ANNALY®

Onslow Bay Financial LLC

February 2020

Safe Harbor Notice

Forward-Looking Statements

This presentation, other written or oral communications, and our public documents to which we refer contain or incorporate by reference certain forward-looking statements which are based on various assumptions (some of which are beyond our control) and may be identified by reference to a future period or periods or by the use of forward-looking terminology, such as "may," "will," "believe," "expect," "anticipate," "continue," or similar terms or variations on those terms or the negative of those terms. Such statements include those relating to our future performance, macro outlook, the interest rate and credit environments, tax reform and future opportunities. Actual results could differ materially from those set forth in forward-looking statements due to a variety of factors, including, but not limited to, changes in interest rates; changes in the yield curve; changes in prepayment rates; the availability of mortgage-backed securities ("MBS") and other securities for purchase; the availability of financing and, if available, the terms of any financing; changes in the market value of our assets; changes in business conditions and the general economy; our ability to grow our commercial real estate business; our ability to grow our residential credit business; our ability to grow our middle market lending business; credit risks related to our investments in credit risk transfer securities, residential mortgage-backed securities and related residential mortgage credit assets, commercial real estate assets and corporate debt; risks related to investments in mortgage servicing rights; our ability to consummate any contemplated investment opportunities; changes in government regulations or policy affecting our business; our ability to maintain our qualification as a REIT for U.S. federal income tax purposes; our ability to maintain our exemption from registration under the Investment Company Act of 1940, as amended; and risks and uncertainties associated with the Internalization, including but not limited to the occurrence of any event, change or other circumstances that could give rise to the termination of the Internalization Agreement; the outcome of any legal proceedings that may be instituted against the parties to the Internalization Agreement; the inability to complete the Internalization due to the failure to satisfy closing conditions or otherwise; risks that the Internalization disrupts our current plans and operations; the impact, if any, of the announcement or pendency of the Internalization on our relationships with third parties; and the amount of the costs, fees, expenses charges related to the Internalization; and the risk that the expected benefits, including long-term cost savings, of the Internalization are not achieved. For a discussion of the risks and uncertainties which could cause actual results to differ from those contained in the forward-looking statements, see "Risk Factors" in our most recent Annual Report on Form 10-K and any subsequent Quarterly Reports on Form 10-Q. We do not undertake, and specifically disclaim any obligation, to publicly release the result of any revisions which may be made to any forward-looking statements to reflect the occurrence of anticipated or unanticipated events or circumstances after the date of such statements, except as required by law.

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Non-GAAP Financial Measures

This presentation includes certain non-GAAP financial measures, including core earnings metrics, which are presented both inclusive and exclusive of the premium amortization adjustment ("PAA"). We believe the non-GAAP financial measures are useful for management, investors, analysts, and other interested parties in evaluating our performance but should not be viewed in isolation and are not a substitute for financial measures computed in accordance with U.S. generally accepted accounting principles ("GAAP"). In addition, we may calculate non-GAAP metrics, which include core earnings, and the PAA, differently than our peers making comparative analysis difficult. Please see the section entitled "Non-GAAP Reconciliations" in the attached Appendix for a reconciliation to the most directly comparable GAAP financial measures.

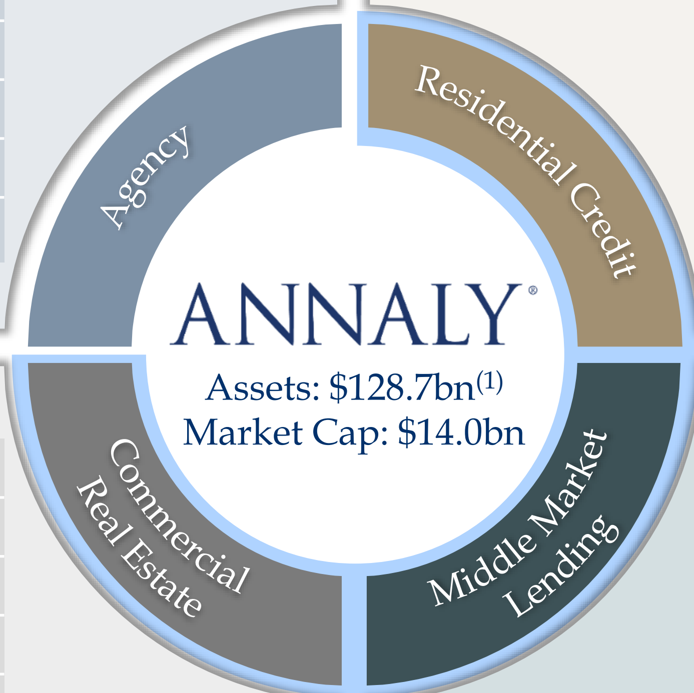
Annaly Investment Strategies

The **Annaly Agency Group** invests in Agency MBS collateralized by residential mortgages which are guaranteed by Fannie Mae, Freddie Mac or Ginnie Mae

Assets[1]	**$120.3bn**
Capital[2]	**$10.9bn**
Sector Rank[3]	**#1/7**
Strategy	**Countercyclical / Defensive**
Illustrative Levered Returns[4]	**10% – 12%**

The **Annaly Residential Credit Group** invests in Non-Agency residential mortgage assets within the securitized product and whole loan markets

Assets[1]	**$3.9bn**
Capital[2]	**$1.5bn**
Sector Rank[3]	**#9/14**
Strategy	**Cyclical / Growth**
Illustrative Levered Returns[4]	**11% – 13%**



Assets[1]	**$2.3bn**
Capital[2]	**$0.9bn**
Sector Rank[3]	**#7/15**
Strategy	**Cyclical / Growth**
Illustrative Levered Returns[4]	**9% – 11%**

The **Annaly Commercial Real Estate Group** originates and invests in commercial mortgage loans, securities and other commercial real estate debt and equity investments

Assets	**$2.1bn**
Capital[2]	**$1.3bn**
Sector Rank[3]	**#10/44**
Strategy	**Non-Cyclical / Defensive**
Illustrative Levered Returns[4]	**9% – 11%**

The **Annaly Middle Market Lending Group** provides financing to private equity backed middle market businesses across the capital structure

Represents credit business

Source: Bloomberg and Company filings. Market data as of December 31, 2019. Financial data as of January 31, 2020.

1. Assets represent Annaly's portfolio of investments on its balance sheet. Agency assets include TBA purchase contracts (market value) of $6.9bn and MSRs of $378.1mm and exclude securitized debt of consolidated VIEs of $1.0bn. Residential Credit assets exclude securitized debt of consolidated VIEs of $2.0bn. Commercial Real Estate assets exclude securitized debt of consolidated VIEs of $2.6bn.
2. Capital represents the capital allocation for each of the four investment strategies and is calculated as the difference between each investment strategies' assets and related financing. This calculation includes TBA purchase contracts and excludes non-portfolio related activity and will vary from total stockholders' equity.
3. Sector rank compares Annaly dedicated capital in each of its four investment strategies as of December 31, 2019 (adjusted for P/B as of January 31, 2020) to the market capitalization of the companies in each respective comparative sector as of January 31, 2020. The companies in each comparative sectors are selected as follows: for Agency, Commercial Real Estate and Residential Credit sector ranking represent Agency Peers, Commercial Peers and Hybrid Peers, respectively, within the BBREMTG Index as of January 31, 2020 and for Middle Market Lending sector ranking is the S&P BDC Index as of January 31, 2020.
4. Levered return assumptions are for illustrative purposes only and attempt to represent current market asset returns and financing terms as of January 31, 2020 for prospective investments of the same, or of a substantially similar, nature in each respective group.

Fourth Quarter 2019 Financial Highlights

Earnings & Book Value

Earnings (Loss) per Share

GAAP	Core (ex. PAA)*
$0.82	$0.26

Dividend per Share / Yield[1]

$0.25 / 10.6%

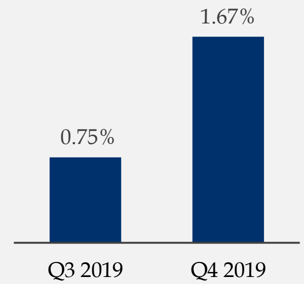
Book Value per Share

$9.66

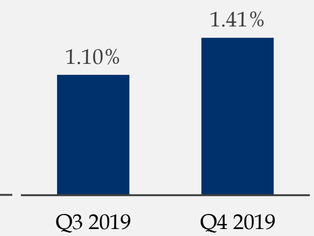
Economic Return – Q4/FY

7.6% / 14.1%

Net Interest Margin



*Net Interest Margin (ex. PAA)**



Investment Portfolio

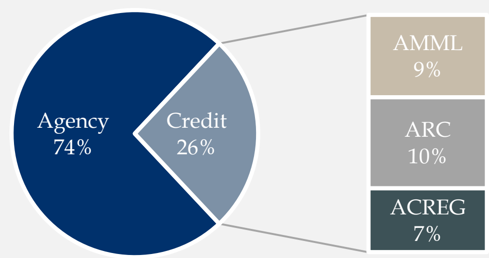
Total Portfolio[2]

$128.7bn

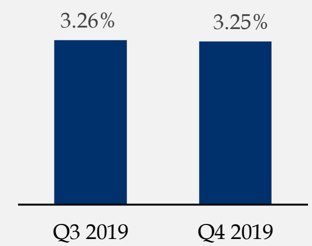
Total Stockholders' Equity

$15.8bn

Capital Allocation[3]



*Average Yield on Interest Earning Assets (ex. PAA)**



Financing, Liquidity & Hedging

Financing & Liquidity

$840mm of resi whole loan securitizations since the beginning of Q4[4]

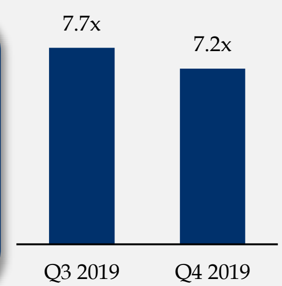
$7.9bn of unencumbered assets

Total Hedge Portfolio

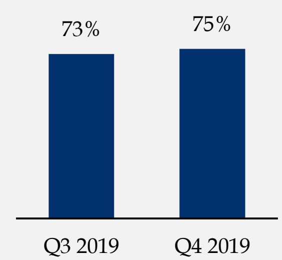
$85bn

Hedge portfolio includes $74bn of swaps, $5bn of payer swaptions and $6bn of futures contracts

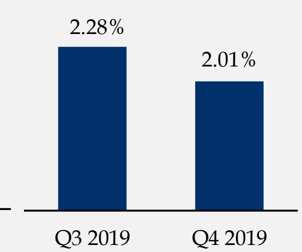
Economic Leverage



Hedge Ratio[5]



Average Cost of Funds[6]



Source: Company filings. Financial data as of December 31, 2019, unless otherwise noted. * Represents a non-GAAP financial measure; see Appendix.

1. Dividend yield is based on annualized Q4 2019 dividend of $0.25 and a closing price of $9.42 on December 31, 2019.
2. Total portfolio represents Annaly's portfolio of investments on its balance sheet, including TBA purchase contracts and excluding securitized debt of consolidated VIEs.
3. Capital allocation for each of the four investment strategies is calculated as the difference between each investment strategies' assets and related financing. This calculation includes TBA purchase contracts and excludes non-portfolio related activity and will vary from total stockholders' equity.
4. Residential whole loan securitizations since the beginning of the fourth quarter include: (1) a $465mm residential whole loan securitization in October 2019, and (2) a $375mm residential whole loan securitization in January 2020.
5. Hedge ratio measures total notional balances of interest rate swaps, interest rate swaptions (excluding receiver swaptions) and futures relative to repurchase agreements, other secured financing and cost basis of TBA derivatives outstanding; excludes MSRs and the effects of term financing, both of which serve to reduce interest rate risk. Additionally, the hedge ratio does not take into consideration differences in duration between assets and liabilities.
6. Average cost of funds includes GAAP interest expense and the net interest component of interest rate swaps.

Residential Credit | Business Update

Annaly's Residential Credit strategy continues to evolve with 55% of the Residential Credit portfolio created through our whole loan platform and our ability to be a programmatic RMBS issuer

Strategic Approach

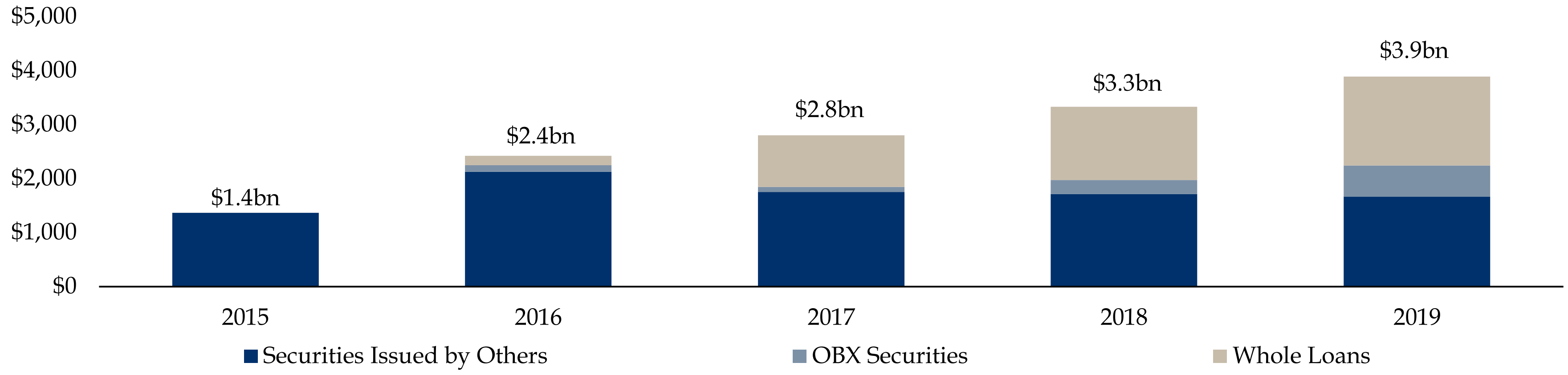
- Focus on creating our own investments through the purchase of residential whole loans made to creditworthy borrowers with the ability to make a significant down-payment, but who are underserved by traditional bank lenders
- Utilize securitization as a mechanism to achieve term, non-recourse financing on attractive terms for our whole loan portfolio. Annaly has issued nine RMBS transactions totaling $3.6bn since 2018
  - Annaly has issued nine RMBS transactions totaling $3.6bn since the beginning of 2018[1]
- Scale whole-loan purchases through unique partnerships with top mortgage originators and established non-QM conduits

Market Trends

- Shortage of attractive securities and tight securitized product spreads favor platforms with the ability to create their own residential credit investments
- Rapid growth of the non-Agency securitization market has benefitted whole loan investors, providing a robust source of term financing
  - The new-issue RMBS market has grown by nearly 190% over the past two years[2]
- GSE reform is likely to be a tailwind to business over time by reducing market distortions caused by government intervention in the mortgage sector

Portfolio Evolution

Economic Exposure ($mm)[3]



Source: Company filings. Financial data as of December 31, 2019.

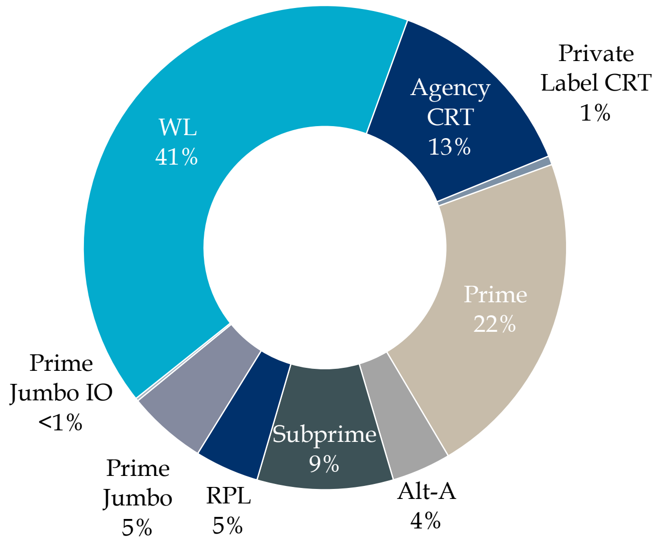
1. Includes 3 residential whole loan securitizations totaling $1.1bn in 2018, 5 residential whole loan securitizations totaling $2.1 billion in 2019 and a $364.6mm residential whole loan securitization in January 2020.
2. Nomura 2020 Securitized Products Outlook.
3. Excludes securitized debt of consolidated VIEs.

Residential Credit | Portfolio Summary

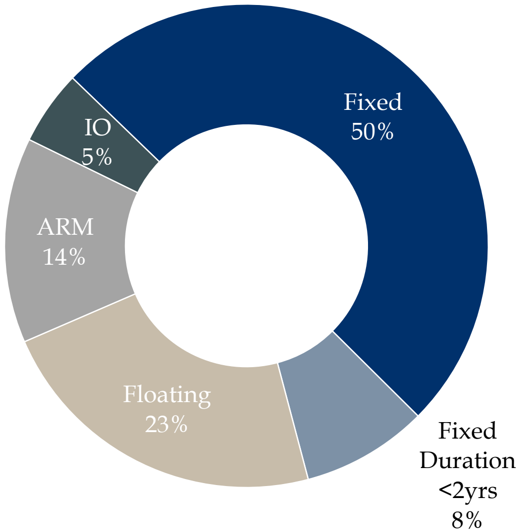
- Annaly Residential Credit Portfolio: $3.9 billion at the end of Q4 2019, an increase of 20% from Q3 2019
- $465.5 million securitization closed during the quarter, demonstrating Annaly's ability to optimize funding and building on our reputation as a programmatic MBS issuer(1)
  - Subsequent to quarter end, priced an additional $374.6 million securitization backed by agency investor collateral; represents Annaly's ninth non-Agency securitization since the beginning of 2018(1)
- Whole loans continue to be the largest area of growth, with 2019 acquisitions increasing by 2x compared to 2018(2)
  - Purchased $957 million of residential whole loans in Q4 2019 through bespoke partnership channels
  - Total acquisitions of $2.7 billion over the last twelve months

Total Dedicated Capital: $1.5 billion

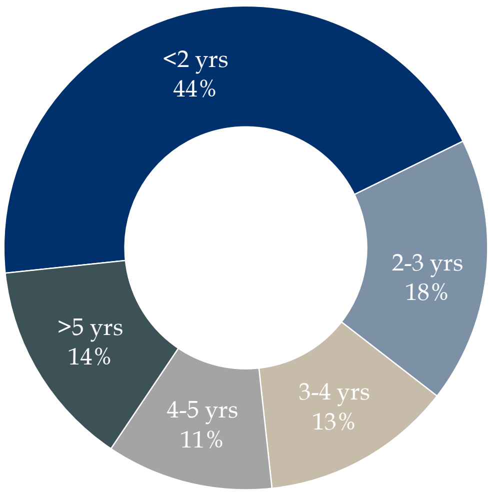
Sector Type(2)(3)



Coupon Type(2)



Effective Duration(2)



Note: Data as of December 31, 2019, unless otherwise noted. Portfolio statistics and percentages are based on fair market value and reflect economic interest in securitizations. Prime Jumbo and Prime classifications include the economic interest of certain positions that are classified as Residential Mortgage Loans within our Consolidated Financial Statements. Percentages may not sum to 100% due to rounding.

1. Total acquisitions excludes loans acquired from the execution of call rights on legacy securitizations.
2. Shown exclusive of securitized residential mortgage loans of a consolidated VIE and loans held by a master servicer in an MSR silo that is consolidated by the Company.
3. Prime classification includes $55.3mm of Prime IO.

Onslow Bay Financial LLC

Onslow Bay Overview

Annaly purchases residential whole loans through Onslow Bay Financial LLC

Corporate Background

- Onslow Bay Financial LLC ("Onslow Bay") (previously Onslow Bay Servicing LLC) was formed on July 17, 2013
- Onslow Bay was a wholly owned subsidiary of Hatteras Financial Corp. ("Hatteras"). In July of 2016, Hatteras was acquired by Annaly Capital Management, Inc. ("Annaly")
- In addition to being a HUD approved Investing Mortgagee, Onslow Bay currently holds the requisite state mortgage finance licenses, registrations, or exemptions (collectively, the "mortgage finance approvals") to purchase residential whole loans in all 50 states and the District of Columbia

Sourcing and Underwriting

- Onslow Bay seeks to purchase closed, funded, performing residential whole loans made to mortgagors with stable incomes and employment histories
- Onslow Bay is not an originator and does not directly service residential whole loans or seek to sell other products / services to borrowers. Onslow Bay purchases loans from select originators / aggregators based on agreed-upon underwriting guidelines or carve-outs of the seller's underwriting guidelines that fit desired documentation requirements or credit characteristics
- Onslow Bay utilizes accredited third party vendors to diligence assets before acquisition, including 100% data, credit, compliance and valuation diligence for new origination loans. Also, a custodian reviews the collateral on every asset before funding

Financing

- Onslow Bay has priced eleven residential whole loan securitizations for an aggregate $4.0 billion: OBX 2015-1, OBX 2018-1, OBX 2018-EXP1, OBX 2018-EXP2, OBX 2019-INV1, OBX 2019-EXP1, OBX 2019-INV2, OBX 2019-EXP2, OBX 2019-EXP3, OBX 2020-INV1 and OBX 2020-EXP1
- In addition to utilizing the rated securitization market, Annaly has the ability to finance its residential whole loans through its affiliate's membership in the FHLB (Des Moines) (1)

1. Annaly's FHLB financing sunsets in February 2021.

Loan Due Diligence & Servicer Oversight

100% Full Securitization Diligence

- Onslow Bay uses American Mortgage Consultants ("AMC"), Clayton Holdings LLC ("Clayton"), Opus CMC ("Opus") and IngletBlair, LLC ("IngletBlair") to perform independent third party diligence services

- Onslow Bay performs 100% full securitization diligence[1] across Credit, Compliance (RMBS 3.0 TRID Compliance Review) and Valuation

Credit	Adherence to guideline requirements and "Ability to Repay", confirming income, employment, assets, LTV, credit score, etc.
Compliance	Onslow Bay utilizes RMBS 3.0 TRID Compliance Review. Review of preliminary and final disclosures, federal and state guidelines
Valuation	Onslow Bay orders a secondary valuation to confirm appraisal value

Sub-Servicer Oversight

- Onslow Bay contracts Select Portfolio Servicing ("SPS"), Shellpoint Mortgage Servicing ("SMS") and Specialized Loan Servicing ("SLS") to sub-service the whole loans which are purchased "servicing released". Onslow Bay also buys assets servicing retained

- Onslow Bay engages in continuous dialogue with our sub-servicers regarding servicing transfers, delinquencies / loss mitigation in addition to a monthly sub-servicing oversight meeting

- SPS, SMS and SLS are all highly rated sub-servicers by the respective rating agencies[2]:
  - SPS is rated "SQ2+" by Moody's, "RPS1-" by Fitch and "Strong" from S&P. As of December 2019, SPS serviced or subserviced approximately 965k mortgage loans with a UPB of $170bn
  - SLS is rated "SQ2-" by Moody's, "RPS2+" by Fitch and "Above Average" from S&P. As of December 2019, SLS serviced or subserviced approximately 724k mortgage loans with a UPB of $114bn
  - SMS is rated "SQ3+-" by Moody's, "RPS2+" by Fitch and "Above Average" from S&P. As of December 2019, SMS serviced or subserviced approximately 1.2mm mortgage loans with a UPB of $220bn

1. Onslow Bay utilizes full securitization diligence (Credit, Compliance, Valuation) for new origination whole loan purchases. For seasoned whole loan purchases, Onslow Bay may diligence Title/Tax/Lien, servicing comments, pay history and updated FICOs/valuations
2. Moody's ratings are of Primary Servicers of Subprime Residential Loans. Fitch ratings are of Primary Servicers. S&P ratings are of overall rankings of Residential Primary Servicers

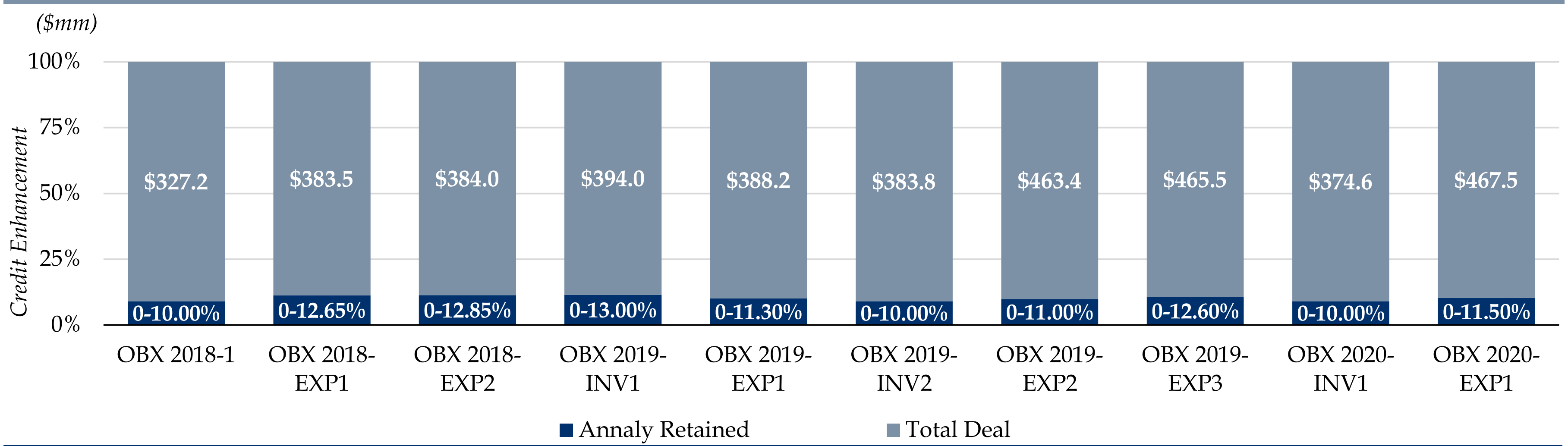
Retained Interest in OBX Shelf

Annaly has retained significantly more assets than mandated by risk retention[(1)] at issuance

- Annaly utilizes securitization as a mechanism to diversify funding for the whole loan business
  - Securitization is an asset generation strategy
  - Further aligns investor and sponsor interests
- Annaly has retained a significant interest in all securitizations (IO/AIOs and 100% of subordinate bonds) at issuance

	Deal Size	Percentage of Subordinate Bonds Retained
OBX 2018-1	$327.2mm	100%
OBX 2018-EXP1	$383.5mm	100%
OBX 2018-EXP2	$384.0mm	100%
OBX 2019-INV1	$394.0mm	100%
OBX 2019-EXP1	$388.2mm	100%
OBX 2019-INV2	$383.8mm	100%
OBX 2019-EXP2	$463.4mm	100%
OBX 2019-EXP3	$465.5mm	100%
OBX 2020-INV1	$374.6mm	100%
OBX 2020-EXP1	$467.5mm	100%
Total	**$4,031.7mm**	**100%**

Annaly has held the subordinate bonds B1-B6 in addition to the IO/AIOs off previous securitizations



1. The Securitization Risk Retention Rule implemented under the Dodd-Frank Act requires the securitizer of asset-backed securities to retain at least 5% of the credit risk related to that securitization in either an Eligible Horizontal Residual Interest equal to 5% of the fair value of the ABS interests or an Eligible Vertical Interest equal to 5% of the securities issued (or a combination thereof)

Onslow Bay Securitizations ("OBX")

	OBX 2020-EXP	OBX 2020-INV1	OBX 2019-EXP3	OBX 2019-EXP2	OBX 2019-INV2	OBX 2019-EXP1	OBX 2019-INV1	OBX 2018-EXP2	OBX 2018-EXP1	OBX 2018-1	OBX 2015-1
Issue Date	**Feb-20**	**Jan-20**	**Oct-19**	**Jul-19**	**Jun-19**	**Apr-19**	**Jan-19**	**Oct-18**	**Aug-18**	**Mar-18**	**Dec-15**
Collateral Type	Expanded Prime	Agency Investor	Expanded Prime	Expanded Prime	Agency Investor	Expanded Prime	Agency Investor	Expanded Prime	Expanded Prime	Seasoned Prime ARMs	Prime Jumbo
Sponsor	Onslow Bay Financial LLC										
Source of Collateral	Whole Loan Purchase	Whole Loan Purchases	Whole Loan Purchases	Whole Loan Purchases	Whole Loan Purchases	Whole Loan Purchases	Whole Loan Purchases	Whole Loan Purchases	Whole Loan Purchases	Collapse of 2 Legacy Deals + Seasoned Whole Loan Purchases	Prime Jumbo
Rating Agencies	Fitch/KBRA	Moody's / KBRA	Fitch/KBRA	Fitch/KBRA	Moody's / DBRS	Fitch/KBRA	Moody's / KBRA	Fitch / DBRS	Fitch / KBRA	Fitch / DBRS	S&P / DBRS
R&W Framework	Material and Adverse	Material and Adverse	Material and Adverse	Material and Adverse	Material and Adverse	Material and Adverse	Material and Adverse	Material and Adverse	Material and Adverse	Material and Adverse	Material and Adverse
R&W Review	Delinquency/ Realized Loss Trigger Review	Delinquency/ Realized Loss Trigger Review	Delinquency/ Realized Loss Trigger Review	Delinquency/ Realized Loss Trigger Review	Delinquency/ Realized Loss Trigger Review	Delinquency/ Realized Loss Trigger Review	Delinquency/ Realized Loss Trigger Review	Delinquency/ Realized Loss Trigger Review	Delinquency/ Realized Loss Trigger Review	Delinquency/ Realized Loss Trigger Review	Delinquency Trigger
Risk Retention	Horizontal	Horizontal	Horizontal	Horizontal	Horizontal	Horizontal	Horizontal	Horizontal	Horizontal	Vertical	N/A
Original Attachment to "AAA"	11.50%	10.00%	12.60%	11.00%	10.00%	11.30%	13.00%	12.85%	12.65%	8.80%	8.55%
Deal Balance	$467,510,916	$374,608,743	$465,491,918	$463,404,935	$383,759,828	$388,155,948	$393,961,409	$384,027,255	$383,451,233	$327,161,759	$231,181,631
Pool Factor (1/25 Remit)	N/A	N/A	0.91	0.83	0.80	0.71	0.76	0.70	0.67	0.48	0.32
Average Loan Size	$649,522	$355,079	$633,322	$628,772	$353,045	$648,007	$336,145	$636,861	$664,560	$354,949	$767,014
Number of Loans	722	1,055	735	737	1,087	599	1,172	603	577	920	307
WA Gross Coupon	4.86%	4.76%	5.18%	5.30%	5.15%	5.40%	5.09%	5.07%	4.87%	4.00%	3.39%
WA Orig CLTV	68%	67%	66%	65%	65%	66%	67%	67%	67%	42%[1]	69%
WA Original FICO	756	764	758	752	765	753	758	753	751	749	768
WA DTI	38%	36%	37%	35%	37%	36%	38%	36%	35%	N/A	33%
ARM	48%	0%	61%	51%	0%	50%	0%	48%	50%	98%	100%
IO	12%	0%	12%	12%	0%	14%	0%	12%	6%	4%	0%
Investor	20%	100%	31%	23%	100%	12%	100%	31%	26%	13%	4%
WA Margin	3.15%	N/A	3.44%	3.35%	N/A	3.05%	N/A	3.19%	3.12%	2.88%	2.25%
WALA	7	5	13	20	6	13	7	12	17	124	8
Top State	CA 55%	CA 52%	CA 49%	CA 53%	CA 59%	CA 60%	CA 56%	CA 62%	CA 64%	CA 43%	CA 49%
QM	9%	0%	7%	7%	0%	7%	0%	15%	29%	4%	97%
Non-QM/ATR Exempt	91%	100%	93%	93%	100%	93%	100%	85%	71%	96%	3%
Full Doc[2]	44%	100%	41%	47%	100%	40%	100%	29%	68%	N/A	100%
Alt-Doc	56%	0%	59%	53%	0%	60%	0%	71%	32%	N/A	0%
3M VPR	N/A	N/A	29.7%	29.8%	36.0%	35.0%	26.7%	25.4%	32.3%	38.1%	37.5%
6M VPR	N/A	N/A	N/A	30.0%	31.6%	35.2%	24.8%	25.5%	32.0%	37.4%	34.8%
12M VPR	N/A	N/A	N/A	N/A	N/A	N/A	22.9%	24.4%	25.4%	33.7%	27.6%
60+ Delinquencies	N/A	N/A	0.00%	0.00%	0.00%	0.34%	0.10%	0.88%	0.76%	2.9%	0.00%
Cumulative Losses	N/A	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Note: Voluntary Prepayment Rates (VPRs), 60+ delinquencies and cumulative losses as of the January 25, 2020 remittance period.

1. Represents updated CLTV.
2. Full documentation includes all GSE eligible loans.

Onslow Bay Expanded Prime ("EXP") Securitization Program

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Onslow Bay Residential Whole Loan Target Acquisitions

- The summary below is representative of the "Expanded Prime" guidelines Onslow Bay utilizes to purchase whole loans through an originator / aggregator network
- Onslow Bay targets high quality borrowers with significant down payments and reserves

	"Expanded Prime" Acquisition Programs			
	Full Doc (Wage Earner)	**Full Doc (Self Employed)**	**Bank Statement**	**Asset Utilization**
Income Qualification	2 Years W2, YTD Paystub, 4506-T Transcripts	2 Years Personal / Business Tax Returns, K1s / Schedules, 4506-T 1040 transcripts	12 or 24 Months Consecutive Personal or Business Bank Statements	Borrowers Must Have A Minimum Amount of Qualified Assets
Borrower Qualification	Wage Earners	Self-Employed Borrowers	Self Employed Borrowers Only, Minimum of 2 Years Experience	Utilization Draw Schedule, Net Documented Assets
Employment Verification	Verbal Verification of Employment	Verification Through 3rd Party	Business License, CPA Letter, etc.	N/A
Asset Seasoning	2 Months	2 Months	2 Months	>6 Months Seasoning
Housing Event Seasoning (FC, SS, Deed in Lieu, BK, Mod)	48 Months	48 Months	48 Months	48 Months
Recent Housing History[1]	0x30x12	0x30x12	0x30x12	0x30x12
Min FICO / Max LTV (Lowest FICO), Purchase / Rate Refi[2]	660/80	660/80	680/65	680/75
Min FICO / Max LTV (Highest LTV), Purchase / Rate Refi[2]	700/90	700/90	740/85	680/75
Max DTI[2]	50%	50%	50%	50%

1. 1 Year seasoning period for any 30 day delinquency
2. Represent Onslow Bay credit overlays

Onslow Bay Residential Whole Loan Target Acquisitions (*cont'd*)

- Onslow Bay also purchases 12 Month Profit and Loss ("PnL") and Debt Service Coverage Ratio ("DSCR") Investor loans
- The summary below is representative of the guidelines Onslow Bay utilizes to purchase whole loans through an originator / aggregator network

	"Expanded Prime" Acquisition Programs			
	1 Year Tax Return	12 Month PnL	Written VOE	DSCR Investor
Income Qualification	1 Year Personal and Business Tax Returns	12 Month Prepared PnL Statement	Written VOE (FNMA Form 1005)	Appraisal Market Rents / Subject Lease
Borrower Qualification	Self Employed Borrowers Only, Minimum of 2 Years Experience	Self-Employed Borrowers (Minimum 2 Years Experience)	Wage Earners	1.20x Global DSCR, 0.75x Primary DSCR
Employment Verification	Business License, CPA Letter, etc.	Business License, Letter from Tax Preparer, CPA Letter	Verbal VOE	Employment Letter / CPA, Min 2 Years SE
Asset Seasoning	2 Months	2 Months	2 Months	1 Month Seasoning / Explanation of Asset Savings
Housing Event Seasoning (FC, SS, Deed in Lieu, BK, Mod)	48 Months	48 Months	48 Months	0x30x24[1]
Recent Housing History	0x30x12	0x30x12[2]	0x30x12[2]	0x30x24[1]
Min FICO / Max LTV (Lowest FICO), Purchase / Rate Refi[3]	680/65	700/75	700/75	680/60
Min FICO / Max LTV (Highest LTV), Purchase / Rate Refi[3]	740/85	700/75	700/75	680/60
Max DTI[3]	50%	50%	47%	N/A

1. 2 Year seasoning period for any 30 day delinquency
2. 1 Year seasoning period for any 30 day delinquency
3. Represent Onslow Bay credit overlays

Onslow Bay Expanded Prime Securitizations (OBX EXP)

	OBX 2020-EXP1(	OBX 2019-EXP3	OBX 2019-EXP2	OBX 2019-EXP1	OBX 2018-EXP2	OBX 2018-EXP1
Issue Date	**Expected Feb-20**	**Oct-19**	**Jul-19**	**Apr-19**	**Oct-18**	**Aug-18**
Collateral Type	Expanded Prime	Expanded Prime	Expanded Prime	Expanded Prime	Expanded Prime	Expanded Prime
Sponsor	Onslow Bay Financial LLC					
Source of Collateral	Whole Loan Purchases	Whole Loan Purchases	Whole Loan Purchases	Whole Loan Purchases	Whole Loan Purchases	Whole Loan Purchases
Rating Agencies	Fitch / KBRA	Fitch / KBRA	Fitch / KBRA	Fitch / KBRA	Fitch / DBRS	Fitch / KBRA
R&W Framework	Material and Adverse	Material and Adverse	Material and Adverse	Material and Adverse	Material and Adverse	Material and Adverse
R&W Review	Delinquency/ Realized Loss Trigger Review	Delinquency/ Realized Loss Trigger Review	Delinquency/ Realized Loss Trigger Review	Delinquency/ Realized Loss Trigger Review	Delinquency/ Realized Loss Trigger Review	Delinquency/ Realized Loss Trigger Review
Risk Retention	Horizontal	Horizontal	Horizontal	Horizontal	Horizontal	Horizontal
Original Attachment to "AAA"	11.50%	12.60%	11.00%	11.30%	12.85%	12.65%
Deal Balance	$467,510,916	$465,491,918	$463,404,935	$388,155,948	$384,027,255	$383,451,233
Pool Factor (1/25 Remit)	N/A	0.91	0.83	0.71	0.70	0.67
Average Loan Size	$647,522	$633,322	$628,772	$648,007	$636,861	$664,560
Number of Loans	722	735	737	599	603	577
WA Gross Coupon	4.86%	5.18%	5.30%	5.40%	5.07%	4.87%
WA Orig CLTV	68%	66%	65%	66%	67%	67%
WA Original FICO	756	758	752	753	753	751
WA DTI	38%	37%	35%	36%	36%	35%
ARM	48%	61%	51%	50%	48%	50%
IO	12%	12%	12%	14%	12%	6%
Investor	20%	31%	23%	12%	31%	26%
WA Margin	3.15%	3.44%	3.35%	3.05%	3.19%	3.12%
WALA	7	13	20	13	12	17
Top State	CA 55%	CA 49%	CA 53%	CA 60%	CA 62%	CA 64%
QM	9%	7%	7%	7%	15%	29%
Non-QM/ATR Exempt	91%	93%	93%	93%	85%	71%
Full Doc[1]	44%	41%	47%	40%	29%	68%
Alt-Doc	56%	59%	53%	60%	71%	32%
3M VPR	N/A	29.7%	29.8%	35.0%	25.4%	32.3%
6M VPR	N/A	N/A	30.0	35.2%	25.5%	32.0%
12M VPR	N/A	N/A	N/A	N/A	24.4%	25.4%
60+ Delinquencies	N/A	0.00%	0.00%	0.34%	0.88%	0.76%
Cumulative Losses	N/A	0.00%	0.00%	0.00%	0.00%	0.00%

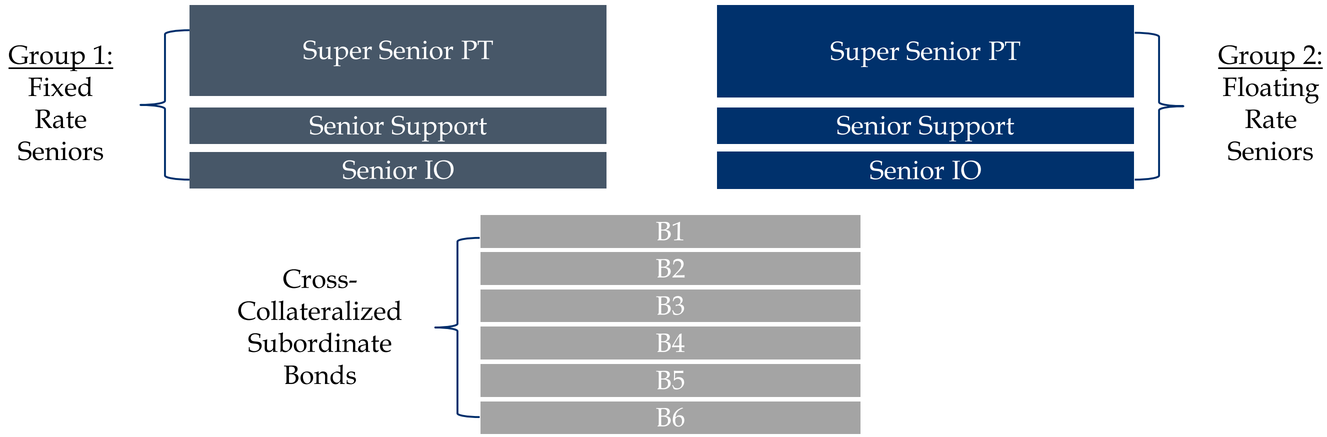
Note: Voluntary Prepayment Rates (VPRs), 60+ delinquencies and cumulative losses as of the January 25, 2020 remittance period.

1. Full documentation includes all GSE eligible loans

Representative OBX "EXP" Structure: OBX 2020-EXP1

Group 1 (Fixed) and Group 2 (ARM): "Y-Structure" With Subordinate Bonds Cross-Collateralized

Same structure used across all OBX "EXP" transactions



Group 2 prepay speeds have limited impact on the average life of Group 1 bonds (and vice versa)

Group 1 Super Senior Pass-through Average Life					
Prepay Speed, Group 1	20 CPR	20 CPR	20 CPR	20 CPR	20 CPR
Prepay Speed, Group 2	10 CPR	15 CPR	20 CPR	25 CPR	30 CPR
Grp1 SSNR PT WAL	3.2	3.3	3.4	3.4	3.3

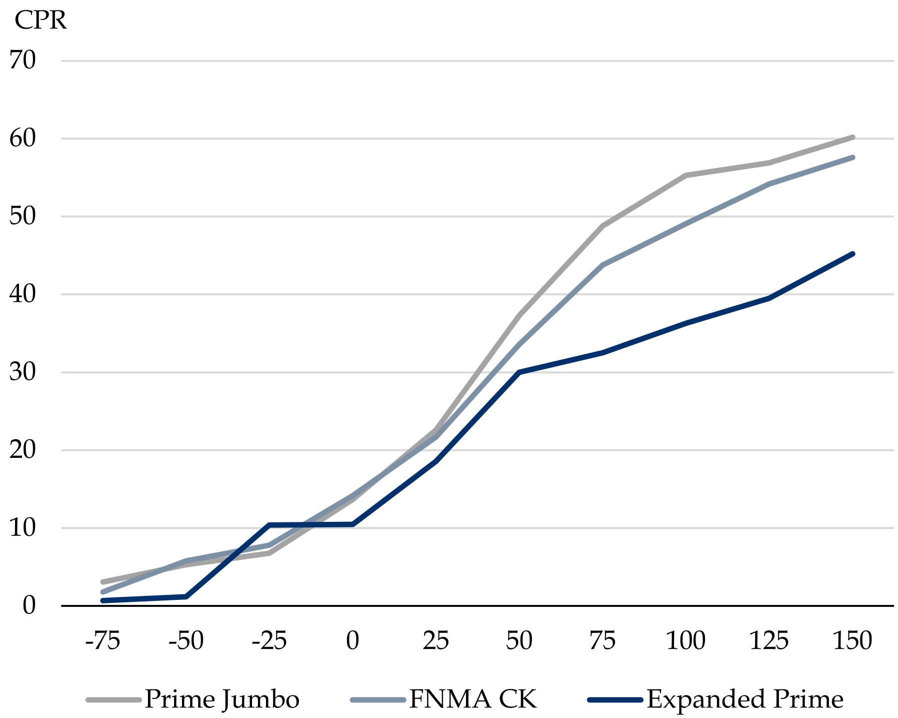
Group 2 Super Senior Pass-through Average Life					
Prepay Speed, Group 1	10 CPR	15 CPR	20 CPR	25 CPR	30 CPR
Prepay Speed, Group 2	20 CPR	20 CPR	20 CPR	20 CPR	20 CPR
Grp2 SSNR PT WAL	3.2	3.3	3.4	3.4	3.3

Expanded Prime Convexity: Market Data

Expanded Prime programs have demonstrated superior convexity compared to the Agency Jumbo and Prime Jumbo sectors

- The tables below were published by Wells Fargo Research in the Non-Agency Performance Monitor dated February 5, 2020

Prime Jumbo, Fannie Mae CK, and Expanded Prime S-Curve Comparison



Rate Incentive	Prime Jumbo	FNMA Jumbo (CK)	Expanded Prime
-100	2.2	0.3	
-75	3.1	1.8	0.7
-50	5.3	5.8	1.2
-25	6.8	7.8	10.4
0	13.7	14.2	10.5
25	22.6	21.7	18.6
50	37.3	33.6	30.0
75	48.8	43.8	32.5
100	55.3	49.1	36.3
125	56.9	54.2	39.5
150	60.2	57.6	45.2

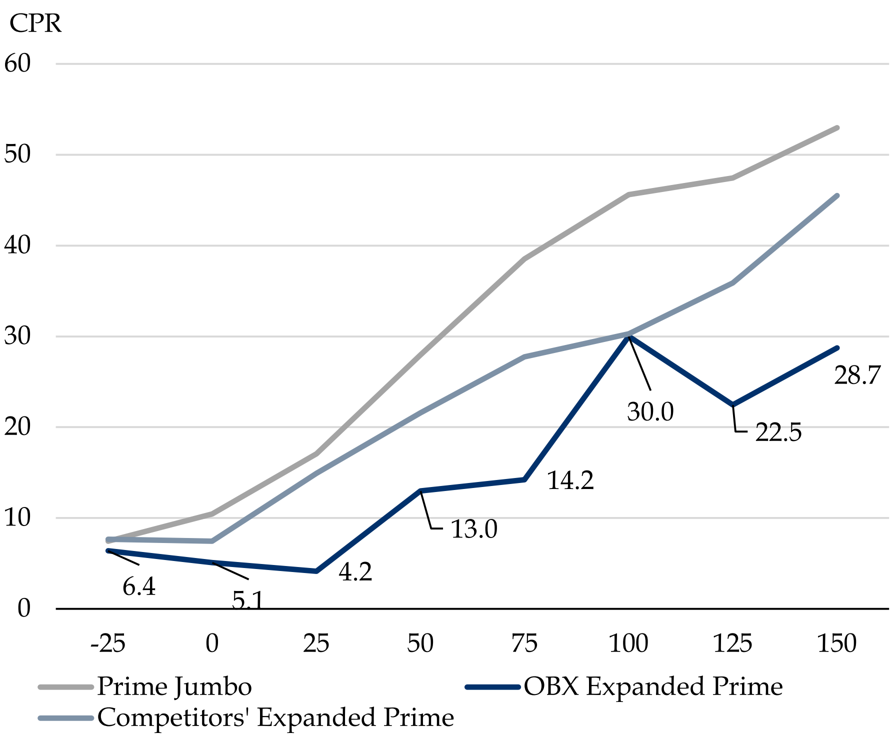
Source: Wells Fargo Research, Non-Agency Performance Monitor, February 5, 2020
Note: Wells Fargo Prime Jumbo and Expanded Prime classifications may differ from Annaly classifications used on subsequent slides
2012-2019 Vintage, No Prepay Penalty, 30-year Fixed, Loan Age 7-24 Months, 2019 Observations. Base Rate is Freddie Mac PMMS 30yr fixed rate

OBX Expanded Prime Convexity

Onslow Bay's Expanded Prime program has demonstrated superior convexity compared to selected competitors, driven by observable loan characteristics

- Fixed rate loans in OBX transactions (Group 1) have prepaid significantly slower than those in selected competitors' deals
- This has been driven by obstacles that borrowers face in refinancing loans on investor properties or those with limited documentation, in addition to lower average loan sizes in the Onslow Bay program

Fixed-Rate S-Curves



Fixed-Rate Prepays by Loan Characteristics

	Onslow Bay (OBX)	Expanded Prime Competitors
Full Doc Owner / 2nd		
% of UPB	46.2%	78.3%
Average Loan Size	$736,143	$778,591
12-Month CPR	28.8	32.4
Alternative Doc Owner / 2nd		
% of UPB	26.9%	2.3%
Average Loan Size	$534,353	$600,026
12-Month CPR	24.1	27.8
Investor		
% of UPB	26.9%	19.4%
Average Loan Size	$540,345	$660,527
12-Month CPR	17.8	22.2
Total		
Average Loan Size	$613,853	$747,550
12-Month CPR	24.1	30.2

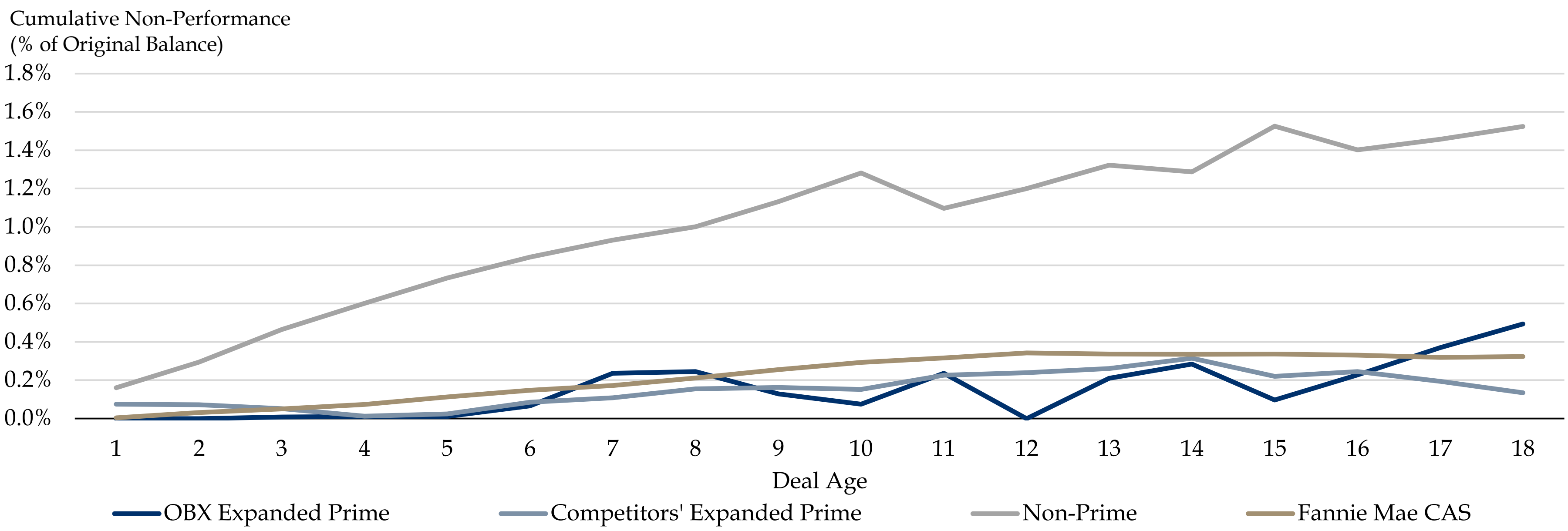
Source: Intex, Annaly Calculations
Expanded Prime competitors defined as Galton and Sequoia Choice programs, which we view as most similar to OBX collateral. 2019 Observations. Base Rate is Freddie Mac PMMS 30yr fixed rate

Expanded Prime Credit Performance

Expanded Prime delinquency rates have been extremely low

- While credit performance has been strong across the securitized universe, Expanded Prime programs have had significantly lower non-performance rates than Non-Prime, a trend that we expect would continue across different macroeconomic cycles
- Onslow Bay's non-performance rate is comparable to our Expanded Prime competitors despite the presence of factors that have reduced Onslow Bay's borrowers' ability to prepay (better convexity)

Cumulative Non-Performance by Deal Age (% of Original Balance)



Source: Intex, Annaly Calculations
Deals Issued from 2016 to 2019. CAS series excludes seasoned loan transactions. Expanded Prime competitors defined as Galton and Sequoia Choice programs
Non-performing balance is defined as UPB of loans 60 days or greater delinquent plus the balance of any loan previously liquidated through foreclosure or REO

Onslow Bay Agency Investor (“INV”) Collateral

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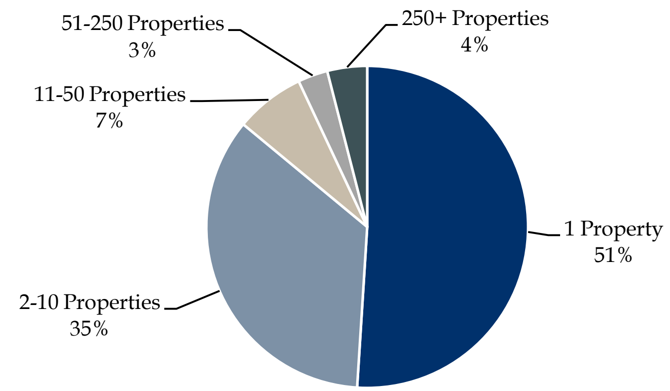
GSE Single Family (1—4 Unit) Investor Loans

Loans are underwritten to individual borrower, not property

GSE's Provide Financing for Investment Properties

- GSE Investor loans are originated using the borrower's entire financial profile (FICO, debt to income (DTI), reserves, etc.) and property LTV
- Similar to an owner occupied or second home mortgage origination, GSE Investor loans are underwritten utilizing a borrower's DTI. The borrower's DTI cannot exceed 50% including property income / loss
- Business purpose lending concepts such as debt service coverage ratio (DSCR) and debt yield are not utilized. Most DSCR lending programs do not utilize the borrower's financials in the underwrite
- Fannie Mae and Freddie Mac limit the number of financed properties to 10 (including principal residence). Both have additional restrictions on greater than six properties

Single Family Investor Ownership Concentration



Fannie Mae Investment Property Qualifying Rental Income (or Loss)

- Federal Income Tax Returns
  - Using Schedule E, add back depreciation, interest, HOA dues, taxes, or insurance expenses to borrower's cash flow
- Lease Agreements or Form 1007 or Form 1025
  - Lender must calculate rental income by multiplying gross monthly rent by 75%. Remaining 25% of gross rent absorbed by vacancy losses and ongoing maintenance expenses

Fannie Mae Treatment of Rental Income (or Loss)

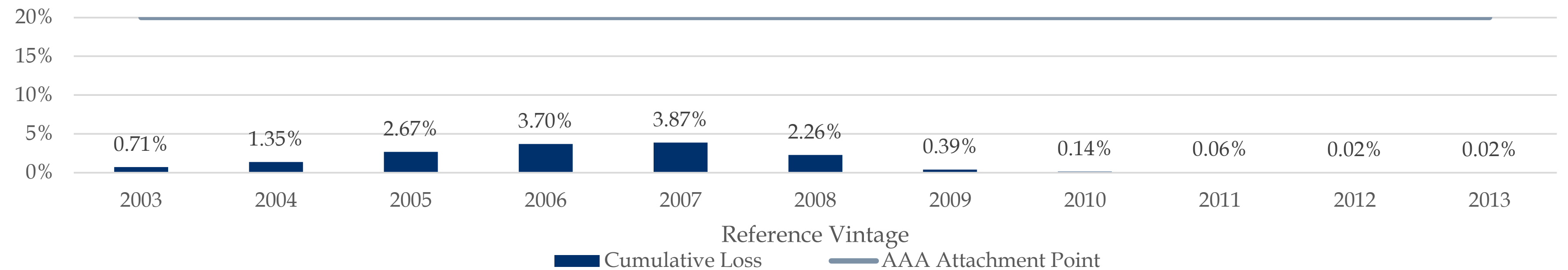
- If the monthly qualifying rental income minus the full PITIA is positive, it will be added to the borrower's monthly income
- If the monthly qualifying rental income minus PITIA is negative, the monthly net rental loss must be added to the borrower's monthly obligations

Source: Nomura Research, AttomData.

Agency Eligible Investor Credit Performance

Initial Super Senior (SSNR) Credit Enhancement (20%) is >5x the life to date cumulative loss experienced by the ‘07 vintage (3.9%), re-weighted by OBX 2020-INV1 collateral

Historical Loss Performance Re-weighted to OBX 2020-INV1 Transaction



Reference Vintage 2007

FICO Bucket	LTV	UPB	Factor	Default Rate	Loss Rate	Severity	Delinquency Rate	Mod Rate
<= 700	<= 50	$1.88	11.96%	4.17%	1.60%	38.32	0.34%	0.44%
700 to 740	<= 50	$4.97	5.43%	3.18%	1.21%	37.99	0.32%	0.30%
740 to 780	<= 50	$11.94	5.46%	0.94%	0.28%	29.51	0.14%	0.16%
> 780	<= 50	$22.45	3.77%	0.60%	0.16%	27.04	0.00%	0.02%
<= 700	50 to 60	$3.60	9.86%	12.08%	4.66%	38.58	0.32%	1.43%
700 to 740	50 to 60	$12.20	6.22%	6.95%	2.78%	40.01	0.23%	0.47%
740 to 780	50 to 60	$11.72	4.85%	3.64%	0.93%	25.49	0.17%	0.70%
> 780	50 to 60	$19.70	2.94%	1.77%	0.56%	31.67	0.00%	0.06%
<= 700	60 to 70	$5.14	10.65%	21.43%	10.11%	47.19	0.34%	2.54%
700 to 740	60 to 70	$19.22	6.69%	13.30%	6.07%	45.64	0.22%	1.61%
740 to 780	60 to 70	$29.66	5.13%	9.43%	3.84%	40.73	0.06%	0.59%
> 780	60 to 70	$32.72	3.79%	5.20%	2.09%	40.24	0.05%	0.16%
<= 700	70 to 80	$6.76	8.50%	24.09%	11.71%	48.60	0.37%	1.63%
700 to 740	70 to 80	$45.99	5.41%	18.34%	8.03%	43.80	0.10%	0.91%
740 to 780	70 to 80	$66.46	4.04%	12.19%	5.19%	42.58	0.11%	0.38%
> 780	70 to 80	$80.21	3.57%	6.07%	2.69%	44.36	0.01%	0.21%
<= 700	> 80	$0.00	7.90%	29.23%	14.81%	50.68	0.28%	1.78%
700 to 740	> 80	$0.00	6.43%	24.52%	11.93%	48.66	0.09%	0.57%
740 to 780	> 80	$0.00	5.76%	20.44%	9.78%	47.84	0.08%	0.46%
> 780	> 80	$0.00	4.77%	13.76%	6.54%	47.52	0.03%	0.28%
Total		**$374.61**	**4.66%**	**9.00%**	**3.87%**	**40.43%**	**0.09%**	**0.50%**

Reference Vintage 2013

FICO Bucket	LTV	UPB	Factor	Default Rate	Loss Rate	Severity	Delinquency Rate	Mod Rate
<= 700	<= 50	$1.88	44.11%	0.11%	0.08%	78.96	0.03%	0.00%
700 to 740	<= 50	$4.97	45.94%	0.00%	0.00%	0.00	0.06%	0.00%
740 to 780	<= 50	$11.94	50.60%	0.00%	0.00%	100.00	0.01%	0.00%
> 780	<= 50	$22.45	52.22%	0.00%	0.00%	0.00	0.01%	0.00%
<= 700	50 to 60	$3.60	45.34%	0.14%	0.03%	20.39	0.25%	0.00%
700 to 740	50 to 60	$12.20	45.52%	0.02%	0.00%	-4.60	0.13%	0.00%
740 to 780	50 to 60	$11.72	49.47%	0.01%	0.01%	114.59	0.00%	0.00%
> 780	50 to 60	$19.70	49.52%	0.00%	0.00%	20.52	0.01%	0.00%
<= 700	60 to 70	$5.14	41.53%	0.22%	0.11%	50.92	0.09%	0.00%
700 to 740	60 to 70	$19.22	43.31%	0.12%	0.04%	34.04	0.05%	0.00%
740 to 780	60 to 70	$29.66	46.49%	0.01%	0.00%	15.23	0.04%	0.00%
> 780	60 to 70	$32.72	48.00%	0.02%	0.01%	57.10	0.00%	0.00%
<= 700	70 to 80	$6.76	40.00%	0.26%	0.13%	49.29	0.35%	0.01%
700 to 740	70 to 80	$45.99	41.58%	0.10%	0.06%	53.16	0.09%	0.00%
740 to 780	70 to 80	$66.46	43.84%	0.03%	0.01%	36.79	0.01%	0.00%
> 780	70 to 80	$80.21	45.25%	0.02%	0.00%	22.86	0.01%	0.00%
<= 700	> 80	$0.00	29.94%	0.00%	0.00%	0.00	0.00%	0.00%
700 to 740	> 80	$0.00	30.87%	0.65%	0.06%	9.42	0.00%	0.00%
740 to 780	> 80	$0.00	30.82%	0.75%	0.20%	26.38	0.00%	0.00%
> 780	> 80	$0.00	30.87%	0.00%	0.00%	0.00	0.00%	0.00%
Total		**$374.61**	**45.60%**	**0.04%**	**0.02%**	**35.77%**	**0.04%**	**0.00%**

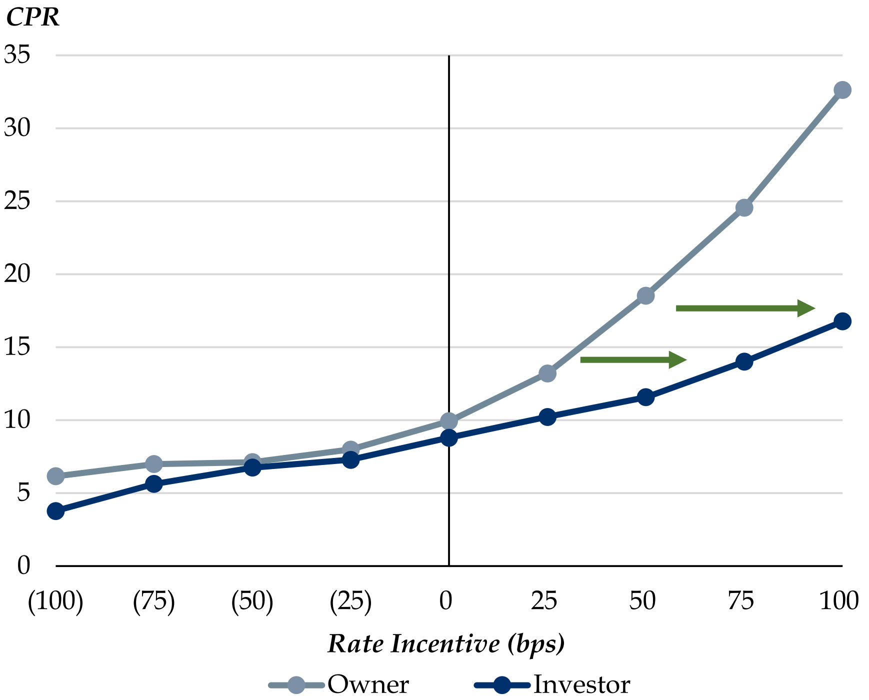
Source: Fannie Mae.

Note: Curves reflect historical cumulative loss on FNMA investor loans by origination vintage reweighted to the FICO / LTV distribution of OBX 2020-INV1 and are for illustrative purposes. Cumulative Losses assume interest advancing capped at four months advancing and rep & warrant recoveries.

Agency Eligible Investor Convexity

Agency Eligible Investor loans appear to show beneficial convexity characteristics

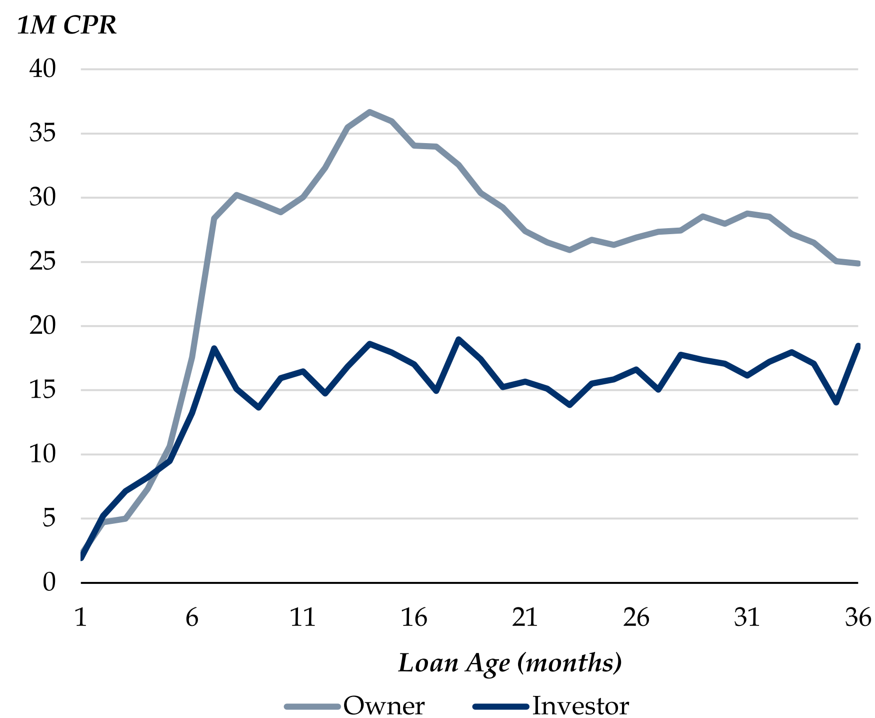
S-Curve by Occupancy(1)



- After controlling for loan size, the S-curve for investor properties mirrors the ~40bps elbow shift implied by the LLPAs
- Investor loans in this cohort demonstrated superior convexity compared to owner-occupied loans

Seasoning Ramp by Occupancy(2)

- Prepayment speeds for Investor properties ramp up more quickly than comparable owner-occupied loans
  - Terminal speed for investor loans has been lower than for owner-occupied loans



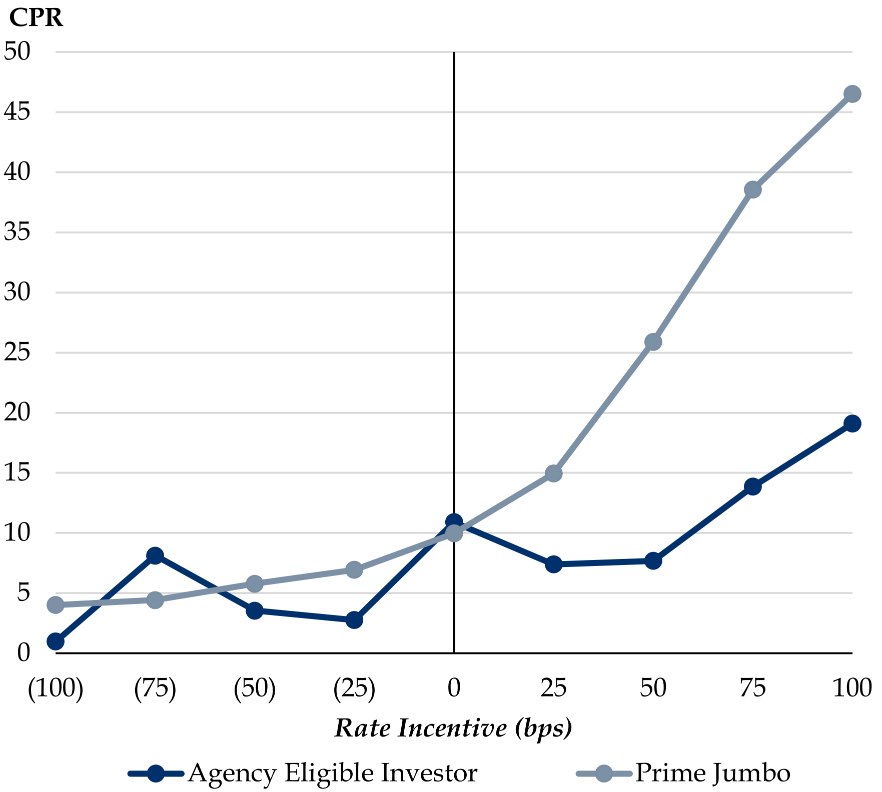
Source: Fannie Mae, CPRCDR

1. Curves are restricted to 30 year fixed-rate, 12–36 WALA, $250-350k loan size split by occupancy. References CPR from January 2017-January 2020
2. Curves are restricted to 30 year fixed-rate, $250-350k loan size with 75-125bps of rate incentive observed from January 2017-January 2020

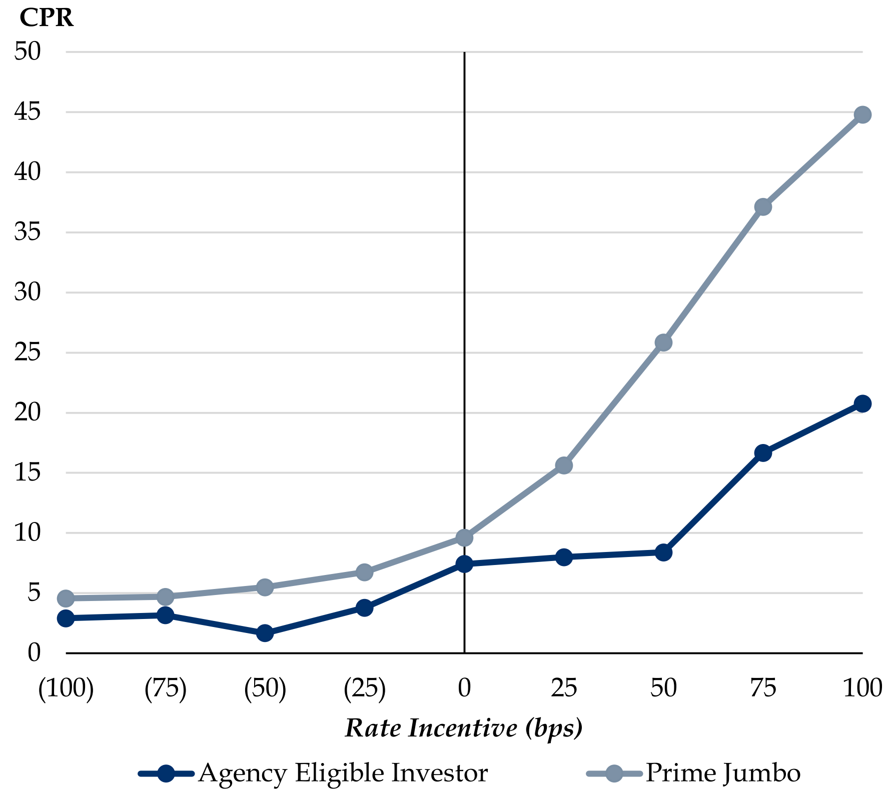
Agency Eligible Investor Convexity

Agency Eligible Investor securitizations have demonstrated a significant convexity benefit compared to Prime Jumbo

Loan Age (12-36 Months)



All Loan Ages



Source: Intex, Annaly Calculations
References CPR of fixed-rate loans from January 2017-January 2020
Base Rate is Freddie Mac PMMS 30-year fixed rate

Agency Investor versus Prime Jumbo

OBX 2020-INV1 contained ~78% spec pool or TBA collateral at issuance

- ~100% of the loans in OBX 2020-INV1 are eligible to be delivered to the GSEs (DU/LP certificate)
  - ~78% of the loans would trade at a pay up to TBA or would be delivered into TBA (Non Owner Occupied, "NOO")
- Prime Jumbo securitizations contain high percentages of Agency CK or Non-Agency Jumbo collateral. The recent prime jumbo transaction below can be used as an example, trading ~1-00 point back of FNCL 3.5's. ~97% of the collateral comprising the recent prime jumbo securitization is either Agency CK or Non-Agency Jumbo
- Sum of the parts analysis would have OBX 2020-INV1 being valued at a payup to TBA, versus the recent prime jumbo securitization trading back of TBA

		OBX 2020-INV1 *(Agency Investor)*			**Recent Prime Jumbo Securitization** *(Prime Jumbo)*		
Collateral Type	Pay Up to FNCL 3.5[1]	UPB	% of UPB	Pay up Allocation	UPB	% of UPB	Pay up Allocation
Spec Pool Stories							
125k Max	3.38	*0.1mm*	*0.03%*	*0.00*	0.0mm	0.00%	0.00
150k Max	3.13	*0.5mm*	*0.14%*	*0.00*	0.0mm	0.00%	0.00
175k Max	2.28	*8.7mm*	*2.32%*	*0.05*	0.0mm	0.00%	0.00
200k Max	2.03	*7.2mm*	*1.93%*	*0.04*	0.0mm	0.00%	0.00
100% NY	3.28	*3.4mm*	*0.92%*	*0.03*	21.6mm	2.76%	0.09
Investor	1.09	*273.2mm*	*72.94%*	*0.80*	0.0mm	0.00%	0.00
TBA	-	0.0mm	0.00%	0.00	3.5mm	0.44%	0.00
Agency CK/Jumbo	-0.75	**81.4mm**	**21.72%**	**-0.20**	756.8mm	96.79%	-0.73
Sum of Parts Analysis		**374.6mm**	**100.00%**	**0.76**	**781.9mm**	**100.00%**	**-0.64**

1. Source: Annaly calculations. Specified Pool pay-ups as of February 13, 2019.

Appendix: Non-GAAP Reconciliations

ANNALY®

Non-GAAP Reconciliations

The Company calculates “core earnings”, a non-GAAP measure, as the sum of (a) economic net interest income, (b) TBA dollar roll income and CMBX coupon income, (c) realized amortization of MSRs, (d) other income (loss) (excluding depreciation and amortization expense on real estate and related intangibles, non-core income allocated to equity method investments and other non-core components of other income (loss)), (e) general and administrative expenses (excluding transaction expenses and non-recurring items) and (f) income taxes (excluding the income tax effect of non-core income (loss) items), and core earnings (excluding PAA), which is defined as core earnings excluding the premium amortization adjustment representing the cumulative impact on prior periods, but not the current period, of quarter-over-quarter changes in estimated long-term prepayment speeds related to the Company’s Agency mortgage-backed securities.

Non-GAAP Reconciliations (*cont'd*)

Unaudited, dollars in thousands except per share amounts

To supplement its consolidated financial statements, which are prepared and presented in accordance with GAAP, the Company provides non-GAAP financial measures. These measures should not be considered a substitute for, or superior to, financial measures computed in accordance with GAAP. These non-GAAP measures provide additional detail to enhance investor understanding of the Company's period-over-period operating performance and business trends, as well as for assessing the Company's performance versus that of industry peers. Reconciliations of these non-GAAP financial measures to their most directly comparable GAAP results are provided below and on the next page.

	For the quarters ended				
	12/31/2019	9/30/2019	6/30/2019	3/31/2019	12/31/2018
GAAP to Core Reconciliation					
GAAP net income (loss)	$1,209,742	($747,169)	($1,776,413)	($849,251)	($2,254,872)
Net income (loss) attributable to non-controlling interests	68	(110)	(83)	(101)	17
Net income (loss) attributable to Annaly	$1,209,674	($747,059)	($1,776,330)	($849,150)	($2,254,889)
Adjustments to excluded reported realized and unrealized (gains) losses:					
Realized (gains) losses on termination of interest rate swaps	4,615	682,602	167,491	588,256	-
Unrealized (gains) losses on interest rate swaps	(782,608)	326,309	1,276,019	390,556	1,313,882
Net (gains) losses on disposal of investments	(17,783)	(66,522)	38,333	93,916	747,505
Net (gains) losses on other derivatives	42,312	16,888	506,411	115,159	484,872
Net unrealized (gains) losses on instruments measured at fair value through earnings	5,636	1,091	4,881	(47,629)	18,169
Loan loss provision	7,362	3,504	-	5,703	3,496
Adjustments to exclude components of other (income) loss:					
Depreciation and amortization expense related to commercial real estate [1]	9,823	9,974	10,147	10,114	11,000
Non-core (income) loss allocated to equity method investments [2]	(3,979)	4,541	11,327	9,496	(10,307)
Adjustments to exclude components of general and administrative expenses and income taxes:					
Transaction expenses and non-recurring items [3]	3,634	2,622	3,046	9,982	3,816
Income tax effect on non-core income (loss) items	(418)	(2,762)	(3,507)	726	3,334
Adjustments to add back components of realized and unrealized (gains) losses:					
TBA dollar roll income and CMBX coupon income [4]	36,901	15,554	33,229	38,134	69,572
MSR amortization [5]	(22,120)	(21,963)	(19,657)	(13,979)	(18,753)
Core earnings*	493,049	224,779	251,390	351,284	371,697
Less:					
Premium amortization adjustment (PAA) cost (benefit)	(83,892)	117,152	139,763	81,871	45,472
Core Earnings (excluding PAA)*	$409,157	$341,931	$391,153	$433,155	$417,169
Dividends on preferred stock	35,509	36,151	32,422	32,494	32,494
Core Earnings attributable to common shareholders *	$457,540	$188,628	$218,968	$318,790	$339,203
Core Earnings (excluding PAA) attributable to common shareholders *	$373,648	$305,780	$358,731	$400,661	$384,675
GAAP net income (loss) per average common share [6]	$0.82	($0.54)	($1.24)	($0.63)	($1.74)
Core earnings per average common share [6]*	$0.32	$0.13	$0.15	$0.23	$0.26
Core earnings (excluding PAA) per average common share [6]*	$0.26	$0.21	$0.25	$0.29	$0.29
Annualized GAAP return (loss) on average equity	31.20%	(19.32%)	(45.13%)	(22.72%)	(62.05%)
Annualized core return on average equity (excluding PAA)*	10.56%	8.85%	9.94%	11.59%	11.48%

* Represents a non-GAAP financial measure.

1. Includes depreciation and amortization expense related to equity method investments.
2. The Company excludes non-core (income) loss allocated to equity method investments, which represents the unrealized (gains) losses allocated to equity interests in a portfolio of MSR, which is a component of Other income (loss). The quarter ended December 31, 2018 also includes a realized gain on sale within an unconsolidated joint venture, which is a component of Other income (loss).
3. The quarter ended December 31, 2019 represents costs incurred in connection with a securitization of Agency mortgage-backed securities and a securitization of residential whole loans. The quarters ended September 30, 2019 and June 30, 2019 represent costs incurred with securitizations of residential whole loans. Represents costs incurred in connection with a securitization of commercial loans and a securitization of residential whole loans for the quarter ended March 31, 2019. Represents costs incurred in connection with the MTGE transaction and costs incurred in connection with a securitization of residential whole loans for the quarter ended December 31, 2018.
4. TBA dollar roll income and CMBX coupon income each represent a component of net gains (losses) on other derivatives. CMBX coupon income totaled $1.3mm, $1.5mm, $0.8mm, $1.1mm, and $1.2mm for the quarters ended December 31, 2019, September 30, 2019, June 30, 2019, March 31, 2019, and December 31, 2018, respectively
5. MSR amortization represents the portion of changes in fair value that is attributable to the realization of estimated cash flows on the Company's MSR portfolio and is reported as a component of Net unrealized gains (losses) on instruments measured at fair value.
6. Net of dividends on preferred stock. The quarter ended September 30, 2019 excludes, and the quarter ended June 30, 2019 includes, cumulative and undeclared dividends of $0.3mm on the Company's Series I Preferred Stock as of June 30, 2019.

Non-GAAP Reconciliations (*cont'd*)

Unaudited, dollars in thousands

	For the quarters ended				
	12/31/2019	9/30/2019	6/30/2019	3/31/2019	12/31/2018
Premium Amortization Reconciliation					
Premium amortization expense	$171,447	$376,306	$318,587	$247,446	$220,131
Less:					
PAA cost (benefit)	(83,892)	117,152	139,763	81,871	45,472
Premium amortization expense (excluding PAA)	$255,339	$259,154	$178,824	$165,575	$174,659
Interest Income (excluding PAA) Reconciliation					
GAAP interest income	$1,074,214	$919,299	$927,598	$866,186	$859,674
PAA cost (benefit)	(83,892)	117,152	139,763	81,871	45,472
Interest income (excluding PAA)*	$990,322	$1,036,451	$1,067,361	$948,057	$905,146
Economic Interest Expense Reconciliation					
GAAP interest expense	$620,058	$766,905	$750,217	$647,695	$586,774
Add:					
Net interest component of interest rate swaps(1)	(45,221)	(88,466)	(83,653)	(134,035)	(65,889)
Economic interest expense*(1)	$574,837	$678,439	$666,564	$513,660	$520,885
Economic Net Interest Income (excluding PAA) Reconciliation					
Interest income (excluding PAA)	$990,322	$1,036,451	$1,067,361	$948,057	$905,146
Less:					
Economic interest expense*(1)	574,837	678,439	666,564	513,660	520,885
Economic net interest income (excluding PAA)*(1)	$415,485	$358,012	$400,797	$434,397	$384,261
Economic Metrics (excluding PAA)					
Average interest earning assets	$121,801,951	$127,207,668	$122,601,881	$109,946,527	$107,232,861
Interest income (excluding PAA)*	$990,322	$1,036,451	$1,067,361	$948,057	$905,146
Average yield on interest earning assets (excluding PAA)*	3.25%	3.26%	3.48%	3.45%	3.38%
Average interest bearing liabilities	$111,873,379	$116,391,094	$109,628,007	$95,529,819	$91,746,160
Economic interest expense*(1)	574,837	678,439	666,564	513,660	520,885
Average cost of interest bearing liabilities(1)	2.01%	2.28%	2.41%	2.15%	2.22%
Economic net interest income (excluding PAA)*(1)	$415,485	$358,012	$400,797	$434,397	$384,261
Net interest spread (excluding PAA)*	1.24%	0.98%	1.07%	1.30%	1.16%
Interest income (excluding PAA)*	$990,322	$1,036,451	$1,067,361	$948,057	$905,146
TBA dollar roll income and CMBX coupon income	36,901	15,554	33,229	38,134	69,572
Interest expense	(620,058)	(766,905)	(750,217)	(647,695)	(586,774)
Net interest component of interest rate swaps	45,221	88,466	83,653	134,035	65,889
Subtotal	$452,386	$373,566	$434,026	$472,531	$453,833
Average interest earning assets	$121,801,951	$127,207,668	$122,601,881	$109,946,527	$107,232,861
Average TBA contract and CMBX balances	6,878,502	9,248,502	12,757,975	14,927,490	14,788,453
Subtotal	$128,680,453	$136,456,170	$135,359,856	$124,874,017	$122,021,314
Net interest margin (excluding PAA)*	1.41%	1.10%	1.28%	1.51%	1.49%

Represents a non-GAAP financial measure.

1. Average cost of interest bearing liabilities represents annualized economic interest expense divided by average interest bearing liabilities. Average interest bearing liabilities reflects the average amortized cost during the period. Economic interest expense is comprised of GAAP interest expense and the net interest component of interest rate swaps.