## (FMCC) Freddie Mac

## Govt Support Firms

Freddie Mac: EJR affirms at A-

| Current Senior Rating | A- |
| :--- | :--- |
| Projected Senior Rating | A- |
| Commercial Paper Rating | A1 |
| Three Year Default Probability | $1.7 \%$ |
| Three Year Recovery Rate | $75.1 \%$ |



Freddie Mac (FMCC) is in the govt support firms sector and its operating income was \$2.67B for the quarter ending June 2018 vs. \$2.45B for the prior year. Net income for the June 2018 quarter was \$2.5B vs. the prior year's \$1.66B income.

Income before XO items up \$0.8B, Market cap to net debt at $0.4 x$ - FMCC reported a $50 \%$ growth in its net income driven by the $\$ 416 \mathrm{M}$ gains on interest rate swaps and other derivatives. The Company's revenues rose $2.0 \%$ for FQE Jun '18. Operating income grew from $\$ 2.5 B$ last year to $\$ 2.7 B$ this year (an increase of $8.6 \%$ ) as a result of the $\$ 1.0 B$ (i.e., $-73.5 \%$ ) decline in non-interest expense and the $\$ 0.4 \mathrm{~B}$ (i.e., $2.4 \%$ ) rise in interest income. Comprehensive income from the SingleFamily Guarantee, Multifamily, and Capital Markets segments climbed $48.8 \%, 13.4 \%$, and $3 \%$, resp (\$1.1B, \$0.5B, and $\$ 0.8 B$, resp). Funds from operations for the FQE Jun '18 were $\$ 2.7 B$, which resulted in funds from operations interest coverage of $0.2 x$. Regarding leverage, total debt was almost flat at $\$ 2.0 \mathrm{~T}$ while total shareholder's equity surged from $\$ 2.6 B$ to $\$ 4.6 \mathrm{~B}$. As a result, leverage (i.e., total debt/capital (including debt)) was $30.5 \%$. Netting cash from debt, net debt was $\$ 2.0 T$ and the resulting net leverage ratio was $30.5 \%$. Market Capitalization was $\$ 858.1 \mathrm{M}$ as of $10 / 05 / 18$. Affirming.

|  | Annual Ratios |  |  |  | Ratios For 4 Rolling Quarters |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CREDIT POSITION | Dec 16 | Dec 17 | PDec 18 | PDec 19 | Jun 17 | Sep 17 | Dec 17 | Mar 18 | Jun 18 |
| Fixed Chg $\operatorname{Cov}(\mathrm{x})$ | 1.2 | 1.3 | 1.3 | 1.4 | 1.3 | 1.4 | 1.3 | 1.3 | 1.3 |
| Return on Equity (\%) | 154.0 | N/A | 365.6 | 163.7 | 427.3 | 255.1 | N/A | 294.9 | 156.6 |
| PT Ret. on Avg Assets(\%) | 0.6 | 0.8 | 0.9 | 1.0 | 0.8 | 1.0 | 0.8 | 0.8 | 0.9 |
| Ret on Perm Cap (\%) | 0.6 | 0.8 | 0.9 | 1.0 | 0.8 | 1.0 | 0.8 | 0.8 | 0.8 |
| T Debt/Cap (w Debt) (\%) | 99.7 | N/A | 99.8 | 99.6 | 99.9 | 99.7 | N/A | 99.9 | 99.8 |
| Short Term Debt/Total Debt (x) | 3.6 | 3.5 | 3.6 | 3.5 | 3.4 | 3.5 | 3.5 | 4.8 | 4.2 |
| Implied Senior Rating | BBB | BBB+ | BBB+ | BBB+ | BBB+ | BBB+ | BBB | BBB+ | BBB+ |


| PEER RATIOS | Other NRSRO Sen. | Fixed Charge $\operatorname{Cov}(\mathrm{x})$ | ROE(\%) | Ret on Avg Assets | Ret on Perm Cap (\%) | T Debt/ Cap(\%) | ST Debt/ Total Debt <br> (\%) | RatioImplied Rating |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Federal National Mortgage Association | AAA | 1.2 | N/A | 0.6 | 0.6 | N/A | 1.0 | BBB+ |
| Arch Capital Group Ltd. | A- | N/A | 6.0 | 2.5 | 4.5 | 19.9 | 0.0 | AA- |
| Goldman Sachs Group, Inc. | A- | 2.1 | 5.2 | 1.3 | 2.3 | 82.4 | 41.5 | A |
| Genworth Financial, Inc. Class A | B | N/A | 5.4 | 0.7 | 3.4 | 23.0 | 0.9 | BBB+ |
| Arlington Asset Investment Corp. Class A | NR | 2.1 | 4.5 | 1.4 | 1.3 | 90.6 | 98.0 | A- |

Notes:
Annual and quarterly implied sen. ratings are smoothed using EJR's prior rating if any. Peers' implied ratings are also smoothed.
Rating Change Anticipator (1 is best, 100 worst): 89.7, Last EJR Sen: A- , Other NRSROs: AAA /-

| INDUSTRY RATIOS | AA | A | BBB | BB | B |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Fixed Chg Cov(x) | 2.3 | 1.8 | 1.3 | 0.9 | 0.7 |
| Return on Equity (\%) | 4.5 | 4.0 | 3.5 | 3.0 | 2.5 |
| PT Ret. on Avg Assets(\%) | 6.0 | 4.0 | 2.0 | 0.0 | -2.0 |
| Ret on Perm Cap (\%) | 20.0 | 10.0 | 7.0 | 4.0 | 2.0 |
| T Debt/Cap (w Debt) (\%) | 85.0 | 90.0 | 95.0 | 97.0 | 98.2 |
| Short Term Debt/Total Debt (x) | 47.5 | 62.2 | 75.3 | 84.9 | 90.7 |



## ANNUAL INCOME STATEMENTS (BILLIONS \$)

Below are Freddie Mac's annual income statements with the projected years based on our assumptions.

|  | Dec-13 | Dec-14 | Dec-15 | Dec-16 | Dec-17 | PDec18 | PDec19 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Interest Income | 73 | 69 | 67 | 65 | 68 | 70 | 73 |
| Interest Expense | 56 | 55 | 52 | 51 | 54 | 54 | 53 |
| Net Interest Income | 17 | 15 | 15 | 15 | 14 | 17 | 20 |
| Provisions for Loan Losses | 0 | 0 | (3) | (1) | 0 | 0 | 0 |
| Trading Account Profit | 0 | 0 | (1) | (1) | 0 | 0 | 0 |
| Commissions and Fees Earned | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Operating Income | 4 | 1 | (2) | (1) | 6 | 6 | 5 |
| Non-Interest Expense | 0 | 9 | 5 | 2 | 4 | 4 | 5 |
| Operating Income | 21 | 6 | 10 | 12 | 17 | 18 | 20 |
| Net Non Operating Loss | (4) | (5) | 1 | 0 | 0 | 0 | 0 |
| Income Tax Expenses | (23) | 3 | 3 | 4 | 11 | 6 | 6 |
| Income Before XO Items | 49 | 8 | 6 | 8 | 6 | 13 | 14 |
| Extraordinary Item Net of Tax | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Minority Interests | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Consolidated Net Income | 49 | 8 | 6 | 8 | 6 | 13 | 14 |
| Total Cash Preferred Dividends | 52 | 10 | 6 | 8 | 9 | 9 | 9 |
| Net Income | (4) | (2) | 0 | 0 | (3) | 4 | 5 |
| Common Dividends | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Net Revenues | 77 | 70 | 64 | 63 | 74 | 76 | 78 |
| Comprehensive Income per Share | (1.1) | (0.7) | (0.0) | 0.0 | (1.0) | 0.0 | 0.0 |
| Basic EPS Before Abnormal Items | (1.1) | (0.7) | (0.0) | 0.0 | (1.0) | 3.9 | 4.3 |
| Basic EPS Before XO Items | (2.0) | (1.7) | 0.1 | 0.1 | (1.1) | 3.9 | 4.3 |
| Basic EPS | (1.1) | (0.7) | (0.0) | 0.0 | (1.0) | 3.9 | 4.3 |
| EBITDA | 77 | 61 | 59 | 62 | 70 | 76 | 85 |





## REVENUE \& PROFITABILITY

The Company's interest income declined at an average rate of $1.35 \%$ over the last five years while Operating Margin rose to $10.7 \%$ for the fiscal year ending December 2017, above the $6.35 \%$ average over the prior four years. Return on Assets fell to $0.27 \%$, below the $0.39 \%$ average for the prior years.

|  | Dec 13 | Dec 14 | Dec 15 | Dec 16 | Dec 17 | PDec 18 | PDec 19 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Interest Income (Billions USD) | 73 | 69 | 67 | 65 | 68 | 70 | 73 |
| Growth Rate (\%) | (14.2) | (4.4) | (3.4) | (2.9) | 4.1 | 3.9 | 3.9 |
| Net Interest Income/Total Interest Income (\%) | 23.3 | 21.0 | 22.6 | 22.4 | 20.9 | 23.9 | 27.2 |
| Loan Loss Coverage (\%) |  |  |  |  |  |  |  |
| Pretax Return on Avg Assets (\%) | 1.3 | 0.6 | 0.5 | 0.6 | 0.8 | 0.9 | 1.0 |
| Oper Return / Earning Assets (\%) | 9.7 | 3.3 | 5.5 | 6.9 | 10.7 | 14.9 | 19.2 |
| Non-Interest Inc / Revs (\%) | 5.3 | 1.4 | (4.3) | (2.8) | 8.2 | 7.1 | 6.2 |
| Efficiency Ratio (\%) | 0.2 | 59.7 | 42.4 | 12.3 | 18.7 | 19.3 | 19.8 |
| Return on Assets (\%) | 2.5 | 0.4 | 0.3 | 0.4 | 0.3 | 0.6 | 0.7 |

## LEVERAGE \& ASSET LIQUIDITY

The Quick Asset Ratio has become weaker recently, slipping to 1.0:1 for the FYE December 2017.

|  | Dec 13 | Dec 14 | Dec 15 | Dec 16 | Dec 17 | PDec 18 | PDec 19 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Quick Asset Ratio (\%) | 1.6 | 1.5 | 1.4 | 1.5 | 1.0 | 1.2 | 1.3 |
| Quick Assets / ST Dep \& Debt (\%) | 14.5 | 21.0 | 16.2 | 43.8 | 28.9 | 32.9 | 37.7 |
| LT Debt/Capital (\%) | 99.3 | 99.9 | 99.8 | 99.7 | 100.0 | 99.8 | 99.6 |
| T Debt/Cap (w Debt) (\%) | 99.3 | 99.9 | 99.9 | 99.7 |  | 99.8 | 99.6 |

Egan-Jones
Rating

## ASSUMPTIONS FOR FINANCIALS

## VALUATION DRIVER: Interest Income Growth

Freddie Mac (FMCC) has grown its interest income at $4.1 \%$ per annum in the last fiscal year. We expect the Company's revenues will grow approximately $3.9 \%$ per annum over the next couple of years and $3.9 \%$ per annum for the next couple of years thereafter.

## VALUATION DRIVER: Net Interest Margin

The Company's net interest margin has been more than its peers and we assumed no growth in net interest margin over the next two years.

|  |  |  | ASSUMPTIONS |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Peer Median | Company Average | $\begin{aligned} & \text { Years } \\ & 1 \& 2 \end{aligned}$ | Years $3,4,5$ |
| Interest Income Growth (\%) | 0.0 | 4.1 | 3.9 | 3.9 |
| Interest Expense (Rate \%) | 2.1 | 2.6 | 2.6 | 2.6 |
| Net Interest Margin (\% of earning assets) | 0.0 | 9.2 | 9.2 | 0.0 |
| Provisions for Loan Losses (\% of earning assets) | (0.0) | (0.1) | (0.1) | 0.0 |
| Trading Account Profit Growth (\%) | 305.7 | (53.9) | 0.0 | 0.0 |
| Commissions and Fees Earned Growth (\%) | 0.0 | 0.0 | 0.0 | 0.0 |
| Other Operating Income Growth (\%) | (5.1) | (765.9) | (10.0) | (10.0) |
| Non Interest Expense Growth (\%) | 0.0 | 138.5 | 13.9 | 13.9 |
| Net Non Operating Loss Growth (\%) | 0.0 | (180.3) | (10.0) | (10.0) |
| Income Tax Rate (\%) | (22.7) | 67.9 | 32.0 | 33.6 |
| Special Items (Billions \$) | 0.0 | 0.0 | 0.0 | 0.0 |
| Cash \& Near Cash Growth (\%) | 48.1 | (55.8) | 4.1 | 4.1 |
| Accounts \& Notes Receivable Growth (\%) | 0.0 | 22.6 | 22.6 | 20.3 |
| Marktable Secs. \& ST Investments Growth (\%) | 0.0 | (99.9) | 3.9 | 3.9 |
| Loans \& Mortgages Growth (\%) | 0.0 | 0.0 | 0.0 | 0.0 |
| Real Estate Investments Growth (\%) | 0.0 | 0.0 | 0.0 | 0.0 |
| Other Long Term Investments Growth (\%) | (0.9) | (14.1) | (14.1) | 0.0 |
| Long Term Investments Before Reserves Growth (\%) | 0.0 | (14.1) | (14.1) | (14.1) |
| Loan Loss Reserves (\% of earning assets) | 0.0 | 0.0 | 0.0 | 0.0 |
| Loan Net of Reserves Growth (\%) | 0.0 |  | 0.0 | 0.0 |
| Net Fixed Assets Growth (\%) | 0.0 | 798.0 | 798.0 | 0.0 |
| Other Assets Growth (\%) | 0.0 | 0.0 | 0.0 | 0.0 |
| Demand Deposits Growth (\%) | 0.0 | 0.0 | 0.0 | 0.0 |
| Short-Term Borrowings Growth (\%) | (4.8) | 0.9 | 0.9 | 0.0 |
| Customer Deposits Growth (\%) | 0.0 | 0.0 | 22.6 | 20.3 |
| Other Short-Term Liabilities Growth (\%) | 0.0 | 0.0 | 0.0 | 0.0 |
| Long-Term Borrowings Growth (\%) | 1.0 | 1.7 | 1.7 | 0.0 |
| Deferred Tax Liability Growth (\%) | 0.0 | 0.0 | 0.0 | 0.0 |
| Other Long-Term Liabilities Growth (\%) | 0.0 | (5.1) | (5.1) | (5.1) |
| Shares Sold (\% of shares out.) | (1.0) | 0.0 | 0.0 | 0.0 |
| Additional ST Debt (Billions \$) | 0.0 | 0.0 | 0.0 | 0.0 |

## ANNUAL BALANCE SHEETS (BILLIONS \$)

Below are Freddie Mac's balance sheets with the projected years based on our assumptions. As of December 2019, the Company's total cash is assumed to increase from $\$ 9.8 \mathrm{~B}$ as of December 2017 to $\$ 10.6 \mathrm{~B}$ while its total debt is assumed to rise from $\$ 2034.6 \mathrm{~B}$ to $\$ 2061.7 \mathrm{~B}$.

| ASSETS | Dec 13 | Dec 14 | Dec 15 | Dec 16 | Dec 17 | PDec 18 | PDec 19 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cash \& Near Cash | 24 | 19 | 20 | 22 | 10 | 10 | 11 |
| Accounts \& Notes Receivable | 11 | 11 | 10 | 11 | 14 | 17 | 21 |
| Marketable Secs. \& ST Investments | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mortgage Loans | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Real Estate Investments | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Long-Term Investments | 216 | 190 | 178 | 164 | 141 | 121 | 104 |
| Long-Term Investments before Reserves | 216 | 190 | 178 | 164 | 141 | 121 | 104 |
| Loan Loss Reserves | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Loans Net of Reserves | 216 | 190 | 178 | 164 | 141 | 121 | 104 |
| Net Fixed Assets | 0 | 0 | 0 | 0 | 1 | 7 | 64 |
| Other Assets | 0 | 0 | 0 | 0 | 0 | 1885 | 1885 |
| Additional Assets | 1717 | 1725 | 1778 | 1826 | 1885 | 0 | 0 |
| Total Assets | 1967 | 1946 | 1986 | 2023 | 2050 | 2040 | 2084 |
| Earning Assets | 216 | 190 | 178 | 175 | 154 | 121 | 104 |


| LIABILITIES | Dec 13 | Dec 14 | Dec 15 | Dec 16 | Dec 17 | PDec 18 | PDec 19 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Demand Deposits | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Short-Term Borrowings | 220 | 135 | 172 | 71 | 72 | 72 | 72 |
| Customer Deposits | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Short Term Liabilities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Long-Term Borrowings | 1721 | 1795 | 1798 | 1931 | 1963 | 1950 | 1990 |
| Deferred Tax Liability | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Long-Term Liabilities | 12 | 13 | 13 | 16 | 15 | 15 | 14 |
| Other Liabilities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Liabilities | 1954 | 1943 | 1983 | 2018 | 2050 | 2036 | 2076 |
| Total Preferred Equity | 86 | 86 | 86 | 86 | 86 | 86 | 86 |
| Minority Interest | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Share Capital \& APIC | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Retained Earnings \& Other Equity | -74 | -84 | -84 | -81 | -87 | -83 | -78 |
| Total Shareholders \& Equity | 13 | 3 | 3 | 5 | 0 | 3 | 8 |
| Total Liabilities \& Equity | 1967 | 1946 | 1986 | 2023 | 2050 | 2040 | 2084 |
| Shares Outstanding | 3238 | 3236 | 3235 | 3234 | 3234 | 3234 | 3234 |




## U.S. SECURITIES AND EXCHANGE COMMISSION RULE 17g-7(a) DISCLOSURE

Below are the disclosures as required by Paragraph (a) of Rule 17g-7.

1. The symbol in the rating scale used to denote the credit rating categories and notches within categories and the identity of the obligor, security, or money market instrument as required by Paragraph (a)(1)(ii)(A) of Rule 179-7:
For the issue Freddie Mac with the ticker of FMCC we have assigned the senior unsecured rating of $A$-. There are three notches in our rating categories (e.g., $A-A$, and $A+$ ) other than those deep into speculative grade; for $C C, C$, and $D$ there are no notches.
2. The version of the procedure or methodology used to determine the credit rating as required by Paragraph (a)(1)(ii)(B) of Rule 17g-7:

We are using the methodology dated July 20th, 2018 available via egan-jones.com under the tab at the bottom of the page "Methodologies".
3. The main assumptions and principles used in constructing the procedures and methodologies used to determine the credit rating as required by Paragraph (a)(1)(ii)(C) of Rule 17g-7:
The credit rating assigned reflects our judgement regarding the future credit quality of the issuer. Regarding the specific assumptions used, please refer to page 3 of this Rating Analysis Report.
4. The potential limitations of the credit rating as required by Paragraph (a)(1)(ii)(D) of Rule 17g-7:

Our rating pertains solely to our view of current and prospective credit quality. Our rating does not address pricing, liquidity, or other risks associated with holding investments in the issuer. EJR ratings

- Are not intended to address the value, price, price stability, liquidity, suitability, or merit of an investment;
- Do not address investment merit, whether a particular rated security is suitable for a particular investor or suitable for an investor's risk tolerance;
- Do not address whether the expected return of a particular investment is adequate for the inherent risk;
- Do not address whether the market value of the security will remain stable over time; and
- Are not exact measures of the probability of default but are instead expressions of the relative credit risk of issuers and debt instruments.


## 5. Information on the uncertainty of the credit rating as required by Paragraph (a)(1)(ii)(E) of Rule 179-7:

Our rating is dependent on numerous factors including the reliability, accuracy, and quality of the data relied used in determining the credit rating. The data/ information (collectively "Information") is sourced from publicly-available 10Q and 10K statements, quarterly reports, 8 K filings, earnings reports, and other similar sources. In some cases, the Information is limited because of issues such as short operating histories, lack of reported data, delay in reporting data, restatements, inaccurate accounting, and other issues. Such shortcomings are not always readily apparent.
6. Whether and to what extent third-party due diligence services have been used in taking the rating action as required by Paragraph (a)(1)(ii)(F) of Rule 17g-7:
EJR does not utilize third-party due diligence.
7. How servicer or remittance reports were used, and with what frequency, to conduct surveillance of the credit rating as required by Paragraph (a)(1)(ii)(G) of Rule 17g-7:
Servicer or remittance reports normally pertain to structured finance issuers; this report does not pertain to a structured finance issuer (EJR is not an NRSRO for structured finance or sovereigns/municipal issuers). Regarding surveillance, the minimum time period for coporation issuers is normally one year.
8. A description of the data that were relied upon for the purpose of determining the credit rating as required by Paragraph (a)(1) (ii)(H) of Rule 17g-7:

EJR uses 10Q and 10K statements, quarterly reports, 8K filings, earnings reports, and other similar sources for ratings on publicly-traded issuers.
9. A statement containing an overall assessment of the quality of information available and considered in the credit rating as required by Paragraph (a)(1)(ii)(I) of Rule 17g-7:
The information is generally high quality and readily available.
10. Information relating to conflicts of interest as required by Paragraph (a)(1)(ii)(J) of Rule 179-7:

EJR is not paid to determine this credit rating.
11. An explanation or measure of the potential volatility of the credit rating as required by Paragraph (a)(1)(ii)(K) of Rule 17g-7:

Non-performing Loans and Credit Losses- A material increase in non-performing loans and/or credit losses could prompt us to lower or the rating up to several notches.
Net Interest Margins - A material decline in the issuer's realized net interest margins could prompt us to reduce our rating up to several notches; the level of the rating cut would depend on the magnitude of the decline and a review of other possibly offsetting factors.
Regulatoryl Licensing Issues - A material deterioration in the issuer's regulatory posture is likely to impact credit quality and resulting rating with a decline of up to several notches.

Funding Costs and Availability - A material change in cost and availability of funds (i.e., liquidity) for the issuer, its customers and suppliers is likely to impact credit quality and resulting rating change of up to several notches.
Business Levels/ GDP - A material change in overall business activity or GDP could prompt us to raise or lower the rating. Most changes in GDP do not result in a rating change of more than one notch because these changes occur in small increments over time.
Leverage Increase - A material increase in leverage for the issuer and major customers could prompt us to adjust our the ratings up to several notches.
CyberlSystem Disruptions - Material and prolonged disruptions in the issuer's and/or customers' and/or suppliers' systems is likely to cause us to reduce our rating up to several notches or in extreme cases, withdraw our rating.
Corporate Events - A material corporate event (such as a major acquisition, sale, or share buyback) is likely to cause us to change our rating up to several notches depending on various factors such as the counter party, the method of financing, the timing, and a variety of other related factors.
Asset Values - A material decline in asset values could prompt us to reduce our ratings up to several notches although normally such changes take place over several years and provide time for adjustment. An exception would be a catastrophic event such as a war or economic collapse in which case we might be compelled to take more rapid action.

## 12. Information on the content of the credit rating as required by Paragraph (a)(1)(ii)(L) of Rule 179-7:

EJR credit rating is an opinion about the relative creditworthiness of an entity or an instrument. Exhibit 1 of Form NRSRO provides information on credit rating definitions and observed default rates in credit ratings performance measurement statistics. (https://www.eganjones.com/public/annual_certifications.aspx)
Historical performance of credit ratings is disclosed on the Firm's web site. (https://www.egan-jones.com/17g-7)
13. Information on the sensitivity of the credit rating to assumptions as required by Paragraph (a)(1)(ii)(M) of Rule 17g-7:

Below is a summary of the import of the 5 assumptions which independently would have the greatest impact on our "ratio-implied rating":

|  | Assumptions |  |  | Resulting Ratio-Implied Rating |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Base | Optimistic | Pessimistic | Base | Optimistic | Pessimistic |
| Interest Income Growth \% | 3.9 | 7.9 | -0.1 | BBB+ | BBB+ | BBB+ |
| Interest Expense (\% of outstanding debt) | 2.6 | -0.4 | 5.6 | BBB+ | BBB- | BB+ |
| Provisions for Loan Losses (\% of earning assets) | -0.1 | -3.1 | 2.9 | $\mathrm{BBB}+$ | BBB+ | BBB+ |
| Commissions \& Fees Earned Growth \% | 0.0 | 2.0 | -2.0 | BBB+ | BBB+ | BBB+ |
| Loan Loss Reserves (\% of Earn. Assets) | 0.0 | -2.0 | 2.0 | BBB+ | BBB+ | BBB+ |

14. If the credit rating is assigned to an asset-backed security, a description of: (i) the representations, warranties, and enforcement mechanisms available to investors; and (ii) how they differ from the representations, warranties, and enforcement mechanisms in issuances of similar securities, as required by Paragraph (a)(1)(ii)(N) of Rule 179-7:
This credit rating is not assigned to an asset-backed security.

## Comments on the Difference between the Model and Assigned Rating

We have assigned a rating of A - whereas the ratio-implied rating for the most recent historic period is BBB+. We consider a one notch difference to be immaterial.

## Comments on Industry Ratios

We have not made any adjustments in the industry ratios at this time.

## CUSIPs and EJR rating

3134G33Y4 rated NR; 3134G2B50 rated NR; 3134G3QS2 rated NR; 3137EADH9 rated NR; 3134G43U0 rated NR; 3134G3TT7 rated NR; 3134G2CV2 rated NR; 3134G44R6 rated NR; 3134G3UR9 rated NR; 3137EAAY5 rated NR; 3134G32E9 rated NR; 3134G36J4 rated NR; 3134G3MG2 rated NR; 3134G3K25 rated NR; 3134G47L6 rated NR; 3134G42K3 rated NR; 3134G32M1 rated NR; 3134G3D72 rated NR; 3128X6PP5 rated NR; 3134G3H86 rated NR; 3128X2TM7 rated NR; 3134G3TL4 rated NR; 3134G32B5 rated NR; 3134G33L2 rated NR; 3134G43R7 rated NR; 3134G3DE7 rated NR; 3134G4B49 rated NR; 3128X4UB5 rated NR; 3134G36M7 rated NR; 3134G25P3 rated NR; 3134G3MX5 rated NR; 3128X5RT7 rated NR; 3137EADQ9 rated NR; 3134A4TZ7 rated NR; 3128X5P69 rated NR; 3134G2N57 rated NR; 3134G33W8 rated NR; 3134G43P1 rated NR; 3134G3UE8 rated NR; 3134G4AH1 rated NR; 3134G1EA8 rated NR; 3134G3RK8 rated NR; 312902WK1 rated NR; 3134G3SP6 rated NR; 3134G3R77 rated NR; 3134G32T6 rated NR; 3134G3G87 rated NR; 3134A2HF8 rated NR; 3134G3T75 rated NR; 3134G3J50 rated NR; 3128X2SR7 rated NR; 3134G42V9 rated NR; 3134G3F21 rated NR; 3134A1MZ0 rated NR; 31339QAA7 rated NR; 3137EADF3 rated NR; 3134G3YE4 rated NR; 3134G3C57 rated NR; 3134G3B90 rated NR; 3134G42Y3 rated NR; 3128X6R32 rated NR; 3134G3Y79 rated NR; 3134G3NL0 rated NR; 3128X2SL0 rated NR; 3134G26W7 rated NR; 3128X7MQ4 rated NR; 3134G35Q9 rated NR; 3134G3W55 rated NR; 3134G3YW4 rated NR; 3134G25T5 rated NR; 3137EADL0 rated NR; 3134A4UX0 rated NR; 3134G2FT4 rated NR; 3134G3PE4 rated NR; 3134G3U81 rated NR; 3134G3WN6 rated NR; 3128X4AE1 rated NR; 3134G3Z29 rated NR; 3137EADC0 rated NR; 3134G4AT5 rated NR; 3134G3XY1 rated NR; 3134G3YN4 rated NR; 3134G3FU9 rated NR; 3134G32A7 rated NR; 3134G23H3 rated NR; 3134G25V0 rated NR; 3128X4T84 rated NR; 3134G45U8 rated NR; 3137EABA6 rated NR; 3134G26C1 rated NR; 313400MC4 rated NR; 3137EAAS8 rated NR; 3134G3S50 rated NR; 3134G3EN6 rated NR; 3134G3JU5 rated NR; 3134G32F6 rated NR; 3134G3MD9 rated NR; 3134G26B3 rated NR; 3134G3H78 rated NR; 3128X4U41 rated NR; 3134G4AB4 rated NR; 3134G3UA6 rated NR;

3134G3AG5 rated NR; 3128X4H53 rated NR; 3134G3Q29 rated NR; 3134G3KT6 rated NR; 3128X4N64 rated NR; 3128X5W87 rated NR; 3128X1CS4 rated NR; 3134G3NE6 rated NR; 3128X6LP9 rated NR; 3134G3YY0 rated NR; 3128X52U1 rated NR; 3128X2RM9 rated NR; 3134G3EW6 rated NR; 3134G42Z0 rated NR; 3137EAAJ8 rated NR; 3134G3LG3 rated NR; 3128X5E46 rated NR; 3128X5PC6 rated NR; 3134G3KA7 rated NR; 3134G25F5 rated NR; 3128X6VP8 rated NR; 3134G3NW6 rated NR; 3134G2Z47 rated NR; 3134G3PF1 rated NR; 3134G3YK0 rated NR; 3134G3Z45 rated NR; 3128X5XT0 rated NR; 3137EACT4 rated NR; 3134G3ZF0 rated NR; 3134G33F5 rated NR; 3134G32S8 rated NR; 3137EACM9 rated NR; 3128X6QQ2 rated NR; 3134G3GY0 rated NR; 3128X2SQ9 rated NR; 3134A4UM4 rated NR; 3128X5M54 rated NR; 3134G25A6 rated NR; 3134G4AP3 rated NR; 3134G3Y46 rated NR; 3134G3C65 rated NR; 3134G42N7 rated NR; 3134G27C0 rated NR; 3134G1R22 rated NR; 3134G3P95 rated NR; 3134G3WX4 rated NR; 3134G3W63 rated NR; 3134G25S7 rated NR; 3134G3Q52 rated NR; 3134G3TD2 rated NR; 3134G3US7 rated NR; 3128X5NE4 rated NR; 3134G45L8 rated NR; 3128X25J0 rated NR; 3128X54N5 rated NR; 3134G3BV1 rated NR; 3134G3LU2 rated NR; 3134G3K33 rated NR; 3134G3NH9 rated NR; 3134G32L3 rated NR; 3134G2JB9 rated NR; 3134G3S68 rated NR; 3134G3NA4 rated NR; 3134G34N7 rated NR; 3134G3UT5 rated NR; 3137EACV9 rated NR; 3134G2CL4 rated NR; 3134A2G77 rated A-; 3134G34P2 rated NR; 3128X2RG2 rated NR; 3134G3NS5 rated NR; 3134G3K82 rated NR; 3134G3H29 rated NR; 3134G3MY3 rated NR; 3134G2N65 rated NR; 3134G3FC9 rated NR; 3128X7AS3 rated NR; 3134G3HK9 rated NR; 3134A4ZT4 rated NR; 312902WL9 rated NR; 3134G26F4 rated NR; 3134G3XC9 rated NR; 3134G3WV8 rated NR; 3134G2UA8 rated NR; 3134G32W9 rated NR; 3134G33B4 rated NR; 3134G3J43 rated NR; 3137EAAM1 rated NR; 3134G3XV7 rated NR; 3134A2HG6 rated A-; 3134G36G0 rated NR; 3134G4AL2 rated NR; 3134G3MR8 rated NR; 3134G4B23 rated NR; 3134G3H94 rated NR; 3134G3XQ8 rated NR; 3134G3JK7 rated NR; 3134A1JD3 rated NR; 3134G33M0 rated NR; 3134G3X62 rated NR; 3134G23Y6 rated NR; 3134G25W8 rated NR; 3134G3Z37 rated NR; 3134G3YH7 rated NR; 3134G2U42 rated NR; 3134G16M1 rated NR; 3134G4AZ1 rated NR; 3134G36Q8 rated NR; 3137EAAD1 rated NR; 3134A1HH6 rated NR; 3134G3QH6 rated NR; 3134G46W3 rated NR; 3134A1CT5 rated NR; 3134G3L24 rated NR; 3134G3U99 rated NR; 3128X4AD3 rated NR; 3134G3XX3 rated NR; 3134G3A34 rated NR; 3137EADD8 rated NR; 3134G3VB3 rated NR; 3134G3SD3 rated NR; 3134G43Y2 rated NR; 3128X6TLO rated NR; 3134G42L1 rated NR; 3128X25H4 rated NR; 3134G25R9 rated NR; 3134G3GC8 rated NR; 3128X7SG0 rated NR; 3134G3MK3 rated NR; 3134G32Y5 rated NR; 3134G3UP3 rated NR; 3128X5WY0 rated NR; 3134G3WD8 rated NR; 3134G3QA1 rated NR; 3134G3JT8 rated NR; 3134G3XN5 rated NR; 3137EACB3 rated NR; 3134G25N8 rated NR; 3128X4S77 rated NR; 3134G1SG0 rated NR; 3134G3UB4 rated NR; 3134G33P3 rated NR; 3134G3PN4 rated NR; 3134G3P38 rated NR; 3134G3D98 rated NR; 3134G3E55 rated NR; 3134G3WZ9 rated NR; 3134G3GA2 rated NR; 3134A1X39 rated NR; 3134G3ND8 rated NR; 3134G3N63 rated NR; 3134G3EP1 rated NR; 3128X5PB8 rated NR; 3134G3M23 rated NR; 3134G34S6 rated NR; 3134G3LF5 rated NR; 3134G3L40 rated NR; 3134A1DL1 rated NR; 3134G25X6 rated NR; 3134G3XU9 rated NR; 3134G45A2 rated NR; 3134G25D0 rated NR; 3128X5MY1 rated NR; 3128X6QB5 rated NR; 3134A3ZU3 rated A-; 3134G3KY5 rated NR; 3134G3WS5 rated NR; 3137EACW7 rated NR; 3134G3EB2 rated NR; 3134G4AV0 rated NR; 3137EADA4 rated NR; 3134G32R0 rated NR; 3134G3YL8 rated NR; 3134G26E7 rated NR; 3134G3QL7 rated NR; 3134G3YC8 rated NR; 3134G34Z0 rated NR; 3128X2SP1 rated NR; 3134A1MX5 rated NR; 3137EACL1 rated NR; 312902VV8 rated NR; 3134G43E6 rated NR; 3128X9ML1 rated NR; 3134G3ZN3 rated NR; 3134G2R95 rated NR; 3134G3Y53 rated NR; 3128X6AX4 rated NR; 3134G46A1 rated NR; 3134G35W6 rated NR; 3134G3P87 rated NR; 3134G3W71 rated NR; 3134G2K92 rated NR; 3137EADJ5 rated NR; 3134G3GL8 rated NR; 3137EABM0 rated NR; 3134G2WG3 rated NR; 3134G3G38 rated NR; 3134G2CT7 rated NR; 3134G3JX9 rated NR; 3137EAAG4 rated NR; 3128X2SK2 rated NR; 3134G3KK5 rated NR; 3134G3RP7 rated NR; 3134G2MJ8 rated NR; 3134G3WH9 rated NR; 3134G3RV4 rated NR; 3134G3N55 rated NR; 3137EABS7 rated NR; 3134G24G4 rated NR; 3134G44F2 rated NR; 3128X3F32 rated NR; 3128X57M4 rated NR; 3134G2JC7 rated NR; 3128X9C73 rated NR; 3128X4FR7 rated NR; 3134G1GG3 rated NR; 3134G44M7 rated NR; 3134G3TJ9 rated NR; 3128X4Y39 rated NR; 3134G3SW1 rated NR; 3134G25M0 rated NR; 3134G3MZ0 rated NR; 3137EABX6 rated NR; 3134G3UG3 rated NR; 3134G2JD5 rated NR; 3134G3CY4 rated NR; 3134G3RM4 rated NR; 3134G3XB1 rated NR; 312902WM7 rated NR; 3134G3VD9 rated NR; 3134G32V1 rated NR; 3134G3Y20 rated NR; 3134G3YB0 rated NR; 3134G3J76 rated NR; 3134G3M72 rated NR; 3134G33C2 rated NR; 3134G3XP0 rated NR; 3134G3KC3 rated NR; 3134G3NU0 rated NR; 3134G36F2 rated NR; 3134G3ZR4 rated NR; 3137EACH0 rated NR; 3134G3YG9 rated NR; 3134A4UK8 rated NR; 3134G3QW3 rated NR; 3134G3HX1 rated NR; 3134G3EG1 rated NR; 3137EACZ0 rated NR; 3137EADN6 rated NR; 3134G43S5 rated NR; 3134G36P0 rated NR; 3134G3LP3 rated NR; 3134G3SE1 rated NR; 3134G3MT4 rated NR; 3134G3V80 rated NR; 3134G32C3 rated NR; 3134G33X6 rated NR; 3134G3NT3 rated NR; 3128X5FS2 rated NR; 3134G3UN8 rated NR; 3134G42M9 rated NR; 3134G2YJ5 rated NR; 3134G3CL2 rated NR; 3134G25Q1 rated NR; 3134G3TF7 rated NR; 3134G24Z2 rated NR; 3134G32X7 rated NR; 3134G3UQ1 rated NR; 3134G3LW8 rated NR; 3134G32D1 rated NR; 3128X2SN6 rated NR; 3134G3H52 rated NR; 3134G36K1 rated NR; 3134G3NN6 rated NR; 3128X2RH0 rated NR; 3128X9RD4 rated NR; 3134G3ZA1 rated NR; 3133F3AA1 rated NR; 3134G3FN5 rated NR; 3134G3Q45 rated NR; 3134A4ZY3 rated NR; 3134A4VG6 rated NR; 3134G3P20 rated NR; 3134G3D80 rated NR; 3134G4BA5 rated NR; 3134G3NG1 rated NR; 3134A4KX1 rated A-; 3134G3TM2 rated NR; 3134G3BF6 rated NR; 3134G3M31 rated NR; 3128X5PA0 rated NR; 3134G2XL1 rated NR; 3134G3NQ9 rated NR; 3128X2RA5 rated NR; 3134G3XT2 rated NR; 3137EACD9 rated NR; 3134G2Z62 rated NR; 3134G3UD0 rated NR; 3134G2N40 rated NR; 3134G33V0 rated NR; 3134G3PD6 rated NR; 3134G3LA6 rated NR; 3134G3KV1 rated NR; 3137EACX5 rated NR; 3134G26D9 rated NR; 3134G3FA3 rated NR; 3134G3LN8 rated NR; 3134G3XM7 rated NR; 3134G3YM6 rated NR; 3134G3ZH6 rated NR; 3134G42Q0 rated NR; 3134G3J27 rated NR; 3134G1HE7 rated NR; 312902VU0 rated NR; 3128X2SS5 rated NR; 3134G33D0 rated NR; 3134G4AN8 rated NR; 3128X6GT7 rated NR; 3134G3DM9 rated NR; 3134G3YD6 rated NR; 3134G3ZQ6 rated NR; 3134G3Y61 rated NR; 3134G3MP2 rated NR; 3134A4AA2 rated A-; 3128X5QT8 rated NR; 3134G3C40 rated NR; 3134G27A4 rated NR; 3128X2SM8 rated NR; 3134G26V9 rated NR; 3134G3GM6 rated NR; 3134G3H60 rated NR; 3137EACY3 rated NR; 3134G25U2 rated NR; 3134G3TB6 rated NR; 3134G3VR8 rated NR; 3134G3QF0 rated NR; 3134G4A81 rated NR; 3134G34B3 rated NR; 3128X2SJ5 rated NR; 3134G3XZ8 rated NR; 3134G25Z1 rated NR; 3134G3Z60 rated NR; 3128X9QX1 rated NR; 3134G32N9 rated NR; 3134G3PQ7 rated NR; 3134G3N48 rated NR; 3134A1BU3 rated NR; 3134G46G8 rated NR; 3134A4VC5 rated NR; 3128X3L76 rated NR; 3134G3WW6 rated NR; 3134G3JR2 rated NR; 3128X23A1 rated NR; 3134G44N5 rated NR; 3134G3VU1 rated NR; 3134G3WQ9 rated NR; 3134A3D29 rated A-; 3134G3NM8 rated NR; 3134G2NU2 rated NR; 3134G3XH8 rated NR; 3128X2RE7 rated NR; 3134G4AC2 rated NR; 3134G3PH7 rated NR; 3134G2JE3 rated NR; 3134G2MT6 rated NR; 3134G3LJ7 rated NR; 3128X6QE9 rated NR; 3134G3Q37 rated NR; 3134G33R9 rated NR; 3128X2RL1 rated NR; 3134G3XA3 rated NR; 3134G3L81 rated NR; 3134G3MB3 rated NR; 3134G4BB3 rated NR; 3134G3YX2 rated NR; 3134 G 1 C 36 rated

Freddie Mac | October 8, 2018 EJR Sr. Rating (Curr/Proj) A- / A-

EJR CP Rating A1

NR; 3134G3J68 rated NR; 3134G3JD3 rated NR; 3134G3T42 rated NR; 3128X33E1 rated NR; 3134G3XW5 rated NR; 3134G35L0 rated NR; 3134G4AJ7 rated NR; 3134G36A3 rated NR; 3134A2NQ7 rated NR; 3134G3FD7 rated NR; 3137EACU1 rated NR; 3134G25Y4 rated NR; 3134A4UU6 rated NR; 3134G2K43 rated NR; 3134G24R0 rated NR; 3128X6N85 rated NR; 3134G32P4 rated NR; 3134G4A40 rated NR; 3134G1XY5 rated NR; 3134G3G46 rated NR; 3134G3XS4 rated NR; 3134G3HP8 rated NR; 3128X4AC5 rated NR; 3134G3Y38 rated NR; 3134G3SB7 rated NR; 3134G3GX2 rated NR; 3134G3ZL7 rated NR; 3137EACR8 rated NR

## Attestation Form

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2. The credit rating was based solely upon the merits of the obligor, security, or money market instrument being rated, and
3. The credit rating was an independent evaluation of the credit risk of the obligor, security, or money market instrument.

## Prepared By

## Date Prepared



Karen Sanchez
Credit Rating Analyst

## Reviewed By



Credit Rating Analyst
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