Title: ON-RRP Data Overview - 2021SEP14 - Tabulated Data & Charts - Final Update
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Not Financial Advice - totally personal interest

tl;dr

I stopped posting these updates because the overnight reverse repurchasing agreement (ON-RRP) topic became too controversial for me; scroll down for images, a hyperlink to the charts and data, and relevant explanations

The Goods

https://preview.redd.it/pxbfj9e27in71.png?width=1013&format;=png&auto;=webp&s;=cd283ce82d822b93a74c184f48633245a9770c5d

https://preview.redd.it/vaa8axx37in71.png?width=1429&format;=png&auto;=webp&s;=e8ed71c2587fb0abf11763eaf747a459af52e70d

https://preview.redd.it/bfk5fef67in71.png?width=1429&format;=png&auto;=webp&s;=95d79382b579d7f239392bbb6887a25cde91ae16

Because I've received DM inquiries: I will continue to update the spreadsheet if you'd like to continue tracking the data for your own personal interests. The spreadsheet will not be revised to include additional functionalities, though I may occasionally adjust the aesthetics.

Visit the following spreadsheet URL at the usual time of 13:17-ish EDT/NYSE time. **Open the link using Incognito Mode and do not log-in to Google to prevent disclosure of your Google profile.** The spreadsheet also contains the historical data and YTD & ATH records in the *RRP_Data* tab.

[**https://docs.google.com/spreadsheets/d/1xge6LfAV8nKTzv31csHMfXQfCsbiEkkHY3lXS-CEPWw/edit?usp=sharing**](https://docs.google.com/spreadsheets/d/1xge6LfAV8nKTzv31csHMfXQfCsbiEkkHY3lXS-CEPWw/edit?usp=sharing)

Speculative Forecasting

There are 12 business days remaining in SEP '21, so expect a rise in collateral-utilized to begin as this quarter comes to a close. The accepted counterparties will likely rise slowly before spiking in the last 4 to 5 days of the quarter. At that point in time, I expect the Q3 quadratic trends to invert/flatten and become concave-up - if they don't entirely shift to cubic trends.

Methodology Used to Identify Trends

For the purposes of trend-fitting, the data was partitioned into respective financial quarters; Q1 was not assessed because it was.....uneventful, and Q2 basically reset to zero. Come Q4, I may add charts that keep the data contiguous instead to treating it as discontinuous/cyclical. The trends will likely be cubic polynomials if not quartic.

The built-in graph-based trend functionality of Google Sheets/Excel was not utilized due to resolution-inaccuracy and because the resulting trend 'lines' bleed over into neighboring quarters. Instead,

the LINEST and LOGEST baked-in formulae were utilized to calculate the coefficient parameters to produce truncated plotted-trends for visual clarity. The formulae were also utilized to produce the respective adjusted R^2 values and displayed in the respective plot legends.

The quadratic polynomial trends are the latest addition to the spreadsheet, and the expected exponential behavior has never manifested. ON-RRP's "award" could be considered as daily compounded interest, and thus an exponential relationship. The variation of counterparties and accepted collateral are the expected cause, meaning if \[the resulting daily *award* was rolled into each party's *collateral offered* \] and \[the *accepted counterparties* remained constant\] an exponential trend would be observed.

The quadratic trends were confirmed by:

1. Comparison between adjusted R^2 values to avoid overfitting, including first- through fourth-order polynomial and exponential functions
2. Visual inspection of residuals for *detrending by difference*

The adjusted R^2 values for Q3 counterparties can be MA5'ed to match well with 1st through 4th order for an acceptable adjusted R^2 fit, as opposed to the current low-double-digit values. The raw data and respective quadratic trend are provided for a truer representation and to avoid visual cluttering of the data-representation. The methodology is demonstrated in the *Fitting* and *Detrending* tabs of the spreadsheet.

Useless Museful Ramblings

(2021SEP17 Edit: I am in the process of updating the trend equations now that we have another week of data. The Q3 collateral and counterparties are now more closely matching a ***log*** **function on the linear scale. The Collateral quadratic polynomial fit has been revised to quartic - for now - in anticipation of a Q3-end collateral spike like the end of Q2. The Counterparties quadratic fit has been revised to a cubic because quartic results in a decrease at Q3 end.)**

The next statistical-step with the trends would be to assess confidence intervals, but I neither have the desire nor the time to make the spreadsheet increasingly elaborate, nor is predictive forecasting required.

Should someone continue this work for confidence intervals - and I genuinely discourage the pursuit for any reason other than learning stats principles - one must consider evaluating both the partitioned and the contiguous Q2 & Q3 datasets and utilize the like-order polynomial for all data series, IMO. The collateral/counterparty computation is derived by division operation, so mixing of quadratic and cubic trends is ill-advised - though I suspect the higher-order function should dominate. I must reinforce that these statements are driven by opinion as my stats 'skills' have grown stale. The division of the data series should likely be accompanied by Calculus derivative-based error analysis if confidence intervals are pursued. \[...but I could be wrong.\]

The data series could be further partitioned into month-based subsets, though it's truly splitting-of-hairs at that point. I only bring this up because the spreadsheet provides a basic assessment of the cyclical drop-off at the end of months and quarters; scroll down to the bottom of the *RRP_Summary* tab. Maybe a bar chart would help, but that's too much (more) work.

Side note: this will be the last spreadsheet of this kind that I make; I'll continue to update the data, but don't expect additional functionality or aesthetic updates. The spreadsheet is painfully elaborate and I'd prefer to code-up an analysis with this many 'moving parts.' I've got years of coding experience with MATLAB but no long have access, so I've now moved on to Python and eventually to R.

Explaining ON-RRP's "Controversial Nature" in the GME Community

I will no longer be providing ON-RRP updates moving forward - both on Discord and *reddit*. My updates stemmed from personal interest in ON-RRP as a potential indicator of economic health, and by extension the potential *personal impact* of an unhealthy economy. **I provided the updates because others were already doing so, but I had created my own formatting to make sense for me - and it seemed others also appreciated the format.** I in no way intended for the updates to be misinterpreted for any other purposes.

A portion of the GME community - that includes Discord servers and *reddit* subs - believe that a sudden drop in ON-RRP will trigger/catalyze the MOASS. I have never been under this perception because I simply don't understand the market and/or economy enough to make any sort of attribution for/against the argument. Thus, I don't want my intent and efforts to be improperly associated with this theory.

As for the significance of the *accepted collateral,* I don't personally find any significance in the 1-trilly threshold; it truly was the moment in the screensaver where *the ball hits the corner of the screen.* IMHO, it's the overall magnitude that's significant. Comparison of 2021's data to the previous records set in DEC of 2015 and 2016 is most meaningful. The accepted collateral in 2021 is more than double and that possibly illuminates the severity of the situation. Again: **not financial advice.**

Edited for typos. I should go gooder at proof-reading.