

ARMOUR RESIDENTIAL REIT, Inc. Company Update

10/15/2021

ARMOUR seeks to create shareholder value through thoughtful investment and risk management that produces current yield and superior risk adjusted returns over the long term.

Our focus on residential real estate finance supports home ownership for a broad and diverse spectrum of Americans by bringing private capital into the mortgage markets. • Certain statements made in this presentation regarding ARMOUR Residential REIT, Inc. ("ARMOUR" or the "Company"), and any other statements regarding ARMOUR's future expectations, beliefs, goals or prospects constitute "forward-looking statements" made within the meaning of the safe harbor provisions of the United States Private Securities Litigation Reform Act of 1995. Any statements that are not statements of historical fact (including statements containing the words "expect," "estimate," "project," "budget," "forecast," "anticipate," "intend," "plan," "may," "will," "could," "should," "believes," "predicts," "potential," "continue," and similar expressions) should also be considered forward-looking statements. Forward-looking statements include but are not limited to statements regarding the projections and future plans for ARMOUR's business, growth and operational improvements. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict and many of which are outside of ARMOUR's control. A number of important factors could cause actual results or events to differ materially from those indicated by such forward-looking statements. Additional information concerning these factors and risks are contained in the Company's most recent annual and quarterly reports and other reports filed with the Securities and Exchange Commission. ARMOUR assumes no obligation to update the information in this communication, except as otherwise required by law. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof.

• This material is for information purposes only and does not constitute an offer to sell, a solicitation of an offer to buy, or a recommendation for any securities or financial instruments. The statements, information and estimates contained herein are based on information that the Company believes to be reliable as of today's date unless otherwise indicated. ARMOUR cannot guarantee future results, levels of activity, performance or achievements.

• Pricing and duration information are estimates provided by independent third-party providers based on models that require inputs and assumptions. Actual realized prices and durations will depend on a number of factors that cannot be predicted with certainty and may be materially different from estimates.

- Estimates do not reflect any costs of operation of ARMOUR.
- THE INFORMATION PRESENTED HEREIN IS UNAUDITED AND NOT REVIEWED BY OUR INDEPENDENT PUBLIC ACCOUNTANTS.



2

ARMOUR Overview

ARMOUR manages an investment portfolio consisting of mortgage-backed securities issued or guaranteed by U.S. Government-sponsored enterprises ("GSEs"), Treasury securities, and cash.

Stockholders' Equity and Liquidity

- Stockholders' Equity at the end of Q3 2021 totaled \$1,144 million, including the 7.00% Series C Cumulative Redeemable Preferred Stock ("Series C Preferred") with liquidation preference totaling \$171 million.
- Book Value per Common Share on September 30, 2021 was \$11.09. At quarter-end, ARMOUR had 87,708,731 common shares outstanding.
- September 30, 2021 liquidity was \$790 million, consisting of \$126 million cash & \$664 million unlevered Agency and US Treasury securities.

Dividend Policy

- ARMOUR pays dividends monthly.
- The Company previously announced the October common stock dividend of \$0.10 per share payable on October 28, 2021 to holders of record on October 15, 2021.
- Since inception in November 2009, ARMOUR has paid out \$1.7 billion in dividends.⁽¹⁾

Shareholder Alignment

- Returned \$787 million to common shareholders through share repurchases and distributions since 2013.
- Senior management maintains common stock ownership in excess of \$5.75 million aggregate target.
- Managed preferred shares through repurchases, calls, and refinancing to maximize value in capital structure.

Transparency and Governance

- Updated portfolio and liability details can be found monthly at www.armourreit.com.
- Non-Executive Board Chairman and separate Lead Independent Director.

ARMOUR REIT Manager

- ARMOUR REIT is externally managed by ARMOUR Capital Management LP.
- ARMOUR Capital Management LP is the majority owner of BUCKLER Securities, a FINRA registered broker-dealer.



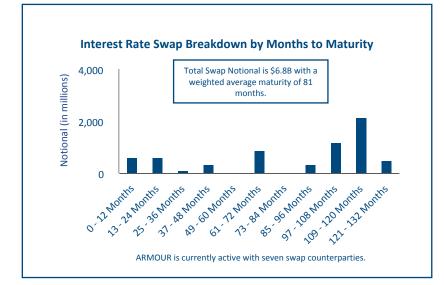


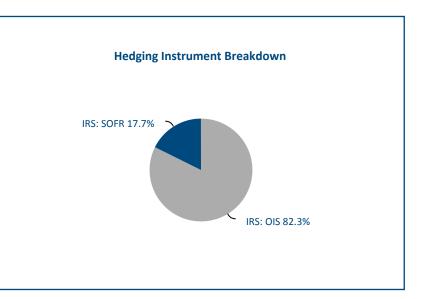
Securities	% of Portfolio	Current Value (millions)	Weighted Average Book Price	Weighted Average Market Price	Weighted Average Net/Gross Coupon	Estimated Effective Duration
Agency ARMs & Hybrids	0.3%	\$22.4	102.0%	102.9%	2.00/2.60	0.89
Agency Multifamily Ballooning in 120 Months or Less	12.1%	\$1,056.2	102.2%	113.5%	3.69/4.59	6.19
Agency Fixed Rates Maturing Between 0 and 180 Months	6.3%	\$549.3	105.5%	106.5%	2.86/3.51	3.27
Agency Fixed Rates Maturing Between 181 and 360 Months	30.1%	\$2,631.4	105.4%	105.0%	2.76/3.43	5.73
US Treasury	2.2%	\$194.9	100.0%	97.5%	1.25/1.25	9.22
Agency & US Treasury Portfolio	50.9%	\$4,454.2				
Agency 15Y TBA Long Dollar Roll	28.0%	\$2,452.0	102.5%	102.2%	1.86/ N/A	4.18
Agency 30Y TBA Long Dollar Roll	21.1%	\$1,847.3	103.1%	102.6%	2.50/ N/A	5.25
Net TBA Portfolio	49.1%	\$4,299.3				
Total Portfolio	100.0%	\$8,753.5				

Approximately 97% of ARMOUR's Agency portfolio positions (excluding TBA positions) benefit from favorable prepayment characteristics, including:

- 25% have prepayment penalties (Agency Multifamily).
- 64% have loan balances less than or equal to 225k.
- 8% have 100% loans in geographies with additional taxes on refinancing and cashout transactions such as TX, FL, and NY.
- 1% have loan-to-value ratios greater than 95%, FICO scores of less than 700 or seasoning of greater than 24 months.







Repurchase Agreements									
Repo Counterparty	Principal Borrowed (millions)	% of Repo Positions	Wtd. Avg. Original Term	Wtd. Avg. Remaining Days	Longest Remaining Term in Days				
BUCKLER Securities LLC (1,2)	\$1,642	48%	78	65	182				
All Other Counterparties (3)	\$1,808	52%	95	24	182				
Total or Wtd. Avg.	\$3,451	100%	87	43					

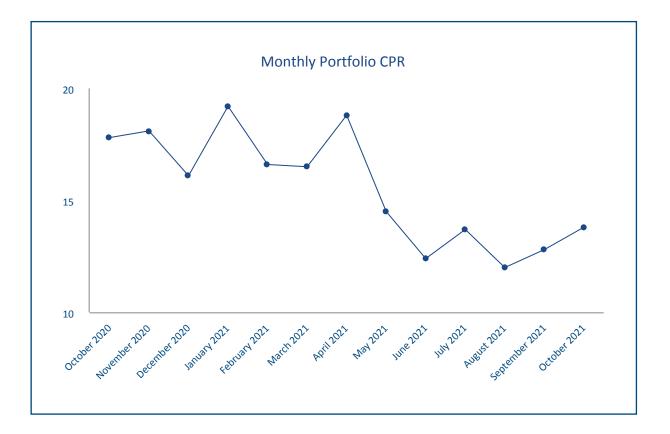
(1) BUCKLER Securities LLC is a FINRA registered broker-dealer affiliated with ARMOUR REIT.

(2) ARMOUR currently has \$200mm of US Treasury repo on with BUCKLER.

(3) ARMOUR is currently borrowing from 18 repo counterparties and ARMOUR has active MRAs with 34 counterparties.



Information as of 09/30/2021. Some totals may not foot due to rounding.

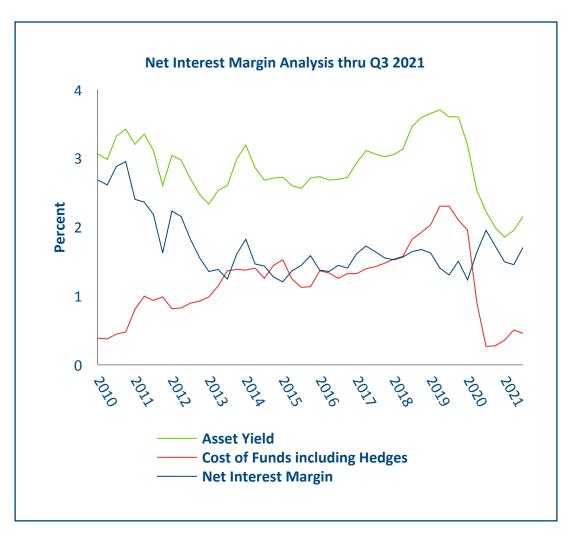




Constant Prepayment Rate ("CPR") is the annualized equivalent of single monthly mortality ("SMM"). CPR attempts to predict the percentage of principal that will prepay over the next twelve months based on historical principal pay downs. CPR is reported on the 4th business day of the month for the previous month's prepayment activity.

6

ARMOUR Net Interest Margin









ARMOUR Residential REIT, Inc.

3001 Ocean Drive Suite 201 Vero Beach, FL 32963

armourreit.com 772-617-4340