Assessing Responsible Pricing for Inclusive Finance Providers: 2023 Update

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Preface

This note was commissioned in March 2020 for the Center for Financial Inclusion to help guide a planned update of the Responsible Pricing portion of the Smart Campaign's Client Protection Certification methodology.

With the wind down of the Smart Campaign in 2020, Cerise+SPTF took over the maintenance and promotion of the Client Protection Standards, which are now fully integrated in the February 2022 version of the Universal Standards for Environmental and Social Performance Management. The Client Protection Certification methodology is now carried by the Cerise+SPTF Client Protection Pathway initiative.

This note served as a key input to these Standards, on the topic of assessing responsible pricing for inclusive finance.

Pricing fairness – and client protection more broadly – remains as relevant now as ever. We hope that this work will be useful to all actors working on responsible pricing, including Cerise+SPTF and the ATLAS data platform, that are the warrants of robust and harmonized systems for assessing, monitoring and communicating pricing fairness.

Introduction

Pricing fairness cannot exist without a reliable framework. And having one is even more crucial when evaluating whether lenders are pricing their loans appropriately, as well as communicating that evaluation to other stakeholders, included the broader public.

From its very beginnings, the Smart Campaign sought to develop and promote standards for measuring a "fair price". Those early standards relied on peer data that was often scarce, and moreover, was limited by the pricing level prevalent in a given market – a level that could not be assumed to be fair itself. In response to these limitations, in 2016 the Campaign made substantial updates to components of its pricing assessment methodology that were incorporated in the Client Protection Standards 2.0 (CPP 2.0).[1]

Underlying that update, and the idea of an on-going review of pricing fairness, is the recognition that pricing fairness cannot be disassociated from the context of how much it costs to deliver the product. Moreover, besides the providers and their operating costs, there are other stakeholders that have roles to play to fully realize 'responsible pricing': creditors that have the obligation to provide reasonable lending rates to FSPs, and shareholders whose required profits should likewise be reasonable – all of these are ultimately embedded in an FSP's cost of funds that are ultimately passed on to its clients. Ensuring a fair price cannot be the responsibility of the FSP alone.

Since 2016, the sector and its data ecosystem has evolved. More pricing data has been collected, some of which is becoming available through the ATLAS data platform. At the same time, the sector's long-standing point of reference for data – the MIX Market – stopped its data collection work, and data can thus be assumed to be more limited going forward. This update is thus an opportunity both a) verify the assumptions behind the 2016 framework and recommend updates to the approach, but also b) look at how the framework may need to be adapted to the new data reality going forward.

This note is divided into three sections: a review of the methodology underlying existing pricing fairness standards and their implementation during 2016-2020, recommended updates to those standards and an overall approach, and a look ahead to the future evolution of pricing fairness standards in inclusive finance.

> **BOX: Why measure pricing fairness?**
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> When it comes to social responsibility, fair pricing is rarely assessed. One may argue over whether Amazon exerts monopoly power over its suppliers or whether garment producers pay fair wages to the people making the clothes – but discussions over the price of the resultant goods is rarely raised as a question in its own right, and when it is, it's usually because the price is too low. And there's logic to that – after all, isn't price what the market decides by finding the equilibrium between demand and supply?
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> Yet there are some scenarios and even entire sectors where pricing fairness can't be left up to the market. Raising prices on essential goods during a natural disaster is deemed unethical at best and

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[1] Daniel Rozas, Assessing Price Fairness in Microfinance: A framing note to inform the Evolution of the Client Protection Standards. The Smart Campaign, Washington DC, January 2016

illegal at worst. Likewise with charging exorbitant prices on lifesaving drugs. Credit is yet another market where the balance of supply and demand doesn't necessarily lead to a fair price.

Partly this is because demand for credit isn't constrained by affordability the way it is for other products: to buy anything, you need money, but with credit you're "buying" money – effectively removing the affordability constraint that exists on all other spending. Put differently, a loan can only be unaffordable in the future, and unlike an empty wallet today, financial uncertainty in the future is a weak decision-making constraint. Moreover, like lifesaving medicines, there are times when the need for money is so great that a desperate borrower will take a loan with full knowledge that it's unaffordable.

Besides fairness, credit pricing is also difficult to communicate in a way that's both transparent and easy to understand. First, the very notion that money has a cost is itself counter-intuitive for many consumers. This is compounded further by basic credit economics. After all, few customers would readily accept that small loans should be more expensive than large ones, yet this fact turns out to be a mathematical truism known to almost everyone who has studied credit pricing. Meanwhile, standardized pricing formulas like the Annual Percentage Rate (APR) – important as they are – are still highly imperfect, for example, losing relevance when loans are very short-term.

These two factors – the weak demand-side constraints against costly borrowing and the challenges of transparency – justify the significant efforts and resources expended by a multitude of actors – the Smart Campaign, rating agencies, lenders, regulators, investors, and donors – to adopt consistent tools that can be employed by professionals to assess pricing fairness.

Pricing Fairness: A review of the current methodology

Assumptions in the methodology

This note is an update to approach to responsible pricing that informs part of the Client Protection Certification 2.0 standards and follows the same underlying methodology – measurement by induction, described in the 2016 note.[2] This approach has sought to measure pricing fairness at the institutional level, rather than for a given product, and examines different components that contribute to the final price passed on to clients: operating expense (usually the largest category), financial expense, loan losses, and finally, profits (see Rozas, 2016 for additional details).

Each of the following pricing components was addressed in different ways in the 2016 version of the Client Protection Standards. The pricing components analyzed here were included under a standard "The provider's financial ratios do not signal pricing issues. (If outside the ranges, provider must be asked to explain and justify)

Operating Expense Ratio (OER) assessment relied on a regression model to estimate the expected OER level, based on five factors. When the result fell outside the maximum range calculated from the regression, those evaluating the organization would evaluate the qualitative reasons given by the lender to assess whether the pricing was ultimately fair. This qualitative guidance included several non-exclusive examples when an OER above the expected range might be still be justified as "fair":

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[2] N.B. It is important to note that in the Client Protection Standards 2.0, there were multiple angles of evaluating pricing fairness including peer-based analysis as well as measurement by induction.

- MFI operating in a low-security environment, requiring significant spending on non-standard security costs
- MFI is serving particularly difficult-to-reach clients.
- MFI serving an exceptionally under-privileged population, requiring add-on services (youth, disabled, etc.)
- MFI is operating non-financial programs that are useful to clients

Profitability was included as a factor in assessing price fairness. It used Return on Assets (ROA) as the relevant metric and provided a simple range above which ROA was deemed excessive, unless justified by one or more factors (again, list is not exclusive):

- Profits diverted to external entity (ex: affiliate NGO) that provides services that are important for clients (ex: non-financial services)
- Profits shared with clients
- High inflationary environment
- Grow client base with limited access to outside equity
- Build up equity and strengthen FI
- Early stage institutions
- Subject to regulation that increases earnings requirements (e.g. high reserve requirements, etc.)
- Profitability inflated by donations, subsidies or other temporary or short-term events
- High country risk necessitates an additional cushion to protect against adverse events

Loan losses were recognized to be a valid component of pricing fairness and an indicator was included in the pricing methodology that set a threshold of 5% and asked for justification if higher. In addition, other aspects of client protection, especially prevention of overindebtedness, explore the issue of loan losses in more detail. The methodology and thresholds for assessing loan losses are thus not included in this update and the recommendation would be that is stays as is.

Financial expense ratio (FER) was assumed to be outside an FSP's control and was not included in the assessment of pricing fairness.

In addition to the above components, the 2016 model required two preliminary steps: a validity test and an adjustment for compulsory deposits:

The **Validity test** verifies that this assessment methodology can be properly applied. That means that the four components of price – OER, FER, credit losses, and ROA must be roughly equivalent to portfolio yield. In some cases, an FSP may have significant non-credit income or off-balance sheet lending that needs to be fully accounted for on both the cost and revenue sides in order to successfully apply this assessment.

Compulsory deposits adjustment is crucial to this methodology. This is what ensures that pricing reflects only those funds that the borrower can actually put to use. To accomplish this, the 2016 methodology requires recalculating all indicators that are impacted by compulsory deposits – loan portfolio, total assets and of course deposits, as well as all ratios and metrics that contain one or more of these indicators (Portfolio Yield, Financial Expense Ratio, ROA, Credit Loss Ratio, OER, Avg Loan Balance, and Deposits to Loans ratio).

Re-examining the 2016 Methodology

The primary goal of this update is to assess whether the 2016 methodology was adequately helping to assess if an FSP has responsible pricing. The authors were tasked with answering the following questions:

1. Is the framework itself appropriate and does it succeed in singling out institutions whose pricing is indeed outside the expected norm?
2. Is the methodology relying on the right indicators and are they all relevant?
3. Do the data support the conclusions?
4. Finally, in light of the changing availability of data in the sector, can the framework continue to be supported in the future?

Within these broader questions, there are a number of specific objectives that were included. For **Operating Expense and the validity tests**:

- Verify if model was effectively operationalized during assessments in the field and facilitated the certification process. Gather information on cases where model results were inconsistent or difficult to interpret.
- Verify that OER model remains robust with addition of new data.
- Validate that the addition of adjustments for compulsory deposits do not significantly alter and potentially help improve the model. Note: the 2016 model, while foreseeing the need to adjust for compulsory deposits, did not actually include such adjustments due to lack of data at the time. This addition was planned for the 2020 update.
- Check for additional indicators whose addition could improve model results.
- Seek to refine guidance for qualitative reviews, based on experience from implementing model during 2016-2020.

For **Financial Expense**, the review looked at data from a number of sources including:

- The combined experience of organizations accredited by the Smart to conduct CPP Certifications.[3]
- Analysis of impact on FER from various factors identified by Smart Campaign staff and by accredited certifiers.

For **Profitability**:

- Gather feedback from Smart Campaign staff as well as accredited certifiers.
- Analyze additional factors that may influence profitability, including macroeconomic, country-specific and institution-specific indicators.

Findings and Analysis

In general, the stakeholder interviews found that 2016 model was effective and relatively easy for certifiers and assessors to implement. There were no major anomalies that emerged. That suggests that

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[3] This included interviews with staff from MFR (formerly Microfinanza Rating), M-CRIL, MicroRate, M2I, and Inclusion, as well as review of selected CPP assessment input sheets indicated during these interviews.

the framework itself remains valid, and there is no reason at this stage to upend it or replace it. Nevertheless, analysis of the data and feedback from implementors suggests several updates and modifications. The authors review each of these findings below.

Operating Expense Ratio (OER)

Validity Test

On the whole, no major issues were identified with the validity test. However, there were significant inconsistencies in how it was applied – particularly when it comes to making modifications to financial figures before applying the test. For example, one certifier pointed out that where an institution is under-provisioning for its portfolio, the certifier would first recalculate using the appropriate amount of provisions, and then recalculated the remaining figures accordingly. In another case, a certifier was adjusting for subsidized debt. Still other cases involved slightly different techniques for accounting for off-balance sheet loan portfolios. Thus, there is a need for additional guidance and standardization for adjustments that assessors are expected to make.

Compulsory Deposits Adjustment

On the whole, the adjustment for compulsory deposits did not yield significant concerns. However, as with the validity test, there were some inconsistencies in how this was done. In at least one case, a certifier was not applying any adjustment for compulsory deposits. In another case, a certifier raised questions about how this adjustment should be done. Thus, as with the validity test, there is a need for better instructions and guidance for how this adjustment should be done.

Note that ensuring this is done correctly is especially important for pricing calculations, since compulsory deposits are the single largest factor in skewing the apparent pricing to appear lower than is actually the case.

Changes to OER Model

Operating expense typically represents the largest single contribution to the final price. It also constitutes the largest part of this update. Feedback from certifiers was quite positive with respect to OER and its operationalization. Several pointed out that the rigor and standardized, data-driven approach made it easy to communicate and explain the process to institutions undergoing certification. One certifier questioned the relevance of the OER model in India, where observed OERs consistently (and substantially) rate below the expected levels from the model. However, it should be noted that India operates under a strict regulatory cap on margins (difference between cost of funds and loan interest rate) whose effect is especially magnified on the OER.

The main findings to the OER model came from the model update. A key finding was that the **VoluntaryDepositsToAssets ratio** as a statistically significant factor in the regression model could not be reproduced under any data scenario. Review of prior model updates showed that this has already been the case for several years (the 2017 update showed p-value for this indicator at .285 – far outside what would be considered statistically significant). While no single explanation for this issue was found, it appears that this was due to an unusual bias embedded in the dataset used to create the 2016 model, which had MFIs in Latin America at 51% of the sample – nearly double the level of the overall MIX Market dataset. Moreover, the 2016 dataset was built to also assess other factors, particularly level of competition, which had the result of excluding a number of markets that did not have a sufficient number of institutions reporting. Whatever the ultimate reasons for the 2016 model finding, because its

impact could no longer be established in a statistically significant way, the VoluntaryDepositsToAssets ratio has been removed in the 2020 model.

The data for this analysis was done using the entire MIX Market dataset, from 2004-2018, excluding records with missing or clearly invalid data, and narrowing the dataset to MFIs that had been reporting regularly and had recent data (minimum 6 years of reporting during the period, with at least one report from 2017 or later). Additionally, only records that passed the validity test were included in the analysis. The result was a total of 3,052 observations.

Unlike the 2016 OER regression model and its subsequent updates through 2019, in this update all data was first adjusted for compulsory deposits before performing the regression analysis. However, the validity test was performed on unadjusted data. This is because the validity test is not meant to assess pricing, but rather check first whether this pricing framework is appropriate for assessing this institution in the first place.

Finally, the 2020 model features a new variable: RuralRatio, defined as the share of clients that the FSP codes as rural. The remaining indicators have been kept unchanged from 2016, other than the application of the compulsory deposits adjustment.

Regression Statistics	
Multiple R	0.559
R Square	0.313
Adjusted R Square	0.312
Standard Error	0.0818
Observations	3052

	Coefficients	Standard Error	t Stat	P-value
Intercept	0.61857773	0.01598711	38.6923	0.00000
LogAvgOutLoanBalance	-0.03209410	0.00160263	-20.0259	0.00000
LogAssets	-0.01437281	0.00094210	-15.2561	0.00000
RuralRatio	-0.05789838	0.00490994	-11.7921	0.00000
GNIperCapitaAtlasMethod	0.00000752	0.00000061	12.2607	0.00000
RuralPopulationDensity	-0.00017266	0.00001045	-16.5180	0.00000

The new model represents an evolution from the 2016 version, but not a wholesale change. Indeed, perhaps the most important finding is the high level of stability between the two models. Despite the many changes introduced – the addition of substantial new data, adjustment for compulsory deposits, the removal of one indicator and the addition of another – the 2020 model largely follows the pattern set by the one from 2016.

OER model: 2020 vs 2016
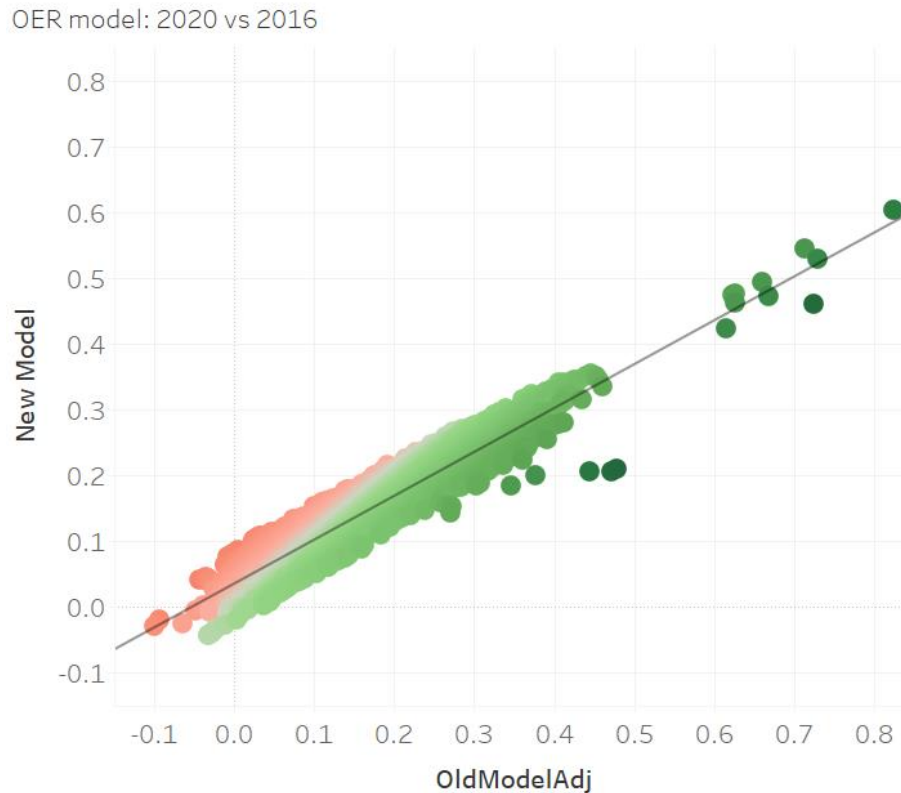
Of course there are important differences. The new model tends to estimate a slightly higher OER at very low levels (e.g. below 10% OER), and has increasingly lower tolerance at high levels of OER. Thus, for observations where the 2016 model estimated 30% OER, the new model would estimate an OER of around 23%, and this gap increases further at higher levels of OER. This is a healthy sign that the new model will be less tolerant of high OERs and will require more explanation when those are encountered.

Given that the specific context of the market in India was raised in the feedback from certifiers, the authors examined the new model's impact on that market. The authors found that the 2020 model reduces the gap between actual and observed OER levels in India by approximately 3%, thus at least partly addressing the concerns highlighted by the certifiers. However, even under the new model, 87% of observations in India show observed values below those estimated by the model (under the old model, this figure was 95%). Clearly, factors specific to India are at play, resulting in this significant deviation from global norms. At the same time, India has some of the lowest microfinance pricing in the world, along with a regulator-mandated margin cap, so this pattern should not be surprising.

The tolerance level of the 2016 model was set at 6.5%, that is, FSPs with OERs that were more than 6.5% higher than the model amount were flagged for further review of their operating expenses. Applying the 2016 model to this sample shows that 12% of MFIs in the would be thus flagged. Under the new model,

15% of FSPs would be flagged. Given this small difference, there is no reason to reconsider changing this tolerance level.

Introduction of New Variable: Rural Ratio

It's especially important to discuss the role of the new indicator – the Rural Ratio. The indicator is not only statistically significant, but it's also negative, meaning that OER is expected to be lower for rural lenders, all else equal. This goes counter to the 2016 guidance, which allowed higher tolerance for rural lenders that exceeded the allowed margin.

This important finding challenges a long-held assumption in the sector – that operations in rural areas are more costly than in urban ones. The assumption isn't even true on a nominal basis. The average operating expense and yield are lower for FSPs with a high share of rural borrowers. This has been validated by excluding records that did not report a figure for rural clients – i.e. we did not assume that records that had no figure reported for rural borrowers had no rural operations. It is true that there are more rural lenders in countries with high rural population density (as is the case in much of South Asia), but this factor is already accounted for in the regression.

Finally, rural operations tend to have significantly smaller loan amounts – on average, for every 10% increase in share of rural clients, the average loan balance increases by about $100 US in the dataset. That has the effect of increasing OER for rural lenders, all else equal.

When these multiple factors are incorporated in the model – lower average OER for rural lenders, lower OER for high rural density countries, and higher OER for smaller loans – the result is that the model expects lenders with larger shares of rural clients to have lower OER than their otherwise equivalent urban counterparts. This finding did not change even after we included group lending as a separate indicator (which is associated more often with rural operations than urban ones).

As a sector, we need to revise this long-held assumption and recognize that there are important cost advantages that rural lenders enjoy – especially in the form of lower staff salaries and rents. Moreover, the frequently held assumption that serving rural clients is more costly is also often untrue. Many FSPs have branches in rural towns and expect clients to come to them. Other FSPs may regularly send staff to villages, but the travel involved may not necessarily be longer than travel in dense, urban areas whose roads are routinely clogged with traffic. With the exception of FSPs directly serving especially remote and hard-to-reach areas, with staff routinely spending many hours traveling to get there, FSPs should not be given extra allowance in their OER solely because they serve rural clients.

Removal of Variable: Voluntary Deposits to Assets Ratio

As mentioned above, this indicator has been removed from the OER model because the relationship observed in 2016 could not be replicated in any other dataset, including in any of the model updates done since 2017. However, it's reasonable to consider the implications of this finding. Put simply, this means that FSPs providing deposits do not get additional credit for OER that might be increased to the higher cost of collecting deposits. The premise in the 2016 model was that while collecting deposits might overall be neutral on an FSP's total cost basis, this was due to the higher operating cost being balanced out by lower financial expense associated with taking deposits.

However, it may be the case that the added cost of more complex deposit-taking operations come with other cost advantages that are less observable – greater client loyalty and lower turnover, for example.

Return on Assets (ROA)

The strongest feedback from stakeholders during this review was on the 2016 framework's approach to profitability. The 2016 framework stated that any FSP with an ROA above 3% would be flagged for additional review and explanation. Additionally, the 2016 proposal marked ROA above 6% as high (those between 3-6% were marked as elevated, and those below 1% were marked as unsustainable). There were questions about the basis for this rule and whether it was appropriate in all cases. Moreover, there were several certified FSPs that exceeded this level, and the reasons used to justify this level did not follow any particular structure or consistency. As a result, this indicator was flagged for review during this update.

This review was done at both quantitative and qualitative levels. First, ROA was adjusted for compulsory deposits. The resulting distribution of ROAs in the dataset suggests that the current thresholds, while relevant, would in effect flag a majority of FSPs for further review. After excluding MFIs with negative ROAs, only 32.2% of ROAs fall in the 1-3% range deemed normal under the 2016 framework. An additional 28.3% fall between 3-6% ROA (elevated), with the remaining 22.5% above 6% ROA (high) and 17.1% below 1% (unsustainable).

Adjusted ROA Distribution
(Net income after taxes & before donations / Adjusted avg assets)
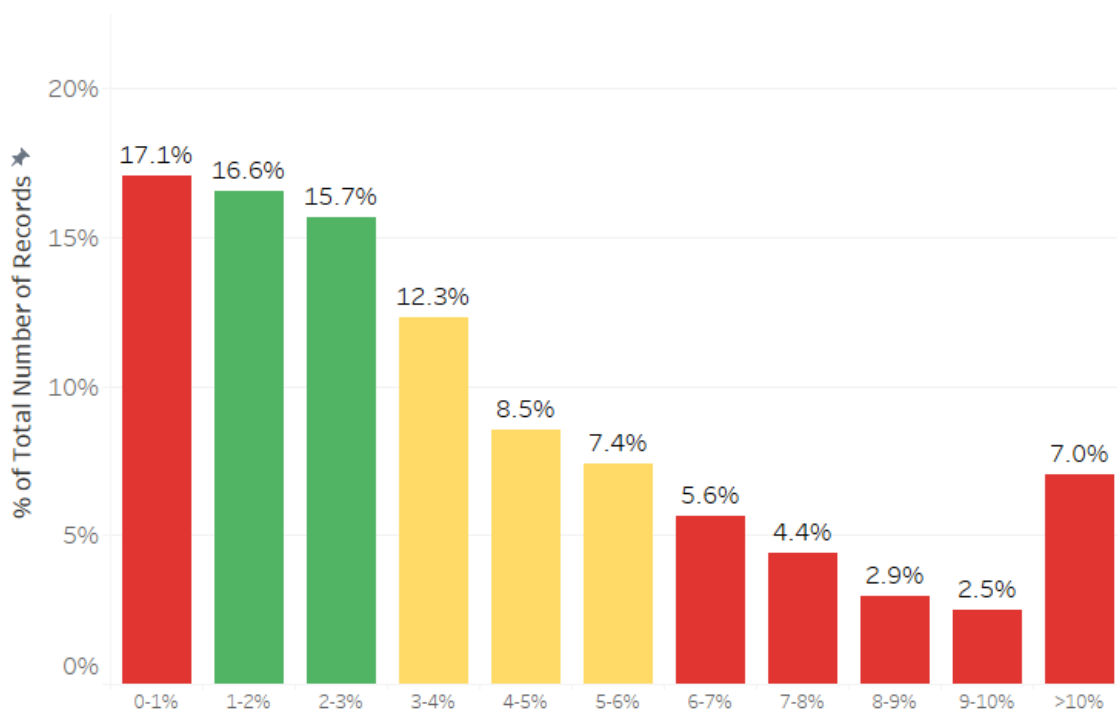
The broader question of what level of profit should be seen as appropriate is complicated and ultimately, driven more by moral rather than strictly financial and economic concerns. The question for us is how this threshold should be treated for assessment and certification purposes. Excluding nearly

two-thirds of profitable FSPs because their ROA exceeds 3% is indeed a high bar. However, the original "elevated" level of 6% seems appropriate, and with over 60% of MFIs meeting it, it's closer to the spirit of the tolerance level used for OERs (where 15% of observations would be flagged for review).

The lower levels of ROA may prove useful for non-binary grading scales, for example, those in the "normal" range receiving a higher score than those in the "elevated" range. These decisions are probably best left to subsequent review.

Wherever the threshold is set, questions will remain about how to assess those FSPs that exceed it and are flagged for further review. To better guide this process, we conducted further analysis on factors listed in the 2016 framework as potential justifications for excess profitability, as well as a few that were raised in the feedback interviews and analysis conducted during this update.

Investment and Macroeconomic Factors in RoA
A number of investment and macroeconomic factors were raised, including inflation, country risk, and market "investability." We examined inflation, foreign direct investment (as proxy for "investability") and domestic credit by financial institutions (as proxy for financial sector development as well as proxy for country risk and market stability). Findings suggest that these factors are not correlated with profitability in the expected direction.

Normally, the expectation is that investors require a higher return to compensate for higher inflation. And while this is true in theory, the data shows the opposite effect, with inflation negatively correlated with profitability. The simplest explanation is that it's hard to do profitable lending in a high-inflation environment. This finding held true even after excluding hyperinflation scenarios (i.e. excluding observations with inflation >20%).

For country risk and investability, correlations were either weak or similarly flowed in the opposite direction from the one that theory would suggest. Countries with lower risk and higher investability are associated with higher ROA. As with inflation, it seems this is due to competing forces, with challenging environments making it harder to generate profits, thus resulting in a larger number of MFIs registering losses or low profits. On the other hand, lower-risk environments make it easier to generate profits, and many MFIs succeed in doing so. In short, the notion that FSPs operating in high-risk or difficult markets should generate higher profits remains an idea that's more valid in theory than in practice.

Early stage institutions
The 2016 guidance provided allowances for early stage institutions to have higher ROA, as a way of building up their capital. Analysis suggests that the pattern is reversed: early stage MFIs (3 years or younger) have on average 0.5% lower ROA than comparable mature ones. This is consistent with practical experience where young institutions require some time to break even. Moreover, shareholders investing in such institutions already expect a period of ramp-up.

Profits shared with clients
The 2016 guidance provided allowances for FSPs that share profits with clients. However, as with the above examples, data points in the opposite direction. Cooperatives (that do share profits with clients) have a slightly lower ROA (by 0.5%) than comparable institutions, thus providing no justification for this guidance.

Borrower retention rate

While not mentioned in the 2016 guidance, borrower retention was explored in the analysis and found to be significant positive correlation with ROA. MFIs that retain a large share of their clients could (and do) argue that they provide valued service that clients appreciate. In return they enjoy greater operational efficiency and could reasonably retain higher proportion of proceeds as profits. Our analysis suggests that a hypothetical MFI that increases its retention rate by 50%, moving from the bottom to top quartiles on this performance metric, would on average see an increase in ROA of 1.17%.

Financial Expense Ratio (FER)

In at least one interview, the role of FER was raised as a potential impact on price. In this example, an FSP was operating under a mandatory margin cap, and sought out a higher interest rate than what was available in order to remain within the cap. However, it was ascertained that such operations rarely involved significant funding cost differences, often well below 1%, and also tend to be done on a short-term basis – as a way to avoid frequent fluctuation of their loan pricing to customers. Finally, such scenarios are both unusual and extremely difficult to quantify. We conducted additional analysis of potential indicators that might affect the FER – for example, macroeconomic factors such as economic growth, international trade as a share of GDP, level of foreign direct investment, and of course, inflation rate. However, none of these showed any consistent relationship with FER.

Recommendations for Updates

Based on this review, the authors propose maintaining the basic foundation of the pricing assessment methodology with several marginal tweaks and changes. These changes are summarized below:

Validity Test

This test must be performed as the first step to ensure that the methodology is applicable. The test itself remains unchanged from the 2016 version:

$$Operating\ Expense\ Ratio + Financial\ Expense\ Ratio + Loan\ Loss\ Provisions \\ + Return\ on\ Assets - Yield\ on\ Loan\ Portfolio < |\ 0.05\ |$$

> * Note that all of the above ratios (<u>including</u> Yield on Loan Portfolio) must be calculated using average assets in the denominator. The validity test must be performed without making any adjustments for compulsory deposits.

In the event the test fails, some adjustments may be made to the financial metrics, using the following guidance:

- Loan portfolios held off-balance sheet should be recalculated using a "managed portfolio" basis, counting loans that are on- and off-balance sheet together. Income from portfolio and security sales linked to the off-balance sheet portfolio should be included as part of the portfolio yield.
- Adjustments for provisions – when these are insufficient – may be made and assets and related ratios recalculated accordingly.
- There should be <u>no</u> adjustments for subsidized debt.

Compulsory Deposits

No change to the 2016 formula is proposed, other than a reiteration that all affected values – loan portfolio, assets, Avg Loan Balance, ROA, and OER – must be recalculated after compulsory deposits have been removed as follows:

Adjusted Total Assets = Total Assets – Compulsory deposits

Adjusted Average Assets = Average(Total Assets$_{Year1}$ – Compulsory deposits$_{Year1}$, Total Assets$_{Year2}$ – Compulsory deposits$_{Year2}$)

Adjusted Gross Loan Portfolio = Gross Loan Portfolio – Compulsory deposits

Adjusted Average Loan Balance = Adjusted Gross Loan Portfolio / Number of active loans

Adjusted ROA = ROA * Average Assets / Adjusted Average Assets

Operating Expense Ratio

Based on the findings discussed above, the new proposed model for assessing OER is as follows:

$$Expected\ OER = .6186 - .0321 * LogAvgOutstandingBalance - .01437 * LogAssets - .05790 * RuralRatio + .00000752 * GNIperCapita - .0001727 * RuralPopulationDensity$$

Where:

OER = Operating Expenses (USD) / Adjusted Average Assets (USD)

LogAvgOutstandingBalance = LN (Adjusted Average Loan Balance (USD))

LogAssets = LN (Adjusted Total Assets (USD))

RuralRatio = Number of rural clients / Total number of clients

GNIperCapita = GNI per capita, Atlas method (current US$) (World Bank)

RuralPopulationDensity = Rural population / Total land area (sq km)

NOTE: all financial figures should be converted to USD using nominal exchange rates. For stock figures (assets, deposits, average loan balance), use rate at period end (e.g. Dec 31st). For flow figures (operating expenses), use the average exchange rate for the relevant period.[4]

The tolerance level should be maintained as before, flagging for further review only those FSPs whose observed OERs exceed the expected OER value by more than 6.5%. Review can consider allowances for the following circumstances:

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[4] This is an approximation of the MIX Market methodology that was used to create the dataset behind the OER model. In that case, the average for flow figures was calculated using daily FX values, sourced from XE.com. For the purpose here, it's sufficient to use a single figure such as the IMF "Official exchange rate (LCU per US$, period average) - PA.NUS.FCRF"

- MFI operating in a low-security environment, requiring significant spending on non-standard security costs
- MFI serving an exceptionally under-privileged population, requiring add-on services (youth, disabled, etc.)
- MFI serving exceptionally remote clients, requiring large numbers of staff to regularly travel large distances. Serving rural clients does not qualify as an allowance.
- MFI is operating non-financial programs that are useful to clients. In this case, it is proposed that the cost of the non-financial program be removed from the overall operation, and then the remaining OER compared to the expected value. If the new value is below the 6.5% tolerance level, then non-financial program cost may be allowed.
- Excess OER is observed only during a limited time-period linked to a specific event outside the FSP's control (e.g. natural disaster, monetary crisis, etc.) may be allowed, if OERs outside this period comply.

Return on Assets / Profitability

The original framework defined (Adjusted) ROA over 3% as elevated and over 6% as high. As per the above discussion, this is an area that may need revision. It may be more appropriate to set the ROA threshold at the original "high" level of 6%, rather than at 3%. However, FSPs with the more "normal" levels of ROA between 1-3% may warrant a higher level of recognition. Where these thresholds are ultimately set is probably best decided via a multi-stakeholder feedback process, using the findings in this note as guidance.

Wherever these thresholds are ultimately set, the following adjustments can be considered for those institutions that exceed the agreed levels:

- **Inflation**: profits can be adjusted for inflation on a higher-of basis – ROA should not exceed the higher of the accepted threshold or of inflation. Because return on assets is to a significant extent itself a reflection of (modest) inflation, inflation should not be additive (i.e. accepted threshold + inflation should not be the accepted target). No other adjustments for country or political risk and overall "investability" should be allowed.
- **Early stage MFIs**: as there is no data evidence that would justify early stage MFIs recording above-normal profits, the authors propose removing this as justification for excess ROA .
- **Building up equity and strengthening the institution**: this situation is largely similar to that of early-stage MFIs and should not normally be used as justification for excess ROA. An exception may be made for temporary circumstances, where MFIs affected by external shocks may have lost large portions of their equity and rely on retained earnings to rebuild it. This is particularly relevant for NGOs, that cannot raise outside equity. Care should be taken to not apply this exception for institutions that rely on high retained earnings to make up for frequent periods of high losses, especially where there is no reasonable external explanation.
- **Growing outreach under limited access to equity**: assessing when equity access is limited is highly subjective. The lack of equity may be due as much to the unwillingness of existing owners to give up governance control or dilute their shares as it is to their inability to raise capital. Recommend removing this as justification for excess ROA.
- **Profits shared with clients**: in light of no evidence in the data of client-owned institutions recording above-normal profits, propose removing this as justification for excess ROA.

- **Diverting ROA to non-profits that serve their clients with non-financial services**. This may be used as justification for excess ROA up to the amount that is actually passed on to the relevant non-profit entities. However, it may be appropriate to consider a separate cap (for example, up to 1% above accepted threshold).
- **Borrower retention rate above 75%**: propose this as appropriate justification for 1% additional ROA above the accepted threshold.

Future of Responsible Pricing

Digging Deeper on Model

This update is just another milestone in the long journey of improving client protection metrics. There are a number of additional areas to consider and explore. First, while there are clear operational advantages to using the assessment-by-induction methodology that underlies this framework, by design it doesn't engage with the target itself – loan pricing to end-customers – though other parts of the Client Protection Standards do. The advantage of the inductive approach is that indicators like OER and ROA are easy to capture, and the methodology doesn't require collecting extensive comparative data from other providers. Additionally, it enables meaningful cross-border comparisons, including in markets where pricing may be non-competitive – a problem that cannot be solved by comparing between different providers.

Nevertheless, it would be helpful to further ground this methodology with deeper analysis of the relationship between the indicators it tracks and loan pricing itself. **For example, exploring the link between APR and OER / ROA might provide further insight and enable more refined pricing assessment.** With the advent of the ATLAS data platform, which includes both APR data as well as all the financial indicators used in this framework, the opportunity to carry out this analysis on a substantial dataset already exists.

Digital Credit and Data Ecosystem

Another important area for future work is the pricing for digital credit. Given its distinct features – especially the short terms and small amounts – as well as major differences in loan losses, OER and even profitability – it's inadvisable to apply this framework to purely digital loans, which were almost entirely absent from the dataset used to develop the methodology described here. Digital loans present other important client protection issues, such as frequent roll-over of short-term loans, which has the effect of increasing the pricing compared to what would be appropriate for a loan that spanned the combined length of such rolled-over short-term loans. Exploring the pricing issues of digital credit can certainly draw on the findings included here and could potentially even apply a similar methodology, but that work must be done on a separate digital credit dataset.

The issue of digital credit raises another important question: how can the current methodology be applied in an ever-changing sector where the original dataset on which this methodology was built – the MIX Market – is no longer being updated? In our view, this issue isn't particularly urgent for the induction-based components. Despite substantial expansion of the underlying data and changes to several factors of the most data-intensive component of this methodology – the OER regression model – from its 2016 and 2020 version, the relatively modest changes to the final model suggest that this is a stable framework. While changes will have to be made, they won't need to be done any time soon. With

the important caveats pertaining to digital credit, or still-to-be-invented lending products, there is little reason to undertake another update of this model for at least another three years.

However, at some point revisions will have to be made, and that will require sufficient data to do this. Hopefully the ATLAS data platform or another initiative will be there to provide the kind of data such an effort requires. Until then, there is little reason to have concerns about directly applying the methodology outlined in this note.