

Fannie Mae Refinance Application-Level Index (RALI): Methodology

Summary

The Fannie Mae Refinance Application-Level Index (RALI) is a weekly index of refinance application activity based on incoming data to Fannie Mae's proprietary Desktop Underwriter® (DU®) application engine.¹

Fannie Mae created the RALI to provide sharper insights around future prepayments to the mortgage markets and to improve transparency into the overall size of the refinance mortgage market. The index leverages DU loan application data to provide market participants with near real-time insights into the direction and scope of market refinance and prepayment activity, by leveraging actual incoming data from refinance applications. The RALI leverages DU's broad market footprint and provides a real-time and historical view of refinance application activity. DU was the most widely used underwriting engine based on Home Mortgage Disclosure Act (HMDA) data from 2018 through 2020.² This additional transparency into market-wide, real-time refinance and prepayment trends can potentially support more accurate tracking, modeling, and planning by mortgage market participants.

Index Methodology

In creating the index, DU applications (or casefiles) are first filtered to include only refinance applications³ that could result in prepayments of existing loans and future refinances. We apply the following filters: 1) include only applications for refinance of existing mortgages; 2) include only applications that meet DU's underwriting criteria (e.g., loans that are approved and eligible for delivery to Fannie Mae, as well as loans that are approved but ineligible for delivery to Fannie Mae because they have balances in excess of local conforming loan limits); 3) include only first liens; 4) exclude test cases that do not represent actual queries for refinance credit; 5) exclude duplicate applications of the same borrower with the same lender⁴; and 6) include only refinance applications created in the defined week that meet the rest of the above criteria.⁵

The week of application activity starts at 12:00 a.m. Eastern Time (ET) the Saturday of that week and lasts through 11:59 p.m. ET the following Friday. We sum all refinance applications that meet our criteria for each week and create summed values of requested loan origination amount (unpaid principal balance or UPB) and summed values of loan counts. We created a weekly series for data beginning with 2004, at which time the DU data is deemed reliable for RALI purposes and apply the same filters to the historical data as to the real-time data so that weekly releases come from the same data-generation process as the

¹ For additional background material on RALI, including historical time series of the data, [Perspectives blog](#), and [FAQs](#), please visit our [Research & Insights](#) page.

² HMDA only began including the underwriting system information in 2018, so corresponding data prior to 2018 is not available.

³ Because the RALI includes withdrawn or denied applications, users should follow standard methodology by considering potential changes in the "pull-through" rate, or the percentage of applications that result in origination and prepayment, to arrive at the appropriate estimate of refinance and prepayment volumes.

⁴ For purposes of consistency across the historical time series and comparability with lender-based survey methodologies (e.g., Mortgage Banker Association's weekly application index), we do not exclude duplicates involving the same borrower with applications at multiple lenders.

⁵ Please note that applications representing pre-qualifications are implicitly excluded as a part of this filtering approach.

historical series. This is a critical requirement for consumers of the RALI to be able to use the product in their own analytic and modeling processes.

The data are then adjusted to an index of RALI (\$), based on UPB, and RALI (count), based on loan count, with the index from the first week of 2004 (ending January 9) equaling 100, with proportional adjustments to the entire respective weekly values for both indices. Creating the indices this way allows users to track growth rates of loan counts and UPB but not identify the actual underlying values. The interpretation of the index is thus relative to the value observed in the first week of January 2004. For instance, a RALI loan count value of 120 can be interpreted as having loan application counts that are 20 percent higher for the observed week relative to what was observed in the first week of January 2004. The complete weekly indexed series dating back to January 2004 for count and UPB will be provided to the market and appended with weekly releases. As small adjustments may be necessary to correct the data over time, we plan to refresh the historical weekly time series on an annual basis and notify users through our website to ensure transparency and clarity.

The RALI is published to the public each Tuesday morning, except when Monday or Tuesday is a holiday, for the week ending the previous Friday. In the event of a holiday occurring on a Monday or Tuesday, the index will be published on Wednesday for that week. Consistent with industry practice, we label the weekly index by the date the week ends (i.e., the corresponding Friday). For instance, the index values created for data captured between March 19 and March 25 would be labeled as March 25 and referred to as “the index for the week ending March 25.” The underlying data used in creation of the RALI is a direct reflection of what is observed in Fannie Mae’s DU environment, and because of this no adjustments are made for holidays or for seasonality, although our commentaries will note when the RALI is impacted by a holiday.