.

This document brings together a range of practices drawn from supervisors around the world. As with most supervision techniques, those described here must be adapted to, and integrated in, existing supervisory practices. We therefore encourage practitioners who want to develop specialized supervisory capacity to consult with colleagues in other jurisdictions.

Overview of supervision frameworks

Supervision techniques are organized here by basic supervisory functions: licensing, accounting practices and information requirements, on-site and off-site examination, public disclosure of performance data, and use of external control resources.

The licensing framework (Principle 3) of a DMFI supervisory system will be informed to a great extent by policy choices about how to manage various institutional risks. Specifically, regulators will make choices about what types of organizations will be allowed to conduct which activities, and how much oversight will be necessary. In all cases, supervisors need to be able to conduct a fit and proper appraisal of shareholders and assess the organization's capacity for risk management.

A supervisory reporting framework (Principle 21) provides supervisors with the necessary data for off-site examination, including oversight of key funding risks such as capital adequacy (Principle 6), foreign currency borrowing (Principle 13), liquidity (Principle 14), and interest rate risk (Principle 16).

The core of DMFI supervision is risk management (Principle 7) and portfolio risks in particular. Accordingly, the majority of examination techniques presented here focus on risks generated by microlending operations. These include off-site and on-site techniques that test data reliability and system robustness related to credit risk (Principle 8), problem assets (Principle 9), operational risk (Principle 15), and internal control and auditing procedures (Principle 17).

[1] See summaries in Christen, R., Lyman, T.R. and Rosenberg, R., 2003, *Microfinance Consensus Guidelines: Guiding Principles on Regulation and Supervision of Microfinance*, http://www.cgap.org/gm/document-1.9.2787/Guideline_RegSup.pdf; and Alliance for Financial Inclusion, *Formalizing Microsavings: A tiered approach to regulating intermediation, 2010*, http://www.afi-global.org/resources/publications.

[2] Basel Committee on Banking Supervision (BCBS), 2006, *Core Principles Methodology*, http://www.bis.org/publ/bcbs130.htm

Box 2: Licensing requirements in Timor-Leste

In December 2010, the Banking and Payments Authority (BPA) issued Public Instruction 06/2010 *On the Licensing and Supervision of Other Deposit Taking Institutions (ODTIs)* to enable existing non-profit microcredit organizations (MCOs) to expand their deposit taking operations with adequate oversight.

The BPA was aware that the new system would require a significant transformation of the MCOs, that specialized oversight capacity would need to be developed quickly to license and then supervise the ODTIs, and that both parties would likely require assistance to meet an ambitious timeline for implementing the new system. Therefore, the ODTI instruction included three important licensing requirements:

1. ODTI administrators must have *held responsible management positions in his/her career in a capacity that is related to the responsibilities that he or she will fulfill in the ODTI*.
2. Applicants must submit to an on-site examination prior to final approval by the BPA.
3. Applicants must *present an appraisal by a competent third party of the ODTI's policies, procedures, and asset quality, performed according to terms of reference defined by the BPA*.

These requirements provided the BPA with objective criteria for assessing core capacity prior to licensing and gave BPA staff the opportunity to observe the appraisal techniques they will adapt in the new oversight system.

Finally, this document outlines techniques for leveraging the role of external audit firms, credit bureaus, and public performance disclosure to ensure sound accounting and disclosure practices (Principle 22).

Licensing

The licensing process is the foundation of successful supervision. With clear eligibility guidelines and approval procedures, supervisors can ensure that DMFIs enter the market capable of participating effectively in the supervision process. DMFIs likely to thrive under a focused supervisory regime will have experienced shareholders and management, robust operating and risk management systems, and a reliable IT platform. If institutions do not have these resources when they enter the market, supervisors can easily expend significant resources and achieve unsatisfactory results, not the least of which are demoralized staff and reputational damage.

Supervisors can use three licensing conventions to prepare DMFIs:

- precise fit and proper standards for assessing shareholders and management;
- precise requirements related to risk management systems, IT platforms, and information management capacity; and
- on-site appraisals prior to final approval.

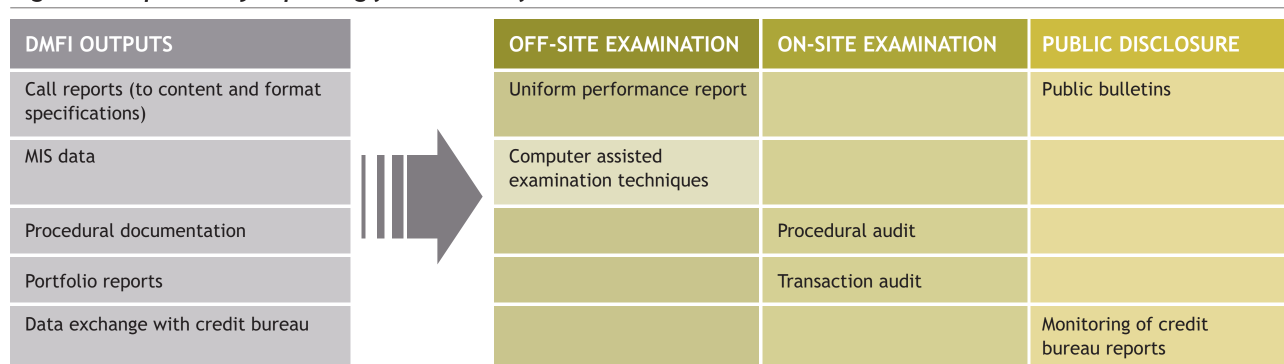
Licensing standards must begin with a clear definition of the types of institutions and activities the license is meant to govern. The "fit and proper" standards for qualifying shareholders and managers then need to be precise enough that the supervisor can determine whether they have *specialized* experience. Microfinance operations are highly specialized and distinct from other types of commercial banking and consumer finance, and management experience varies by type of institution. For example, greenfield microfinance institutions are distinct from newly registered limited liability companies that are created by "transforming" non-profit organizations. Shareholders and managers need to have experience with these unique types of institutions and activities in order to license them.

Supervisors can also use licensing standards to ensure that a DMFI has sufficient information management capacity to support robust internal risk control procedures, generate required reports and procedural documentation, provide raw electronic data for examination procedures, and exchange borrower information with credit bureaus.

Most importantly, supervisors will want to inspect the quality of a licensee's systems before final authorization. The approval process needs to be flexible enough to accommodate start-up institutions and existing institutions (typically credit-only MFIs). In a two-step approval process, the supervisor can issue preliminary approval to authorize the licensee to set up its IT, management, and operating systems, and then issue final authorization based upon an appraisal.

Some supervisors will already be able to assess compliance with fit and proper criteria, as well as the capacity of the applicant's core banking, information, and risk management systems. However, some supervisors will be resource or capacity constrained, especially when licensing the first DMFIs in the market. In these cases, supervisors can access the resources they need by requiring applicants to submit an appraisal of their information technology platform *by a competent third party, according to terms of reference drafted by the supervisor*. With existing institutions, the terms of reference can be broadened to include a more comprehensive appraisal of management and operating systems. This provides the supervisor with a third party opinion on the applicant's compliance with fit and proper standards, an opportunity to expose supervisory staff to examination techniques they will eventually employ, and an objective basis for demanding improvements prior to licensing.

Figure 1: Supervisory reporting framework of DMFIs



DMFI reporting capacity

The ability to produce timely and accurate performance reports and transaction data is a necessary component of a DMFI's risk management system and a prerequisite for effective and efficient supervision. DMFIs must be able to provide information to the supervisor in a format that permits both off-site and on-site oversight, as well as public disclosure of performance indicators. This also allows supervisors and other stakeholders to track the evolution of DMFI activities and examine areas that pose the greatest risk.

DMFI outputs are the inputs of examination models and public disclosure documents. Therefore, regulations and reporting formats must be precise.

- Call reports need to provide sufficient detail for a performance analysis of every financial product of the DMFI, especially credit products. DMFIs must be able to transmit these reports in an electronic format that supervisory staff can easily import into appraisal models. Equally important, DMFIs must use clearly defined accounting policies related to portfolio revenue, loan classification, provisioning, write-offs, and funding expenses.
- DMFIs should maintain, on record with the supervisor, up-to-date procedural checklists for every loan product.
- DMFIs must be able to produce portfolio reports by product.
- The DMFI's core banking system must be able to download transaction data into off-the-shelf software programs such as Access or Excel.
- DMFIs must be able to exchange information with credit bureaus to guard against excessive client debt.

Off-site examination techniques

Off-site examination plays a particularly important role in the supervision of DMFIs. The assets of most DMFIs are concentrated in portfolios of many small, unsecured loans, presenting peculiar oversight challenges. Traditional commercial banks have a high percentage of their assets in large loans, allowing examiners or auditors to test the credibility of financial statements and reports by inspecting a statistically significant number of large loans. Much of the asset risk, therefore, is concentrated in a fairly small universe of loan contracts. On the other hand, the systemic risk associated with any given DMFI loan is very small. Portfolio risk is highly segmented, making it difficult and costly to assess using traditional sampling methods.[3] Systemic risk comes instead from the operational capacity of a DMFI to manage a rapidly rotating portfolio of microloans. Therefore, supervisors need to use special examination techniques to monitor the robustness of DMFI systems and procedures.

Moreover, to be cost efficient, supervisors need to be able to conduct as much of their examination off-site as possible. Supervisors require off-site examination techniques that identify potential areas of risk beforehand and allow them to focus the on-site examination on these specific areas. Three off-site examination techniques serve this purpose:

- organization of data into a Uniform Performance Report (UPR)
- comparative trend and peer analysis
- computer-assisted examination techniques (CAETs).

Uniform Performance Report (UPR)

The key to off-site examination is the organization of financial performance data into a Uniform Performance Report (UPR) that shows a DMFI's performance trends over time, benchmarked against peer averages.[4] Most supervisors will be able to adapt the reporting structures they currently use for banks to identify a core set of indicators for off-site appraisals of DMFIs.

Margin analysis

This analysis facilitates precise monitoring of changes to the revenue and cost structure of a DMFI over time, against the peer average. In addition to the global margin in the table below, the UPR should show the financial margin (Interest Income – Interest Expenses – Provisioning Expenses) for every major loan product.

[3] For a detailed discussion of sampling challenges and techniques in microcredit portfolios, see Christan, R. and Flaming, M., 2009, *Due Diligence Guidelines for the Review of Microcredit Loan Portfolios: A Tiered Approach*, http://www.cgap.org/gm/document-1.9.36521/DueDiligence_TechGuide_ENG.pdf.

[4] Supervisors in more mature markets will be able to calculate peer averages from local institutions. In less populated markets, supervisors can use peer averages from the MIX Market Data or Microbanking Bulletin (both available at www.themix.org) that best match the profile of their local institutions.

Table 1: Example of a global margin analysis

	2007			2008			2009		
	Bank	Peer Avg	Comps	Bank	Peer Avg	Comps	Bank	Peer Avg	Comps
MARGIN ANALYSIS									
Interest Income	15.3%	28.4%	0.5	15.3%	27.4%	0.6	12.2%	25.1%	0.5
Interest Expense	-3.3%	-5.6%	0.6	-3.4%	-6.9%	0.5	-3.6%	-7.0%	0.5
Other Income	2.0%	1.5%	1.3	2.0%	0.8%	2.6	1.9%	0.4%	4.2
Provisioning Expenses	-0.4%	-.05%	0.8	-0.4%	-0.5%	0.7	-0.4%	-0.5%	0.7
Operating Expenses	-9.9%	-14.8%	0.7	-8.9%	-13.2%	0.7	-8.6%	-13.4%	0.6
Income Taxes	-0.7%	-1.7%	0.4	-0.9%	-1.6%	0.6	-0.3%	-1.1%	0.3
ROAA	3.0%	7.1%	0.4	3.7%	6.0%	0.6	1.3%	3.5%	0.4
	18.6%	32.6%	0.6	28.7%	41.2%	0.7	10.3%	17.2%	0.6

Growth rates

These indicators alert the supervisor to growth-related risks (a primary source of instability in new institutions). If a DMFI has a range of lending and funding products, the supervisor may want to monitor growth rates by product as well.

Table 2: Example of growth rate indicators

	2007			2008			2009		
	Bank	Peer Avg	Comps	Bank	Peer Avg	Comps	Bank	Peer Avg	Comps
GROWTH									
Total Assets	111%	75%	1.5	48%	87%	0.6	34%	8%	4.2
Non-portfolio assets	143%	46%	3.1	42%	102%	0.4	69%	73%	0.9
Loans	97%	81%	1.2	51%	84%	0.6	17%	-2%	(7.5)
Other liabilities	154%	105%	1.5	47%	66%	0.7	142%	9%	16.6
Debt	12%	101%	0.1	137%	95%	1.4	-31%	4%	(7.1)
Deposits	177%	143%	1.2	36%	18%	2.0	49%	108%	0.5
Equity	33%	27%	1.2	40%	76%	0.5	25%	12%	2.1

Mix of lending products

The variety of lending products can vary significantly between DMFIs and can change over time. Every supervisor will want to categorize products by the characteristics that pose the most risk to DMFIs. In this example, products are categorized by loan size.

Table 3: Example of lending products categorized by loan size

	2007			2008			2009		
	Bank	Peer Avg	Comps	Bank	Peer Avg	Comps	Bank	Peer Avg	Comps
LENDING PRODUCTS (by outstanding balance)									
<$500	7.0%	45.0%	0.2	5.1%	39.5%	0.1	3.2%	33.5%	0.1
$501 – $2,500	20.0%	40.0%	0.5	20.4%	44.0%	0.5	20.8%	48.4%	0.4
$2,501 – $5,000	27.0%	10.0%	2.7	27.5%	11.0%	2.5	28.1%	12.1%	2.3
$5,001 – $10,000	20.0%	5.0%	4.0	20.4%	5.5%	3.7	20.8%	6.1%	3.4
$10,001 – $50,000	16.0%	0.0%		16.3%	0.0%		16.6%	0.0%	
>$50,000	10.0%	0.0%		10.2%	0.0%		10.4%	0.0%	

Portfolio in Arrears (PAR)

DMFI risk is typically concentrated in the lending portfolio. Portfolio in Arrears (PAR) indicators are key metrics of overall performance.

Table 4: Example of portfolio in arrears

	2007			2008			2009		
	Bank	Peer Avg	Comps	Bank	Peer Avg	Comps	Bank	Peer Avg	Comps
PORTFOLIO IN ARREARS									
Current	94.2%	95.9%	-1.7%	94.0%	91.9%	2.1%	95.7%	90.3%	5.4%
0 – 30 days	3.0%	2.1%	0.9%	3.1%	4.2%	-1.1%	2.2%	5.0%	-2.8%
31 – 60 days	1.5%	1.1%	0.5%	1.6%	2.1%	-0.6%	1.1%	2.5%	-1.4%
61 – 90 days	0.8%	0.5%	0.2%	0.8%	1.1%	-0.3%	0.6%	1.3%	-0.7%
91 – 120 days	0.4%	0.3%	0.1%	0.4%	0.5%	-0.1%	0.3%	0.6%	-0.4%
>120 days	0.2%	0.1%	0.1%	0.2%	0.3%	-0.1%	0.1%	0.3%	-0.2%

Annual Percentage Rates (APRs)

APRs enable supervisors to monitor and publish information about how much consumers are paying for DMFI loans. This is especially relevant to supervisors with a consumer protection mandate to ensure pricing transparency. However, the information is also an important indicator of debt burden and ultimately default risk.

Table 5: Example of annual percentage rates

	2007			2008			2009		
	Bank	Peer Avg	Comps	Bank	Peer Avg	Comps	Bank	Peer Avg	Comps
APRs									
<$500	34.2%	34.2%	1.0	30.8%	30.8%	1.0	27.7%	27.7%	1.0
$501 – $2,500	28.5%	30.6%	0.9	27.1%	27.5%	1.0	25.7%	24.8%	1.0
$2,501 – $5,000	19.0%	27.0%	0.7	18.1%	24.3%	0.7	17.1%	21.9%	0.8
$5,001 – $10,000	17.1%	25.2%	0.7	16.2%	22.7%	0.7	15.4%	20.4%	0.8
$10,001 – $50,000	11.8%			11.5%			11.3%		
>$50,000	9.8%			9.6%			9.4%		

Funding and liquidity

The funding structure of DMFIs can change significantly and quickly during expansion phases. In markets where DMFIs are borrowing in foreign currency, the supervisor may also want to monitor detailed reports on currency position.

Table 6: Example of monitoring funding and liquidity

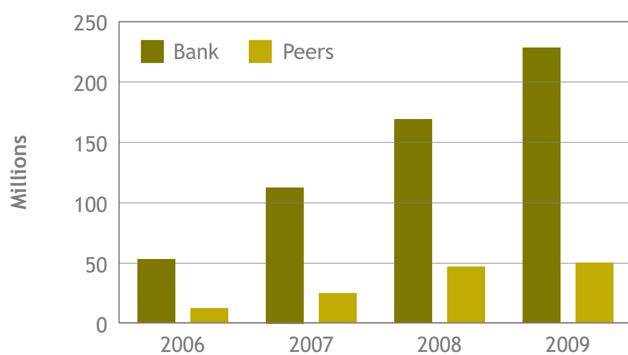
	2007			2008			2009		
	Bank	Peer Avg	Comps	Bank	Peer Avg	Comps	Bank	Peer Avg	Comps
FUNDING									
Capital: Asset ratio	13.0%	25.0%	0.5	13.0%	25.0%	0.5	12.0%	25.0%	0.5
Debt: Equity ratio	0.8	3.1	0.3	1.4	3.2	0.4	0.8	2.9	0.3

Comparative analyses of trends and peers

The UPR allows for a granular assessment of trends in key indicators of DMFI performance, both over time and benchmarked against peer averages. The following graphs are derived from data published by the Supervision Department of the National Bank of Cambodia (NBC) and are included here to demonstrate how effective graphic representations can be at highlighting significant trends and comparisons.

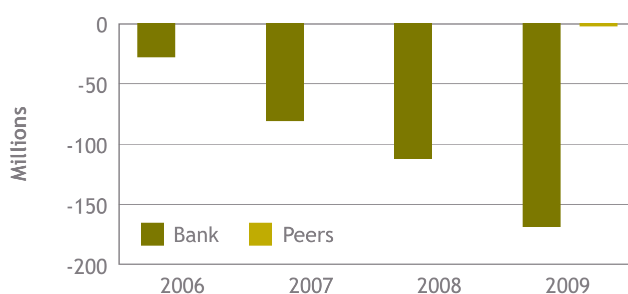
This graph compares the assets of the largest DMFI (a bank) to the average assets of the next five largest DMFIs over a period of five years. The superior size and growth trajectory of the bank relative to its peer institutions is clearly illustrated, immediately alerting the supervisor to potential risks in the institution.

Figure 2: Asset comparison between the largest DMFI (a bank) and next five largest DMFIs over a 5 year period



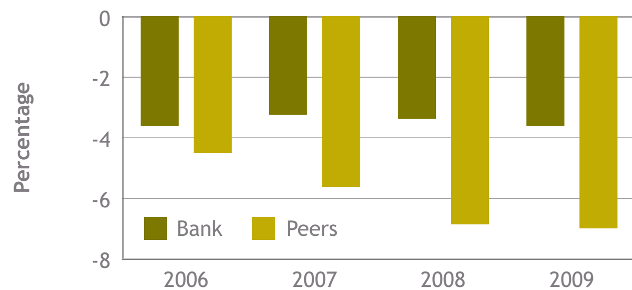
The bank is funded largely by deposits, which have grown significantly. Peer institutions are funded primarily by debt and only begin to accumulate modest levels of deposits in 2009. This graph shows that the bank's funding risks are fundamentally different from its peers, and likely lower.

Figure 3: Comparison of the bank's funding risks



This graph indicates that the bank's funding costs are substantially lower than those of its peers. It illustrates another important point: the bank's funding costs have decreased while its peers' have increased.

Figure 4: The bank's funding costs compared to those of its peers



Similar graphs can be easily generated from UPR data in programs such as Excel. Graphics can be very effective when training new examiners or presenting examination results in reports or slide shows.

Computer Assisted Examination Techniques (CAETs)

Using computer assisted examination techniques (CAETs) to conduct off-site portfolio risk appraisals allows supervisors to focus their attention on specific risk areas during the more resource intensive on-site examination. CAETs extract transaction data from the core banking system of the DMFI and then process and analyze this data to detect credit and operational risk. The same techniques can be used to detect suspicious transactions and money laundering.

CAETs typically make use of two DMFI data sets: loan data and transaction and audit logs (including the authorization levels of all system users). Examiners download this data into spreadsheets, database software, or specialized audit software, then analyze the data in a structured sequence of arithmetic, financial, and logical functions. This procedure is designed to detect anomalies typically associated with:

- inaccuracies and even material errors in the arrears reports and other reports generated by the system (due to deficiencies in the software itself or in data capture/processing by users at head offices or branches);
- "evergreening" of loans through restructuring and refinancing at the branch level, often without head office knowledge;
- weaknesses or transgressions with internal policies and controls and regulatory guidelines;
- breaches of security and IT system access policy; and
- fraud.

Box 3: Early CAETs developers

CAETs for microbanking supervision were developed in the late 1990s and early 2000s at the Superintendency of Banks and Financial Entities (SBEF) of Bolivia, the Central Bank of the Philippines (BSP), and the Bank of Uganda (BOU). They are currently used by microbanking supervisors in Africa (Liberia, Namibia, Mozambique, Tanzania), Asia (Pakistan, Syria, Yemen), and Latin America (El Salvador, Nicaragua, Peru, Mexico). In most cases, supervisors have received funding support from donors to defray development costs.

Examiners will still sample loans and transactions to review on-site, but CAET-generated samples reveal the extent of anomalies, avoiding the expense of traditional sampling methods and ultimately producing more robust and quantifiable findings. When material deficiencies are found to significantly affect the accuracy of key management reports, CAETs can be used to reclassify the entire loan portfolio and recalculate the loan loss provision required to comply with regulatory guidelines.

Any examiner with basic software skills can conduct CAETs, but specialized knowledge is required to develop analytical procedures for a DMFI data set and identify specific risks of interest for the supervisor. However, the upfront development costs of CAETs are quickly recovered through a significant reduction in on-site examination costs and more precise findings.

On-site examination techniques

On-site examination provides a supervisor with direct knowledge of a DMFI's systems and overall management capacity. As noted earlier, supervisors who use CAETs in off-site examinations will be able to concentrate their on-site efforts and avoid the expense of a larger portfolio sample. Three techniques for assessing typical areas of risk in DMFIs are:

- procedural audits
- transaction audits
- assessment of internal control procedures.

Procedural audits

Procedural audits reveal whether loans are adequately documented and whether lending operations are complying with DMFI credit policies. This checks the integrity of both credit operations and internal control procedures. Examiners prepare for procedural audits by collecting the procedural checklists that the DMFIs submit to the banking supervisor for each type of loan. The checklists serve as a step-by-step guide for all procedures and policy guidelines associated with the analysis, approval, conditions, disbursement, and management of a loan.

Examiners then audit a sample of loan files. Supervisors with CAET results will be able to focus the sample; other supervisors will have to construct a sample that reflects a range of loan products, credit loan officers, loan size, delinquency, and refinance status.

Following the checklist, the examiner then fills out a template for each loan, noting compliance and deviation from every policy and procedure. It is important to classify each procedure by sequence and importance so that the examiner can focus on material discrepancies and determine whether they are clustered in a specific stage of the process (analysis, approval, disbursement, etc.). Examiners should be especially watchful of evidence of rescheduling or refinancing loans, or other means of "evergreening".[5] This should be completed early in the on-site examination so that the examiner can discuss significant discrepancies with staff.

Transaction audits

The most effective method for testing accounting practices and reporting accuracy is to audit the transactions in a sample of loans, following each transaction through the portfolio tracking and accounting system. In this exercise, the examiner confirms whether the portfolio tracking system i) reflects the exact terms and conditions of the individual loan contracts, ii) accurately calculates and reports principal, interest, and fee distributions, iii) accurately calculates the arrears classification of the loans, iv) produces accurate reports, and v) accurately transmits the information to the accounting system.

The examiner needs to first develop a spreadsheet template that replicates all the transactions associated with a single loan: disbursements, fee assessments, interest calculation, distribution of principal, interest and fee payments, arrears calculation, and so on. The formulas must precisely reflect the policies and procedures for these transactions.

The examiner then selects a sample of loans from the accounting system (these can be the same loans collected during the procedural audit), collects the corresponding contracts, and prints a report from the portfolio tracking system that includes the full transaction history of each loan. The examiner manually enters the disbursement and payment transaction information from the loan report into the spreadsheet so that the spreadsheet formulas calculate the running balances, principal, interest and fee allocation, and arrears status. The next step is to compare the results in the spreadsheet to reports generated by the portfolio tracking system.

The examiner then confirms that the transactions have been entered into the accounting system accurately. The examiner should also inspect the physical receipts associated with the disbursements and client loan payments. This completes the full audit of the transactions reflected in the balances of the financial statements and portfolio reports.

[5] A loan may be rescheduled by changing the original amortization schedule. In a refinanced loan, the original loan is "paid-off" by the new loan, which has a new amortization schedule.

Review of internal audit procedures

The results of the procedural and transaction audits, as well as those generated by the CAETs, provide the examiner with a robust assessment of a DMFI's internal controls. Just as important, the examiner is able to compare the examination methods and results with a DMFI's internal audit procedures and the reports submitted to the board of directors.

Performance information disclosure

Public disclosure of performance information is the third pillar of banking supervision and is one of the most cost-effective ways to strengthen financial markets.

Supervisors have several options for facilitating timely and accurate disclosure of information. One is to simply publish the UPRs and financial statements on the supervisor's website. In some jurisdictions, such as Bolivia, the DMFI association has supplemented the supervisor's disclosure documents with even more detailed reports.

Box 4: Public disclosure of performance information

Superintendencia de Banca, Seguras y AFP (SBS) of Perú

The banking supervisor in Peru publishes an array of statistical bulletins and data for every regulated financial institution, including those that specialize in microfinance operations. The data are available for download (.xls) on the Superintendencia website for every month dating back to 1997.

The Association of Financial Entities Specialized in Microfinance (ASOFIN) of Bolivia

ASOFIN is an industry association of regulated DMFIs that publishes extensive and detailed data on member institutions. Data and publications are available in Spanish and English at www.asofinbolivia.com.

Use of external controls: external audits and credit bureaus

External audits

Supervisors can leverage the role of external auditors to complement the supervisor's own examination program. Supervisors can claim the authority to define the terms of reference for DMFI external audits either through regulation or instruction. In those terms of reference, the supervisor can specify the scope of examination techniques to be carried out in the audit.

Box 5: Terms of Reference for external auditors in Timor-Leste

The ODTI Instruction requires that all licensed ODTIs conduct annual external audits and that the audit shall be conducted according to accepted auditing procedures and to instructions defined by the BPA. This gives the supervisor the authority to instruct external auditors to provide additional review on high-risk areas.

Credit bureaus

In recent years, several markets have experienced stress from high levels of client over-indebtedness. In almost all cases, this debt reached crisis levels after periods of sustained growth in both the number of institutions and their assets. The most effective way to control this risk is to require DMFIs to consult with and provide information to a centralized credit bureau.

About AFI

The Alliance for Financial Inclusion (AFI) is a global network of central banks and other financial inclusion policymaking bodies in developing countries. AFI provides its members with the tools and resources to share, develop and implement their knowledge of financial inclusion policies. AFI connects policymakers though online and face-to-face channels, supported by grants and links to strategic partners, so that policymakers can share their insights and implement the most appropriate financial inclusion policies for their countries individual circumstances.
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Alliance for Financial Inclusion
AFI, 399 Interchange Building, 24th floor, Sukhumvit Road, Klongtoey – Nua, Bangkok 10110, Thailand
t +66 (0)2 401 9370 **f** +66 (0)2 402 1122 **e** info@afi-global.org www.afi-global.org

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