# ORCHIDISLAND 

Investor Presentation
December 2015

## Disclaimers

## FORWARD-LOOKING INFORMATION

This presentation contains forward-looking statements and information. Statements that are not historical facts, including statements about our beliefs and expectations, are forward-looking statements. Forward-looking statements include statements preceded by, followed by or that include the words "may," "could," "would," "should," "believe," "expect," "anticipate," "plan," "estimate," "target," "project," "intend" and similar expressions. These statements include, among others, statements regarding our expected performance and book value, anticipated returns and our investment, financing, and hedging strategies and means to implement the strategy.

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All forward-looking statements speak only as of the date of this presentation. Except as required by applicable law, we are under no obligation to publicly update or revise any forward-looking statements, whether as a result of any new information, future events or otherwise. Potential investors should not place undue reliance on our forward-looking statements. Before you invest in our common stock, you should be aware that the occurrence of the events described in "Risk Factors" section and elsewhere in our Form 10-K for the year ended December 31, 2014 and other documents filed with the Securities and Exchange Commission could harm our business, financial condition and results of operations and our ability to pay distributions to our stockholders.

## Overview

## Topic Point

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## Management Experience

## Robert E. Cauley

Chief Executive Officer, President and Chairman of the Board

## 21 years of industry experience

- Position at Orchid: Chairman, President and CEO since August 2010
- 2008 - Present: CEO and Chairman of the Board of Bimini
- 2003-2008: Bimini Co-Founder; Vice-Chairman, CFO and CIO of Bimini
- 1996-2003: Vice-President and Portfolio Manager; Federated Investors
- 1994-1996: ABS/MBS structuring desk; Lehman Brothers
- 1992-1994: Credit Analyst; Barclays Bank, PLC


## G. Hunter Haas, IV

Chief Financial Officer, Secretary, Chief Investment Officer and Director

## 14 years of industry experience

- Position at Orchid: CFO, CIO and Secretary since August 2010
- 2008 - Present: President, Chief Investment Officer and Chief Financial Officer of Bimini
- 2004-2008: Senior Vice-President and head of Mortgage Research of Bimini
- 2002-2004: Vice President, Servicing Asset Risk Management; National City
- 2001-2002: Assistant Vice President, Capital Markets Finance Group; HomeSide Lending


## Jerry Sintes

Vice President, Controller and Treasurer

## 27 years of industry

 accounting and audit experience- Position at Orchid: Vice President and Treasurer since August 2010
- 2007 - Present: Vice President and Controller of Bimini
- 2006-2007: Vice President and Assistant Controller: Riverside National Bank
- 2003-2005: Chief Financial Officer: Guaranty Savings Homestead Association and GS Financial Corp
- 1992-2003: Audit manager; Bain, Freibaum, Sagona \& Co., LLP
- 1988-1992: Audit Senior; Whitney National Bank
- Certified Public Accountant, Member AICPA


## Independent Directors

## John B. Van Heuvelen

## Position at Orchid: Lead

Independent Director; audit committee chair and financial expert, member of compensation committee.

## Board Memberships:

2009 - Present: Hallador Energy Company (Nasdaq: HNRG): audit committee chair.

2002 - Present: MasTec, Inc (NYSE: MTZ): Currently the lead outside director and member of audit committee; past chairman of the audit committee and financial expert from 2004-2009.

2005-2007: LifeVantage, Inc.
(OTC: LFVN)

## Experience:

President of Morgan Stanley Dean Witter Trust Company from 1993-1999

## W Coleman Bitting

Position at Orchid: Independent
Director, compensation committee chair and member of nominating and governance committee.

## Experience:

23 Years Industry Experience
2007 - Present: Maintains a private consulting practice focused on REITs.

2000 - 2007: Founding Partner and Head of Corporate Finance; Flagstone Securities.

Prior to Flagstone: Senior equity research position; Stifel, Nicolaus \& Co. Inc. and Kidder, Peabody \& Co., Inc.

## Frank P. Filipps

Position at Orchid: Independent
Director, member of audit, compensation, and nominating and governance committees.

## Board Memberships:

1995 - Present: Impac Mortgage Holdings, Inc. (Amex: IMH): chair of audit committee.

2002 - Present: Primus Guaranty, Ltd (NYSE: PRS): chair of compensation committee from 2002-2006 and chair of the nominating and governance committee from 2007-2011.

2010 - Present: Fortegra Financial Corp. (NYSE: FRF); chairman of the nominating and governance committee from 2010-2011, member of audit committee since 2010 and chair of the compensation committee since 2012.

## Experience:

2005-2008 Chairman and CEO of Clayton Holdings (Nasdaq: Clay)

1992-2005 Chairman and CEO Radian Group, Inc.

1975-1992 Various executive positions at AIG including founder, president and CEO of AIG Capital Corp.

## Ava L. Parker

Position at Orchid: Independent Director, nominating and governance committee chair, and member of audit committee.

## Board Memberships:

2015 - Appointed as the first female President of Palm Beach State College.

2006 - Present: Jacksonville Transportation Authority Board; Past chairman

2010-2012: Immediate Prior Chairman of the State of Florida Board of Governors of the State University System; Reappointed by Governor Rick Scott in Jan. 2012.

## Experience:

Lawrence \& Parker PA: Partner Linking Solutions, Inc.: President

## Challenges of the Traditional Model

The traditional REIT investment model: Repo-funded pass-through securities


- Holders of premium priced Agency RMBS are vulnerable to losses if prepayments rise unexpectedly
- Limited further price appreciation with premium Agency RMBS, but risk of accelerated price declines remain as rates rise
- Agency RMBS prepay faster in low rate environments
- But capital has to be deployed in a less attractive investment environment due to higher RMBS prices
- Short term repo funding comes due before the

Maturity Risk assets pay off creating funding risk

- Traditional REIT model assumes the ability to continuously roll-over maturing liabilities


## Counterparty Risk

- Deteriorating counterparty financial condition can result in funding instability
- Risk that all funding counterparties pull back simultaneously



## The Orchid Island Business Model

## Model Overview

- Capital allocated to two sub-portfolios
(1) A levered pass-through portfolio utilizing funding hedges
(2) A structured securities portfolio
- The two sub-portfolios act as hedges for one another - enhancing book value stability


## Model Benefits

- Same expected returns as traditional levered pass-through strategies employed by peers
- Greater book value stability - leading to a higher Sharpe Ratio
- Less reliance on funding since not all of our capital is levered


## Model Implementation

- Capital allocation process
- Security selection process
- Funding hedge design and execution
- Risk monitoring process


## Capital Allocation Process

## Management seeks a certain rate profile based on market conditions and expectations <br> 



## Creating the Desired Rate Profile

## Asset Selection

- Structured Agency RMBS typically exhibit different sensitivity to interest rate movements - often inversely correlated with pass-throughs


## Book Value Stability

- The combined portfolios exhibit far less interest rate sensitivity and may be constructed to reflect management bias/expectations


## Embedded Leverage

- Strategy does not require as much explicit leverage, yet has a comparable return profile to hedged Agency pass-throughs
*This example is for illustrative purposes only and does not reflect Orchid Island's projections or forecasts.

\% Change in Interest Rate (BPs)

\% Change in Interest Rate (BPs)


## Security Selection - Pass Through Portfolio

1 Security Attribute
Security
Characteristics

## Risk

Management Integration

- Type of MBS, maturity, coupon, age
- Form of call protection if any, prepayment expectations
- Rich/cheap of sector, coupon, call protection payups
- Duration and convexity characteristics of security, prepayment expectations and cash management considerations


## 2 Examples

- Fixed or ARM, 30 year, 15 year, premium or discount, new vs. seasoned
- Low loan balance, credit impaired borrower, new, geographic concentrations
- 30 year rich/cheap to 15 year or hybrids, relative demand for call protection, premiums for high quality call protection versus marginal forms
- Securities are run on one of the models available to us, and we assess the model output versus our expectations

3 Risk Considerations

- Duration and convexity extension risk
- Prepayment expectations and the need for call protection, realized versus model duration and convexity
- Relative value can change or expectations prove inaccurate
- Pay back period vs. specified carry advantage
- Overall performance of security versus expectations - impact on overall risk, management effectiveness


## Wells Fargo Production Specified Pool Payups



## Security Selection - Structured Securities Portfolio

## 1 Security Attribute

| Security Characteristics | - Type of security and structure |
| :---: | :---: |
| Collateral Characteristics | - IO's and IIO's are levered plays on prepayments - the consequences of incorrect speed expectation are magnified versus pass through securities |
| Income <br> Potential GAAP and Tax | - The interplay of price \& speed expectations drive income potential. For tax additional considerations apply |
| Risk <br> Management Integration | - Rate profile, duration and convexity characteristics, prepayment expectations |

## 2 Examples

- IO vs IIO; PAC, XPAC, Sequential, PT, Excess Servicing
- Term (30/20/15/10 year), loan balance, credit quality, new versus seasoned, geographic concentrations
- Securities offering significant up-rate protection may have low or negative carry and visa versa; for tax time of purchase versus security issue date
- IO's - less carry/better rate protection
- IIO's better carry/less rate protection

3 Risk Considerations

- Interest rate duration, spread duration, convexity
- Prepayments realized if available mortgage rates change materially; turn-over assumptions
- In the current interest rate environment income potential is a secondary consideration versus up rate protection
- Overall performance of security versus expectations - impact on overall risk, management effectiveness


## Security Holding Period Considerations

## A significant component of the security selection process is the decision of how long to own an asset

## Security Specific Factors to Consider

-Prepayment models base prepayment projections on several variables. Prepayment behavior drives income generation and price performance of securities, so management evaluates the same variables before acquiring a security and when determining how long to hold it.
-The significance of these variables manifest themselves in the specified pool market - the market recognizes what loan/borrower variables impact refinancing activity the most and securities that possess features that result in a lower sensitivity to a given refinance incentive are packaged together when sold.
-Securities that possess "call protection" features typically command higher prices than those that do not - the difference is referred to as the "pay-up".
-Pay-ups vary over time - primarily as the value of call protection varies (i.e. as rates +/-, pay-ups -/+).
-If the call protection decreases as the loans age the pay-up will decline as well.
-Generally borrowers do not refinance their loan for at least a few months after origination - therefore newer loans typically exhibit less rate sensitivity initially. The market may demand a small pay-up for new loans.
"When considering a specified/call protected pool for purchase, management evaluates the pay-up demanded versus the incremental income expected to be generated and determines how long the security will need to be held to recapture the pay-up - is this period reasonable?
-Once acquired, management evaluates all pass through assets from this perspective - what, if any, call protection does the asset have remaining and what is the market price for this protection.
"Management constantly evaluates the call protection offered by the security as market conditions and prepayment expectations change over time.
"Management evaluates the prospects for pay-ups going forward when determining how long to hold a security.
-Is it time to harvest gains/cut losses?

## Security Holding Period Considerations

## Portfolio specific factors result from the risk management function and the desire

 to maintain stable book value.
## Portfolio Specific Factors to Consider

- The pay-ups for call protection can be very volatile and materially alter the convexity of a security. This volatility is very difficult to hedge and impacts the effectiveness of the risk management function.
-Management prefers call protected securities with lower pay-ups for this reason.
- Changes in management's outlook on rates and/or the MBS market will determine what securities to hold in the portfolio - this can lead to repositioning of the portfolio from time to time and therefore impact holding periods.
- The capital allocation process, as part of the risk management function, can necessitate changes to portfolio composition.


## Risk Mitigation

## The primary risk monitored is the expected impact on our book value of various interest rate shocks.

" We use "Yield Book" to run the shocks and test the sensitivity of the portfolio to instantaneous parallel shifts of the entire term structure of rates.
-Up and down scenarios are run - for 50, 100 and 200 basis point shocks.

- The shocks are run and the results published monthly with our dividend announcement.
- Shocks are run throughout the month, at least weekly, and as market conditions warrant.


## Management views the model derived results in the context of the following:

- The realization that interest rate movements are unlikely to be instantaneous nor perfectly parallel.
- That most assets and hedge instruments may behave differently in such scenarios than as predicted by the model.
- Management focuses on scenarios that pose the greatest risk to the portfolio, the likelihood of such outcomes and management's expectations of realized versus model predicted results.
-Management forms revised expectations of the performance of the portfolio under scenarios deemed to represent the greatest risk based on a synthesis of model output and management judgment.
-In addition to monitoring the most likely risks, management runs portfolio scenarios to quantify the risks of outcomes outside of managements expectations - i.e., what if we are wrong?
- Cash and liquidity positions are monitored daily and projections for rolling 30 day periods are prepared.
-Cash and liquidity needs are considered in the context of potential adverse market moves.


## MBS Portfolio Characteristics

## MBS Valuation Characteristics

(in thousands of \$s)

| Asset Category | Current Face | Fair Value | Current Price | Percentage of Portfolio | Weighted <br> Average Coupon | Realized October 2015 CPR <br> (Reported in Nov) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| As of October 30, 2015 |  |  |  |  |  |  |
| Adjustable Rate MBS | \$ 2,809 | \$ 2,995 | 106.59 | 0.15\% | 3.62\% | 0.23\% |
| 10-1 Hybrid Rate MBS | 52,696 | 53,882 | 102.25 | 2.67\% | 2.55\% | 9.55\% |
| Total Hybrid Adjustable Rate MBS | 52,696 | 53,882 | 102.25 | 2.67\% | 2.55\% | 9.55\% |
| 15 Year Fixed Rate MBS | 101,120 | 106,719 | 105.54 | 5.30\% | 3.28\% | 7.47\% |
| 20 Year Fixed Rate MBS | 401,856 | 432,014 | 107.50 | 21.44\% | 4.00\% | 3.30\% |
| 30 Year Fixed Rate MBS | 1,207,635 | 1,311,534 | 108.60 | 65.08\% | 4.35\% | 7.94\% |
| Total Fixed Rate MBS | 1,710,610 | 1,850,267 | 108.16 | 91.81\% | 4.20\% | 6.84\% |
| Total Mortgage-backed Pass-through MBS | 1,766,116 | 1,907,144 | 107.99 | 94.63\% | 4.16\% | 6.91\% |
| Interest-Only Securities | 525,560 | 63,196 | 12.02 | 3.14\% | 3.59\% | 14.02\% |
| Inverse Interest-Only Securities | 222,499 | 44,986 | 20.22 | 2.23\% | 6.16\% | 12.88\% |
| Structured MBS | 748,059 | 108,181 | 14.46 | 5.37\% | 4.66\% | 13.72\% |
| Total Mortgage Assets | \$ 2,514,175 | \$ 2,015,325 |  | 100.00\% | 4.18\% | 8.89\% |

## MBS Assets by Agency

(in thousands of $\$ s$ )

| As of October 30, 2015 | Fair <br> Value | Percentage of <br> Portfolio |
| :--- | ---: | :---: |
| Fannie Mae | $\$ 1,634,651$ | $81.1 \%$ |
| Freddie Mac | 363,764 | $18.0 \%$ |
| Ginnie Mae | 16,911 | $0.8 \%$ |
| Total Portfolio | $\$ 2,015,325$ | $100 \%$ |

Investment Company Act of 1940 (Whole Pool) Test
(in thousands of \$s)

| As of October 30, 2015 | Fair <br> Value | Percentage of <br> Portfolio |
| :--- | :---: | :---: |
| Whole Pool Assets | $\$ 1,542,819$ | $76.6 \%$ |
| Non Whole Pool Assets | 472,506 | $23.4 \%$ |
| Total Portfolio | $\$ 2,015,325$ | $100 \%$ |

## Credit Counterparties \& Trading Activity

Repurchase Agreement Exposure By Counterparty
(in thousands of \$s)

| As of October 30, 2015 | Total Borrowings | \% Of Total Debt | Weighted Average Maturity in Days | Longest Maturity |
| :---: | :---: | :---: | :---: | :---: |
| Barclays Capital Inc | \$10,136 | 0.56\% | 14 | 11/13/2015 |
| Merrill Lynch, Pierce, Fenner \& Smith Inc | 82,326 | 4.51\% | 17 | 11/16/2015 |
| Cantor Fitzgerald \& Co | 131,505 | 7.21\% | 15 | 11/18/2015 |
| Citigroup Global Markets Inc | 103,211 | 5.66\% | 16 | 1/19/2016 |
| CRT Capital Group, LLC | 45,190 | 2.48\% | 20 | 11/23/2015 |
| Daiwa Securities America Inc. | 75,388 | 4.13\% | 11 | 11/12/2015 |
| ED\&F Man Capital Markets Inc | 92,619 | 5.08\% | 18 | 11/25/2015 |
| Goldman, Sachs \& Co | 156,955 | 8.61\% | 26 | 11/25/2015 |
| Guggenheim Securities, LLC | 40,057 | 2.20\% | 26 | 11/30/2015 |
| ICBC Financial Services LLC | 117,579 | 6.45\% | 14 | 11/19/2015 |
| J.P. Morgan Securities LLC | 85,803 | 4.70\% | 15 | 11/30/2015 |
| KGS-Alpha Capital Markets, L.P | 101,759 | 5.58\% | 12 | 11/19/2015 |
| Mitsubishi UFJ Securities (USA), Inc | 112,740 | 6.18\% | 19 | 11/30/2015 |
| Mizuho Securities USA, Inc | 127,625 | 7.00\% | 14 | 11/23/2015 |
| Morgan Stanley \& Co | 49,292 | 2.70\% | 10 | 11/9/2015 |
| Natixis, New York Branch | 72,830 | 3.99\% | 12 | 12/1/2015 |
| Nomura Securities International, Inc. | 97,540 | 5.35\% | 19 | 11/23/2015 |
| RBC Capital Markets, LLC | 100,559 | 5.51\% | 19 | 11/23/2015 |
| South Street Securities, LLC | 80,845 | 4.43\% | 17 | 11/20/2015 |
| Suntrust Robinson Humphrey, Inc | 4,366 | 0.24\% | 21 | 11/20/2015 |
| Wells Fargo Bank, N.A. | 135,437 | 7.43\% | 13 | 11/13/2015 |
| Total Borrowings | \$1,823,762 | 100\% | 17 | 1/19/2016 |

## Growth and Dividend History

## Portfolio Size as a Percentage of March 31, 2013 Level



- Portfolio losses were significant enough for many Agency REITs that they either explicitly increased their leverage or were forced to sharply reduce the size of their portfolios in order to maintain the same leverage ratio.


## Dividends as a Percentage of

March 31, 2013 Level


- For those with smaller portfolio sizes, or more fully hedged portfolios resulting from increased leverage, dividend cuts were inevitable.


## Sector Analysis

Comparables: Agency REIT Analysis as of 09/30/2015 (other than as indicated below)

| Company | Ticker | Market $\text { Cap }^{(1)}$ | Current $\text { Stock Price }{ }^{(1)}$ | Q32015 <br> Book Value <br> Per Share | Current <br> Dividend <br> Annualized | Current Dividend Yield ${ }^{(2)}$ $\qquad$ | Current <br> Price to <br> Book Ratio ${ }^{(3)}$ | YTD Return on Equity ${ }^{(4)}$ | 1-Year Return on Equity ${ }^{(4)}$ | 2-Year Return on Equity ${ }^{(4)}$ | Return on Equity Since ORC IPO ${ }^{(4)(5)}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Orchid Island Capital, Inc. | ORC | \$193.3 | \$8.88 | \$11.69 | \$1.68* | 18.9\% | 76.0\% | 1.0\% | 3.5\% | 17.8\% | 10.9\% |
| Capstead Mortgage Corp. | CMO | \$924.7 | \$9.65 | \$11.96 | \$1.04 | 10.8\% | 80.7\% | 2.6\% | 4.6\% | 17.5\% | 11.3\% |
| Western Asset Mortgage Capital Corp. | WMC | \$478.7 | \$11.42 | \$13.26 | \$2.40 | 21.0\% | 86.1\% | 1.5\% | 4.0\% | 12.1\% | 5.5\% |
| Anworth Mortgage Asset Corp. | ANH | \$489.6 | \$4.77 | \$6.26 | \$0.60 | 12.6\% | 76.2\% | 3.5\% | 8.0\% | 24.8\% | 8.2\% |
| CYS Investments, Inc. | CYS | \$1,195.1 | \$7.72 | \$9.59 | \$1.04 | 13.5\% | 80.5\% | -0.7\% | 5.8\% | 18.7\% | -1.6\% |
| Annaly Capital Management, Inc. | NLY | \$9,430.4 | \$9.95 | \$11.99 | \$1.20 | 12.1\% | 83.0\% | -1.6\% | 2.5\% | 13.3\% | -0.3\% |
| American Capital Agency Corp. | AGNC | \$6,219.1 | \$17.83 | \$23.00 | \$2.40* | 13.5\% | 77.5\% | -3.3\% | 0.0\% | 11.4\% | 3.7\% |
| Hatteras Financial Corp | HTS | \$1,384.8 | \$14.31 ${ }_{\text {(3) }}$ | \$19.69 | \$1.80 | 12.6\% | 72.7\% | -4.1\% | -3.0\% | 10.9\% | -11.7\% |
| ARMOUR Residential REIT, Inc. | ARR | \$898.5 | \$20.52 ${ }^{(3)}$ | \$29.05 | \$3.96 ${ }^{*}$ | 19.3\% | 70.6\% | -9.0\% | -9.5\% | -9.8\% | -22.8\% |
|  |  |  |  |  | Mean | 14.4\% | 78.4\% | -1.4\% | 1.6\% | 12.4\% | -1.0\% |
|  |  |  |  |  | Median | 13.0\% | 79.0\% | -1.1\% | 3.2\% | 12.7\% | 1.7\% |

Source: Company SEC Filings, press releases and Bloomberg data
*Indicates monthly dividend payer.
(1) Data as of 10/30/2015.
(2) Calculated as the Current Dividend Annualized divided by the Current Stock Price.
(3) Calculated as the Current Stock Price divided by the Q32015 Book Value Per Share.
(4) Calculated as the sum of dividends paid plus the change in book value for each respective period divided by book value at the beginning of each respective period.
(5) ORC IPO date 02/13/2013; Q12013 book value used for calculation.

## Eurodollar Introduction

## Eurodollar Introduction

## Contract Description and Hedging

- Each contract is a traded future on a 1 or 3 month LIBOR denominated deposit rate
-For simplicity this presentation focuses on the quarterly contracts which cash settle on each March, June, September and December
- At the settlement date the final value of each contract is determined by subtracting the prevailing 3-Month LIBOR rate from a price of 100
-As the expectation for 3-Month LIBOR increases the price of the contract declines
-By taking a short position in one or a series of Eurodollar futures the hedger enters into a trade which increases in value as rates / expected funding costs rise

GAAP Accounting:

- The Company designates all Eurodollar contracts as Level I assets pursuant to ASC 820
-Level I asset values are readily observable and, in the case of Eurodollar futures, quoted trade levels published by a number of data providers
- Note: While swaps are considered highly liquid, they are typically considered Level II assets
- Fair Value Option - The Company has elected not to treat any of its derivative financial instruments as hedges. FASB ASC Topic 815, Derivatives and Hedging, requires that all derivative instruments be carried at fair value. Changes in fair value are recorded in earnings for each period


## Eurodollar Introduction

## ...Continued

- Eurodollar futures trade in $\$ 1$ million dollar notional values per contract
-To replicate the $\$ 1$ billion swap hedge the Company would sell-short 1,000 contracts for each sequential quarterly expiry over the next 20 quarters in order to achieve the desired 5 year hedge period (see Eurodollar Exhibit 1)
- By shorting each of these contracts the Company locks-in a fixed, Eurodollar based, hedge, which is economically the same as entering into a pay fixed swap (in reality there are deminimis differences between the forward and futures rates)
- Since the contracts represent highly liquid and highly visible market clearing levels for discrete 3-month LIBOR deposit rates in the future, the implied yields are frequently used in swap models to determine forward rates and thereby used to solve for the fixed swap rate
- While the economics of the Eurodollar and swap hedges are virtually identical, there are important income, book value, and tax implications associated with each hedge type
-In the illustrative example when the Company enters into the 5 year pay fixed swap it executes one trade vs. shorting several contracts throughout time
-As discussed, the rates implied by the price of each Eurodollar future sets a forward rate. Rather than having one average fixed rate which equates to the average of the forward rates, the Eurodollar futures "lock-in" several quarterly rates over the horizon of the hedging period


## Eurodollar Exhibit 1: Illustrative Position

| Illustrative Eurodollar Position |  |  |  |  |  |  |  |  | Initial Margin <br> Per Contract | Initial Margin <br> Requirement |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Lo |  | NotionalBalance | Current <br> Price | Implied <br> Forward | Cumulative <br> Forward Rate | $+100 \mathrm{BP}$ <br> Shock Price | $+100 \mathrm{BP}$ <br> Shock P\&L |  |  |
| Contract | Short | Position |  |  |  |  |  |  |  |  |
| EDz5 Comdty | Short | -1000 | (1,000,000,000) | 99.53 | 0.47 | 0.47 | 98.53 | 2,500,000 | 275 | $(275,000)$ |
| EDH6 Comdty | Short | -1000 | $(1,000,000,000)$ | 99.36 | 0.64 | 0.56 | 98.36 | 2,500,000 | 425 | $(425,000)$ |
| EDM6 Comdty | Short | -1000 | $(1,000,000,000)$ | 99.21 | 0.79 | 0.63 | 98.21 | 2,500,000 | 425 | $(425,000)$ |
| EDU6 Comdty | Short | -1000 | $(1,000,000,000)$ | 99.05 | 0.95 | 0.71 | 98.05 | 2,500,000 | 425 | $(425,000)$ |
| EDZ6 Comdty | Short | -1000 | (1,000,000,000) | 98.89 | 1.11 | 0.79 | 97.89 | 2,500,000 | 550 | $(550,000)$ |
| EDH7 Comdty | Short | -1000 | $(1,000,000,000)$ | 98.74 | 1.26 | 0.87 | 97.74 | 2,500,000 | 550 | $(550,000)$ |
| EDM7 Comdty | Short | -1000 | $(1,000,000,000)$ | 98.60 | 1.41 | 0.95 | 97.60 | 2,500,000 | 550 | $(550,000)$ |
| EDU7 Comdty | Short | -1000 | $(1,000,000,000)$ | 98.47 | 1.54 | 1.02 | 97.47 | 2,500,000 | 550 | $(550,000)$ |
| EDZ7 Comdty | Short | -1000 | $(1,000,000,000)$ | 98.34 | 1.66 | 1.09 | 97.34 | 2,500,000 | 575 | $(575,000)$ |
| EDH8 Comdty | Short | -1000 | (1,000,000,000) | 98.24 | 1.77 | 1.16 | 97.24 | 2,500,000 | 575 | $(575,000)$ |
| EDM8 Comdty | Short | -1000 | $(1,000,000,000)$ | 98.14 | 1.86 | 1.22 | 97.14 | 2,500,000 | 575 | $(575,000)$ |
| EDU8 Comdty | Short | -1000 | (1,000,000,000) | 98.06 | 1.94 | 1.28 | 97.06 | 2,500,000 | 575 | $(575,000)$ |
| EDZ8 Comdty | Short | -1000 | $(1,000,000,000)$ | 97.97 | 2.03 | 1.34 | 96.97 | 2,500,000 | 600 | $(600,000)$ |
| EDH9 Comdty | Short | -1000 | $(1,000,000,000)$ | 97.91 | 2.10 | 1.39 | 96.91 | 2,500,000 | 600 | $(600,000)$ |
| EDM9 Comdty | Short | -1000 | $(1,000,000,000)$ | 97.84 | 2.16 | 1.45 | 96.84 | 2,500,000 | 600 | $(600,000)$ |
| EDU9 Comdty | Short | -1000 | $(1,000,000,000)$ | 97.78 | 2.22 | 1.49 | 96.78 | 2,500,000 | 600 | $(600,000)$ |
| EDz9 Comdty | Short | -1000 | (1,000,000,000) | 97.72 | 2.29 | 1.54 | 96.72 | 2,500,000 | 650 | $(650,000)$ |
| EDHO Comdty | Short | -1000 | $(1,000,000,000)$ | 97.66 | 2.34 | 1.59 | 96.66 | 2,500,000 | 650 | $(650,000)$ |
| EDMO Comdty | Short | -1000 | $(1,000,000,000)$ | 97.60 | 2.40 | 1.63 | 96.60 | 2,500,000 | 650 | $(650,000)$ |
| EDUO Comdty | Short | -1000 | $(1,000,000,000)$ | 97.54 | 2.46 | 1.67 | 96.54 | 2,500,000 | 650 | $(650,000)$ |
| Total / Average |  | -20,000 |  | 98.33 | 1.67 | 1.67 | 97.33 | 50,000,000 | 553 | $(11,050,000)$ |

Source: Bloomberg

## Eurodollar Exhibit 2: Market Depth

EDH6 COMB Comdty
Exchanges: -CME

gODMY EURO\$ FUTR Marla

 Jepsen si 3 se01 geno Singgipore 65 6e12 1000

## March 16 Eurodollar Contract - Yield History



## Total Rate of Return Scenarios

## Taxable Income and Book Value

## Scenario A: LIBOR Remains at 25bps (Repo at 35bps) for 5 Years Beginning BV \$10 / Share

|  |  |  |  | Swap Hedge |  |  |  |  | Eurodollar Hedge |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Share Count | MBS <br> Interest | Repo <br> Interest | Interest Expense Hedge Adjustment | Taxable Income | Mark to <br> Market | Ending Book Value | Annual Total $\qquad$ | Interest Expense Hedge Adjustment | Taxable Income | Mark to <br> Market | Ending Book Value | Annualized TROR** |
| Year 1 | 10,000,000 | \$14,100,000 | \$ (1,995,000) | $(\$ 6,270,000)$ | \$5,835,000 | (\$3,573,221) | \$9.64 | 2\% | $(\$ 840,750)$ | \$11,264,250 | \$ $(9,114,158)$ | \$9.09 | 2\% |
| Year 2 | 10,000,000 | \$14,100,000 | \$ (1,995,000) | (\$6,270,000) | \$5,835,000 | $(\$ 2,592,438)$ | \$9.38 | 3\% | $(\$ 4,289,250)$ | \$7,815,750 | \$ $(4,565,843)$ | \$8.63 | 4\% |
| Year 3 | 10,000,000 | \$14,100,000 | \$ (1,995,000) | (\$6,270,000) | \$5,835,000 | $(\$ 1,163,407)$ | \$9.27 | 5\% | (\$7,410,000) | \$4,695,000 | \$ | \$8.63 | 5\% |
| Year 4 | 10,000,000 | \$14,100,000 | \$ (1,995,000) | (\$6,270,000) | \$5,835,000 | \$1,913,866 | \$9.46 | 8\% | (\$8,855,093) | \$3,249,907 | \$ 4,565,843 | \$9.09 | 9\% |
| Year 5 | 10,000,000 | \$14,100,000 | \$ $(1,995,000)$ | ( $\$ 6,270,000$ ) | \$5,835,000 | \$5,415,200 | \$10.00 | 12\% | (\$9,954,908) | \$2,150,093 | \$ 9,114,158 | \$10.00 | 12\% |
| Total | 10,000,000 | \$70,500,000 | \$ (9,975,000) | (\$31,350,000) | \$29,175,000 | \$0 | \$10.00 | 6\% | (\$31,350,000) | \$29,175,000 | \$ | \$10.00 | 6\% |

*This example is for illustrative purposes only and does not reflect Orchid Island's projections or forecasts.
**Total Rate of Return

- MBS interest remains constant
- Repo interest remains constant


## Swap Hedge

- Taxable interest expense is increased in equal increments over the horizon period as the swap rolls down the curve.
- Taxable income is constant resulting from the pay fixed swap. The lower than initially anticipated floating rate inflows are offset by lower than expected repo rates.
- The negative mark to market resulting from lower than expected rates is monetized over time which offsets the impact on book value. Total return gradually increases for the same reason.


## Eurodollar Hedge

- Taxable interest expense rises over the horizon as the largest market to market hit occurs on contracts in the 4-5 year range.
- Taxable income decreases as hedge losses are monetized over time. Alternatively the mark to market impact is higher when there are a large number of hedges outstanding.
- While taxable income is the lowest in Year 5, the MBS interest income is unchanged. The large difference between MBS interest net of repo funding expense and the taxable income distribution requirement creates an increase in book value.


## Taxable Income and Book Value

## Scenario B: Forward Curve Exactly Realized Forward Repo / LIBOR Spread 10bps - Beginning BV \$10 / Share

|  |  |  |  | Swap Hedge |  |  |  |  | Eurodollar Hedge |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Share Count | MBS <br> Interest | Repo <br> Interest | Interest Expense Hedge Adjustment | Taxable Income | Mark to Market | Ending Book Value | Annual Total Return | Interest Expense Hedge Adjustment | Taxable Income |  | Mark to Market | Ending Book Value | Annualized TROR** |
| Year 1 | 10,000,000 | \$14,100,000 | \$ (2,835,750) | $(\$ 5,556,607)$ | \$5,707,643 | \$0 | \$10.00 | 6\% | \$0 | \$11,264,250 | \$ | - | \$10.00 | 11\% |
| Year 2 | 10,000,000 | \$14,100,000 | \$ (6,284,250) | (\$2,029,861) | \$5,785,889 | \$0 | \$10.00 | 6\% | \$0 | \$7,815,750 | \$ | - | \$10.00 | 8\% |
| Year 3 | 10,000,000 | \$14,100,000 | \$ (9,405,000) | \$1,132,959 | \$5,827,959 | \$0 | \$10.00 | 6\% | \$0 | \$4,695,000 | \$ | - | \$10.00 | 5\% |
| Year 4 | 10,000,000 | \$14,100,000 | \$(10,850,093) | \$2,674,998 | \$5,924,905 | \$0 | \$10.00 | 6\% | \$0 | \$3,249,907 | \$ | - | \$10.00 | 3\% |
| Year 5 | 10,000,000 | \$14,100,000 | \$(11,949,908) | \$3,778,512 | \$5,928,604 | \$0 | \$10.00 | 6\% | \$0 | \$2,150,093 | \$ | - | \$10.00 | 2\% |
| Total | 10,000,000 | \$70,500,000 | \$(41,325,000) | \$0 | \$29,175,000 | \$0 | \$10.00 | 6\% | \$0 | \$29,175,000 | \$ | - | \$10.00 | 6\% |

*This example is for illustrative purposes only and does not reflect Orchid Island's projections or forecasts.
**Total Rate of Return

- MBS interest remains constant
- Repo interest gradually increases over time as forwards are realized


## Swap Hedge

- Taxable interest expense is increased in years 1 and 2 resulting from swap fixed rate outflows being higher than swap floating rate inflows. Since forwards are realized there is no mark to market adjustment in any period.
- Taxable income is steady over the smoothed hedge period.


## Eurodollar Hedge

- Taxable interest expense is unchanged because the forwards are settled / covered at the same price that the shorts were initiated (forwards realized). Mark to market is \$0 for the same reason.
- Taxable income decreases as repo rates gradually rise.
- Total return, MBS Interest, Repo Interest, Taxable Income, Book Value and Mark to Market are identical for each hedge instrument.


## Taxable Income and Book Value

## Scenario C: Realized +100bps Instantaneous Parallel Curve Shift Repo / LIBOR Spread 10bps - Beginning BV \$10 / Share

|  |  |  |  | Swap Hedge |  |  |  |  | Eurodollar Hedge |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Share Count | MBS <br> Interest | Repo <br> Interest | Interest Expense <br> Hedge Adjustment | Taxable Income | Mark to Market | Ending Book Value | Annual Total Return | Interest Expense Hedge Adjustment | Taxable Income | Mark to Market | Ending Book Value | Annualized TROR** |
| Year 1 | 10,000,000 | \$14,100,000 | \$ (8,535,750) | \$270,750 | \$5,835,000 | \$18,148,451 | \$11.81 | 24\% | \$5,700,000 | \$11,264,250 | \$22,800,000 | \$12.28 | 34\% |
| Year 2 | 10,000,000 | \$14,100,000 | \$(11,984,250) | \$3,719,250 | \$5,835,000 | $(\$ 8,967,155)$ | \$10.92 | -3\% | \$5,700,000 | \$7,815,750 | \$ (5,700,000) | \$11.71 | 2\% |
| Year 3 | 10,000,000 | \$14,100,000 | \$(15,105,000) | \$6,840,000 | \$5,835,000 | $(\$ 6,578,655)$ | \$10.26 | -1\% | \$5,700,000 | \$4,695,000 | \$ (5,700,000) | \$11.14 | -1\% |
| Year 4 | 10,000,000 | \$14,100,000 | \$(16,550,093) | \$8,285,093 | \$5,835,000 | (\$3,741,098) | \$9.89 | 2\% | \$5,700,000 | \$3,249,907 | \$ (5,700,000) | \$10.57 | -2\% |
| Year 5 | 10,000,000 | \$14,100,000 | \$(17,649,908) | \$9,384,908 | \$5,835,000 | \$1,138,457 | \$10.00 | 7\% | \$5,700,000 | \$2,150,093 | \$ (5,700,000) | \$10.00 | -3\% |
| Total | 10,000,000 | \$70,500,000 | \$(69,825,000) | \$28,500,000 | \$29,175,000 | \$0 | \$10.00 | 6\% | \$28,500,000 | \$29,175,000 | \$ | \$10.00 | 6\% |

*This example is for illustrative purposes only and does not reflect Orchid Island's projections or forecasts.
**Total Rate of Return

- MBS interest remains constant
- Repo interest increases sharply and continues to increase as forwards are realized


## Swap Hedge

- Taxable interest expense is decreased at an increasing rate resulting from swap fixed rate outflows being far lower than swap floating rate inflows.
- Mark to market, all else equal, is large in the rate shock year and then unwinds to \$0 over time. The same is true of book value and total rate of return.
- Taxable income is steady over the smoothed hedge period.


## Eurodollar Hedge

- Taxable interest expense is decreased evenly over time. This corresponds to the 100bps parallel shift across the curve. Mark to market is large in Year 1 and then unwinds to $\$ 0$ as the hedge gains are monetized into taxable income.
- Taxable income decreases as repo rates gradually rise.
- Horizon Total return, MBS Interest, Repo Interest, Taxable Income, Book Value and Mark to Market are identical for each hedge instrument.

