



Make the Difference
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Credit and solvency risk of Financial Service Providers in Financial Inclusion

ATLAS + CGAP survey
Dec 2021



CGAP Pulse survey of FSPs, 2020
<https://www.atlasdata.org/results#>

+



ATLAS data platform (post Mix)
<https://www.atlasdata.org/>

Dataset: up to **581 Financial Service Providers** (FSPs) with data available as of 2021 or 2020 (1,096 for 2019), including different charter types (Banks; Cooperatives; Non-Bank Financial Institutions; NGOs), broken down by:

- **Region:** Europe and Central Asia (ECA); Latin America and Caribbean (LAC); South and Southeast Asia (SSEA); Sub-Saharan Africa (SSA)
- **Size** (total assets, USD): Small <10M; Medium 10-100M; Large >100M
- **Solvency risk vulnerability:** if equity to assets < 12%, 15% and 18% (for large, medium and small MFIs respectively) at baseline

Limitations

- Data availability: higher for historical periods and lower for most recent quarters – data collection is still ongoing for 2021. It will be important to continue analyzing data as they become available to confirm the trends.
- Reporting bias: some of the most affected Financial Service Providers (FSPs) may discontinue reporting.
- Individual FSP level analysis remains highly relevant and complementary to the aggregate trends included in this presentation: standard deviation, which indicates how distant are individual performances from the average, has decreased in 2021, but it is still high.

Emerging trends

Emerging data, to be confirmed with more incoming data, indicate:

1. **Credit risk** decreasing globally in 2021, even if not yet back to pre-crisis; driven by lower restructured portfolio; PAR30 overall stable on average.
2. **Solvency risk:**
 - Stable / slight decrease in Equity to assets ratio from 2019 to 2021: 21%-24% of Financial Service Providers exposed to solvency risk. Small changes: strongest predictor is solvency risk of previous period.
 - Equity to assets ratio not sufficient to assess the future solvency risk, because results may not yet have been affected by the full cost of the current credit risk. Provisions for loan losses increased less than Credit risk. The ratio $(PAR30 + \text{restructured} - \text{reserve}) / \text{Equity}$, down from the 10,8% 2020 peak, is at 6,2% in 2021, 5,6 times higher than in 2019, indicating that credit risk is covered by reserves less than usual.

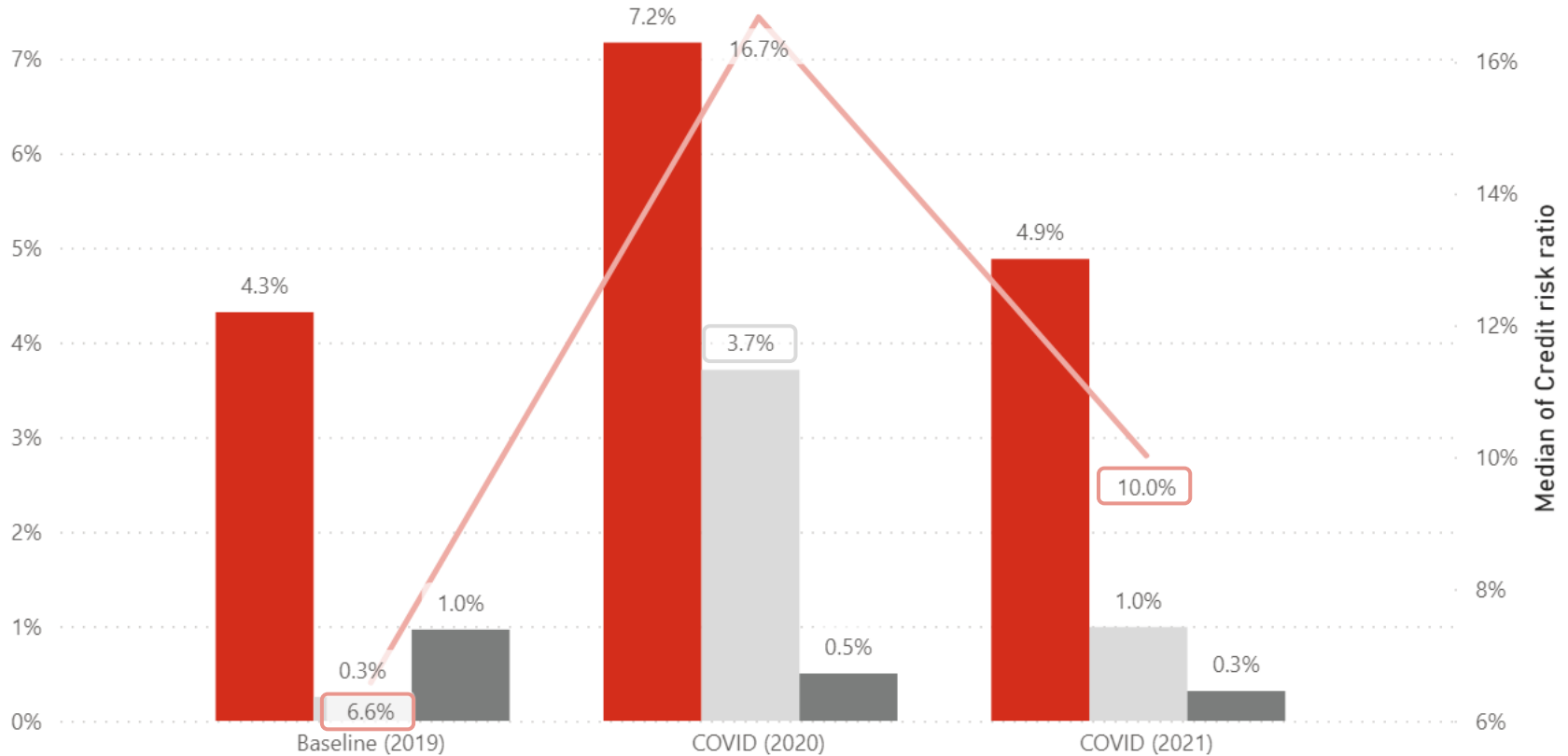
The future Solvency risk will depend, among others, on the capacity to increase **Portfolio yield**; and reduce the **Credit risk** to return to normal risk coverage levels without incurring in large provisioning cost.

Credit risk

Credit risk

Credit risk breakdown by Global

● Median of PAR30 ● Median of Restructured portfolio ratio ● Median of Write-off ratio ● Median of Credit risk ratio

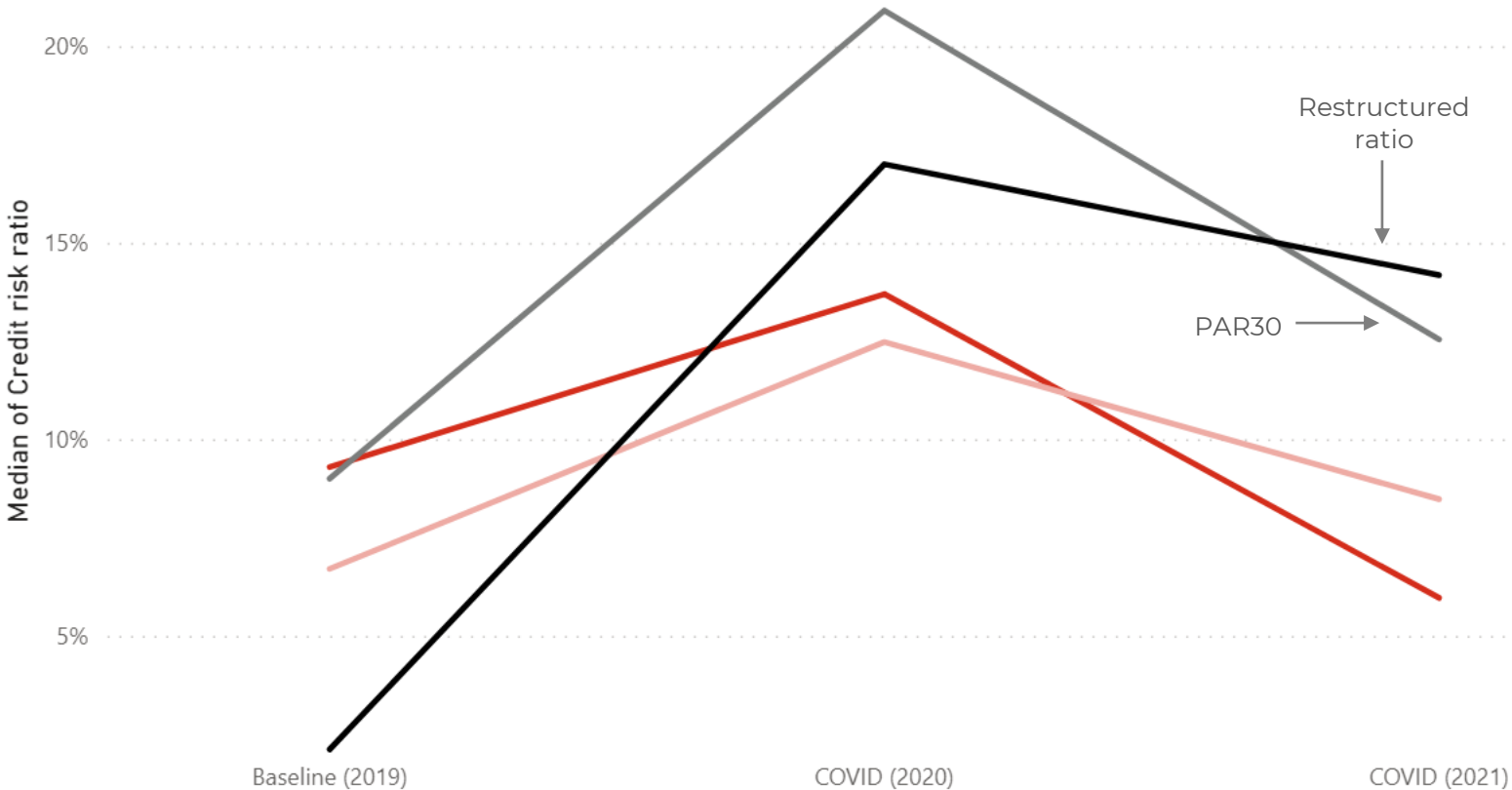


$Credit\ risk\ ratio = (PAR30 + Restructured + Write-offs) / Average\ Gross\ Loan\ Portfolio$

Credit risk by region

Median of Credit risk ratio by Region

Region ● ECA ● LAC ● SSA ● SSEA

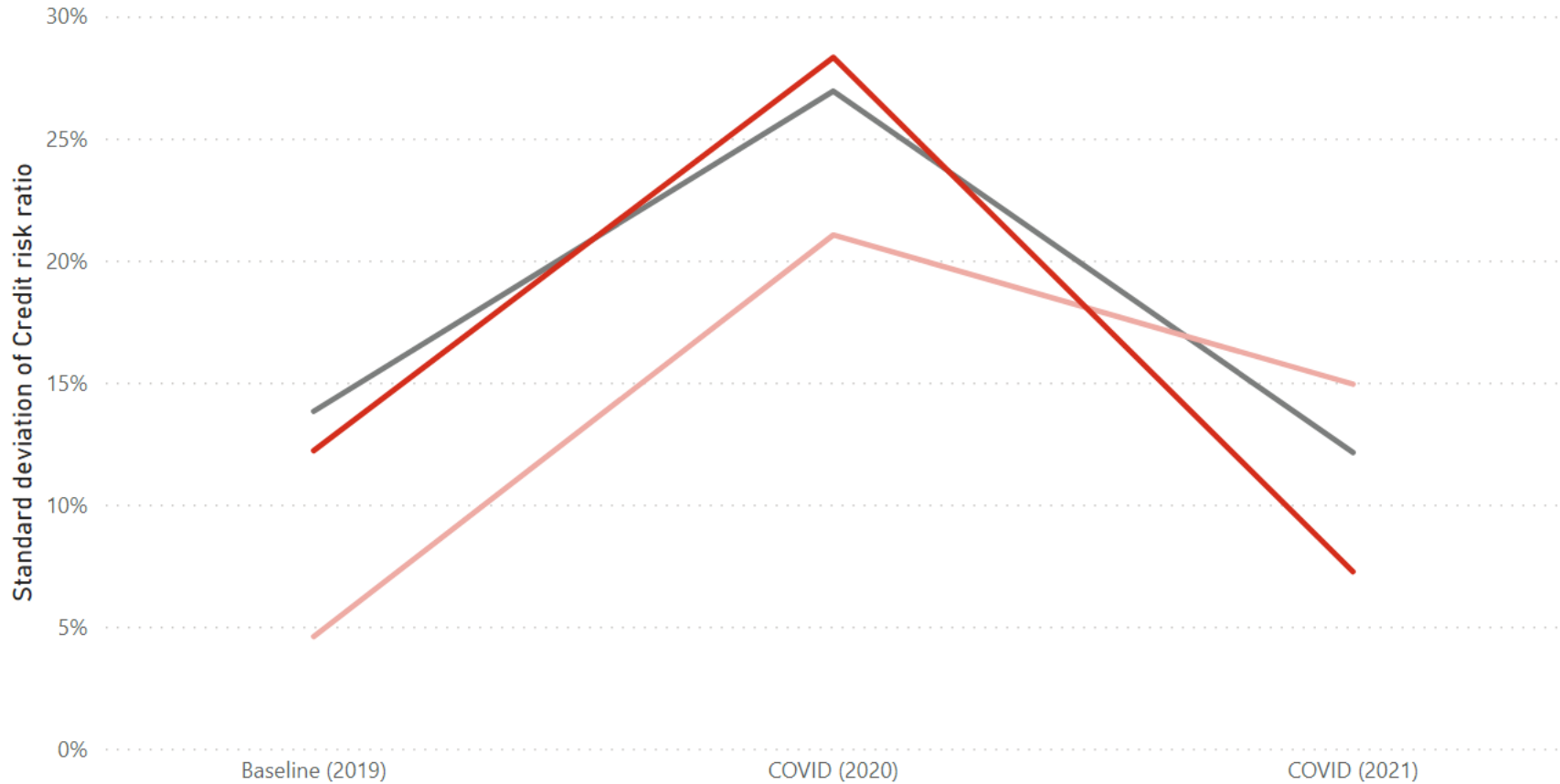


$$\text{Credit risk ratio} = (\text{PAR30} + \text{Restructured} + \text{Write-offs}) / \text{Average Gross Loan Portfolio}$$

Credit risk, standard deviation

Standard deviation of Credit risk ratio by Solvency vulnerability

Solvency vulnerability ● Acceptable ● Risk ● High risk

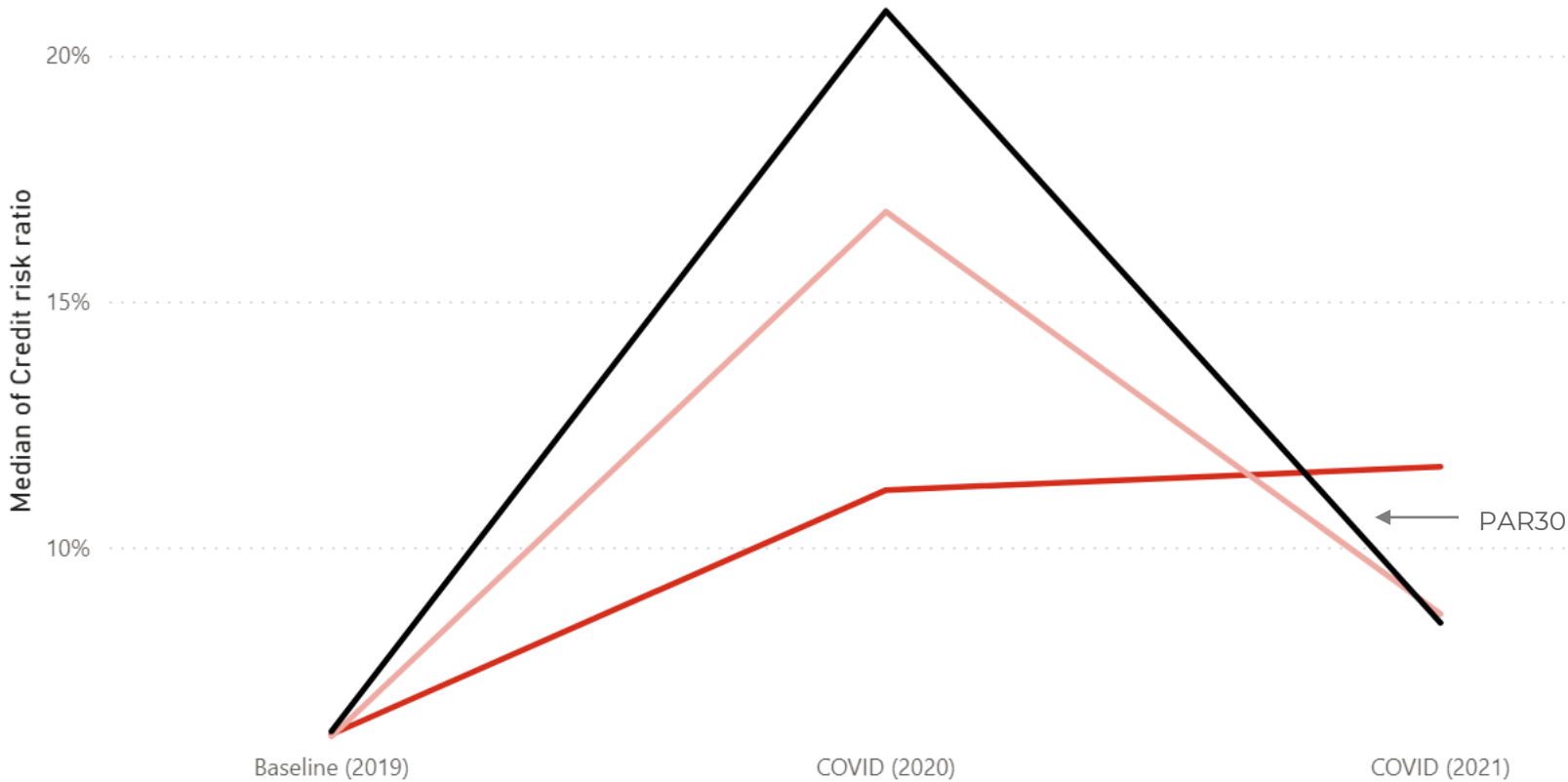


Credit risk ratio = (PAR30 + Restructured + Write-offs) / Average Gross Loan Portfolio

Credit risk by FSP size

Median of Credit risk ratio by FSP Size

FSP Size ● Large ● Medium ● Small

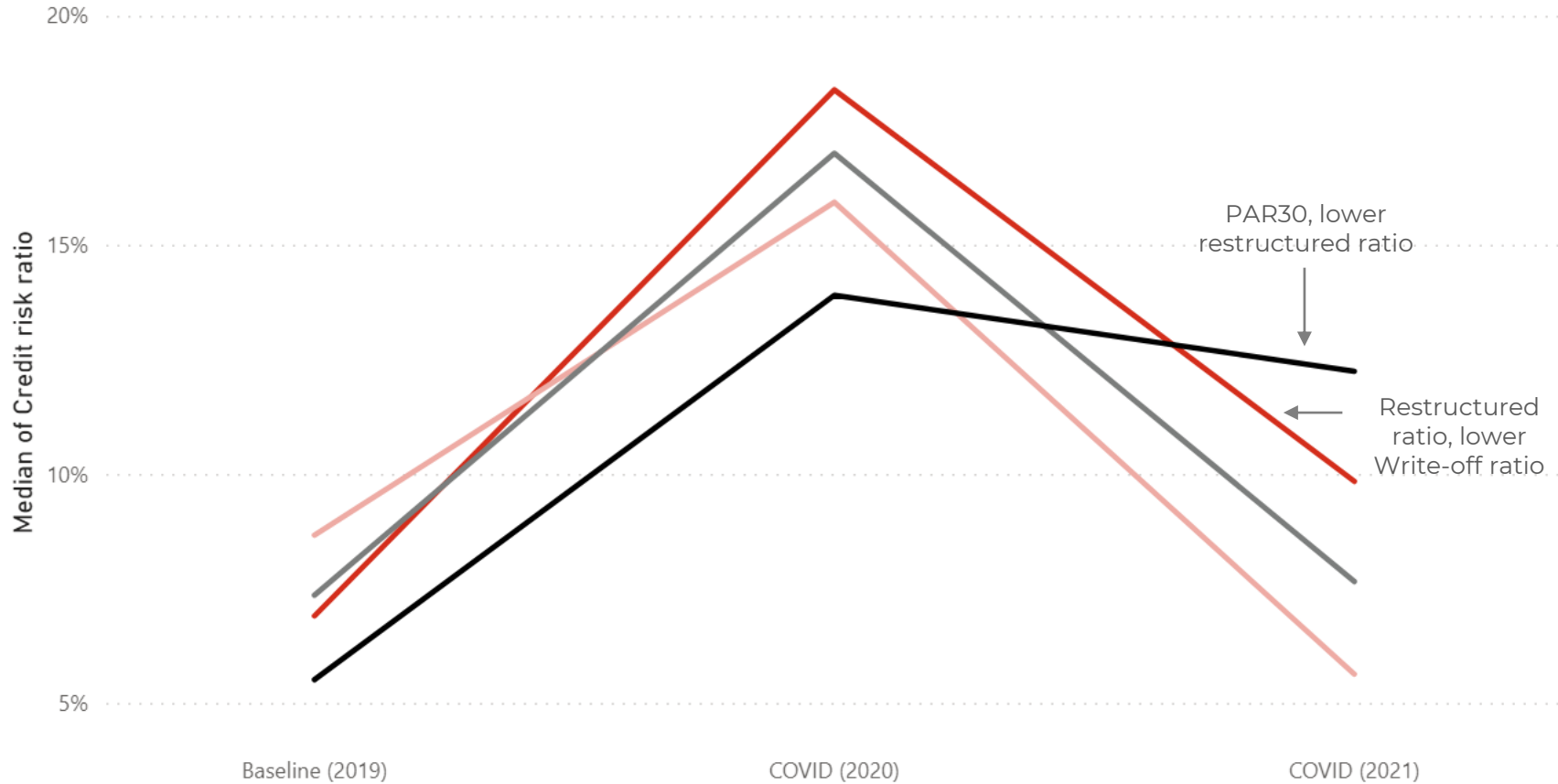


$$\text{Credit risk ratio} = (\text{PAR30} + \text{Restructured} + \text{Write-offs}) / \text{Average Gross Loan Portfolio}$$

Credit risk by FSP charter type

Median of Credit risk ratio by Charter type

Charter type ● Bank ● Cooperative ● NBFI ● NGO



$$\text{Credit risk ratio} = (\text{PAR30} + \text{Restructured} + \text{Write-offs}) / \text{Average Gross Loan Portfolio}$$

Credit risk by FSP gender outreach

Median of Credit risk ratio by % female borrowers

% female borrowers ● <60% ● >60%



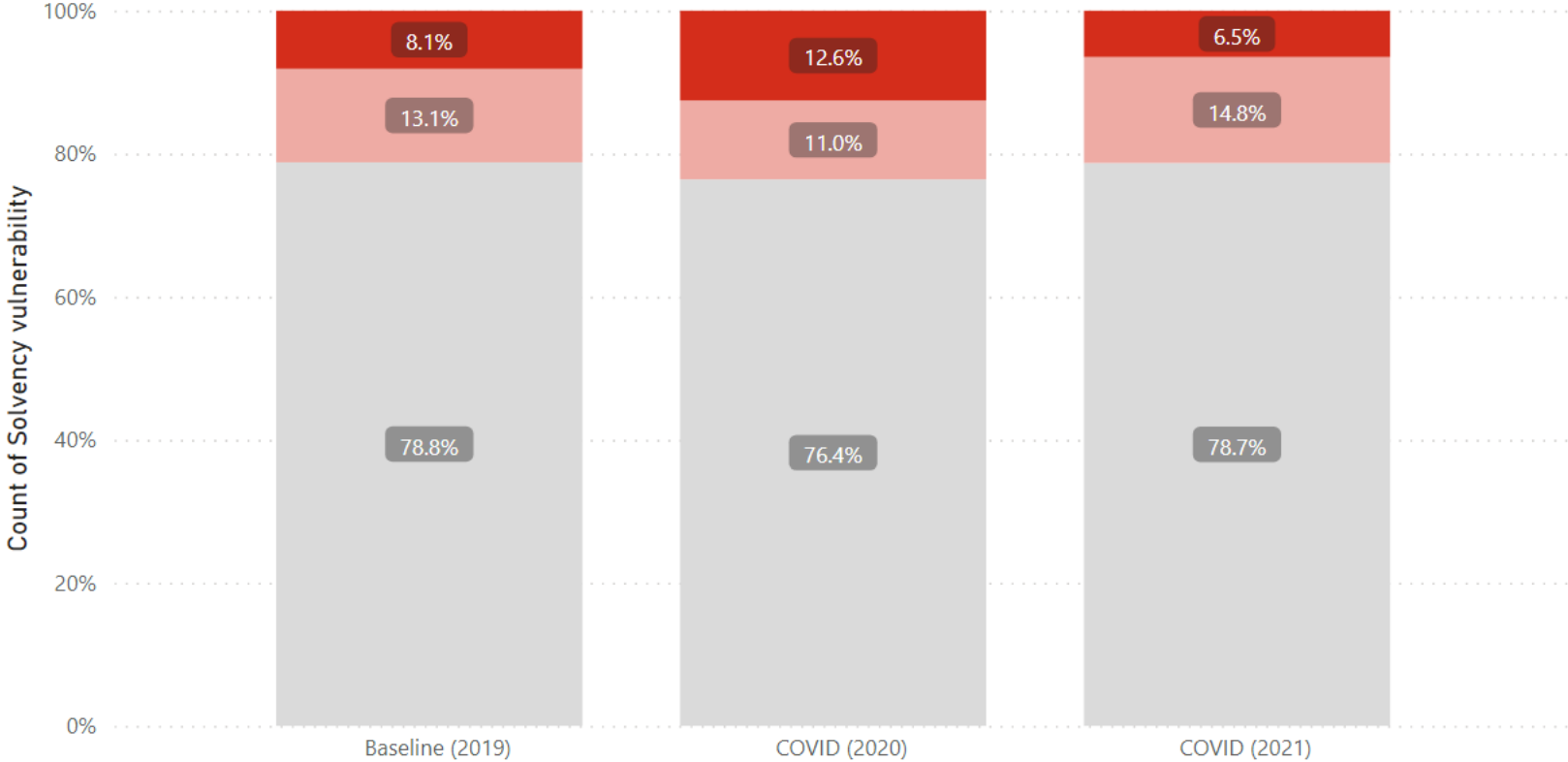
$$\text{Credit risk ratio} = (\text{PAR30} + \text{Restructured} + \text{Write-offs}) / \text{Average Gross Loan Portfolio}$$

Solvency risk

Solvency risk

Count of FSP Solvency vulnerability

Solvency vulnerability ● Acceptable ● Risk ● High risk

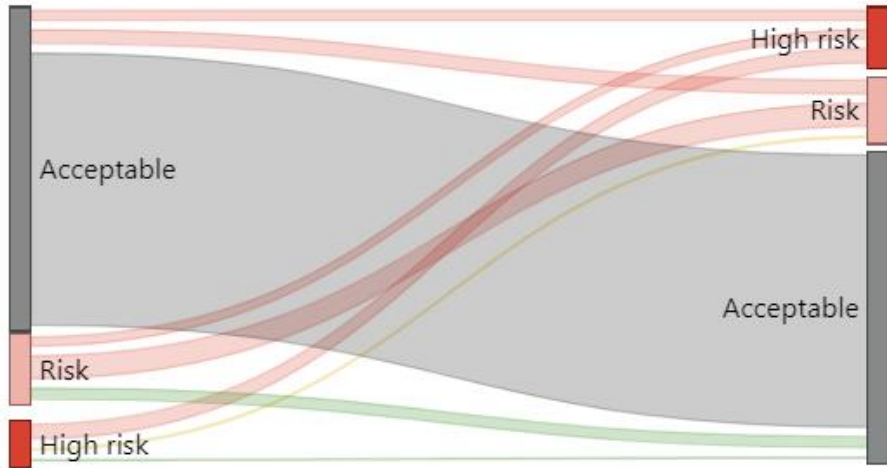


Solvency risk categories defined based on the size of FSPs and value of the Equity to assets ratio:

	Acceptable	Risk	High Risk
Small	>18%	14-18%	<14%
Medium	>15%	10-15%	<10%
Large	>12%	8-12%	<8%

Solvency risk transition

Solvency vulnerability transition matrix - 2019 to 2020/21

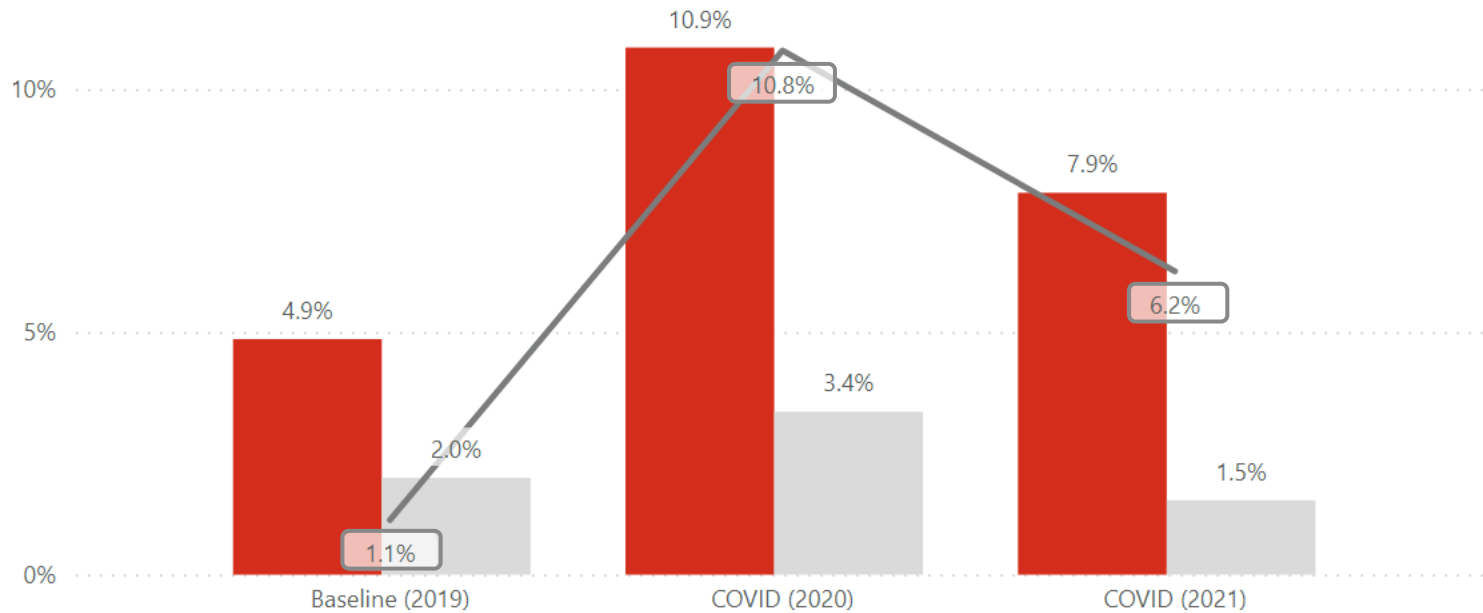


Baseline (2019)	Acceptable	Risk	High risk
Acceptable	91.6%	3.5%	4.9%
Risk	8.3%	79.2%	12.5%
High risk	25.9%	21.4%	52.7%

Credit risk, Provision expense ratio, loan loss reserves

Median of Credit risk ratio, Provision expense ratio, and (PAR30 + Restr. - Reserve) / Equity

● Median of Credit risk ratio ● Median of Provision expense ratio ● Median of (PAR30 + Restr. - Reserve) / Equity



Credit risk ratio = (PAR30 + Restructured + Write-offs) / Average Gross Loan Portfolio

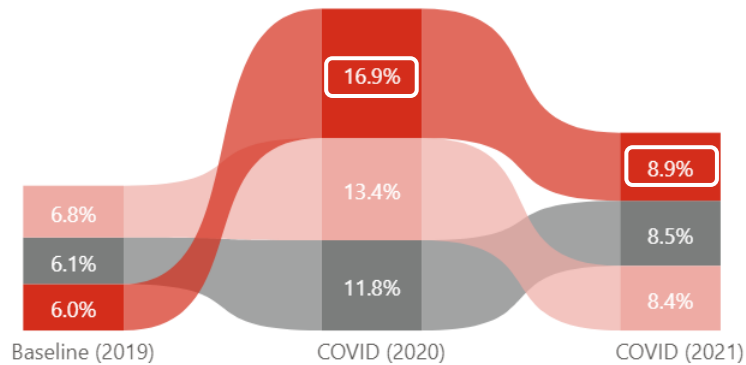
Provision expense ratio = Net loan loss provision expenses / Average Gross Loan Portfolio

(PAR30 + Restr. - Reserve) / Equity = (Portfolio > 30 days in arrears + restructured portfolio - absolute value of loan loss reserve) / total equity

Credit risk ratio and Provision expense ratio

Median of Credit risk ratio by Solvency vulnerability

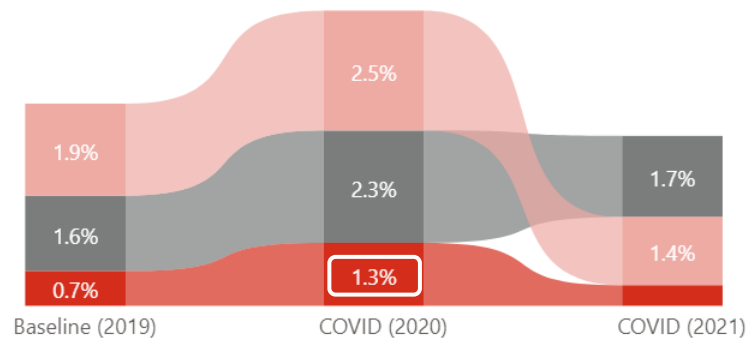
Solvency vulnerability ● Acceptable ● Risk ● High risk



$$\text{Credit risk ratio} = \frac{(\text{PAR30} + \text{Restructured} + \text{Write-offs})}{\text{Average Gross Loan Portfolio}}$$

Median of Provision expense ratio (portfolio) by Solvency vulnerability

Solvency vulnerability ● Acceptable ● Risk ● High risk

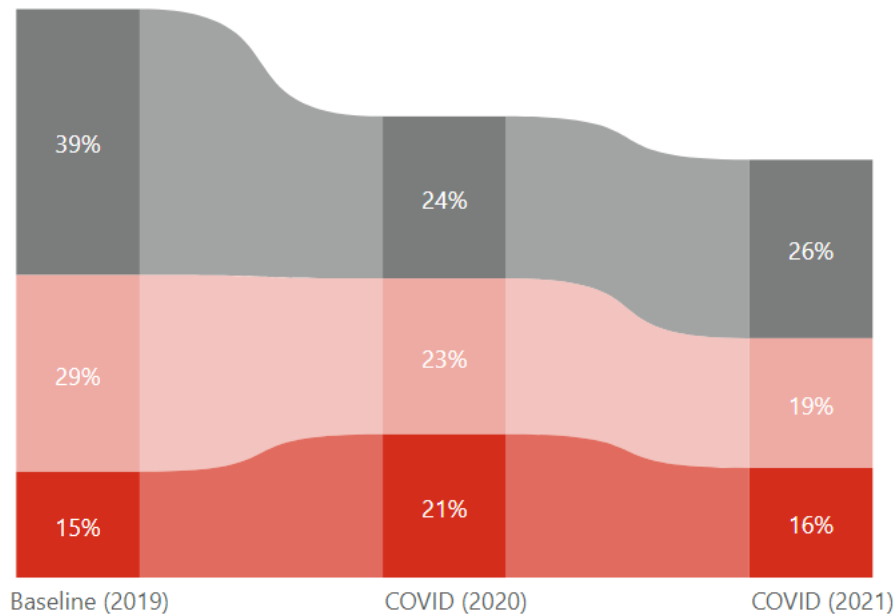


$$\text{Provision expense ratio} = \frac{\text{Net loan loss provision expenses}}{\text{Average Gross Loan Portfolio}}$$

Provision to credit risk

Median of provision to credit risk ratio by Solvency vulnerability

Solvency vulnerability ● Acceptable ● Risk ● High risk

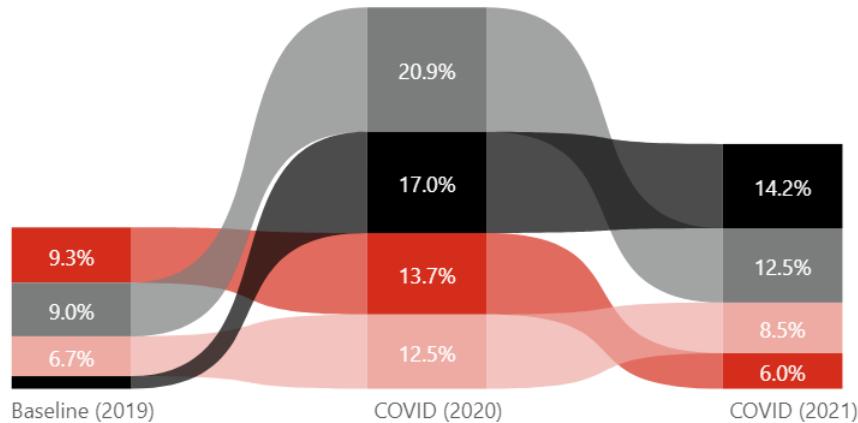


Provision to credit risk = Provision expense ratio / Credit risk ratio

Credit risk ratio and Provision expense ratio, by region

Median of Credit risk ratio by Region

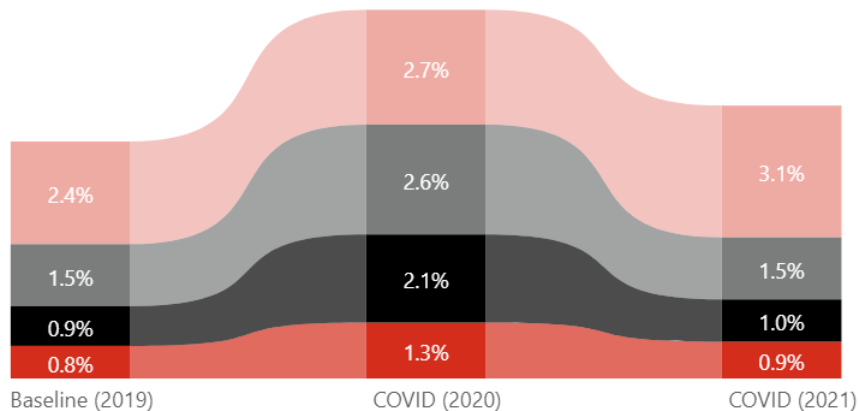
Region ● ECA ● LAC ● SSA ● SSEA



Credit risk ratio = (PAR30 + Restructured + Write-offs) / Average Gross Loan Portfolio

Median of Provision expense ratio (portfolio) by Region

Region ● ECA ● LAC ● SSA ● SSEA

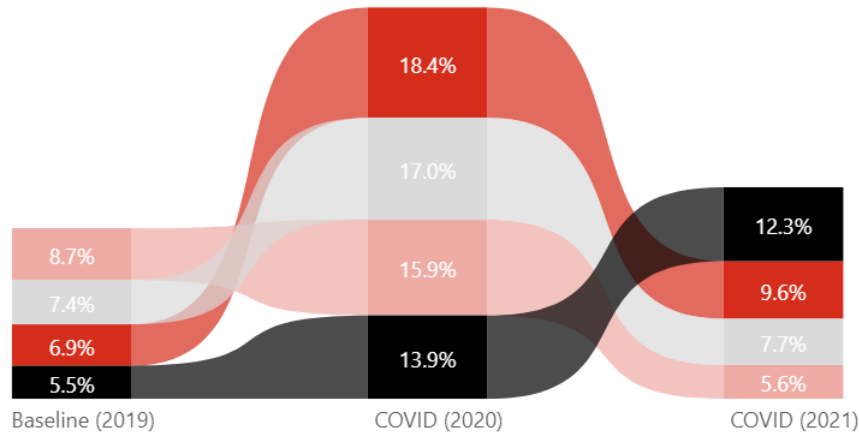


Provision expense ratio = Net loan loss provision expenses / Average Gross Loan Portfolio

Credit risk ratio and Provision expense ratio, by charter type

Median of Credit risk ratio by Charter type

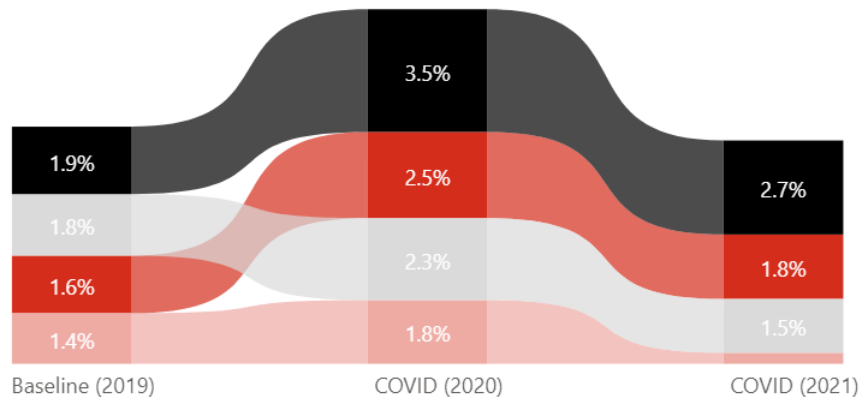
Charter type ● Bank ● Cooperative ● NBFI ● NGO



Credit risk ratio = (PAR30 + Restructured + Write-offs) / Average Gross Loan Portfolio

Median of Provision expense ratio (portfolio) by Charter type

Charter type ● Bank ● Cooperative ● NBFI ● NGO

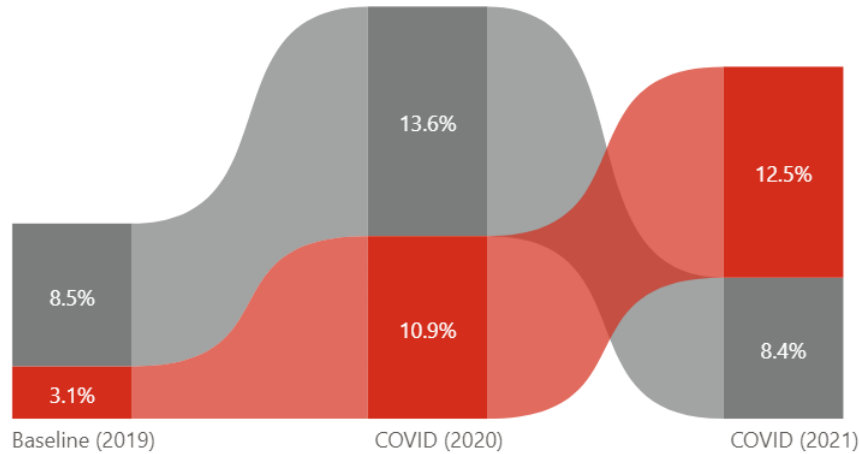


Provision expense ratio = Net loan loss provision expenses / Average Gross Loan Portfolio

Credit risk ratio and Provision expense ratio, by gender outreach

Median of Credit risk ratio by % female borrowers

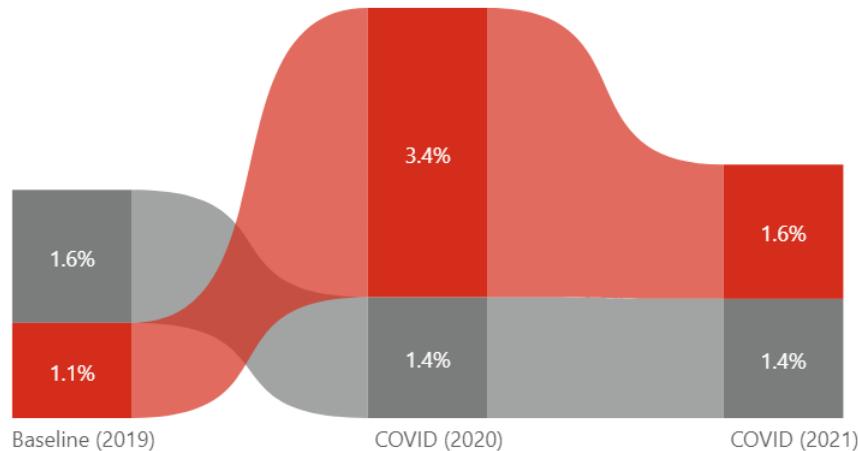
% female borrowers ● <60% ● >60%



Credit risk ratio = (PAR30 + Restructured + Write-offs) / Average Gross Loan Portfolio

Median of Provision expense ratio (portfolio) by % female borrowers

% female borrowers ● <60% ● >60%



Provision expense ratio = Net loan loss provision expenses / Average Gross Loan Portfolio

Appendix

Definition of indicators

Credit risk ratio = PAR30 + Restructured ratio + Write-off ratio

PAR 30 = Outstanding principal amount of all loans that have one or more installments of principal with 30 or more days of arrears / Gross outstanding portfolio

Restructured ratio = Outstanding restructured portfolio / Gross outstanding portfolio

Write-off ratio = Value of loans written-off during the period / Average gross outstanding portfolio

Equity to assets ratio = Total equity / Total assets

Provision expense ratio = Net loan loss provision expenses / Average gross loan portfolio

(PAR30 + Restr. – Reserve) / Equity = (Portfolio > 30 days in arrears + restructured portfolio - absolute value of loan loss reserve) / total equity

Provision to credit risk = Provision expense ratio / Credit risk ratio

Solvency risk categories defined based on the size of MFIs and value of the Equity to assets ratio:

	Acceptable	Risk	High Risk
Small	>18%	14-18%	<14%
Medium	>15%	10-15%	<10%
Large	>12%	8-12%	<8%

Number of FSPs with data available

Number of FSPs	Baseline (2019)	COVID (2020)	COVID (2021)
PAR30	1016	528	122
Restructured portfolio ratio	486	479	112
Write-off ratio	610	499	111
Credit risk ratio	412	446	109
Solvency vulnerability	697	482	108
Provision expense ratio (portfolio)	255	190	106
Provision to credit risk ratio	182	155	94
Portfolio yield (portfolio)	658	206	109
(PAR30 + Restr. – Reserve) / Equity	57	57	57

Most of 2021 data is until Q2 2021; some 2021 data is as of Q3 2021.



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Thank you

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