

Rating Analysis Report

(FNMA) Federal National Mortgage Association

Govt Support Firms Federal National Mortgage Association: EJR affirms at A Non-NRSRO Rating

Current Senior Rating	А
Projected Senior Rating	А
Commercial Paper Rating	A1+
Three Year Default Probability	1.5%
Three Year Recovery Rate	67.2%



Ratings Group Contact ratings@egan-jones.com (844) 495-5244

Published on December 15, 2022

Federal National Mortgage Association (FNMA) is in the govt support firms sector and its operating income was \$26.6B for the quarter ending September 2022 vs. \$24.1B for the prior year. Net income for the September 2022 quarter was \$2.4B vs. the prior year's \$4.8B income.

Founded in 1938 and headquartered in Washington, DC, Federal National Mortgage Association is a government-sponsored company. It engages in the provision of liquidity for purchases of homes and financing of multifamily rental housing and refinancing existing mortgages. For the FQE Sep'22, net interest income grew 2.2% YoY to \$7.12B partly benefiting from an improvement in income from portfolio as a result of increases in interest rates. However, this fell short to offset the recorded provision for credit losses of \$2.54B (vs. \$937.0M benefit), thus, net interest income after provision for credit losses slumped to \$4.59B (-42.0%). Moreover, noninterest income plunged to \$225.0M (-33.2%) reflecting the impact of the recorded investment losses of \$172.0M (vs. \$243.0M gains). All these led to a lower YoY net income of \$2.44B (vs. \$4.84B) despite the decreases in total expenses and income tax expense of \$190.0M and \$837.0M, respectively. Regarding leverage, total debt was almost flat at \$4.2T for the FQE Sep'22 while total shareholder's equity rose from \$42.2B to \$58.8B. As a result, leverage (i.e. total debt/capital, including debt) was 98.6%. Net Debt is \$4.14T, while Market Cap is \$475.1M as of 12/14/2022 (a ratio of 8714.0:1). Affirming.

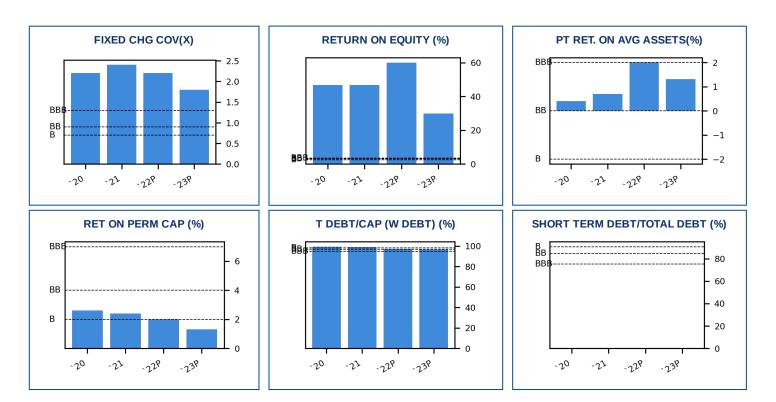
	Annual Ratios				Ratios For 4 Rolling Quarters				
CREDIT POSITION	Dec 20	Dec 21	PDec 22	PDec 23	Sep 21	Dec 21	Mar 22	Jun 22	Sep 22
Fixed Chg Cov(x)	2.2	2.4	2.2	1.8	2.4	2.4	2.4	2.3	2.2
Return on Equity (%)	46.7	46.8	60.0	29.8	51.1	46.8	41.7	33.8	28.4
PT Ret. on Avg Assets(%)	0.4	0.7	2.0	1.3	0.6	0.7	0.6	0.6	0.5
Ret on Perm Cap (%)	2.6	2.4	2.0	1.3	2.3	2.3	2.4	2.4	2.5
T Debt/Cap (w Debt) (%)	99.4	98.9	97.4	96.5	99.0	98.9	98.8	98.7	98.6
Short Term Debt/Total Debt (%)	0.3	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1
Implied Senior Rating	Α	Α	Α	Α-	Α	Α	Α	Α	Α-

PEER RATIOS	Other NRSRO Sen.	Fixed Charge Cov(x)	ROE(%)	Ret on Avg Assets	Ret on Perm Cap(%)	T Debt/ Cap(%)	ST Debt/ Total Debt(%)	Ratio- Implied Rating
Freddie Mac	AAA	2.3	43.2	0.5	2.1	99.1	1.6	A-
JPMorgan Chase & Co.	А	11.5	16.4	1.7	6.8	65.9	75.5	A+
Citigroup Inc.	A-	4.5	10.8	1.2	4.0	70.2	64.8	A+
Fidelity National Financial, Inc F	BBB	N/A	25.5	5.9	26.1	27.1	15.5	AA
Ocwen Financial Corporation	B-	3.4	3.8	(0.0)	3.2	95.8	12.4	BB+

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): 56.6, Last EJR Sen: A , Other NRSROS: AAA /-

INDUSTRY RATIOS	AA	А	BBB	BB	В	CCC
Fixed Chg Cov(x)	2.3	1.8	1.3	0.9	0.7	0.5
Return on Equity (%)	4.5	4.0	3.5	3.0	2.5	2.0
PT Ret. on Avg Assets(%)	6.0	4.0	2.0	0.0	-2.0	-4.0
Ret on Perm Cap (%)	20.0	10.0	7.0	4.0	2.0	-2.0
T Debt/Cap (w Debt) (%)	85.0	90.0	95.0	97.0	98.2	100.0
Short Term Debt/Total Debt (%)	47.5	62.2	75.3	84.9	90.7	94.2



ANNUAL INCOME STATEMENTS (BILLIONS \$)

gan-Jones

Ratings Company

Rating

Analysis

Report

Below are Federal National Mortgage Association's annual income statements with the projected years based on our assumptions.

	Dec 17	Dec 18	Dec 19	Dec 20	Dec 21	PDec 22	PDec 23
Interest Income	110	117	120	108	100	92	86
Interest Expense	89	96	99	83	70	70	74
Net Interest Income	21	21	21	25	30	22	12
Provisions for Loan Losses	(2)	(3)	(4)	1	(5)	(5)	(3)
Trading Account Profit	0	0	0	1	(1)	2	(5)
Commissions and Fees Earned	2	1	1	0	0	0	0
Other Operating Income	2	1	2	1	1	2	3
Non-Interest Expense	8	6	11	(72)	(63)	(55)	(48)
Operating Income	18	20	18	98	98	87	61
Net Non Operating Loss	0	0	0	0	0	0	0
Income Tax Expenses	16	4	3	3	6	16	11
Income Before XO Items	2	16	14	12	22	71	50
Extraordinary Item Net of Tax	0	0	0	0	0	0	0
Minority Interests	0	0	0	0	0	0	0
Consolidated Net Income	2	16	14	12	22	71	50
Total Cash Preferred Dividends & Other Gain/Loss	0	0	0	0	0	0	0
Net Income	2	16	14	12	22	71	50
Common Dividends/Distribution	0	0	0	0	0	0	0
Net Revenues	114	119	123	109	100	97	84
Comprehensive Income per Share	(1.1)	0.6	0.0	0.0	0.0	0.0	0.0
Basic EPS Before Abnormal Items	(1.1)	0.6	0.0	0.0	0.0	12.1	8.5
Basic EPS Before XO Items	(1.1)	0.6	0.0	0.0	0.0	12.1	8.5
Basic EPS	(1.1)	0.6	0.0	0.0	0.0	12.1	8.5
EBITDA	0	0	0	98	93	82	58

*Note, non-NRSRO rating. Copyright Egan-Jones Ratings Company. All rights reserved. No secondary distribution.



REVENUE & PROFITABILITY

gan-lones

Ratings Company

Rating

Analysis

Report

The Company's interest income declined at an average rate of 1.85% over the last five years while Operating Margin rose to 1.22% for the fiscal year ending December 2021, above the 0.54% average over the prior four years. Return on Assets rose to 0.52%, above the 0.35% average for the prior years.

	Dec 17	Dec 18	Dec 19	Dec 20	Dec 21	PDec 22	PDec 23
Interest Income (Billions USD)	110	117	120	108	100	92	86
Growth Rate (%)	3.6	6.5	2.2	-10.0	-7.3	-7.3	-7.3
Net Interest Income/Total Interest Income (%)	18.9	17.9	17.5	23.1	29.7	24.1	13.8
Loan Loss Coverage (%)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pretax Return on Avg Assets (%)	0.6	0.6	0.5	0.4	0.7	2.0	1.3
Oper Return / Earning Assets (%)	0.3	0.3	0.3	1.3	1.2	2.0	1.3
Non-Interest Inc / Revs (%)	3.5	1.7	2.7	1.7	0.7	4.6	-1.5
Efficiency Ratio (%)	33.5	27.0	44.0	-267.4	-207.2	-205.2	-457.1
Return on Assets (%)	0.1	0.5	0.4	0.3	0.5	1.6	1.0

LEVERAGE & ASSET LIQUIDITY

The Quick Asset Ratio has become weaker recently, slipping to 2.8:1 for the FYE December 2021.

	Dec 17	Dec 18	Dec 19	Dec 20	Dec 21	PDec 22	PDec 23
Quick Asset Ratio (%)	2.0	1.7	2.0	3.1	2.8	2.4	2.1
Quick Assets / ST Dep & Debt (%)	199.8	228.2	258.1	1,018.8	4,167.0	3,913.3	3,675.0
LT Debt/Capital (%)	100.1	99.8	99.6	99.4	98.9	97.4	96.5
T Debt/Cap (w Debt) (%)	N/A	99.8	99.6	99.4	98.9	97.4	96.5

ASSUMPTIONS FOR FINANCIALS

VALUATION DRIVER: Interest Income Growth

Federal National Mortgage Association (FNMA) has seen a decline in interest income at 7.3% per annum in the last fiscal year. We expect the Company's revenues will decline approximately 7.3% per annum over the next couple of years and 0.0% per annum for the next couple of years thereafter.

VALUATION DRIVER: Net Interest Margin

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

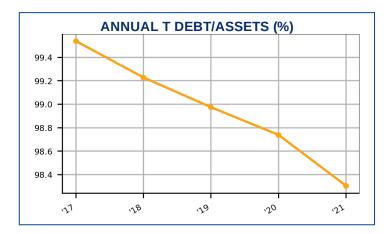
			ASSUMPT	IONS
	Peer Median	Company Average	Years 1 & 2	Years 3, 4, 5
Interest Income Growth (%)	(1.3)	(7.3)	(7.3)	0.0
Interest Expense (Rate %)	1.3	1.7	1.7	1.7
Net Interest Margin (% of earning assets)	1.6	0.4	0.4	0.0
Provisions for Loan Losses (% of earning assets)	(0.3)	(0.1)	(0.1)	0.0
Trading Account Profit Growth (%)	(9.5)	(306.6)	(306.6)	0.0
Commissions and Fees Earned Growth (%)	7.8	(21.9)	(21.9)	0.0
Other Operating Income Growth (%)	(5.1)	49.1	49.1	0.0
Non Interest Expense Growth (%)	0.4	(12.4)	(12.4)	0.0
Net Non Operating Loss Growth (%)	0.0	0.0	0.0	0.0
Income Tax Rate (%)	16.1	5.9	18.0	18.9
Special Items (Billions \$)	0.0	0.0	0.0	0.0
Cash & Near Cash Growth (%)	(5.9)	(6.0)	(6.0)	(6.0)
Accounts & Notes Receivable Growth (%)	0.0	(6.7)	(6.7)	(6.7)
Marktable Secs. & ST Investments Growth (%)	0.0	(100.0)	(100.0)	0.0
Loans & Mortgages Growth (%)	0.1	8.4	8.4	0.0
Real Estate Investments Growth (%)	0.0	0.0	0.0	0.0
Other Long Term Investments Growth (%)	0.0	(34.0)	(34.0)	0.0
Long Term Investments Before Reserves Growth (%)	0.0	6.5	6.5	0.0
Loan Loss Reserves (% of earning assets)	0.4	0.1	0.1	0.0
Loan Net of Reserves Growth (%)	0.0		0.0	0.0
Net Fixed Assets Growth (%)	(0.4)	(0.2)	(0.2)	0.0
Other Assets Growth (%)	15.6	0.0	0.0	0.0
Demand Deposits Growth (%)	0.0	0.0	0.0	0.0
Short-Term Borrowings Growth (%)	4.6	(77.0)	(77.0)	0.0
Customer Deposits Growth (%)	0.0	0.0	0.0	0.0
Other Short-Term Liabilities Growth (%)	0.0	0.0	2.0	2.0
Long-Term Borrowings Growth (%)	1.2	5.9	5.9	0.0
Deferred Tax Liability Growth (%)	0.0	138.6	138.6	124.8
Other Long-Term Liabilities Growth (%)	0.0	(4.6)	(4.6)	(4.6)
Shares Sold (% of shares out.)	0.0	0.0	0.0	0.0
Additional ST Debt (Billions \$)	0.0	0.0	0.0	0.0

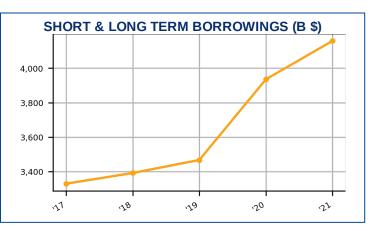
ANNUAL BALANCE SHEETS (BILLIONS \$)

Below are Federal National Mortgage Association's balance sheets with the projected years based on our assumptions. As of December 2023, the Company's total cash is assumed to decrease from \$108.6B as of December 2021 to \$95.9B while its total debt is assumed to rise from \$4158.2B to \$4653.6B.

ASSETS	Dec 17	Dec 18	Dec 19	Dec 20	Dec 21	PDec 22	PDec 23
Cash & Near Cash	60	49	61	116	109	102	96
Accounts & Notes Receivable	9	9	9	10	10	9	9
Marketable Secs. & ST Investments	0	0	0	0	0	0	0
Mortgage Loans	3,193	3,256	3,336	3,670	3,977	4,310	4,671
Real Estate Investments	0	0	0	0	0	0	0
Other Long-Term Investments	59	78	64	166	110	72	48
Long-Term Investments before Reserves	3,252	3,334	3,401	3,836	4,087	4,383	4,719
Loan Loss Reserves	19	14	9	11	6	6	6
Loans Net of Reserves	3,233	3,320	3,391	3,826	4,081	4,377	4,714
Net Fixed Assets	3	3	2	1	1	1	1
Other Assets	0	0	0	0	0	29	29
Additional Assets	41	37	39	33	29	0	0
Total Assets	3,346	3,418	3,503	3,986	4,230	4,519	4,848
Earning Assets	6,415	6,571	6,728	7,495	8,063	4,383	4,719

LIABILITIES	Dec 17	Dec 18	Dec 19	Dec 20	Dec 21	PDec 22	PDec 23
Demand Deposits	0	0	0	0	0	0	0
Short-Term Borrowings	34	25	27	12	3	3	3
Customer Deposits	0	0	0	0	0	0	0
Other Short Term Liabilities	0	0	0	0	0	0	0
Long-Term Borrowings	3,296	3,367	3,441	3,924	4,155	4,373	4,651
Deferred Tax Liability	0	0	0	0	1	2	4
Other Long-Term Liabilities	19	20	21	25	24	23	21
Other Liabilities	0	0	0	0	0	0	0
Total Liabilities	3,349	3,412	3,489	3,961	4,183	4,400	4,679
Total Preferred Equity	136	140	140	140	140	140	140
Minority Interest	0	0	0	0	0	0	0
Share Capital & APIC	1	1	1	1	1	1	1
Retained Earnings & Other Equity	-141	-134	-126	-115	-93	-22	28
Total Shareholders & Equity	-4	6	15	25	47	119	169
Total Liabilities & Equity	3,346	3,418	3,503	3,986	4,230	4,519	4,848
Shares Outstanding	5,762	5,893	5,893	5,893	5,893	5,893	5,893





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 17g-7:

For the issue Federal National Mortgage Association with the ticker of FNMA we have assigned the senior unsecured rating of A. There are three notches in our rating categories (e.g., A- A, and A+) except for AAA and those deep into speculative grade, i.e., CC, C, and D do not have 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 used version #15a of the Methodologies for Determining Credit Ratings (Main Methodology), a copy of which is available at eganjones.com.

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 17g-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, 8K 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 corporation 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 17g-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.

Regulatory/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.

Cyber/System 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 17g-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.egan-jones.com/regulatory/form-nrsro/credit-ratings-performance-measurement-statistics/) Historical performance of credit ratings is disclosed on the Firm's website.

(https://egan-jones.com/client/rar.aspx?&Tickers=FNMA)

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 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 %	-7.3	0.0	0.0	A-	A-	A-	
Interest Expense (% of outstanding debt)	1.7	0.0	4.7	A-	A-	BB	
Provisions for Loan Losses (% of earning assets)	-0.1	0.0	2.9	A-	A-	BB-	
Commissions & Fees Earned Growth %	-21.9	0.0	0.0	A-	A-	A-	
Loan Loss Reserves (% of Earn. Assets)	0.1	0.0	2.1	A-	A-	A-	

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 17g-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 A-. 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 ratings

31398A6D9 rated NR; 3136G1MZ9 rated NR; 3136FRYA5 rated NR; 3135G0OB2 rated NR; 3135G0RZ8 rated NR; 31398AMT6 rated NR; 3136G1WA3 rated NR; 3136G1M71 rated NR; 3136G17H6 rated NR; 3136G1NR6 rated NR; 31398AU34 rated NR: 31398A6A5 rated NR; 3135G0HL0 rated NR; 3136FTJE0 rated NR; 3135G0EA7 rated NR; 3136FP6X0 rated NR; 3136G1U56 rated NR; 3136FPGJ0 rated NR; 3136G0Y21 rated NR; 3136G1ML0 rated NR; 3136G0PW5 rated NR; 31398A3R1 rated NR; 3136FT5E5 rated NR; 3136G04S7 rated NR; 3136G0R78 rated NR; 3136G1VA4 rated NR; 3136G1NF2 rated NR; 3136G1S34 rated NR; 3136FTZB8 rated NR: 3136FMAS3 rated NR: 31359MSL8 rated NR: 3135G0GM9 rated NR: 3136FTW21 rated NR: 31359MEE9 rated A: 3135G0HV8 rated NR; 3136G0ZQ7 rated NR; 3136FPBB2 rated NR; 3135G0VH3 rated NR; 3136FTQ51 rated NR; 3136FPEL7 rated NR; 3136G0ZJ3 rated NR; 3136G1KR9 rated NR; 3136G0MX6 rated NR; 31359MS61 rated NR; 3136G1NS4 rated NR; 31398AX31 rated NR; 3136FTNU9 rated NR; 3136FPUX3 rated NR; 3136G04R9 rated NR; 3136FTK57 rated NR; 3136F8X91 rated NR; 3136FTS83 rated NR; 3136G1MJ5 rated NR; 3136G05B3 rated NR; 3136F6G86 rated NR; 3136G1M97 rated NR; 3135G0VA8 rated NR; 3136FPAB3 rated NR; 3136G1LQ0 rated NR; 3135G0CB7 rated NR; 3136G1LG2 rated NR; 3136FRU27 rated NR; 3136G02U4 rated NR; 3136G0UC3 rated NR; 3136FRTR4 rated NR; 3135G0PG2 rated NR; 3135G0SU8 rated NR; 31364KQG8 rated NR; 3136G1LJ6 rated NR; 3136FTXM6 rated NR; 3135G0XA6 rated NR; 3136FRRV7 rated NR; 3136FRX57 rated NR; 3135G0NP4 rated NR; 3135G0MX8 rated NR; 3135G0HF3 rated NR; 31359MXX6 rated NR; 3136F7Y35 rated NR; 3135G0PA5 rated NR; 3135G0CE1 rated NR; 3136G1T33

Rating

Analysis

Report

rated NR; 3135G0BQ5 rated NR; 3136G1N62 rated NR; 31359MWJ8 rated NR; 3136FTH36 rated NR; 3136G1MX4 rated NR; 3136FPKA4 rated NR; 3136FPDY0 rated NR; 3136FTXS3 rated NR; 3136G1MY2 rated NR; 3136F7Q34 rated NR; 3135G0VJ9 rated NR: 3135G0UA9 rated NR: 3136G1LH0 rated NR: 3135G0BR3 rated NR: 31359M4D2 rated NR: 313586UV9 rated NR: 3136G1L23 rated NR; 3136G1LE7 rated NR; 3136G1KH1 rated NR; 3136G0K26 rated NR; 3136G1KY4 rated NR; 3136G1K73 rated NR; 3136G1G86 rated NR; 3136G12X6 rated NR; 3136G1GK9 rated NR; 3136G1MH9 rated NR; 3135G0XN8 rated NR; 3136G1N70 rated NR; 3136FT3C1 rated NR; 3136G04B4 rated NR; 3135G0TY9 rated NR; 3136G0TP6 rated NR; 3136G1EH8 rated NR; 3135G0XB4 rated NR; 3136FTRB7 rated NR; 3136G0NM9 rated NR; 3136FPGF8 rated NR; 3136G0VN8 rated NR; 3135G0PJ6 rated NR; 3136G0RK9 rated NR: 3135G0EZ2 rated NR: 3136F6O69 rated NR: 3136FTU23 rated NR: 3136G1ND7 rated NR: 3135G0TT0 rated NR; 3136G1PV5 rated NR; 3136G1NT2 rated NR; 3136FRX73 rated NR; 3136FPHP5 rated NR; 3136G1LN7 rated NR; 3136FTN62 rated NR; 3136FR5Y5 rated NR; 3136G1UV9 rated NR; 3136G1NP0 rated NR; 3136G1M48 rated NR; 3135G0VB6 rated NR; 3136FTWW5 rated NR; 3136FPDC8 rated NR; 3136F9U35 rated NR; 31398ANQ1 rated NR; 31359MZC0 rated NR; 31398A3L4 rated NR; 3136G1M22 rated NR; 3136G1SE0 rated NR; 3136G1LR8 rated NR; 3136G0TH4 rated NR; 3136G1NK1 rated NR; 3136F83A1 rated NR; 3136F3L61 rated NR; 3136FTA90 rated NR; 3135G0VZ3 rated NR; 3135G0RS4 rated NR; 3136FRSP9 rated NR; 3136FPEV5 rated NR: 3136FRZA4 rated NR: 3136FR7A5 rated NR: 3136FTR92 rated NR: 3136FPUE5 rated NR: 3136G1U31 rated NR: 3136FPGT8 rated NR: 31364GBB4 rated NR: 3135G0TH6 rated NR: 3135G0UM3 rated NR: 3135G0NA7 rated NR: 3136FPGM3 rated NR; 3135G0UL5 rated NR; 3136G1RJ0 rated NR; 313586C64 rated NR; 3135G0XL2 rated NR; 3136FPLB1 rated NR; 3136G0NJ6 rated NR; 3136G0ST9 rated NR; 3135G0LN1 rated NR; 3136F8NZ4 rated NR; 3136FTS34 rated NR; 3135G0CG6 rated NR; 3136G1NN5 rated NR; 3136F8NU5 rated NR; 3136FPNA1 rated NR; 3136FRB44 rated NR; 3136FPCF2 rated NR; 3135G0RX3 rated NR; 3136F8QH1 rated NR; 3135G0BY8 rated NR; 3135G0AP8 rated NR; 3135G0HH9 rated NR; 3135G0WK5 rated NR; 3135G0MQ3 rated NR: 3136FRT78 rated NR: 3136FT5T2 rated NR: 3135G0PE7 rated NR: 3136G0EW7 rated NR: 3135G0PR8 rated NR: 3136G1KZ1 rated NR; 3136G1DW6 rated NR; 3135G0UB7 rated NR; 3136G1L98 rated NR; 3136G1VB2 rated NR; 31398A4S8 rated NR; 3136G1MA4 rated NR; 3136G1MP1 rated NR; 3135G0WC3 rated NR; 3136FTXU8 rated NR; 3135G0WT6 rated NR; 3136G1UY3 rated NR; 31398A4H2 rated NR; 3135G0TW3 rated NR; 3136F3ZQ2 rated NR; 3136F67E3 rated NR; 3136FPDR5 rated NR; 3136FPNG8 rated NR; 3136FPYA9 rated NR; 3136FRSE4 rated NR; 3136FT4M8 rated NR; 3135G0VK6 rated NR; 3136FTDG1 rated NR; 3136FTPR4 rated NR; 3136FTTY5 rated NR; 3136FTRE1 rated NR; 3136G1KQ1 rated NR; 3136G0AE1 rated NR; 31398AT44 rated NR; 3136FTWY1 rated NR; 3135G0DZ3 rated NR; 3136G04C2 rated NR; 3135G0WV1 rated NR; 3136G1WM7 rated NR; 3135G0SE4 rated NR; 3135G0MJ9 rated NR; 3136G06Z9 rated NR; 3136FPFA0 rated NR; 3136G1PT0 rated NR; 3136G1DY2 rated NR; 3136G1E54 rated NR; 3136G1PB9 rated NR; 3136G1L80 rated NR; 3136G1MB2 rated NR; 3136G1ME6 rated NR; 3135G0XY4 rated NR; 3136G1MK2 rated NR; 3136G1MV8 rated NR; 3136G1N88 rated NR; 3136G1NA3 rated NR; 3136G1NE5 rated NR; 31398A2W1 rated NR; 31398AMH2 rated NR; 31398AVZ2 rated NR; 31398AUJ9 rated NR; 3136FTXN4 rated NR; 31398A3K6 rated NR; 3136G1MF3 rated NR; 3136G1L31 rated NR; 3136G1E88 rated NR; 3136G1K99 rated NR; 3136G0NA5 rated NR; 3136G15H8 rated NR; 3136FTOA0 rated NR: 3136FT6R5 rated NR: 3136G1FP9 rated NR: 3136FTS42 rated NR: 3136F9T86 rated NR: 3135G0KM4 rated NR: 313586UB3 rated NR; 3136G1LT4 rated NR; 3135G0XT5 rated NR; 3136FPZT7 rated NR; 3136G1V63 rated NR; 3136G0XW6 rated NR; 3136G1N21 rated NR; 3136G0SQ5 rated NR; 3136F9H97 rated NR; 3136FPJQ1 rated NR; 3136FRGA5 rated NR; 3136FRS79 rated NR; 3136FTB24 rated NR; 3136FTFC8 rated NR; 3136FTYX1 rated NR; 3136G0L74 rated NR; 3136G0RS2 rated NR; 3136G0W80 rated NR; 3135G0TS2 rated NR; 3136G1KW8 rated NR; 3136G1VK2 rated NR; 3136F8TX3 rated NR; 3135G0WH2 rated NR; 3135G0UT8 rated NR; 3136G1MG1 rated NR; 31398A4M1 rated NR; 3136FPHZ3 rated NR; 3135G0FU2 rated NR; 3136FTK81 rated NR; 3135G0WF6 rated NR; 3136G1NQ8 rated NR; 3136FRX32 rated NR; 3136G0SU6 rated NR; 3135G0ST1 rated NR; 3136F9EM1 rated NR; 3136F7NJ2 rated NR; 3135G0WP4 rated NR; 3136FP5O6 rated NR; 31359MFE8 rated A; 3136F8LW3 rated NR; 3136F8FS9 rated NR; 3136FTLE7 rated NR; 3135G0AZ6 rated NR; 3135G0XR9 rated NR; 3136FM6V1 rated NR; 3135G0UQ4 rated NR; 3135G0CM3 rated NR; 3136FTUJ6 rated NR; 3136G0QJ3 rated NR; 3136G0VD0 rated NR; 3136G0VP3 rated NR; 3136G1LK3 rated NR; 3136G0VU2 rated NR; 3136FPEZ6 rated NR; 3136G1CK3 rated NR; 3135G0YB3 rated NR; 3136G1FN4 rated NR; 3136G1NV7 rated NR; 3136F7QX8 rated NR; 3135G0ES8 rated NR; 3135G0LY7 rated NR; 3136G1NU9 rated NR; 3135G0BJ1 rated NR: 3136FP4N4 rated NR: 3136F9B44 rated NR: 3136G1EU9 rated NR: 3135G0VF7 rated NR: 3136G1N47 rated NR: 31359MA45 rated NR; 3136FPD38 rated NR; 3136FTEA3 rated NR; 3136FRUD3 rated NR; EH3329412 rated NR; 3136F9U27 rated NR; 3135G0WR0 rated NR; 3135G0YD9 rated NR; 3136FRVW0 rated NR; 3136G1MU0 rated NR; 3136G06B2 rated NR; 3136FPHW0 rated NR; 3135G0HG1 rated NR; 3136FTS26 rated NR; 31398A5R9 rated NR; 3135G0UY7 rated NR; 313586QR3 rated NR; 3135G0GC1 rated NR; 3136FPAS6 rated NR; 3135G0PB3 rated NR; 3136G07E5 rated NR; 3136G0P21 rated NR; 3136G1MW6 rated NR; 3136F72Y2 rated NR; 3136G1LL1 rated NR; 3136F6D89 rated NR; 3135G0SR5 rated NR; 3135G0XV0 rated NR; 3135G0UG6 rated NR: 31364GBZ1 rated NR: 3136FR5H2 rated NR: 3135G0FD0 rated NR: 3135G0WL3 rated NR: 3135G0MF7 rated NR: 3135G0WO2 rated NR; 3135G0WE9 rated NR; 3135G0SB0 rated NR; 31398A6C1 rated NR; El9999620 rated NR; 3136FT4H9 rated NR; 3135G0PM9 rated NR; 31398AYY2 rated NR; 3135G0TZ6 rated NR; 3135G0NM1 rated NR; 31364F3N9 rated NR; 3136G0WL1 rated NR; 3136G1L72 rated NR; 3136G1M63 rated NR; 3135G0CH4 rated NR; 3135G0XH1 rated NR; 3136G0SF9 rated NR; 3136FTQS1 rated NR; 3135G0FY4 rated NR; 3136FRUP6 rated NR; 3135G0GY3 rated NR; 3136G1SX8 rated NR; 3136FR2G7 rated NR; 3135G0XF5 rated NR; 3136G05W7 rated NR; 3135G0UZ4 rated NR; 3135G0NS8 rated NR; 3136FTBZ1 rated NR; 3136FT2E8 rated NR: 3135G0VO3 rated NR: 3135G0SO7 rated NR: 3136FTT58 rated NR: 3136G1P37 rated NR: 3135G0MH3 rated NR: 3136G1KT5 rated NR; 3136G1LY3 rated NR; 3136G1NL9 rated NR; 3136FRT60 rated NR; 31398A4N9 rated NR; 3136FTX61 rated NR; 3136F8NC5 rated NR; 3136G1MT3 rated NR; 3136FR4C4 rated NR; 3136FPAH0 rated NR; 3136G0L25 rated NR; 31359MW41 rated NR; 3135G0RY1 rated NR; 3136FTXJ3 rated NR; 31398A3A8 rated NR; 3136F95E9 rated NR; 3136G1DM8 rated NR; 3136G1E62 rated NR; 3136G1BW8 rated NR; 3135G0XU2 rated NR; 3136FTH51 rated NR; 31364FDC2 rated A; 3135G0XK4 rated NR; 31398A2M3 rated NR; 31359MEU3 rated A; 3136F8KU8 rated NR; 3136G1LX5 rated NR; 3136G1KE8 rated NR; 3136G0MR9 rated NR; 3136G1LZ0 rated NR; 3135G0VX8 rated NR; 3136G1PD5 rated NR; 3135G0RW5 rated NR; 31398AZV7 rated NR; 31398A2S0 rated NR; 3135G0MP5 rated NR; 3135G0QN6 rated NR; 3136G1MM8 rated NR; 3136F6Q77 rated NR; 3136G1EW5 rated NR; 3136FP6B8 rated NR; 3135G0VN0

Rating

Analysis

Report

rated NR; 3135G0XP3 rated NR; 3135G0TL7 rated NR; 3136G1LB3 rated NR; 3135G0TJ2 rated NR; 3136FPEX1 rated NR; 3136G1FG9 rated NR: 3136FRVK6 rated NR: 3136G13F4 rated NR: 3136G0D32 rated NR: 3136G12C2 rated NR: 3135G0OR7 rated NR: 31364KDL1 rated NR; 3135G0RH8 rated NR; EF1442054 rated NR; 3135G0XC2 rated NR; 3135G0HK2 rated NR; 3136G0VB4 rated NR; 3136G1F87 rated NR; 3136FRTE3 rated NR; 3136G1D30 rated NR; 3136G1KS7 rated NR; 3136G1KJ7 rated NR; 3136F8ND3 rated NR; 3136FRT45 rated NR; 3136FPRV1 rated NR; 3136FT6S3 rated NR; 3135G0NG4 rated NR; 3135G0NX7 rated NR; 3135G0VP5 rated NR; 3135G0WZ2 rated NR; 3135G0UF8 rated NR; 3135G0HN6 rated NR; 3135G0HA4 rated NR; 31359MEA7 rated A; 31359MGK3 rated A; 31364FCB5 rated A; 3136G1RS0 rated NR; 31398A3J9 rated NR; 31398A5Z1 rated NR; 3135G0HB2 rated NR; 3135G0DW0 rated NR: 3135G0SL8 rated NR: 3136FTDF3 rated NR: 31359MTG8 rated NR: 3136FRH22 rated NR: 3136G1GL7 rated NR; 31398A4K5 rated NR; 3136FPNV5 rated NR; 3135G0WY5 rated NR; 3135G0UW1 rated NR; 3136FPXM4 rated NR; 3135G0UV3 rated NR; 31398AVD1 rated NR; 3135G0UC5 rated NR; 3136G1NM7 rated NR; 3135G0WG4 rated NR; 3135G0MU4 rated NR; 31398A3G5 rated NR; 3136FRV42 rated NR; 3136FTWD7 rated NR; 31359MFJ7 rated A; 3136G1NB1 rated NR; 3135G0FQ1 rated NR; 3136G17A1 rated NR; 3135G0TX1 rated NR; 31364FVZ1 rated A; 3135G0WW9 rated NR; 3136G1MN6 rated NR; 3136FPKH9 rated NR; 3136FRRR6 rated NR; 31364KQH6 rated NR; 3135G0VR1 rated NR; 3136FRX40 rated NR; 3135G0CU5 rated NR; 3136FTU80 rated NR: 3136G0PC9 rated NR: 3136FPSW8 rated NR: 31398AZZ8 rated NR: 3136FTEK1 rated NR: 3136G1KD0 rated NR: 3136F9CZ4 rated NR; 31398AZ54 rated NR; 3136G1NJ4 rated NR; 3136G1EM7 rated NR; 3136G1VW6 rated NR; 3136G1MS5 rated NR; 3136G1MC0 rated NR; 3136FRS38 rated NR; 3136FPWZ6 rated NR; 3136FRWY5 rated NR; 3136G1LD9 rated NR; 3136G1LU1 rated NR; 3136G1LM9 rated NR; 3135G0BB8 rated NR; 3136G14E6 rated NR; 313586YX1 rated NR; 31398A3T7 rated NR; 31359MFP3 rated A; 3136G1Q44 rated NR; 3136FTW54 rated NR; 3136FTBQ1 rated NR; 3136G1KG3 rated NR; 3136G1K81 rated NR; 3136FRA37 rated NR; 31398ASD5 rated NR; 3135G0HD8 rated NR; 3136G1LP2 rated NR; 3136G04M0 rated NR; 3136G1KV0 rated NR: 3135G0LD3 rated NR: 3136F9T94 rated NR: 3136G1LC1 rated NR: 3136G1KL2 rated NR: 3136FTM89 rated NR: TT3169600 rated NR; 3136G1NG0 rated NR; 3135G0PF4 rated NR; 3136G1FO7 rated NR; 3136FPEW3 rated NR; 3135G0HJ5 rated NR; 3135G0EV1 rated NR; 3135G0HE6 rated NR; 3135G0BA0 rated NR; 3136FTJ59 rated NR; 3136G0J44 rated NR; 3136G1DN6 rated NR; 3136FTRD3 rated NR; 3136FTT90 rated NR; 3136FTUZ0 rated NR; 3136G05H0 rated NR; 3136G0NR8 rated NR; 3136G1L64 rated NR; 3136G1KM0 rated NR; 3136G1L56 rated NR; 3136FTFQ7 rated NR; 3136G1K32 rated NR; 3136G1CZ0 rated NR; 3136G13H0 rated NR; 3136G0TV3 rated NR; 3136G0PR6 rated NR; 3136G0M65 rated NR; 3136G1KF5 rated NR; 3135G0AL7 rated NR; 3136G1EX3 rated NR: 3136G02O3 rated NR: 3136FTOM4 rated NR: 3135G0VM2 rated NR: 3136FTRF8 rated NR: 31359MTP8 rated NR; 3136G14F3 rated NR; 3136FTS59 rated NR; 3136G1LA5 rated NR; 3136G0KG5 rated NR; 31359MEB5 rated A; 3136G1FF1 rated NR; 3135G0EY5 rated NR; 31359M2D4 rated NR; 3136FTZ51 rated NR; 3136G1M30 rated NR; 3136FPET0 rated NR; 3135G0WS8 rated NR; 31359MH89 rated NR; 3136FTV55 rated NR; 3136FTQ36 rated NR; 3135G0NV1 rated NR; 31359MUT8 rated NR; 3135G0TR4 rated NR; 3135G0PY3 rated NR; 3135G0VS9 rated NR; 3135G0US0 rated NR; 3136G0Z20 rated NR; 3136G1K57 rated NR; 3135G0YA5 rated NR; 3136G1MR7 rated NR; 3136F83Z6 rated NR; 31398AXJ6 rated NR; 3136FPNN3 rated NR; 3136FTSQ3 rated NR: 31398A5W8 rated NR: 3136G1SY6 rated NR: 3136FPLV7 rated NR: 3136FT4R7 rated NR: 3136FTVN6 rated NR: 3136FTL31 rated NR; 3136G03M1 rated NR; 3136G1FC8 rated NR; 3136G0NU1 rated NR; 3136G1GR4 rated NR



Rating Analysis Report

Date Prepared

12/14/22

Attestation Form

In compliance with the US Securities and Exchange Commission (SEC) Rule 17g-7(a), the Egan-Jones analyst who published the report is responsible for the rating action and to the best knowledge of the person:

- 1. No Part of the credit rating was influenced by any other business activities,
- 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

elle V. Realin

Credit Rating Analyst

ly Chen

Reviewed By

Lilv Chen

Date Reviewed 12/15/22

Associate Director, Credit Rating Analyst

© Egan-Jones Ratings Company, Inc. ("Egan-Jones"). All rights reserved.

The information upon which Egan-Jones ratings and reports are based is obtained by Egan-Jones from sources Egan-Jones believes to be accurate and reliable. Egan-Jones relies on third party reports and information and data provided and Egan-Jones has not, unless required by law or internal policies/procedures, independently verified or performed due diligence related to the accuracy of information, data or reports. Egan-Jones has not consented to, nor will consent to, being named an "expert" under federal securities laws, including without limitation, Section 7 of the Securities Act of 1933. Please note that expected or final ratings are not recommendations to buy, hold or sell the securities. Egan-Jones is not an advisor and is not providing investment advice, strategy or related services. Egan-Jones and its third-party suppliers ("Suppliers") hereby disclaim any representation or warranty, express or implied, as to the accuracy, timeliness, completeness, merchantability, and fitness for any particular purpose or non-infringement of any of such information. In no event shall Egan-Jones or its directors, officers, employees, independent contractors, agents, representatives, or Suppliers (collectively, Egan-Jones Representatives) be liable (1) for any inaccuracy, delay, loss of data, interruption in service, error, (negligent or otherwise) or other circumstance or contingency within or outside the control of Egan-Jones or any Egan-Jones Representative, in connection with or related to obtaining, collecting, compiling, analyzing, interpreting, communicating, publishing or delivering any such information. Ratings and other opinions issued by Egan-Jones are, and must be construed solely as, statements of opinion and not statements of fact as to credit worthiness or recommendations to purchase, sell or hold any securities. A report providing an Egan-Jones rating is neither a prospectus nor a substitute for the information assembled, verified and presented to investors by the issuer and its agents in connection with the sale of the securities. Egan-Jones is not responsible for the content or operation of third party websites accessed through hypertext or other computer links and Egan-Jones shall have no liability to any person or entity for the use of such third party websites. This publication may not be reproduced, retransmitted or distributed in any form without the prior written consent of Egan-Jones. Egan-Jones ratings are subject to disclaimers. Egan-Jones is not an NRSRO (as defined by the SEC) for sovereign/municipal issuers and structured finance/ABS issuers.