Safe Harbor Statement

FORWARD-LOOKING STATEMENTS

This presentation includes “forward-looking statements” within the meaning of the safe harbor provisions of the United States Private Securities Litigation Reform Act of 1995. Actual results may differ from expectations, estimates and projections and, consequently, readers should not rely on these forward-looking statements as predictions of future events. Words such as “expect,” “target,” “assume,” “estimate,” “project,” “budget,” “forecast,” “anticipate,” “intend,” “plan,” “may,” “will,” “could,” “should,” “believe,” “predicts,” “potential,” “continue,” and similar expressions are intended to identify such forward-looking statements. These forward-looking statements involve significant risks and uncertainties that could cause actual results to differ materially from expected results, including, among other things, those described in our Annual Report on Form 10-K for the year ended December 31, 2015, and any subsequent Quarterly Reports on Form 10-Q, under the caption “Risk Factors.” Factors that could cause actual results to differ include, but are not limited to: the state of credit markets and general economic conditions; changes in interest rates and the market value of our assets; changes in prepayment rates of mortgages underlying our target assets; the rates of default or decreased recovery on the mortgages underlying our target assets; the occurrence, extent and timing of credit losses within our portfolio; the concentration of credit risks we are exposed to; declines in home prices; our ability to establish, adjust and maintain appropriate hedges for the risks in our portfolio; the availability and cost of our target assets; the availability and cost of financing; changes in the competitive landscape within our industry; our ability to successfully implement new strategies and to diversify our business into new asset classes; our ability to manage various operational risks and costs associated with our business; interruptions in or impairments to our communications and information technology systems; our ability to successfully securitize or sell mortgage loans; our ability to acquire mortgage servicing rights (MSR) and successfully operate our servicer-servicer subsidiary and oversee our subservicers; the impact of any deficiencies in the servicing or foreclosure practices of third parties and related delays in the foreclosure process; the state of commercial real estate markets and our ability to acquire or originate commercial real estate loans or related assets; our exposure to legal and regulatory claims; legislative and regulatory actions affecting our business; the impact of new or modified government mortgage refinance or principal reduction programs; our ability to maintain our REIT qualification; and limitations imposed on our business due to our REIT status and our exempt status under the Investment Company Act of 1940.

Readers are cautioned not to place undue reliance upon any forward-looking statements, which speak only as of the date made. Two Harbors does not undertake or accept any obligation to release publicly any updates or revisions to any forward-looking statement to reflect any change in its expectations or any change in events, conditions or circumstances on which any such statement is based. Additional information concerning these and other risk factors is contained in Two Harbors’ most recent filings with the Securities and Exchange Commission (SEC). All subsequent written and oral forward-looking statements concerning Two Harbors or matters attributable to Two Harbors or any person acting on its behalf are expressly qualified in their entirety by the cautionary statements above.

This presentation may include industry and market data obtained through research, surveys, and studies conducted by third parties and industry publications. We have not independently verified any such market and industry data from third-party sources. This presentation is provided for discussion purposes only and may not be relied upon as legal or investment advice, nor is it intended to be inclusive of all the risks and uncertainties that should be considered. This presentation does not constitute an offer to purchase or sell any securities, nor shall it be construed to be indicative of the terms of an offer that the parties or their respective affiliates would accept.

Readers are advised that the financial information in this presentation is based on company data available at the time of this presentation and, in certain circumstances, may not have been audited by the company’s independent auditors.
Two Harbors Overview
LEADING HYBRID MORTGAGE REIT FOCUSED ON DRIVING STRONG LONG-TERM RETURNS WHILE TAKING LESS RISK

OVERVIEW

• Equity market capitalization of approximately $3.0 billion

• Portfolio of $17.0 billion

• Target assets include Agency and non-Agency residential mortgage-backed securities (RMBS), MSR and commercial real estate assets

• Experienced management team with deep expertise and experience in managing mortgage credit, interest rate and prepayment risk

PROVEN STRATEGY

• Diversified business model takes advantage of evolving mortgage finance landscape

• Opportunistically allocate capital to drive long-term stockholder value

• Disciplined risk management drives high quality returns with lower volatility

1) Data as of September 30, 2016.
2) Two Harbors’ total stockholder return is calculated for the period October 29, 2009 through September 30, 2016. Total stockholder return is defined as stock price appreciation including dividends. Source: Bloomberg.
3) Bloomberg REIT Mortgage Index total stockholder return for the period October 29, 2009 through September 30, 2016. The Bloomberg REIT Mortgage Index tracks publicly traded REITs whose principal business consists of originating, servicing or investing in residential mortgage interests. The index uses a modified market capitalization weighted methodology, and components are reviewed quarterly for eligibility. Source: Bloomberg.
Attractive Returns With Lower Risk

Superior Asset Selection and Risk Management Drive Returns With Less Risk

Attractive & Comparable Dividend Yield

...With Lower Leverage

...Less Interest Rate Risk

...And Less Prepayment Exposure

Note: Two Harbors and peer financial data for Dividend Yield, Leverage, Prepayment Risk and Interest Rate Exposure on this slide is based on available financial information as of September 30, 2016 as filed with the SEC. Peers include AGNC, ANH, ARR, CMO, CYS, IVR, MFA, NLY and HTS (financial information for HTS is included in peer financial data only for the periods ending prior to the second quarter of 2016).

1) Represents average of annualized yields on all quarterly cash dividends per respective fiscal year. Two Harbors' first quarter 2013 dividend yield used in annual average calculation was based on cash dividend of $0.32 per share and does not include Silver Bay Realty Trust common stock distribution of $1.01 per share. Annualized yields for each quarter are calculated by dividing annualized quarterly dividends by closing share price as of respective quarter ends. Peer dividend data based on peer company press releases. Historical dividends may not be indicative of future dividend distributions. Our company ultimately distributes dividends based on its taxable income per share of common stock.

2) Represents average of debt-to-equity ratios for all reportable quarters per respective fiscal year. Debt-to-equity is defined as total borrowings to fund residential mortgage-backed securities (RMBS), residential mortgage loans held-for-sale, commercial real estate assets, MSR and Agency Derivatives divided by total equity.

3) Represents average of estimated change in equity value for theoretical +100bps parallel shift in interest rates for all reportable quarters per respective fiscal year. Change in equity market capitalization is adjusted for leverage.

4) Represents average of the constant prepayment rate (CPR) on Agency RMBS, including Agency Derivatives, for all reportable quarters per respective fiscal year.
Two Harbors’ Portfolio Composition

MSR PORTFOLIO COMPRISED OF HIGH QUALITY, NEW ISSUE, CONVENTIONAL MSR

TOTAL PORTFOLIO COMPOSITION

$17.0 BILLION PORTFOLIO AS OF SEPTEMBER 30, 2016

<table>
<thead>
<tr>
<th>Category</th>
<th>Fair value (SM)</th>
<th>Unpaid principal balance (SM)</th>
<th>Weighted average coupon</th>
<th>Original FICO score&lt;sup&gt;(6)&lt;/sup&gt;</th>
<th>Original LTV</th>
<th>60+ day delinquencies</th>
<th>Net servicing spread</th>
<th>Vintage:</th>
<th>Percent of MSR portfolio:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agency</td>
<td>$10.3b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Pre-2009</td>
<td>99.7%</td>
</tr>
<tr>
<td>Non-Agency</td>
<td>$1.9b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2009-2012</td>
<td>0.3%</td>
</tr>
<tr>
<td>Conduit</td>
<td>$0.9b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Post 2012</td>
<td>—%</td>
</tr>
<tr>
<td>Commercial&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>$1.1b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSR&lt;sup&gt;(2)&lt;/sup&gt;</td>
<td>$0.5b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agency paired with MSR</td>
<td>$2.3b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rates&lt;sup&gt;(3)&lt;/sup&gt;</td>
<td>$13.1b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>25.4 basis points</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credit&lt;sup&gt;(4)&lt;/sup&gt;</td>
<td>$2.8b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1) Commercial consists of senior and mezzanine commercial real estate debt and related instruments.
2) MSR includes Ginnie Mae buyout residential mortgage loans.
3) Assets in “Rates” include Agency RMBS, Agency Derivatives, MSR and Ginnie Mae buyout residential mortgage loans.
4) Assets in “Credit” include non-Agency RMBS, prime jumbo residential mortgage loans, net economic interest in securitization trusts and credit sensitive residential mortgage loans.
5) Excludes residential mortgage loans held-for-investment in securitization trusts for which the company is the named servicing administrator.
6) FICO represents a mortgage industry accepted credit score of a borrower.
Webinar Executive Summary

MSR ARE A NATURAL HEDGE TO RMBS...

...HAVE HIGHER RETURN POTENTIAL...

...WITH LOWER MORTGAGE SPREAD RISK...

...AND LOWER LEVERAGE.

A PORTFOLIO OF RMBS AND MSR HAS HIGHER RETURN POTENTIAL, WITH LOWER MORTGAGE SPREAD RISK, AND LOWER LEVERAGE

<table>
<thead>
<tr>
<th></th>
<th>Expected Gross Return on Equity (ROE)(^1)</th>
<th>Debt-to-Equity</th>
<th>Impact of 20 Basis Point Rate Increase</th>
<th>Impact of 20 Basis Point RMBS Spread Widening</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMBS + Swap</td>
<td>8-10%</td>
<td>8.0</td>
<td>0%</td>
<td>(9%)</td>
</tr>
<tr>
<td>RMBS + MSR</td>
<td>12-14%</td>
<td>4.2</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

\(^1\) Illustrative returns reflective of a duration neutral position. See slide 20 for further detail on these two illustrative portfolios.

Note: The above scenarios are intended to illustrate the potential benefits of hedging Agency RMBS with MSR. The numbers used in the scenarios above are hypothetical amounts and are not based on our financial results, nor are they projections of our results. The above scenarios are provided for illustration purposes only and may not represent all assumptions used. Actual results of a portfolio may differ.
MSR Overview
What are Mortgage Servicing Rights?

**MSR ARE THE CONTRACTUAL RIGHTS TO PERFORM AND CONTROL SERVICING OF A MORTGAGE LOAN IN EXCHANGE FOR A SERVICING FEE**

- Servicing responsibilities include: collecting principal and interest (P&I) payments, holding escrow funds, paying taxes and insurance (T&I) payments
- All types of loans need servicing including: residential, commercial, student, credit card and car loans
  - Focus on residential conforming MSR at Two Harbors
- High barriers to entry for becoming an MSR owner\(^1\)

**TYPES OF MSR**

**Legacy**
- Originated pre-crisis
- Sensitive primarily to credit performance
- Higher touch and cost to service

**New Issue**
- Originated post-crisis
- Sensitive primarily to prepayments
- Low cost to service

**ORIGINATION CHANNEL**

**Bulk**
- Seller aggregates a substantial amount of MSR
- Sells in a single transaction
- Price is determined by the market on bid date

**Flow**
- Sells MSR on a regular basis as it is created
- Sales are monthly for a period of time
- Prices are determined daily according to market rates and spreads are reset quarterly

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\(^1\) Continued status as an approved servicer by the GSEs or Ginnie Mae is subject to compliance with each of their respective selling and servicing guidelines, minimum capital requirements and other conditions they may impose from time to time at their discretion.
<table>
<thead>
<tr>
<th>Who?</th>
<th>What?</th>
<th>Why?</th>
</tr>
</thead>
</table>
| Banks               | New, high quality, rate-sensitive MSR, including both GSE and Ginnie | • MSR provide a hedge to the origination business  
                          • When rates fall (rise), MSR values fall (rise) but origination fees increase (decrease)  
                          • Financial instruments are rarely utilized to hedge |
| Mortgage Companies  | Legacy, credit-sensitive, non-rate-sensitive MSR                     | • Portfolio can be mined to extract refinance and modification opportunities  
                          • No financial instruments generally utilized to hedge |
| Financial Investors | New, high quality, rate-sensitive, primarily GSE MSR                 | • MSR provide a financial hedge to other securities held in portfolio  
                          • Financial instruments also used extensively to hedge |
Current Market Overview

MSR Market is large and rapidly evolving

- Volume opportunities abundant; cumulative volume of new issue MSR expected to exceed $1.0 trillion unpaid principal balance (UPB) in 2016\(^1\)
- The top 25 servicers of GSE-backed loans comprise roughly 80% of the entire universe\(^2\)
- Non-bank servicers have grown significantly in recent years
- Matrix Financial Services Corporation, a wholly-owned subsidiary of Two Harbors, is ranked #18 by conventional servicing volume

1) Source: Based on Two Harbors’ internal research as of September 30, 2016.
2) Source: CPR & CDR Technologies, Inc. as of October 17, 2016.
How are MSR Made?

- The Net Servicing Fee for MSR is the difference between the Gross Servicing Fee less the fee paid to the GSEs or Ginnie to guarantee the mortgage.

  - Additionally, in many cases the holder of MSR has the right to receive float income on principal and interest, taxes, insurance, late fees and ancillary income before payments are remitted to the GSEs.

**MSR Example**

- Borrower pays 3.75%
- 50 basis points guarantee fee to GSEs
- 25 basis points servicing fee to MSR owner
- 3.00% pass-through to security holders
- 5 basis points cost to service/sub-service
- 20 basis points net fee held by MSR owner
MSR Are More Than Just Interest-Only

- MSR are “interest-only” (IO) in the sense that when the loan goes away, the MSR goes away; the longer the mortgage is outstanding, the longer the investor receives MSR cash flows.
- Unlike IO securities, there are “other components” that an MSR holder enjoys.
- 80-90% of MSR value is derived from the Net Servicing Fee (the IO component of the MSR cash flow).
- 10%–20% of MSR value comes from “other components”:

<table>
<thead>
<tr>
<th>MSR Component(1)</th>
<th>Price</th>
<th>Interest Rate Sensitivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Servicing Fee</td>
<td>117%</td>
<td>53%</td>
</tr>
<tr>
<td>Cost to Service</td>
<td>(26%)</td>
<td>(13%)</td>
</tr>
<tr>
<td>Taxes &amp; Insurance (T&amp;I) Float</td>
<td>10%</td>
<td>42%</td>
</tr>
<tr>
<td>Unscheduled Principal &amp; Interest (P&amp;I) Float</td>
<td>2%</td>
<td>7%</td>
</tr>
<tr>
<td>Scheduled P&amp;I Float</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>Compensating Interest</td>
<td>(5%)</td>
<td>7%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

1) Table shows the relative amounts of value contained in a typical pool of MSR with 3.75% gross weighted average coupon, 25 basis points servicing fee, $7.25 per loan per month cost to service, scheduled/scheduled remit type, and 1.5% average T&I balance. For more details, see Aldrich, Greenberg, and Payner, “A Capital Markets View of Mortgage Servicing Rights”, Journal of Fixed Income, June 2001 (37).
Cash Flows Overview
Illustrative Treasury Cash Flow Scenarios

CASH FLOWS ON TREASURIES ARE NOT IMPACTED BY RATE ENVIRONMENT

**HIGH RATE SCENARIO**
- Total cash flow is 105% of face amount
- Weighted average life of 5 years
- Yield of 1.25% ↔ PV of 98.79%
- Yield of 2.25% ↔ PV of 94.12%

**BASE CASE SCENARIO**
- Total cash flow is 105% of face amount
- Weighted average life of 5 years
- Yield of 1.25% ↔ Present Value (PV) of 98.79%

**LOW RATE SCENARIO**
- Total cash flow is 105% of face amount
- Weighted average life of 5 years
- Yield of 1.25% ↔ PV of 98.79%
- Yield of 0.25% ↔ PV of 103.72%

<table>
<thead>
<tr>
<th>Treasury Rate</th>
<th>Treasury Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.25%</td>
<td>103.72%</td>
</tr>
<tr>
<td>1.25%</td>
<td>98.79%</td>
</tr>
<tr>
<td>2.25%</td>
<td>94.12%</td>
</tr>
</tbody>
</table>

Note: The numbers used in the scenarios above are hypothetical amounts and are not based on our financial results, nor are they projections of our results. The above scenarios are provided for illustration purposes only and may not represent all assumptions used. Actual results of a portfolio may differ.
Illustrative RMBS Cash Flow Scenarios

CHANGING RATE ENVIRONMENTS INFLUENCE AVERAGE LIFE AND YIELD OF RMBS

- Effect of changing discount rate dominates the effect of changing prepayments

<table>
<thead>
<tr>
<th>HIGH RATE SCENARIO</th>
<th>BASE CASE SCENARIO</th>
<th>LOW RATE SCENARIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total P&amp;I is 130.0% of face amount</td>
<td>Total P&amp;I is 119.2% of face amount</td>
<td>Total P&amp;I is 110.2% of face amount</td>
</tr>
<tr>
<td>Weighted average life of 10.0 years</td>
<td>Weighted average life of 6.4 years</td>
<td>Weighted average life of 3.4 years</td>
</tr>
<tr>
<td>Yield of 2.25% ↔ PV of 106.32%</td>
<td>Yield of 2.25% ↔ PV of 104.24%</td>
<td>Yield of 2.25% ↔ PV of 102.38%</td>
</tr>
<tr>
<td>Yield of 3.25% ↔ PV of 98.04%</td>
<td></td>
<td>Yield of 1.25% ↔ PV of 105.72%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MBS Yield</th>
<th>CPR</th>
<th>RMBS Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.25%</td>
<td>24</td>
<td>105.72%</td>
</tr>
<tr>
<td>2.25%</td>
<td>12</td>
<td>104.24%</td>
</tr>
<tr>
<td>3.25%</td>
<td>6</td>
<td>98.04%</td>
</tr>
</tbody>
</table>

Note: The numbers used in the scenarios above are hypothetical amounts and are not based on our financial results, nor are they projections of our results. The above scenarios are provided for illustration purposes only and may not represent all assumptions used. Actual results of a portfolio may differ.
Illustrative MSR Cash Flow Scenarios

CHANGING RATE ENVIRONMENTS INFLUENCE AVERAGE LIFE AND YIELD OF MSR

- Effect of changing prepayments dominates the effect of changing discount rate.

**HIGH RATE SCENARIO**
- Total cash flow is 2.2% of face amount
- Weighted average life of 7.8 years
- Yield of 8% ↔ PV of 1.31%
- Yield of 10% ↔ PV of 1.18%

**BASE CASE SCENARIO**
- Total cash flow is 1.4% of face amount
- Weighted average life of 5.9 years
- Yield of 8% ↔ PV of 0.94%

**LOW RATE SCENARIO**
- Total cash flow is 0.7% of face amount
- Weighted average life of 3.5 years
- Yield of 8% ↔ PV of 0.54%
- Yield of 6% ↔ PV of 0.57%

<table>
<thead>
<tr>
<th>MSR Yield</th>
<th>CPR</th>
<th>MSR Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>6%</td>
<td>24</td>
<td>0.57%</td>
</tr>
<tr>
<td>8%</td>
<td>12</td>
<td>0.94%</td>
</tr>
<tr>
<td>10%</td>
<td>6</td>
<td>1.18%</td>
</tr>
</tbody>
</table>

Note: The numbers used in the scenarios above are hypothetical amounts and are not based on our financial results, nor are they projections of our results. The above scenarios are provided for illustration purposes only and may not represent all assumptions used. Actual results of a portfolio may differ.

(1) Weighted average life for MSR is the time weighted average return of interest.
Impact of Interest Rates

MSR and RMBS price changes move in opposite directions, providing a hedge for one another in changing interest rate environments

- When interest rates rise, Treasury prices decrease. When interest rates fall, Treasury prices increase.
- When interest rates rise, RMBS prices decrease. When interest rates fall, RMBS prices increase.
- When interest rates rise, MSR prices increase. When interest rates fall, MSR prices decrease.
- Shifts in RMBS values can be hedged with MSR or with short Treasuries (or with Payer Swaps).

HYPOTHETICAL IMPACT OF CHANGING INTEREST RATE SCENARIOS

<table>
<thead>
<tr>
<th>Hypothetical Mortgage Rate</th>
<th>Treasury Rate</th>
<th>MBS Yield</th>
<th>MSR Yield</th>
<th>CPR</th>
<th>Treasury Price</th>
<th>RMBS Price</th>
<th>MSR Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>3%</td>
<td>0.25%</td>
<td>1.25%</td>
<td>6%</td>
<td>24</td>
<td>103.72</td>
<td>105.72</td>
<td>0.57</td>
</tr>
<tr>
<td>4%</td>
<td>1.25%</td>
<td>2.25%</td>
<td>8%</td>
<td>12</td>
<td>98.79</td>
<td>104.24</td>
<td>0.94</td>
</tr>
<tr>
<td>5%</td>
<td>2.25%</td>
<td>3.25%</td>
<td>10%</td>
<td>6</td>
<td>94.12</td>
<td>98.04</td>
<td>1.18</td>
</tr>
</tbody>
</table>
MSR in a Portfolio Context
**Portfolio With MSR Has Higher Yield Potential**

**MSR HAVE POSITIVE YIELD; PAYER SWAPS HAVE NEGATIVE YIELD**

### RMBS & SWAPS PORTFOLIO

<table>
<thead>
<tr>
<th></th>
<th>Capital</th>
<th>Asset/Liability</th>
<th>Yield(1)</th>
<th>Duration (years)</th>
<th>Change per 1 basis point shift in rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agency RMBS</td>
<td>$100</td>
<td>$900</td>
<td>2.30%</td>
<td>4.9</td>
<td>$441</td>
</tr>
<tr>
<td>Agency Repo</td>
<td>$798</td>
<td>(0.75%)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5-year Swaps</td>
<td>$882</td>
<td>(0.70%)</td>
<td>(5.0)</td>
<td>(441)</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$100</td>
<td></td>
<td>9%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ROE: 9%(1)**

### RMBS & MSR PORTFOLIO

<table>
<thead>
<tr>
<th></th>
<th>Capital</th>
<th>Asset/Liability</th>
<th>Yield(1)</th>
<th>Duration (years)</th>
<th>Change per 1 basis point shift in rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agency RMBS</td>
<td>$47</td>
<td>$433</td>
<td>2.30%</td>
<td>4.9</td>
<td>$212</td>
</tr>
<tr>
<td>Agency Repo</td>
<td>$388</td>
<td>(0.75%)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>MSR</td>
<td>$53</td>
<td>$85</td>
<td>8.00%</td>
<td>(25.0)</td>
<td>($212)</td>
</tr>
<tr>
<td>MSR Financing</td>
<td>$32</td>
<td>(4.00%)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$100</td>
<td></td>
<td>13%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ROE: 13%(1)**

---

1) Illustrative market yields/returns as of October 11, 2016. Such yields/returns do not take into account the operational costs and expenses associated with portfolio management activities or the oversight of sub-servicers. Note: The above scenarios are intended to illustrate the potential benefits of hedging interest rates with MSR. The numbers used in the scenarios above are hypothetical amounts and are not based on our financial results, nor are they projections of our results. The above scenarios are provided for illustration purposes only and may not represent all assumptions used. Actual results of a portfolio may differ.
Higher Yield of MSR Portfolio is Not Free

A PORTFOLIO OF RMBS + MSR IS MORE NEGATIVELY CONVEX...

RMBS + SWAPS\(^{(1)}\)

**INSTANTANEOUS SHOCK\(^{(1)}\)**

- Graph illustrates the impact of a theoretical instantaneous and parallel shift in interest rates to the portfolios detailed on slide 20.
- Note: The above scenarios are intended to illustrate the potential benefits of hedging interest rates with MSR. The numbers used in the scenarios above are hypothetical amounts and are not based on our financial results, nor are they projections of our results. The above scenarios are provided for illustration purposes only and may not represent all assumptions used. Actual results of a portfolio may differ.
MSR Portfolio Generates More Revenue

...BUT OUTPERFORMS AN RMBS + SWAPS PORTFOLIO IN MOST SCENARIOS OVER TIME

RMBS + SWAPS\(^{(1)}\)

\[
\begin{align*}
\text{Change in equity} & \quad \% \\
-100 & \quad 60.0\% \\
-50 & \quad 40.0\% \\
0 & \quad 20.0\% \\
50 & \quad 0.0\% \\
100 & \quad -20.0\% \\
\end{align*}
\]

\text{Swap} \quad \text{RMBS} \quad \text{Total RMBS/Swap}

HORIZON SHOCK\(^{(1)}\)

\[
\begin{align*}
\text{Change in equity} & \quad \% \\
-100 & \quad -100\% \\
-50 & \quad -50\% \\
0 & \quad 0.0\% \\
50 & \quad 50\% \\
100 & \quad 100\% \\
\end{align*}
\]

\text{Total RMBS/Swap}

RMBS + MSR\(^{(1)}\)

\[
\begin{align*}
\text{Change in equity} & \quad \% \\
-100 & \quad 60.0\% \\
-50 & \quad 40.0\% \\
0 & \quad 20.0\% \\
50 & \quad 0.0\% \\
100 & \quad -20.0\% \\
\end{align*}
\]

\text{MSR} \quad \text{RMBS} \quad \text{Total RMBS/MSR}

1) Graph illustrates the impact of a theoretical immediate parallel shift in interest rates held constant for one year to the portfolios detailed on slide 20.

Note: The above scenarios are intended to illustrate the potential benefits of hedging interest rates with MSR. The numbers used in the scenarios above are hypothetical amounts and are not based on our financial results, nor are they projections of our results. The above scenarios are provided for illustration purposes only and may not represent all assumptions used. Actual results of a portfolio may differ.
Enhanced MSR Portfolio Outperforms

...EXCESS REVENUE CAN BE USED TO PURCHASE SWAPTIONS THAT CAN HEDGE THE NEGATIVE RETURNS IN THE -100 SCENARIO

Graph illustrates the impact of a theoretical immediate parallel shift in interest rates held constant for one year to the portfolios detailed on slide 20.

Note: The above scenarios are intended to illustrate the potential benefits of hedging interest rates with MSR. The numbers used in the scenarios above are hypothetical amounts and are not based on our financial results, nor are they projections of our results. The above scenarios are provided for illustration purposes only and may not represent all assumptions used. Actual results of a portfolio may differ.
MSR Portfolio Has Less Basis Risk

The “RMBS + Swaps” portfolio is exposed to changes in the basis; the “RMBS + MSR” portfolio is hedged with respect to basis changes.

1) Graph illustrates the impact of a theoretical instantaneous shift in the mortgage basis to the portfolios detailed on slide 20.

Note: The above scenarios are intended to illustrate the potential benefits of hedging mortgage basis with MSR. The numbers used in the scenarios above are hypothetical amounts and are not based on our financial results, nor are they projections of our results. The above scenarios are provided for illustration purposes only and may not represent all assumptions used. Actual results of a portfolio may differ.
Portfolio With MSR Has Lower Leverage

MSR HAVE POSITIVE YIELD; PAYER SWAPS HAVE NEGATIVE YIELD

- It’s better to get paid to hedge instead of paying to hedge

### RMBS & SWAPS PORTFOLIO

<table>
<thead>
<tr>
<th></th>
<th>Capital</th>
<th>Asset/Liability</th>
<th>Yield(1)</th>
<th>Duration (years)</th>
<th>Change per 1 basis point shift in rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agency RMBS</td>
<td>$100</td>
<td>$900</td>
<td>2.30%</td>
<td>4.9</td>
<td>$441</td>
</tr>
<tr>
<td>Agency Repo</td>
<td>$798</td>
<td>(0.75%)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5-year Swaps</td>
<td>$882</td>
<td>(0.70%)</td>
<td>(5.0)</td>
<td>(441)</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$100</strong></td>
<td><strong>9%</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ROE: 9%(1)**

**Debt-to-Equity: 8.0x**

### RMBS & MSR PORTFOLIO

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<thead>
<tr>
<th></th>
<th>Capital</th>
<th>Asset/Liability</th>
<th>Yield(1)</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Agency RMBS</td>
<td>$46</td>
<td>$425</td>
<td>2.30%</td>
<td>4.9</td>
<td>$212</td>
</tr>
<tr>
<td>Agency Repo</td>
<td>$377</td>
<td>(0.75%)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>MSR</td>
<td>$52</td>
<td>$83</td>
<td>8.00%</td>
<td>(25.0)</td>
<td>($212)</td>
</tr>
<tr>
<td>MSR Financing</td>
<td>$31</td>
<td>(4.00%)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Swaptions</td>
<td>$2</td>
<td>$2</td>
<td>-</td>
<td>-</td>
<td>$29</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$100</strong></td>
<td><strong>13%</strong></td>
<td></td>
<td></td>
<td><strong>$29</strong></td>
</tr>
</tbody>
</table>

**ROE: 13%(1)**

**Debt-To-Equity: 4.2x (8.3x on Agency / 0.6x on MSR)**

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1) Illustrative market yields/returns as of October 11, 2016. Such yields/returns do not take into account the operational costs and expenses associated with portfolio management activities or the oversight of sub-servicers. Note: The above scenarios are intended to illustrate the potential benefits of hedging interest rates with MSR. The numbers used in the scenarios above are hypothetical amounts and are not based on our financial results, nor are they projections of our results. The above scenarios are provided for illustration purposes only and may not represent all assumptions used. Actual results of a portfolio may differ.
Conclusion

MSR ARE A NATURAL HEDGE TO RMBS...

...HAVE HIGHER RETURN POTENTIAL...

...WITH LOWER MORTGAGE SPREAD RISK...

...AND LOWER LEVERAGE.

A PORTFOLIO OF RMBS AND MSR HAS HIGHER RETURN POTENTIAL, WITH LOWER MORTGAGE SPREAD RISK, AND LOWER LEVERAGE

<table>
<thead>
<tr>
<th></th>
<th>Expected Gross Return on Equity (ROE)(^{(1)})</th>
<th>Debt-to-Equity</th>
<th>Impact of 20 Basis Point Rate Increase</th>
<th>Impact of 20 Basis Point RMBS Spread Widening</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMBS + Swap</td>
<td>8-10%</td>
<td>8.0</td>
<td>0%</td>
<td>(9%)</td>
</tr>
<tr>
<td>RMBS + MSR</td>
<td>12-14%</td>
<td>4.2</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

1) Illustrative returns reflective of a duration neutral position. For more details, see slide 20.
Note: The above scenarios are intended to illustrate the potential benefits of hedging Agency RMBS with MSR. The numbers used in the scenarios above are hypothetical amounts and are not based on our financial results, nor are they projections of our results. The above scenarios are provided for illustration purposes only and may not represent all assumptions used. Actual results of a portfolio may differ.
Closing Remarks

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