

PAYGo PERFORM

Portfolio Quality Working Group Subcommittee: Loss / Default – Session #2

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May 1, 2019



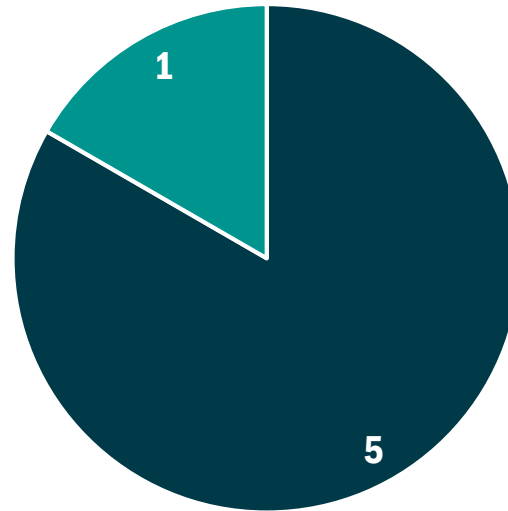
Loss / Default Indicators:

Receivables at Risk (RAR)

Write-off Ratio

Repossession Ratio

Do you agree with the Loss / Default Subcommittee's decision to rename PAR as Receivables at Risk (RAR) to avoid conflating it with PAR as used in the MFI industry?

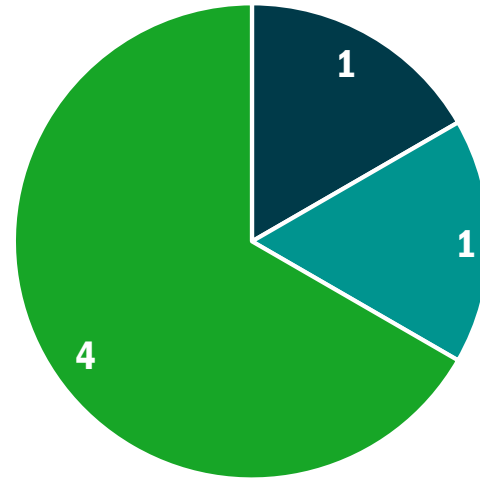


■ Yes ■ No

YES		NO	
Investors	3	Investor	1
PAYGO company	1		
Consulting Firm	1		

Without focusing on the exact formulas and thresholds below, which of these lead to a more stable and meaningful measure of Receivables (or Portfolio) at Risk?

PAR-based (Consecutive days measure of non-payment)	Collection (Utilization) Rate-based (Cumulative days measure of non-payment)
$\frac{\$ \text{ future receivables from customers who haven't made any payments over a } X \text{ consecutive days}}{\$ \text{ total future receivables payable}}$	$\frac{\$ \text{ future receivables from customers who have a collection rate } < X\%}{\$ \text{ total future receivables payable}}$



■ PAR-based ■ Collection-based ■ Both ■ Neither

PAR based		Collection rate based		Both	
PAYGo Company	1	Consulting Firm	1	Investor	4

Please share the PAR-based metric formula you would support. What threshold(s) is/are relevant? That is, at what number of consecutive days missed would you want to track? If you had to choose only one threshold for a headline KPI?

Respondents suggested:

- $$\frac{\text{Sum of Total \$ owed by customers with any balance billed in the last 90 days, which is overdue by 30 or more days}}{\text{Sum of Total \$ of future receivables payments due}}$$
- Similarly, thresholds of 60/90/120/180/360+ days
- Determining threshold on a case by case basis, depending on country specificity and type of activities performed by the customers

Collection rate is defined as:
$$\frac{\text{customer payments collected}}{\text{customer payments due}}$$

(Note that this formula doesn't include deposits in either the numerator or denominator)

Which thresholds (i.e. the percentage of collection rate) would make sense as a cutoff for determining a stream "at risk"?

And would be significant from the perspective of signaling that the customer is sufficiently unlikely to pay any more of their due receivables to be considered a write-off or to make the decision to repossess?

Other relevant thresholds to track? Cohorts?

Respondents said that a **threshold for collection rate** may have to be **decided** on a **case by case basis**, paying attention to:

- seasoning and age of the contract at the calculation date
- contract term
- the level below which a contract is not profitable
- Expected repayments rates
- Expected time for good customers to complete repayment (i.e. excluding at risk customers)
- Business model assumptions

Some respondents **ballparked between 70% - 80%**, while others shared that they preferred a **shorter period with a very low collection rate** vs a **longer period with a moderate collection rate**.

(E.g. 60 days with <25% collection rather than 120 days with <50% collection)

Do you think Write-off Ratio should be included as a metric? If so, do you think it should be:
$$\frac{\text{Units written-off, lost, or not paid in [120] days}}{\text{Total Installed Units}}$$

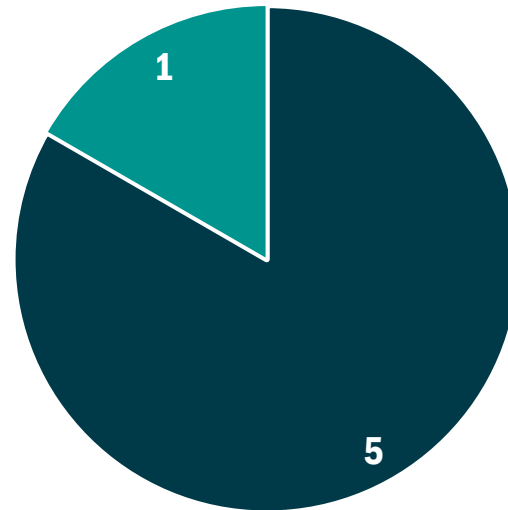
where "written-off" gives the company the ability to assign it as a write-off ahead of the [120] days cutoff, but not later. Please include an alternative formula if you disagree with the one above and/or with the threshold of 120 days

Respondents expressed that:

- It may serve as an acid test, and is useful in conjunction with a 60 day collection rate based RAR measure
- They preferred a write-off ratio in value terms, potentially in addition to unit terms
 - (Amount outstanding under contracts being written off during the measurement period)/(average portfolio value during the measurement period)
- The denominator term should also be adjusted to reflect threshold for cut off (e.g. units installed in the last [120] days)
- One respondent suggested including shorter thresholds (30/90/120) days while one respondent recommended a longer threshold of 180 days

But other respondents also shared that pending a standardized write-off policy across the industry, the write-off ratio is a 'nice to have' metric and that it may overlap with other KPI

Do you think the Repossession Ratio defined as $(\text{Units repossessed}) / (\text{Total Installed Units})$ should be included as a metric?



■ Yes ■ Other ■ No

***Other**: Only if repossession is defined as redeployed units (i.e. if it can function as a sort of LGD term)

The subcommittee members recommended doing away with the Churn Rate and the Default Rate, given that the relevant information would be conveyed by the Write-off and Repossession Ratios. Do you agree with this? Why or why not?

Most respondents agreed with this proposition, with some caveats:

- repossession rate **may not give a full picture** of the portfolio loss rate because some **contracts may not be repossessed** for some reasons such as equipment not found or burden to repossess the equipment etc.
- This would work as long as **write-offs are not adjusted for repossession**
- **Lack of standardization** in repossession policies across companies poses challenges
- Some companies may emphasize on **severity rate**
- **Churn rate** may be more **relevant** for **companies with perpetual leases** or hybrid leases with LTO

Any ancillary metrics that should be included to help us pass "Sniff Tests" or for other reasons? Please be descriptive and, if possible, include formulas and relevant thresholds.

Respondents suggested:

- **Severity Rate**
- **Portfolio expected cumulated loss** to based on cohort analysis (i.e. all possibilities that may lead to a loss)

Please provide any additional comments or thoughts here that you didn't have a chance to share earlier.

Respondents reported:

- Portfolio Cumulated Loss
- Repossession / Resale Efficiency

Working Group Timeline

Weeks 1 & 2

- Agree on list of KPIs and basic definitions

Week 3

- Determine relevant cohorts, thresholds, time series
- Assign formulas

Week 4

- Identify missing ancillary / informational indicators to pass sniff tests
- Present recommendations to working group

Next Steps / Considerations

- Select relevant cohorts and ancillary metrics
- Identify other missing metrics/indicators/analytical tools needed for PQ (i.e. what should we work on next?)
- Feasibility review – i.e. are there any operational or practical roadblocks for companies reporting these consistently?

We will share the Loss / Default Subcommittee's KPI recommendations with the full WG on May 14th - 4PM EAT/1PM GMT/9AM EDT