



# Third Quarter 2016 Earnings Call

NOVEMBER 3, 2016



**TWO HARBORS**  
Investment Corp.

A Pine River Capital Managed Company



# 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 seller-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.

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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.



# Financial Summary<sup>(1)</sup>

## DELIVERED STRONG RESULTS; WELL POSITIONED FOR FUTURE

### QUARTERLY FINANCIAL HIGHLIGHTS

- Total return on book value of 4.2%<sup>(2)</sup>
  - Book value of \$10.01 per share and cash dividend of \$0.23 per share
- Comprehensive Income of \$136.5 million, or \$0.39 per share
- GAAP net income of \$117.8 million, or \$0.34 per share
- Core Earnings<sup>(3)</sup> of \$82.5 million, or \$0.24 per share

(1) Except as otherwise indicated in this presentation, reported data is as of or for the period ended September 30, 2016.

(2) See Appendix slide 14 for calculation of Q3-2016 and 2016 year-to-date return on book value.

(3) Core Earnings is a non-GAAP measure. Please see Appendix slide 17 of this presentation for a definition of Core Earnings and a reconciliation of GAAP to non-GAAP financial information.



# Strategic Overview

## STRATEGIC COMPONENTS

- Flexible model
- Opportunistic capital allocation
- Disciplined risk management
  - Book value and income stability

## KEY AREAS OF FOCUS THROUGH 2017

### INCREASE EARNINGS POWER AND SIMPLIFY BUSINESS MODEL

- Continue to thoughtfully manage Agency portfolio and build out MSR position
- Capitalize on tailwinds supporting non-Agency
- Increase capital allocated to commercial strategy
- Deploy capital to maximize returns
  - On track to substantially wind down conduit by end of 2016; cost savings and incremental investment income from capital redeployment expected to be about \$20 million in 2017

## BUILDING STRONG MOMENTUM FOR 2017

# Book Value



(Dollars in millions, except per share data)	Q3-2016 Book Value	Q3-2016 Book Value per share	YTD-2016 Book Value	YTD-2016 Book Value per share
<b>Beginning stockholders' equity</b>	<b>\$3,418.1</b>	<b>\$9.83</b>	<b>\$3,576.6</b>	<b>\$10.11</b>
GAAP Net Income (Loss):				
Core Earnings, net of tax	82.5		230.5	
Realized gains and losses, net of tax	(125.9)		(139.8)	
Unrealized mark-to-market gains and losses, net of tax	161.2		(78.8)	
Other comprehensive income	18.7		179.4	
Dividend declaration	(80.0)		(239.9)	
Other	3.5		11.2	
Balance before capital transactions	3,478.1		3,539.2	
Repurchase of common stock	—		(61.3)	
Issuance of common stock, net of offering costs	0.1		0.3	
<b>Ending stockholders' equity</b>	<b>\$3,478.2</b>	<b>\$10.01</b>	<b>\$3,478.2</b>	<b>\$10.01</b>

**Comprehensive  
Income (GAAP)**

Q3-2016  
Comprehensive  
Income of \$136.5  
million; \$191.3  
million Income  
YTD-2016

Declared Q3-2016  
dividend of \$0.23  
per share; \$0.69  
per share YTD-2016



# Core Earnings Summary<sup>(1)</sup>

## Q3-2016 FINANCIAL HIGHLIGHTS

(Dollars in millions)	Q2-2016	Q3-2016	Variance (\$)	Variance (%)
Interest income	\$154.8	\$168.9	\$14.1	9.1 %
Interest expense	54.0	60.4	(6.4)	(11.8%)
Net interest income	100.8	108.5	7.7	7.6 %
Loss on swaps and swaptions	(7.7)	(4.3)	3.4	43.9%
Gain on other derivatives	5.0	3.7	(1.3)	(25.8%)
Servicing income, net of amortization on MSR	11.3	5.4	(5.9)	(51.7%)
Other	1.4	1.5	0.1	5.2 %
Total other income	10.0	6.3	(3.7)	n/a
Expenses	36.6	34.2	(2.4)	6.9%
Income taxes	(2.0)	(1.9)	(0.1)	n/a
<b>Core Earnings<sup>(1)</sup></b>	<b>\$76.2</b>	<b>\$82.5</b>	<b>\$6.3</b>	<b>8.4 %</b>
<b>Basic and diluted weighted average Core EPS</b>	<b>\$0.22</b>	<b>\$0.24</b>	<b>\$0.02</b>	

- Net interest income increased quarter-over-quarter
  - Higher overall leverage
- Servicing income decreased due to higher MSR amortization from increased prepayments, consistent with expectations
- Other operating expenses decreased \$2.8 million quarter-over-quarter
  - Lower amortization of restricted stock awards
  - Early effects from the discontinuation of the mortgage loan conduit

(1) Core Earnings is a non-GAAP measure. Please see Appendix slide 17 for a definition of Core Earnings and a reconciliation of GAAP to non-GAAP financial information.



# Diversified Financing Profile

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## REPURCHASE AGREEMENTS

- Repo markets functioning without interruption
- Outstanding borrowings of \$10.6 billion with 22 active counterparties; 31 total counterparties
- \$441.8 million outstanding with direct lending counterparty

## FINANCING FOR MSR

- Added \$30 million revolving credit facility
- Initial terms favorable
  - Advance rate of 60.0%
  - Spread over LIBOR of 375 basis points
- Anticipate expanding upon this source of financing

## FEDERAL HOME LOAN BANK OF DES MOINES

- Outstanding secured advances of \$4.0 billion
- Weighted average borrowing rate of 0.67%

## FINANCING FOR COMMERCIAL REAL ESTATE ASSETS

- Two \$250 million financing facilities

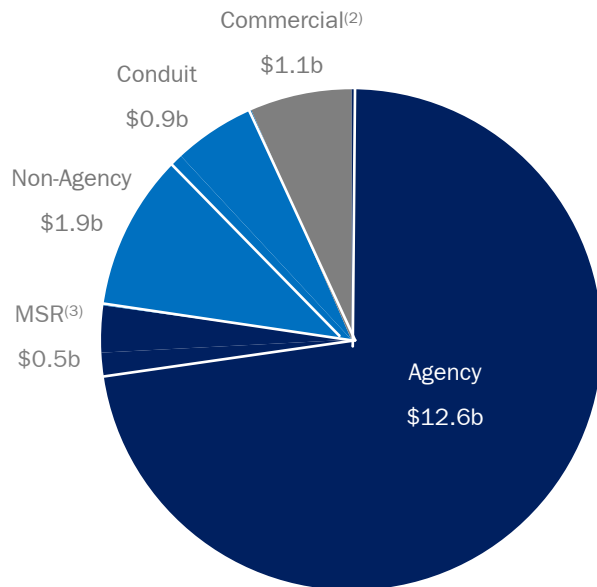


# Portfolio Composition

## DIVERSIFIED AND BALANCED CAPITAL ALLOCATION

### PORTFOLIO COMPOSITION<sup>(1)</sup>

\$17.0 BILLION PORTFOLIO AS OF SEPTEMBER 30, 2016



Rates<sup>(4)</sup> \$13.1b
  Credit<sup>(5)</sup> \$2.8b
  Commercial \$1.1b

### HISTORICAL CAPITAL ALLOCATION

	December 31, 2015	June 30, 2016	September 30, 2016
<b>Rates<sup>(4)</sup></b>	56%	56%	54%
<b>Credit<sup>(5)</sup></b>	33%	31%	31%
<b>Commercial</b>	11%	13%	15%

(1) For additional detail on the portfolio, see Appendix slides 18-24.

(2) Commercial consists of senior and mezzanine commercial real estate debt and related instruments.

(3) MSR includes Ginnie Mae buyout residential mortgage loans.

(4) Assets in "Rates" include Agency RMBS, Agency Derivatives, MSR and Ginnie Mae buyout residential mortgage loans.

(5) Assets in "Credit" include non-Agency MBS, prime jumbo residential mortgage loans, net economic interest in securitization trusts and credit sensitive residential mortgage loans.





# Portfolio Performance

## FOCUS ON DRIVING CONSISTENT AND STABLE RETURNS

### Q3-2016 PERFORMANCE HIGHLIGHTS

#### RATES

- Agency RMBS performed well as spreads tightened
- Increased prepayment speeds dampened realized yields modestly

#### CREDIT

- Strong underlying credit performance and increased prepayments drove legacy non-Agency yields higher

#### COMMERCIAL

- Healthy portfolio performance in-line quarter-over-quarter

### PORTFOLIO METRICS

Three Months Ended	June 30, 2016	September 30, 2016
<b>Annualized portfolio yield during the quarter</b>	<b>3.77%</b>	<b>3.50%</b>
<b>Rates</b>		
Agency RMBS, Agency Derivatives and MSR	3.1%	2.6%
<b>Credit</b>		
Non-Agency RMBS, Legacy <sup>(2)</sup>	8.3%	9.1%
Non-Agency MBS, New issue <sup>(2)</sup>	5.9%	6.1%
Net economic interest in securitization trusts	7.2%	9.3%
Residential mortgage loans held-for-sale	4.1%	4.1%
<b>Commercial</b>	<b>6.2%</b>	<b>6.2%</b>
<b>Annualized cost of funds on average repurchase and advance balance during the quarter<sup>(3)</sup></b>	<b>1.18%</b>	<b>1.08%</b>
<b>Annualized interest rate spread for aggregate portfolio during the quarter</b>	<b>2.59%</b>	<b>2.42%</b>

(1) Defined as average total borrowings to fund RMBS, residential mortgage loans held-for-sale, commercial real estate assets, MSR and Agency Derivatives, divided by total equity.

(2) "Legacy" non-Agency RMBS includes non-Agency bonds issued up to and including 2009. "New issue" non-Agency MBS includes bonds issued after 2009.

(3) Cost of funds includes interest spread expense associated with the portfolio's interest rate swaps.



# Rates Update

BOOK VALUE AND INCOME LARGELY INSULATED FROM CHANGES IN INTEREST RATES

## CONSERVATIVE RISK PROFILE

- Maintain low interest rate exposure
- Focus on preserving book value and income generation
- Agency pools combined with MSR provides attractive returns with less risk
  - Additional benefits from increased MSR yield and float income in slowing prepayment environment

## THIRD QUARTER ACCOMPLISHMENTS

- Continue to add prepayment protected Agency RMBS; approximately 65% of pools had some form of prepayment protection as of September 30, 2016
- Added \$10.6 billion UPB of new issue, high quality MSR
  - Expect near-term flow MSR volume of approximately \$3.0 billion UPB per month



# Credit Update

## LEGACY NON-AGENCY RMBS

- Strong tailwinds for residential credit driving greater long-term opportunity for portfolio
  - Employment improving
  - Housing prices increasing
  - Affordability high
- Continue to reduce credit reserve; released over \$400 million in the past 3 years
  - Expect future yields to be consistent with this quarter due to release of reserves

## MORTGAGE LOAN CONDUIT

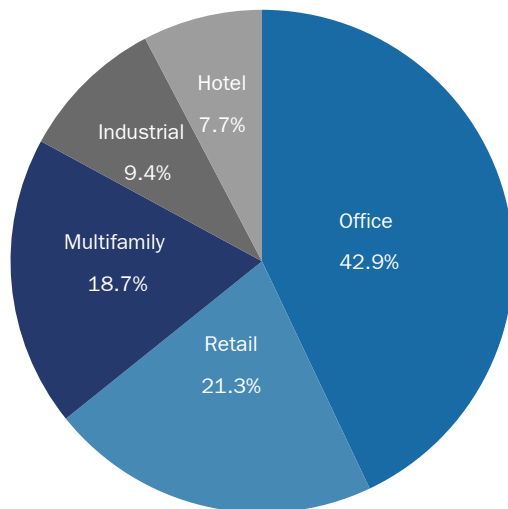
- On track to substantially complete wind down of conduit by year-end
- Completed ABMT 2016-3, a \$377 million UPB securitization
- Positioned to redeploy freed up capital into strategies with higher returns
  - Agency pools combined with MSR
  - Commercial real estate assets



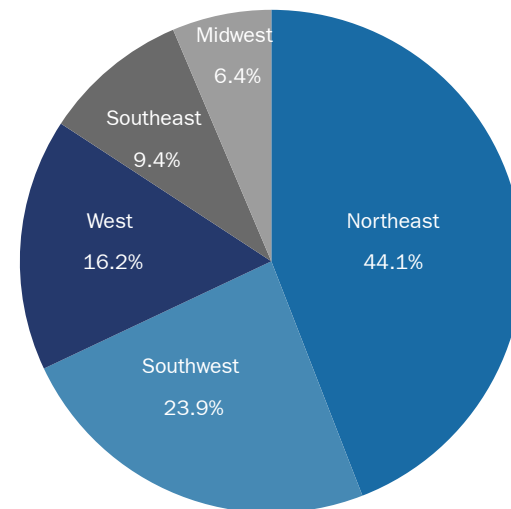
# Commercial Real Estate Update

- Aggregate portfolio carrying value of \$1.1 billion at September 30, 2016
  - Twenty-two senior and six mezzanine assets
- Weighted average stabilized loan-to-value (LTV) of 65.1%<sup>(1)</sup>; weighted average spread of LIBOR plus 482 basis points
- Tremendous opportunity for lending; strong pipeline of loans

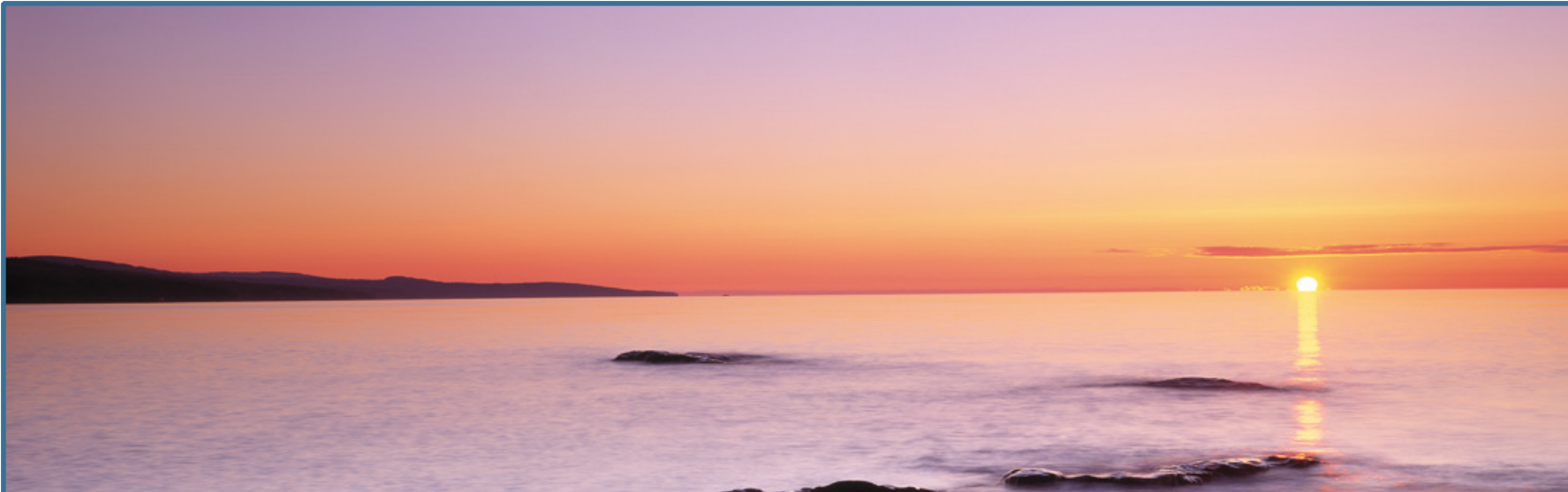
PORTFOLIO BY PROPERTY TYPE



PORTFOLIO BY GEOGRAPHY



(1) Stabilized LTV considers the prospective market value "as stabilized" which reflects the property's market value as of the time the property is projected to achieve stabilized occupancy. Stabilized occupancy is the occupancy level that a property is expected to achieve after the property is exposed to the market for lease over a reasonable period of time and at comparable terms and conditions to other similar properties.



# Appendix



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# Return on Book Value

Return on book value Q3-2016 (Per share amounts, except for percentage)	
Book value at June 30, 2016	\$9.83
Book value at September 30, 2016	10.01
Increase in book value	0.18
Dividends declared in Q3-2016	0.23
Return on book value Q3-2016	\$0.41
Percent return on book value Q3-2016 <sup>(1)</sup>	4.2 %

Return on book value YTD-2016 (Per share amounts, except for percentage)	
Book value at December 31, 2015	\$10.11
Book value at September 30, 2016	10.01
Decrease in book value	(0.10)
Dividends declared YTD-2016	0.69
Return on book value YTD-2016	\$0.59
Percent return on book value YTD-2016 <sup>(2)</sup>	5.8 %

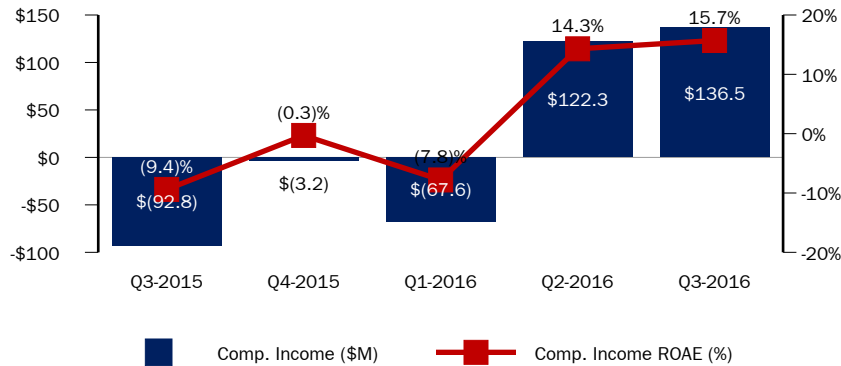
(1) Return on book value for three-month period ended September 30, 2016 is defined as the increase in book value from June 30, 2016 to September 30, 2016 of \$0.18 per share, plus dividends declared of \$0.23 per share, divided by June 30, 2016 book value of \$9.83 per share.

(2) Return on book value for nine-month period ended September 30, 2016 is defined as the decrease in book value from December 31, 2015 to September 30, 2016 of \$0.10 per share, plus dividends declared of \$0.69 per share, divided by December 31, 2015 book value of \$10.11 per share.

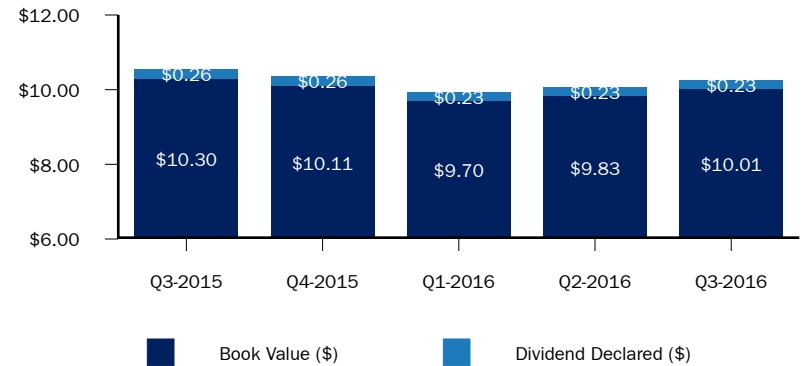


# Financial Performance

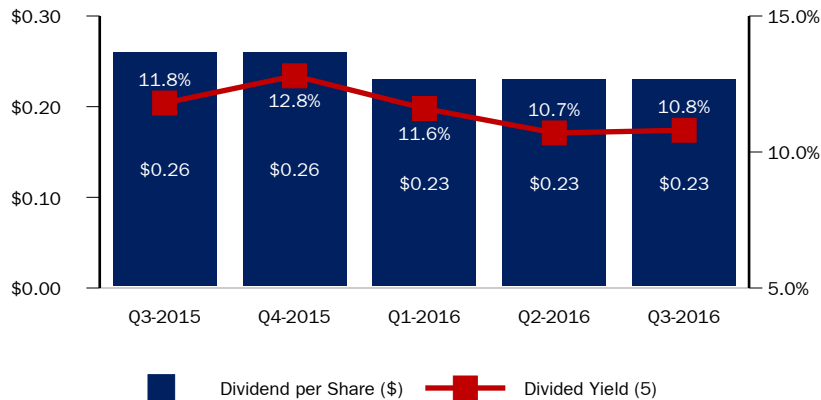
## COMPREHENSIVE INCOME (LOSS)



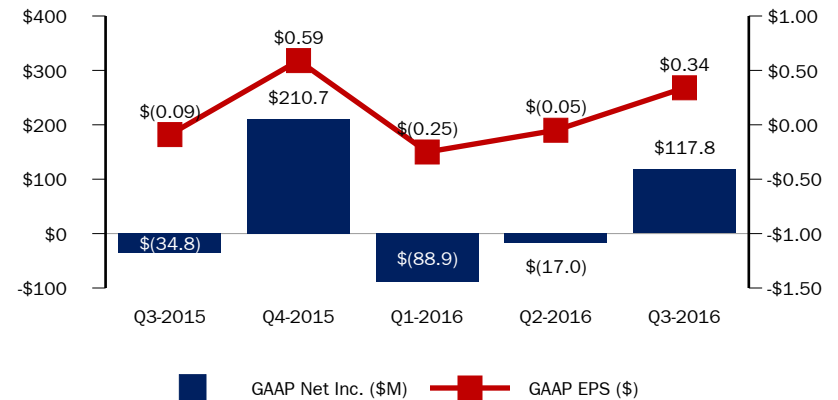
## BOOK VALUE AND DIVIDEND PER SHARE<sup>(1)</sup>



## DIVIDENDS<sup>(1)</sup>



## GAAP NET INCOME (LOSS)



(1) Historical dividends may not be indicative of future dividend distributions. The company ultimately distributes dividends based on its taxable income per common share, not GAAP earnings. The annualized dividend yield on the company's common stock is calculated based on the closing price of the last trading day of the relevant quarter.

# Operating Performance



(In millions, except for per share data)	Q2-2016				Q3-2016			
	Core Earnings <sup>(1)</sup>	Realized Gains (Losses)	Unrealized MTM	Total	Core Earnings <sup>(1)</sup>	Realized Gains (Losses)	Unrealized MTM	Total
Interest income	\$154.8	\$—	\$—	\$154.8	\$168.9	\$—	\$—	\$168.9
Interest expense	54.0	—	—	54.0	60.4	—	—	60.4
Net interest income	100.8	—	—	100.8	108.5	—	—	108.5
Net other-than-temporary impairment losses	—	—	(0.1)	(0.1)	—	—	(1.0)	(1.0)
Gain (loss) on investment securities	—	9.9	(1.6)	8.3	—	31.8	(3.5)	28.3
(Loss) gain on interest rate swaps and swaptions	(7.7)	(55.1)	50.1	(12.7)	(4.3)	(95.1)	105.0	5.6
Gain (loss) on other derivative instruments	5.0	0.2	(53.2)	(48.0)	3.7	(62.5)	46.8	(12.0)
Gain (loss) on residential mortgage loans held-for-sale	—	3.8	3.9	7.7	—	4.1	(5.0)	(0.9)
Servicing income	35.8	—	—	35.8	38.7	—	—	38.7
(Loss) gain on servicing asset	(24.5)	—	(52.0)	(76.5)	(33.3)	(58.2)	58.0	(33.5)
Other income (loss)	1.4	(5.7)	(5.3)	(9.6)	1.5	(4.1)	8.4	5.8
Total other income (loss)	10.0	(46.9)	(58.1)	(95.0)	6.3	(184.0)	209.7	32.0
Management fees & other operating expenses	36.6	0.8	—	37.4	34.2	4.3	—	38.5
Net income (loss) before income taxes	74.2	(47.7)	(58.2)	(31.7)	80.6	(188.3)	208.7	101.0
Income tax (benefit) expense	(2.0)	(8.4)	(4.3)	(14.7)	(1.9)	(62.4)	47.5	(16.8)
<b>Net income (loss)</b>	<b>\$76.2</b>	<b>(\$39.3)</b>	<b>(\$53.9)</b>	<b>(\$17.0)</b>	<b>\$82.5</b>	<b>(\$125.9)</b>	<b>\$161.2</b>	<b>\$117.8</b>
Weighted average EPS	\$0.22	(\$0.11)	(\$0.16)	(\$0.05)	\$0.24	(\$0.36)	\$0.46	\$0.34

(1) Core Earnings is a non-GAAP measure. Please see Appendix slide 17 of this presentation for a definition of Core Earnings and a reconciliation of GAAP to non-GAAP financial information.





# GAAP to Core Earnings Reconciliation<sup>(1)</sup>

Reconciliation of GAAP to non-GAAP Information (In thousands, except for per share data)	Three Months Ended June 30, 2016	Three Months Ended September 30, 2016
Reconciliation of Comprehensive income to Core Earnings:		
<b>Comprehensive income</b>	<b>\$122,310</b>	<b>\$136,532</b>
Adjustment for other comprehensive income:		
Unrealized gain on available-for-sale securities	(139,291)	(18,746)
<b>Net (loss) income</b>	<b>(\$16,981)</b>	<b>\$117,786</b>
Adjustments for non-core earnings:		
Gain on sale of securities and residential mortgage loans, net of tax	(12,332)	(35,628)
Unrealized (gain) loss on securities and residential mortgage loans held-for-sale, net of tax	(1,026)	6,720
Other-than-temporary impairment loss	90	1,015
Unrealized gain on interest rate swaps and swaptions economically hedging investment portfolio, repurchase agreements and FHLB advances, net of tax	(28,851)	(90,285)
Realized loss on termination or expiration of swaps and swaptions, net of tax	45,598	75,747
Loss on other derivative instruments, net of tax	33,669	11,147
Realized and unrealized loss (gain) on financing securitizations, net of tax	10,960	(4,268)
Realized and unrealized loss (gain) on mortgage servicing rights, net of tax	44,521	(2,938)
Securitization deal costs, net of tax	279	1,352
Change in representation and warranty reserve, net of tax	235	692
Restructuring charges	—	1,189
<b>Core Earnings</b>	<b>\$76,162</b>	<b>\$82,529</b>
Weighted average shares outstanding	347,597,955	347,627,226
Core Earnings per weighted average share outstanding	\$0.22	\$0.24

(1) Core Earnings is a non-GAAP measure that we define as GAAP net income, excluding impairment losses, realized and unrealized gains or losses on the aggregate portfolio, amortization of business combination intangible assets, reserve expense for representation and warranty obligations on MSR, certain upfront costs related to securitization transactions and restructuring charges. As defined, Core Earnings includes interest income or expense and premium income or loss on derivative instruments and servicing income, net of estimated amortization on MSR. Core Earnings is provided for purposes of comparability to other peer issuers.



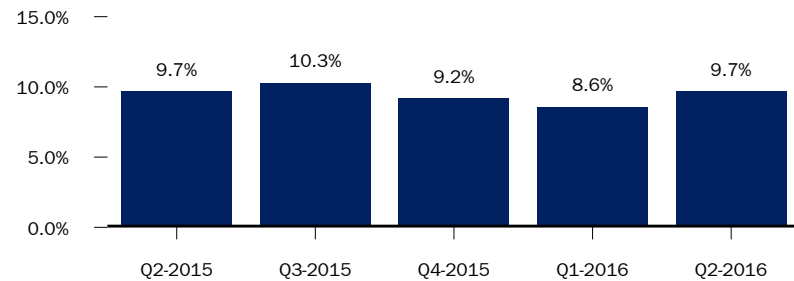
# Rates: Agency RMBS Metrics

## AGENCY PORTFOLIO YIELDS AND METRICS

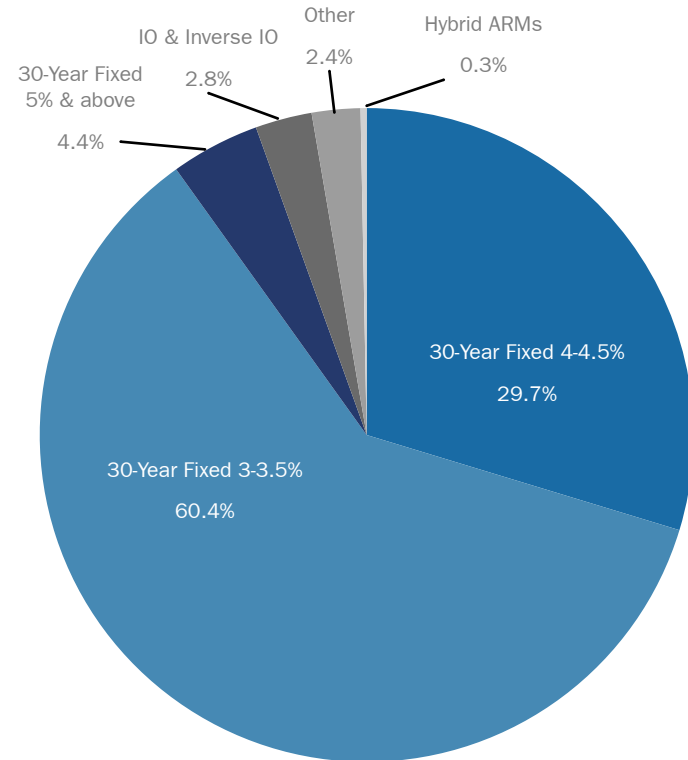
Portfolio Yield	Realized Q2-2016	At June 30, 2016	Realized Q3-2016	At September 30, 2016
Agency yield	3.0%	2.8%	2.8%	2.8%
Repo and FHLB costs	0.7%	0.7%	0.8%	0.8%
Swap costs	0.3%	0.2%	0.2%	0.1%
Net interest spread	2.0%	1.9%	1.8%	1.9%

Portfolio Metrics	Q2-2016	Q3-2016
Weighted average 3-month CPR <sup>(1)</sup>	8.6%	9.7%
Weighted average cost basis <sup>(2)</sup>	\$105.3	\$105.6

## AGENCY RMBS CPR<sup>(1)</sup>



## AGENCY PORTFOLIO COMPOSITION



(1) Agency weighted average 3-month Constant Prepayment Rate (CPR) includes IIOs (or Agency Derivatives).

(2) Weighted average cost basis includes RMBS principal and interest securities only. Average purchase price utilized carrying value for weighting purposes.



## Rates: Agency RMBS

As of September 30, 2016	Par Value (\$M)	Market Value (\$M)	% Prepay Protected <sup>(1)</sup>	Amortized Cost Basis (\$M)	Weighted Average Coupon	Weighted Average Age (Months)
<b>30-Year fixed</b>						
3.0-3.5%	\$7,251	\$7,597	49.9%	\$7,563	3.1%	5
4.0-4.5%	3,381	3,731	100.0%	3,636	4.2%	39
≥ 5.0%	484	555	100.0%	522	5.5%	92
	11,116	11,883	68.0%	11,721	3.6%	20
<b>Hybrid ARMs</b>	30	33	—%	32	5.0%	151
<b>Other</b>	294	304	0.6%	278	4.2%	119
<b>IOs and IIOs</b>	3,599	358 <sup>(2)</sup>	—%	345	3.6%	78
<b>Total</b>	<b>\$15,039</b>	<b>\$12,578</b>	<b>64.2%</b>	<b>\$12,376</b>	<b>3.6%</b>	<b>24</b>

(1) Includes securities with implicit or explicit protection including lower loan balances (securities collateralized by loans less than or equal to \$175K of initial principal balance), higher LTVs (securities collateralized by loans with greater than or equal to 80% LTV), certain geographic concentrations and lower FICO scores.

(2) Represents market value of \$217.3 million of IOs and \$141.2 million of Agency Derivatives.



## Rates: Mortgage Servicing Rights<sup>(1)</sup>

	As of June 30, 2016	As of September 30, 2016
<b>Fair value (\$M)</b>	\$427.8	\$455.6
<b>Unpaid principal balance (\$M)</b>	\$55,622.0	\$55,080.9
<b>Weighted average coupon</b>	3.9%	3.9%
<b>Original FICO score<sup>(2)</sup></b>	750	757
<b>Original LTV</b>	75%	72%
<b>60+ day delinquencies</b>	0.9%	0.3%
<b>Net servicing spread</b>	27.0 basis points	25.4 basis points
<b>Vintage:</b>		
Pre-2009	2.2%	0.7%
2009-2012	39.9%	28.4%
Post 2012	57.9%	70.9%
<b>Percent of MSR portfolio:</b>		
Conventional	83.8%	99.7%
Government FHA	12.1%	0.3%
Government VA/USDA	4.1%	—%

(1) Excludes residential mortgage loans held-for-investment in securitization trusts for which the company is the named servicing administrator.

(2) FICO represents a mortgage industry accepted credit score of a borrower.



# Credit: Non-Agency MBS Metrics

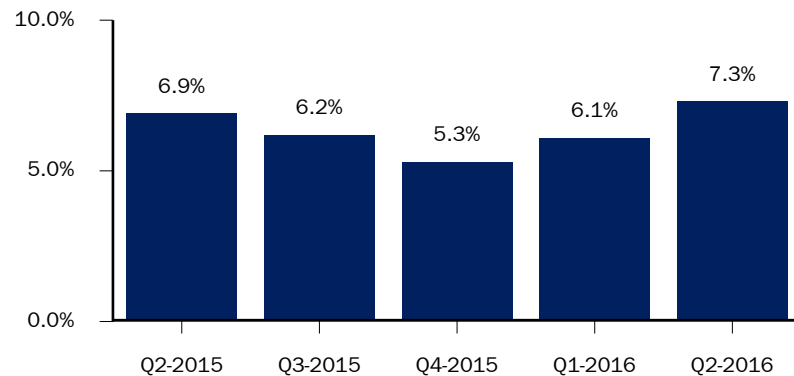
## NON-AGENCY PORTFOLIO YIELDS AND METRICS

Portfolio Yield	Realized Q2-2016	At June 30, 2016	Realized Q3-2016	At September 30, 2016
Non-Agency yield	8.1%	8.3%	8.7%	8.5%
Repo and FHLB costs	2.4%	2.4%	2.5%	2.5%
Swap costs	0.3%	0.3%	0.2%	0.1%
Net interest spread	5.4%	5.6%	6.0%	5.9%

## NON-AGENCY PORTFOLIO COMPOSITION

Non-Agency: Loan Type	June 30, 2016	September 30, 2016
Sub-prime	68%	67%
Option-ARM	9%	8%
Prime	6%	5%
Alt-A	5%	6%
Other	12%	14%
Portfolio Metrics	Q2-2016	Q3-2016
Weighted average 3-month CPR	6.1%	7.3%
Weighted average cost basis <sup>(1)</sup>	\$58.6	\$59.1

## NON-AGENCY MBS CPR



(1) Weighted average cost basis includes MBS principal and interest securities only. Average purchase price utilized carrying value for weighting purposes. If current face were utilized for weighting purposes, total non-Agency MBS excluding the company's non-Agency interest-only portfolio would have been \$55.64 at September 30, 2016.



# Credit: Non-Agency MBS

As of September 30, 2016	Senior Bonds	Mezzanine Bonds	Total P&I
<b>Portfolio characteristics:</b>			
Carrying value (\$M)	\$1,193.0	\$650.0	\$1,843.0
% of non-Agency portfolio	64.7%	35.3%	100.0%
Average purchase price <sup>(1)</sup>	\$53.96	\$68.40	\$59.05
Average coupon	2.9%	2.3%	2.7%
Weighted average market price <sup>(2)</sup>	\$74.86	\$76.97	\$75.59
<b>Collateral attributes:</b>			
Average loan age (months)	120	124	121
Average loan size (\$K)	\$361	\$303	\$345
Average original Loan-to-Value	70.9%	69.4%	70.5%
Average original FICO <sup>(3)</sup>	635	656	641
<b>Current performance:</b>			
60+ day delinquencies	25.3%	19.1%	23.6%
Average credit enhancement <sup>(4)</sup>	10.1%	19.1%	12.5%
3-Month CPR <sup>(5)</sup>	5.7%	11.5%	7.3%

(1) Average purchase price utilized carrying value for weighting purposes. If current face were utilized for weighting purposes, the average purchase price for senior, mezzanine and total non-Agency MBS, excluding our non-Agency interest-only portfolio, would have been \$50.16, \$65.98 and \$55.64, respectively.

(2) Weighted average market price utilized current face for weighting purposes.

(3) FICO represents a mortgage industry accepted credit score of a borrower.

(4) Average credit enhancement remaining on our non-Agency MBS portfolio, which is the average amount of protection available to absorb future credit losses due to defaults on the underlying collateral.

(5) 3-Month CPR is reflective of the prepayment speed on the underlying securitization; however, it does not necessarily indicate the proceeds received on our investment tranche. Proceeds received for each security are dependent on the position of the individual security within the structure of each deal.



# Commercial Real Estate Assets

	Type	Origination Date	Principal Balance	Book Value	Cash Coupon <sup>(1)</sup>	Yield <sup>(2)</sup>	Original Term (Years)	State	Property Type	Initial LTV <sup>(3)</sup>	Stabilized LTV <sup>(4)</sup>
Asset 1	Senior	12/15	\$120.0	\$119.5	L + 4.20%	5.91%	4	LA	Retail	65.5%	60.0%
Asset 2	Senior	09/15	105.0	104.8	L + 3.42%	4.76%	3	CA	Retail	70.9%	66.9%
Asset 3	Senior	07/16	93.1	91.6	L + 4.45%	5.89%	4	Multi-state	Office	63.0%	61.5%
Asset 4	Senior	04/16	82.0	81.1	L + 4.75%	6.09%	3	NY	Industrial	55.4%	55.4%
Asset 5	Senior	11/15	77.1	76.8	L + 4.20%	5.80%	3	NY	Office	66.4%	68.7%
Asset 6	Senior	06/16	50.3	49.7	L + 4.49%	5.95%	4	HI	Retail	76.2%	56.5%
Asset 7	Mezzanine	11/15	49.1	49.1	L + 7.25%	7.90%	3	Multi-state	Office	77.6%	77.5%
Asset 8	Mezzanine	03/15	45.9	45.8	L + 6.75%	8.14%	2	Multi-state	Hotel	70.3%	63.5%
Asset 9	Senior	12/15	43.5	43.4	L + 4.05%	5.61%	3	TX	Multifamily	81.2%	76.8%
Asset 10	Senior	04/16	43.5	42.8	L + 4.40%	6.11%	3	NY	Office	66.9%	62.1%
Asset 11	Senior	12/15	42.2	42.1	L + 4.65%	6.43%	4	PA	Office	74.5%	67.5%
Asset 12	Senior	02/16	40.6	40.2	L + 4.30%	5.63%	3	TX	Office	72.9%	70.4%
Asset 13	Senior	08/16	39.6	38.9	L + 4.95%	6.45%	4	NJ	Office	61.0%	63.0%
Asset 14	Senior	11/15	38.0	37.7	L + 4.55%	6.41%	4	MD	Office	80.0%	64.5%
Asset 15	Senior	03/16	33.8	33.6	5.11%	5.24%	10	NJ	Office	74.9%	74.9%

(1) Cash coupon does not include origination or exit fees.

(2) Yield includes net origination fees and exit fees, but does not include future fundings.

(3) Initial LTV considers the original appraisal at the time of origination.

(4) Stabilized LTV considers the prospective market value "as stabilized" which reflects the property's market value as of the time the property is projected to achieve stabilized occupancy. Stabilized occupancy is the occupancy level that a property is expected to achieve after the property is exposed to the market for lease over a reasonable period of time and at comparable terms and conditions to other similar properties.



# Commercial Real Estate Assets

	Type	Origination Date	Principal Balance	Book Value	Cash Coupon <sup>(1)</sup>	Yield <sup>(2)</sup>	Original Term (Years)	State	Property Type	Initial LTV <sup>(3)</sup>	Stabilized LTV <sup>(4)</sup>
Asset 16	Senior	01/16	30.4	30.0	L + 4.80%	6.45%	3	IL	Multifamily	82.8%	66.7%
Asset 17	Senior	08/16	24.0	23.8	L + 4.70%	6.34%	4	NY	Industrial	70.0%	70.0%
Asset 18	Senior	10/15	23.5	23.4	L + 3.60%	4.94%	4	NY	Multifamily	73.4%	58.6%
Asset 19	Senior	08/15	19.3	19.3	L + 5.25%	6.83%	3	FL	Multifamily	76.3%	75.3%
Asset 20	Senior	08/15	18.7	18.6	L + 4.05%	5.67%	3	FL	Multifamily	85.0%	68.4%
Asset 21	Senior	08/16	18.4	18.2	L + 4.57%	5.98%	3	FL	Multifamily	71.0%	58.0%
Asset 22	Mezzanine	08/15	17.0	17.0	L + 8.75%	10.06%	2	FL	Hotel	71.9%	67.9%
Asset 23	Senior	10/15	16.0	15.9	L + 4.99%	6.49%	3	MO	Hotel	73.2%	57.8%
Asset 24	Senior	06/16	13.4	13.2	L + 4.62%	5.98%	3	NY	Multifamily	69.5%	64.7%
Asset 25	Senior	09/15	11.0	11.0	L + 4.03%	5.39%	3	FL	Multifamily	77.7%	76.9%
Asset 26	Mezzanine	07/15	10.3	10.3	L + 12.25%	14.03%	3	PA	Office	81.6%	79.6%
Asset 27	Mezzanine	08/15	9.9	9.9	L + 9.50%	11.59%	5	GA	Office	78.7%	66.4%
Asset 28	Mezzanine	11/15	7.2	6.8	13.00% <sup>(5)</sup>	16.28%	10	NY	Hotel	68.3%	43.7%
<b>Total/Weighted Average</b>			<b>\$1,122.8</b>	<b>\$1,114.5</b>	<b>L + 4.82%</b>	<b>6.28%</b>	<b>3.6</b>			<b>70.2%</b>	<b>65.1%</b>

(1) Cash coupon does not include origination or exit fees.

(2) Yield includes net origination fees and exit fees, but does not include future fundings.

(3) Initial LTV considers the original appraisal at the time of origination.

(4) Stabilized LTV considers the prospective market value "as stabilized" which reflects the property's market value as of the time the property is projected to achieve stabilized occupancy. Stabilized occupancy is the occupancy level that a property is expected to achieve after the property is exposed to the market for lease over a reasonable period of time and at comparable terms and conditions to other similar properties.

(5) A variable rate per annum generating not less than a 13% internal rate of return on the principal balance of the loan, inclusive of the exit fee.





# Repo and FHLB Financing

Repo and FHLB Collateral <sup>(1)</sup>	Repo	FHLB	Total (\$M)
Available-for-sale securities, at fair value	\$11,115.6	\$3,156.3	\$14,271.9
Derivative asset, at fair value	140.8	—	140.8
Residential mortgage loans held-for-sale, at fair value	—	632.7	632.7
Commercial real estate assets	399.6	597.6	997.2
Net economic interests in consolidated securitization trusts	219.0	4.1	223.1
	\$11,875.0	\$4,390.7	\$16,265.7
Repo Maturities <sup>(2)</sup>	Amount (\$M)	Percent (%)	
Within 30 days	\$3,967.5	37.3%	
30 to 59 days	2,896.7	27.2%	
60 to 89 days	1,185.0	11.2%	
90 to 119 days	1,012.6	9.5%	
120 to 364 days	1,353.0	12.7%	
One year and over	222.6	2.1%	
	\$10,637.4	100.0%	
FHLB Maturities	Amount (\$M)	Percent (%)	
≤ 1 year	\$651.2	16.3%	
> 1 and ≤ 3 years	\$815.0	20.4%	
> 3 and ≤ 5 years	—	—%	
> 10 years <sup>(3)</sup>	2,533.8	63.3%	
	\$4,000.0	100.0%	

(1) Excludes FHLB membership and activity stock totaling \$167.9 million.

(2) Weighted average of 69 days to maturity.

(3) Includes advances of \$2.5 billion with original maturities of 20 years.



# Interest Rate Swaps

Maturities	Notional Amounts (\$B) <sup>(1)</sup>	Average Fixed Pay Rate <sup>(2)</sup>	Average Receive Rate <sup>(2)</sup>	Average Maturity Years <sup>(2)</sup>
<b>Payers Hedging Repo and FHLB Advances</b>				
2016	\$1.0	0.435%	0.857%	0.2
2017	2.4	0.765%	0.787%	0.8
2018	1.3	1.002%	0.674%	1.9
2019	0.3	1.283%	0.731%	2.7
2020 and after	2.1	1.733%	0.731%	6.7
	\$7.1	0.858%	0.765%	1.5
<b>Other Payers</b>				
2018	\$4.7	1.273%	0.853%	1.9
2020 and after	1.3	2.094%	0.812%	4.9
	\$6.0	1.456%	0.843%	2.5
Maturities	Notional Amounts (\$B)	Average Pay Rate	Average Fixed Receive Rate	Average Maturity (Years)
<b>Other Receivers</b>				
2018	\$1.2	0.729%	1.214%	2.1
2019	0.5	0.702%	1.042%	2.3
2020 and after	2.1	0.783%	2.037%	6.1
	\$3.8	0.755%	1.647%	4.3

(1) Notional amount includes \$577.1 million in forward starting interest rate swaps as of September 30, 2016.

(2) Weighted averages exclude forward starting interest rate swaps. As of September 30, 2016, the weighted average fixed pay rate on interest rate swaps starting in March 2017 was 1.8%.



# Interest Rate Swaptions

Option					Underlying Swap			
Swaption	Expiration	Cost (\$M)	Fair Value (\$M)	Average Months to Expiration	Notional Amount (\$M)	Average Pay Rate	Average Receive Rate	Average Term (Years)
Purchase Contracts:								
Payer	>6 Months	\$43.0	\$0.1	8.8	\$1,800	3.27%	3M LIBOR	5.6
Total Payer		\$43.0	\$0.1	8.8	\$1,800	3.27%	3M LIBOR	5.6
Receiver	<6 Months	\$—	\$3.1	4.9	\$1,500	3M LIBOR	1.34%	3.0
Total Receiver		\$—	\$3.1	4.9	\$1,500	3M LIBOR	1.34%	3.0
Sale Contracts:								
Payer	<6 Months	\$—	(\$5.9)	4.5	(\$2,230)	1.14%	3M LIBOR	4.6
Payer	>6 Months	(81.2)	(0.2)	9.0	(800)	3.44%	3M LIBOR	10.0
Total Payer		(\$81.2)	(\$6.1)	4.5	(\$3,030)	1.74%	3M LIBOR	6.0



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