ARMOUR RESIDENTIAL REIT, Inc.

Company Update

September 9, 2011

PLEASE READ: Important Regulatory and Yield Estimate Risk Disclosures

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 Section 21E of the Securities Exchange Act of 1934. Any statements that are not statements of historical fact (including statements containing the words "believes," "plans," "anticipates," "expects," "estimates" and similar expressions) should also be considered forward-looking statements. Forward-looking statements include but are not limited to statements regarding the projections for ARMOUR's business and plans for future growth and operational improvements. A number of important factors could cause actual results or events to differ materially from those indicated by such forward-looking statements. 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.

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Actual realized yields, durations and net durations described herein will depend on a number of factors that cannot be predicted with certainly. Estimated yields do not reflect any of the costs of operation of ARMOUR.

THE NUMBERS PRESENTED HEREIN ARE UNAUDITED AND UNREVIEWED.

ARMOUR Capitalization and Dividend Policy

- Market Capitalization and Additional Paid-In Capital
  - Closing price per share $7.41.
  - 81,591,734 shares of common stock outstanding (NYSE: "ARR")[(1)].
  - Market capitalization of $604.6 million.
  - Additional paid-in capital[(2)] estimate: $7.16 per share or $584.0 million.

- ARMOUR Dividend Policy
  - ARMOUR pays dividends monthly.
  - Dividends are declared based on estimates of future taxable REIT income.
  - Dividends are reviewed and set each quarter.

- Q3 2011 Monthly Dividends
  - $0.12 per month.

2011 Dividend Record Date and Payment Schedule

	Record Date	Payment Date		Record Date	Payment Date
January	15th	28th	July	15th	28th
February	15th	25th	August	15th	30th
March	15th	30th	September	15th	29th
April	15th	28th	October	15th	28th
May	15th	27th	November	15th	29th
June	15th	29th	December	15th	29th

Information as of 9/8/2011.
(1) ARR also has 32,500,000 warrants outstanding (NYSE/AMEX: ARR/WS) with a conversion price of $11.00 that expire on November 7, 2013.
(2) Additional paid-in capital is equal to historic book value.

ARMOUR RESIDENTIAL REIT

ARMOUR Targets, Strategy and Governance Review

Balance Sheet Targets

- ASSETS
  - ARMOUR invests in Agency mortgage securities.
- DURATION
  - Net balance sheet weighted average duration target of 1.5 or less.
- HEDGING
  - Hedge asset and funding rate risk on a minimum of 40% of non-ARM assets.
- LIQUIDITY
  - Hold up to 40% of unlevered equity in cash between prepayment periods.
- LEVERAGE
  - Debt to equity target of 9.0x vs. additional paid-in-capital.

Portfolio Strategy

- Invest in low duration Agency mortgage securities.
- Diversify broadly to limit idiosyncratic pool risk.
- Close focus on prepayment profile – credit, structure and other characteristics – to select better performing assets.

Transparency and Governance

- Portfolio and liability details are updated monthly at **www.armourreit.com.**
- Premium amortization is expensed monthly as it occurs.
- Hedge positions are marked-to-market daily.
- Non-Executive Board Chairman.

ARMOUR RESIDENTIAL REIT

ARMOUR Balance Sheet Highlights

Agency Mortgage Portfolio (billions)	$5.46	778 Separate CUSIPS
Net REPO Borrowings (billions)	$5.10	8.73x debt to additional paid-in capital ratio
Interest Rate Hedges (billions)	$2.82	53.0% of non-true ARMs hedged
		55.4% of REPO borrowing hedged
Gross Asset Duration	1.95	
Net Balance Sheet Duration	-0.13	
Liquidity Total (millions)	$294.3	50.3% of additional paid-in capital
True Cash	$136.7	23.4% of additional paid-in capital
Unlevered Securities	$28.3	4.8% of additional paid-in capital
Short term Agency P&I receivables(1)	$129.3	22.1% of additional paid-in capital

Note: Portfolio value is based on independent third-party pricing. Portfolio and liability information is as of 9/8/2011. Portfolio information does not include $196.1 million of forward settle trades.
(1) Principal and interest receivables are due no later than 10/17/2011.

ARMOUR RESIDENTIAL REIT

ARMOUR Investment Methodology

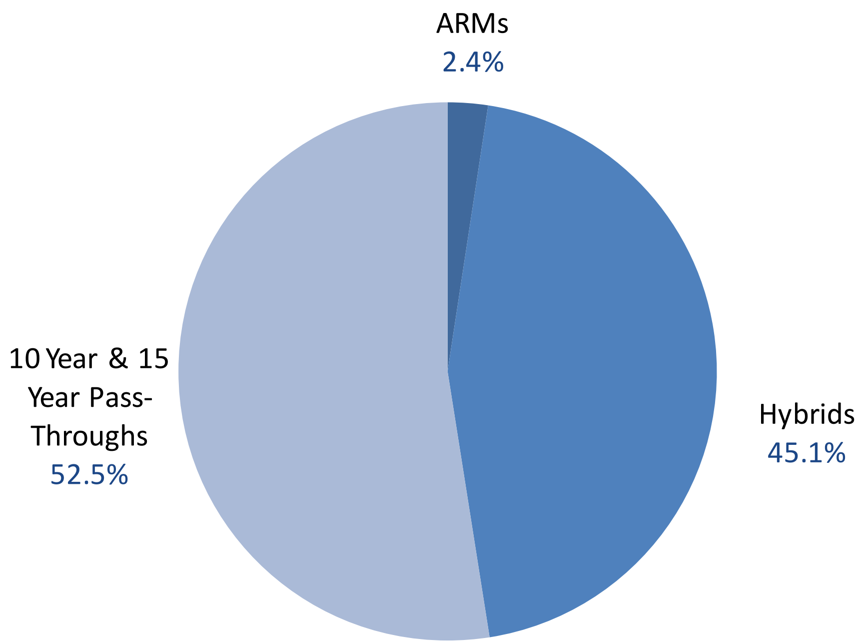
Management has a focused and disciplined approach to evaluating assets for inclusion in the ARMOUR portfolio. ARMOUR employs a 'buy and hold' strategy rather than a 'trading' strategy.

- **Agency Securities**
  - ARMOUR invests in Agency Securities.
- **Low Duration Assets**
  - Target a portfolio of low duration assets to reduce gross interest rate exposure.
- **Highly Liquid Assets**
  - Purchase those Agency Securities that are highly liquid (easily traded and priced).
  - ARMOUR purchases "pass-through" securities and does not own any collateralized mortgage obligations ("CMOs").
- **Diversified Sources**
  - Source assets through a mix of direct purchases from:
    - Originators
    - Dealer inventories
    - Bid lists

- **Loan Analysis**
  - Original loan balance size.
  - Year of origination.
  - Originating company, third-party originators.
  - Loan seasoning.
  - Principal amortization schedule.
  - Original loan-to-value ratio.
  - Geography.
- **Pool Analysis**
  - Prepayment history.
  - Prepayment expectations.
  - Premium over par.
  - "Hedgability."
  - Liquidity.
  - No TBA Pools – Only specified.

ARMOUR RESIDENTIAL REIT

ARMOUR Agency Asset Class Composition

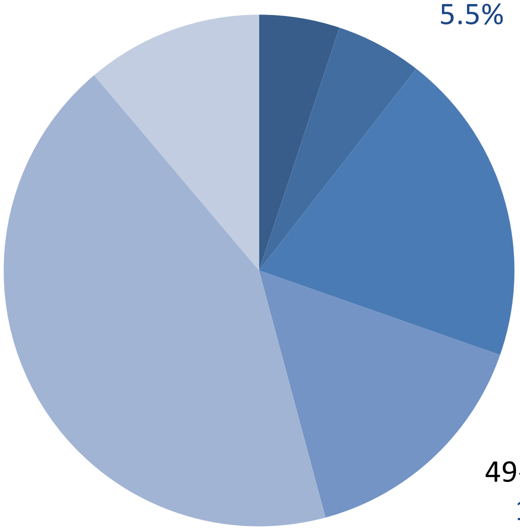


Agency Asset Class		Current Value (millions)
ARMs (0-18 Months to Reset)	$	130.8
Hybrids (19 Months and Longer to Reset)	$	2,465.2
10 Year & 15 Year Pass-Throughs	$	2,862.3
Total	**$**	**5,458.3**

Agency Type		Current Value (millions)	Percentage of Total Portfolio
Fannie Mae	$	3,742.2	68.6%
Freddie Mac	$	1,168.6	21.4%
Ginnie Mae	$	547.5	10.0%
Total	**$**	**5,458.3**	**100.0%**

Information as of 9/8/2011.

ARMOUR ARM and Hybrid Security Composition



Months to Reset	Current Value (millions)	Weighted Average Months to Reset
0-18	$ 130.8	6
19-36	$ 144.0	27
37-48	$ 503.5	42
49-60	$ 395.8	54
61-84	$ 1,105.5	75
85-120	$ 316.4	115
Total	**$ 2,596.0**	**64**

Note: Information as of 9/8/2011. Percentages are based on the total market value of both ARMs and Hybrids.

ARMOUR RESIDENTIAL REIT

ARMOUR Portfolio and Interest Rate Hedges Duration Detail

Agency Asset Class	Current Value (millions)	Weighted Average Purchase Price	Weighted Average Current Market Price	Weighted Average Net/Gross Coupon	Estimated Effective Duration Using Current Values
ARMs (0-18 Months to Reset)	$ 130.8	104.7%	105.3%	3.32/3.93	0.79
Hybrids (19 Months and Longer to Reset)	$ 2,465.2	103.8%	105.3%	3.73/4.18	1.58
10 Year & 15 Year Pass-Throughs	$ 2,862.3	104.3%	105.9%	4.02/4.36	2.31
Total or Weighted Average	**$ 5,458.3**	**104.1%**	**105.6%**	**3.87/4.26**	**1.95**

Estimated Balance Sheet Duration	Amount (millions)	Duration Effect on Balance Sheet
Agency Assets	$ 5,458.3	1.95
Interest Rate Hedges	$ 2,824.0	-4.15
Net Balance Sheet Duration		**-0.13**

Duration estimates are derived from third-party software. Actual realized yields, durations and net durations described herein will depend on a number of factors that cannot be predicted with certainty. Market prices for our securities are obtained from independent third-party sources.

If rates decline, the value of our swaps and Eurodollar futures will typically decline. Inversely, if rates increase, the value of our swaps and Eurodollar futures will typically increase.

Information as of 9/8/2011.

ARMOUR RESIDENTIAL REIT

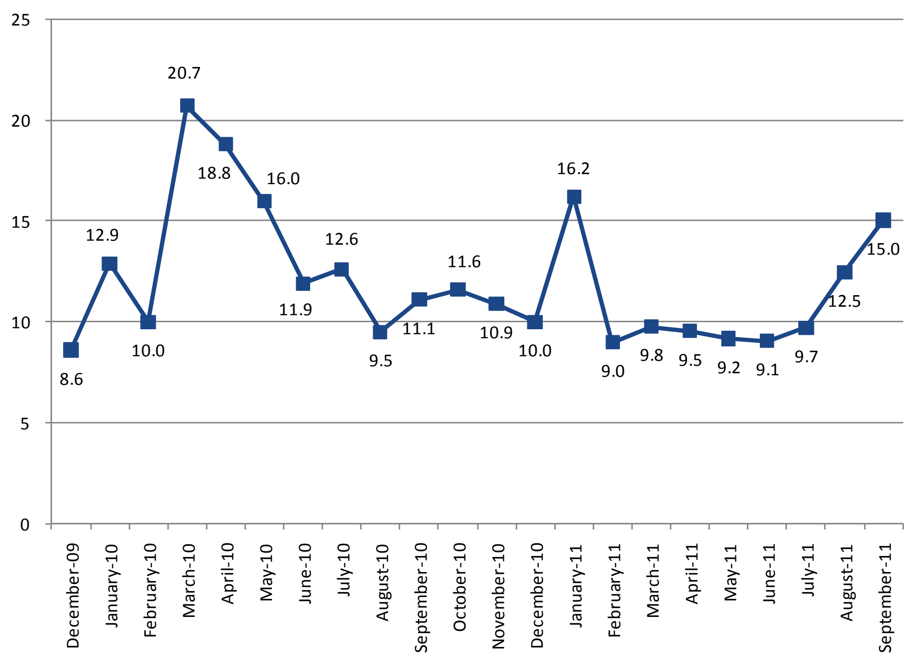
ARMOUR Interest Rate Swap and Eurodollar Futures Detail

Hedge Type	Remaining Term	Weighted Average Remaining Term (Months)	Notional Amount (millions)	Weighted Average Rate
Interest Rate Swap	0-12 Months	0	$ -	0.00
Interest Rate Swap	13-24 Months	16	$ 20.0	0.53
Interest Rate Swap	25-36 Months	29	$ 290.0	1.09
Interest Rate Swap	37-48 Months	45	$ 830.0	1.17
Interest Rate Swap	49-60 Months	56	$ 1,550.0	1.74
Eurodollar Futures	0-49 Months	30	$ 134.0	1.80
Total or Weighted Average		**49**	**$ 2,824.0**	**1.50**

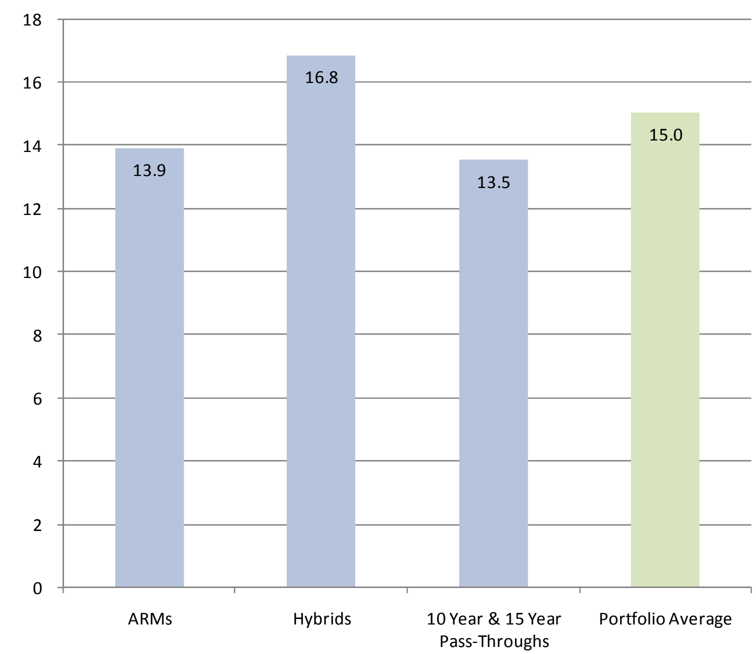
Information as of 9/8/2011.
Active swap counterparties include:
Citibank, N.A., JP Morgan Chase, N.A., Nomura Global Financial Products Inc., UBS AG, and Wells Fargo Bank, N.A.

ARMOUR Portfolio Constant Prepayment Rates ("CPR")

Monthly Portfolio Constant Prepayment Rate



August 2011 Agency Asset Class CPR



- ARMOUR expenses premium amortization monthly as it occurs.
- 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.

ARMOUR REPO Composition

	REPO Counter-Party	Principal Borrowed (millions)	Percentage of REPO Positions with ARMOUR	Weighted Average Maturity in Days	Longest Maturity in Days
1	BNP Paribas Securities Corp.	$ 424.0	8.2%	22	62
2	Guggenheim Securities, LLC	$ 343.9	6.6%	70	89
3	MF Global Inc.	$ 334.3	6.4%	34	61
4	Goldman, Sachs & Co.	$ 328.3	6.3%	35	60
5	UBS Securities LLC	$ 325.2	6.3%	48	60
6	South Street Securities LLC	$ 294.6	5.7%	50	89
7	Mitsubishi UFJ Securities (USA), Inc.	$ 289.1	5.6%	44	60
8	Merrill Lynch, Pierce, Fenner & Smith Inc.	$ 273.4	5.3%	42	48
9	Cantor Fitzgerald & Co. Inc.	$ 271.7	5.2%	27	29
10	Nomura Securities International, Inc.	$ 269.2	5.2%	2	4
11	Barclays Capital Inc.	$ 258.8	5.0%	21	61
12	Citigroup Global Markets Inc.	$ 247.2	4.8%	31	91
13	J.P. Morgan Securities LLC	$ 235.3	4.5%	38	60
14	Pierpont Securities LLC	$ 222.2	4.3%	50	53
15	ING Financial Markets LLC	$ 205.4	3.9%	29	29
16	RBS Securities Inc.	$ 191.7	3.7%	24	33
17	Daiwa Securities America Inc.	$ 148.6	2.9%	26	50
18	Mizuho Securities USA Inc.	$ 132.7	2.6%	41	61
19	CRT Capital Group LLC	$ 125.4	2.4%	1	1
20	Credit Suisse Securities (USA) LLC	$ 107.3	2.1%	36	36
21	Jefferies & Company, Inc.	$ 94.1	1.8%	40	40
22	Wells Fargo Bank, N.A.	$ 69.2	1.3%	8	8
23	Deutsche Bank Securities Inc.	$ 8.1	0.2%	28	28
	Total or Weighted Average	**$ 5,199.6**	**100.0%**	**35**	

Weighted Average Haircut	**4.97%**
Weighted Average Repo Rate	**0.25%**

September Paydowns	**$ (103.5)**
Total REPO after Paydowns	**$ 5,096.1**
Debt to Equity Ratio after Paydowns	**8.73**

Note: ARMOUR has signed MRAs with 28 counterparties as of 9/8/2011.

ARMOUR RESIDENTIAL REIT

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