UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549 FORM 10-K

(Mark One)

X	ANNUAL REPORT PURSUANT TO SECTION 13 OR 1	15(d) OF THE SECU	RITIES EXCHANGE ACT OF 1934	
	For the fiscal year endo			
	TRANSITION REPORT PURSUANT TO SECTION 13	OR 15(d) OF THE SE	ECURITIES EXCHANGE ACT OF 1	934
	For the Transition Period from	m to		
	Commission file n	umber 001-34385		
	Invesco Mort	gage Capital	Inc.	
	Invesco Mortga (Exact name of registrant)	0 1		
	Maryland		26-2749336	
	(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)		
	1555 Peachtree Street, N.E., Suite 1800		30309	
	Atlanta, Georgia			
	(Address of principal executive offices)		(Zip Code)	
	(404) 89 (Registrant's telephone nur		ode)	
	Securities registered pursuant to Section 12	(b) of the Securities E	xchange Act of 1934:	
	Title of Each Class	Trading Symbol	Name of Each Exchange on Whic	h Registered
C	ommon Stock, par value \$0.01 per share	IVR	New York Stock Exchar	nge
7.75% Fixed-to-Fl	oating Series B Cumulative Redeemable Preferred Stock	IVRpB	New York Stock Exchar	ıge
7.50% Fixed-to-Fl	oating Series C Cumulative Redeemable Preferred Stock	IVRpC	New York Stock Exchar	nge
	Securities registered pursuant to Section 12(g)	of the Securities Exch	nange Act of 1934: None	
Indicate by check man	rk if the registrant is a well-known seasoned issuer, as defined in	n Rule 405 of the Secur	rities Act. Yes No	
Indicate by check man	rk if the registrant is not required to file reports pursuant to Sect	ion 13 or 15(d) of the A	Act. Yes □ No 🗷	
Indicate by check man preceding 12 months 90 days. Yes 🗷 N	k whether the registrant (1) has filed all reports required to be for for such shorter period that the registrant was required to file \Box	filed by Section 13 or 1: e such reports), and (2)	5(d) of the Securities Exchange Act of 1 has been subject to such filing requirem	934 during the nents for the past
	k whether the registrant has submitted electronically every Inte .405 of this chapter) during the preceding 12 months (or for suc \Box			
Indicate by check man growth company. See the Exchange Act (Ch	k whether the registrant is a large accelerated filer, an accelerated the definitions of "large accelerated filer," "accelerated filer," beck one):	ted filer, a non-accelera smaller reporting com	ted filer, a smaller reporting company, opany" and "emerging growth company"	or an emerging in Rule 12b-2 of
Large accelerated file	er 🗆		Accelerated filer	X
Non-accelerated filer			Smaller reporting company	
			Emerging growth company	
	n company, indicate by check mark if the registrant has elected tandards provided pursuant to Section 13(a) of the Exchange A		transition period for complying with an	y new or revised
Indicate by check man financial reporting und	rk whether the registrant has filed a report on and attestation to der Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(its management's asses (b)) by the registered pu	sment of the effectiveness of its internal ablic accounting firm that prepared or is:	control over sued its audit report
	ered pursuant to Section 12(b) of the Act, indicate by check ma to previously issued financial statements. \Box	rk whether the financia	l statements of the registrant included in	the filing reflect the
	k whether any of those error corrections are restatements that reofficers during the relevant recovery period pursuant to \$240.1		ysis of incentive-based compensation re	eceived by any of the
Indicate by check man	rk whether the registrant is a shell company (as defined in Rule	12b-2 of the Act). Ye	es 🗆 No 🗷	
	value of the registrant's common stock held by non-affiliates v 2022. As of February 17, 2023, there were 38,710,916 outstand			
	Documents Incorpo	rated by Reference		

Part III of this Form 10-K incorporates by reference certain information (solely to the extent explicitly indicated) from the registrant's proxy statement for the 2023 Annual Meeting of Stockholders to be filed pursuant to Regulation 14A.

Invesco Mortgage Capital Inc.

TABLE OF CONTENTS

PART I

Item 1.	Business	3
Item 1A.	Risk Factors	11
Item 1B.	Unresolved Staff Comments	35
Item 2.	Properties	35
Item 3.	Legal Proceedings	35
Item 4.	Mine Safety Disclosures	35
	PART II	
Item 5.	Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	36
Item 6.	[Reserved]	38
Item 7.	Management's Discussion and Analysis of Financial Condition and Results of Operations	38
Item 7A.	Quantitative and Qualitative Disclosures about Market Risk	64
Item 8.	Financial Statements and Supplementary Data	67
Item 9.	Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	67
Item 9A.	Controls and Procedures	67
Item 9B.	Other Information	68
Item 9C.	Disclosure Regarding Foreign Jurisdictions that Prevent Inspections	68
	PART III	
Item 10.	Directors, Executive Officers and Corporate Governance	69
Item 11.	Executive Compensation	69
Item 12.	Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	69
Item 13.	Certain Relationships and Related Transactions, and Director Independence	69
Item 14.	Principal Accounting Fees and Services	69
	PART IV	
Item 15.	Exhibits, Financial Statement Schedules	69
Item 16.	Form 10-K Summary	69
SIGNATURES	S	107

Forward-Looking Statements

We make forward-looking statements in this Report on Form 10-K ("Report") and other filings we make with the Securities and Exchange Commission ("SEC") within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and such statements are intended to be covered by the safe harbor provided by the same. Forward-looking statements are subject to substantial risks and uncertainties, many of which are difficult to predict and are generally beyond our control. These forward-looking statements include information about possible or assumed future results of our business, investment strategies, financial condition, liquidity, results of operations, plans and objectives. When we use the words "believe," "expect," "anticipate," "estimate," "plan," "intend," "project," "forecast" or similar expressions and future or conditional verbs such as "will," "may," "could," "should," and "would," and any other statement that necessarily depends on future events, we intend to identify forward-looking statements, although not all forward-looking statements may contain such words. Factors that could cause actual results to differ from those expressed in our forward-looking statements include, but are not limited to:

- the ongoing effects of the COVID-19 pandemic;
- unfavorable or changing economic, market or political conditions;
- general volatility of financial markets and the effects of governmental responses, including actions and initiatives of
 the U.S. governmental agencies and changes to U.S. government policies, actions and initiatives of foreign
 governmental agencies and central banks, and monetary policy actions of the Federal Reserve, including actions
 relating to its agency mortgage-backed securities portfolio, and our ability to respond to and comply with such actions,
 initiatives and changes;
- our business and investment strategy;
- our investment portfolio and expected investments;
- the availability of investment opportunities in mortgage-related, real estate-related and other securities;
- the availability of U.S. Government Agency guarantees with regard to payments of principal and interest on securities;
- the impact of changes in the credit rating of the U.S. government;
- financing and advance rates for our target assets;
- the impact of changes in interest rates and interest rate spreads and the market value of our target assets;
- the potential interest rate mismatches between our target assets and our borrowings used to fund such investments;
- changes to our expected leverage;
- the availability of financing sources, including our ability to obtain additional financing arrangements and the terms of such arrangements;
- the adequacy of our cash flow from operations and borrowings, and our ability to maintain sufficient liquidity to meet our short-term liquidity needs;
- changes in prepayment rates on our target assets;
- the impact of any deficiencies in loss mitigation of third parties and related uncertainty in the timing of collateral disposition;
- our reliance on third parties in connection with services related to our target assets;
- the effects of hedging instruments on our target assets, including, but not limited to, the degree to which our hedging strategies may or may not protect us from interest rate and foreign currency exchange rate volatility;
- the degree to which derivative contracts expose us to contingent liabilities;
- rates of default or decreased recovery rates on our target assets;
- counterparty defaults;
- modifications to whole loans or loans underlying securities;
- our ability to comply with financial covenants in our financing arrangements;
- disruption of our information technology systems;
- the impact of potential data security breaches or other cyber-attacks or other disruptions;

- changes in governmental regulations, and changes in zoning, insurance, eminent domain and tax law and rates, and similar matters and our ability to respond to such changes;
- our ability to maintain our qualification as a real estate investment trust for U.S. federal income tax purposes;
- our ability to maintain our exception from the definition of "investment company" under the 1940 Act;
- the market price and trading volume of our capital stock;
- our ability to continue to generate taxable income and our ability to continue to make distributions to our stockholders in the future;
- our intention and ability to pay dividends;
- the availability of qualified personnel from our Manager, and our Manager's continued ability to find and retain such personnel;
- our dependence upon, and the relationship with, our Manager;
- the accuracy of our estimates relating to fair value of our target assets and interest income recognition;
- our understanding of our competition;
- the impact of changes to U.S. GAAP;
- the adequacy of our disclosure controls and procedures and internal controls over financial reporting; and
- market trends in our industry, interest rates, real estate values, the debt securities markets or the general economy.

The forward-looking statements are based on our beliefs, assumptions and expectations of our future performance, taking into account all information currently available to us. You should not place undue reliance on these forward-looking statements. These beliefs, assumptions and expectations can change as a result of many possible events or factors, not all of which are known to us. Some of these factors are described under the headings "Business", "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" in this Report. If a change occurs, our business, financial condition, liquidity and results of operations may vary materially from those expressed in our forward-looking statements. Any forward-looking statement speaks only as of the date on which it is made. New risks and uncertainties arise over time, and it is not possible for us to predict those events or how they may affect us. Except as required by law, we are not obligated to, and do not intend to, update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

PART I

Item 1. Business.

Our Company

Invesco Mortgage Capital Inc. (the "Company" or "we") is a Maryland corporation primarily focused on investing in, financing and managing mortgage-backed securities ("MBS") and other mortgage-related assets. Our objective is to provide attractive risk-adjusted returns to our stockholders, primarily through dividends and secondarily through capital appreciation.

As of December 31, 2022, we were invested in:

- residential mortgage-backed securities ("RMBS") that are guaranteed by a U.S. government agency such as the Government National Mortgage Association ("Ginnie Mae"), or a federally chartered corporation such as the Federal National Mortgage Association ("Fannie Mae") or the Federal Home Loan Mortgage Corporation ("Freddie Mac") (collectively "Agency RMBS");
- commercial mortgage-backed securities ("CMBS") that are not guaranteed by a U.S. government agency or a federally chartered corporation ("non-Agency CMBS");
- RMBS that are not guaranteed by a U.S. government agency or a federally chartered corporation ("non-Agency RMBS");
- to-be-announced securities forward contracts ("TBAs") to purchase Agency RMBS; and
- other real estate-related financing arrangements.

During the periods presented in this Report, we also invested in:

- CMBS that are guaranteed by a U.S. government agency such as Ginnie Mae or a federally chartered corporation such as Fannie Mae or Freddie Mac (collectively "Agency CMBS");
- credit risk transfer securities that are unsecured obligations issued by government-sponsored enterprises ("GSE CRT");
- · a commercial mortgage loan; and
- U.S. Treasury securities.

We continuously evaluate new investment opportunities to complement our current investment portfolio by expanding our target assets and portfolio diversification.

We conduct our business through our wholly-owned subsidiary, IAS Operating Partnership L.P. (the "Operating Partnership"). We are externally managed and advised by Invesco Advisers, Inc. (our "Manager"), an indirect wholly-owned subsidiary of Invesco Ltd. ("Invesco").

We have elected to be taxed as a real estate investment trust ("REIT") for U.S. federal income tax purposes under the provisions of the Internal Revenue Code of 1986. To maintain our REIT qualification, we are generally required to distribute at least 90% of our REIT taxable income to our stockholders annually. We operate our business in a manner that permits our exclusion from the definition of "Investment Company" under the 1940 Act.

Our Manager

Our Manager provides us with our management team, including our officers and appropriate support personnel. Each of our officers is an employee of our Manager or one of its affiliates. We do not have any employees. Our Manager is not obligated to dedicate any of its employees exclusively to us, and our Manager and its employees are not obligated to dedicate any specific portion of time to our business. Our Manager is at all times subject to the supervision and oversight of our Board of Directors and has only such functions and authority as we delegate to it. Refer to Item 13. "Certain Relationships and Related Transactions, and Director Independence" in Part III of this Report for a discussion of our relationship with our Manager.

Human Capital

As previously discussed, we do not have employees and our Manager is responsible for providing us with our management team. Our Manager's long-term success, including its success in managing our business, relies on its ability to attract, develop and retain talent. Our Manager invests significantly in talent development, health and welfare programs, technology and other resources that support its employees. Our Manager is committed to improving diversity at all levels and in all functions across its global business and remains focused on increasing representation of women and other underrepresented employees.

Our Competitive Advantages

We believe that our competitive advantages include the following:

Significant Experience of Our Senior Management and Our Manager

Our senior management and the structured investments team of our Manager have a long track record and broad experience in managing residential and commercial mortgage-related assets through a variety of credit and interest rate environments and have demonstrated the ability to generate attractive risk-adjusted returns under different market conditions and cycles. In addition, we benefit from the insight and capabilities of Invesco's real estate team, through which we have access to broad and deep teams of experienced investment professionals in real estate and distressed investing. Through these teams, we have real time access to research and data on the mortgage and real estate industries. We believe having in-house access to these resources and expertise provides us with a competitive advantage over other companies investing in our target assets who have less internal resources and expertise.

Access to Our Manager's Sophisticated Analytical Tools, Infrastructure and Expertise

Our Manager has created and maintains analytical and portfolio management capabilities to aid in asset selection and risk management. We capitalize on the market knowledge and ready access to data across our target markets that our Manager and its affiliates obtain through their established platforms. We focus on in-depth analysis of the numerous factors that influence our target assets, including: (1) fundamental market and sector review; (2) rigorous cash flow analysis; (3) disciplined asset selection; (4) controlled risk exposure; and (5) prudent balance sheet management. We also benefit from our Manager's and its affiliates' comprehensive financial and administrative infrastructure, including its risk management, financial reporting, legal and compliance teams.

Extensive Strategic Relationships and Experience of our Manager and its Affiliates

Our Manager maintains extensive long-term relationships with other financial intermediaries, including primary dealers, leading investment banks, brokerage firms, leading mortgage originators and commercial banks. We believe these relationships enhance our ability to source, finance and hedge investment opportunities and, thus, will enable us to grow in various credit and interest rate environments.

Disciplined Investment Approach

We seek to maximize our risk-adjusted returns through our disciplined investment approach, which relies on rigorous quantitative and qualitative analysis. Our Manager monitors our overall portfolio risk and evaluates the characteristics of our investments in our target assets including, but not limited to, asset type, interest rate, interest rate type, loan balance distribution, geographic concentration, property type, occupancy, loan-to-value ratio and credit score. In addition, with respect to any particular target asset, our Manager's investment team evaluates, among other things, relative valuation, supply and demand trends, shape of yield curves, prepayment rates, loan delinquencies, default rates and loss severity rates. We believe this strategy and our commitment to capital preservation provide us with a competitive advantage when operating in a variety of market conditions.

Investment Strategy

We have invested in a diversified pool of mortgage assets that generate attractive risk-adjusted returns. Our current investment portfolio includes Agency RMBS, non-Agency RMBS, non-Agency CMBS and TBAs. Our assets have also historically included, and may in the future include, Agency CMBS, GSE CRT, residential mortgage loans, commercial mortgage loans and other real estate-related investments. We refer to all of these investment types collectively as our target assets. In addition to direct purchases of our target assets, we also invest in ventures managed by an affiliate of our Manager, which, in turn, invest in our target assets. We accept varying levels of interest rate risk by managing our hedge portfolio and accept certain levels of credit and spread risk to earn income.

Agency RMBS

Agency RMBS are residential mortgage-backed securities issued by a U.S. government agency such as Ginnie Mae, or a federally chartered corporation such as Fannie Mae or Freddie Mac (Government Sponsored Enterprises or "GSEs") that are secured by a collection of mortgages. Payments of principal and interest on Agency RMBS, not the market value of the securities themselves, are guaranteed by the issuer. Agency RMBS differ from other forms of traditional debt securities, which normally provide for periodic payments of interest in fixed amounts with principal payments at maturity or on specified call dates. Instead, Agency RMBS provide for monthly payments of both principal and interest. In effect, these payments are a

"pass-through" of scheduled and unscheduled principal payments and the monthly interest payments made by the individual borrowers on the mortgage loans, net of any fees paid to the servicers, guarantors or other related parties of the securities.

The principal may be prepaid at any time due to prepayments or defaults on the underlying mortgage loans. These differences can result in significantly greater price and yield volatility than is the case with other fixed-income securities.

Various factors affect the rate at which mortgage prepayments occur, including changes in the level and directional trends in housing prices, interest rates, general economic conditions, the age of the mortgage loan, the location of the property, social and demographic conditions, government initiated refinance programs, legislative regulations, and industry capacity. Generally, prepayments on Agency RMBS increase during periods of falling mortgage interest rates and decrease during periods of rising mortgage interest rates. However, this may not always be the case. We may reinvest principal repayments at a yield that is higher or lower than the yield on the repaid investment, thus affecting our net interest income by altering the average yield on our assets.

In addition, when interest rates are declining, the value of Agency RMBS with prepayment options may not increase as much as other fixed income securities. The rate of prepayments on underlying mortgages will affect the price and volatility of Agency RMBS and may have the effect of shortening or extending the duration of the security beyond what was anticipated at the time of purchase. When interest rates rise, our holdings of Agency RMBS may experience reduced returns if the owners of the underlying mortgages pay off their mortgages slower than previously anticipated. This is generally referred to as extension risk.

Mortgage pass-through certificates, collateralized mortgage obligations ("CMOs"), Freddie Mac Gold Certificates, Fannie Mae Certificates and Ginnie Mae Certificates are types of Agency RMBS that are collateralized by either fixed-rate mortgage loans ("FRMs"), adjustable-rate mortgage loans ("ARMs"), or hybrid ARMs. FRMs have an interest rate that is fixed for the term of the loan and do not adjust. The interest rates on ARMs generally adjust annually (although some may adjust more frequently) to an increment over a specified interest rate index. Hybrid ARMs have interest rates that are fixed for a specified period of time (typically three, five, seven or ten years) and, thereafter, adjust to an increment over a specified interest rate index. ARMs and hybrid ARMs generally have periodic and lifetime constraints on how much the loan interest rate can change on any predetermined interest rate reset date. Our allocation of our Agency RMBS collateralized by FRMs, ARMs or hybrid ARMs will depend on various factors including, but not limited to, relative value, expected future prepayment trends, supply and demand, costs of hedging, costs of financing, expected future interest rate volatility and the overall shape of the U.S. Treasury and interest rate swap yield curves. We take these factors into account when we make investments. Substantially all of our current investments in Agency RMBS are FRMs.

Non-Agency CMBS

Non-Agency CMBS are commercial mortgage-backed securities that are not issued or guaranteed by a U.S. government agency or federally chartered corporation. Like Agency CMBS, non-Agency CMBS are securities backed by obligations (including certificates of participation in obligations) that are principally secured by commercial mortgages on real property or interests therein having a multifamily or commercial use, such as regional malls, retail space, office buildings, industrial or warehouse properties, hotels, apartments, nursing homes and senior living facilities.

Non-Agency CMBS are typically issued in multiple tranches whereby the more senior classes are entitled to priority distributions to make specified interest and principal payments on such tranches. Losses and other shortfalls from expected amounts to be received on the mortgage pool are borne by the most subordinate classes, which receive payments only after the more senior classes have received all principal and/or interest to which they are entitled. The credit quality of non-Agency CMBS depends on the securitization structure and the credit quality of the underlying mortgage loans, which is a function of factors such as the principal amount of loans relative to the value of the related properties, the mortgage loan terms, such as amortization, market assessment and geographic location, construction quality of the property, and the creditworthiness of the borrowers.

Non-Agency RMBS

Non-Agency RMBS are residential mortgage-backed securities that are not issued or guaranteed by a U.S. government agency or federally chartered corporation. Like Agency RMBS, non-Agency RMBS represent interests in pools of mortgage loans secured by residential real property. The mortgage loan collateral for non-Agency RMBS generally consists of residential mortgage loans that do not conform to U.S. government agency or federally chartered corporation underwriting guidelines due to certain factors including mortgage balance in excess of such guidelines, borrower characteristics, loan characteristics and level of documentation. Our current investments in non-Agency RMBS are collateralized by prime, jumbo prime and Alt-A mortgage loans. We have also historically invested in non-Agency RMBS collateralized by subprime and reperforming mortgage loans.

Prime and Jumbo Prime Mortgage Loans

Prime mortgage loans are mortgage loans that generally require borrower credit histories, debt-to-income ratios and loan-to-value ratios similar to those dictated by GSE underwriting guidelines, though in certain cases they may not meet the same income documentation or other requirements. Jumbo prime mortgage loans are mortgage loans with requirements similar to prime mortgage loans except that the mortgage balance exceeds the maximum amount permitted by GSE underwriting guidelines.

Alt-A Mortgage Loans

Alt-A mortgage loans are mortgage loans made to borrowers whose qualifying mortgage characteristics do not conform to GSE underwriting guidelines, but whose borrower characteristics may. Generally, Alt-A mortgage loans allow homeowners to qualify for a mortgage loan with reduced or alternative forms of documentation. The credit quality of Alt-A borrowers generally exceeds the credit quality of subprime borrowers.

Subprime Mortgage Loans

Subprime mortgage loans are loans that do not conform to GSE underwriting guidelines. Subprime borrowers generally have imperfect or impaired credit histories and low credit scores.

Reperforming Mortgage Loans

Reperforming mortgage loans are residential mortgage loans that have a history of delinquency and may have been restructured since origination. Reperforming mortgage loans may or may not have originally conformed to GSE underwriting guidelines. Due to past delinquencies, borrowers generally have impaired credit histories and low credit scores, and may have a greater than normal risk of future delinquencies and defaults.

We have also invested in non-Agency RMBS structured as re-securitizations of a real estate mortgage investment conduit ("Re-REMIC"). A Re-REMIC is a transaction in which an existing security or securities is transferred to a special purpose entity that has formed a securitization vehicle that has issued multiple classes of securities secured by and payable from cash flows on the underlying securities.

Unconsolidated Ventures

We have investments in unconsolidated ventures. In circumstances where we have a non-controlling interest but we are deemed to be able to exert significant influence over the affairs of the enterprise, we utilize the equity method of accounting. Under the equity method of accounting, the initial investment is increased each period for additional capital contributions and a proportionate share of the entity's earnings and decreased for cash distributions and a proportionate share of the entity's losses. As of December 31, 2022, our unconsolidated ventures were in liquidation and plan to sell or settle their remaining investments as expeditiously as possible.

Agency CMBS

Agency CMBS are structured pass-through certificates representing interests in pools of commercial loans that are secured by commercial property and issued by a U.S. government agency or federally chartered corporation. Types of Agency CMBS include Fannie Mae DUS (Delegated Underwriting and Servicing), Freddie Mac Multifamily Mortgage Participation Certificates, Ginnie Mae project loan pools, and/or CMOs structured from such collateral.

The U.S. government agency or federally chartered corporation sources these loans from a network of approved multifamily sellers/servicers and guarantees the timely payment of interest and principal on these investments. Unlike single family residential mortgages in which the borrower, generally, can prepay at any time, commercial mortgages frequently limit the ability of the borrower to prepay, thereby providing a certain level of prepayment protection. Common restrictions include yield maintenance (a prepayment premium that allows investors to attain the same yield as if the borrower made all scheduled interest payments up until the maturity date) and prepayment penalties.

Additionally, Agency CMBS include Ginnie Mae Construction Loan Certificates ("CLCs") and the resulting Project Loan Certificates ("PLCs") when the construction project is complete. The investor in the CLC is committed to fund the full amount of the project; however, actual funding generally occurs monthly as construction progresses on the property. Ginnie Mae guarantees the timely payment of principal and interest on each CLC and PLC. Ginnie Mae CLCs pay interest only during construction, while PLCs pay principal and interest. The mortgage loans underlying the PLCs generally contain a lock-out and prepayment penalty period of 10 years. Ginnie Mae does not guarantee the payment of prepayment penalties.

Government-Sponsored Enterprises Credit Risk Transfer Securities

GSE CRTs are structured to provide credit protection to the issuer with respect to defaults and other credit events within pools of mortgage loans secured by single family properties that collateralize Agency RMBS issued and guaranteed by the GSEs or within pools of mortgage loans secured by multifamily properties that collateralize Agency CMBS issued and guaranteed by the GSEs. This credit protection is achieved by allowing the GSEs to reduce the outstanding class principal balance of the securities as designated credit events on the loans arise. The GSEs make monthly coupon payments of interest and periodic payments of principal based on prepayments to the holders of the securities. To date, all GSE CRTs have paid a floating interest rate benchmarked to one-month London Interbank Offered Rate ("LIBOR") or the Secured Overnight Financing Rate ("SOFR").

TBAs

TBAs are forward contracts to purchase or sell Agency RMBS. TBAs specify the price, issuer, term and coupon of the securities to be delivered, but the actual securities are not identified until shortly before the TBA settlement date. We generally do not intend to physically settle TBAs that are used for investment purposes.

Commercial Mortgage Loans

Commercial mortgage loans are mortgage loans secured by first or second liens on commercial properties such as regional malls, retail space, office buildings, industrial or warehouse properties, hotels, apartments, nursing homes and senior living facilities. These loans, which tend to range in term from two to ten years, can carry either fixed or floating interest rates. They generally permit prepayments before final maturity but may require the payment to the lender of yield maintenance or prepayment penalties. First lien loans represent the senior lien on a property while second lien loans or second mortgages represent a subordinate or second lien on a property.

Mezzanine Loans

Mezzanine loans are generally structured to represent a senior position in the borrower's equity in a property, and are subordinate to a first mortgage loan. These loans are generally secured by pledges of ownership interests, in whole or in part, in entities that directly or indirectly own the real property. At times, mezzanine loans may be secured by additional collateral, including letters of credit, personal guarantees, or collateral unrelated to the property. Mezzanine loans may be structured to carry either fixed or floating interest rates as well as carry a right to participate in a percentage of gross revenues and a percentage of the increase in the fair market value of the property securing the loan. Mezzanine loans may also contain prepayment lockouts, penalties, minimum profit hurdles and other mechanisms to protect and enhance returns to the lender. Mezzanine loans usually have maturities that match the maturity of the related mortgage loan but may have shorter or longer terms.

Loan Participation Interest

In August 2018, we invested in a loan participation interest in a secured loan to a non-bank servicer that was collateralized by mortgage servicing rights associated with Fannie Mae, Freddie Mac, and Ginnie Mae loans. Mortgage servicing rights represented the right to perform and control the servicing of mortgage loans in exchange for a fee. We sold our loan participation interest in April 2020.

Financing Strategy

We have historically used repurchase agreements to finance the majority of our target assets and expect to continue to use repurchase agreements to finance Agency investments in the future. Repurchase agreements are generally settled on a short-term basis, usually from one to six months, and bear interest at rates that are expected to move in close relationship to SOFR.

We also used secured loans from the Federal Home Loan Bank of Indianapolis ("FHLBI") to finance a portion of our investment portfolio. We repaid our secured loans during 2020 with proceeds from sales of assets that collateralized the secured loans. We terminated our membership in FHLBI in the third quarter of 2020.

We have also financed investments through issuances of equity, and may utilize other forms of financing in the future.

Repurchase Agreements

Repurchase agreements are financings under which we sell our assets to the repurchase agreement counterparty (the buyer) for an agreed upon price with the obligation to repurchase these assets from the buyer at a future date and at a price higher than the original purchase price. The amount of financing we receive under a repurchase agreement is limited to a specified percentage of the estimated market value of the assets we sell to the buyer. The difference between the sale price and

repurchase price is the cost, or interest expense, of financing under a repurchase agreement. Under repurchase agreement financing arrangements, certain buyers require us to provide additional cash collateral in the event the market value of the asset declines to maintain the ratio of value of the collateral to the amount of borrowing.

Leverage

We use leverage on our assets to achieve our return objectives, which are adjusted as our investment and financing opportunities change. The amount of leverage we apply to a given asset depends primarily on the expected price volatility and liquidity of the asset we use as collateral, the type of financing, the advance rate against our collateral and the cost of financing. Shorter duration and higher quality liquid assets generally merit higher leverage due to lower price volatility, higher advance rates, and more attractive financing rates. Assets that are less liquid or exhibit higher price volatility tend to be held unlevered or with lower leverage applied.

We include a table that shows the allocation of our stockholders' equity to our target assets, our debt-to-equity ratio, and our economic debt-to-equity ratio (a non-GAAP financial measure of leverage) in Part II. Item 7. "Management's Discussion and Analysis of Financial Conditions and Results of Operations" of this Report.

Risk Management Strategy

Market Risk Management

Risk management is an integral component of our strategy to deliver returns to our stockholders. Because we invest in MBS, investment losses from prepayment, interest rate volatility or other risks can meaningfully impact our earnings and our dividends to stockholders. In addition, because we employ financial leverage in funding our investment portfolio, mismatches in the maturities of our assets and liabilities can create the need to continually renew or otherwise refinance our liabilities. Our results are dependent upon a positive spread between the returns on our asset portfolio and our overall cost of funding. To minimize the risks to our portfolio, we actively employ portfolio-wide and security-specific risk measurement and management processes in our daily operations. Our Manager's risk management tools include software and services licensed or purchased from third parties, in addition to proprietary software and analytical methods developed by Invesco.

Interest Rate Risk

We engage in a variety of interest rate management techniques that seek to mitigate the influence of interest rate changes on the costs of liabilities and help us achieve our risk management objectives. Specifically, we seek to hedge our exposure to potential interest rate mismatches between the interest we earn on our investments and our borrowing costs caused by fluctuations in short-term interest rates. We may utilize various derivative financial instruments including puts and calls on securities or indices of securities, futures, interest rate swaps and swaptions, interest rate caps, interest rate floors, exchange-traded derivatives, U.S. Treasury securities and options on U.S. Treasury securities to hedge all or a portion of the interest rate risk associated with the financing of our investment portfolio.

Spread Risk

We employ a variety of spread risk management techniques that seek to mitigate the influences of spread changes on our book value per common share and our liquidity to help us achieve our investment objectives. The yield on our investments changes over time due to the level of risk free interest rates, the creditworthiness of the security, and the price of the perceived risk. The change in the market yield of our interest rate hedges also changes primarily with the level of risk free interest rates. We manage spread risk through careful asset selection, sector allocation, regulating our portfolio value-at-risk, and maintaining adequate liquidity. Changes in spreads impact our book value per common share and our liquidity and could cause us to sell assets and to change our investment strategy to maintain liquidity and preserve book value per common share.

Elevated inflation and the resulting acceleration of monetary policy tightening by the Federal Reserve have impacted and will continue to impact credit spreads.

Credit Risk

We believe that our investment strategy will generally keep our credit losses and financing costs low. However, we retain the risk of potential credit losses on all of our residential and commercial mortgage investments. We seek to manage this risk in part through our pre-acquisition due diligence process. In addition, we re-evaluate the credit risk inherent in our investments on a regular basis pursuant to fundamental considerations such as gross domestic product, unemployment, interest rates, retail sales, store closings/openings, corporate earnings, housing inventory, affordability and regional home price trends. We also review key loan credit metrics including, but not limited to, payment status, current loan-to-value ratios, current borrower credit scores and debt yields. These characteristics assist us in determining the likelihood and severity of loan loss as well as prepayment and extension expectations. We then perform structural analysis under multiple scenarios to establish likely cash flow profiles and credit enhancement levels relative to collateral performance projections. This analysis allows us to quantify our opinions of credit quality and fundamental value, which are key drivers of portfolio management decisions.

The pace of commercial real estate fundamental improvement is moderating given accelerating monetary policy tightening by the Federal Reserve. Occupancy and rental rates have stabilized and valuations face downward pressure as property borrowing costs remain elevated. Meanwhile, residential real estate fundamentals have also deteriorated due to historically low affordability driven by the dramatic rise in mortgage rates throughout 2022.

CMBS loan delinquencies increased in the fourth quarter but remain materially lower than COVID-19 peak levels. Many borrowers continue to experience difficulties meeting their obligations or seek to forbear or further forbear payment on their mortgage loans. Given tightening lending conditions, loans may continue to experience increasing delinquency levels and eventual defaults, which could impact the performance of our mortgage-backed securities. We also expect credit rating agencies to continue to reassess transactions negatively impacted by these adverse changes, which may result in our investments being downgraded.

Liquidity Risk

We engage in a variety of liquidity management techniques to mitigate the risk of volatility in the marketplace, which may bring significant security price fluctuations, associated margin calls, changing cash needs, and variability in counterparty financing terms. We perform statistical analysis to measure and quantify our required liquidity needs under multiple scenarios and time horizons. Liquidity in the form of cash, unencumbered assets and future cash inflows is consistently monitored and evaluated versus internal targets.

Foreign Exchange Rate Risk

We have an investment in an unconsolidated joint venture whose net assets and results of operations are exposed to foreign currency translation risk when translated in U.S. dollars upon consolidation. We have historically sought to hedge our foreign currency exposures by purchasing currency forward contracts.

Investment Guidelines

Our board of directors has adopted the following investment guidelines:

- no investment shall be made that would cause us to fail to qualify as a REIT for federal income tax purposes;
- no investment shall be made that would cause us to be regulated as an investment company under the 1940 Act;
- our assets will be invested within our target assets; and
- until appropriate investments can be identified, our Manager may pay off short-term debt, or invest the proceeds
 of any offering in interest-bearing, short-term investments, including funds that are consistent with maintaining
 our REIT qualification.

These investment guidelines may be changed from time to time by our board of directors without the approval of our stockholders.

Investment Committee

Our investment committee is comprised of certain of our officers and certain of our Manager's investment professionals. The investment committee periodically reviews our investment portfolio for risk characteristics, investment performance, liquidity, portfolio composition, leverage and other applicable items. It also reviews its compliance with our investment policies and procedures, including our investment guidelines, and our Manager provides our board of directors an investment performance report at the end of each quarter in conjunction with its review of our quarterly results.

Investment Process

Our Manager's investment team has a strong focus on asset selection and on the relative value of various sectors within the mortgage market. Our Manager utilizes this expertise to build a diversified portfolio. Our Manager incorporates its views on the economic environment and the outlook for the mortgage market, including relative valuation, supply and demand trends, the level of interest rates, the shape of the yield curve, prepayment rates, financing and liquidity, housing prices, delinquencies, default rates and loss severity rates of various collateral types.

Our investment process includes sourcing and screening investment opportunities, assessing investment suitability, conducting interest rate and prepayment analysis, evaluating cash flow and collateral performance, reviewing legal structure and servicer and originator information and investment structuring, as appropriate, to ensure an attractive return commensurate with the risk we are bearing. Upon identification of an investment opportunity, the investment will be screened and monitored by our Manager to determine its impact on maintaining our REIT qualification and our exemption from registration under the 1940 Act. We make investments in sectors where our Manager has strong core competencies and where we believe market risk and expected performance can be reasonably quantified.

Our Manager evaluates each of our investment opportunities based on its expected risk-adjusted return relative to the returns available from other, comparable investments. In addition, we evaluate new opportunities based on their relative expected returns compared to assets held in our portfolio. The terms of any leverage available to us for use in funding an investment purchase are also taken into consideration, as are any risks posed by illiquidity or correlations with other assets in the portfolio. Our Manager also develops a macro outlook with respect to each target asset class by examining factors in the broader economy such as gross domestic product, interest rates, unemployment rates and availability of credit, among other factors. Our Manager analyzes fundamental trends in the relevant target asset class sector to adjust or maintain its outlook for that particular target asset class. These macro decisions guide our Manager's assumptions regarding model inputs and portfolio allocations among target assets. Additionally, our Manager conducts extensive diligence with respect to each target asset class by, among other things, examining and monitoring the capabilities and financial wherewithal of the parties responsible for the origination, administration and servicing of relevant target assets.

Competition

Our net income depends, in large part, on our ability to acquire assets at favorable spreads over our borrowing costs. In acquiring our investments, we compete with other REITs, specialty finance companies, mortgage bankers, insurance companies, mutual funds, institutional investors, investment banking firms, financial institutions, governmental bodies and other entities. In addition, there are numerous REITs with similar asset acquisition objectives. These other REITs increase competition for the available supply of mortgage assets suitable for purchase. Many of our competitors are significantly larger than we are, have access to greater capital and other resources and may have other advantages over us. In addition, some of our competitors may have higher risk tolerances or different risk assessments, which could allow them to consider a wider variety of investments and establish more relationships than we can. Market conditions may attract more competitors, which may increase the competition for sources of financing. An increase in the competition for sources of financing could adversely affect the availability and cost of financing.

We have access to our Manager's professionals and their industry expertise, which we believe provides us with a competitive advantage. These professionals help us assess investment risks and determine appropriate pricing for certain potential investments. These relationships enable us to compete more effectively for attractive investment opportunities. Despite certain competitive advantages, we may not be able to achieve our business goals or expectations due to the competitive risks that we face. For additional information concerning these competitive risks, refer to Item 1A. "Risk Factors — Risks Related to Our Investments". We operate in a highly competitive market for investment opportunities. Competition may limit our ability to acquire desirable investments in our target assets, and could also affect the pricing of these securities.

Our Corporate Information

Our principal executive offices are located at 1555 Peachtree Street, N.E., Suite 1800, Atlanta, Georgia 30309. Our telephone number is (404) 892-0896. We file current and periodic reports, proxy statements and other information with the SEC. The SEC maintains a website that contains reports, proxy and other information at www.sec.gov. We make available free of charge on our corporate website, www.invescomortgagecapital.com, our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished under Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. The information on our website is not intended to form a part of or be incorporated by reference into this Report.

Item 1A. Risk Factors.

Set forth below are the material risks and uncertainties that, if they were to occur, could materially and adversely affect our business, financial condition, results of operations and the trading price of our securities. Additional risks not presently known, or that we currently deem immaterial, also may have a material adverse effect on our business, financial condition, results of operations and trading price of our securities.

Risk Factor Summary

Investing in our capital stock involves a high degree of risk. You should carefully consider all information in this Report before investing in our capital stock. These risks are discussed more fully in the section of this Report titled "Risk Factors." These risks and uncertainties include, but are not limited to, risks related to the following:

- the economic and operational impact of the COVID-19 pandemic, including, but not limited to, the impact on the value, volatility, availability, financing and liquidity of target assets;
- our business and investment strategy, including, but not limited to, the concentration of our investments, competition for our target assets and our use of repurchase financing and leverage;
- our investment portfolio and expected investments, including, but not limited to, the risks inherent in various mortgage-related investments and the priority of our investments;
- general volatility of financial markets and the effects of governmental responses, including actions and initiatives of
 the U.S. governmental agencies and changes to U.S. government policies in response to the COVID-19 pandemic,
 mortgage loan forbearance and modification programs, interest rate fluctuations, increases in inflation, actions and
 initiatives of foreign governmental agencies and central banks, monetary policy actions of the Federal Reserve,
 including actions relating to its agency mortgage-backed securities portfolio, and our ability to respond to and comply
 with such actions, initiatives and changes;
- the availability of financing sources, including our ability to obtain additional financing arrangements and the terms of such arrangements;
- financing and advance rates for our target assets;
- changes to our expected leverage;
- our intention and ability to pay dividends;
- the potential interest rate mismatches between our target assets and our borrowings used to fund such investments;
- the adequacy of our cash flow from operations and borrowings, and our ability to maintain sufficient liquidity to meet our short-term liquidity needs;
- the impact of changes in the credit rating of the U.S. government;
- changes in interest rates and interest rate spreads and the market value of our target assets;
- changes in prepayment rates on our target assets;
- the impact of any deficiencies in loss mitigation of third parties and related uncertainty in the timing of collateral disposition;
- our reliance on third parties in connection with services related to our target assets;
- disruption of our information technology systems;
- the impact of potential data security breaches or other cyber-attacks or other disruptions;
- the effects of hedging instruments on our target assets, including, but not limited to, the degree to which our hedging strategies may or may not protect us from interest rate and foreign currency exchange rate volatility;
- rates of default or decreased recovery rates on our target assets;
- modifications to whole loans or loans underlying securities;
- the degree to which derivative contracts expose us to contingent liabilities;
- counterparty defaults;
- our ability to comply with financial covenants in our financing arrangements;
- changes in governmental regulations, including in response to the COVID-19 pandemic, and changes in zoning, insurance, eminent domain and tax law and rates, and similar matters and our ability to respond to such changes;
- our ability to maintain our qualification as a real estate investment trust for U.S. federal income tax purposes;
- our ability to maintain our exception from the definition of "investment company" under the 1940 Act;

- the availability of investment opportunities in mortgage-related, real estate-related and other securities;
- the availability of U.S. Government Agency guarantees with regard to payments of principal and interest on securities;
- the market price and trading volume of our capital stock;
- the availability of qualified personnel from our Manager, and our Manager's continued ability to find and retain such personnel;
- our dependence upon, and the relationship with, our Manager;
- our ability to continue to generate taxable income and our ability to continue to make distributions to our stockholders in the future;
- the accuracy of our estimates relating to fair value of our target assets and interest income recognition;
- our understanding of our competition;
- the impact of changes to U.S. GAAP;
- the adequacy of our disclosure controls and procedures and internal controls over financial reporting; and
- market trends in our industry, interest rates, real estate values, the debt securities markets or the general economy.

Risks Related to Our Business

The effects of health endemics, including the COVID-19 pandemic, on economic conditions is uncertain and may adversely affect our business.

Our business has been and could in the future be adversely affected by health epidemics, such as the COVID-19 pandemic. The COVID-19 pandemic has caused and may continue to cause significant disruptions to the U.S. and global economies, may further contribute to volatility and instability in financial markets, and may have material and adverse effects on our business, results of operations and financial performance.

Our business may be adversely affected by unfavorable or changing economic, market, and political conditions.

A return to a recessionary period, elevated inflation, adverse trends in employment levels, geopolitical instability or conflicts (including the hostilities between Russia and Ukraine), trade or supply chain disruptions, economic or other sanctions, uncertainty regarding the breach of the U.S. debt ceiling or a sustained capital market correction could have an adverse effect on our business, including on the value of our investments and collateral securing our financing, which can impact our liquidity. Any deterioration of the real estate market as a result of these conditions may cause us to experience losses related to our assets and to sell assets at a loss.

Risks Related to Our Investments

The U.S. Federal Reserve's participation in the Agency RMBS market could have an adverse effect on our Agency RMBS investments.

While the U.S. Federal Reserve, the U.S. government and other governments have implemented unprecedented financial support or relief measures in response to concerns surrounding the economic effects of the COVID-19 pandemic, the ongoing results of such measures or the results of such measures ending, cannot be predicted and we cannot assure you that these programs will be effective or sufficient at addressing the adverse impacts of the pandemic or otherwise have a positive impact on our business. Some of these measures have negatively impacted our business in the past and may do so in the future.

The U.S. Federal Reserve's participation in the Agency RMBS market can materially impact the available supply, price and returns on Agency RMBS. In response to market disruptions resulting from the COVID-19 pandemic, the U.S. Federal Reserve significantly increased its acquisition of Agency RMBS. Beginning in 2022, in response to inflation running well above its long-run target, the U.S. Federal Reserve then began a passive contraction of its balance sheet by ceasing reinvestments of proceeds from maturing Agency RMBS portfolio repayments. Given the U.S. Federal Reserve's historic participation and the current scale of its balance sheet holdings, the effects of a shift in monetary policy may be material and are difficult to predict, and we may be unable to mitigate potentially adverse effects on our portfolio and financial condition. Furthermore, despite its stated preference for a passive balance sheet reduction, there is no guarantee the U.S. Federal Reserve will not conduct outright sales of Agency RMBS in the secondary market, which could significantly increase the pace of their balance sheet reduction and result in lower Agency RMBS valuations due to a widening of credit spreads.

We cannot predict or control the impact future actions by the U.S. Federal Reserve will have on our business. Accordingly, future actions by the U.S. Federal Reserve could have a material and adverse effect on our business, financial condition and results of operations.

Because assets we acquire may experience periods of illiquidity, we may lose profits or be prevented from earning capital gains if we cannot sell mortgage-related assets at an opportune time.

We bear the risk of being unable to dispose of our assets at advantageous times or in a timely manner because mortgagerelated assets generally experience periods of illiquidity, particularly during times of market disruption. As a result, our ability to vary our portfolio in response to changes in economic and other conditions may be relatively limited, which may cause us to incur losses.

In addition, assets that comprise a portion of our investment portfolio may not be publicly traded. These securities may be less liquid than publicly traded securities. The illiquidity of our investments may make it difficult for us to sell such investments if the need or desire arises. In addition, if we are required to liquidate all or a portion of our portfolio quickly, we may realize significantly less than the value at which we have previously recorded our investments. As a result, our ability to vary our portfolio in response to changes in economic and other conditions may be relatively limited, which could adversely affect our results of operations and financial condition.

Our investments may be concentrated and will be subject to risk of default.

While we seek to diversify our portfolio of investments, we are not required to observe any specific diversification criteria, except as may be set forth in the investment guidelines and Investment Company Act of 1940 Compliance Policy adopted by our board of directors. Therefore, our investments in our target assets may at times be concentrated in certain types of securities, property types that are subject to higher risk of foreclosure or secured by properties concentrated in a limited number of geographic locations. To the extent that our portfolio is concentrated in any one region or type of security, downturns relating generally to such region or type of security may result in defaults on a number of our investments within a short time period, which may reduce our net income and the value of our capital stock and accordingly reduce our ability to pay dividends to our stockholders, which could have an adverse impact on our results of operations, financial condition and business.

Fluctuations in interest rates could adversely affect the value of our investments and cause our interest expense to increase, which could result in reduced earnings, decreased profitability and dividends, and diminished cash available for distribution to our stockholders.

Interest rates are highly sensitive to many factors, including governmental monetary and tax policies, domestic and international economic and political considerations and other factors beyond our control. As part of its effort to curb inflation, the Federal Reserve Open Markets Committee (FOMC) increased the target range for the federal funds rate 425 basis points in 2022, resulting in its highest level in 15 years.

Interest rate fluctuations present a variety of risks including the risk of a narrowing of the difference between asset yields and borrowing rates, a decline in the yield on adjustable-rate investments, and a detrimental impact on prepayment rates and may adversely affect our income and the value of our assets and capital stock.

We may invest in RMBS, CMBS, mortgage loans and other financing arrangements that are subject to risks related to interest rate fluctuations. Fluctuations in short- or long-term interest rates could have adverse effects on our operations and financial condition, which may negatively affect cash available for distribution to our stockholders. Fluctuations in interest rates could impact us as follows:

- If long-term rates increased significantly, the market value of our fixed-rate investments in our target assets would decline, and the duration and weighted average life of the investments may increase. We could realize a loss if the securities were sold. Further, declines in market value may reduce our book value per common share and ultimately reduce earnings or result in losses to us.
- An increase in short-term interest rates would increase the amount of interest owed on the repurchase agreements we enter into to finance the purchase of our investments.
- If short-term interest rates rise disproportionately relative to longer-term interest rates (a flattening of the yield curve), our borrowing costs may increase more rapidly than the interest income earned on our assets. Because we expect our investments, on average, generally will bear interest based on longer-term rates than our borrowings, a flattening of the yield curve would tend to decrease our net income. Additionally, to the extent cash flows from investments that return scheduled and unscheduled principal are reinvested, the spread between the yields on the new investments and available borrowing rates may decline, which would likely decrease our net income.
- If short-term interest rates exceed longer-term interest rates (a yield curve inversion), our borrowing costs may exceed our interest income and we could incur operating losses.
- If interest rates fall, we may recognize losses on our derivative financial instruments that are not offset by gains on our assets, which may adversely affect our liquidity and financial position.

In a period of rising interest rates, our operating results will depend in large part on the difference between the income from our assets and costs of financing. We anticipate that, in most cases, the income from such assets will respond more slowly to interest rate fluctuations than the cost of our borrowings. Consequently, changes in interest rates, particularly short-term

interest rates, may significantly influence our net income. Increases in these rates will tend to decrease our net income and the market value of our assets and may negatively affect cash available for distribution to our stockholders.

While we attempt to manage risk from changes in market interest rates, our hedging activities may not fully mitigate our interest rate risk, and a rapid increase or decrease in interest rates may have material and adverse effects on our business, results of operations and financial performance. During the latter half of 2022, the market began to experience a yield curve inversion. There can be no guarantee that our interest rate risk management will fully mitigate the yield curve inversion risks described above.

In addition, market values of our investments may decline without any general increase in interest rates for a number of reasons, such as increases or expected increases in defaults, or increases or expected increases in voluntary prepayments for those investments that are subject to prepayment risk or widening of credit spreads, which may negatively affect cash available for distribution to our stockholders.

An increase in interest rates may cause a decrease in the availability of certain of our target assets which could adversely affect our ability to acquire target assets that satisfy our investment objectives and to generate income and pay dividends.

Rising interest rates, such as we have experienced in 2022, generally reduce the demand for mortgage loans due to the higher cost of borrowing. A reduction in the volume of mortgage loans originated may affect the volume of target assets available to us, which could adversely affect our ability to acquire assets that satisfy our investment objectives. Rising interest rates may also cause our target assets that were issued before an interest rate increase to provide yields that are below prevailing market interest rates. If rising interest rates cause us to be unable to acquire a sufficient volume of our target assets with a yield that is above our borrowing cost, our ability to satisfy our investment objectives and to generate income and pay dividends may be materially and adversely affected.

Spread risk is inherent to our business as a levered investor in Agency RMBS.

When the spread between the market yield on our mortgage assets and benchmark interest rates widens, our tangible net book value will typically decline. We refer to this as "spread risk". As a levered investor primarily in fixed-rate Agency RMBS, spread risk is an inherent component of our investment strategy. Although we use hedging instruments to attempt to protect against moves in interest rates, our hedges will typically not protect us against spread risk. Spreads may widen due to numerous factors, including changes in mortgage and fixed income markets due to actual or expected monetary policy actions by U.S. and foreign central banks, market liquidity or changes in investor return requirements and sentiment. Wider spreads can also occur independent of moves in interest rates. For example, actions by the Federal Reserve to taper its purchases of Agency RMBS and to reduce its balance sheet resulted in a widening of credit spreads and lower Agency RMBS valuations, impacting our tangible net book value.

A portion of our RMBS portfolio consists of premium securities. Premium securities may be subject to more risk than par value securities.

Premium securities have market values that exceed their unpaid principal balance. We may purchase RMBS at a premium, which represent prices that we believe appropriately reflect the risks involved. Declining interest rates increase the premium level of our RMBS and generate unrealized holding gains. Because we carry our RMBS at fair value, unrealized holding gains are reflected in total stockholders' equity.

RMBS premium is not guaranteed by the Agencies and rising interest rates tend to reduce premium values. Premium value will also erode over time as principal payments are made.

Prepayment rates may adversely affect the value of our investment portfolio.

Pools of residential mortgage loans underlie the RMBS that we acquire. In the case of residential mortgage loans, there are seldom any restrictions on borrowers' ability to prepay their loans. We generally receive prepayments of principal that are made on these underlying mortgage loans. When borrowers prepay their mortgage loans faster than expected, the prepayments on the RMBS are also faster than expected. Faster than expected prepayments could adversely affect our profitability, including in the following ways:

- As described above, we may pay a premium over the par value to acquire a RMBS security. In accordance with
 U.S. GAAP, we may amortize this premium over the estimated term of the RMBS. If the RMBS is prepaid in whole or
 in part before its maturity date, however, we may be required to expense the premium that was prepaid at the time of
 the prepayment.
- A substantial portion of our adjustable-rate RMBS may bear interest rates that are lower than their fully indexed rates, which are equivalent to the applicable index rate plus a margin. If an adjustable-rate RMBS is prepaid before or soon after the time of adjustment to a fully indexed rate, we will have held that RMBS while it was least profitable and lost the opportunity to receive interest at the fully indexed rate over the remainder of its expected life.

• If we are unable to acquire new RMBS at similar yields to the prepaid RMBS, our financial condition, results of operations and cash flow would suffer. Prepayment rates generally increase when interest rates fall and decrease when interest rates rise, but changes in prepayment rates are difficult to predict. Prepayment rates also may be affected by conditions in the housing and financial markets, general economic conditions and the relative interest rates on FRMs and ARMs.

While we seek to minimize prepayment risk to the extent practical, in selecting investments we must balance prepayment risk against other risks and the potential returns of each investment. No strategy can completely insulate us from prepayment risk.

Market conditions may upset the historical relationship between interest rate changes and prepayment trends, which would make it more difficult for us to analyze our investment portfolio.

Our success depends in part on our ability to analyze the impact of changing interest rates on prepayments of the mortgage loans that underlie our investments. Changes in interest rates and prepayments affect the market price of target assets. As part of our overall portfolio risk management, we analyze interest rate changes and prepayment trends separately and collectively to assess their effects on our investment portfolio. In conducting our analysis, we depend on certain assumptions based upon historical trends with respect to the relationship between interest rates and prepayments under normal market conditions. If dislocations in the mortgage market or other developments change the way that prepayment trends respond to interest rate changes, our ability to (1) assess the market value of our investment portfolio, (2) implement our hedging strategies, and (3) utilize techniques to reduce our prepayment rate volatility would be significantly affected, which could materially adversely affect our financial position and results of operations.

The discontinuance of LIBOR may adversely affect our dividends on our Series B preferred stock and Series C preferred stock. These changes may also impact the market liquidity and market value of our Series B and Series C preferred stock.

The U.K. Financial Conduct Authority ("FCA"), which regulates LIBOR announced on March 5, 2021 that it will cease to publish the overnight, one-month, three-month, six-month and 12-month U.S. dollar ("USD") LIBOR settings on July 1, 2023. The Alternative Reference Rates Committee ("ARRC"), the U.S. working group tasked with assisting in the industry wide transition away from LIBOR, has supported the FCA's announcement of USD LIBOR cessation and has recommended the market adopt SOFR. To accelerate the transition away from LIBOR, the Federal Reserve Board, Federal Deposit Insurance Corporation and the Office of the Comptroller of the Currency issued joint supervisory guidance to cease entering into new contracts referencing USD LIBOR after December 31, 2021 (note there are limited exceptions related to derivative product use). We, similar to the broader industry, are transitioning away from LIBOR to alternative risk-free rates, such as SOFR. We continue to actively monitor and adjust our LIBOR transition strategy and timeline as necessary. Switching existing financial instruments from LIBOR to SOFR requires calculations of a spread. There is no assurance that the calculated spread will be fair and accurate or that all financial instruments will use the same spread.

Our 7.75% Fixed-to-Floating Series B Cumulative Redeemable Preferred Stock and our 7.50% Fixed-to-Floating Series C Cumulative Redeemable Preferred Stock each begin to pay a USD LIBOR-based rate at the time the stock becomes callable. On December 16, 2022, the Board of Governors of the Federal Reserve published a final rule to implement the Adjustable Interest Rate (LIBOR) Act. The final rule will become effective on February 27, 2023. The final rule establishes benchmark replacements for contracts governed by U.S. law that reference certain tenors of U.S. dollar LIBOR (the overnight and one-, three-, six- and 12- month tenors) and that do not have terms that provide for the use of a clearly defined and practicable replacement benchmark rate following the first London banking day after June 20, 2023. Under the final rule, the USD LIBOR-based rate currently contemplated to be paid when our 7.75% Fixed-to-Floating Series B Cumulative Redeemable Preferred Stock and our 7.50% Fixed-to-Floating Series C Cumulative Redeemable Preferred Stock become callable, will instead pay a SOFR-based rate in accordance with the LIBOR Act. This change in rate may adversely affect the amount of dividends payable on our preferred stock.

The Federal conservatorship of Fannie Mae and Freddie Mac and related efforts, along with any changes in laws and regulations affecting the relationship between these agencies and the U.S. Government, may adversely affect our business.

The payments of principal and interest we receive on our Agency MBS, which depend directly upon payments on the mortgages underlying such securities, are guaranteed by Fannie Mae, Freddie Mac, or Ginnie Mae. Fannie Mae and Freddie Mac are U.S. Government-sponsored entities, or GSEs, but their guarantees are not backed by the full faith and credit of the United States (although the FHFA largely controls their actions through its conservatorship of the two GSEs). Ginnie Mae is part of a U.S. Government agency and its guarantees are backed by the full faith and credit of the United States.

Although the U.S. Government has undertaken several measures to support the positive net worth of the GSEs since the financial crisis, there is no guarantee of continuing capital support, if such support were to become necessary. Despite the steps taken by the U.S. Government, GSEs could default on their guarantee obligations which would materially and adversely affect the value of our Agency MBS. Accordingly, if these government actions are inadequate in the future and the GSEs were to

suffer losses, be significantly reformed, or cease to exist, our business, operations and financial condition could be materially and adversely affected.

The future roles of the GSEs may be reduced (perhaps significantly) and the nature of their guarantee obligations could be limited relative to historical measurements. Alternatively, it is possible that the GSEs could be dissolved entirely or privatized, and, as mentioned above, the U.S. Government could determine to stop providing liquidity support of any kind to the mortgage market. Any changes to the nature of the GSEs or their guarantee obligations could redefine what constitutes an Agency MBS and could have broad adverse implications for the market and our business, operations and financial condition. If Fannie Mae or Freddie Mac were eliminated or their structures were to change, limiting or removing the guarantee obligation, we could be unable to acquire additional Agency MBS and our existing Agency MBS could be materially and adversely impacted.

All of the foregoing could negatively affect the availability and value of Agency MBS; our ability to obtain financing on our Agency MBS; or our ability to maintain our compliance with the terms of any financing transactions, which could adversely impact our results of operations, financial condition and business.

We operate in a highly competitive market for investment opportunities and competition may limit our ability to acquire desirable investments in our target assets and could also affect the pricing of these securities.

We operate in a highly competitive market for investment opportunities. Our profitability depends, in large part, on our ability to acquire our target assets at attractive prices. We compete with a variety of institutional investors, including other REITs, and many of our competitors are substantially larger and may have considerably greater financial, technical, marketing and other resources than we do. Some competitors may have a lower cost of funds and access to funding sources that may not be available to us. Many of our competitors are not subject to the operating constraints associated with REIT tax compliance or maintenance of an exemption from the 1940 Act. Furthermore, competition for investments in our target assets may lead to the price of such assets increasing, which may further limit our ability to generate desired returns. We cannot assure you that the competitive pressures we face will not have a material adverse effect on our business, financial condition and results of operations. Also, as a result of this competition, desirable investments in our target assets may be limited in the future, and we may not be able to take advantage of attractive investment opportunities from time to time.

We may acquire certain target assets that are subject to defaults, foreclosure timeline extension, fraud, residential and commercial price depreciation, and unfavorable modification of loan principal amount, interest rate and amortization of principal, which could result in losses to us.

Mortgage-backed securities are secured by mortgage loans (primarily pools of single-family residential property loans for RMBS and single commercial mortgage loans or pools of commercial mortgage loans for CMBS). Our MBS investments are subject to all the risks of the respective underlying mortgage loans, including risks of defaults, foreclosure timeline extension, fraud, price depreciation and unfavorable modification of loan principal amount, interest rate and amortization of principal.

A number of factors over which we have no control may impair a borrower's ability to repay a mortgage loan secured by a residential property, including the income and assets of the borrower. As of December 31, 2022, we do not hold any mortgage loans secured by residential property.

Commercial mortgage loans are secured by multifamily or commercial property and are subject to risks of delinquency and foreclosure, and risks of loss that may be greater than similar risks associated with loans made on the security of single-family residential property. The ability of a borrower to repay a loan secured by an income-producing property typically is dependent primarily upon the successful operation of such property, which can be affected by a number of factors over which we have no control, rather than upon the existence of independent income or assets of the borrower. If the net operating income of the property is reduced, the borrower's ability to repay the loan may be impaired. As of December 31, 2022, we do not hold any commercial mortgage loans.

In the event of any default under a mortgage loan held directly by us, we bear a risk of loss of principal to the extent of any deficiency between the value of the collateral and the principal and accrued interest of the mortgage loan, which could have a material adverse effect on our cash flow from operations.

In the event of defaults on the mortgage loans that underlie our investments and the exhaustion of any underlying or any additional credit support, we may not realize our anticipated return on our investments, and we may incur a loss on these investments causing an adverse impact on our results of operations, financial condition and business.

Our investments have and may include from time-to-time non-Agency RMBS collateralized by Alt-A and subprime mortgage loans, which are subject to increased risks.

Our investments include non-Agency RMBS backed by collateral pools of mortgage loans known as "Alt-A mortgage loans," or "subprime mortgage loans." These loans have been originated using underwriting standards that are less restrictive than those used in underwriting "prime mortgage loans." These include mortgage loans made to borrowers having imperfect or

impaired credit histories, mortgage loans where the amount of the loan at origination is 80% or more of the value of the mortgaged property, mortgage loans made to borrowers who have other debt that represents a large portion of their income and mortgage loans made to borrowers whose income is not required to be disclosed or verified. Due to economic conditions, a decline in home prices, and aggressive lending practices, many Alt-A and subprime mortgage loans originated before the 2008 financial crisis experienced rates of delinquency, foreclosure, bankruptcy and loss that were higher than those experienced by mortgage loans underwritten in a more traditional manner. Thus, because of the higher delinquency rates and losses associated with many Alt-A and subprime mortgage loans, the performance of non-Agency RMBS backed by Alt-A and subprime mortgage loans in which we invest could be correspondingly adversely affected, which could adversely impact our results of operations, financial condition and business.

Our subordinated MBS assets may be in the "first loss" position, subjecting us to greater risks of loss.

We may invest in certain tranches of MBS that are only entitled to a portion of the principal and interest payments made on mortgage loans underlying the securities issued by the trust. In general, losses on a mortgage loan included in a RMBS trust will be borne first by the equity holder of the issuing trust if any, and then by the "first loss" subordinated security holder and then by the "second loss" subordinate holder and so on. For non-Agency CMBS assets, losses on a mortgaged property securing a mortgage loan included in a securitization will typically be borne first by the equity holder of the property, then by a cash reserve fund or letter of credit, if any, then by the holder of a mezzanine loan or B-Note, if any, then by the "first loss" subordinated security holder (generally, the "B-Piece" buyer) and then by the holder of a more senior security.

We may acquire securities at every level of such a trust, from the equity position to the most senior tranche. In the event of default and the exhaustion of any classes of securities junior to those which we acquire, our securities will suffer losses as well. In addition, if we overvalue the underlying mortgage portfolio, or if the values subsequently decline and, as a result, less collateral is available to satisfy interest and principal payments due on the related MBS, the securities which we acquire may effectively become the "first loss" position ahead of the more senior securities, which may result in significant losses. The prices of lower credit quality securities are generally more sensitive to adverse economic downturns or individual issuer developments than more highly-rated securities. A projection of, or an actual, economic downturn could cause a decline in the value of lower credit quality securities because the ability of obligors of mortgages underlying MBS to make principal and interest payments may be impaired. In such an event, existing credit support in the securitization structure may be insufficient to protect us against loss of our principal on these securities.

We may not control the special servicing of the mortgage loans included in CMBS in which we invest, and, in such cases, the special servicer may take actions that could adversely affect our interests.

With respect to each series of CMBS in which we may invest, overall control over the special servicing of the related underlying mortgage loans is held by a "directing certificate holder" or a "controlling class representative," which is appointed by the holders of the most subordinate class of CMBS in such series. Depending on the class of CMBS in which we invest, we may not have the right to appoint the directing certificate holder. In connection with the servicing of the specially serviced mortgage loans, the related special servicer may, at the direction of the directing certificate holder, take actions with respect to the specially serviced mortgage loans that could adversely affect our interests and have a negative impact on our results of operations, financial condition and business.

Due diligence of potential assets may not reveal all of the liabilities associated with such assets and may not reveal other weaknesses in such assets, which could lead to losses.

Before making an asset acquisition, we will assess the strengths and weaknesses of the originator or issuer of the asset as well as other factors and characteristics that are material to the performance of the asset. In making the assessment and otherwise conducting customary due diligence, we will rely on resources available to us, including third party loan originators and servicers. This process is particularly important with respect to newly formed originators or issuers because there may be little or no information publicly available about these entities and assets. There can be no assurance that our due diligence process will uncover all relevant facts or that any asset acquisition will be successful, which could lead to losses in the value of our portfolio.

We depend on third-party service providers, including mortgage servicers, for a variety of services related to our RMBS. We are, therefore, subject to the risks associated with third-party service providers.

We depend on a variety of services provided by third-party service providers related to our RMBS. We rely on the mortgage servicers who service the mortgage loans backing our RMBS to, among other things, collect principal and interest payments and administer escrow accounts on the underlying mortgages and perform loss mitigation services. If a servicer is not vigilant in seeing that borrowers make their required monthly payments, borrowers may be less likely to make these payments, resulting in a higher frequency of default. If a servicer takes longer to liquidate non-performing mortgages, our losses related to those loans may be higher than originally anticipated. Any failure by servicers to service these mortgages and/or to competently manage and dispose of properties could negatively impact the value of these investments and our financial performance.

Further, the foreclosure process, especially in judicial foreclosure states such as New York, Florida and New Jersey, can be lengthy and expensive, and the delays and costs involved in completing a foreclosure and liquidating such property through sale may materially increase any related loss.

Commercial loans held-for-investment may include investments that involve greater risks of loss than senior loan assets secured by income-producing properties.

We have acquired in the past and may acquire in the future mezzanine loans, which take the form of subordinated loans secured by second mortgages on the underlying property or loans secured by a pledge of the ownership interests of either the entity owning the property or the entity that owns the interest in the entity owning the property. These types of assets involve a higher degree of risk than long-term senior mortgage lending secured by income-producing real property because the loan may become unsecured as a result of foreclosure by the senior lender. When an entity providing the pledge of its ownership interests as security goes bankrupt, we may not have full recourse to the assets of such entity, or the assets of the entity may not be sufficient to satisfy our mezzanine loan. If a borrower defaults on our mezzanine loan or debt senior to our loan, or in the event of a borrower bankruptcy, our mezzanine loan will be satisfied only after the senior debt. As a result, we may not recover some or all of our initial expenditure. In addition, mezzanine loans may have higher loan-to-value ratios than conventional mortgage loans, resulting in less equity in the property and increasing the risk of loss of principal.

In addition, we may acquire commercial loans structured as preferred equity investments. These investments involve a higher degree of risk than conventional debt financing due to a variety of factors, including their non-collateralized nature and subordinated ranking to other loans and liabilities of the entity in which such preferred equity is held. Accordingly, if the issuer defaults on our investment, we would only be able to proceed against such entity in accordance with the terms of the preferred security, and not against any property owned by such entity. Furthermore, in the event of bankruptcy or foreclosure, we would only be able to recoup our investment after all lenders to, and other creditors of, such entity are paid in full. As a result, we may lose all or a significant part of our investment, which could result in significant losses.

We may acquire B-Notes, mortgage loans typically (i) secured by a first mortgage on a single large commercial property or group of related properties and (ii) subordinated to an A-Note secured by the same first mortgage on the same collateral. As a result, if a borrower defaults, there may not be sufficient funds remaining for B-Note holders after payment to the A-Note holders. Further, B-Notes typically are secured by a single property and reflect the risks associated with significant concentration.

Significant losses related to our commercial loans held for investment would result in operating losses for us and may limit our ability to pay dividends to our stockholders. As of December 31, 2022, we do not hold any commercial loans held-for-investment.

A decline in the market value of our mortgage-backed securities may adversely affect our results of operations and financial condition.

All of our mortgage-backed securities are reported at fair value. Changes in the market values of these assets impact our stockholders' equity, and declines in market value adversely affect our book value per common share. For a discussion of how we determine our provision for credit losses, see Note 2 - "Summary of Significant Accounting Policies" of our consolidated financial statements in Part IV of this Report.

The fair value of certain of our investments may fluctuate over short periods of time, and our determinations of fair value may differ materially from the values that would have been used if a ready market for these investments existed. The value of our common stock and preferred stock, results of operations, our financial condition and business could be adversely affected if our determinations regarding the fair value of these investments were materially higher than the values that we ultimately realize upon their disposal.

During the year ended December 31, 2020, we experienced a significant decline in the fair value of our investments as a result of market conditions resulting from the COVID-19 pandemic. If we experience a decline in the fair value of our investments as a result of future uncertain market conditions, it could materially and adversely affect our business, results of operations, financial condition, stock price and ability to make distributions to our stockholders.

If our Manager underestimates the collateral loss on our investments, we may experience losses.

Our Manager values our potential investments based on loss-adjusted yields, taking into account estimated future losses on the mortgage loans that collateralize the investments, and the estimated impact of these losses on expected future cash flows. Our Manager's loss estimates may not prove accurate, as actual results may vary from estimates. If our Manager underestimates losses relative to the price we pay for a particular investment, we may experience losses or a lower yield than expected.

If we foreclose on an asset, we may come to own and operate the property securing the loan, which would expose us to the risks inherent in that activity.

When we foreclose on an asset, we may take title to the property securing that asset, and if we do not or cannot sell the property, we would then come to own and operate it as "real estate owned." Owning and operating real property involves risks that are different (and in many ways more significant) than the risks faced in owning an asset secured by that property. In addition, we may end up owning a property that we would not otherwise have decided to acquire directly at the price of our original investment or at all. We may not manage these properties as well as they might be managed by another owner, and our returns to investors could suffer. If we foreclose on and come to own property, our financial performance and returns to stockholders could suffer.

Liability relating to environmental matters may impact the value of properties that we may acquire or foreclose on and may impact the owner's ability to make payments on loans related to the property.

If we acquire or foreclose on properties with respect to which we have extended mortgage loans, we may be subject to environmental liabilities arising from such foreclosed properties. Under various U.S. federal, state and local laws, an owner or operator of real property may become liable for the costs of removal of certain hazardous substances released on its property. These laws often impose liability without regard to whether the owner or operator knew of, or was responsible for, the release of such hazardous substances.

The presence of hazardous substances may adversely affect an owner's ability to sell real estate or use real estate as collateral when borrowing. To the extent that an owner of a property underlying one of our debt investments becomes liable for removal costs, the ability of the owner to make payments to us may be reduced, which in turn may adversely affect the value of the relevant mortgage asset held by us and our ability to pay dividends to our stockholders. If we acquire any properties, the presence of hazardous substances on a property may adversely affect our ability to sell the property and we may incur substantial remediation costs, thus harming our financial condition. The discovery of material environmental liabilities attached to such properties could have a material adverse effect on our results of operations and financial condition and our ability to pay dividends to our stockholders.

Risks Related to Financing and Hedging

We use leverage in executing our business strategy, which may adversely affect the return on our assets, reduce cash available for distribution to our stockholders and/or increase losses when economic conditions are unfavorable.

We use leverage to finance our assets through borrowings from repurchase agreements and other secured and unsecured forms of borrowing. The amount of leverage we may deploy for particular assets will depend upon our Manager's assessment of the credit and other risks of those assets and is limited by our debt covenants.

Our access to financing depends upon a number of factors over which we have little or no control, including:

- general market conditions;
- the lender's view of the quality of our assets, valuation of our assets and our liquidity;
- the lender's perception of our growth potential;
- regulatory requirements;
- our current and potential future earnings and cash distributions; and
- the market price of the shares of our capital stock.

Any weakness or volatility in the financial markets, the residential and commercial mortgage markets or the economy generally could adversely affect the factors listed above. In addition, such weakness or volatility could adversely affect one or more of our lenders and could cause one or more of our lenders to be unwilling or unable to provide us with financing or to increase the costs of that financing. Some of our target assets may be more difficult to finance than others and the market for such financing can change based on many factors over which we have little or no control.

To the extent that market conditions prevent us from leveraging our assets or cause the cost of our financing to increase relative to the income that can be derived from the assets acquired, the return on our assets and cash available for distribution to our stockholders may be reduced. Our financing costs will reduce cash available for distributions to stockholders. We may not be able to meet our financing obligations, and, to the extent that we cannot, we risk the loss of some or all of our assets to liquidation or sale to satisfy the obligations.

We depend on repurchase agreement financing to acquire our target assets, and our inability to access this funding on acceptable terms could have a material adverse effect on our results of operations, financial condition and business.

We use repurchase agreement financing as a strategy to increase the return on our assets. As a result of market disruptions from the COVID-19 pandemic, investors and financial institutions that lend in the securities repurchase market tightened lending standards in response to the difficulties and changed economic conditions that materially adversely affected the RMBS market. These market disruptions were most pronounced in the non-Agency RMBS and non-Agency CMBS markets, but the impact also extended to Agency RMBS, which has made the value of these assets unstable and relatively illiquid compared to prior periods. These market disruptions could potentially increase our financing costs and reduce our liquidity.

Our ability to fund our target assets may be impacted by our ability to secure repurchase agreement financing on acceptable terms. We can provide no assurance that lenders will be willing or able to provide us with sufficient financing. In addition, because repurchase agreements are short-term commitments of capital, lenders may respond to market conditions in a manner that makes it more difficult for us to renew or replace, on a continuous basis, maturing short-term financings, and have and may continue to impose less favorable conditions when rolling such financings. If we are not able to renew or roll our repurchase agreements or arrange for new financing on terms acceptable to us, or if we default on our financial covenants, are otherwise unable to access funds under our financing arrangements, or if we are required to post more collateral or face larger haircuts on our financings, we may have to dispose of assets at significantly lower prices and at inopportune times, which could cause significant losses, and may also force us to limit our asset acquisition activities.

During market disruptions, such as during the COVID-19 pandemic, lenders have and may curtail their willingness to provide financing. This may require us to liquidate collateral to satisfy funding requirements. In addition, if major market participants were to exit the repurchase agreement financing business, the value of our portfolio could be negatively impacted, thus reducing our stockholders' equity, or book value per common share. In addition, if the regulatory capital requirements imposed on our lenders change, they may be required to significantly increase the cost of the financing that they provide to us. Our lenders also may revise their eligibility requirements for the types of assets they are willing to finance or the terms of such financings, based on, among other factors, the regulatory environment and their management of perceived risk, particularly with respect to assignee liability.

The inherent uncertainty of repurchase transactions, including counterparty credit risk, may cause us to incur a loss on our repurchase transactions.

When we engage in repurchase transactions, we generally sell securities to lenders (repurchase agreement counterparties) and receive cash from these lenders. The lenders are obligated to resell the same securities back to us at the end of the term of the transaction. Because the cash we receive from the lender when we initially sell the securities to the lender is less than the value of those securities (this difference is the haircut), if the lender defaults on its obligation to resell the same securities back to us we may incur a loss on the transaction equal to the amount of the haircut (assuming there was no change in the value of the securities). As of December 31, 2022, no counterparty held collateral that exceeded the amounts borrowed under the related repurchase agreements by more than \$40.2 million, or 5% of our stockholders' equity. We may incur a loss on a repurchase transaction if the value of the underlying securities has declined as of the end of the transaction term, as we would have to repurchase the securities for their initial value but would receive securities worth less than that amount. Further, if we default on one of our obligations under a repurchase transaction, the lender can terminate the transaction and refrain from entering into any other repurchase transactions with us. Some of our repurchase agreements contain cross-default provisions, so that if a default occurs under any one agreement, the lenders under our other agreements could also declare a default. Any losses we incur on our repurchase transactions could adversely affect our earnings and thus our cash available for distribution to our stockholders.

The repurchase agreements and other financing arrangements that we use to finance our investments may require us to provide additional collateral and may restrict us from leveraging our assets as fully as desired.

The amount of financing we receive, or may in the future receive, under our repurchase agreements and other financing arrangements, is directly related to the lenders' valuation of the assets that secure the outstanding borrowings. Lenders under our repurchase agreements typically have the absolute right to reevaluate the market value of the assets that secure outstanding borrowings at any time. If a lender determines in its sole discretion that the value of the assets has decreased, it has the right to initiate a margin call or increase collateral requirements, even if we believe that the decrease in value is temporary including as a result of market volatility. Either decision would require us to transfer additional assets to such lender without any advance of funds from the lender or to repay a portion of the outstanding borrowings. Any such margin call or increased collateral requirements could have a material adverse effect on our results of operations, financial condition, business, liquidity and ability to pay dividends to our stockholders, and could cause the value of our capital stock to decline. We may be forced to sell assets at significantly depressed prices to meet such margin calls and to maintain adequate liquidity, which could cause us to incur losses. Moreover, to the extent we are forced to sell assets at such time, given market conditions, we may be selling at the same time as others facing similar pressures, which could exacerbate a difficult market environment, and which could result in our incurring significantly greater losses on our sale of such assets. In an extreme case of market duress, a market may not even

be present for certain of our assets at any price. Such a situation would likely result in a rapid deterioration of our financial condition and possibly necessitate a filing for bankruptcy protection.

Further, financial institutions providing the repurchase facilities may require us to maintain a certain amount of cash uninvested or to set aside non-levered assets sufficient to maintain a specified liquidity position which would allow us to satisfy our collateral obligations. As a result, we may not be able to leverage our assets as fully as desired, which could reduce our return on stockholders' equity. If we are unable to meet these collateral obligations, our financial condition could deteriorate rapidly.

A failure to comply with covenants in our repurchase agreements and other financing arrangements would have a material adverse effect on us, and any future financings may require us to provide additional collateral or pay down debt.

We are subject to various covenants contained in our existing financing arrangements and may become subject to additional covenants in connection with future financings. Many of our master repurchase agreements require us to maintain compliance with various financial covenants, including a minimum tangible net worth, specified financial ratios (such as total debt to total assets) and financial information delivery obligations. These covenants may limit our flexibility to pursue certain investments or incur additional debt. If we fail to meet or satisfy any of these covenants, we would be in default under these agreements, and our lenders could elect to declare outstanding amounts due and payable, terminate their commitments, require the posting of additional collateral and/or enforce their interests against existing collateral. We may also be subject to cross-default and acceleration rights and, with respect to collateralized debt, the posting of additional collateral and foreclosure rights upon default. Further, this could also make it difficult for us to satisfy the distribution requirements necessary to maintain our status as a REIT for U.S. federal income tax purposes.

Our use or future use of repurchase agreements to finance our target assets may give our lenders greater rights if either we or a lender files for bankruptcy.

Our borrowings or future borrowings under repurchase agreements for our target assets may qualify for special treatment under the U.S. Bankruptcy Code. This would give our lenders the ability to avoid the automatic stay provisions of the U.S. Bankruptcy Code and to take possession of and liquidate the assets that we have pledged under their repurchase agreements, without delay, if we file for bankruptcy. Furthermore, the special treatment of repurchase agreements under the U.S. Bankruptcy Code may make it difficult for us to recover our pledged assets if a lender party to such agreement files for bankruptcy.

We enter into hedging transactions that could expose us to contingent liabilities in the future.

Part of our investment and financing strategy involves entering into hedging transactions that could require us to fund cash payments in certain circumstances (such as the early termination of the hedging instrument caused by an event of default or the decision by a counterparty to request margin securities it is contractually owed under the terms of the hedging instrument). The amount due would be equal to the unrealized loss of the open positions with the respective counterparty and could also include other fees and charges. Such economic losses would be reflected in our results of operations, and our ability to fund these obligations would depend on the liquidity of our assets and access to capital at the time, and the need to fund these obligations could adversely impact our financial condition.

Hedging may adversely affect our earnings, which could reduce our cash available for distribution to our stockholders.

We pursue various hedging strategies to seek to reduce our exposure to adverse changes in interest rates on our liabilities and currency exchange rates. Our hedging activity varies in scope based on the level and volatility of interest rates, currency exchange rates, the type of assets held and other changing market conditions. Hedging may fail to protect or could adversely affect our earnings because, among other things:

- interest rate and/or currency hedging can be expensive, particularly during periods of volatile markets;
- available interest rate hedges may not correspond directly with the interest rate risk for which protection is sought;
- the duration of the hedges may not match the duration of the liabilities;
- the amount of income that a REIT may earn from hedging transactions (other than hedging transactions that satisfy certain requirements of the Internal Revenue Code or that are done through a taxable REIT subsidiary ("TRS")) to offset interest rate losses is limited by U.S. federal tax provisions governing REITs;
- the credit quality of the hedging counterparty owing money on the hedge may be downgraded to such an extent that it impairs our ability to sell or assign our side of the hedging transaction; and
- the hedging counterparty owing money in the hedging transaction may default on its obligation to pay.

In addition, the enforceability of agreements underlying hedging transactions may depend on compliance with applicable statutory and commodity and other regulatory requirements and, depending on the identity of the counterparty, applicable

international requirements. Any actions taken by regulators could constrain our investment strategy and could increase our costs, either of which could materially and adversely impact our results of operations.

We may enter into derivative contracts that expose us to contingent liabilities, and those contingent liabilities may not appear on our balance sheet. We may invest in synthetic securities, credit default swaps, and other credit derivatives, which expose us to additional risks.

We have entered into, and may again in the future enter into, derivative contracts that could require us to make cash payments in certain circumstances. Potential payment obligations would be contingent liabilities and may not appear on our balance sheet. Our ability to satisfy these contingent liabilities depends on the liquidity of our assets and our access to capital and cash. The need to fund these contingent liabilities could adversely impact our financial condition.

We may invest in synthetic securities, credit default swaps, and other credit derivatives that reference other real estate securities or indices. These investments may present risks in excess of those resulting from the referenced security or index. These investments are typically a contractual relationship with counterparties and not an acquisition of a referenced security or other asset. In these types of investments, we have no right to directly enforce compliance with the terms of the referenced security or other assets and we have no voting or other consensual rights of ownership with respect to the referenced security or other assets. In the event of insolvency of a counterparty, we will be treated as a general creditor of the counterparty and will have no claim of title with respect to the referenced security.

The markets for these types of investments may not be liquid. Many of these investments incorporate "pay as you go" credit events. For example, the terms of credit default swaps are still evolving and may change significantly, which could make it more difficult to assign such an instrument or determine the "loss" under the underlying agreement. In a credit default swap, the party wishing to "buy" protection will pay a premium. When interest rates, spreads or the prevailing credit premiums on credit default swaps change, the amount of the termination payment due could change by a substantial amount. In an illiquid market, the determination of this change could be difficult to ascertain and, as a result, we may not achieve the desired benefit of entering into this contractual relationship.

As of December 31, 2022, we have no outstanding credit default swaps. We may over time enter into these types of investments as the market for them evolves and during times when acquiring other real estate loans and securities may be difficult. We may find credit default swaps and other forms of synthetic securities to be a more efficient method of providing exposure to target investments. Our efforts to manage the risk associated with these investments, including counterparty risks, may prove to be insufficient in enabling us to generate the returns anticipated.

It may be uneconomical to "roll" Agency MBS TBA holdings, or we may be unable to meet margin calls on TBA contracts, which could negatively affect our financial condition and results of operations.

We invest in Agency MBS TBA securities as an alternate means of gaining exposure to the Agency MBS market. A TBA contract is an agreement to purchase or sell, for future delivery, an Agency MBS with a specified issuer, term and coupon. A TBA dollar roll is a transaction where two TBA contracts with the same terms but different settlement dates are simultaneously bought and sold. The price difference between those two contracts is commonly referred to as the "drop" and is a reflection of the expected net interest income from an investment in similar Agency mortgage-backed securities, net of an implied financing cost, which would be foregone as a result of settling the contract in the later month rather than in the earlier month. Accordingly, TBA dollar roll income generally represents the economic equivalent of the net interest income earned on the underlying Agency mortgage-backed security less an implied financing cost. Consequently, dollar roll transactions and such forward purchases of Agency securities represent a form of off-balance sheet financing and increase our "at risk" leverage.

The economic return of a TBA dollar roll generally equates to interest income on a generic TBA-eligible security less an implied financing cost, and there may be situations in which the implied financing cost exceeds the interest income, resulting in negative carry on the position. If we roll our TBA dollar roll positions when they have a negative carry, the positions would decrease net income and amounts available for distributions to stockholders.

There may be situations in which we are unable or unwilling to roll our TBA dollar roll positions. The TBA transaction could have a negative carry or otherwise be uneconomical, we may be unable to find counterparties with whom to trade in sufficient volume, or we may be required to collateralize the TBA positions in a way that is uneconomical. Because TBA dollar rolls represent implied financing, an inability or unwillingness to roll has effects similar to any other loss of financing. If we do not roll our TBA positions before the settlement date, we would have to take delivery of the underlying securities and settle our obligations for cash. We may not have sufficient funds or alternative financing sources available to settle such obligations. Counterparties may also make margin calls as the value of a generic TBA-eligible security (and therefore the value of the TBA contract) declines. Margin calls on TBA positions, or failure to roll TBA positions, could have the effects described in the liquidity risks described above.

Risks Related to Our Company

Maintaining 1940 Act exclusions for our subsidiaries imposes limits on our operations, and failure to maintain an exclusion could have a material negative impact on our operations.

We conduct our operations so that neither we, nor our operating partnership, IAS Operating Partnership LP (the "Operating Partnership"), nor the subsidiaries of the Operating Partnership are required to register as an investment company under the 1940 Act.

Section 3(a)(1)(A) of the 1940 Act defines an investment company as any issuer that is or holds itself out as being engaged primarily in the business of investing, reinvesting or trading in securities. We believe neither we nor our Operating Partnership will be considered an investment company under Section 3(a)(1)(A) of the 1940 Act. Rather, through our Operating Partnership's wholly owned or majority-owned subsidiaries, we and our Operating Partnership will be primarily engaged in the non-investment company businesses of these subsidiaries, namely the business of purchasing or otherwise acquiring real property, mortgages and other interests in real estate.

Section 3(a)(1)(C) of the 1940 Act defines an investment company as any issuer that is engaged or proposes to engage in the business of investing, reinvesting, owning, holding or trading in securities and owns or proposes to acquire investment securities having a value exceeding 40% of the value of the issuer's total assets (exclusive of U.S. government securities and cash items) on an unconsolidated basis, which we refer to as the 40% test. Excluded from the term "investment securities," among other things, are U.S. government securities and securities issued by majority-owned subsidiaries that are not themselves investment companies and are not relying on the exception from the definition of investment company set forth in Section 3(c)(1) or Section 3(c)(7) of the 1940 Act.

We are a holding company that conducts business through the Operating Partnership and the Operating Partnership's wholly owned or majority-owned subsidiaries. Both we and the Operating Partnership conduct our operations so that we comply with the 40% test. Accordingly, the securities issued by these subsidiaries that are excepted from the definition of "investment company" under Section 3(c)(1) or Section 3(c)(7) of the 1940 Act, together with any other investment securities the Operating Partnership may own, may not have a value in excess of 40% of the value of the Operating Partnership's total assets (exclusive of U.S. government securities and cash items) on an unconsolidated basis. Compliance with the 40% test limits the types of businesses in which we are permitted to engage through our subsidiaries. Furthermore, certain of the Operating Partnership's current subsidiaries and subsidiaries that we may form in the future intend to rely upon an exception from the definition of investment company under Section 3(c)(5)(C) of the 1940 Act, which is available for entities "primarily engaged in the business of purchasing or otherwise acquiring mortgages and other liens on and interests in real estate." This exception generally requires that at least 55% of a subsidiary's portfolio must be comprised of qualifying assets and at least 80% of its portfolio must be comprised of qualifying assets and real estate-related assets (and no more than 20% comprised of miscellaneous assets). In analyzing a subsidiary's compliance with Section 3(c)(5)(C) of the 1940 Act, we classify investments based in large measure on SEC staff guidance, including no-action letters, and, in the absence of SEC guidance, on our view of what constitutes a qualifying real estate asset and a real estate-related asset.

Qualification for an exception from the definition of investment company under the 1940 Act limits our ability to make certain investments. Therefore, the Operating Partnership's subsidiaries may need to adjust their respective assets and strategy from time-to-time to continue to rely on the exception from the definition of investment company under Section 3(c)(5)(C) of the 1940 Act. Any such adjustment in assets or strategy is not expected to have a material adverse effect on our business or strategy. There can be no assurance that we will be able to maintain this exception from the definition of investment company for the Operating Partnership's subsidiaries intending to rely on Section 3(c)(5)(C) of the 1940 Act.

We may in the future organize one or more subsidiaries that seek to rely on other exceptions from being deemed an investment company under the 1940 Act. Any such subsidiary would need to be structured to comply with any guidance that may be issued by the SEC staff, including no-action letters, and, in the absence of SEC guidance, on our view of what constitutes a qualifying real estate asset and a real estate-related asset.

There can be no assurance that the laws and regulations governing the 1940 Act status of REITs will not change in a manner that adversely affects our operations or inhibits our ability to pursue our strategies. Any issuance of more specific or different guidance relating to the relevant exemptions and exceptions from the definition of an investment company under the 1940 Act could similarly affect or inhibit our operations. If we, the Operating Partnership or its subsidiaries fail to maintain an exemption from the 1940 Act, we could, among other things, be required to (a) change the investments that we hold or the manner in which we conduct our operations to avoid being required to register as an investment company, (b) effect sales of our assets in a manner that, or at a time when, we would not otherwise choose to do so, or (c) register as an investment company. Any of these events could cause us to incur losses and negatively affect the value of our capital stock, the sustainability of our business model, and our ability to pay dividends, which could have an adverse effect on our business and the market price for our shares of capital stock. In addition, if it were established that we were an unregistered investment company, there would be a risk that we would be subject to monetary penalties or injunctive relief imposed by the SEC.

We are highly dependent on information systems and systems failures or cyber-attacks could significantly disrupt our business, which may, in turn, negatively affect the market price of our capital stock and our ability to pay dividends.

Our business is highly dependent on third parties' information systems, including those of our Manager and other service providers. Although our Manager has implemented, and other service providers may implement, various measures to manage risks relating to these types of systems, such measures could prove to be inadequate and, if compromised, the systems could become inoperable for extended periods of time, cease to function properly or fail to adequately secure confidential information. We do not control the cyber security plans and systems put in place by our Manager and third-party service providers, and such service providers may have limited indemnification obligations to us or our Manager. Any failure or interruption of such systems or cyber-attacks or security breaches could cause delays or other problems in our securities trading activities and financial, accounting and other data processing activities, which could have a material adverse effect on our operating results and negatively affect the market price of our capital stock and our ability to pay dividends to our stockholders. In addition, we also face the risk of operational failure, termination or capacity constraints of any of the third parties with which we do business or that facilitate our business activities, including clearing agents or other financial intermediaries we use to facilitate our securities transactions.

Computer malware, viruses and computer hacking and phishing attacks have become more prevalent and severe in our industry and may occur on our Manager's and other service providers' systems in the future. Cyber-attacks and other security threats could originate from a wide variety of sources, including cyber criminals, nation state hackers, hacktivists and other outside parties. There has been an increase in the frequency and sophistication of the cyber and security threats our Manager faces, with attacks ranging from those common to businesses generally to those that are more advanced and persistent, which may target our Manager due to the confidential and sensitive information it holds about its investors, funds, and potential investments. It is difficult to determine what, if any, negative impact may directly result from any specific interruption or cyber-attacks or security breaches of such networks or systems or any failure to maintain the performance, reliability and security of our technical infrastructure. As a result, any computer malware, viruses and computer hacking and phishing attacks may disrupt our normal business operations and expose us to reputational damage and lost business, revenues and profits. Any insurance we maintain against the risk of this type of loss may not be sufficient to cover all actual losses or may not apply to circumstances relating to any particular breach or other cyber event.

Our Manager utilizes quantitative models to support investment decisions and investment processes, including those related to our portfolio management and risk analysis, which may contain errors.

Our Manager utilizes quantitative models to support investment decisions and investment processes, including those related to our portfolio management and risk analysis. Any errors in the underlying models or model assumptions could have unanticipated and adverse consequences on our business and reputation.

We may repurchase shares of our common stock and preferred stock from time to time. Share repurchases may negatively impact our compliance with covenants in our financing agreements and regulatory requirements (including maintaining exclusions from the requirements of the 1940 Act and qualification as a REIT). Any compliance failures associated with share repurchases could have a material negative impact on our business, financial condition and results of operations. Share repurchases also may negatively impact our ability to invest in our target assets in the future.

As of December 31, 2022, 1,816,398 shares of common stock were available under our Board-authorized share repurchase program. In May 2022, our board of directors approved a share repurchase program for our Series B and Series C Preferred Stock. During the year ended December 31, 2022, we repurchased and retired 1,662,366 shares of our Series B Preferred Stock and 3,683,530 shares of our Series C Preferred Stock. As of December 31, 2022, we had authority to purchase 1,337,634 additional shares of our Series B Preferred Stock and 1,316,470 additional shares of our Series C Preferred Stock under the current share repurchase program.

We may engage in share repurchases from time-to-time through open market purchases, including block purchases or privately negotiated transactions, or under any trading plan that may be adopted in accordance with Rules 10b5-1 and 10b-18 of the Exchange Act. Certain of our financing agreements have financial covenants, including covenants related to maintaining a certain level of stockholders' equity, that may be impacted by our share repurchases. In addition, we generally fund share repurchases with interest income or income from the sale of our assets. The sale of assets to fund share repurchases could impact the allocation of our portfolio for purposes of maintaining an exclusion from the requirements of the 1940 Act and could impact our ability to comply with income and asset tests required to qualify as a REIT. The failure to comply with covenants in our financing agreements, to maintain our exemption from the 1940 Act or to qualify as a REIT could have a material negative impact on our business, financial condition and results of operations. In addition, our decision to repurchase shares of our common stock or other securities and reduce our stockholders' equity could adversely affect our competitive position and could negatively impact our ability in the future to invest in assets that have a greater potential return than the repurchase of our common stock.

Risks Related to Accounting

The preparation of our financial statements involves use of estimates, judgments and assumptions, and our financial statements may be materially affected if our estimates prove to be inaccurate.

Financial statements prepared in accordance with U.S. GAAP require the use of estimates, judgments and assumptions that affect the reported amounts. Different estimates, judgments and assumptions reasonably could be used that would have a material effect on the financial statements, and changes in these estimates, judgments and assumptions are likely to occur from period to period in the future. Significant areas of accounting requiring the application of management's judgment include, but are not limited to, determining the fair value of investment securities and interest income recognition. These estimates, judgments and assumptions are inherently uncertain, and, if they prove to be wrong, we face the risk that charges to income will be required. Any such charges could significantly harm our business, financial condition, results of operations and the price of our securities. Refer to Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations - Critical Accounting Policies and Estimates" in Part II of this Report for a discussion of the accounting estimates, judgments and assumptions that we believe are the most critical to an understanding of our business, financial condition and results of operations.

Changes in the fair value of our derivatives may result in volatility in our U.S. GAAP earnings.

We enter into derivative transactions to reduce the impact that changes in interest rates will have on our net interest margin. Changes in the fair value of our derivatives are recorded in our consolidated statement of operations as "gain (loss) on derivative instruments, net" and may result in volatility in our U.S. GAAP earnings. The total changes in fair value may exceed our consolidated net income in any period or for a full year. Volatility in our net income may adversely affect the price of our capital stock.

Our reported U.S. GAAP financial results differ from our REIT taxable income, which impacts our dividend distribution requirements. Therefore, our U.S. GAAP results may not be an accurate indicator of future taxable income and dividend distributions.

Generally, the cumulative net income we report over the life of an asset will be the same for U.S. GAAP and tax purposes, although the timing of this income recognition over the life of the asset could be materially different. Differences exist in the accounting for U.S. GAAP net income and REIT taxable income, which can lead to significant variances in the amount and timing of when income and losses are recognized under these two measures. Due to these differences, our reported U.S. GAAP financial results could materially differ from our determination of REIT taxable income, which impacts our dividend distribution requirements. Therefore, our U.S. GAAP results may not be an accurate indicator of future REIT taxable income and dividend distributions. Capital gains and losses in a period may impact REIT taxable income and impact the dividend paid in future periods.

Risks Related to Our Relationship with Our Manager

We are dependent on our Manager and its key personnel for our success.

We have no separate facilities and are completely reliant on our Manager. We do not have any employees. Our executive officers are employees of our Manager or one of its affiliates. Our Manager has significant discretion as to the implementation of our investment and operating policies and strategies. Accordingly, we believe that our success depends to a significant extent upon the efforts, experience, diligence, skill and network of business contacts of the executive officers and key personnel of our Manager. The executive officers and key personnel of our Manager evaluate, negotiate, close and monitor our investments; therefore, our success depends on their continued service. The departure of any of the executive officers or key personnel of our Manager who provide management services to us could have a material adverse effect on our performance. In addition, we offer no assurance that our Manager will remain our investment manager or that we will continue to have access to our Manager's professionals. The initial term of our management agreement with our Manager expired on July 1, 2011. The agreement automatically renews for successive one-year terms, and the management agreement is currently in a renewal term. If the management agreement is terminated and no suitable replacement is found to manage us, we may not be able to execute our business plan. Moreover, our Manager is not obligated to dedicate certain of its personnel exclusively to us nor is it obligated to dedicate any specific portion of its time to our business.

There are conflicts of interest in our relationship with our Manager and Invesco, which could result in decisions that are not in the best interests of our stockholders.

We are subject to conflicts of interest arising out of our relationship with Invesco and our Manager. Specifically, each of our officers and certain members of our board of directors are employees of our Manager or one of its affiliates. Our Manager and our executive officers may have conflicts between their duties to us and their duties to, and interests in, Invesco. We compete for investment opportunities directly with other client accounts and funds managed by our Manager or Invesco and its

subsidiaries. A substantial number of client accounts and funds managed by our Manager have exposure to our target assets. In addition, in the future our Manager may have additional clients or fund products that compete directly with us for investment opportunities.

Our Manager and our executive officers may choose to allocate favorable investments to other clients of Invesco instead of to us. Further, when there are turbulent conditions in the mortgage markets, distress in the credit markets or other times when we will need focused support and assistance from our Manager, Invesco or entities for which our Manager also acts as an investment manager will likewise require greater focus and attention, placing our Manager's resources in high demand. In such situations, we may not receive the level of support and assistance that we may have received if we were internally managed or if our Manager did not act as a manager for other entities. Our Manager has investment allocation policies in place where appropriate intended to enable us to share equitably with the other clients and fund products of our Manager or Invesco and its subsidiaries. There is no assurance that our Manager's allocation policies that address some of the conflicts relating to our access to investment and financing sources will be adequate to address all of the conflicts that may arise. Therefore, we may compete for investment or financing opportunities sourced by our Manager and, as a result, we may either not be presented with the opportunity or have to compete with other clients and fund products of our Manager or clients and fund products of Invesco and its subsidiaries to acquire these investments or have access to these sources of financing.

Our Manager would have a conflict in recommending our participation in any equity investment it manages.

Our Manager has a conflict of interest in recommending our participation in any equity investment it manages because the fees payable to it may be greater than the fees payable by us under the management agreement. With respect to equity investments we have made in partnerships managed by an affiliate of our Manager, our Manager has agreed to waive base management fees at the equity investment level to avoid duplication of fees. To address any potential conflict of interest, we require the terms of any equity investment managed by our Manager to be approved by our audit committee consisting of our independent directors. However, there can be no assurance that all conflicts of interest will be eliminated.

The management agreement with our Manager was not negotiated on an arm's-length basis and may not be as favorable to us as if it had been negotiated with an unaffiliated third party, and it may be costly and difficult to terminate.

Our executive officers and certain members of our board of directors are employees of our Manager or one of its affiliates. Our management agreement with our Manager was negotiated between related parties and its terms, including fees payable, may not be as favorable to us as if it had been negotiated with an unaffiliated third party.

Termination of the management agreement with our Manager without cause is difficult and costly. Our independent directors review our Manager's performance and the management fees annually, and the management agreement may be terminated annually upon the affirmative vote of at least two-thirds of our independent directors based upon: (1) our Manager's unsatisfactory performance that is materially detrimental to us, or (2) a determination that the management fees payable to our Manager are not fair, subject to our Manager's right to prevent termination based on unfair fees by accepting a reduction of management fees agreed to by at least two-thirds of our independent directors. Additionally, upon such a termination, the management agreement provides that we will pay our Manager a termination fee equal to three times the sum of our average annual management fee during the 24-month period before termination, calculated as of the end of the most recently completed fiscal quarter. These provisions may increase the cost of terminating the management agreement and may adversely affect our ability to terminate our Manager without cause. If the management agreement is terminated and no suitable replacement is found to manage us, we may not be able to execute our business plan.

Under the management agreement, our Manager does not assume any responsibility other than to render the services called for thereunder and is not responsible for any action of our board of directors in following or declining to follow its advice or recommendations. Our Manager maintains a contractual, as opposed to a fiduciary, relationship with us. Under the terms of the management agreement, our Manager, its officers, stockholders, members, managers, partners, directors and personnel, any person controlling or controlled by our Manager and any person providing sub-advisory services to our Manager will not be liable to us, any subsidiary of ours, our directors, our stockholders or any subsidiary's stockholders or partners for acts or omissions performed in accordance with and pursuant to the management agreement, except because of acts constituting bad faith, willful misconduct, gross negligence, or reckless disregard of their duties under the management agreement, as determined by a final non-appealable order of a court of competent jurisdiction. We have agreed to indemnify our Manager, its officers, stockholders, members, managers, directors and personnel, any person controlling or controlled by our Manager and any person providing sub-advisory services to our Manager with respect to all expenses, losses, damages, liabilities, demands, charges and claims arising from acts of our Manager not constituting bad faith, willful misconduct, gross negligence, or reckless disregard of duties, performed in good faith in accordance with and pursuant to the management agreement.

Our board of directors approved very broad investment guidelines for our Manager and does not approve each investment and financing decision made by our Manager.

Our Manager is authorized to follow very broad investment guidelines. Our board of directors will periodically review our investment guidelines and our investment portfolio but does not, and is not required to, review all of our proposed investments, except that an investment in a security structured or issued by an entity managed by Invesco must be approved by our Audit Committee before such investment may be made. In addition, in conducting periodic reviews, our board of directors may rely primarily on information provided to them by our Manager. Our Manager has great latitude within the broad parameters of our investment guidelines in determining the types and amounts of target assets and financing arrangements it may decide are attractive investments for us, which could result in investment returns that are substantially below expectations or that result in losses, which would materially and adversely affect our business operations and results.

Risks Related to Our Capital Stock

We have not established a minimum dividend payment level, and we cannot assure our stockholders of our ability to pay dividends in the future.

We pay quarterly dividends to our stockholders in an amount such that we distribute all or substantially all of our REIT taxable income in each year, subject to certain adjustments. We have not established a minimum dividend payment level, and our ability to pay dividends may be adversely affected by a number of factors, including the risk factors described in this Report. All dividends will be made at the discretion of our board of directors and will depend on our earnings, our financial condition, debt covenants, maintenance of our REIT qualification, applicable provisions of Maryland law and other factors as our board of directors may deem relevant from time to time. We believe that a change in any one of the following factors and other factors described in the risk factors in this Report could adversely affect our results of operations and impair our ability to pay dividends to our stockholders:

- our ability to make profitable investments;
- margin calls or other expenses that reduce our cash flow;
- defaults in our asset portfolio or decreases in the value of our portfolio; and
- the fact that anticipated operating expense levels may not prove accurate, as actual results may vary from estimates.

We cannot assure our stockholders that we will achieve investment results that will allow us to make a specified level of cash distributions or increases in cash distributions in the future. In addition, some of our distributions may include a return of capital.

Future offerings of debt or equity securities that would rank senior to our common stock may adversely affect the market price of our common stock.

We have shares of Series B Preferred Stock and Series C Preferred Stock issued and outstanding. If we decide to issue debt or equity securities in the future that would rank senior to our common stock, it is likely that they will be governed by an indenture or other instrument containing covenants restricting our operating flexibility. Any convertible or exchangeable securities that we issue in the future may have rights, preferences and privileges more favorable than those of our common stock and may result in dilution to owners of our common stock. For example, our preferred shares have a preference on liquidating distributions and a preference on dividend payments that could limit our ability to make a distribution to the holders of our common stock. We and, indirectly, our stockholders, will bear the cost of issuing and servicing such securities. Because our decision to issue debt or equity securities in any future offering will depend on market conditions and other factors beyond our control, we cannot predict or estimate the amount, timing or nature of our future offerings.

Holders of our common stock are not entitled to preemptive rights or other protections against dilution. Thus, holders of our common stock will bear the risk of our future offerings reducing the market price of our common stock and diluting the value of their stock holdings in us. In addition, future issuances and sales of preferred stock on parity to our Series B Preferred Stock or the Series C Preferred Stock, or the perception that such issuances and sales could occur, may also cause prevailing market prices for the Series B Preferred Stock, Series C Preferred Stock and our common stock to decline and may adversely affect our ability to raise additional capital in the financial markets at times and prices favorable to us.

Risks Related to Our Organization and Structure

Certain provisions of Maryland law could inhibit changes in control.

Certain provisions of the Maryland General Corporation Law (the "MGCL") may have the effect of deterring a third party from making a proposal to acquire us or of impeding a change in control under circumstances that otherwise could provide the holders of our common stock with the opportunity to realize a premium over the then-prevailing market price of our common stock. Under the MGCL, certain "business combinations" between us and an "interested stockholder" (defined

generally as any person who beneficially owns 10% or more of our then-outstanding voting capital stock) or an affiliate thereof are prohibited for five years after the most recent date on which the stockholder becomes an interested stockholder. Under the statute, our board of directors has, by resolution, exempted business combinations between us and any other person, provided that such business combination is first approved by our board of directors (including a majority of our directors who are not affiliates or associates of such person).

The "control share" provisions of the MGCL provide that "control shares" of a Maryland corporation have no voting rights except to the extent approved by our stockholders by the affirmative vote of at least two-thirds of all the votes entitled to be cast on the matter, excluding votes entitled to be cast by the acquiror of control shares, our officers and our employees who are also our directors. Our bylaws contain a provision exempting from the control share acquisition statute any and all acquisitions by any person of shares of our stock. There can be no assurance that this provision will not be amended or eliminated at any time in the future.

The "unsolicited takeover" provisions of the MGCL permit our board of directors, without stockholder approval and regardless of what is currently provided in our charter or bylaws, to implement takeover defenses, some of which (for example, a classified board) we do not yet have. These provisions may have the effect of inhibiting a third party from making an acquisition proposal for us or of delaying, deferring or preventing a change in control of us under circumstances that otherwise could provide the holders of shares of common stock with the opportunity to realize a premium over the then-current market price.

Our charter also contains a provision whereby we have elected to be subject to the provisions of Title 3, Subtitle 8 of the MGCL relating to the filling of vacancies on our board of directors.

Ownership limitations may restrict change of control of business combination opportunities in which our stockholders might receive a premium for their shares.

For us to qualify as a REIT, no more than 50% in value of our outstanding capital stock may be owned, directly or indirectly, by five or fewer individuals during the last half of any calendar year. To preserve our REIT qualification, among other purposes, our charter generally prohibits any person from directly or indirectly owning more than 9.8% in value or in number of shares, whichever is more restrictive, of the outstanding shares of our capital stock or more than 9.8% in value or in number of shares, whichever is more restrictive, of the outstanding shares of our common stock. This ownership limitation could have the effect of discouraging a takeover or other transaction in which holders of our common stock might receive a premium for their shares over the then-prevailing market price or which holders might believe to be otherwise in their best interests.

Our authorized but unissued shares of capital stock may prevent a change in our control.

Our charter authorizes us to issue additional authorized but unissued shares of common or preferred stock. In addition, our board of directors may, without stockholder approval, amend our charter to increase the aggregate number of our shares of stock or the number of shares of stock of any class or series that we have authority to issue and classify or reclassify any unissued shares of common or preferred stock and set the preferences, rights and other terms of the classified or reclassified shares. As a result, our board of directors may establish a series of shares of common or preferred stock that could delay or prevent a transaction or a change in control that might involve a premium price for our shares of common stock or otherwise be in the best interest of our stockholders.

The change of control conversion feature of our Series B Preferred Stock and Series C Preferred Stock may make it more difficult for a party to acquire us or discourage a party from acquiring us.

The change of control conversion feature of our Series B Preferred Stock and Series C Preferred Stock may have the effect of discouraging a third party from making an acquisition proposal for us or of delaying, deferring or preventing certain change of control transactions under circumstances that otherwise could provide the holders of our common stock, Series B Preferred Stock and Series C Preferred Stock with the opportunity to realize a premium over the then-current market price of such stock or that stockholders may otherwise believe is in their best interests.

We are the sole general partner of our Operating Partnership and could become liable for the debts and other obligations of our Operating Partnership.

We are the sole general partner of our Operating Partnership and directly or indirectly conduct all of our business activities through the Operating Partnership and its subsidiaries. As the sole general partner, we are liable for our Operating Partnership's debts and other obligations. Therefore, if our Operating Partnership is unable to pay its debts and other obligations, we will be liable for such debts and other obligations. These obligations could include unforeseen contingent

liabilities and could materially adversely affect our financial condition, operating results and ability to pay dividends to our stockholders.

Tax Risks

Investment in our capital stock has various U.S. federal income tax risks.

This summary of certain tax risks is limited to the U.S. federal tax risks addressed below. Additional risks or issues may exist that are not addressed in this Report and could affect the U.S. federal income tax treatment of us or our stockholders.

We strongly urge you to seek advice based on your particular circumstances from an independent tax advisor concerning the effects of U.S. federal, state and local income tax law on an investment in our capital stock and on your individual tax situation.

Our failure to qualify as a REIT would subject us to U.S. federal income tax and potentially increased state and local taxes, which would reduce the amount of cash available for distribution to our stockholders.

We believe that we have been organized and operated, and we intend to continue to operate, in a manner that enables us to qualify as a REIT for U.S. federal income tax purposes. However, qualification as a REIT involves the application of highly technical and complex Internal Revenue Code provisions for which only a limited number of judicial and administrative interpretations exist. Even an inadvertent or technical mistake could jeopardize our REIT status. Our continued qualification as a REIT will depend on our satisfaction of certain asset, income, organizational, distribution, stockholder ownership and other requirements on a continuing basis.

Moreover, new legislation, court decisions or administrative guidance, in each case, possibly with retroactive effect, may make it more difficult or impossible for us to qualify as a REIT. Thus, while we intend to operate so that we will qualify as a REIT, given the highly complex nature of the rules governing REITs, the ongoing importance of factual determinations, and the possibility of future changes in our circumstances, no assurance can be given that we will so qualify for any particular year.

If we fail to qualify as a REIT in any taxable year, and we do not qualify for certain statutory relief provisions, we would be required to pay U.S. federal income tax at regular corporate income tax rates on our taxable income, which would be determined without a deduction for dividends distributed to our stockholders. In such a case, we might need to borrow money or sell assets to pay our taxes. Our payment of income tax would decrease the amount of our income available for distribution to our stockholders or for investment and could have a significant adverse effect on the value of our stockholders' equity. Furthermore, if we fail to maintain our qualification as a REIT, the distribution requirements for REIT qualification would no longer be relevant and could affect our distribution decisions. In addition, unless we were eligible for certain statutory relief provisions, we could not re-elect to qualify as a REIT until the fifth calendar year following the year in which we failed to qualify.

Legislative, regulatory or administrative changes could adversely affect us or our stockholders.

Legislative, regulatory or administrative changes could be enacted or promulgated at any time, with either prospective or retroactive effect, and may adversely affect us and/or our stockholders.

On December 22, 2017, tax legislation commonly referred to as the Tax Cuts and Jobs Act was signed into law. The Tax Cuts and Jobs Act made significant changes to the U.S. federal income tax rules for taxation of individuals and corporations that may affect our stockholders and may directly or indirectly affect us. Most of the changes applicable to individuals are temporary and apply only to taxable years beginning before January 1, 2026, including the 20% deduction generally available to non-corporate taxpayers with respect to REIT dividends that are not capital gain dividends or qualified dividend income.

Future changes to the tax laws are possible. In particular, the federal income taxation of REITs may be modified, possibly with retroactive effect, by legislative, administrative or judicial action at any time.

You are urged to consult with your tax advisor with respect to legislative, regulatory or administrative developments and proposals and their potential effect on investment in our stock.

Complying with REIT requirements may force us to liquidate otherwise attractive investments.

To qualify as a REIT, we generally must ensure that at the end of each calendar quarter at least 75% of the value of our total assets consists of cash, cash items, government securities, and qualifying real estate assets, including certain MBS and certain mortgage loans. The remainder of our investments in securities (other than government securities, securities of our TRSs and qualifying real estate assets) generally cannot include more than 10% of the outstanding voting securities of any one issuer or more than 10% of the total value of the outstanding securities of any one issuer. In addition, no more than 5% of the value of our assets can consist of the securities of any one issuer (other than government securities, securities of our TRSs and qualifying real estate assets), no more than 20% of the value of our total securities can be represented by securities of one or

more TRSs, and no more than 25% of the value of our assets may consist of "nonqualified publicly offered REIT debt instruments." If we fail to comply with these requirements at the end of any quarter, we must correct the failure within 30 days after the end of such calendar quarter or qualify for certain statutory relief provisions to avoid losing our REIT qualification and suffering adverse tax consequences. As a result, we may be required to dispose of otherwise attractive investments. These actions could have the effect of reducing our income and amounts available for distribution to our stockholders.

REIT distribution requirements could adversely affect our ability to execute our business plan and may require us to incur debt, sell assets or take other actions to make such distributions.

To qualify as a REIT, we must distribute dividends equal to at least 90% of our REIT taxable income (including certain items of non-cash income) to our stockholders each calendar year, determined without regard to the deduction for dividends paid and excluding net capital gains. To the extent that we satisfy the 90% distribution requirement, but distribute less than 100% of our taxable income, including our net capital gain, we will be subject to U.S. federal corporate income tax on our undistributed taxable income. In addition, we will incur a 4% nondeductible excise tax on the amount, if any, by which our distributions in any calendar year are less than a minimum amount specified under U.S. federal income tax laws. We intend to distribute sufficient dividends to our stockholders to satisfy the 90% distribution requirement and to avoid both corporate income tax and the 4% nondeductible excise tax.

Our taxable income may be substantially different from our cash flow. Differences in timing between the recognition of taxable income and the actual receipt of cash may occur. For example, we may invest in debt instruments that require us to accrue original issue discount ("OID") or recognize market discount income that generate taxable income in excess of economic income or in advance of the corresponding cash flow. We may also acquire distressed debt investments that are subsequently modified by agreement with the borrower. If amendments to the outstanding debt are "significant modifications" under applicable Treasury Regulations, the modified debt may be considered to have been reissued to us in a debt-for-debt exchange with the borrower, with a gain recognized by us to the extent that the principal amount of the modified debt exceeds our cost of purchasing it before modification. Under the Tax Cuts and Jobs Act, we may be required to take certain amounts in income no later than the time such amounts are reflected on certain financial statements. Finally, we may be required under the terms of the indebtedness that we incur, to use cash received from interest payments to make principal payments on that indebtedness, all with the effect that we will recognize income but will not have a corresponding amount of cash available for distribution to our stockholders.

As a result of the foregoing, we may find it difficult or impossible to meet the REIT distribution requirements in certain circumstances. In such circumstances, we may be required to (1) sell assets in adverse market conditions, (2) borrow on unfavorable terms, (3) distribute amounts that would otherwise be invested or used to repay debt, or (4) make a taxable distribution of our shares of common stock to comply with the REIT distribution requirements. Thus, compliance with the REIT distribution requirements may hinder our ability to grow, which could adversely affect the value of our common stock.

We may choose to pay dividends in our own stock, in which case our stockholders may be required to pay income taxes in excess of the cash dividends received.

Under IRS Revenue Procedure 2017-45, as a publicly offered REIT, we may give stockholders a choice, subject to various limits and requirements, of receiving a dividend in cash or in common stock of the REIT. As long as at least 20% of the total dividend is available in cash and certain other requirements are satisfied, the IRS will treat the stock distribution as a dividend (to the extent applicable rules treat such distribution as being made out of the REIT's earnings and profits). Taxable stockholders receiving stock will be required to include in income, as a dividend, the full value of such stock to the extent of our current and accumulated earnings and profits for federal income tax purposes. As a result, a U.S. stockholder may be required to pay income taxes with respect to such dividends in excess of the cash dividends received. If a U.S. stockholder sells the stock it receives as a dividend to pay this tax, the sales proceeds may be less than the amount included in income with respect to the dividend, depending on the market price of our stock at the time of the sale. Furthermore, with respect to non-U.S. stockholders, we may be required to withhold U.S. tax with respect to such dividends, including in respect of all or a portion of such dividend that is payable in stock. In addition, if a significant number of our stockholders determine to sell shares of our common stock to pay taxes owed on dividends, it may put downward pressure on the trading price of our common stock.

Our ownership of and relationship with any TRS that we may form or acquire is subject to limitations, and a failure to comply with the limits could jeopardize our REIT qualification and may result in the application of a 100% excise tax.

A REIT may own up to 100% of the stock of one or more TRSs. A TRS may earn income that would not be qualifying income if earned directly by the parent REIT. Both the subsidiary and the REIT must jointly elect to treat the subsidiary as a TRS. Overall, no more than 20% of the value of a REIT's assets may consist of stock or securities of one or more TRSs at the end of any calendar quarter. In addition, the TRS rules impose a 100% excise tax on certain transactions between a TRS and its

parent REIT that are not conducted on an arm's length basis. There can be no assurance that we will be able to comply with the TRS limitations or to avoid application of the 100% excise tax discussed above.

Our domestic TRSs would pay U.S. federal, state and local income tax on their taxable income, and their after-tax net income would be available for distribution to us but would not be required to be distributed to us. If we were to organize a TRS as a non-U.S. corporation (or non-U.S. entity treated as a corporation for U.S. federal income tax purposes), we may generate income inclusions relating to the earnings of the non-U.S. TRS. Dividends from TRSs and deemed inclusions from non-U.S. TRSs, together with other income that is not treated as qualifying income for purposes of the 75% gross income test, cannot exceed 25% of our gross income in any year.

Liquidation of our assets to repay obligations to our lenders may jeopardize our REIT qualification.

To qualify as a REIT, we must comply with requirements regarding our assets and our sources of income. If we are compelled to liquidate our investments to repay obligations to our lenders, we may be unable to comply with these requirements, ultimately jeopardizing our qualification as a REIT.

Characterization of the repurchase agreements we enter into to finance our investments as sales for tax purposes rather than as secured borrowing transactions, or the failure of our mezzanine loans to qualify as real estate assets, could adversely affect our ability to qualify as a REIT.

We have entered into repurchase agreements with a variety of counterparties to finance assets in which we invest. When we enter into a repurchase agreement, we generally sell assets to our counterparty to the agreement and receive cash from the counterparty. The counterparty is obligated to resell the assets back to us at the end of the term of the transaction. We believe that, for U.S. federal income tax purposes, we will be treated as the owner of the assets that are the subject of repurchase agreements and that the repurchase agreements will be treated as secured borrowing transactions notwithstanding that such agreements may transfer record ownership of the assets to the counterparty during the term of the agreement. It is possible, however, that the IRS could successfully assert that we did not own these assets during the term of the repurchase agreements, in which case we could fail to qualify as a REIT.

In addition, we have owned in the past and may in the future acquire mezzanine loans that are secured by an equity interest in a partnership or an entity disregarded as separate from its owner that directly owns real property. In Revenue Procedure 2003-65, the IRS provided a safe harbor under which a mezzanine loan, if it meets each of the requirements contained in the Revenue Procedure, will be treated by the IRS as a real estate asset for purposes of the REIT asset tests, and interest derived from the mezzanine loan will be treated as qualifying mortgage interest for purposes of the 75% gross income test. Although the Revenue Procedure provides a safe harbor on which taxpayers may rely, it does not prescribe rules of substantive tax law. We may acquire or originate mezzanine loans that do not meet all of the requirements of this safe harbor. The IRS could challenge treatment of such loans as real estate assets for purposes of the REIT asset and gross income tests, and if such a challenge were sustained, we could fail to qualify as a REIT.

The tax on prohibited transactions will limit our ability to engage in certain transactions, including certain methods of securitizing mortgage loans, which would be treated as sales for federal income tax purposes.

A REIT's net income from prohibited transactions is subject to a 100% tax. In general, prohibited transactions are sales or other dispositions of property, other than foreclosure property, held primarily for sale to customers in the ordinary course of business. We might be subject to this tax if we were to dispose of or securitize loans in a manner that was treated as a sale of the loans for federal income tax purposes. Therefore, to avoid the prohibited transactions tax, we may choose not to engage in certain sales of loans at the REIT level and may limit the structures we utilize for our securitization transactions, even though the sales or such structures might otherwise be beneficial to us.

Complying with REIT requirements may limit our ability to hedge effectively.

The REIT provisions of the Internal Revenue Code limit our ability to enter into hedging transactions. To qualify as a REIT, we must satisfy two gross income tests annually. For these purposes, income with respect to certain hedges of interest-rate risk on our liabilities or certain foreign currency risks will be disregarded. Income from other hedges will be non-qualifying income for purposes of both gross income tests. As a result, we might have to limit our use of advantageous hedging techniques or implement those hedges through a TRS. This could increase the cost of our hedging activities or expose us to greater risks associated with changes in interest rates than we would otherwise want to bear.

Purchases of mortgages at a discount may affect our ability to satisfy the REIT asset and gross income tests.

Whether our loan holdings are treated as real estate assets and interest income thereon is treated as qualifying income for purposes of the 75% gross income test depends on whether the loans are adequately secured by real property. If a mortgage loan is secured by both real property and personal property, the value of the personal property exceeds 15% of the value of all property securing such loan, and the value of the real property at the time the REIT commits to make or acquire the loan is less

than the highest principal amount (i.e., the face amount) of the loan during the year, interest earned on the loan will be treated as qualifying income only in proportion to the ratio of the value of the real property at the time the REIT commits to make or acquires the loan to the highest principal amount of the loan during the year.

Our qualification as a REIT could be jeopardized as a result of our interests in joint ventures or investment funds.

We currently own, and may continue to acquire, interests in partnerships or limited liability companies that are joint ventures or investment funds. We may not have timely access to information from such partnerships and limited liability companies related to monitoring and managing our REIT qualification. If a partnership or limited liability company in which we own an interest but do not control takes or expects to take actions that could jeopardize our REIT qualification or require us to pay tax, we may be forced to dispose of our interest in such entity. It is possible that a partnership or limited liability company could take an action which could cause us to fail a REIT gross income or asset test and that we would not become aware of such action in time to dispose of our interest in the partnership or limited liability company or take other corrective action on a timely basis. In that case, we could fail to qualify as a REIT unless we are able to qualify for a statutory REIT "savings" provision, which may require us to pay a significant penalty tax to maintain our REIT qualification.

We may be required to report taxable income for certain investments in excess of the economic income we ultimately realize from them.

We acquire debt instruments in the secondary market for less than their face amount. The discount at which such debt instruments are acquired may reflect doubts about their ultimate collectability rather than current market interest rates. The amount of such discount will nevertheless generally be treated as "market discount" for federal income tax purposes. Accrued market discount is reported as income when, and to the extent that, any payment of principal of the debt instrument is made. If we collect less on the debt instrument than our purchase price plus the market discount we had previously reported as income, we may not be able to benefit from any offsetting loss deductions.

Some of the debt instruments that we acquire may have been issued with original issue discount. We will be required to report such original issue discount based on a constant yield method and will be taxed based on the assumption that all future projected payments due on such debt instruments will be made. If such debt instruments turn out not to be fully collectible, an offsetting loss deduction will become available only in the later year that uncollectability is provable.

In addition, we may acquire debt instruments that are subsequently modified by agreement with the borrower. If the amendments to the outstanding instrument are "significant modifications" under the applicable Treasury Regulations, the modified instrument will be considered to have been reissued to us in a debt-for-debt exchange with the borrower. In that event, we may be required to recognize taxable gain to the extent the principal amount of the modified instrument exceeds our adjusted tax basis in the unmodified instrument, even if the value of the instrument or the payment expectations have not changed. Following such a taxable modification, we would hold the modified loan with a cost basis equal to its principal amount for federal tax purposes.

Finally, if any debt instruments acquired by us are delinquent as to mandatory principal and interest payments, or in the event payments with respect to a particular instrument are not made when due, we may nonetheless be required to continue to recognize the unpaid interest as taxable income as it accrues, despite doubt as to its ultimate collectability. Similarly, we may be required to accrue interest income with respect to debt instruments at its stated rate regardless of whether corresponding cash payments are received or are ultimately collectible. In each case, while we would, in general, ultimately have an offsetting loss deduction available to us when such interest was determined to be uncollectible, the utility of that deduction could depend on our having taxable income in that later year or thereafter.

Even if we qualify as a REIT, we may face tax liabilities that reduce our cash flow.

Even if we qualify as a REIT, we may be subject to certain U.S. federal, state and local taxes on our income and assets, including taxes on any undistributed income, tax on income from some activities conducted as a result of a foreclosure, and state or local income, franchise, property and transfer taxes, including mortgage-related taxes. In addition, our domestic TRSs will be subject to federal corporate income tax on their taxable incomes.

Dividends paid by REITs do not qualify for the reduced tax rates that apply to other corporate dividends.

The maximum tax rate for "qualified dividends" paid by corporations to individuals is currently 20%. Dividends paid by REITs, however, generally are not "qualified dividends" and generally are treated as ordinary income. For taxable years beginning before January 1, 2026, non-corporate taxpayers generally will be entitled to a 20% deduction for ordinary REIT dividends received that, combined with the current top individual tax rate of 37%, results in a maximum tax rate of 29.6% on ordinary REIT dividends. The more favorable rates applicable to qualified dividends could cause potential investors who are individuals to perceive investments in REITs to be relatively less attractive than investments in the stocks of non-REIT corporations that pay qualified dividends, which could adversely affect the value of the stock of REITs, including our capital stock.

Dividends paid by REITs may be subject to Medicare tax on net investment income.

High-income U.S. individuals, estates, and trusts will be subject to an additional 3.8% tax on net investment income. For these purposes, net investment income includes dividends and gains from sales of stock. In the case of an individual, the tax will be 3.8% of the lesser of the individuals' net investment income or the excess of the individuals' modified adjusted gross income over \$250,000 in the case of a married individual filing a joint return or a surviving spouse, \$125,000 in the case of a married individual filing a separate return, or \$200,000 in the case of a single individual. The 20% deduction for qualified REIT dividends is not taken into account for these purposes.

Tax-exempt stockholders may realize unrelated business taxable income if we generate excess inclusion income.

If we acquire REMIC residual interests or equity interests in taxable mortgage pools (in a manner consistent with our REIT qualification) and generate "excess inclusion income," a portion of our dividends received by a tax-exempt stockholder will be treated as unrelated business taxable income. Excess inclusion income would also be subject to adverse federal income tax rules in the case of U.S. taxable stockholders and non-U.S. stockholders.

Changing the nature of our assets may complicate our ability to satisfy the REIT gross income and asset tests.

We have large holdings of RMBS that are qualifying assets for purposes of the REIT asset tests and generate interest income that is qualifying income for purposes of the REIT gross income tests, but substantially decreased such holdings in 2020. The REIT asset tests do not require that all assets be qualifying assets, nor do the REIT gross income tests require that all income be qualifying income. Our substantial RMBS holdings have given us room to make investments that may not qualify, all or in part, as real estate assets or that may generate income that may not qualify, all or in part, under one or both of the gross income tests. Reductions in our RMBS holdings have reduced our room for non-qualifying assets and income. In addition, if the market value or income potential of real estate-related investments declines as a result of increased interest rates, prepayment rates or other factors, we may need to increase our real estate investments and gross income therefrom and/or liquidate our non-qualifying assets to maintain our REIT qualification or exemption from the 1940 Act. If the decline in real estate asset values and/or income occurs quickly, this may be especially difficult to accomplish. This difficulty may be exacerbated by the illiquid nature of certain assets that we may own. We may have to make investment decisions that we otherwise would not make absent the REIT qualification requirements and Investment Company Act considerations. Furthermore, we may make investments in which the proper application of the REIT gross income and assets tests may not be clear. Mistakes in classifying assets or income for REIT purposes or in projecting the amount of qualifying and non-qualifying income could cause us to fail to qualify as a REIT.

Our qualification as a REIT may depend upon the accuracy of legal opinions or advice rendered or given or statements by the issuers of assets we acquire.

When purchasing securities, we may rely on opinions or advice of counsel for the issuer of such securities, or statements made in related offering documents, for purposes of determining, among other things, whether such securities represent debt or equity securities for U.S. federal income tax purposes, the value of such securities, and the extent to which those securities constitute qualified real estate assets for purposes of the REIT asset tests and produce qualified income for purposes of the 75% gross income test. The inaccuracy of any such opinions, advice or statements may adversely affect our ability to qualify as a REIT.

Uncertainty exists with respect to the treatment of our TBAs for purposes of the REIT asset and income tests.

While there is no direct authority with respect to the qualification of TBAs as real estate assets or U.S. government securities for purposes of the 75% asset test or the qualification of income or gains from dispositions of TBAs as gains from the sale of real property (including interests in real property and interests in mortgages on real property) or other qualifying income for purposes of the 75% gross income test, we treat our TBAs under which we contract to purchase to-be-announced Agency MBS ("long TBAs") as qualifying assets for purposes of the REIT 75% asset test, and we treat income and gains from our long TBAs as qualifying income for purposes of the 75% gross income test, based on an opinion of counsel substantially to the effect that (i) for purposes of the REIT asset tests, our long TBAs should be treated as "real estate assets," and (ii) for purposes of the 75% gross income test, any gain recognized by us in connection with the disposition of our long TBAs by offset, including in dollar roll transactions, should be qualifying income. Opinions of counsel are not binding on the IRS, and no assurance can be given that the IRS will not successfully challenge the conclusions set forth in such opinions. In addition, it must be emphasized that the opinion of counsel is based on various assumptions relating to our TBAs and is conditioned upon fact-based representations and covenants made by our management regarding our TBAs. No assurance can be given that the IRS would not assert that such assets or income are not qualifying assets or income. If the IRS were to successfully challenge the opinion of counsel, we could be subject to a penalty tax or we could fail to remain qualified as a REIT if a sufficient portion of our assets consists of TBAs or a sufficient portion of our income consists of income or gains from the disposition of TBAs.

General Risk Factors

Our business is subject to extensive regulation.

Our business is subject to extensive regulation by federal and state governmental authorities, self-regulatory organizations, and securities exchanges. We are required to comply with numerous federal and state laws. The laws, rules and regulations comprising this regulatory framework change frequently, as can the interpretation and enforcement of existing laws, rules, and regulations. From time to time, we may receive requests from federal and state agencies for records, documents, and information regarding our policies, procedures, and practices regarding our business activities. We may incur significant ongoing costs to comply with these government regulations.

These requirements can and do change as statutes and regulations are enacted, promulgated, amended, and interpreted, and the recent trends among federal and state lawmakers and regulators have been toward increasing laws, regulations, and investigative proceedings concerning the mortgage industry generally. Although we believe that we have structured our operations and investments to comply with existing legal and regulatory requirements and interpretations, changes in regulatory and legal requirements, including changes in their interpretation and enforcement by lawmakers and regulators, could materially and adversely affect our business and our financial condition, liquidity, and results of operations.

We may be adversely affected by the current and future economic, regulatory and other actions of government bodies and their agencies.

The U.S. government, Federal Reserve, U.S. Treasury, SEC and other U.S. and foreign governmental and regulatory bodies have taken a number of economic actions and regulatory initiatives from time-to-time designed to stabilize and stimulate the economy and the financial markets, and additional actions and initiatives may occur in the future. While our current exposure to transactions in foreign currencies is limited, uncertainties regarding geopolitical developments can produce volatility in global financial markets, which could have a negative impact on our business in the future.

There can be no assurance that, in the long term, actions that governments and regulatory bodies or central banks have taken in the past or may take in the future will improve the efficiency and stability of mortgage or financial markets. To the extent the financial markets do not respond favorably to any of these actions or such actions do not function as intended, our business may be harmed. In addition, because the programs are designed, in part, to improve the markets for certain of our target assets, the establishment of these programs may result in increased competition for attractive opportunities in our target assets or, in the case of government-backed refinancing and modification programs, may have the effect of reducing the revenues associated with certain of our target assets. We cannot predict whether or when additional actions or initiatives to stabilize and stimulate the economy and the financial markets may occur, and such actions could have an adverse effect on our business, results of operations and financial condition.

We may change any of our strategies, policies or procedures without stockholder consent and make investment decisions with which our stockholders may not agree and/or fail to meet our investment criteria.

We may change any of our strategies, policies or procedures with respect to investments, acquisitions, growth, operations, indebtedness, capitalization and distributions at any time without the consent of our stockholders, which could result in an investment portfolio with a different risk profile. Our stockholders will be unable to evaluate the manner in which we invest or the economic merit of our expected investments and, as a result, we may make investment decisions with which our stockholders may not agree. We can provide no assurance that we will be able to identify and make investments that are consistent with our investment objectives. A change in our investment strategy may increase our exposure to interest rate risk, default risk, real estate market fluctuations, rules, regulations and governmental actions. Furthermore, a change in our asset allocation could result in us making investments in asset categories different from those described in this Report. The failure of our management to make investments that meet our investment criteria could cause a material adverse effect on our business, financial condition, liquidity, results of operations and ability to pay dividends to our stockholders and could cause the value of our capital stock to decline.

We may enter into transactions and take certain actions in connection with such transactions that could affect the price of our common stock.

We may conduct transactions (including acquisitions) that would offer business and strategic opportunities. In the event of such transactions, we could:

- use a significant portion of our available cash;
- issue equity securities, which would dilute the current percentage ownership of our stockholders;
- incur substantial debt;
- incur or assume contingent liabilities, known or unknown; and
- incur amortization expenses related to intangibles.

Any such actions by us could harm our business, financial condition, results of operations, or prospects and could adversely affect the market price of our common stock.

The market price and trading volume of our capital stock may be volatile.

The market price of our capital stock may be highly volatile and be subject to wide fluctuations. In addition, the trading volume in our capital stock may fluctuate and cause significant price variations to occur. If the market price of our capital stock declines significantly, our stockholders may be unable to resell their shares at or above the price our stockholders paid for their shares. We cannot assure you that the market price of our capital stock will not fluctuate or decline significantly in the future. Some of the factors that could negatively affect our share price or result in fluctuations in the price or trading volume of our capital stock are included in the risk factors described in this Report.

Common stock eligible for future sale may have adverse effects on our share price.

We cannot predict the effect, if any, of future sales of our common stock, or the availability of shares for future sales, on the market price of our common stock. Further, certain stock change of ownership tests may limit our ability to raise significant amounts of equity capital or could limit our future use of tax losses to offset income tax obligations, which may adversely affect us or our stockholders.

Sales of substantial amounts of common stock or the perception that such sales could occur may adversely affect the prevailing market price for our common stock. Also, we may issue additional shares in public offerings or private placements to make new investments or for other purposes. We are not required to offer any such shares to existing stockholders on a preemptive basis. Therefore, it may not be possible for existing stockholders to participate in such future share issuances, which may dilute existing stockholders' interests in us.

Investing in our capital stock may involve a high degree of risk.

The investments we make in accordance with our investment objectives may carry a high amount of risk when compared to alternative investment options and may lead to volatility or loss of principal. Our investments may be highly speculative and aggressive, and therefore an investment in our capital stock may not be suitable for someone with lower risk tolerance.

A change in market interest rates may cause a material decrease in the market price of our capital stock.

One of the factors that investors may consider in deciding whether to buy or sell shares of our capital stock is our distribution rate as a percentage of our share price relative to market interest rates. If the market price of our capital stock is based primarily on the earnings and return that we derive from our investments and income with respect to our investments and our related distributions to stockholders, and not from the market value of the investments themselves, then interest rate fluctuations and capital market conditions are likely to adversely affect the market price of our capital stock. For instance, if market rates rise without an increase in our distribution rate, the market price of our capital stock could decrease as potential investors may require a higher distribution yield or seek other securities paying higher distributions or interest.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

Our principal executive office is located at 1555 Peachtree Street, NE, Suite 1800, Atlanta, Georgia 30309. As part of our management agreement, our Manager is responsible for providing office space and office services required in rendering services to us.

Item 3. Legal Proceedings.

From time to time, we may be involved in various claims and legal actions arising in the ordinary course of business. As of December 31, 2022, we were not involved in any such legal proceedings.

Item 4. Mine Safety Disclosures.

Not applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

Market Information

Our common stock is traded on the NYSE under the symbol "IVR."

Dividend Information

We intend to pay quarterly dividends and to distribute to our stockholders all or substantially all of our taxable income in each year (subject to certain adjustments) consistent with the distribution requirements applicable to REITs, which will enable us to qualify for the tax benefits accorded to a REIT under the Internal Revenue Code. We have not established a minimum dividend payment level and our ability to pay dividends may be adversely affected for the reasons described in Part I. Item 1A. "Risk Factors" of this Report. All distributions will be made at the discretion of our Board of Directors and will depend on our earnings, our financial condition, maintenance of our REIT status and such other factors as our Board of Directors may deem relevant from time to time. No cash dividends can be paid on our common stock unless we have paid full cumulative dividends on our preferred stock. From the date of issuance of our preferred stock through December 31, 2022, we have paid full cumulative dividends on our preferred stock.

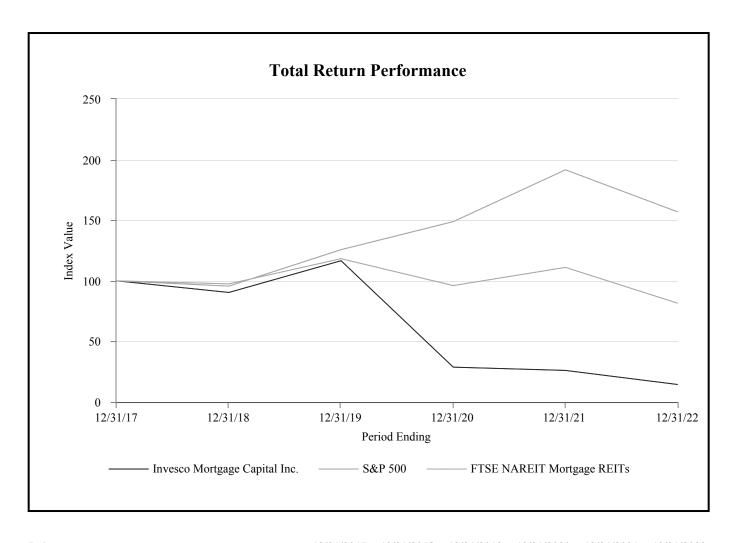
For information about our recent dividend payments, please see Note 12 - "Stockholders' Equity" of our consolidated financial statements in Part IV of this Report.

Holders

As of February 17, 2023, there were 134 common stockholders of record.

Performance Graph

The following graph compares the cumulative 5-year total return of holders of Invesco Mortgage Capital Inc.'s common stock with the cumulative total returns of the S&P 500 index and the FTSE NAREIT Mortgage REITs index. The graph assumes that the value of the investment in our common stock and in each of the indices (including reinvestment of dividends) was \$100 on December 31, 2017 and tracks it through December 31, 2022.



Index	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022
Invesco Mortgage Capital Inc.	100.00	90.40	116.59	28.77	26.08	14.46
S&P 500	100.00	95.62	125.72	148.85	191.58	156.88
FTSE NAREIT Mortgage REITs	100.00	97.48	118.27	96.07	111.09	81.53

The stock price performance included in this graph is not necessarily indicative of future stock price performance.

Use of Proceeds

We used the net proceeds from our common and preferred stock offerings to acquire our target assets in accordance with our objectives and strategies described in Item 1, Business - Investment Strategy. We focus on purchasing our target assets, subject to our investment guidelines and to the extent consistent with maintaining our REIT qualification and exclusion from the requirements of the 1940 Act. Our Manager determines the percentage of our stockholders' equity that will be invested in each of our target assets.

Repurchases of Common Equity Securities

In December 2011, our board of directors approved a share repurchase program with no stated expiration date. As of December 31, 2022, there were 1,816,398 common shares available for repurchase under the program. The shares may be repurchased from time to time through privately negotiated transactions or open market transactions, including under a trading plan in accordance with Rules 10b5-1 and 10b-18 under the Exchange Act or by any combination of such methods. The manner, price, number and timing of share repurchases will be subject to a variety of factors, including market conditions and applicable SEC rules. During the quarter ended December 31, 2022, we did not repurchase any shares of our common stock.

Repurchases of Preferred Equity Securities

In May 2022, our board of directors approved a share repurchase program for our Series B and Series C Preferred Stock with no stated expiration date. As of December 31, 2022, we had authority to purchase 1,337,634l shares of our Series B Preferred Stock and 1,316,470 shares of our Series C Preferred Stock under the current share repurchase program. The shares may be repurchased from time to time through privately negotiated transactions or open market transactions, including under a trading plan in accordance with Rules 10b5-1 and 10b-18 under Exchange Act or by any combination of such methods. The manner, price, number and timing of share repurchases are subject to a variety of factors, including market conditions and applicable SEC rules. During the quarter ended December 31, 2022, we did not repurchase any shares of our preferred stock.

Equity Compensation Plans

We will provide the equity compensation plan information required in Item 201(d) of Regulation S-K in our definitive Proxy Statement or in an amendment to this Report not later than 120 days after the end of the fiscal year covered by this Report and incorporate into this Item 5 by reference.

Item 6. [Reserved]

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

The following discussion should be read in conjunction with our consolidated financial statements and the accompanying notes to our consolidated financial statements, which are included in Part IV, Item 15 of this Report.

Overview

We are a Maryland corporation primarily focused on investing in, financing and managing mortgage-backed securities ("MBS") and other mortgage-related assets. Our objective is to provide attractive risk-adjusted returns to our stockholders, primarily through dividends and secondarily through capital appreciation.

Factors Impacting Our Operating Results

Our operating results can be affected by a number of factors and primarily depend on the level of our net interest income and the market value of our assets. Our net interest income, which includes the amortization of purchase premiums and accretion of purchase discounts, varies primarily as a result of changes in market interest rates and prepayment speeds, as measured by the constant prepayment rate ("CPR") on our assets. Interest rates and prepayment speeds vary according to the type of investment, conditions in the financial markets, competition and other factors, none of which can be predicted with any certainty. The market value of our assets can be impacted by credit spread premiums (yield advantage over U.S. Treasury notes) and the supply of, and demand for, assets in which we invest.

Market Conditions

Macroeconomic factors that affect our business include interest rates, spread premiums, governmental policy initiatives, residential and commercial real estate prices, credit availability, consumer personal income and spending, corporate earnings, employment conditions, financial conditions and inflation.

Of these macroeconomic factors, government policy initiatives, inflation, interest rates and interest rate volatility had the most direct impacts on our performance during 2022. Contributing factors included:

- Financial conditions tightened steadily through the first three quarters of 2022 as the Federal Reserve's Open Market Committee ("FOMC") began an aggressive campaign of increasing the Federal Funds target rate a total of 425 basis points in response to inflation levels that had not been seen in decades. This took the target from a range of 0% to 0.25% to a range of 4.25% to 4.50% to end the year.
- Given the uncertainty around Federal Reserve policy, interest rates were quite volatile during the year and the yield curve became inverted, meaning short term rates were higher than long term rates. The yield on the 2 year Treasury rose by 369 basis points, to 4.07%, while the yield on the 10 year Treasury increased by 236 basis points, to 3.37%.
- The Federal Reserve concluded their net purchases of Agency RMBS in March, with runoff of their \$2.7 trillion
 portfolio commencing in June. In addition, commercial banks sharply reduced their purchases of Agency RMBS in
 2022 as well, as the decline in bank deposits, increase in loan activity, and regulatory capital challenges diminished
 their appetite for securities. These market participants had been the largest sources of demand for the sector since the
 onset of the COVID-19 pandemic.

Agency RMBS underperformed Treasuries over the course of 2022, ending the year with one of the worst total returns for the sector on record. In addition to the factors discussed above, performance was negatively impacted by market expectations for further restrictive monetary policy. Prepayment speeds slowed as borrowers faced a sharp increase in mortgage rates, but this reduction in supply was offset by the decrease in demand from the Federal Reserve and commercial banks discussed above. Production coupon mortgages underperformed their Treasury hedges, trailing by approximately 360 basis points, while payups on specified pool collateral fell as the value of prepayment protection was reduced amidst higher mortgage rates and slowing prepayment speeds. Dollar rolls for TBA investments, which had been a bright spot during most of the year, underperformed in the second half of the year as mortgage rates increased and production waned.

The following market conditions were also notable for the company in 2022:

- Most risk assets were under considerable pressure during 2022 with the S&P 500 suffering a loss of 19.4%, while the NASDAQ was down 33.1% as a result of rising interest rates and high inflation. Financial conditions eased somewhat during the fourth quarter, as confidence began to grow that inflation had peaked and the FOMC was nearing the end of their tightening cycle. Equity performance was mixed during the fourth quarter, as the S&P 500 advanced by 7.1% and the NASDAQ lost 1%.
- The employment picture remained a bright spot as gains in non-farm payrolls averaged 375,000 per month, for a total of 4.5 million jobs added during the year. The unemployment rate improved during the year, decreasing from 3.9% at the end of 2021 to 3.5% in December.
- Consumer activity held up well through most of the year, with retail sales remaining generally positive before moderating during the fourth quarter. Higher prices weighed on consumer confidence measures, however, as sentiment fell throughout the first three quarters before rebounding slightly along with financial conditions.
- Year-over-year price growth, as measured by the consumer price index ("CPI"), peaked at a 40 year high of 9.1% in June, before slowing steadily during the second half of the year, ending 2022 at 6.5%. Likewise, commodities also saw significant increases during 2022, with West Texas Intermediate crude oil recording a 16.7% increase and the Commodity Research Bureau commodity index gaining 19.5%. Breakeven rates on U.S Treasury inflation-protected securities ("TIPs"), which reflect investors' expectations of future inflation, indicating confidence that the FOMC will be successful at bringing inflation levels significantly lower as the inflation rate implied by 2 year and 5 year TIPs was 2.31% and 2.38%, respectively, at the end of the year.
- CMBS risk premiums increased due to monetary policy tightening and moderating improvement of commercial real estate fundamentals. Commercial real estate occupancy and rental rates began to stabilize across most property sectors while headwinds for property valuations increased given elevated borrowing costs. Despite an increase in the fourth quarter, CMBS loan delinquencies finished the year lower and remain significantly below COVID-19 peak levels. The lodging and retail sector reported the highest level of CMBS loan delinquencies while multi-family and industrial property sectors continued to post relatively lower delinquency levels. We expect fundamental improvement to continue to moderate as the pace of positive net absorption slows and lending conditions tighten.
- While tight supply and stable underlying demand persisted for most of 2022, the housing market recovery that began
 in 2021 slowed and ultimately reversed due to the dramatic increase in mortgage rates. National home prices declined
 during the second half of the year, but still finished higher compared to 2021. Despite the potential for a slowing
 economy, borrower defaults are likely to remain contained given strong loan underwriting and high levels of borrower
 equity.

As we enter 2023, both the FOMC and the Federal Funds futures market expect additional rate increases during the first half of the year, with market expectations reflecting approximately 0.50% of additional hikes. While further changes in monetary policy by the Federal Reserve may bring challenges in the coming months, we believe that a potential reduction in interest rate volatility combined with compelling valuations and favorable funding conditions will support an attractive investment environment for Agency RMBS in 2023.

Investment Activities

The table below shows the breakdown of our investment portfolio as of December 31, 2022 and 2021.

\$ in thousands	As of Decer	nber 31,
	2022	2021
Agency RMBS:		
30 year fixed-rate, at fair value	4,661,737	7,701,523
Agency CMO, at fair value	84,956	30,757
Non-Agency CMBS, at fair value	36,787	62,909
Non-Agency RMBS, at fair value	8,413	9,070
Commercial loan, at fair value	_	23,515
Investments in unconsolidated ventures	552	12,476
Subtotal	4,792,445	7,840,250
TBAs, at implied cost basis (1)	1,437	1,636,906
Total investment portfolio, including TBAs	4,793,882	9,477,156

(1) Our presentation of TBAs in the table above represents management's view of our investment portfolio and does not reflect how we record TBAs on our consolidated balance sheets under U.S. GAAP. Under U.S. GAAP, we record TBAs that we do not intend to physically settle on the contractual settlement date as derivative financial instruments. We value TBAs on our consolidated balance sheets at net carrying value, which represents the difference between the fair market value and the implied cost basis of the TBAs. For further details of our U.S GAAP accounting for TBAs, refer to Note 8 "Derivatives and Hedging Activities" in Part IV, Item 15 of this Report. Our TBA dollar roll transactions are a form of off-balance sheet financing. For further information on how management evaluates our at-risk leverage, see Non-GAAP Financial Measures below.

We sold \$27.3 billion and purchased \$25.7 billion of Agency RMBS during the year ended December 31, 2022 primarily to rotate into higher yielding securities, in some cases changing coupon rates or the type of specified pool collateral. Purchases were primarily funded with proceeds from the sales, paydowns of securities and by leveraging proceeds from the issuance of common stock.

As of December 31, 2022 and 2021 our holdings of 30 year fixed-rate Agency RMBS represented 97% and 81% of our total investment portfolio, including TBAs, respectively. The table below shows the coupon distributions of our 30 year fixed-rate Agency RMBS holdings as of December 31, 2022 and 2021.

	As of December 31,				
	2022	2	20	21	
\$ in thousands	Fair Value	Percentage	Fair Value	Percentage	
2.0%	_	— %	2,408,404	31.3 %	
2.5%		— %	2,877,568	37.3 %	
3.0%	_	— %	2,178,476	28.3 %	
3.5%	_	— %	237,075	3.1 %	
4.5%	1,392,304	29.9 %	_	— %	
5.0%	1,694,939	36.4 %	_	— %	
5.5%	1,574,494	33.7 %	<u> </u>	%	
Total 30 year fixed-rate Agency RMBS	4,661,737	100.0 %	7,701,523	100.0 %	

Our purchases of Agency RMBS have been primarily focused on specified pools with attractive prepayment profiles. We seek to capitalize on the impact of prepayments on our investment portfolio by purchasing specified pools with characteristics that optimize borrower incentive to prepay for both our premium and discount priced investments. The table below shows the specified pool characteristics of our 30 year fixed-rate Agency RMBS holdings as of December 31, 2022 and 2021.

As of	Decem	ber 31,
-------	-------	---------

	202	2	202	1
\$ in thousands	Fair Value	Percentage	Fair Value	Percentage
Specified pool characteristic:				
Geographic location	1,302,391	27.9 %	2,125,213	27.6 %
Loan balance	1,033,014	22.2 %	921,716	12.0 %
Generic	158,230	3.4 %	1,991,947	25.9 %
High loan-to-value ("LTV") ratio	750,724	16.1 %	648,529	8.4 %
Low credit score	1,417,378	30.4 %	865,992	11.2 %
Investment property		<u> </u>	1,148,126	14.9 %
Total 30 year fixed-rate Agency RMBS	4,661,737	100.0 %	7,701,523	100.0 %

We invest in TBAs as an alternative means of investing in and financing Agency RMBS. As of December 31, 2022, the implied cost basis of TBAs did not represent a material amount of our total investment portfolio, versus 17% as of December 31, 2021. We decreased the allocation to TBAs as implied financing rates in the Agency RMBS TBA dollar roll market increased more than those available in the repurchase market for most coupons.

As of December 31, 2022 and 2021, our holdings of non-Agency CMBS represented approximately 1% of our total investment portfolio, including TBAs. Our non-Agency CMBS portfolio is comprised of fixed-rate securities that are rated single-A (or equivalent) or higher by a nationally recognized statistical rating organization as of December 31, 2022. Approximately 71% of non-Agency CMBS are rated double-A (or equivalent) or higher by a nationally recognized statistical rating organization as of December 31, 2022.

As of December 31, 2022 and 2021, our holdings of non-Agency RMBS represented less than 1% of our total investment portfolio, including TBAs.

As of December 31, 2021, we held an investment in one commercial real estate mezzanine loan that had an LTV ratio of approximately 68.0%. The loan was repaid in full in October 2022.

As of December 31, 2022, we held investments in two unconsolidated ventures that are managed by an affiliate of our Manager. Both of the unconsolidated ventures are in liquidation and plan to sell or settle their remaining investments as expeditiously as possible. Until the ventures complete their liquidation, we are committed to fund \$6.3 million in additional capital to cover future expenses should they occur.

Financing and Other Liabilities

We finance the majority of investment portfolio through repurchase agreements. Repurchase agreements are generally settled on a short-term basis, usually from one to six months, and bear interest at rates that are expected to move in close relationship to SOFR.

The following table presents the amount of collateralized borrowings outstanding under repurchase agreements as of the end of each quarter, the average amount outstanding during the quarter and the maximum balance outstanding during the quarter.

\$ in thousands	Collateralized borrowings under repurchase agreements				
Quarter Ended	Quarter-end balance	Average quarterly balance (1)	Maximum balance (2)		
March 31, 2021	8,240,887	8,359,010	8,708,686		
June 30, 2021	7,851,204	7,945,494	8,004,924		
September 30, 2021	7,873,798	7,846,536	7,886,360		
December 31, 2021	6,987,834	7,442,784	7,776,070		
March 31, 2022	5,837,420	6,218,445	6,636,913		
June 30, 2022	3,262,530	4,059,917	4,902,191		
September 30, 2022	3,887,291	3,907,505	4,165,996		
December 31, 2022	4,234,823	3,825,218	4,234,823		

- (1) Average quarterly balance for each period is based on month-end balances.
- (2) Amount represents the maximum borrowings at month-end during each of the respective periods.

Hedging Instruments

We generally hedge as much of our interest rate and foreign exchange risk as we deem prudent because of market conditions. No assurance can be given that our hedging activities will have the desired beneficial impact on our results of operations or financial condition. Our investment policies do not contain specific requirements as to the percentages or amount of risk that we are required to hedge.

Hedging may fail to protect or could adversely affect us because, among other things:

- available interest rate hedging may not correspond directly with the interest rate risk for which protection is sought;
- the duration of the hedges may not match the duration of the related liabilities;
- our counterparty in the hedging transaction may default on its obligation to pay;
- the credit quality of our counterparty on the hedge may be downgraded to such an extent that it impairs our ability to sell or assign our side of the hedging transaction; and
- the value of derivatives used for hedging may be adjusted from time-to-time in accordance with accounting rules to reflect changes in fair value.

We enter into interest rate swap agreements that are designed to mitigate the effects of increases in interest rates for a portion of our borrowings. Under these swap agreements, we generally pay fixed interest rates and receive floating interest rates indexed to SOFR. To a lesser extent, we also enter into interest rate swap agreements whereby we make floating interest rate payments indexed to SOFR and receive fixed interest rate payments as part of our overall risk management strategy. Prior to transitioning interest rate swaps to swaps that are indexed to SOFR in the fourth quarter of 2021, our interest rate swaps were generally indexed to one- or three-month LIBOR.

We actively manage our interest rate swap portfolio as the size and composition of our investment portfolio changes. During the year ended December 31, 2022, we terminated existing interest rate swaps with a notional amount of \$10.0 billion and entered into new interest rate swaps with a notional amount of \$10.1 billion, excluding interest rate swaps with forward start dates, as part of our overall risk management strategy. Daily variation margin payment for interest rate swaps is characterized as settlement of the derivative itself rather than collateral and is recorded as a realized gain or loss in our consolidated statement of operations. We realized a net gain of \$593.0 million on interest rate swaps during the year ended December 31, 2022 primarily due to rising interest rates.

We have entered into currency forward contracts to help mitigate the potential impact of changes in foreign currency exchange rates on investments denominated in foreign currencies. We did not have any currency forward contracts outstanding as of December 31, 2022. As of December 31, 2021 we had €11.7 million or \$13.6 million notional amount of forward contracts related to our investment in an unconsolidated venture. During the year ended December 31, 2022, we settled currency forward contracts of €33.0 million or \$37.1 million (2021: €70.8 million or \$84.8 million) in notional amount related to our investment in an unconsolidated venture and realized a net gain of \$919,000 (2021: \$209,000 net gain).

Capital Activities

During the year ended December 31, 2022, we sold 5,686,598 shares of common stock under our equity distribution agreement with placement agents for proceeds of \$81.6 million, net of approximately \$1.3 million in commissions and fees. During the year ended December 31, 2021, we sold 5,574,402 shares of common stock under our equity distribution agreements for proceeds of \$180.5 million, net of approximately \$2.6 million in commissions and fees. We did not have any remaining shares authorized under our at-the-market program as of December 31, 2022.

In May 2022, our board of directors approved a share repurchase program for our Series B and Series C Preferred Stock. During the year ended December 31, 2022, we repurchased and retired 1,662,366 shares of Series B Preferred Stock and 3,683,530 shares of Series C Preferred Stock. As of December 31, 2022, we had authority to purchase 1,337,634 additional shares of our Series B Preferred Stock and 1,316,470 additional shares of our Series C Preferred Stock under the current share repurchase program.

In May 2022, our board of directors approved a one-for-ten reverse split of outstanding shares of our common stock. The reverse stock split was effected following the close of business on June 3, 2022. For all periods presented, all per common shares and per common share amounts have been adjusted on a retroactive basis to reflect our one-for-ten reverse stock split, unless otherwise noted.

For information on dividends declared and paid during the year ended December 31, 2022, see Note 12 - "Stockholders' Equity" of our consolidated financial statements in Part IV, Item 15 of this report on Form 10-K.

During the year ended December 31, 2022, we did not repurchase any shares of our common stock.

Book Value per Common Share

We calculate book value per common share as follows:

	Years	Ended December 3	31,
In thousands except per share amounts	2022	2021	2020
Numerator (adjusted equity):			
Total equity	804,075	1,402,135	1,367,158
Less: Liquidation preference of Series A Preferred Stock	_	_	(140,000)
Less: Liquidation preference of Series B Preferred Stock	(113,441)	(155,000)	(155,000)
Less: Liquidation preference of Series C Preferred Stock	(195,412)	(287,500)	(287,500)
Total adjusted equity	495,222	959,635	784,658
Denominator (number of shares):			
Common stock outstanding	38,711	32,987	20,322
Book value per common share	12.79	29.09	38.61

Our book value per common share decreased 56% as of December 31, 2022 compared to December 31, 2021 as Agency RMBS were negatively impacted by interest rate volatility, sharply higher interest rates, an inverted yield curve and market expectations for even more restrictive monetary policy, resulting in one of the sector's worst total returns on record.

Our book value per common share decreased 25% as of December 31, 2021 compared to December 31, 2020. The increase in interest rate volatility and prepayment speeds, combined with reduced investor demand for prepayment protection and the potential for an earlier than expected taper of MBS purchases from the Federal Reserve resulted in Agency RMBS sharply underperforming interest rate swap hedges during the first half of 2021. Book value per common share further decreased in the second half of 2021 as the Federal Reserve's announced tapering and subsequent acceleration of the pace of tapering in December 2021 negatively impacted Agency RMBS valuations.

Refer to Item 7A. "Quantitative and Qualitative Disclosures About Market Risk" for interest rate risk and its impact on fair value.

Critical Accounting Policies and Estimates

Our consolidated financial statements are prepared in accordance with U.S. GAAP, which requires the use of estimates and assumptions that involve the exercise of judgment and use of assumptions as to future uncertainties. Accounting estimates and assumptions discussed in this section are those that we consider to be the most critical to an understanding of our financial statements because they involve significant judgments and uncertainties. All of these estimates reflect our best judgment about current, and for some estimates, future economic and market conditions and their effects based on information available as of the date of these financial statements. If conditions change from those expected, it is possible that the judgments and estimates described below could change, which may result in a change in valuation of our investment portfolio, allowances for credit losses on our available-for-sale MBS, and a change in our interest income recognition among other effects.

Mortgage-Backed and Credit Risk Transfer Securities. We have elected the fair value option for all of our MBS purchased on or after September 1, 2016; our GSE CRTs purchased on or after August 24, 2015; and all of our RMBS IOs. Under the fair value option, changes in fair value are recognized in the consolidated statement of operations. In our view, the fair value option election more appropriately reflects the results of our operations because MBS and GSE CRT fair value changes are accounted for in the same manner as fair value changes in economic hedging instruments. As of December 31, 2022, \$4.7 billion (December 31, 2021: \$7.7 billion) or 99% (December 31, 2021: 99%) of our MBS are accounted for under the fair value option.

We record our MBS purchased before September 1, 2016, as available-for-sale and report these MBS at fair value. We recorded our GSE CRTs purchased before August 24, 2015 as hybrid financial instruments and reported these GSE CRTs at fair value. We did not hold any GSE CRTs as of December 31, 2022 or December 31, 2021.

We determine the fair value of our MBS by obtaining valuations from an independent source. If the fair value of a security is not available from a third-party pricing service, we may estimate the fair value of the security using a variety of methods including other pricing services, discounted cash flow analysis, matrix pricing, option adjusted spread models and other fundamental analysis of observable market factors. It is possible that changes in these inputs could change the valuation estimate and lead us to establish allowances for credit losses on our available-for-sale MBS.

Further information is provided in Note 2 - "Summary of Significant Accounting Policies" and Note 4 - "Mortgage-Backed and Credit Risk Transfer Securities."

Interest Income Recognition. Interest income on MBS is accrued based on the outstanding principal or notional balance of the securities and their contractual terms. Premiums or discounts are amortized or accreted into interest income over the life of the investment using the effective interest method.

Interest income on our MBS where we may not recover substantially all of our initial investment is based on estimated future cash flows. We estimate future expected cash flows at the time of purchase and determine the effective interest rate based on these estimated cash flows and our purchase price. Over the life of the investments, we update these estimated future cash flows and compute a revised yield based on the current amortized cost of the investment, unless those changes will be reflected in an allowance for credit losses. In situations where an allowance for credit losses is limited by the fair value of the investment, we compute the yield as the rate that equates expected future cash flows to the current fair value of the investment. In estimating these future cash flows, there are a number of assumptions that are subject to uncertainties and contingencies, including but not limited to the rate and timing of principal payments (prepayments, repurchases, defaults and liquidations), the pass through or coupon rate, and interest rate fluctuations. These uncertainties and contingencies are difficult to predict and are subject to future events that may impact our estimate and our interest income. Changes in our original or most recent cash flow projections may result in a prospective change in interest income recognized on these securities, or the amortized cost of these securities. For non-Agency RMBS not of high credit quality, when actual cash flows vary from expected cash flows, the difference is recorded as an adjustment to the amortized cost of the security, unless those changes will be reflected in an allowance for credit losses, and the security's yield is revised prospectively.

One of the most significant factors impacting our projected cash flows is changes in long-term interest rates. When interest rates fall, prepayments will generally increase and when interest rates rise, prepayments will generally decrease. However, there are a variety of factors that may impact the rate of prepayments on our securities. Accordingly, under different conditions, we could report materially different amounts. Refer to Item 7A. "Quantitative and Qualitative Disclosures About Market Risk" for an estimate of the percentage change in our net interest income, including interest paid or received under interest rate swaps, caused by an instantaneous 50 and 100 basis points increase or decrease in interest rates.

For Agency RMBS and Agency CMBS that cannot be prepaid in such a way that we would not recover substantially all of our initial investment, interest income recognition is based on contractual cash flows. We do not estimate prepayments in applying the effective interest method.

Interest income on GSE CRTs purchased before August 24, 2015 was accrued based on the coupon rate of the debt host contract which reflected the credit risk of GSE unsecured senior debt with a similar maturity. Premiums or discounts associated with the purchase of credit risk transfer securities were amortized or accreted into interest income over the life of the debt host contract using the effective interest method. Interest income on GSE CRTs purchased on or after August 24, 2015 was based on estimated future cash flows.

Interest income from our commercial and other loans was recognized when earned and deemed collectible.

Accounting for Derivative Financial Instruments. We use derivatives to manage interest rate and currency exchange risk and as an alternative means of investing in and financing Agency RMBS. We record all derivatives on our consolidated balance sheets at fair value. Our interest rate swaps, currency forward contracts and TBAs are valued using a market approach through the use of quoted prices available in an active market. All of our interest rate swaps were centrally cleared by a registered clearing organization as of December 31, 2022.

Effective December 31, 2013, we voluntarily discontinued hedge accounting for our interest rate swap agreements by dedesignating the interest rate swaps as cash flow hedges. As a result of discontinuing hedge accounting, changes in the fair value of the interest rate swaps are recorded in gain (loss) on derivative instruments, net in our consolidated statement of operations, rather than in accumulated other comprehensive income (loss). Further information is provided in Note 8 - "Derivatives and Hedging Activities" of our consolidated financial statements included in Part IV, Item 15 of this Report.

Results of Operations

Our consolidated results of operations for the years ended December 31, 2022, 2021 and 2020 are summarized below:

Mortgage-backed and other securities 192,566 167,056 277,400 Commercial and other loans 1,947 2,146 2,766 Total interest income 194,513 169,202 280,166 Interest expense 8 51,560 (11,290) 73,607 Secured loans — — 8,655 Total interest expense 51,560 (11,290) 82,262 Net interest income 142,953 180,492 197,904 Other income (loss) Colline income (loss) Colline income (loss) Colline income (loss) Equity in earnings (lossos) of unconsolidated ventures (407) 870 1,168 Gain (loss) on derivative instruments, net 559,007 122,611 (851,050) Realized and unrealized credit derivative income (loss), net — — 14,742 Other investment income (loss), net — — 14,742 Other income (loss), net — — — 14,742 Other income (loss), net 186		Years Ended December 31,		
Interest income Interest income 192,566 167,056 277,400 Commercial and other loans 1,947 2,146 2,766 Total interest income 194,513 169,202 280,166 Interest expense 1 1,947 2,146 2,760 Repurchase agreements (1) 51,560 (11,290) 73,607 8,655 Total interest expense 51,560 (11,290) 82,262 Nex finterest income 142,953 180,492 197,904 Other interest expense 51,560 (11,290) 82,262 Nex finterest income 142,953 180,492 197,904 Other income (loss) (1079,339) 366,509 197,904 Other income (loss) (1079,339) 366,509 197,904 Other income (loss) (1079,339) 366,509 197,804 Other income (loss) (1079,339) 366,509 197,804 1,68 1,68 1,68 1,68 1,68 1,68 1,68 1,68 1,68 1,68 1,68 1,68 </th <th>\$ in thousands except share data</th> <th>2022</th> <th>2021</th> <th>2020</th>	\$ in thousands except share data	2022	2021	2020
Commercial and other loans 1,947 2,146 2,766 Total interest income 194,513 169,202 280,166 Interest expense 31,560 (11,290) 73,607 Repurchase agreements (1) 51,560 (11,290) 73,607 Secured loans — — 8,655 Total interest expense 51,560 (11,290) 82,262 Net interest income 142,953 180,492 197,904 Other income (loss) Gain (loss) on investments, net (1,079,339) (366,509) (961,938) (Increase) decrease in provision for credit losses — 1,768 (1,768) Equity in earnings (losses) of unconsolidated ventures 407 870 1,163 Gain (loss) on derivative instruments, net 599,007 122,611 (851,050) Realized and unrealized credit derivative income (loss), net — — — (351,312) Net gain (loss) on extinguishment of debt — — 14,742 — — 14,742 Other investment income (loss), net <th< td=""><td>Interest income</td><td></td><td></td><td></td></th<>	Interest income			
Total interest income 194,513 169,202 280,166 Interest expense 194,513 169,202 280,166 Repurchase agreements (1) 51,560 (11,290) 73,607 Secured loans - - 8,655 Total interest expense 51,560 (11,290) 82,262 Net interest income 142,953 180,492 197,904 Other income (loss) Gain (loss) on investments, net (1,079,339) (366,509) 961,938 (Increase) decrease in provision for credit losses - 1,768 1,768 Equity in earnings (losses) of unconsolidated ventures (407) 870 1,163 Gain (loss) on derivative instruments, net - - 1,68 1,768 Realized and unrealized credit derivative income (loss), net - - 4,72 35,150 1,163 36,150 1,163 36,150 1,163 36,150 1,163 36,150 1,163 36,150 1,163 36,120 1,163 36,121 36,121 36,121 36,121 <th< td=""><td>Mortgage-backed and other securities</td><td>192,566</td><td>167,056</td><td>277,400</td></th<>	Mortgage-backed and other securities	192,566	167,056	277,400
Repurchase agreements 1	Commercial and other loans	1,947	2,146	2,766
Repurchase agreements (1) 51,560 (11,290) 73,607 Secured loans — — 8,655 Total interest expense 51,560 (11,290) 82,262 Net interest income 142,953 180,492 197,904 Other income (loss) Gain (loss) on investments, net (1,079,339) (366,509) (961,938) (Increase) decrease in provision for credit losses — 1,768 (1,768) Equity in earnings (losses) of unconsolidated ventures (407) 870 1,163 Gain (loss) on derivative instruments, net — — 1,68 1,658 Equity in earnings (losses) of unconsolidated ventures — — 1,658 1,163 Gain (loss) on derivative instruments, net — — — 3,53,150 1,609 1,163 365,150 1,609 1,163 31,600 1,605 1,163 365,050 1,163 365,050 1,163 365,050 1,163 365,050 1,605 20,168 20,505 1,605 1,605 20,162 365,	Total interest income	194,513	169,202	280,166
Secured loans — — 8,655 Total interest expense 51,560 (11,290) 82,262 Net interest income 142,953 180,492 197,904 Other income (loss) Gain (loss) on investments, net (1,079,339) (366,509) (961,938) (Increase) decrease in provision for credit losses — 1,768 (1,768) Equity in earnings (losses) of unconsolidated ventures (407) 870 1,163 Gain (loss) on derivative instruments, net 559,007 122,611 (851,050) Realized and unrealized credit derivative income (loss), net — — 14,742 Other investment income (loss), net — — 14,742 Other investment income (loss), net 186 1 2,137 Total other income (loss) (50,553) (241,259) (183,2026) Expenses — — 14,742 General and administrative 8,418 8,153 10,863 Total expenses 28,218 9,790 (1,674,352) Dividends to preferred	Interest expense			
Total interest expense 51,560 (11,290) 82,262 Net interest income 142,953 180,492 197,904 Other income (loss) Gain (loss) on investments, net (1,079,339) (366,509) (961,938) (Increase) decrease in provision for credit losses — 1,768 (1,768) Equity in earnings (losses) of unconsolidated ventures (407) 870 1,163 Gain (loss) on derivative instruments, net 559,007 122,611 (851,050) Realized and unrealized credit derivative income (loss), net — — 14,742 Other investment income (loss), net 186 1 2,137 Total other income (loss), net 186 1 2,137 Total other income (loss) (520,553) (241,259) (1,832,026) Expenses — 4,169 29,367 General and administrative 8,418 8,153 10,863 Total expenses 25,324 29,233 40,230 Net income (loss) (402,924) (90,000) (1,674,352)	Repurchase agreements (1)	51,560	(11,290)	73,607
Net interest income 142,953 180,492 197,904 Other income (loss) Gain (loss) on investments, net (1,079,339) (366,509) (961,938) (Increase) decrease in provision for credit losses — 1,768 (1,768) Equity in earnings (losses) of unconsolidated ventures (407) 870 1,163 Gain (loss) on derivative instruments, net 559,007 122,611 (851,050) Realized and unrealized credit derivative income (loss), net — — (35,312) Net gain (loss) on extinguishment of debt — — 14,742 Other investment income (loss), net 186 1 2,137 Total other income (loss), net 186 1 2,137 Total other income (loss) (520,553) (241,259) (1,832,026) Expenses — 8,418 8,153 10,863 Total expenses 25,324 29,233 40,230 Net income (loss) (402,924) (90,000) (1,674,352) Dividends to preferred stockholders (28,218) (37,795) (44,26)	Secured loans	_	_	8,655
Other income (loss) Gain (loss) on investments, net (Increase) decrease in provision for credit losses — 1,768 (1,768) Equity in earnings (losses) of unconsolidated ventures (407) 870 (1,63) Gain (loss) on derivative instruments, net 559,007 (122,611) (851,050) Realized and unrealized credit derivative income (loss), net — — 14,742 Other investment income (loss), net — — 14,742 Other investment income (loss), net 186 1 (2,137) Total other income (loss), net 186 1 (2,137) Total other income (loss) (520,553) (241,259) (1,832,026) Expenses — — 14,742 Management fee — related party 16,906 (21,080) (29,367) General and administrative 8,418 (8,153) (10,863) Total expenses 25,324 (29,233) (40,230) Net income (loss) (402,924) (90,000) (1,674,352) Dividends to preferred stockholders (28,218) (37,795) (44,426) Gain on repurchase and retirement of preferred stock 14,179 — — Issuance and redemption costs of redeemed preferred stock — (4,682) — Net income (loss) attributable to common stockholders (416,963) (132,477) (1,718,778) Earnings (loss) per share: <t< td=""><td>Total interest expense</td><td>51,560</td><td>(11,290)</td><td>82,262</td></t<>	Total interest expense	51,560	(11,290)	82,262
Gain (loss) on investments, net (1,079,339) (366,509) (961,938) (Increase) decrease in provision for credit losses — 1,768 (1,768) Equity in earnings (losses) of unconsolidated ventures (407) 870 1,163 Gain (loss) on derivative instruments, net 559,007 122,611 (851,050) Realized and unrealized credit derivative income (loss), net — — (35,312) Net gain (loss) on extinguishment of debt — — 14,742 Other investment income (loss), net 186 1 2,137 Total other income (loss) (520,553) (241,259) (1832,026) Expenses — — 14,742 Management fee — related party 16,906 21,080 29,367 General and administrative 8,418 8,153 10,863 Total expenses 25,234 29,233 40,230 Net income (loss) (402,924) (90,000) (1,674,352) Dividends to preferred stockholders — (4,682) — Gain on repurchase and retirement of preferred stoc	Net interest income	142,953	180,492	197,904
Clincrease) decrease in provision for credit losses	Other income (loss)			
Equity in earnings (losses) of unconsolidated ventures (407) 870 1,163 Gain (loss) on derivative instruments, net 559,007 122,611 (851,050) Realized and unrealized credit derivative income (loss), net — — (35,312) Net gain (loss) on extinguishment of debt — — 14,742 Other investment income (loss), net 186 1 2,137 Total other income (loss) (520,553) (241,259) (1,832,026) Expenses — — 40,832,026) Expenses — 16,906 21,080 29,367 General and administrative 8,418 8,153 10,863 Total expenses 25,324 29,233 40,230 Net income (loss) (402,924) (90,000) (1,674,352) Dividends to preferred stockholders (28,218) (37,795) (44,26) Gain on repurchase and retirement of preferred stock 14,179 — — Net income (loss) attributable to common stockholders — (4,682) — Earnings (loss) per share:	Gain (loss) on investments, net	(1,079,339)	(366,509)	(961,938)
Gain (loss) on derivative instruments, net 559,007 122,611 (851,050) Realized and unrealized credit derivative income (loss), net — — (35,312) Net gain (loss) on extinguishment of debt — — 14,742 Other investment income (loss), net 186 1 2,137 Total other income (loss) (520,553) (241,259) (1,832,026) Expenses — — 10,906 21,080 29,367 General and administrative 8,418 8,153 10,863 10,863 Total expenses 25,324 29,233 40,230 Net income (loss) (402,924) (90,000) (1,674,352) Dividends to preferred stockholders (28,218) (37,795) (44,26) Gain on repurchase and retirement of preferred stock 14,179 — — Issuance and redemption costs of redeemed preferred stock — (4,682) — Net income (loss) attributable to common stockholders — (4,682) — Basic (12,21) (4.82) (98.93)	, , , ,	_	1,768	(1,768)
Realized and unrealized credit derivative income (loss), net — — (35,312) Net gain (loss) on extinguishment of debt — — 14,742 Other investment income (loss), net 186 1 2,137 Total other income (loss) (520,553) (241,259) (1,832,026) Expenses — — 4,1259 (1,832,026) Management fee — related party 16,906 21,080 29,367 General and administrative 8,418 8,153 10,863 Total expenses 25,324 29,233 40,230 Net income (loss) (402,924) (90,000) (1,674,352) Dividends to preferred stockholders (28,218) (37,795) (44,426) Gain on repurchase and retirement of preferred stock 14,179 — — Issuance and redemption costs of redeemed preferred stock — (4,682) — Net income (loss) attributable to common stockholders (416,963) (132,477) (1,718,778) Earnings (loss) per share: (12,21) (4,82) (98,93) Diluted	Equity in earnings (losses) of unconsolidated ventures	(407)	870	1,163
Net gain (loss) on extinguishment of debt — — 14,742 Other investment income (loss), net 186 1 2,137 Total other income (loss) (520,553) (241,259) (1,832,026) Expenses — 16,906 21,080 29,367 General and administrative 8,418 8,153 10,863 Total expenses 25,324 29,233 40,230 Net income (loss) (402,924) (90,000) (1,674,352) Dividends to preferred stockholders (28,218) (37,795) (44,426) Gain on repurchase and retirement of preferred stock 14,179 — — Issuance and redemption costs of redeemed preferred stock — (4,682) — Net income (loss) attributable to common stockholders (416,963) (132,477) (1,718,778) Earnings (loss) per share: (12,21) (4,82) (98,93) Diluted (12,21) (4,82) (98,93) Weighted average number of shares of common stock: 34,160,080 27,513,223 17,373,039	Gain (loss) on derivative instruments, net	559,007	122,611	(851,050)
Other investment income (loss), net 186 1 2,137 Total other income (loss) (520,553) (241,259) (1,832,026) Expenses **** **** **** (520,553) (241,259) (1,832,026) Management fee — related party 16,906 21,080 29,367 General and administrative 8,418 8,153 10,863 Total expenses 25,324 29,233 40,230 Net income (loss) (402,924) (90,000) (1,674,352) Dividends to preferred stockholders (28,218) (37,795) (44,426) Gain on repurchase and retirement of preferred stock 14,179 — — Issuance and redemption costs of redeemed preferred stock — (4,682) — Net income (loss) attributable to common stockholders — (4,682) — Earnings (loss) per share: — (4,82) (98,93) Diluted (12,21) (4,82) (98,93) Weighted average number of shares of common stock: 34,160,080 27,513,223 17,373,039	Realized and unrealized credit derivative income (loss), net	_		(35,312)
Total other income (loss) (520,553) (241,259) (1,832,026) Expenses Management fee — related party 16,906 21,080 29,367 General and administrative 8,418 8,153 10,863 Total expenses 25,324 29,233 40,230 Net income (loss) (402,924) (90,000) (1,674,352) Dividends to preferred stockholders (28,218) (37,795) (44,426) Gain on repurchase and retirement of preferred stock 14,179 — — Issuance and redemption costs of redeemed preferred stock — (4,682) — Net income (loss) attributable to common stockholders — (416,963) (132,477) (1,718,778) Earnings (loss) per share: Net income (loss) attributable to common stockholders Basic (12.21) (4.82) (98.93) Diluted (12.21) (4.82) (98.93) Weighted average number of shares of common stock: 34,160,080 27,513,223 17,373,039	Net gain (loss) on extinguishment of debt	_	<u>—</u>	14,742
Expenses Management fee — related party 16,906 21,080 29,367 General and administrative 8,418 8,153 10,863 Total expenses 25,324 29,233 40,230 Net income (loss) (402,924) (90,000) (1,674,352) Dividends to preferred stockholders (28,218) (37,795) (44,426) Gain on repurchase and retirement of preferred stock 14,179 — — Issuance and redemption costs of redeemed preferred stock — (4,682) — Net income (loss) attributable to common stockholders (416,963) (132,477) (1,718,778) Earnings (loss) per share: (12.21) (4.82) (98.93) Diluted (12.21) (4.82) (98.93) Weighted average number of shares of common stock: 34,160,080 27,513,223 17,373,039	Other investment income (loss), net	186	1	2,137
Management fee — related party 16,906 21,080 29,367 General and administrative 8,418 8,153 10,863 Total expenses 25,324 29,233 40,230 Net income (loss) (402,924) (90,000) (1,674,352) Dividends to preferred stockholders (28,218) (37,795) (44,426) Gain on repurchase and retirement of preferred stock 14,179 — — Issuance and redemption costs of redeemed preferred stock — (4,682) — Net income (loss) attributable to common stockholders (416,963) (132,477) (1,718,778) Earnings (loss) per share: Net income (loss) attributable to common stockholders Basic (12,21) (4.82) (98.93) Weighted average number of shares of common stock: 34,160,080 27,513,223 17,373,039	Total other income (loss)	(520,553)	(241,259)	(1,832,026)
General and administrative 8,418 8,153 10,863 Total expenses 25,324 29,233 40,230 Net income (loss) (402,924) (90,000) (1,674,352) Dividends to preferred stockholders (28,218) (37,795) (44,426) Gain on repurchase and retirement of preferred stock 14,179 — — Issuance and redemption costs of redeemed preferred stock — (4,682) — Net income (loss) attributable to common stockholders (416,963) (132,477) (1,718,778) Earnings (loss) per share: Service (loss) attributable to common stockholders (12,21) (4,82) (98,93) Diluted (12,21) (4,82) (98,93) Weighted average number of shares of common stock: 34,160,080 27,513,223 17,373,039	_			
Total expenses 25,324 29,233 40,230 Net income (loss) (402,924) (90,000) (1,674,352) Dividends to preferred stockholders (28,218) (37,795) (44,426) Gain on repurchase and retirement of preferred stock 14,179 — — Issuance and redemption costs of redeemed preferred stock — (4,682) — Net income (loss) attributable to common stockholders (416,963) (132,477) (1,718,778) Earnings (loss) per share: Net income (loss) attributable to common stockholders Basic (12.21) (4.82) (98.93) Diluted (12.21) (4.82) (98.93) Weighted average number of shares of common stock: 34,160,080 27,513,223 17,373,039		16,906	21,080	29,367
Net income (loss) (402,924) (90,000) (1,674,352) Dividends to preferred stockholders (28,218) (37,795) (44,426) Gain on repurchase and retirement of preferred stock 14,179 — — Issuance and redemption costs of redeemed preferred stock — (4,682) — Net income (loss) attributable to common stockholders (416,963) (132,477) (1,718,778) Earnings (loss) per share: Net income (loss) attributable to common stockholders (12.21) (4.82) (98.93) Diluted (12.21) (4.82) (98.93) Weighted average number of shares of common stock: 34,160,080 27,513,223 17,373,039	General and administrative	8,418	8,153	10,863
Dividends to preferred stockholders Gain on repurchase and retirement of preferred stock 14,179 — — Issuance and redemption costs of redeemed preferred stock Net income (loss) attributable to common stockholders Earnings (loss) per share: Net income (loss) attributable to common stockholders Basic 1(12.21) (4.82) (98.93) Diluted (12.21) (4.82) (98.93) Weighted average number of shares of common stock: Basic 34,160,080 27,513,223 17,373,039	Total expenses	25,324	29,233	40,230
Gain on repurchase and retirement of preferred stock Issuance and redemption costs of redeemed preferred stock Net income (loss) attributable to common stockholders Earnings (loss) per share: Net income (loss) attributable to common stockholders Basic Diluted (12.21) (4.82) (98.93) Diluted (12.21) (4.82) (98.93) Weighted average number of shares of common stock: Basic 34,160,080 27,513,223 17,373,039	Net income (loss)	(402,924)	(90,000)	(1,674,352)
Issuance and redemption costs of redeemed preferred stock Net income (loss) attributable to common stockholders Earnings (loss) per share: Net income (loss) attributable to common stockholders Basic Diluted (12.21) (4.82) (98.93) Diluted (12.21) (4.82) (98.93) Weighted average number of shares of common stock: Basic 34,160,080 27,513,223 17,373,039	Dividends to preferred stockholders	(28,218)	(37,795)	(44,426)
Net income (loss) attributable to common stockholders (416,963) (132,477) (1,718,778) Earnings (loss) per share: Net income (loss) attributable to common stockholders Basic (12.21) (4.82) (98.93) Diluted (12.21) (4.82) (98.93) Weighted average number of shares of common stock: 34,160,080 27,513,223 17,373,039	Gain on repurchase and retirement of preferred stock	14,179		
Earnings (loss) per share: Net income (loss) attributable to common stockholders Basic (12.21) (4.82) (98.93) Diluted (12.21) (4.82) (98.93) Weighted average number of shares of common stock: Basic 34,160,080 27,513,223 17,373,039	Issuance and redemption costs of redeemed preferred stock		(4,682)	
Net income (loss) attributable to common stockholders Basic (12.21) (4.82) (98.93) Diluted (12.21) (4.82) (98.93) Weighted average number of shares of common stock: 34,160,080 27,513,223 17,373,039	Net income (loss) attributable to common stockholders	(416,963)	(132,477)	(1,718,778)
Basic (12.21) (4.82) (98.93) Diluted (12.21) (4.82) (98.93) Weighted average number of shares of common stock: Basic 34,160,080 27,513,223 17,373,039	Earnings (loss) per share:			
Diluted (12.21) (4.82) (98.93) Weighted average number of shares of common stock: Basic 34,160,080 27,513,223 17,373,039	Net income (loss) attributable to common stockholders			
Weighted average number of shares of common stock: Basic 34,160,080 27,513,223 17,373,039	Basic	(12.21)	(4.82)	(98.93)
Weighted average number of shares of common stock: Basic 34,160,080 27,513,223 17,373,039	Diluted	(12.21)	(4.82)	(98.93)
27,100,000 27,513,225	Weighted average number of shares of common stock:			
Diluted 34,160,080 27,513,223 17,373,039	Basic	34,160,080	27,513,223	17,373,039
	Diluted	34,160,080	27,513,223	17,373,039

⁽¹⁾ Negative interest expense on repurchase agreements in 2021 is due to amortization of net deferred gains on de-designated interest rate swaps that exceeds current period interest expense on repurchase agreements. For further information on amortization of amounts classified in accumulated other comprehensive income before we discontinued hedge accounting, see Note 8 - "Derivatives and Hedging Activities" and Note 12 - "Stockholders' Equity" in Part IV, Item 15 of this report on Form 10-K.

Interest Income and Average Earning Asset Yields

The table below presents information related to our average earning assets and earning asset yields for the years ended December 31, 2022, 2021 and 2020.

	Year	Years ended December 31,			
\$ in thousands	2022	2021	2020		
Average earning assets (1)	5,137,339	8,808,105	7,895,394		
Average earning asset yields (2)	3.79 %	1.92 %	3.55 %		

- (1) Average balances for each period are based on weighted month-end balances.
- (2) Average earning asset yields for the period were calculated by dividing interest income, including amortization of premiums and discounts, by average earning assets based on the amortized cost of the investments. All yields are annualized.

Our primary source of income is interest earned on our investment portfolio. We had average earning assets of \$5.1 billion during the year ended December 31, 2022 (2021: \$8.8 billion; 2020: \$7.9 billion). Average earning assets decreased for the year ended December 31, 2022 compared to 2021 as we reduced the size of our investment portfolio given expectations that the Federal Reserve's tapering of asset purchases and acceleration of monetary policy tightening could result in an increase in market volatility and lower valuations on our holdings. Average earning asset yields increased for the year ended December 31, 2022 compared to 2021 primarily due to our rotation into higher yielding Agency RMBS.

Average earning assets increased for the year ended December 31, 2021 compared to 2020 as we resumed investing in Agency RMBS during the third quarter of 2020 after selling a substantial portion of our MBS and GSE CRT portfolio in the first half of 2020 to generate liquidity and reduce leverage in response to the financial market disruption caused by the COVID-19 pandemic. Average earning asset yields decreased during the year ended December 31, 2021 compared to 2020 due to changes in our portfolio composition.

We earned total interest income of \$194.5 million during 2022 (2021: \$169.2 million; 2020: \$280.2 million). Our interest income consists of coupon interest and net (premium amortization) discount accretion on MBS and other securities as well as interest income on commercial and other loans as shown in the table below.

	Years Ended December 31,		
\$ in thousands	2022	2021	2020
Interest Income			
Mortgage-backed and other securities - coupon interest	198,290	207,506	298,613
Mortgage-backed and other securities - net (premium amortization) discount accretion	(5,724)	(40,450)	(21,213)
Mortgage-backed and other securities - interest income	192,566	167,056	277,400
Commercial and other loans	1,947	2,146	2,766
Total interest income	194,513	169,202	280,166

Mortgage-backed and other securities interest income increased \$25.5 million for the year ended December 31, 2022 compared to 2021 despite lower average earning assets due to a 187 basis point increase in average earning asset yields. Interest income on our commercial loan decreased during the year ended December 31, 2022 compared to 2021 primarily due to the repayment of the commercial loan in October 2022.

Mortgage-backed and other securities interest income decreased \$110.3 million for the year ended December 31, 2021 compared to 2020 primarily due to a 163 basis point decrease in average earning asset yields. Almost all of our investment portfolio (excluding TBAs) was invested in Agency RMBS during the year ended December 31, 2021.

Prepayment Speeds

Our RMBS portfolio (and previously our GSE CRT portfolio) is subject to inherent prepayment risk primarily driven by changes in interest rates, which impacts the amount of premium and discount on the purchase of these securities that is recognized into interest income. Expected future prepayment speeds are estimated on a quarterly basis. Generally, in an environment of falling interest rates, prepayment speeds will increase as homeowners are more likely to prepay their existing mortgage and refinance into a lower borrowing rate. In an environment of rising interest rates, prepayment speeds will generally decrease as homeowners are not as incentivized to refinance. If the actual prepayment speed during the period is faster than estimated, the amortization on securities purchased at a premium to par value will be accelerated, resulting in lower interest income recognized. Conversely, for securities purchased at a discount to par value, interest income will be reduced in periods where prepayment speeds were slower than expected.

The following table presents net (premium amortization) discount accretion recognized on our mortgage-backed and other securities portfolio during 2022, 2021 and 2020.

	Year	31,	
\$ in thousands	2022	2021	2020
Agency RMBS	(6,755)	(41,881)	(32,737)
Agency CMBS	_	_	(1,744)
Non-Agency CMBS	1,624	2,695	14,721
Non-Agency RMBS	(552)	(1,264)	1,107
GSE CRT	_	_	(2,560)
U.S. Treasury Securities	(41)		
Net (premium amortization) discount accretion	(5,724)	(40,450)	(21,213)

Net premium amortization decreased \$34.7 million during 2022 compared to 2021 primarily as a result of repositioning our Agency RMBS portfolio into securities with lower book prices.

Net premium amortization increased \$19.2 million during 2021 compared to 2020 primarily due to sales of non-Agency CMBS purchased at discounts and the purchase of Agency RMBS at premiums during the second half of 2020 and in 2021.

Our interest income is subject to interest rate risk. Refer to Item 7A. "Quantitative and Qualitative Disclosures about Market Risk" for more information relating to interest rate risk and its impact on our operating results.

Interest Expense and Cost of Funds

The table below presents our average borrowings and cost of funds for the years ended December 31, 2022, 2021 and 2020.

	Years ended December 31,		
\$ in thousands	2022	2021	2020
Total average borrowings (1)	4,495,581	7,892,617	6,926,790
Maximum borrowings during the period (2)	6,636,913	8,708,686	23,132,234
Cost of funds (3)	1.15 %	(0.14)%	1.19 %

- (1) Average borrowings for each period are based on weighted month-end balances.
- (2) Amount represents the maximum borrowings at month-end during each of the respective periods.
- (3) Average cost of funds is calculated by dividing annualized interest expense, including amortization of net deferred gain (loss) on de-designated interest rate swaps, by our average borrowings.

Total average borrowings decreased \$3.4 billion in 2022 compared to 2021 as we reduced the size of our investment portfolio and related repurchase agreement borrowings given expectations that the Federal Reserve's tapering of asset purchases and acceleration of monetary policy tightening could result in an increase in market volatility and lower valuations on our holdings. Our cost of funds increased 129 basis points in 2022 compared to 2021 primarily due to increases in the Federal Funds target rate.

Total average borrowings increased \$965.8 million in 2021 compared to 2020 because we resumed investing in Agency RMBS in July 2020 and financing purchases with repurchase agreements. The increase in repurchase agreement borrowings was partially offset by the repayment of \$1.65 billion of secured loans during 2020. Our cost of funds decreased 133 basis points in 2021 compared to 2020 primarily due to decreases in the Federal Funds target rate.

The table below presents the components of interest expense for the years ended December 31, 2022, 2021 and 2020.

	Year	rs ended December	31,
\$ in thousands	2022	2021	2020
Interest Expense			
Interest expense on repurchase agreement borrowings	71,268	10,710	97,401
Amortization of net deferred (gain) loss on de-designated interest rate swaps	(19,708)	(22,000)	(23,794)
Repurchase agreements interest expense	51,560	(11,290)	73,607
Secured loans		<u> </u>	8,655
Total interest expense	51,560	(11,290)	82,262

Our interest expense on repurchase agreement borrowings increased \$60.6 million for the year ended December 31, 2022 compared to 2021 due to a higher cost of funds. Our interest expense on repurchase agreement borrowings decreased \$86.7 million for the year ended December 31, 2021 compared to 2020 due to a lower cost of funds.

Our repurchase agreements interest expense as reported in our consolidated statement of operations includes amortization of net deferred gains and losses on de-designated interest rate swaps as summarized in the table above. Amounts recorded in accumulated other comprehensive income ("AOCI") before we discontinued cash flow hedge accounting for our interest rate swaps are reclassified to interest expense on repurchase agreements on the consolidated statements of operations as interest is accrued and paid on the related repurchase agreements over the remaining life of the interest rate swap agreements.

Amortization of net deferred gains on de-designated interest rate swaps decreased our total interest expense by \$19.7 million, \$22.0 million and \$23.8 million during the years ended December 31, 2022, December 31, 2021 and December 31, 2020, respectively. We expect to reclassify the remaining \$10.4 million of net unrealized gains recorded in AOCI as a decrease to interest expense on repurchase agreements on the consolidated statements of operations in 2023.

We repaid our secured loans during 2020 and did not incur interest expense for secured loans during the years ended December 31, 2022 and 2021.

Net Interest Income

The table below presents the components of net interest income for the years ended December 31, 2022, 2021 and 2020.

	Years ended December 31,					
\$ in thousands	2022	2021	2020			
Interest Income						
Mortgage-backed and other securities	192,566	167,056	277,400			
Commercial and other loans	1,947	2,146	2,766			
Total interest income	194,513	169,202	280,166			
Interest Expense						
Interest expense on repurchase agreement borrowings	71,268	10,710	97,401			
Amortization of net deferred (gain) loss on de-designated interest rate swaps	(19,708)	(22,000)	(23,794)			
Repurchase agreements interest expense	51,560	(11,290)	73,607			
Secured loans	<u> </u>		8,655			
Total interest expense	51,560	(11,290)	82,262			
Net interest income	142,953	180,492	197,904			
Net interest rate margin	2.64 %	2.06 %	2.36 %			

Our net interest income, which equals total interest income less total interest expense, totaled \$143.0 million for the year ended December 31, 2022 (2021: \$180.5 million; 2020: \$197.9 million). The decrease in net interest income for the year ended December 31, 2022 compared to 2021 was primarily due to higher interest expense as the Federal Reserve raised the Federal Funds target rate. Our short-term borrowings are generally more sensitive to changes in interest rates than our investment portfolio, which is largely comprised of 30 year fixed-rate Agency RMBS. The decrease in net interest income for 2021 compared to 2020 was primarily due to the sale of MBS and GSE CRT in the first half of 2020 as previously discussed.

Our net interest rate margin, which equals the yield on our average assets for the period less the average cost of funds for the period, was 2.64% for the year ended December 31, 2022 (2021: 2.06%; 2020: 2.36%). The increase in net interest rate margin for the year ended December 31, 2022 compared to 2021 was primarily due to our rotation into higher yielding Agency RMBS, which was partially offset by higher interest rates on our borrowings. The decrease in net interest rate margin for 2021 compared to 2020 was primarily due to the change in our portfolio composition, including related repurchase agreements borrowings.

Gain (Loss) on Investments, net

The table below summarizes the components of gain (loss) on investments, net for the years ended December 31, 2022, 2021 and 2020.

	Year	s Ended December	· 31,
\$ in thousands	2022	2021	2020
Net realized gains (losses) on sale of MBS and GSE CRT	(1,163,910)	(281,224)	(363,781)
Impairment of investments the Company intends to sell or more likely than not will be required to sell before recovery of amortized cost basis and other impairments	_	_	(101,138)
Net unrealized gains (losses) on MBS and GSE CRT accounted for under the fair value option	118,365	(85,702)	(492,047)
Net unrealized gains (losses) on commercial loan	404	417	(1,164)
Net realized gains (losses) on U.S. Treasury securities	(34,198)	_	_
Realized loss on loan participation interest	_	_	(3,808)
Total gain (loss) on investments, net	(1,079,339)	(366,509)	(961,938)

During the year ended December 31, 2022, we sold MBS for cash proceeds of \$27.3 billion (2021: MBS of \$16.3 billion; 2020: MBS and GSE CRTs of \$25.0 billion) and realized net losses of \$1.2 billion (2021: net losses of \$281.2 million; 2020: net losses of \$363.8 million). Realized net losses during the year ended December 31, 2022 and 2021 primarily reflect sales of lower yielding Agency RMBS to purchase higher yielding Agency RMBS. We sold securities during the year ended December 31, 2020 to generate liquidity and reduce leverage in response to the financial market disruption caused by the COVID-19 pandemic. A portion of these sales were involuntary liquidations at significantly distressed market prices as certain of our repurchase agreement counterparties seized and sold our securities when we were unable to meet margin calls in March 2020.

We did not record any impairment during the years ended December 31, 2022 and 2021 because we intended to sell or more likely than not would be required to sell the securities before recovery of amortized cost basis. We recorded \$94.1 million of impairment on non-Agency RMBS and CMBS securities during the year ended December 31, 2020, because we intended to sell or more likely than not would be required to sell the securities before recovery of amortized cost basis. For additional information regarding our accounting policy for impairment, refer to Note 2 – "Summary of Significant Accounting Policies" of our consolidated financial statements included in Part IV, Item 15 of this Report.

We have elected the fair value option for all of our MBS purchased on or after September 1, 2016 and all of our GSE CRTs purchased on or after August 24, 2015. Before September 1, 2016, we had also elected the fair value option for our RMBS IOs. Under the fair value option, changes in fair value are recognized in income in the consolidated statements of operations. As of December 31, 2022, \$4.7 billion or 99% (December 31, 2021: \$7.7 billion or 99%) of our MBS are accounted for under the fair value option.

We recorded net unrealized gains on our MBS portfolio accounted for under the fair value option of \$118.4 million in 2022 (2021: net unrealized losses of \$85.7 million on our MBS portfolio accounted for under the fair value option; 2020; net unrealized losses of \$492.0 million on our MBS and GSE CRT portfolio accounted for under the fair value option). Net unrealized gains in the year ended December 31, 2022 reflect reclassifications on securities that were sold as well as tighter spreads and favorable rates on assets held at year end. Net unrealized losses in the years ended December 31, 2021 and 2020 primarily reflect wider interest rate spreads.

In October 2022, our commercial loan with a principal balance of \$23.9 million was repaid in full. We recorded unrealized gains of \$404,000 and \$417,000 on our commercial loan investment during the years ended December 31, 2022 and 2021, respectively, and unrealized losses of \$1.2 million during the year ended December 31, 2020. We valued our commercial loan investment based upon a valuation from an independent pricing service.

We recorded a realized loss of \$3.8 million on our loan participation interest during year ended December 31, 2020. We sold the loan participation interest in April 2020.

We recorded net realized losses of \$34.2 million on U.S. Treasury securities during the year ended December 31, 2022 due to rising interest rates. We did not invest in U.S. Treasury securities during the years ended December 31, 2021 and 2020.

(Increase) Decrease in Provision for Credit Losses

As of December 31, 2022, approximately \$42.5 million of our \$4.8 billion of MBS are classified as available-for-sale and subject to evaluation for credit losses. We did not record any provisions for credit losses during the year ended December 31, 2022. We recorded a provision for credit losses of \$1.8 million on a single non-Agency CMBS for the year ended December 31, 2020. We recorded a \$1.8 million decrease in the provision for credit losses during the year ended December 31, 2021 because the security fully repaid in June 2021. Refer to Note 2 – "Summary of Significant Accounting Policies" of our consolidated financial statements included in Part IV, Item 15 of this Report for additional information on how we calculate our provision for credit losses.

Equity in Earnings (Losses) of Unconsolidated Ventures

For the year ended December 31, 2022, we recorded equity in losses of unconsolidated ventures of \$407,000 (2021: equity in earnings of \$870,000; 2020: equity in earnings of \$1.2 million). Earnings and losses of unconsolidated ventures are driven primarily by the underlying portfolio investments.

Gain (Loss) on Derivative Instruments, net

We record all derivatives on our consolidated balance sheets at fair value. Changes in the fair value of our derivatives are recorded in gain (loss) on derivative instruments, net in our consolidated statements of operations. Net interest paid or received under our interest rate swaps is also recognized in gain (loss) on derivative instruments, net in our consolidated statements of operations.

The tables below summarize the components of our gain (loss) on derivative instruments, net for the years ended December 31, 2022, 2021 and 2020:

\$ in thousands	Year ended December 31, 2022
5 III tiibusailus	1 cai chucu December 31, 2022

Derivative not designated as hedging instrument	Realized gain (loss) on derivative instruments, net	Contractual net interest income (expense)	Unrealized gain (loss), net	Gain (loss) on derivative instruments, net
Interest Rate Swaps	593,035	86,872	11,426	691,333
Currency Forward Contracts	919	_	(271)	648
TBAs	(134,488)	_	1,514	(132,974)
Total	459,466	86,872	12,669	559,007

\$ in thousands Year ended December 31, 2021

Derivative not designated as hedging instrument	Realized gain (loss) on derivative instruments, net	Contractual net interest income (expense)	Unrealized gain (loss), net	Gain (loss) on derivative instruments, net
Interest Rate Swaps	185,232	(15,803)	(5,869)	163,560
Interest Rate Swaptions	(553)	_		(553)
Currency Forward Contracts	209	_	970	1,179
TBAs	(28,731)	<u> </u>	(12,844)	(41,575)
Total	156,157	(15,803)	(17,743)	122,611

\$ in thousands Year ended December 31, 2020

Derivative not designated as hedging instrument	Realized gain (loss) on derivative instruments, net	Contractual net interest income (expense)	Unrealized gain (loss), net	Gain (loss) on derivative instruments, net
Interest Rate Swaps	(857,753)	8,047	(24,068)	(873,774)
Currency Forward Contracts	(1,301)	_	(345)	(1,646)
TBAs	14,477	<u> </u>	9,893	24,370
Total	(844,577)	8,047	(14,520)	(851,050)

During the year ended December 31, 2022, we terminated existing interest rate swaps with a notional amount of \$10.0 billion and entered into new swaps with a notional amount of \$10.1 billion, excluding terminations and additions of forward starting swaps. We realized a net gain of \$593.0 million on interest rate swaps during the year ended December 31, 2022 due to rising interest rates. As of December 31, 2022, we had \$4.2 billion of repurchase agreement borrowings with a weighted average remaining maturity of 28 days. We typically refinance each repurchase agreement at market interest rates upon maturity. We use interest rate swaps to manage our exposure to changing interest rates and add stability to interest rate expense.

During the year ended December 31, 2021, we terminated existing swaps with a notional amount of \$2.5 billion and entered into new swaps with a notional amount of \$4.3 billion, excluding terminations and additions related to the transition of interest rate swaps to swaps that are indexed to SOFR in the fourth quarter of 2021 and terminations and additions of forward starting swaps. We realized a net gain of \$185.2 million on interest rate swaps during the year ended December 31, 2021 due to rising interest rates.

In March 2020, we terminated interest rate swaps as we repositioned our portfolio in response to unprecedented market conditions associated with the COVID-19 pandemic. Our exposure to interest rate risk decreased as we sold Agency assets and repaid borrowings. We realized a net loss of \$904.7 million on these interest rate swaps during the first half of 2020 primarily due to falling interest rates. We resumed entering into interest rate swaps in July 2020 as we resumed investing in Agency RMBS and financing our investments with repurchase agreements.

As of December 31, 2022 and 2021, we held the following interest rate swaps whereby we pay fixed rate interest and receive floating rate interest based upon SOFR.

\$ in thousands		December 3	31, 2022			December 3	31, 2021	
			Weighted				Weighted	
Derivative instrument	Notional Amounts	Weighted Average Fixed Pay Rate	Average Floating Receive Rate	Weighted Average Years to Maturity	Notional Amounts	Weighted Average Fixed Pay Rate	Average Floating Receive Rate	Weighted Average Years to Maturity
	Timounts	- Kate	Rate	Maturity	Atmounts		- Itale	Maturity
Interest Rate Swaps (1)	5,800,000	0.45 %	4.30 %	6.3	6,300,000	0.30 %	0.05 %	5.7

(1) Excludes \$975.0 million notional amount of interest rate swaps with forward start dates as of December 31, 2022 that will receive floating interest based upon SOFR (December 31, 2021: \$1.3 billion).

As of December 31, 2022 and 2021, we held the following interest rate swaps whereby we pay floating rate interest based upon SOFR and receive fixed rate interest.

\$ in thousands		December 3	31, 2022			December 3	31, 2021	
			Weighted				Weighted	
Derivative instrument	Notional Amounts	Weighted Average Floating Pay Rate	Average Fixed Receive Rate	Weighted Average Years to Maturity	Notional Amounts	Weighted Average Floating Pay Rate	Average Fixed Receive Rate	Weighted Average Years to Maturity
Interest Rate Swaps (1)	2,350,000	4.30 %	2.78 %	9.3	1,750,000	0.05 %	0.98 %	4.9

(1) Excludes \$275.0 million notional amount of interest rate swaps with forward start dates as of December 31, 2022 that will pay floating interest based upon SOFR (December 31, 2021: none).

We use currency forward contracts to help mitigate the potential impact of changes in foreign currency exchange rates. As of December 31, 2022, we did not have any currency forward contracts outstanding. As of December 31, 2021 we had \$13.6 million of notional amount of currency forward contracts related to an investment in an unconsolidated venture denominated in euro

We primarily use TBAs that we do not intend to physically settle on the contractual settlement date as an alternative means of investing in and financing Agency RMBS. As of December 31, 2022, we did not have a net notional amount of TBAs. During the year ended December 31, 2022, we recorded \$133.0 million of realized and unrealized losses on TBAs primarily due to rising interest rates, in addition to wider interest rate spreads on Agency RMBS. As of December 31, 2021, we had \$1.6 billion notional amount of TBAs and recorded \$41.6 million of realized and unrealized losses on TBAs during the year ended December 31, 2021 primarily due to a sharp increase in mortgage rates in the first quarter of 2021. As of December 31, 2020, we had \$1.7 billion notional amount of TBAs and recorded \$24.4 million of realized and unrealized gains during the year ended December 31, 2020.

Realized and Unrealized Credit Derivative Income (Loss), net

The table below summarizes the components of realized and unrealized credit derivative income (loss), net for the year ended December 31, 2020.

	Year Ended December 31
\$ in thousands	2020
GSE CRT embedded derivative coupon interest	6,323
Gain (loss) on settlement of GSE CRT embedded derivatives	(31,354)
Change in fair value of GSE CRT embedded derivatives	(10,281)
Total realized and unrealized credit derivative income (loss), net	(35,312)

During the year ended December 31, 2020, we recorded realized and unrealized credit derivative losses of \$41.6 million, excluding embedded derivative coupon interest. We sold all of our GSE CRTs that were accounted for as hybrid financial instruments with embedded derivatives during the year ended December 31, 2020.

Net Gain (Loss) on Extinguishment of Debt

As discussed in Note 6 - "Borrowings" of our consolidated financial statements in Part IV, Item 15 of this Report, during 2020, certain of our counterparties seized and sold securities that we had posted as collateral for our repurchase agreements. We recorded early termination and legal fees paid to our counterparties that were associated with the termination of these repurchase agreements as a loss on extinguishment of debt and settlements of counterparty claims for less than the principal balance of our repurchase agreements as a gain on extinguishment of debt in our consolidated statement of operations.

Other Investment Income (Loss), net

Our other investment income, net for the years ended December 31, 2022 and 2021 consisted of foreign currency transaction gains and losses. Other investment income, net for the year ended December 31, 2020 primarily consisted of quarterly dividends on FHLBI stock. Other investment income (loss), net decreased during the year ended December 31, 2021 compared to 2020 due to the redemption of our FHLBI stock. The table below summarizes the components of other investment income (loss), net for the years ended December 31, 2022, 2021 and 2020:

	Year	rs Ended December	31,
\$ in thousands	2022	2021	2020
Dividend income		_	2,072
Gain (loss) on foreign currency transactions, net	186	1	65
Total	186	1	2,137

Expenses

For the year ended December 31, 2022, we incurred management fees of \$16.9 million (2021: \$21.1 million) that are payable to our Manager under our management agreement. Management fees decreased for the year ended December 31, 2022 compared to 2021 due to a lower stockholders' equity management fee base in 2022. Our management fees are calculated quarterly in arrears. Refer to Note 11 – "Related Party Transactions" of our consolidated financial statements in Part IV, Item 15 of this Report for a discussion of our relationship with our Manager and a description of how our fees are calculated.

For the year ended December 31, 2021 we incurred management fees of \$21.1 million (2020: \$29.4 million) that are payable to our Manager under our management agreement. Management fees decreased for the year ended December 31, 2021 compared to 2020 due to a lower stockholders' equity management fee base in 2021.

For the year ended December 31, 2022, our general and administrative expenses not covered under our management agreement amounted to \$8.4 million (2021: \$8.2 million; 2020: \$10.9 million). General and administrative expenses not covered under our management agreement primarily consist of directors and officers insurance, legal costs, accounting, auditing and tax services, filing fees and miscellaneous general and administrative costs. General and administrative costs were lower for the year ended December 31, 2021 compared to 2020 primarily due to fees paid for third-party legal and advisory services in connection with navigating market disruption associated with the COVID-19 pandemic totaling \$2.6 million in 2020.

Gain on Repurchase and Retirement of Preferred Stock

In May 2022, our board of directors approved a share repurchase program for our Series B and Series C Preferred Stock. During the year ended December 31, 2022, we repurchased and retired 1,662,366 shares of Series B Preferred Stock and 3,683,530 shares of Series C Preferred Stock. The difference between the consideration transferred and the carrying value of the preferred stock resulted in a gain attributable to common stockholders of \$14.2 million during the year ended December 31, 2022.

Issuance and Redemption Costs of Redeemed Preferred Stock

In June, 2021, we redeemed all issued and outstanding shares of our Series A Preferred Stock. The excess of the consideration transferred over carrying value was accounted for as a deemed dividend and resulted in a reduction of \$4.7 million in net income (loss) attributable to common stockholders during the year ended December 31, 2021.

Net Income (Loss) attributable to Common Stockholders

For the year ended December 31, 2022, our net loss attributable to common stockholders was \$417.0 million (2021: \$132.5 million net loss attributable to common stockholders; 2020: \$1.7 billion net loss attributable to common stockholders) or \$12.21 basic and diluted net loss per average share available to common stockholders (2021: \$4.82 basic and diluted net loss per average share available to common stockholders; 2020: \$98.93 basic and diluted net loss per average share available to common stockholders).

For the year ended December 31, 2022, the change in net loss attributable to common stockholders compared to 2021 was primarily due to: (i) net losses on investments of \$1.1 billion versus \$366.5 million in the 2021 period; (ii) net gains on derivative instruments of \$559.0 million versus net gains on derivatives of \$122.6 million in the 2021 period; (iii) lower net interest income of \$143.0 million versus \$180.5 million in the 2021 period; and (iv) a gain on repurchase and retirement of preferred stock of \$14.2 million in 2022.

For the year ended December 31, 2021, the change in net loss attributable to common stockholders compared to 2020 was primarily due to: (i) net losses on investments of \$366.5 million versus \$961.9 million in the 2020 period; (ii) net gains on derivative instruments of \$122.6 million versus net losses on derivatives of \$851.1 million in the 2020 period; (iii) net losses on credit derivatives of \$35.3 million in the 2020 period; (iv) lower net interest income of \$180.5 million versus \$197.9 million in the 2020 period and (v) net gains on debt extinguishment of \$14.7 million in the 2020 period.

For further information on the changes in net gain (loss) on investments, net gain (loss) on derivative instruments, net changes in net interest income, gains of repurchase and retirement of preferred stock, realized and unrealized credit derivative income (loss) and gain (loss) on extinguishment of debt see preceding discussion under "Gain (Loss) on Investments, net", "Gain (Loss) on Derivative Instruments, net", "Net Interest Income", "Gain on Repurchase and Retirement of Preferred Stock", "Realized and Unrealized Credit Derivative Income (Loss), net" and "Net Gain (Loss) on Extinguishment of Debt."

Non-GAAP Financial Measures

The table below shows the non-GAAP financial measures we use to analyze our operating results and the most directly comparable U.S. GAAP measures. We believe these non-GAAP measures are useful to investors in assessing our performance as discussed further below.

Non-GAAP Financial Measure	Most Directly Comparable U.S. GAAP Measure
Earnings available for distribution (and by calculation, earnings available for distribution per common share)	Net income (loss) attributable to common stockholders (and by calculation, basic earnings (loss) per common share)
Effective interest income (and by calculation, effective yield)	Total interest income (and by calculation, earning asset yields)
Effective interest expense (and by calculation, effective cost of funds)	Total interest expense (and by calculation, cost of funds)
Effective net interest income (and by calculation, effective interest rate margin)	Net interest income (and by calculation, net interest rate margin)
Economic debt-to-equity ratio	Debt-to-equity ratio

The non-GAAP financial measures used by management should be analyzed in conjunction with U.S. GAAP financial measures and should not be considered substitutes for U.S. GAAP financial measures. In addition, the non-GAAP financial measures may not be comparable to similarly titled non-GAAP financial measures of our peer companies.

We did not present earnings available for distribution for the year ended December 31, 2020 because earnings available for distribution excluded the material adverse impact of the market disruption caused by the COVID-19 pandemic on our financial condition. In addition, earnings available for the year ended December 31, 2020 was not indicative of the reduced earnings potential of our current investment portfolio.

Earnings Available for Distribution

Our business objective is to provide attractive risk-adjusted returns to our stockholders, primarily through dividends and secondarily through capital appreciation. We use earnings available for distribution as a measure of our investment portfolio's ability to generate income for distribution to common stockholders and to evaluate our progress toward meeting this objective. We calculate earnings available for distribution as U.S. GAAP net income (loss) attributable to common stockholders adjusted for (gain) loss on investments, net; realized (gain) loss on derivative instruments, net; unrealized (gain) loss on derivative instruments, net; TBA dollar roll income; gain on repurchase and retirement of preferred stock; (gain) loss on foreign currency transactions, net and amortization of net deferred (gain) loss on de-designated interest rate swaps.

By excluding the gains and losses discussed above, we believe the presentation of earnings available for distribution provides a consistent measure of operating performance that investors can use to evaluate our results over multiple reporting periods and, to a certain extent, compare to our peer companies. However, because not all of our peer companies use identical operating performance measures, our presentation of earnings available for distribution may not be comparable to other similarly titled measures used by our peer companies. We exclude the impact of gains and losses when calculating earnings available for distribution because (i) when analyzed in conjunction with our U.S. GAAP results, earnings available for distribution provides additional detail of our investment portfolio's earnings capacity and (ii) gains and losses are not accounted for consistently under U.S. GAAP. Under U.S. GAAP, certain gains and losses are reflected in net income whereas other gains and losses are reflected in other comprehensive income. For example, a portion of our mortgage-backed securities are classified as available-for-sale securities, and we record changes in the valuation of these securities in other comprehensive income on our consolidated balance sheets. We elected the fair value option for our mortgage-backed securities purchased on or after September 1, 2016, and changes in the valuation of these securities are recorded in other income (loss) in our consolidated statements of operations. In addition, certain gains and losses represent one-time events. We may add and have added additional reconciling items to our earnings available for distribution calculation as appropriate. We added the gain on repurchase and retirement of preferred stock as a reconciling item to our earnings available for distribution calculation in the second quarter of 2022 because the gain does not represent earnings on our investment portfolio.

To maintain our qualification as a REIT, U.S. federal income tax law generally requires that we distribute at least 90% of our REIT taxable income annually, determined without regard to the deduction for dividends paid and excluding net capital gains. We have historically distributed at least 100% of our REIT taxable income. Because we view earnings available for distribution as a consistent measure of our investment portfolio's ability to generate income for distribution to common stockholders, earnings available for distribution is one metric, but not the exclusive metric, that our board of directors uses to determine the amount, if any, and the payment date of dividends on our common stock. However, earnings available for distribution should not be considered as an indication of our taxable income, a guaranty of our ability to pay dividends or as a proxy for the amount of dividends we may pay, as earnings available for distribution excludes certain items that impact our cash needs.

Earnings available for distribution is an incomplete measure of our financial performance and there are other factors that impact the achievement of our business objective. We caution that earnings available for distribution should not be considered as an alternative to net income (determined in accordance with U.S. GAAP), or as an indication of our cash flow from operating activities (determined in accordance with U.S. GAAP), a measure of our liquidity or as an indication of amounts available to fund our cash needs.

The table below provides a reconciliation of U.S. GAAP net income (loss) attributable to common stockholders to earnings available for distribution for the following periods:

	Years Ended De	ecember 31,
\$ in thousands, except per share data	2022	2021
Net income (loss) attributable to common stockholders	(416,963)	(132,477)
Adjustments:		
(Gain) loss on investments, net	1,079,339	366,509
Realized (gain) loss on derivative instruments, net (1)	(459,466)	(156,157)
Unrealized (gain) loss on derivative instruments, net (1)	(12,669)	17,743
TBA dollar roll income (2)	28,843	40,058
Gain on repurchase and retirement of preferred stock	(14,179)	_
(Gain) loss on foreign currency transactions, net (3)	(186)	(1)
Amortization of net deferred (gain) loss on de-designated interest rate swaps (4)	(19,708)	(22,000)
Subtotal	601,974	246,152
Earnings available for distribution	185,011	113,675
Basic earnings (loss) per common share	(12.21)	(4.82)
Earnings available for distribution per common share (5)	5.42	4.13

(1) U.S. GAAP gain (loss) on derivative instruments, net on the consolidated statements of operations includes the following components:

	Years Ended December 31,	
\$ in thousands	2022	2021
Realized gain (loss) on derivative instruments, net	459,466	156,157
Unrealized gain (loss) on derivative instruments, net	12,669	(17,743)
Contractual net interest income (expense) on interest rate swaps	86,872	(15,803)
Gain (loss) on derivative instruments, net	559,007	122,611

- (2) A TBA dollar roll is a series of derivative transactions where TBAs with the same specified issuer, term and coupon but different settlement dates are simultaneously bought and sold. The TBA settling in the later month typically prices at a discount to the TBA settling in the earlier month. TBA dollar roll income represents the price differential between the TBA price for current month settlement versus the TBA price for forward month settlement. We include TBA dollar roll income in earnings available for distribution because it is the economic equivalent of interest income on the underlying Agency securities, less an implied financing cost, over the forward settlement period. TBA dollar roll income is a component of gain (loss) on derivative instruments, net on our consolidated statements of operations.
- (3) Gain (loss) on foreign currency transactions, net is included in other investment income (loss) net on the consolidated statements of operations.
- (4) U.S. GAAP repurchase agreements interest expense on the consolidated statements of operations includes the following components:

	Years Ended Decembe	
\$ in thousands	2022	2021
Interest expense on repurchase agreements outstanding	71,268	10,710
Amortization of net deferred (gain) loss on de-designated interest rate swaps	(19,708)	(22,000)
Repurchase agreements interest expense	51,560	(11,290)

(5) Earnings available for distribution per common share is equal to earnings available for distribution divided by the basic weighted average number of common shares outstanding. Earnings available for distribution per common share has been retroactively adjusted to reflect our one-for-ten reverse stock split that was effected following the close of business on June 3, 2022.

The components of earnings available for distribution for the years ended December 31, 2022 and 2021 are:

	Years Ended December 31,	
\$ in thousands	2022	2021
Effective net interest income ⁽¹⁾	210,117	142,689
TBA dollar roll income	28,843	40,058
Equity in earnings (losses) of unconsolidated ventures	(407)	870
(Increase) decrease in provision for credit losses	_	1,768
Total expenses	(25,324)	(29,233)
Subtotal	213,229	156,152
Dividends to preferred stockholders	(28,218)	(37,795)
Issuance and redemption costs of redeemed preferred stock		(4,682)
Earnings available for distribution	185,011	113,675

⁽¹⁾ See below for a reconciliation of net interest income to effective net interest income, a non-GAAP measure.

Earnings available for distribution increased for the year ended December 31, 2022 compared to 2021 primarily due to an increase in effective net interest income. See below for a discussion of the change in effective net interest income. As discussed above, we did not report earnings available for distribution for the year ended December 31, 2020.

Effective Interest Income / Effective Yield/ Effective Interest Expense / Effective Cost of Funds / Effective Net Interest Income / Effective Interest Rate Margin

Prior to 2021, we calculated effective interest income (and by calculation, effective yield) as U.S. GAAP total interest income adjusted for GSE CRT embedded derivative coupon interest that was recorded as realized and unrealized credit derivative income (loss), net. We included our GSE CRT embedded derivative coupon interest in effective interest income because GSE CRT coupon interest was not accounted for consistently under U.S. GAAP. We accounted for GSE CRTs purchased before August 24, 2015 as hybrid financial instruments, but elected the fair value option for GSE CRTs purchased on or after August 24, 2015. Under U.S. GAAP, coupon interest on GSE CRTs accounted for using the fair value option was recorded as interest income, whereas coupon interest on GSE CRTs accounted for as hybrid financial instruments was recorded as realized and unrealized credit derivative income (loss). We added back GSE CRT embedded derivative coupon interest to our total interest income because we considered GSE CRT embedded derivative coupon interest a current component of our total interest income irrespective of whether we elected the fair value option for the GSE CRT or accounted for the GSE CRT as a hybrid financial instrument.

We calculate effective interest expense (and by calculation, effective cost of funds) as U.S. GAAP total interest expense adjusted for contractual net interest income (expense) on our interest rate swaps that is recorded as gain (loss) on derivative instruments, net and the amortization of net deferred gains (losses) on de-designated interest rate swaps that is recorded as repurchase agreements interest expense. We view our interest rate swaps as an economic hedge against increases in future market interest rates on our floating rate borrowings. We add back the net payments or receipts on our interest rate swap agreements to our total U.S. GAAP interest expense because we use interest rate swaps to add stability to interest expense. We exclude the amortization of net deferred gains (losses) on de-designated interest rate swaps from our calculation of effective interest expense because we do not consider the amortization a current component of our borrowing costs.

We calculate effective net interest income (and by calculation, effective interest rate margin) as U.S. GAAP net interest income adjusted for contractual net interest income (expense) on our interest rate swaps that is recorded as gain (loss) on derivative instruments, net; the amortization of net deferred gains (losses) on de-designated interest rate swaps that is recorded as repurchase agreement interest expense and GSE CRT embedded derivative coupon interest that is recorded as realized and unrealized credit derivative income (loss), net.

We believe the presentation of effective interest income, effective yield, effective interest expense, effective cost of funds, effective net interest income and effective interest rate margin measures, when considered together with U.S. GAAP financial measures, provides information that is useful to investors in understanding our borrowing costs and operating performance.

The following table reconciles total interest income to effective interest income and yield to effective yield for the following periods:

	Years Ended December 31,						
	2022		2021		2020	2020	
\$ in thousands	Reconciliation	Yield/ Effective Yield	Reconciliation	Yield/ Effective Yield	Reconciliation	Yield/ Effective Yield	
Total interest income	194,513	3.79 %	169,202	1.92 %	280,166	3.55 %	
Add: GSE CRT embedded derivative coupon interest recorded as realized and unrealized credit derivative income (loss), net		— %		0/	6 222	0.08.0/	
meome (1055), net		<u> </u>		<u> </u>	6,323	0.08 %	
Effective interest income	194,513	3.79 %	169,202	1.92 %	286,489	3.63 %	

Our effective interest income increased for the year ended December 31, 2022 versus 2021, despite lower average earnings assets, due to a 187 basis point increase in effective yields resulting from our rotation in higher yielding Agency RMBS.

Our effective interest income decreased for the year ended December 31, 2021 versus 2020 due to lower asset yields primarily as a result of our asset sales in the first half of 2020. Changes in effective yield for the year ended December 31, 2021 versus 2020 are primarily due to changes in portfolio composition. Almost all of our investment portfolio (excluding TBAs) was invested in Agency RMBS during the year ended December 31, 2021.

The following table reconciles total interest expense to effective interest expense and cost of funds to effective cost of funds for the following periods:

	Years Ended December 31,					
	2022		2021		2020	
\$ in thousands	Reconciliation	Cost of Funds / Effective Cost of Funds	Reconciliation	Cost of Funds / Effective Cost of Funds	Reconciliation	Cost of Funds / Effective Cost of Funds
Total interest expense	51,560	1.15 %	(11,290)	(0.14)%	82,262	1.19 %
Add: Amortization of net deferred gain (loss) on de-designated interest rate swaps	19,708	0.44 %	22,000	0.28 %	23,794	0.34 %
Add (Less): Contractual net interest expense (income) on interest rate swaps recorded as gain (loss) on derivative instruments, net	(86,872)	(1.93)%	15,803	0.20 %	(8,047)	(0.12)%
Effective interest expense	(15,604)	(0.34)%	26,513	0.34 %	98,009	1.41 %

Our effective interest expense and effective cost of funds decreased for the year ended December 31, 2022 versus 2021 despite an increase in total interest expense, which reflects increases in the Federal Funds target rate, due to \$86.9 million of contractual net interest income on interest rate swaps compared to \$15.8 million of contractual net interest expense in 2021. The change in contractual net interest expense (income) on interest rate swaps was driven by rising interest rates.

Our effective interest expense and effective cost of funds decreased for the year ended December 31, 2021 versus 2020 primarily due to a lower average cost of funds reflecting decreases in the Federal Funds target rate. Lower total interest expense was partially offset by contractual net interest expense on interest rate swaps of \$15.8 million for the year ended December 31, 2021 compared to \$8.0 million of contractual net interest income for the same period in 2020.

The following table reconciles net interest income to effective net interest income and net interest rate margin to effective interest rate margin for the following periods:

	Years Ended December 31,					
	2022		2021		2020	
\$ in thousands	Reconciliation	Net Interest Rate Margin / Effective Interest Rate Margin	Reconciliation	Net Interest Rate Margin / Effective Interest Rate Margin	Reconciliation	Net Interest Rate Margin / Effective Interest Rate Margin
Net interest income	142,953	2.64 %	180,492	2.06 %	197,904	2.36 %
Less: Amortization of net deferred (gain) loss on de-designated interest rate swaps	(19,708)	(0.44)%	(22,000)	(0.28)%	(23,794)	(0.34)%
Add: GSE CRT embedded derivative coupon interest recorded as realized and unrealized credit derivative income (loss), net	_	— %	_	— %	6,323	0.08 %
Add (Less): Contractual net interest income (expense) on interest rate swaps recorded as gain (loss) on derivative instruments, net	97.972	1.02.0/	(15.902)	(0.20)9/	0.047	0.12.0/
,	86,872	1.93 %	(15,803)	(0.20)%	8,047	0.12 %
Effective net interest income	210,117	4.13 %	142,689	1.58 %	188,480	2.22 %

Effective net interest income and effective interest rate margin increased for the year ended December 31, 2022 versus 2021 due to changes in contractual net interest income (expense) on interest rate swaps and an increase in total interest income resulting from our rotation into higher yielding Agency RMBS, which were partially offset by higher total interest expense and a higher average cost of funds resulting from increases in the Federal Funds target rate.

Effective net interest income decreased for the year ended December 31, 2021 versus 2020 primarily due to lower asset yields as a result of our asset sales in the first half of 2020 that were partially offset by a lower average cost of funds reflecting decreases in the Federal Funds target rate. Effective interest rate margin deceased for the year ended December 31, 2021 versus 2020 due to changes in portfolio composition.

Economic Debt-to-Equity Ratio

The tables below show the allocation of our stockholders' equity to our target assets, our debt-to-equity ratio, and our economic debt-to-equity ratio as of December 31, 2022 and December 31, 2021. Our debt-to-equity ratio is calculated in accordance with U.S. GAAP and is the ratio of total debt to total stockholders' equity. As of December 31, 2022, approximately 95% of our equity is allocated to Agency RMBS.

We present an economic debt-to-equity ratio, a non-GAAP financial measure of leverage that considers the impact of the off-balance sheet financing of our investments in TBAs that are accounted for as derivative instruments under U.S. GAAP. We include our TBAs at implied cost basis in our measure of leverage because a forward contract to acquire Agency RMBS in the TBA market carries similar risks to Agency RMBS purchased in the cash market and funded with on-balance sheet liabilities. Similarly, a contract for the forward sale of Agency RMBS has substantially the same effect as selling the underlying Agency RMBS and reducing our on-balance sheet funding commitments. We believe that presenting our economic debt-to-equity ratio, when considered together with our U.S. GAAP financial measure of debt-to-equity ratio, provides information that is useful to investors in understanding how management evaluates our at-risk leverage and gives investors a comparable statistic to those other mortgage REITs who also invest in TBAs and present a similar non-GAAP measure of leverage.

December 31, 2022

\$ in thousands	Agency RMBS	Credit Portfolio ⁽¹⁾	Total
Mortgage-backed securities	4,746,693	45,200	4,791,893
Cash and cash equivalents (2)	175,535		175,535
Restricted cash ⁽³⁾	103,246		103,246
Derivative assets, at fair value (3)	662		662
Other assets	25,252	807	26,059
Total assets	5,051,388	46,007	5,097,395
Repurchase agreements	4,234,823		4,234,823
Derivative liabilities, at fair value (3)	2,079	_	2,079
Other liabilities	53,980	2,438	56,418
Total liabilities	4,290,882	2,438	4,293,320
Total stockholders' equity (allocated)	760,506	43,569	804,075
Debt-to-equity ratio (4)	5.6		5.3
Economic debt-to-equity ratio (5)	5.6	_	5.3

- (1) Investments in non-Agency CMBS, non-Agency RMBS and unconsolidated joint ventures are included in credit portfolio.
- (2) Cash and cash equivalents is allocated based on our financing strategy for each asset class.
- (3) Restricted cash and derivative assets and liabilities are allocated based on our hedging strategy for each asset class.
- (4) Debt-to-equity ratio is calculated as the ratio of total repurchase agreements to total stockholders' equity.
- (5) Economic debt-to-equity ratio is calculated as the ratio of total repurchase agreements and TBAs at implied cost basis (\$1.4 million as of December 31, 2022) to total stockholders' equity.

December 31, 2021

\$ in thousands	Agency RMBS	Credit Portfolio ⁽¹⁾	Total
Mortgage-backed securities	7,732,281	71,978	7,804,259
Cash and cash equivalents (2)	357,134		357,134
Restricted cash (3)	219,918	_	219,918
Derivative assets, at fair value (3)		270	270
Other assets	25,728	36,532	62,260
Total assets	8,335,061	108,780	8,443,841
Repurchase agreements	6,987,834		6,987,834
Derivative liabilities, at fair value (3)	14,356	_	14,356
Other liabilities	35,596	3,920	39,516
Total liabilities	7,037,786	3,920	7,041,706
Total stockholders' equity (allocated)	1,297,275	104,860	1,402,135
Debt-to-equity ratio (4)	5.4	_	5.0
Economic debt-to-equity ratio (5)	6.6	_	6.2

- (1) Investments in non-Agency CMBS, non-Agency RMBS, a commercial loan and unconsolidated joint ventures are included in credit portfolio.
- (2) Cash and cash equivalents is allocated based on our financing strategy for each asset class.
- (3) Restricted cash and derivative assets and liabilities are allocated based on our hedging strategy for each asset class.
- (4) Debt-to-equity ratio is calculated as the ratio of total repurchase agreements to total stockholders' equity.
- 5) Economic debt-to-equity ratio is calculated as the ratio of total repurchase agreements and TBAs at implied cost basis (\$1.6 billion as of December 31, 2021) to total stockholders' equity.

Liquidity and Capital Resources

Liquidity is a measurement of our ability to meet potential cash requirements, including ongoing commitments to pay dividends, fund investments, repay borrowings and fund other general business needs. Our primary sources of funds for liquidity consist of the net proceeds from our common and preferred equity offerings, net cash provided by operating activities, proceeds from repurchase agreements and other financing arrangements and future issuances of equity and/or debt securities.

We currently believe that we have sufficient liquidity and capital resources available for the acquisition of additional investments, repayments on borrowings, margin requirements and the payment of cash dividends as required for continued qualification as a REIT. We generally maintain liquidity to pay down borrowings under repurchase arrangements to reduce borrowing costs and otherwise efficiently manage our long-term investment capital. Because the level of these borrowings can be adjusted on a daily basis, the level of cash and cash equivalents carried on our consolidated balance sheets is significantly less important than our potential liquidity available under borrowing arrangements or through the sale of liquid investments. However, there can be no assurance that we will maintain sufficient levels of liquidity to meet any margin calls.

The COVID-19 pandemic-driven disruptions in the real estate, mortgage and financial markets negatively affected our liquidity during the year ended December 31, 2020. Under the terms of our repurchase agreements, our lenders have the contractual right to mark the underlying securities that we post as collateral to fair value as determined in their sole discretion. In addition, our lenders have the contractual right to increase the "haircut", or percentage amount by which collateral value must exceed the amount of borrowings, as market conditions become more volatile. As a result of significant spread widening in both Agency and non-Agency securities in the latter part of the first quarter of 2020, valuations of our portfolio assets declined sharply in a short period of time, leading to an exceptional increase in the frequency and magnitude of margin calls. We sold portfolio assets to generate liquidity, in many cases at significantly distressed market prices. Additionally, our lenders raised required haircuts on our collateral for new repurchase agreements, driving further liquidity needs. These events have led us to seek to avoid financing less liquid assets, such as non-Agency securities, with repurchase agreements. See Part II. Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations and Part I. Item 1A. Risk Factors in this Report for more information on how the COVID-19 pandemic has impacted and may continue to impact our liquidity and capital resources.

We held cash, cash equivalents and restricted cash of \$278.8 million at December 31, 2022 (2021: \$577.1 million). Our cash, cash equivalents and restricted cash change due to normal fluctuations in cash balances related to the timing of principal and interest payments, repayments of debt, and asset purchases and sales. Our operating activities provided net cash of approximately \$196.1 million for the year ended December 31, 2022 (2021: \$152.3 million; 2020: \$170.5 million).

Our investing activities provided net cash of \$2.4 billion for the year ended December 31, 2022 (2021: \$120.7 million; 2020: \$11.6 billion). Our primary source of cash from investing activities during the year ended December 31, 2022 was proceeds from the sale of MBS of \$27.3 billion and proceeds from the sale of U.S. Treasury securities of \$468.1 million. We also generated \$403.3 million from principal payments of MBS and received cash of \$459.5 million to settle derivative contracts during the year ended December 31, 2022. We used cash of \$25.7 billion to purchase MBS and \$502.3 million to purchase U.S. Treasury securities during the year ended December 31, 2022.

During the year ended December 31, 2021, we sold MBS for proceeds of \$16.3 billion. We also generated \$825.2 million from principal payments of MBS and received cash of \$156.2 million to settle derivative contracts during the year ended December 31, 2021. We used cash of \$17.1 billion to purchase MBS during the year ended December 31, 2021.

During the year ended December 31, 2020, we sold MBS and GSE CRT for proceeds of \$25.0 billion. We also generated \$892.6 million from principal payments of MBS and GSE CRT during the year ended December 31, 2020. We used cash to purchase \$13.6 billion of MBS and GSE CRT securities during the year ended December 31, 2020. We also used cash of \$844.6 million on derivative contracts during the year ended December 31, 2020 primarily as we sold Agency securities and our sensitivity to interest rates decreased.

Our financing activities used net cash of \$2.9 billion for the year ended December 31, 2022 (2021: \$88.6 million; 2020: \$11.6 billion). Our financing activities for the year ended December 31, 2022 primarily consisted of net principal repayments on our repurchase agreements of \$2.8 billion. We paid dividends of \$140.3 million and used \$115.1 million to repurchase Series B and Series C Preferred Stock. Proceeds from the issuance of common stock provided \$81.9 million during the year ended December 31, 2022.

Our financing activities for the year ended December 31, 2021 primarily consisted of net principal repayments on our repurchase agreements of \$240.9 million. We paid dividends of \$133.1 million and used cash of \$140.0 million to redeem our Series A Preferred Stock during the year ended December 31, 2021. Proceeds from the issuance of common stock provided \$430.5 million during the year ended December 31, 2021.

Our financing activities for the year ended December 31, 2020 primarily consisted of net principal repayments on our repurchase agreements of \$10.3 billion. In addition, we repaid secured loans of \$1.65 billion and paid dividends of \$137.5 million. Proceeds from the issuance of common stock provided \$420.7 million during the year ended December 31, 2020.

As of December 31, 2022, the average margin requirement (weighted by borrowing amount), or the haircut, under our repurchase agreements was 4.6% for Agency RMBS. The haircuts ranged from a low of 3% to a high of 5%. Declines in the value of our securities portfolio can trigger margin calls by our lenders under our repurchase agreements. An event of default or termination event may give our counterparties the option to terminate all repurchase transactions outstanding with us and require any amount due from us to the counterparties to be payable immediately.

Effects of Margin Requirements, Leverage and Credit Spreads

Our securities have values that fluctuate according to market conditions and the market value of our securities will decrease as prevailing interest rates or credit spreads increase. When the value of the securities pledged to secure a repurchase loan decreases to the point where the positive difference between the collateral value and the loan amount is less than the haircut, our lenders may issue a "margin call," which means that the lender will require us to pay cash or pledge additional collateral. Under our repurchase facilities, our lenders have full discretion to determine the value of the securities we pledge to them. Most of our lenders will value securities based on recent trades in the market. Lenders also issue margin calls as the published current principal balance factors change on the pool of mortgages underlying the securities pledged as collateral when scheduled and unscheduled paydowns are announced monthly.

We experience margin calls and increased collateral requirements in the ordinary course of our business. In seeking to effectively manage the margin requirements established by our lenders, we maintain a position of cash and unpledged securities. We refer to this position as our liquidity. The level of liquidity we have available to meet margin calls is directly affected by our leverage levels, our haircuts and the price changes on our securities. If interest rates increase as a result of a yield curve shift or for another reason or if credit spreads widen, then the prices of our collateral (and our unpledged assets that constitute our liquidity) will decline, we will experience margin calls, and we will seek to use our liquidity to meet the margin calls. There can be no assurance that we will maintain sufficient levels of liquidity to meet any margin calls or increased collateral requirements. If our haircuts increase, our liquidity will proportionately decrease. In addition, if we increase our borrowings, our liquidity will decrease by the amount of additional haircut on the increased level of indebtedness.

We intend to maintain a level of liquidity in relation to our assets that enables us to meet reasonably anticipated margin calls and increased collateral requirements but that also allows us to be substantially invested in securities. We may misjudge the appropriate amount of our liquidity by maintaining excessive liquidity, which would lower our investment returns, or by maintaining insufficient liquidity, which would force us to liquidate assets into unfavorable market conditions and harm our results of operations and financial condition.

We are subject to financial covenants in connection with our lending, derivatives and other agreements we enter into in the normal course of our business. We intend to operate in a manner which complies with all of our financial covenants. Our lending and derivative agreements provide that we may be declared in default of our obligations if our leverage ratio exceeds certain thresholds and we fail to maintain stockholders' equity or market value above certain thresholds over specified time periods.

Forward-Looking Statements Regarding Liquidity

As of December 31, 2022, we held \$4.4 billion of Agency securities that are financed by repurchase agreements. We also had approximately \$352.9 million of unencumbered investments and unrestricted cash of \$175.5 million as of December 31, 2022. As of December 31, 2022, our known contractual obligations primarily consist of \$4.2 billion of repurchase agreement borrowings with a weighted average remaining maturity of 28 days. We generally intend to refinance the majority of our repurchase agreement borrowings at market rates upon maturity. Repurchase agreement borrowings that are not refinanced upon maturity are typically repaid through the use of cash on hand or proceeds from sales of securities. We are also committed to fund \$6.3 million in additional capital to our unconsolidated joint ventures to cover future expenses should they occur.

Based upon our current portfolio and existing borrowing arrangements, we believe that cash flow from operations and available borrowing capacity will be sufficient to enable us to meet anticipated short-term (one year or less) liquidity requirements to fund our investment activities, pay fees under our management agreement, fund our required distributions to stockholders and fund other general corporate expenses.

Our ability to meet our long-term (greater than one year) liquidity and capital resource requirements will be subject to obtaining additional debt financing. We may increase our capital resources by obtaining long-term credit facilities or through public or private offerings of equity or debt securities, possibly including classes of preferred stock, common stock, senior or subordinated notes and convertible notes. Such financing will depend on market conditions for capital raises and our ability to

invest such offering proceeds. If we are unable to renew, replace or expand our sources of financing on substantially similar terms, it may have an adverse effect on our business and results of operations.

Dividends

To maintain our qualification as a REIT, U.S. federal income tax law generally requires that we distribute at least 90% of our REIT taxable income annually, determined without regard to the deduction for dividends paid and excluding net capital gains. We must pay tax at regular corporate rates to the extent that we annually distribute less than 100% of our REIT taxable income. Before we pay any dividend, whether for U.S. federal income tax purposes or otherwise, we must first meet both our operating requirements and debt service on our repurchase agreements and other debt payable. If our cash available for distribution is less than our REIT taxable income, we could be required to sell assets or borrow funds to make cash distributions, or we may make a portion of the required distribution in the form of a taxable stock distribution or distribution of debt securities.

As discussed above, our distribution requirements are based on REIT taxable income rather than U.S. GAAP net income. The primary differences between our REIT taxable income and U.S. GAAP net income are: (i) unrealized gains and losses on investments that we have elected the fair value option for that are included in current U.S. GAAP income but are excluded from REIT taxable income until realized or settled; (ii) gains and losses on derivative instruments that are included in current U.S. GAAP net income but are excluded from REIT taxable income until realized; and (iii) temporary differences related to amortization of premiums and discounts on investments. For additional information regarding the characteristics of our dividends, refer to Note 12 – "Stockholders' Equity" of our consolidated financial statements in Part IV, Item 15 of this Report.

Unrelated Business Taxable Income

We have not engaged in transactions that would result in a portion of our income being treated as unrelated business taxable income.

Exposure to Financial Counterparties

We finance a substantial portion of our investment portfolio through repurchase agreements. Under these agreements, we pledge assets from our investment portfolio as collateral. Additionally, certain counterparties may require us to provide cash collateral in the event the market value of the assets declines to maintain a contractual repurchase agreement collateral ratio. If a counterparty were to default on its obligations, we would be exposed to potential losses to the extent the fair value of collateral pledged by us to the counterparty including any accrued interest receivable on such collateral exceeded the amount loaned to us by the counterparty plus interest due to the counterparty.

As of December 31, 2022, no counterparty held collateral that exceeded the amounts borrowed under the related repurchase agreements by more than \$40.2 million, or 5% of our stockholders' equity. The following table summarizes our exposure under repurchase agreements to counterparties by geographic concentration as of December 31, 2022. The information is based on the geographic headquarters of the counterparty or counterparty's parent company. However, our repurchase agreements are generally denominated in U.S. dollars.

\$ in thousands	Number of Counterparties	Repurchase Agreement Financing	Exposure
North America	11	2,226,824	101,255
Europe (excluding United Kingdom)	2	408,939	15,633
Asia	3	1,098,293	54,939
United Kingdom	1	500,767	19,090
Total	17	4,234,823	190,917

Other Matters

We believe that we satisfied each of the asset tests in Section 856(c)(4) of the Internal Revenue Code of 1986, as amended (the "Code") at the end of each calendar quarter in 2022. We also believe that our revenue qualifies for the 75% source of income test and for the 95% source of income test rules for the year ended December 31, 2022. Consequently, we believe we met the REIT income and asset test as of December 31, 2022. We also met all REIT requirements regarding the stock ownership and distribution of dividends of our taxable income as of December 31, 2022. Therefore, as of December 31, 2022, we believe that we qualified as a REIT under the Code.

At all times, we intend to conduct our business so that neither we nor our Operating Partnership nor the subsidiaries of our Operating Partnership are required to register as an investment company under the 1940 Act. If we were required to register as an investment company, then our use of leverage would be substantially reduced. Because we are a holding company that conducts our business through our Operating Partnership and the Operating Partnership's wholly-owned or majority-owned subsidiaries, the securities issued by these subsidiaries that are excepted from the definition of "investment company" under Section 3(c)(1) or Section 3(c)(7) of the 1940 Act, together with any other investment securities the Operating Partnership may own, may not have a combined value in excess of 40% of the value of the Operating Partnership's total assets (exclusive of U.S. government securities and cash items) on an unconsolidated basis. This requirement limits the types of businesses in which we are permitted to engage in through our subsidiaries. In addition, we believe neither we nor the Operating Partnership are considered an investment company under Section 3(a)(1)(A) of the 1940 Act because they do not engage primarily or hold themselves out as being engaged primarily in the business of investing, reinvesting or trading in securities. Rather, through the Operating Partnership's wholly-owned or majority-owned subsidiaries, we and the Operating Partnership are primarily engaged in the non-investment company businesses of these subsidiaries. IAS Asset I LLC and certain of the Operating Partnership's other subsidiaries that we may form in the future rely upon the exclusion from the definition of "investment company" under the 1940 Act provided by Section 3(c)(5)(C) of the 1940 Act, which is available for entities "primarily engaged in the business of purchasing or otherwise acquiring mortgages and other liens on and interests in real estate." This exclusion generally requires that at least 55% of each subsidiary's portfolio be comprised of qualifying assets and at least 80% be comprised of qualifying assets and real estate-related assets (and no more than 20% comprised of miscellaneous assets). We calculate that as of December 31, 2022, we conducted our business so as not to be regulated as an investment company under the 1940 Act.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk.

The primary components of our market risk are related to interest rate, principal prepayment and market value. While we do not seek to avoid risk completely, we believe the risk can be quantified from historical experience and we seek to actively manage that risk, to earn sufficient compensation to justify taking those risks and to maintain capital levels consistent with the risks we undertake.

For additional discussion of market risk, see Item Part I. Item 1A - Risk Factors of this Report.

Interest Rate Risk

Interest rate risk is highly sensitive to many factors, including governmental, monetary and tax policies, domestic and international economic and political considerations, and other factors beyond our control. We are subject to interest rate risk in connection with our investments and our repurchase agreements. Our repurchase agreements are typically short-term in nature and are periodically refinanced at current market rates. We typically mitigate this interest rate risk by utilizing derivative contracts, primarily interest rate swap agreements.

Interest Rate Effect on Net Interest Income

Our operating results depend in large part upon differences between the yields earned on our investments and our cost of borrowing and interest rate hedging activities. During periods of rising interest rates, the borrowing costs associated with our investments tend to increase while the income earned on our fixed interest rate investments may remain substantially unchanged. This increase in borrowing costs results in the narrowing of the net interest spread between the related assets and borrowings and may even result in losses. Further, defaults could increase and result in credit losses to us, which could adversely affect our liquidity and operating results. Such delinquencies or defaults could also have an adverse effect on the spread between interest-earning assets and interest-bearing liabilities.

Hedging techniques are partly based on assumed levels of prepayments of our RMBS. If prepayments are slower or faster than assumed, the life of the RMBS will be longer or shorter, which would reduce the effectiveness of any hedging strategies we may use and may cause losses on such transactions. Hedging strategies involving the use of derivative securities are highly complex and may produce volatile returns.

Interest Rate Effects on Fair Value

Another component of interest rate risk is the effect that changes in interest rates will have on the market value of the assets that we acquire. We face the risk that the market value of our assets will increase or decrease at different rates than those of our liabilities, including our hedging instruments.

We primarily assess our interest rate risk by estimating the duration of our assets and the duration of our liabilities. Duration measures the market price volatility of financial instruments as interest rates change. We generally calculate duration using various financial models and empirical data. Different models and methodologies can produce different duration values for the same securities.

The impact of changing interest rates on fair value can change significantly when interest rates change materially. Therefore, the volatility in the fair value of our assets could increase significantly in the event interest rates change materially. In addition, other factors impact the fair value of our interest rate-sensitive investments and hedging instruments, such as the shape of the yield curve, market expectations as to future interest rate changes and other market conditions. Accordingly, changes in actual interest rates may have a material adverse effect on us.

Spread Risk

We employ a variety of spread risk management techniques that seek to mitigate the influences of spread changes on our book value and our liquidity to help us achieve our investment objectives. The yield on our investments changes over time due to the level of risk free interest rates, the creditworthiness of the security, and the price of the perceived risk. The change in the market yield of our interest rate hedges also changes primarily with the level of risk free interest rates. We manage spread risk through careful asset selection, sector allocation, regulating our portfolio value-at-risk, and seeking to maintain adequate liquidity. Changes in spreads impact our book value and our liquidity and could cause us to sell assets and to change our investment strategy to maintain liquidity and preserve book value.

Elevated inflation and the resulting acceleration of monetary policy tightening by the Federal Reserve have impacted and will continue to impact credit spreads.

Prepayment Risk

As we receive prepayments of principal on our investments, premiums or discounts on these investments are amortized against interest income. In general, an increase in prepayment rates will accelerate the amortization of purchase premiums, thereby reducing the interest income earned on the investments. Conversely, discounts on such investments are accreted into interest income. In general, an increase in prepayment rates will accelerate the accretion of purchase discounts, thereby increasing the interest income earned on the investments.

Increased inflation, elevated interest rate volatility and other factors have made it more difficult to predict prepayment levels for the securities in our portfolio. As a result, it is possible that realized prepayment behavior will be materially different from our expectations.

Extension Risk

We compute the projected weighted average life of our investments based upon assumptions regarding the rate at which the borrowers will prepay the underlying mortgages. In general, when a fixed-rate or hybrid adjustable-rate security is acquired with borrowings, we may, but are not required to, enter into an interest rate swap agreement or other hedging instrument that effectively fixes our borrowing costs for a period close to the anticipated average life of the fixed-rate portion of the related assets. This strategy is designed to protect us from rising interest rates, because the borrowing costs are fixed for the duration of the fixed-rate portion of the related target asset.

However, if prepayment rates decrease in a rising interest rate environment, then the life of the fixed-rate portion of the related assets could extend beyond the term of the swap agreement or other hedging instrument. This could have a negative impact on our results from operations, as borrowing costs would no longer be fixed after the end of the hedging instrument, while the income earned on the hybrid adjustable-rate assets would remain fixed. This situation may also cause the market value of our hybrid adjustable-rate assets to decline, with little or no offsetting gain from the related hedging transactions. In extreme situations, we may be forced to sell assets to maintain adequate liquidity, which could cause us to incur losses.

Market Risk

Market Value Risk

Our available-for-sale securities are reflected at their estimated fair value with unrealized gains and losses excluded from earnings and reported in other comprehensive income under ASC Topic 320. The estimated fair value of these securities fluctuates primarily due to changes in interest rates and other factors. Generally, in a rising interest rate environment, the

estimated fair value of these securities would be expected to decrease; conversely, in a falling interest rate environment, the estimated fair value of these securities would be expected to increase.

The COVID-19 pandemic, unprecedented fiscal and monetary policy responses to the COVID-19 pandemic, and the ongoing normalization of such policy responses have caused unprecedented volatility and illiquidity in fixed income markets. The amount of financing we receive under our repurchase agreements is directly related to our counterparties' valuation of our assets that collateralize the outstanding repurchase agreement financing. As a result, if these market conditions persist, margin call risk remains elevated and our operating results and financial condition may be materially impacted.

The sensitivity analysis table presented below shows the estimated impact of an instantaneous parallel shift in the yield curve, up and down 50 and 100 basis points, on the market value of our interest rate-sensitive investments and net interest income, including net interest paid or received under interest rate swaps, at December 31, 2022 and 2021, assuming a static portfolio and constant financing and credit spreads. When evaluating the impact of changes in interest rates, prepayment assumptions and principal reinvestment rates are adjusted based on our Manager's expectations. The analysis presented utilized assumptions, models and estimates of our Manager based on our Manager's judgment and experience.

	At Decemb	er 31, 2022	At Decemb	er 31, 2021
Change in Interest Rates	Percentage Change in Projected Net Interest Income	Percentage Change in Projected Portfolio Value	Percentage Change in Projected Net Interest Income	Percentage Change in Projected Portfolio Value
+1.00%	(2.97)%	(1.15)%	(3.27)%	(1.61)%
+0.50%	(1.54)%	(0.48)%	(0.19)%	(0.52)%
-0.50%	1.56 %	0.22 %	(1.96)%	(0.38)%
-1.00%	2.90 %	0.13 %	(16.33)%	(2.11)%

Certain assumptions have been made in connection with the calculation of the information set forth in the foregoing interest rate sensitivity table and, as such, there can be no assurance that assumed events will occur or that other events will not occur that would affect the outcomes. The interest rate scenarios assume interest rates at December 31, 2022 and 2021. Furthermore, while the analysis reflects the estimated impact of interest rate increases and decreases on a static portfolio, we actively manage the size and composition of our investment and swap portfolios, which can result in material changes to our interest rate risk profile. When applicable, our scenario analysis assumes a floor of 0% for U.S. Treasury yields and, to be consistent, we also apply a floor of 0% for all related funding costs.

The information set forth in the interest rate sensitivity table above and all related disclosures constitutes forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. Actual results could differ significantly from those estimated in the foregoing interest rate sensitivity table.

Real Estate Risk

Residential and commercial property values are subject to volatility and may be adversely affected by a number of factors, including, but not limited to: national, regional and local economic conditions (which may be adversely affected by industry slowdowns and other factors); local real estate conditions (such as the supply of housing stock or other property sectors); changes or continued weakness in specific industry segments; construction quality, age and design; demographic factors; and retroactive changes to building or similar codes. In addition, decreases in property values reduce the value of the collateral and the potential proceeds available to a borrower to repay our loans, which could also cause us to suffer losses.

Credit Risk

We retain the risk of potential credit losses on all of our residential and commercial mortgage investments. We seek to manage this risk through our pre-acquisition due diligence process. In addition, we re-evaluate the credit risk inherent in our investments on a regular basis pursuant to fundamental considerations such as GDP, unemployment, interest rates, retail sales, store closings/openings, corporate earnings, housing inventory, affordability and regional home price trends. We also review key loan credit metrics including, but not limited to, payment status, current loan-to-value ratios, current borrower credit scores and debt yields. These characteristics assist in determining the likelihood and severity of loan loss as well as prepayment and extension expectations. We then perform structural analysis under multiple scenarios to establish likely cash flow profiles and credit enhancement levels relative to collateral performance projections. This analysis allows us to quantify our opinions of credit quality and fundamental value, which are key drivers of portfolio management decisions.

The pace of commercial real estate fundamental improvement is moderating given accelerating monetary policy tightening by the Federal Reserve. Occupancy and rental rates have stabilized and valuations face downward pressure as property borrowing costs remain elevated. Meanwhile, residential real estate fundamentals have also deteriorated due to historically low affordability driven by the dramatic rise in mortgage rates throughout 2022.

CMBS loan delinquencies increased in the fourth quarter but remain materially lower than COVID-19 peak levels. Many borrowers continue to experience difficulties meeting their obligations or seek to forbear or further forbear payment on their mortgage loans. Given tightening lending conditions, loans may continue to experience increasing delinquency levels and eventual defaults, which could impact the performance of our mortgage-backed securities. We also expect credit rating agencies to continue to reassess transactions negatively impacted by these adverse changes, which may result in our investments being downgraded.

Foreign Exchange Rate Risk

As of December 31, 2022, we have an investment of €43,000 in an unconsolidated joint venture whose net assets and results of operations are exposed to foreign currency translation risk when translated in U.S. dollars upon consolidation. We have historically sought to hedge our foreign currency exposures by purchasing currency forward contracts.

The unconsolidated joint venture is in liquidation and plans to sell or settle its remaining investments as expeditiously as possible.

Risk Management

To the extent consistent with maintaining our REIT qualification, we seek to manage risk exposure to protect our investment portfolio against the effects of major interest rate changes. We generally seek to manage this risk by:

- monitoring and adjusting, if necessary, the reset index and interest rate related to our target assets and our financings;
- attempting to structure our financing agreements to have a range of different maturities, terms, amortizations and interest rate adjustment periods;
- exploring options to obtain financing arrangements that are not marked to market;
- using hedging instruments, primarily interest rate swap agreements but also financial futures, options, interest rate cap agreements, floors and forward sales to adjust the interest rate sensitivity of our target assets and our borrowings; and
- actively managing, on an aggregate basis, the interest rate indices, interest rate adjustment periods, and gross reset margins of our target assets and the interest rate indices and adjustment periods of our financings.

Item 8. Financial Statements and Supplementary Data.

The financial statements and supplementary data are included under Item 15 of this Report.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

None.

Item 9A. Controls and Procedures.

Disclosure Controls and Procedures

Our management is responsible for establishing and maintaining disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act. We have evaluated, with the participation of our principal executive officer and principal financial officer, the effectiveness of our disclosure controls and procedures as of December 31, 2022. Based upon our evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures were effective to provide reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the applicable rules and forms, and that it is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

There are inherent limitations to the effectiveness of any system of disclosure controls and procedures, including the possibility of human error and the circumvention or overriding of the controls and procedures. Accordingly, even effective disclosure controls and procedures can only provide reasonable assurance of achieving their control objectives.

Management's Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in the Exchange Act, Rules 13a-15(f) and 15d-15(f). Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Under the supervision and with the participation of the principal executive officer and principal financial officer, management assessed the effectiveness of our internal control over financial reporting as of December 31, 2022. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control - Integrated Framework* (2013). Based on this assessment, management concluded that our internal control over financial reporting was effective as of December 31, 2022.

Our independent registered public accounting firm, PricewaterhouseCoopers LLP, audited the effectiveness of our internal control over financial reporting as of December 31, 2022. Their report dated February 21, 2023, which is included herein, expressed an unqualified opinion on the effectiveness of our internal control over financial reporting.

Changes in Internal Control over Financial Reporting

There has been no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act) during the quarter ended December 31, 2022 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information.

None.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections.

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

We will provide information that is responsive to certain portions of this Item 10 in our definitive proxy statement or in an amendment to this Report not later than 120 days after the end of the fiscal year covered by this Report, in either case under the captions "Information about Director Nominees," "Information about the Executive Officers of the Company," "Corporate Governance," "Information about the Board and its Committees," or under captions with similar meanings and possibly elsewhere therein. That information is incorporated into this Item 10 by reference.

Each year, the chief executive officer of each company listed on the New York Stock Exchange ("NYSE") must certify to the NYSE that he or she is not aware of any violation by us of NYSE corporate governance listing standards as of the date of certification, qualifying the certification to the extent necessary. Our chief executive officer submitted this certification to the NYSE in 2022 as required pursuant to Section 303A of the NYSE Listed Company Manual and will submit a similar certification within 30 days of our 2023 annual stockholders' meeting. In addition, we have filed, as exhibits to this Report, the certifications of our chief executive officer and chief financial officer required under Section 302 and 906 of the Sarbanes-Oxley Act of 2002.

Item 11. Executive Compensation.

We will provide information that is responsive to this Item 11 in our definitive proxy statement or in an amendment to this Report not later than 120 days after the end of the fiscal year covered by this Report, in either case under the captions "Information About the Board and Its Committees - Director Compensation," "Executive Compensation," "Compensation Committee Interlocks and Insider Participation," or under captions with similar meanings and possibly elsewhere therein. That information is incorporated into this Item 11 by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

We will provide information that is responsive to this Item 12 in our definitive proxy statement or in an amendment to this Report not later than 120 days after the end of the fiscal year covered by this Report, in either case under the caption "Security Ownership of Principal Stockholders," "Security Ownership of Management," "Executive Compensation," or under captions with similar meanings and possibly elsewhere therein. That information is incorporated into this Item 12 by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

We will provide information that is responsive to this Item 13 in our definitive proxy statement or in an amendment to this Report not later than 120 days after the end of the fiscal year covered by this Report, in either case under the captions "Corporate Governance," "Certain Relationships and Related Transactions," "Information About Director Nominees," "Related Person Transaction Policy," or under captions with similar meanings and possibly elsewhere therein. That information is incorporated into this Item 13 by reference.

Item 14. Principal Accounting Fees and Services.

We will provide information that is responsive to this Item 14 in our definitive proxy statement or in an amendment to this Report not later than 120 days after the end of the fiscal year covered by this Report, in either case under the captions "Fees Paid to Independent Registered Public Accounting Firm," "Pre-Approval Process and Policy," or under captions with similar meanings and possibly elsewhere therein. That information is incorporated into this Item 14 by reference.

PART IV

Item 15. Exhibits, Financial Statement Schedules.

- (a)(1) Financial Statements: The financial statements contained herein are set forth on pages 75 106 of this Report.
- (a)(2) Financial Statement Schedules: Refer to Index to Financial Statement Schedules contained herein on page 72 of this Report.
- (a)(3) Exhibits: Refer to Exhibit Index starting on page 70 of this Report.

Item 16. Form 10-K Summary.

Not applicable.

69

Exhibit Index

Exhibit No.	Description
3.1	Articles of Amendment and Restatement of Invesco Mortgage Capital Inc., incorporated by reference to Exhibit 3.1 to our Quarterly Report on Form 10-Q, filed with the SEC on August 12, 2009.
3.2	Articles Supplementary of 7.75% Fixed-to-Floating Series B Cumulative Redeemable Preferred Stock, incorporated by reference to Exhibit 3.3 to our Registration Statement on Form 8-A, filed with the SEC on September 8, 2014.
3.3	Articles Supplementary classifying 1,500,000 shares of the Company's preferred stock as additional Series B Shares (incorporated by reference to Exhibit 3.2 to our Current Report on Form 8-K, filed with the SEC on March 19, 2019).
3.4	Articles Supplementary of 7.50% Fixed-to-Floating Series C Cumulative Redeemable Preferred Stock, incorporated by reference to Exhibit 3.4 to our Registration Statement on Form 8-A, filed with the SEC on August 11, 2017.
3.5	Articles Supplementary classifying 4,000,000 shares of the Company's preferred stock as additional Series C Shares (incorporated by reference to Exhibit 3.3 to our Current Report on Form 8-K, filed with the SEC on March 19, 2019).
3.6	Articles Supplementary reclassifying 2,110,000 shares of authorized but unissued shares of Series A Preferred Stock as shares of Preferred Stock without designation, incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K, filed with the SEC on June 17, 2021.
3.7	Articles of Amendment of Invesco Mortgage Capital Inc. (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K, filed with the SEC on June 3, 2022).
3.8	Articles of Amendment of Invesco Mortgage Capital Inc. (incorporated by reference to Exhibit 3.2 to the Current Report on Form 8-K, filed with the SEC on June 3, 2022).
3.9	Articles of Amendment (Authorized shares) (incorporated by reference to Exhibit 3.9 to the Quarterly Report on Form 10-Q, filed with the SEC on August 4, 2022).
3.10	Amended and Restated Bylaws of Invesco Mortgage Capital Inc., incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K, filed with the SEC on February 17, 2017.
4.1	Specimen Common Stock Certificate of Invesco Mortgage Capital Inc.
4.2	Specimen 7.75% Series B Fixed-to-Floating Cumulative Redeemable Preferred Stock Certificate, incorporated by reference to Exhibit 4.1 to our Registration Statement on Form 8-A, filed with the SEC on September 8, 2014.
4.3	Specimen 7.50% Fixed-to-Floating Series C Cumulative Redeemable Preferred Stock Certificate, incorporated by reference to Exhibit 4.5 to our Registration Statement on Form 8-A, filed with the SEC on August 11, 2017.
4.4	Description of Invesco Mortgage Capital Inc. Securities.
10.1	Management Agreement, dated as of July 1, 2009, among Invesco Advisers, Inc. (formally known as Invesco Institutional (N.A.), Inc.), Invesco Mortgage Capital Inc. and IAS Operating Partnership LP., incorporated by reference to Exhibit 10.2 to our Quarterly Report on Form 10-Q, filed with the SEC on August 12, 2009.
10.2	Amendment to Management Agreement, dated as of May 24, 2011, among Invesco Advisers, Inc. (formally known as Invesco Institutional (N.A.), Inc.), Invesco Mortgage Capital Inc., IAS Operating Partnership LP., and IAS Asset I LLC, incorporated by reference to Exhibit 10.1 to our Quarterly Report on Form 10-Q, filed with the SEC on August 9, 2011.
10.3	Second Amendment to Management Agreement, dated as of July 1, 2015, among Invesco Advisers, Inc., Invesco Mortgage Capital Inc., and IAS Operating Partnership LP., incorporated by reference to Exhibit 10.1 to our Quarterly Report on Form 10-Q, filed with the SEC on August 17, 2015.
10.4	Third Amendment to Management Agreement, dated as of November 6, 2019, among Invesco Advisers, Inc., Invesco Mortgage Capital Inc., and IAS Operating Partnership LP., incorporated by reference to Exhibit 10.1 to our Quarterly Report on Form 10-Q, filed with the SEC on November 7, 2019.
§ 10.5	Invesco Mortgage Capital Inc. Amended and Restated 2009 Equity Incentive Plan, incorporated by reference to Exhibit 4.3 to the Registration Statement on Form S-8, filed with the SEC on May 4, 2022.
10.6	Form of Restricted Stock Award Agreement for Non-Executive Directors under the Invesco Mortgage Capital Inc. 2009 Equity Incentive Plan (May 2021), incorporated by reference to Exhibit 10.1 to our quarterly report on Form 10-Q, filed with the SEC on August 4, 2021.

- Equity Distribution Agreement with respect to the Series B Shares and Series C Shares, dated March 19, 2019, among Invesco Mortgage Capital Inc., IAS Operating Partnership LP, Invesco Advisers, Inc. and JonesTrading Institutional Services LLC, incorporated by reference to Exhibit 1.1 to our Current Report on Form 8-K, filed with the SEC on March 19, 2019.
- Amendment No. 1 to the Equity Distribution Agreement, among Invesco Mortgage Capital Inc., the Operating Partnership, the Manager and JonesTrading Institutional Services LLC, incorporated by reference to Exhibit 1.1 to our Current Report on Form 8-K, filed with the SEC on June 17, 2021.
- Equity Distribution Agreement, dated November 3, 2021, among Invesco Mortgage Capital Inc., IAS Operating Partnership LP, Invesco Advisers, Inc., JMP Securities LLC and JonesTrading Institutional Services LLC, incorporated by reference to Exhibit 1.1 to our Current Report on Form 8-K, filed with the SEC on November 3, 2021
- 21.1 Subsidiaries of the Registrant.
- 23.1 Consent of PricewaterhouseCoopers LLP.
- Certification of John M. Anzalone pursuant to Rule 13a-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- Certification of R. Lee Phegley, Jr. pursuant to Rule 13a-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 32.1 Certification of John M. Anzalone pursuant to Rule 13a-14(b) and 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- Certification of R. Lee Phegley, Jr. pursuant to Rule 13a-14(b) and 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- The following series of audited XBRL-formatted documents are collectively included herewith as Exhibit 101. The financial information is extracted from Invesco Mortgage Capital Inc.'s audited consolidated financial statements and notes that are included in this Form 10-K Report.
 - 101.INS XBRL Instance Document The instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
 - 101.SCH XBRL Taxonomy Extension Schema Document
 - 101.CAL XBRL Taxonomy Calculation Linkbase Document
 - 101.LAB XBRL Taxonomy Label Linkbase Document
 - 101.PRE XBRL Taxonomy Presentation Linkbase Document
 - 101.DEF XBRL Taxonomy Definition Linkbase Document
- 104 Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)
- § Management contract or compensatory plan or arrangement.
 - (b) Exhibits: Refer to (a)(3) above.
 - (c) Financial Statement Schedules: Refer to (a)(2) above.

INDEX TO FINANCIAL STATEMENTS

	Page
Report of Independent Registered Public Accounting Firm (PCAOB ID 238)	73
Consolidated Balance Sheets as of December 31, 2022 and December 31, 2021	75
Consolidated Statements of Operations for the years ended December 31, 2022, 2021 and 2020	76
Consolidated Statements of Comprehensive Income (Loss) for the years ended December 31, 2022, 2021 and 2020	77
Consolidated Statements of Stockholders' Equity for the years ended December 31, 2022, 2021 and 2020	78
Consolidated Statements of Cash Flows for the years ended December 31, 2022, 2021 and 2020	79
Notes to Consolidated Financial Statements	80

INDEX TO FINANCIAL STATEMENT SCHEDULES

	Page
Schedule IV - Mortgage Loans on Real Estate as of December 31, 2022	106

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Invesco Mortgage Capital Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Invesco Mortgage Capital Inc. and its subsidiaries (the "Company") as of December 31, 2022 and 2021, and the related consolidated statements of operations, of comprehensive income (loss), of stockholders' equity and of cash flows for each of the three years in the period ended December 31, 2022, including the related notes and financial statement schedule listed in the accompanying index (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control - Integrated Framework (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Annual Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Valuation of Mortgage-Backed Securities, at fair value

As described in Notes 2 and 10 to the consolidated financial statements, the Company's mortgage-backed securities, at fair value were \$4.8 billion as of December 31, 2022. Management determines the fair value of mortgage-backed securities using an independent primary pricing service. If the primary pricing service cannot provide a price, management seeks a value from other pricing services. The pricing service uses two types of valuation approaches to determine the valuation of the Company's various mortgage-backed securities: a market approach, which uses observable prices and other relevant information that is generated by market transactions involving identical or comparable assets or liabilities; and an income approach, which uses valuation techniques to convert future amounts to a single, discounted present value amount.

The principal considerations for our determination that performing procedures relating to the valuation of mortgage-backed securities, at fair value is a critical audit matter are the high degree of auditor effort in performing procedures and evaluating audit evidence related to the fair value of the mortgage-backed securities.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the valuation of mortgage-backed securities, at fair value. These procedures also included, among others, (i) developing an independent range of prices for the securities by obtaining independent pricing from third party vendors; (ii) comparing management's estimate of fair value to the independent range of prices to evaluate the reasonableness of management's estimate; and (iii) testing the completeness and accuracy of the data provided by management.

/s/ PricewaterhouseCoopers LLP Atlanta, Georgia February 21, 2023

We have served as the Company's auditor since 2016.

INVESCO MORTGAGE CAPITAL INC. AND SUBSIDIARIES CONSOLIDATED BALANCE SHEETS

	As of		
\$ in thousands except share amounts	December 31, 2022	December 31, 2021	
ASSETS			
Mortgage-backed securities, at fair value (including pledged securities of \$4,439,583 and \$7,326,175, respectively)	4,791,893	7,804,259	
Cash and cash equivalents	175,535	357,134	
Restricted cash	103,246	219,918	
Due from counterparties	1,584	7,985	
Investment related receivable	22,744	16,766	
Derivative assets, at fair value	662	270	
Other assets	1,731	37,509	
Total assets	5,097,395	8,443,841	
LIABILITIES AND STOCKHOLDERS' EQUITY			
Liabilities:			
Repurchase agreements	4,234,823	6,987,834	
Derivative liabilities, at fair value	2,079	14,356	
Dividends payable	25,162	29,689	
Accrued interest payable	20,546	1,171	
Collateral held payable	4,892	280	
Accounts payable and accrued expenses	1,365	1,887	
Due to affiliate	4,453	6,489	
Total liabilities	4,293,320	7,041,706	
Commitments and contingencies (See Note 14)			
Stockholders' equity:			
Preferred Stock, par value \$0.01 per share; 50,000,000 shares authorized:			
7.75% Fixed-to-Floating Series B Cumulative Redeemable Preferred Stock: 4,537,634 and 6,200,000 shares issued and outstanding, respectively (\$113,441 and \$155,000 aggregate liquidation preference, respectively)	109,679	149,860	
7.50% Fixed-to-Floating Series C Cumulative Redeemable Preferred Stock: 7,816,470 and 11,500,000 shares issued and outstanding, respectively (\$195,412 and \$287,500 aggregate liquidation preference, respectively)	189,028	278,108	
Common Stock, par value \$0.01 per share; 67,000,000 and 450,000,000 shares authorized, respectively; 38,710,916 and 32,987,478 shares issued and outstanding, respectively	387	330	
Additional paid in capital	3,901,562	3,819,375	
Accumulated other comprehensive income	10,761	37,286	
Retained earnings (distributions in excess of earnings)	(3,407,342)	(2,882,824)	
Total stockholders' equity	804,075	1,402,135	
Total liabilities and stockholders' equity	5,097,395	8,443,841	

INVESCO MORTGAGE CAPITAL INC. AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF OPERATIONS

	Years Ended December 31,		
\$ in thousands except share data	2022	2021	2020
Interest income			
Mortgage-backed and other securities	192,566	167,056	277,400
Commercial and other loans	1,947	2,146	2,766
Total interest income	194,513	169,202	280,166
Interest expense			
Repurchase agreements (1)	51,560	(11,290)	73,607
Secured loans	_	_	8,655
Total interest expense	51,560	(11,290)	82,262
Net interest income	142,953	180,492	197,904
Other income (loss)			
Gain (loss) on investments, net	(1,079,339)	(366,509)	(961,938)
(Increase) decrease in provision for credit losses	_	1,768	(1,768)
Equity in earnings (losses) of unconsolidated ventures	(407)	870	1,163
Gain (loss) on derivative instruments, net	559,007	122,611	(851,050)
Realized and unrealized credit derivative income (loss), net	_	_	(35,312)
Net gain (loss) on extinguishment of debt	_	_	14,742
Other investment income (loss), net	186	1	2,137
Total other income (loss)	(520,553)	(241,259)	(1,832,026)
Expenses			
Management fee — related party	16,906	21,080	29,367
General and administrative	8,418	8,153	10,863
Total expenses	25,324	29,233	40,230
Net income (loss)	(402,924)	(90,000)	(1,674,352)
Dividends to preferred stockholders	(28,218)	(37,795)	(44,426)
Gain on repurchase and retirement of preferred stock	14,179	_	_
Issuance and redemption costs of redeemed preferred stock	_	(4,682)	_
Net income (loss) attributable to common stockholders	(416,963)	(132,477)	(1,718,778)
Earnings (loss) per share:			
Net income (loss) attributable to common stockholders			
Basic	(12.21)	(4.82)	(98.93)
Diluted	(12.21)	(4.82)	(98.93)
Weighted average number of shares of common stock:			
Basic	34,160,080	27,513,223	17,373,039
Diluted	34,160,080	27,513,223	17,373,039

⁽¹⁾ Negative interest expense on repurchase agreements in 2021 is due to amortization of net deferred gains on de-designated interest rate swaps that exceeds current period interest expense on repurchase agreements. For further information on amortization of amounts classified in accumulated other comprehensive income before we discontinued hedge accounting, see Note 8 - "Derivatives and Hedging Activities" and Note 12 - "Stockholders' Equity".

INVESCO MORTGAGE CAPITAL INC. AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

	Years Ended December 31,		
\$ in thousands	2022	2021	2020
Net income (loss)	(402,924)	(90,000)	(1,674,352)
Other comprehensive income (loss):			
Unrealized gain (loss) on mortgage-backed and credit risk transfer securities, net	(6,280)	756	(223,416)
Reclassification of unrealized (gain) loss on sale of mortgage- backed and credit risk transfer securities to gain (loss) on investments, net	_	_	13,940
Reclassification of unrealized loss on available-for-sale securities to (increase) decrease in provision for credit losses	_	_	1,768
Reclassification of amortization of net deferred (gain) loss on de- designated interest rate swaps to repurchase agreements interest expense	(19,708)	(22,000)	(23,794)
Currency translation adjustments on investment in unconsolidated venture	(537)	(75)	1,144
Total other comprehensive income (loss)	(26,525)	(21,319)	(230,358)
Comprehensive income (loss)	(429,449)	(111,319)	(1,904,710)
Dividends to preferred stockholders	(28,218)	(37,795)	(44,426)
Gain on repurchase and retirement of preferred stock	14,179	_	_
Issuance and redemption costs of redeemed preferred stock		(4,682)	_
Comprehensive income (loss) attributable to common stockholders	(443,488)	(153,796)	(1,949,136)

INVESCO MORTGAGE CAPITAL INC. AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

	Series A Preferred Stock	A Stock	Series B Preferred Stock	s B I Stock	Series C Preferred Stock	s C I Stock	Common Stock	Stock	Additional	Accumulated Other	Retained Earnings (Distributions	Total
S in thousands except share amounts	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	raid in Capital	Comprenensive Income (Loss)	in Excess of Earnings)	Stockholders Equity
Balance at December 31, 2019	5,600,000	135,356	6,200,000	149,860	11,500,000	278,108	14,425,636	144	2,893,951	288,963	(814,483)	2,931,899
Cumulative effect of adoption of new accounting principle											342	342
Net income (loss)	I	Ι	Ι	1	Ι	1		Ι	1	I	(1,674,352)	(1,674,352)
Other comprehensive income (loss)	1	1	I	1	I	I		I		(230,358)	I	(230,358)
Proceeds from issuance of common stock, net of offering costs	l	I	I	I	I	I	4,254,974	43	420,694	1	l	420,737
Stock awards		I	I	1	I	I	7,750	I		1	I	1
Common stock dividends	l	I	I	1	I	I	1,633,851	16	74,218	1	(111,436)	(37,202)
Preferred stock dividends	l	I	I	I	I	I		I		l	(44,426)	(44,426)
Amortization of equity-based compensation		1	I	1	I	1		I	518	1		518
Balance at December 31, 2020	5,600,000	135,356	6,200,000	149,860	11,500,000	278,108	20,322,211	203	3,389,381	58,605	(2,644,355)	1,367,158
Net income (loss)		1		1							(000,000)	(90,000)
Other comprehensive income (loss)			I	1	I	1		I		(21,319)		(21,319)
Proceeds from issuance of common stock, net of offering costs	1	I	I	Ι	I	Ι	12,646,902	126	429,378	1	1	429,504
Stock awards	1	I	I	I	I	I	18,365	-		l	I	1
Redemption of preferred stock	(5,600,000)	(135,356)	l	I	l	I	1	I		1	(4,682)	(140,038)
Common stock dividends	1	1	I	1	I	1		I		1	(105,992)	(105,992)
Preferred stock dividends	1	I	I	1	I	I	1	I	1	1	(37,795)	(37,795)
Amortization of equity-based compensation					١	١		Ι	616	1	l	616
Balance at December 31, 2021			6,200,000	149,860	11,500,000	278,108	32,987,478	330	3,819,375	37,286	(2,882,824)	1,402,135
Net income (loss)		I	I	I		I		I			(402,924)	(402,924)
Other comprehensive income (loss)	l	I	I	1	I	I	1	I	1	(26,525)	1	(26,525)
Proceeds from issuance of common stock, net of offering costs	l		l		l	I	5,686,598	57	81,575	l	l	81,632
Stock awards	1	I	I	1		Ι	36,886		1	1	1	
Payments in lieu of fractional shares in connection with one-for-ten reverse stock split	I		1	I	1	1	(46)	1	(1)	1	I	(1)
Repurchase and retirement of preferred stock	1	I	(1,662,366)	(40,181)	(3,683,530)	(86,080)	1	I	1	1	14,179	(115,082)
Common stock dividends			I		I	I		I			(107,555)	(107,555)
Preferred stock dividends	1	I	I	1	I	I	1	I	1	1	(28,218)	(28,218)
Amortization of equity-based compensation		1	1		١	1		1	613			613
Balance at December 31, 2022	1	1	4,537,634	109,679	7,816,470	189,028	38,710,916	387	3,901,562	10,761	(3,407,342)	804,075

INVESCO MORTGAGE CAPITAL INC. AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF CASH FLOWS

Agustaments or reconcile entincome (loss) to net cash provided by (used in) operating activities	\$ in thousands	Years Ended December 31,			
Not income (loss)		2022	2021	2020	
Agustaments or reconcile ent income (loss) to net cash provided by (used in) operating activities	Cash Flows from Operating Activities				
Amortization of mortgage-backed and other securities premiums and (discounts), net (472,135) (138,414) (839,997 Realizerd and unrealized (gain) loss on ervertit derivatives, net (472,135) (138,414) (839,997 Realized and unrealized (gain) loss on ervertit derivatives, net (472,135) (138,414) (839,997 Realized and unrealized (gain) loss on ervertit derivatives, net (472,135) (138,414) (839,997 Realized and unrealized (gain) loss on ervertit derivatives, net (472,135) (138,414) (138,414) (138,414) (138,414) (138,414) (139,4	Net income (loss)	(402,924)	(90,000)	(1,674,352)	
Realized and unrealized (gain) loss on ceirottic brivatives, net (472,135) (138,414) 889,076 (Gain) loss on investments, net 1,079,339 366,509 961,938 (Gain) loss on investments, net on investments in unconsolidated ventures in excess of distributions received 43 5 96,238 (Gain) loss from investments in unconsolidated ventures in excess of distributions received (19,095) (21,333) (23,766) Other annotization (19,095) (21,333) (23,766) (14,742) Changes in operating assets and liabilities (15,240) (11,606) 51,615 Charges in operating liabilities 17,201 1,108 (49,626) Charges of mortigage-backed and credit risk transfer securities (52,733,584) (17,132,755) (13,613,447) Purchase of DS. Tressary securities (50,273,584) (17,132,755) (13,613,447) Purchase of mortigage-backed and credit risk transfer securities (50,273,584) (17,132,755) (13,613,447) Purchase of DS. Tressary securities (52,723,584) (17,132,975) (13,613,447) Principal payments from morngage-backed and credit risk transfer securities (52,812) (4					
Realized and unrealized (gain) loss on credit derivatives, net — 41,035 36,509 96,1938 (Gain) loss on investments, net 1,078,339 36,509 96,1938 (Gain) loss on investments in unconsolidated ventures in excess of distributions received 45 9 229 Other amortization 0 0 1,078 229 Other amortizating assets and liabilities:		(1,118)	37,397	15,980	
Gain loss on investments, net 1,079,339 36,509 39,338 1,768		(472,135)	(138,414)	859,097	
Increase (decrease) in provision for credit loses 7.268 7.308	Realized and unrealized (gain) loss on credit derivatives, net	_	_	41,635	
(Gain) loss from investments in unconsolidated ventures in excess of distributions received 45 9 229 Other amortization (19,095) (21,383) (23,236) Net (gain) loss on extinguishment of debt	(Gain) loss on investments, net	1,079,339	366,509	961,938	
Other amortization (19,095) (21,383) (22,376) Ket (agini) loss on extinguishment of debt (14,742) Changes in operating assets and liabilities: (5,230) (1,166) 51,645 Increase (decrease) in operating liabilities (17,01) 1,108 (4,646) Net cash provided by (used in) operating activities 17,201 1,108 (4,646) Net set by from Investing Activities (52,723,584) (71,32,975) (13,613,447) Purchase of U.S. Treasury securities (50,200) - - - 4,03,64 5,05 Distributions from (contributions to) investments in unconsolidated ventures, net 11,142 3,48 6,50 Change in other assets 403,327 82,78 92,528,46 Principal payments from mortgage-backed and credit risk transfer securities 403,327 82,78 92,528,46 Principal payments from sale of Forder diverties - - 40,366 156,160 (84,577) Regument of the sale of Fordic diverties - - 7,225 15,25 15,25 15,25 16,160 (84,577) 16,25 <td>Increase (decrease) in provision for credit losses</td> <td>_</td> <td>(1,768)</td> <td>1,768</td>	Increase (decrease) in provision for credit losses	_	(1,768)	1,768	
Net (gain) loss on extinguishment of debt	(Gain) loss from investments in unconsolidated ventures in excess of distributions received	45	9	229	
Changes in operating assets and liabilities		(19,095)	(21,383)	(23,276)	
Concease) decrease in operating asserts 5,230 1,160 5,164 Increase (decrease) in operating liabilities 17,001 16,000 16,000 17,000 17,000 17,000 Rote cash provided by (used in operating activities 15,000 16,000 17,000 17,000 17,000 17,000 Purchase of U.S. Treasury securities 13,000 13,000 13,000 10,000 Distributions from (contributions to) investments in unconsolidated ventures, net 11,300 13,000 10,000 10,000 10,000 Distributions from (contributions to) investments in unconsolidated ventures, net 11,300 13,000 10,0	·- ·	_	_	(14,742)	
Increase (decrease) in operating liabilities	Changes in operating assets and liabilities:				
Net cash provided by (used in) operating activities 196,083 152,292 170,459		(5,230)	(1,166)	51,645	
Cash Flows from Investing Activities (25,723,584) (17,132,975) (13,613,447) Purchase of U.S. Treasury securities (502,290) — — Distributions from (contributions to) investments in unconsolidated ventures, net 11,342 3,848 6,505 Change in other assets — 403,327 825,189 825,292 Principal payments from mortgage-backed and credit risk transfer securities 403,327 825,189 825,292 Proceeds from sale of mortgage-backed and credit risk transfer securities 403,327 825,189 825,292 Proceeds from sale of U.S. Treasury securities 468,051 — — (31,353) Settlement (termination) of forwards, swaps, swaptions and TBAs, net 459,466 156,160 (844,577) Redemption of Pfederal Home Loan Bank of Indianapolis stock — — 74250 Net change in due from counterparties and collateral held payable on derivative instruments 2,594 (5,430) 1,093 Principal payments from commercial loan held-for-investment 23,917 — 136 Net change in due from counterparties and collateral held payable on derivative instruments 2,944 (5,430)	Increase (decrease) in operating liabilities	17,201	1,108	(49,463)	
Purchase of mortgage-backed and credit risk transfer securities	Net cash provided by (used in) operating activities	196,083	152,292	170,459	
Purchase of U.S. Treasury securities					
Distributions from (contributions to) investments in unconsolidated ventures, net	Purchase of mortgage-backed and credit risk transfer securities	(25,723,584)	(17,132,975)	(13,613,447)	
Change in other assets	Purchase of U.S. Treasury securities	(502,290)	_	_	
Principal payments from mortgage-backed and credit risk transfer securities 403,327 825,189 892,592 Proceeds from sale of U.S. Treasury securities 468,051 ————————————————————————————————————	Distributions from (contributions to) investments in unconsolidated ventures, net	11,342	3,848	6,505	
Proceeds from sale of mortgage-backed and credit risk transfer securities 27,281,250 16,273,956 25,028,464 Proceeds from sale of U.S. Treasury securities 468,051 — — — 31,353 Settlement (termination) of forwards, swaps, swaptions and TBAs, net 459,466 156,160 (844,577 Redemption of Federal Home Loan Bank of Indianapolis stock — — 74,250 Net change in due from counterparties and collateral held payable on derivative instruments 2,94 (5,430) 1,093 Principal payments from commercial loan held-for-investment 23,917 — 136 Net cash provided by (used in) investing activities 2,424,073 120,748 11,554,509 Cash Flows from Financing Activities 81,899 430,496 420,737 Redemption of preferred stock (115,082) — — Cash paid in lieu of fractional shares in connection with one-for-ten reverse stock split (11 — — Principal repayments of secured loans — (66,872,266 82,347,113 75,0698,735 Principal repayments of repurchase agreements 66,872,266 82,347,113 75,0698,735 <td>Change in other assets</td> <td>_</td> <td>_</td> <td>40,846</td>	Change in other assets	_	_	40,846	
Proceeds from sale of U.S. Treasury securities	Principal payments from mortgage-backed and credit risk transfer securities	403,327	825,189	892,592	
Payment on the sale of credit derivatives — — (31,353) Settlement (termination) of forwards, swaps, sw	Proceeds from sale of mortgage-backed and credit risk transfer securities	27,281,250	16,273,956	25,028,464	
Settlement (termination) of forwards, swaps, swaptions and TBAs, net 459,466 156,160 (844,577 Redemption of Federal Home Loan Bank of Indianapolis stock — — — 74,250 Net change in due from counterparties and collateral held payable on derivative instruments 2,594 (5,430) 1,093 Principal payments from commercial loan held-for-investment 23,917 — 136 Net cash provided by (used in) investing activities 2,424,073 120,748 11,554,509 Cash Flows from Financing Activities — (140,038) — Proceeds from issuance of common stock 81,899 430,496 420,773 Redemption of preferred stock — (140,038) — Repurchase of preferred stock — (140,038) — Repurchase of fractional shares in connection with one-for-ten reverse stock split — (1 — — Principal repayments of secured loans — — — — — — — — — — — — — — — — — — <	Proceeds from sale of U.S. Treasury securities	468,051	_	_	
Redemption of Federal Home Loan Bank of Indianapolis stock — 74,250 Net change in due from counterparties and collateral held payable on derivative instruments 2,594 (5,430) 1,093 Principal payments from commercial loan held-for-investment 23,917 — 136 Net cash provided by (used in) investing activities 2,424,073 12,748 11,554,509 Cash Flows from Financing Activities — — 140,408 420,737 Redemption of preferred stock 81,899 430,496 420,737 Redemption of preferred stock (115,082) — — Cash paid in lieu of fractional shares in connection with one-for-ten reverse stock split (11 — — Cash paid in lieu of fractional shares in connection with one-for-ten reverse stock split (11 — — Principal repayments of secured loans — — — — Principal repayments of secured loans 66,872,266 82,347,113 75,698,735 Principal repayments of repurchase agreements (66,872,266 82,347,113 75,698,735 Principal repayments of repurchase agreements 8,149	Payment on the sale of credit derivatives	_	_	(31,353)	
Net change in due from counterparties and collateral held payable on derivative instruments 2,544 (5,430) 1,093 Principal payments from commercial loan held-for-investment 23,917 — 136 Net cash provided by (used in) investing activities 2,424,073 120,748 11,554,509 Cash Flows from Financing Activities — (140,038) — Proceeds from issuance of common stock 81,899 430,496 420,737 Redemption of preferred stock — (140,038) — Repurchase of preferred stock — (115,082) — — Cash paid in lieu of fractional shares in connection with one-for-ten reverse stock split (1) — — Principal repayments of secured loans — — (1,650,000 Proceeds from repurchase agreements (6,872,266 82,347,113 75,698,735 Principal repayments of repurchase agreements and related fees (69,625,277) (82,587,978) (85,987,597) Net change in due from counterparties and collateral held payable on repurchase agreements 8,419 4,743 33,773 Payments of dividends (140,300)	Settlement (termination) of forwards, swaps, swaptions and TBAs, net	459,466	156,160	(844,577)	
Principal payments from commercial loan held-for-investment 23,917 — 136 Net cash provided by (used in) investing activities 2,424,073 120,748 11,554,509 Cash Flows from Financing Activities 81,899 430,496 420,737 Redemption of preferred stock — (140,038) — Repurchase of preferred stock (115,082) — — Cash paid in lieu of fractional shares in connection with one-for-ten reverse stock split (1) — — Principal repayments of secured loans — (15,050,000 Principal repayments of secured loans — (1,650,000 Proceeds from repurchase agreements 66,872,266 82,347,113 75,698,735 Principal repayments of repurchase agreements and related fees (69,625,277) (82,587,978) (85,987,597 Net change in due from counterparties and collateral held payable on repurchase agreements 8,419 4,743 33,773 Payments of deferred costs (29,18,247) (354) (35 43 435 Payments of duvidends (29,18,247) (354) (354) 435 43,749	Redemption of Federal Home Loan Bank of Indianapolis stock	_	_	74,250	
Net cash provided by (used in) investing activities 2,424,073 120,748 11,554,509 Cash Flows from Financing Activities Proceeds from issuance of common stock 81,899 430,496 420,737 Redemption of preferred stock — (140,038) — Repurchase of preferred stock (115,682) — — Cash paid in lieu of fractional shares in connection with one-for-ten reverse stock split (11 — — Principal repayments of secured loans — (6,687,266 82,347,113 75,698,735 Principal repayments of repurchase agreements (66,867,266 82,347,113 75,698,735 Principal repayments of repurchase agreements and related fees (69,625,277) (82,587,978) 85,987,597 Net change in due from counterparties and collateral held payable on repurchase agreements 8,19 4,743 33,773 Payments of deferred costs (311) (354 (355 435 13,568,7597 Net change in due from counterparties and restricted cash (2918,427) (88,572) (11,621,866 Net cash provided by (used in) financing activities (298,271) 184,668	Net change in due from counterparties and collateral held payable on derivative instruments	2,594	(5,430)	1,093	
Cash Flows from Financing Activities Proceeds from issuance of common stock 81,899 430,496 420,737 Redemption of preferred stock — (140,038) — Repurchase of preferred stock (115,082) — — Cash paid in lieu of fractional shares in connection with one-for-ten reverse stock split (11 — — Principal repayments of secured loans — — (1,650,000) Proceeds from repurchase agreements 66,872,266 82,347,113 75,698,735 Principal repayments of repurchase agreements and related fees (69,625,277) (82,587,978) (85,987,597 Net change in due from counterparties and collateral held payable on repurchase agreements 8,19 4,743 33,773 Payments of deferred costs (351) (354) (355) 13,363 (354) (355) Payments of dividends (140,300) (133,068) (137,499) Net cash provided by (used in) financing activities (29,184,27) (88,572) (11,621,866) Net change in cash, cash equivalents and restricted cash, beginning of period 278,781 577,052 39	Principal payments from commercial loan held-for-investment	23,917	<u> </u>	136	
Proceeds from issuance of common stock 81,899 430,496 420,737 Redemption of preferred stock ————————————————————————————————————	Net cash provided by (used in) investing activities	2,424,073	120,748	11,554,509	
Redemption of preferred stock — (140,038) — — Repurchase of preferred stock (115,082) — — Cash paid in lieu of fractional shares in connection with one-for-ten reverse stock split (1) — — Principal repayments of secured loans — (1,650,000 Proceeds from repurchase agreements 66,872,266 82,347,113 75,698,735 Principal repayments of repurchase agreements and related fees (69,625,277) (82,587,978) (85,987,597) Net change in due from counterparties and collateral held payable on repurchase agreements 8,419 (4,743) 33,773 Payments of deferred costs (351) (354) (35 Payments of dividends (140,300) (133,068) (137,499) Net cash provided by (used in) financing activities (2,918,427) (88,572) (11,621,866) Net change in cash, cash equivalents and restricted cash (298,271) 184,468 103,082 Cash, cash equivalents and restricted cash, beginning of period 577,052 392,584 289,502 Cash, cash equivalents and restricted cash, each equivalents and restricted cash, each equivalents and restricted cash, each equivalents and restricted each, each equivalents and restricted	Cash Flows from Financing Activities				
Repurchase of preferred stock (115,082) — — Cash paid in lieu of fractional shares in connection with one-for-ten reverse stock split (1) — — Principal repayments of secured loans — — (1,650,000 Proceeds from repurchase agreements 66,872,266 82,347,113 75,698,759 Principal repayments of repurchase agreements and related fees (69,625,277) (82,587,978) (85,987,597 Net change in due from counterparties and collateral held payable on repurchase agreements 8,419 (4,743) 33,773 Payments of deferred costs (351) (354) (35 Payments of dividends (140,300) (133,068) (137,499 Net cash provided by (used in) financing activities (2,918,427) (88,572) (11,621,886 Net change in cash, cash equivalents and restricted cash (298,271) 184,468 103,082 Cash, cash equivalents and restricted cash, beginning of period 577,052 392,584 289,502 Cash, cash equivalents and restricted cash, end of period 51,892 10,363 149,230 Non-cash Investing and Financing Activities Information	Proceeds from issuance of common stock	81,899	430,496	420,737	
Cash paid in lieu of fractional shares in connection with one-for-ten reverse stock split (1) — — Principal repayments of secured loans — — (1,650,000 Proceeds from repurchase agreements 66,872,266 82,347,113 75,698,735 Principal repayments of repurchase agreements and related fees (69,625,277) (82,587,978) (85,987,597 Net change in due from counterparties and collateral held payable on repurchase agreements 8,419 (4,743) 33,773 Payments of dividends (140,300) (133,068) (137,499 Net cash provided by (used in) financing activities (29,18,427) (88,572) (11,621,886 Net change in cash, cash equivalents and restricted cash, beginning of period 278,7052 392,584 103,082 Cash, cash equivalents and restricted cash, beginning of period 577,052 392,584 289,502 Cash, cash equivalents and restricted cash, end of period 278,781 577,052 392,584 Supplement Disclosure of Cash Flow Information Interest paid 51,892 10,363 149,230 Non-cash Investing and Financing Activities Information (6,280)<	Redemption of preferred stock	_	(140,038)	_	
Principal repayments of secured loans — (1,650,000 Proceeds from repurchase agreements 66,872,266 82,347,113 75,698,735 Principal repayments of repurchase agreements and related fees (69,625,277) (82,587,978) (85,987,597 Net change in due from counterparties and collateral held payable on repurchase agreements 8,419 (4,743) 33,773 Payments of dividends (140,300) (133,068) (137,499 Net cash provided by (used in) financing activities (2,918,427) (88,572) (11,621,886 Net change in cash, cash equivalents and restricted cash (298,271) 184,468 103,082 Cash, cash equivalents and restricted cash, beginning of period 577,052 392,584 289,502 Cash, cash equivalents and restricted cash, end of period 278,781 577,052 392,584 Supplement Disclosure of Cash Flow Information Interest paid 51,892 10,363 149,230 Non-cash Investing and Financing Activities Information Net change in unrealized gain (loss) on mortgage-backed and credit risk transfer securities classified as available-for-sale (6,280) 756 (207,708	Repurchase of preferred stock	(115,082)	_	_	
Proceeds from repurchase agreements 66,872,266 82,347,113 75,698,735 Principal repayments of repurchase agreements and related fees (69,625,277) (82,587,978) (85,987,597) Net change in due from counterparties and collateral held payable on repurchase agreements 8,419 (4,743) 33,773 Payments of deferred costs (351) (354) (35 Payments of dividends (140,300) (133,068) (137,499) Net cash provided by (used in) financing activities (2,918,427) (88,572) (11,621,886) Net change in cash, cash equivalents and restricted cash (298,271) 184,468 103,082 Cash, cash equivalents and restricted cash, beginning of period 577,052 392,584 289,502 Cash, cash equivalents and restricted cash, end of period 278,781 577,052 392,584 Supplement Disclosure of Cash Flow Information Interest paid 51,892 10,363 149,230 Non-cash Investing and Financing Activities Information Net change in unrealized gain (loss) on mortgage-backed and credit risk transfer securities classified as available-for-sale (6,280) 756 (207,708	Cash paid in lieu of fractional shares in connection with one-for-ten reverse stock split	(1)	_	_	
Principal repayments of repurchase agreements and related fees (69,625,277) (82,587,978) (85,987,597) Net change in due from counterparties and collateral held payable on repurchase agreements 8,419 (4,743) 33,773 Payments of deferred costs (351) (354) (35 Payments of dividends (140,300) (133,068) (137,499) Net cash provided by (used in) financing activities (2,918,427) (88,572) (11,621,886) Net change in cash, cash equivalents and restricted cash (298,271) 184,468 103,082 Cash, cash equivalents and restricted cash, beginning of period 577,052 392,584 289,502 Cash, cash equivalents and restricted cash, end of period 278,781 577,052 392,584 Supplement Disclosure of Cash Flow Information Interest paid 51,892 10,363 149,230 Non-cash Investing and Financing Activities Information (6,280) 756 (207,708 Non-cash Investing and Financing Activities Information (6,280) 756 (207,708 Dividends declared not paid 25,162 29,689 18,970	Principal repayments of secured loans	_	_	(1,650,000)	
Net change in due from counterparties and collateral held payable on repurchase agreements 8,419 (4,743) 33,773 Payments of deferred costs (351) (354) (35 Payments of dividends (140,300) (133,068) (137,499) Net cash provided by (used in) financing activities (2,918,427) (88,572) (11,621,886) Net change in cash, cash equivalents and restricted cash (298,271) 184,468 103,082 Cash, cash equivalents and restricted cash, beginning of period 577,052 392,584 289,502 Cash, cash equivalents and restricted cash, end of period 278,781 577,052 392,584 Supplement Disclosure of Cash Flow Information 51,892 10,363 149,230 Non-cash Investing and Financing Activities Information 51,892 10,363 149,230 Nor-cash Investing and Financing Activities Information (6,280) 756 (207,708 Dividends declared not paid 25,162 29,689 18,970 Increase (decrease) in Agency CMBS purchase commitments — — — — (99,557 Net change in investment related receivable (payable)	Proceeds from repurchase agreements	66,872,266	82,347,113	75,698,735	
Payments of deferred costs (351) (354) (35 Payments of dividends (140,300) (133,068) (137,499) Net cash provided by (used in) financing activities (2,918,427) (88,572) (11,621,886) Net change in cash, cash equivalents and restricted cash (298,271) 184,468 103,082 Cash, cash equivalents and restricted cash, beginning of period 577,052 392,584 289,502 Cash, cash equivalents and restricted cash, end of period 278,781 577,052 392,584 Supplement Disclosure of Cash Flow Information Interest paid 51,892 10,363 149,230 Non-cash Investing and Financing Activities Information Net change in unrealized gain (loss) on mortgage-backed and credit risk transfer securities classified as available-for-sale (6,280) 756 (207,708 Dividends declared not paid 25,162 29,689 18,970 Increase (decrease) in Agency CMBS purchase commitments — — — — (99,557 Net change in investment related receivable (payable) excluding Agency CMBS purchase commitments (707) 46 266 <tr< td=""><td>Principal repayments of repurchase agreements and related fees</td><td>(69,625,277)</td><td>(82,587,978)</td><td>(85,987,597)</td></tr<>	Principal repayments of repurchase agreements and related fees	(69,625,277)	(82,587,978)	(85,987,597)	
Payments of dividends (140,300) (133,068) (137,499) Net cash provided by (used in) financing activities (2,918,427) (88,572) (11,621,886) Net change in cash, cash equivalents and restricted cash (298,271) 184,468 103,082 Cash, cash equivalents and restricted cash, beginning of period 577,052 392,584 289,502 Cash, cash equivalents and restricted cash, end of period 278,781 577,052 392,584 Supplement Disclosure of Cash Flow Information Interest paid 51,892 10,363 149,230 Non-cash Investing and Financing Activities Information Net change in unrealized gain (loss) on mortgage-backed and credit risk transfer securities classified as available-for-sale (6,280) 756 (207,708 Dividends declared not paid 25,162 29,689 18,970 Increase (decrease) in Agency CMBS purchase commitments — — (99,557 Net change in investment related receivable (payable) excluding Agency CMBS purchase commitments (707) 46 266 Change in foreign currency translation adjustment on other investments 537 75 (1,144 <td>Net change in due from counterparties and collateral held payable on repurchase agreements</td> <td>8,419</td> <td>(4,743)</td> <td>33,773</td>	Net change in due from counterparties and collateral held payable on repurchase agreements	8,419	(4,743)	33,773	
Net cash provided by (used in) financing activities (2,918,427) (88,572) (11,621,886) Net change in cash, cash equivalents and restricted cash (298,271) 184,468 103,082 Cash, cash equivalents and restricted cash, beginning of period 577,052 392,584 289,502 Cash, cash equivalents and restricted cash, end of period 278,781 577,052 392,584 Supplement Disclosure of Cash Flow Information Interest paid 51,892 10,363 149,230 Non-cash Investing and Financing Activities Information Net change in unrealized gain (loss) on mortgage-backed and credit risk transfer securities classified as available-for-sale (6,280) 756 (207,708 Dividends declared not paid 25,162 29,689 18,970 Increase (decrease) in Agency CMBS purchase commitments — — (99,557 Net change in investment related receivable (payable) excluding Agency CMBS purchase commitments (707) 46 266 Change in foreign currency translation adjustment on other investments 537 75 (1,144)	Payments of deferred costs	(351)	(354)	(35)	
Net change in cash, cash equivalents and restricted cash (298,271) 184,468 103,082 Cash, cash equivalents and restricted cash, beginning of period 577,052 392,584 289,502 Cash, cash equivalents and restricted cash, end of period 278,781 577,052 392,584 Supplement Disclosure of Cash Flow Information Interest paid 51,892 10,363 149,230 Non-cash Investing and Financing Activities Information Net change in unrealized gain (loss) on mortgage-backed and credit risk transfer securities classified as available-for-sale (6,280) 756 (207,708 Dividends declared not paid 25,162 29,689 18,970 Increase (decrease) in Agency CMBS purchase commitments Net change in investment related receivable (payable) excluding Agency CMBS purchase commitments (707) 46 266 Change in foreign currency translation adjustment on other investments 537 75 (1,144)	Payments of dividends	(140,300)	(133,068)	(137,499)	
Cash, cash equivalents and restricted cash, beginning of period Cash, cash equivalents and restricted cash, end of period Cash, cash equivalents and restricted cash, end of period Supplement Disclosure of Cash Flow Information Interest paid Non-cash Investing and Financing Activities Information Net change in unrealized gain (loss) on mortgage-backed and credit risk transfer securities classified as available-for-sale Dividends declared not paid Increase (decrease) in Agency CMBS purchase commitments Net change in investment related receivable (payable) excluding Agency CMBS purchase commitments Change in foreign currency translation adjustment on other investments 577,052 392,584 289,502 278,781 577,052 392,584 289,502 392,584 289,502 392,584 278,781 577,052 392,584 289,502 392,584 392,584 392,584 392,584 392,584 392,584 392,584 392,584 392,584 392,584 392,584 392,584 392,584 392,584 392,584 39	Net cash provided by (used in) financing activities	(2,918,427)	(88,572)	(11,621,886)	
Cash, cash equivalents and restricted cash, end of period Supplement Disclosure of Cash Flow Information Interest paid Non-cash Investing and Financing Activities Information Net change in unrealized gain (loss) on mortgage-backed and credit risk transfer securities classified as available-for-sale Dividends declared not paid Increase (decrease) in Agency CMBS purchase commitments Net change in investment related receivable (payable) excluding Agency CMBS purchase commitments Change in foreign currency translation adjustment on other investments 577,052 392,584 577,052 392,584 577,052 392,584 577,052 392,584 577,052 392,584 577,052 392,584 577,052 392,584 577,052 392,584 577,052 392,584 6,280 756 (207,708 756 (207,7		(298,271)	184,468	103,082	
Interest paid 51,892 10,363 149,230 Non-cash Investing and Financing Activities Information Net change in unrealized gain (loss) on mortgage-backed and credit risk transfer securities classified as available-for-sale Dividends declared not paid Increase (decrease) in Agency CMBS purchase commitments Net change in investment related receivable (payable) excluding Agency CMBS purchase commitments Change in foreign currency translation adjustment on other investments 537 75 (1,144)	Cash, cash equivalents and restricted cash, beginning of period	577,052	392,584	289,502	
Interest paid 51,892 10,363 149,230 Non-cash Investing and Financing Activities Information Net change in unrealized gain (loss) on mortgage-backed and credit risk transfer securities classified as available-for-sale Dividends declared not paid 25,162 29,689 18,970 Increase (decrease) in Agency CMBS purchase commitments Net change in investment related receivable (payable) excluding Agency CMBS purchase commitments Change in foreign currency translation adjustment on other investments 51,892 10,363 149,230 (6,280) 756 (207,708 29,689 18,970 (707) 46 266 (707) 46 266		278,781	577,052	392,584	
Non-cash Investing and Financing Activities Information Net change in unrealized gain (loss) on mortgage-backed and credit risk transfer securities classified as available-for-sale Dividends declared not paid Increase (decrease) in Agency CMBS purchase commitments Net change in investment related receivable (payable) excluding Agency CMBS purchase commitments (707) 46 266 Change in foreign currency translation adjustment on other investments 537 75 (1,144)	Supplement Disclosure of Cash Flow Information				
Net change in unrealized gain (loss) on mortgage-backed and credit risk transfer securities classified as available-for-sale Dividends declared not paid Increase (decrease) in Agency CMBS purchase commitments Net change in investment related receivable (payable) excluding Agency CMBS purchase commitments (6,280) 25,162 29,689 18,970 - (99,557) Net change in investment related receivable (payable) excluding Agency CMBS purchase commitments (707) 46 266 Change in foreign currency translation adjustment on other investments	Interest paid	51,892	10,363	149,230	
classified as available-for-sale (6,280) 756 (207,708 Dividends declared not paid 25,162 29,689 18,970 Increase (decrease) in Agency CMBS purchase commitments — — (99,557) Net change in investment related receivable (payable) excluding Agency CMBS purchase commitments (707) 46 266 Change in foreign currency translation adjustment on other investments 537 75 (1,144)	Non-cash Investing and Financing Activities Information				
Increase (decrease) in Agency CMBS purchase commitments Net change in investment related receivable (payable) excluding Agency CMBS purchase commitments (707) 46 266 Change in foreign currency translation adjustment on other investments 537 75 (1,144)		(6,280)	756	(207,708)	
Net change in investment related receivable (payable) excluding Agency CMBS purchase commitments (707) 46 266 Change in foreign currency translation adjustment on other investments 537 75 (1,144)	Dividends declared not paid	25,162	29,689	18,970	
Net change in investment related receivable (payable) excluding Agency CMBS purchase commitments (707) 46 266 Change in foreign currency translation adjustment on other investments 537 75 (1,144)	Increase (decrease) in Agency CMBS purchase commitments			(99,557)	
		(707)	46	266	
Dividend paid in common stock — 74,234	Change in foreign currency translation adjustment on other investments	537	75	(1,144)	
				74,234	

INVESCO MORTGAGE CAPITAL INC. AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1 - Organization and Business Operations

Invesco Mortgage Capital Inc. (the "Company" or "we") is a Maryland corporation primarily focused on investing in, financing and managing mortgage-backed securities ("MBS") and other mortgage-related assets.

As of December 31, 2022, we were invested in:

- residential mortgage-backed securities ("RMBS") that are guaranteed by a U.S. government agency such as the Government National Mortgage Association ("Ginnie Mae"), or a federally chartered corporation such as the Federal National Mortgage Association ("Fannie Mae") or the Federal Home Loan Mortgage Corporation ("Freddie Mac") (collectively "Agency RMBS");
- commercial mortgage-backed securities ("CMBS") that are not guaranteed by a U.S. government agency or a federally chartered corporation ("non-Agency CMBS");
- RMBS that are not guaranteed by a U.S. government agency or a federally chartered corporation ("non-Agency RMBS"); and
- other real estate-related financing arrangements.

During the periods presented in these consolidated financial statements, we also invested in:

- CMBS that are guaranteed by a U.S. government agency such as Ginnie Mae or a federally chartered corporation such as Fannie Mae or Freddie Mac (collectively "Agency CMBS");
- credit risk transfer securities that are unsecured obligations issued by government-sponsored enterprises ("GSE CRT");
- · a commercial mortgage loan; and
- U.S. Treasury securities.

We conduct our business through IAS Operating Partnership L.P. (the "Operating Partnership") and have one operating segment. We are externally managed and advised by Invesco Advisers, Inc. (our "Manager"), a registered investment adviser and an indirect, wholly-owned subsidiary of Invesco Ltd. ("Invesco"), a leading independent global investment management firm.

We elected to be taxed as a real estate investment trust ("REIT") for U.S. federal income tax purposes under the provisions of the Internal Revenue Code of 1986. To maintain our REIT qualification, we are generally required to distribute at least 90% of our REIT taxable income to our stockholders annually. We operate our business in a manner that permits our exclusion from the "Investment Company" definition under the Investment Company Act of 1940, as amended (the "1940 Act").

Note 2 - Summary of Significant Accounting Policies

Basis of Presentation and Consolidation

For all periods presented in these consolidated financial statements, common shares and per common share amounts have been adjusted on a retroactive basis to reflect our one-for-ten reverse stock split, which was effected following the close of business on June 3, 2022, unless otherwise noted.

Our consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States of America ("U.S. GAAP") and consolidate the financial statements of the Company and its controlled subsidiaries. All significant intercompany transactions, balances, revenues and expenses are eliminated upon consolidation. In the opinion of management, the consolidated financial statements reflect all adjustments, consisting of normal recurring accruals, which are necessary for a fair statement of our financial condition and results of operations for the periods presented.

Use of Estimates

The preparation of consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in our consolidated financial statements and accompanying notes. Examples of estimates include, but are not limited to, estimates of the fair values of financial instruments, interest income on mortgage-backed and credit risk transfer securities and allowances for credit losses. Actual results may differ from those estimates.

Translation of Foreign Currencies

The functional currency of the Company and its subsidiaries is U.S. dollars. Transactions in foreign currencies are recorded at the rates of exchange prevailing on the date of the transactions. At each balance sheet date, monetary assets and liabilities that are denominated in foreign currencies are remeasured at the rates prevailing at the balance sheet date. Gains and losses arising on revaluation are included in other investment income (loss), net on the consolidated statements of operations.

Our reporting currency is U.S. dollars. Upon consolidation, the assets and liabilities of our investment in an unconsolidated venture whose functional currency is the Euro is translated to U.S. dollars using the period-end exchange rates. Equity accounts are translated at historical rates, except for the change in retained earnings during the year, which is the result of the income statement translation process. Revenue and expense accounts are translated using the weighted average exchange rate during the period. The cumulative translation adjustments associated with the investment in the unconsolidated venture are recorded in accumulated other comprehensive income (loss), a component of consolidated stockholders' equity.

We have historically hedged foreign currency exposure with derivative financial instruments. Refer to Note 8 - "Derivatives and Hedging Activities" for further information.

Fair Value Measurements

We report our MBS and GSE CRTs and derivative assets and liabilities at fair value as determined by an independent pricing service. We generally obtain one price per instrument from our primary pricing service. If the primary pricing service cannot provide a price, we will seek a value from other pricing services.

The pricing service uses two types of valuation approaches to determine the valuation of our various mortgage-backed and credit risk transfer securities: a market approach, which uses observable prices and other relevant information that is generated by market transactions involving identical or comparable assets or liabilities; and an income approach, which uses valuation techniques to convert future amounts to a single, discounted present value amount. In instances where sufficient market activity may not exist, the pricing service may utilize proprietary valuation models that may consider market transactions in comparable securities and the various relationships between securities in determining fair value and/or market characteristics to estimate relevant cash flows, which are then discounted to calculate the fair values. Observable inputs may include a combination of benchmark yields, executed trades, broker/dealer quotes, issuer spreads, bids, offers and benchmark securities. In addition, the valuation models utilized by pricing services may consider additional pool level information such as prepayment speeds, default frequencies and default severities, if applicable. We and the pricing service continuously monitor market indicators and economic events to determine whether they may have an impact on our valuations.

The pricing service values interest rate swaps, currency forward contracts and to-be-announced securities ("TBAs") under the market approach through the use of quoted prices available in an active market.

Overrides of prices from pricing services are rare in the current market environment for the assets we hold. Examples of instances that would cause an override include if we recently traded the same security or there is an indication of market activity that would cause the pricing service price to no longer be indicative of fair value. In the rare instance where a price is adjusted, we have a control process to monitor the reason for such adjustment.

To gain comfort that pricing service prices are representative of current market information, we compare the transaction prices of security purchases and sales to the valuation levels provided by the pricing services. Price differences exceeding predefined tolerance levels are identified and investigated and may be challenged. Trends are monitored over time and if there are indications that the valuations are not comparable to market activity, the pricing services are asked to provide detailed information regarding their methodology and inputs. Transparency tools are also available from the pricing services which help us understand data points and/or market inputs used for pricing securities.

We also review daily price movements for interest rate swaps, currency forward contracts and TBAs. Price movements exceeding pre-defined tolerance levels are investigated using an alternate price from another pricing service as well as available market information. Based on our findings, the primary pricing service may be challenged, or in rare cases, overridden with an alternate pricing source.

In addition, we perform due diligence procedures on all pricing services on at least an annual basis. A questionnaire is sent to pricing services which requests information such as changes in methodologies, business recovery preparedness, internal controls and confirmation that evaluations are generated based on market data. Physical visits are also made to each pricing service's office. Virtual visits may take place in lieu of physical visits given concerns surrounding the COVID-19 pandemic.

An independent pricing service valued our commercial loan investment using a discounted cash flow analysis. The yield used in the discounted cash flow analysis was determined by comparing the features of the loan to the interest rates and terms required by lenders in the new loan origination market for similar loans and the yield required by investors acquiring mezzanine loans in the secondary market as well as a comparison of current market and collateral conditions to those present at origination.

As described in Note 10 - "Fair Value of Financial Instruments," we evaluate the source used to fair value our assets and liabilities and make a determination on its categorization within the fair value hierarchy. If the price of a security is obtained from quoted prices for identical instruments in active markets, the security is classified as a level 1 security. If the price of a security is obtained from quoted prices for similar instruments or model-derived valuations whose inputs are observable, the security is classified as a level 2 security. If the inputs appear to be unobservable, the security would be classified as a level 3 security. Transfers between levels, if any, are determined at the end of the reporting period.

Mortgage-Backed and Credit Risk Transfer Securities

We record our purchases of MBS and GSE CRTs on the trade date and report these securities at fair value as described above in the Fair Value Measurements section of this Note 2 to our consolidated financial statements. Approximately \$4.7 billion or 99% of our MBS are accounted for under the fair value option as of December 31, 2022 (December 31, 2021: \$7.7 billion or 99%). Under the fair value option, we recognize changes in fair value in our consolidated statements of operations as unrealized gains and losses. In our view, this election more appropriately reflects the results of our operations because fair value changes are accounted for in the same manner as fair value changes in our economic hedging instruments. We elected the fair value option for all MBS purchased on or after September 1, 2016, GSE CRTs purchased on or after August 24, 2015 and all RMBS interest-only securities.

We classify the remaining balance of our MBS as available-for-sale (\$42.5 million or 1% as of December 31, 2022; \$70.2 million or 1% as of December 31, 2021). Unrealized gains or losses on available-for-sale securities are recorded in accumulated other comprehensive income, a separate component of stockholders' equity, until sale or disposition of the investment. Upon sale or disposition, the cumulative gain or loss previously reported in stockholders' equity is recognized in income. Realized gains and losses from sales of MBS are determined based upon the specific identification method.

GSE CRTs purchased before August 24, 2015 were reported at fair value and accounted for as hybrid financial instruments consisting of a debt host contract and an embedded derivative. Unrealized gains or losses arising from changes in fair value of the debt host contract, excluding other-than-temporary impairment, were recognized in accumulated other comprehensive income until sale or disposition of the investment. Upon sale or disposition of the debt host contract, the cumulative gain or loss previously reported in stockholders' equity was recognized in income. Realized and unrealized gains or losses arising from changes in fair value of the embedded derivative were recognized in realized and unrealized credit derivative income (loss), net in our consolidated statements of operations. We elected the fair value option for GSE CRTs purchased on or after August 24, 2015 due to the complexities associated with bifurcation of GSE CRTs into a debt host contract and an embedded derivative. Realized gains and losses from sales of GSE CRTs were determined based upon the specific identification method.

Our interest income recognition policies for MBS and GSE CRTs are described below in the Interest Income Recognition section of this Note 2 to our consolidated financial statements.

Allowances for Credit Losses on Available-for-Sale Securities

We are not required to measure expected credit losses for situations in which historic credit loss information, adjusted for current conditions and reasonable and supportable forecasts, results in an expectation that nonpayment of the amortized cost basis is zero. We consider our Agency portfolio to have zero loss expectation because (i) there have been no historical credit losses, (ii) full and timely payment of principal and interest is guaranteed by the GSEs and (iii) the yields, while not risk free, generally trade based on prepayment and liquidity risk as opposed to credit risk.

For non-Agency RMBS and non-Agency CMBS, we use a discounted cash flow method to estimate and recognize an allowance for credit losses. We calculate the allowance for credit losses as the difference between the investment's amortized cost basis and expected cash flows discounted at the effective interest rate used to recognize interest income on the investment. In developing an expectation of credit losses, we use internal models that analyze the loans underlying each investment and evaluate factors including, but not limited to, delinquency status, loan-to-value ratios, borrower credit scores, occupancy status and geographic concentration. We place reliance on these internal models in determining credit quality.

We record an allowance for credit losses as a contra-asset on the consolidated balance sheets and a provision for credit losses in the consolidated statements of operations. Credit losses are accreted into earnings over time at the effective interest rate used to recognize interest income. Subsequent favorable or adverse changes in the amount of expected credit losses are recognized immediately in earnings. If the allowance for credit losses has been reduced to zero, we reflect the remaining favorable changes as a prospective adjustment to the effective interest rate of the investment. The allowance for credit losses is

limited to the amount by which the investment's amortized cost exceeds fair value. When the allowance for credit losses is limited, the effective interest rate used to recognize interest income and accrete credit losses is prospectively adjusted. We do not record an allowance for credit losses when an investment's fair value exceeds its amortized cost. Recoveries of amounts previously written off relating to improvements in cash flows are recognized in earnings when received. We record provisions for credit losses, reductions in provisions for credit losses, accretion of credit losses, and recoveries of amounts previously written off within (increase) decrease in provision for credit losses in our consolidated statements of operations.

When we determine that we intend to sell, or more likely than not will be required to sell, an available-for-sale security in an unrealized loss position before we recover its amortized cost, we write off any allowance for credit losses and write down the investment's amortized cost to its fair value. We record the write off of the allowance for credit losses within (increase) decrease in provision for credit losses on our consolidated statements of operations and write down of the available-for-sale security within gain (loss) on investments, net in our consolidated statements of operations.

We present accrued interest receivable separately from our investment portfolio on our consolidated balance sheets. We do not estimate an allowance for credit losses on accrued interest receivable because we write off accrued interest receivable as a reduction to interest income if it is not received when due.

U.S. Treasury Securities

U.S. Treasury securities are classified as trading securities and reported at fair value on our consolidated balance sheets. Purchases of U.S. Treasury Securities are recorded on the trade date. Changes in the fair value of U.S. Treasury securities are recognized within gain (loss) on investments, net in our consolidated statements of operations. Coupon interest income is accrued based on the outstanding principal balance of the securities and their contractual terms. Interest income on U.S. Treasury securities is recognized within mortgage-backed and other securities interest income on our consolidated statements of operations.

Commercial Loan Held-For-Investment

We reported our commercial loan investment at fair value as described in the Fair Value Measurements section of this Note 2 to the consolidated financial statements. We recorded changes in fair value within gain (loss) on investments, net in our consolidated statements of operations.

Interest Income Recognition

Mortgage-Backed Securities

Interest income on MBS is accrued based on the outstanding principal or notional balance of the securities and their contractual terms. Premiums or discounts are amortized or accreted into interest income over the life of the investment using the effective interest method.

Interest income on our MBS where we may not recover substantially all of our initial investment is based on estimated future cash flows. We estimate future expected cash flows at the time of purchase and determine the effective interest rate based on these estimated cash flows and our purchase price. Over the life of the investments, we update these estimated future cash flows and compute a revised yield based on the current amortized cost of the investment, unless those changes are reflected in an allowance for credit losses. In situations where an allowance for credit losses is limited by the fair value of the investment, we compute the yield as the rate that equates expected future cash flows to the current fair value of the investment. In estimating these future cash flows, there are a number of assumptions that are subject to uncertainties and contingencies, including but not limited to the rate and timing of principal payments (prepayments, repurchases, defaults and liquidations), the pass through or coupon rate, and interest rate fluctuations. These uncertainties and contingencies are difficult to predict and are subject to future events that may impact our estimate and our interest income. Changes in our original or most recent cash flow projections may result in a prospective change in interest income recognized on these securities, or the amortized cost of these securities, including write-offs of amortized cost when certain amounts are deemed uncollectible. For non-Agency RMBS not of high credit quality, when actual cash flows vary from expected cash flows, the difference is recorded as an adjustment to the amortized cost of the security, unless those changes are reflected in an allowance for credit losses, and the security's yield is revised prospectively.

For Agency RMBS and Agency CMBS that cannot be prepaid in such a way that we would not recover substantially all of our initial investment, interest income recognition is based on contractual cash flows. We do not estimate prepayments in applying the effective interest method.

Credit Risk Transfer Securities

Interest income on GSE CRTs purchased before August 24, 2015 was accrued based on the coupon rate of the debt host contract which reflected the credit risk of GSE unsecured senior debt with a similar maturity. Premiums or discounts associated with the purchase of GSE CRTs were amortized or accreted into interest income over the life of the debt host contract using the effective interest method. The difference between the coupon rate on the hybrid instrument and the coupon rate on the debt host contract was considered premium income associated with the embedded derivative and was recorded in realized and unrealized credit derivative income (loss), net in our consolidated statements of operations. Interest income on GSE CRTs purchased on or after August 24, 2015 was based on estimated future cash flows.

Commercial and Other Loans

We recognize interest income from commercial and other loans when earned and deemed collectible, or until a loan becomes past due based on the terms of the loan agreement. Any related origination fees or costs on commercial and other loans for which we have elected the fair value option are recognized immediately in earnings. Interest received after a loan becomes past due or impaired is used to reduce the outstanding loan principal balance. When a delinquent loan previously placed on nonaccrual status has cured, meaning all delinquent principal and interest have been remitted by the borrower, the loan is placed back on accrual status. Alternately, loans that have been individually impaired may be placed back on accrual status if restructured and after the loan is considered re-performing. A restructured loan is considered re-performing when the loan has been current for at least 12 months.

Cash and Cash Equivalents

We consider all highly liquid investments that have original or remaining maturity dates of three months or less when purchased to be cash equivalents. At December 31, 2022, we had cash and cash equivalents in excess of the FDIC deposit insurance limit of \$250,000 per institution. We mitigate our risk of loss by actively monitoring our counterparties.

Restricted Cash

Restricted cash represents cash posted with counterparties as collateral for various derivative instruments. Cash posted with counterparties as collateral is not available for general corporate purposes.

Due from Counterparties / Collateral Held Payable

Due from counterparties represents cash posted with our counterparties as collateral for our derivatives and repurchase agreements. Collateral held payable represents cash posted with us by counterparties as collateral under our derivatives and repurchase agreements. If we receive collateral other than cash from our counterparties, such assets are not included in our consolidated balance sheets. If we either sell such assets or pledge the assets as collateral under a repurchase agreement, the cash received and the corresponding liability is reflected on the consolidated balance sheets.

Investment Related Receivable / Investment Related Payable

Investment related receivable consists of receivables for mortgage-backed securities that we have sold but have not settled with the buyer and accrued interest and principal paydowns on mortgage-backed securities. Investment related payable consists of liabilities for mortgage-backed securities that we have purchased but have not settled with the seller.

Investments in Unconsolidated Ventures

Our non-controlling investments in unconsolidated ventures are included in other assets in our consolidated balance sheets and are accounted for under the equity method. Capital contributions, distributions, profits and losses of the entities are allocated in accordance with the terms of the entities' operating agreements. Such allocations may differ from the stated percentage interests, if any, as a result of preferred returns and allocation formulas as described in the entities' operating agreements.

Repurchase Agreements

We have financed our purchases of mortgage-backed and credit risk transfer securities primarily through the use of repurchase agreements. Repurchase agreements are treated as collateralized financing transactions and are carried at their contractual amounts, including accrued interest, as specified in the respective agreements.

We record the mortgage-backed securities and the related repurchase agreement financing on a gross basis in our consolidated balance sheets, and the corresponding interest income and interest expense on a gross basis in our consolidated statements of operations.

Secured Loans

Our wholly-owned subsidiary, IAS Services LLC, was a member of the Federal Home Loan Bank of Indianapolis ("FHLBI"). As a member of the FHLBI, IAS Services LLC borrowed funds from the FHLBI in the form of secured advances. FHLBI advances were treated as secured financing transactions and carried at their contractual amounts. During the year ended December 31, 2020, we fully repaid our outstanding secured loans from the FHLBI and terminated our membership. IAS Services LLC was dissolved in December 2020.

Dividends Payable

Dividends payable represent dividends declared at the balance sheet date that are payable to common stockholders and preferred stockholders.

Earnings (Loss) per Share

We calculate basic earnings (loss) per share by dividing net income (loss) attributable to common stockholders for the period by the weighted-average number of shares of our common stock outstanding for that period. Diluted earnings per share takes into account the effect of dilutive instruments, such as unvested restricted stock awards, and uses the average share price for the period in determining the number of incremental shares that are to be added to the weighted-average number of shares outstanding.

Share-Based Compensation

Under the terms of our amended and restated 2009 Equity Incentive Plan (the "Incentive Plan"), our independent directors are eligible to receive stock awards as part of their compensation for serving as directors, In addition, we may compensate the officers and employees of our Manager and its affiliates under the Incentive Plan under the terms of our management agreement.

Share-based compensation arrangements may include share options, restricted and non-restricted share awards, performance-based awards and share appreciation rights. Compensation related to stock awards is recognized in the consolidated financial statements based on the fair value of the equity or liability instruments issued on the date of grant.

Underwriting Commissions and Offering Costs

Underwriting commissions and direct costs incurred in connection with our common and preferred stock offerings are recorded as a reduction of additional paid in capital and preferred stock, respectively.

Comprehensive Income

Our comprehensive income consists of net income, as presented in the consolidated statements of operations, adjusted for unrealized gains and losses on MBS purchased before September 1, 2016 and the debt host contract associated with GSE CRTs purchased before August 24, 2015; reclassification of unrealized losses on available-for-sale securities to (increase) decrease in provision for credit losses; reclassification of amortization of net deferred gains and losses on de-designated interest rate swaps to repurchase agreements interest expense and currency translation adjustments on an investment in an unconsolidated venture. Unrealized gains and losses on our MBS purchased before September 1, 2016 and the debt host contract associated with GSE CRTs purchased before August 24, 2015 are reclassified into net income upon their sale.

Accounting for Derivative Financial Instruments

We record all derivatives on our consolidated balance sheets at fair value. At the inception of a derivative contract, we determine whether the instrument will be part of a qualifying hedge accounting relationship or whether we will account for the contract as a trading instrument. We have elected not to apply hedge accounting to all new derivative contracts entered into after January 1, 2014. Changes in the fair value of our derivatives are recorded in gain (loss) on derivative instruments, net in our consolidated statements of operations. Net interest paid or received under our interest rate swaps is also recognized in gain (loss) on derivative instruments, net in our consolidated statements of operations.

Before 2014, we applied hedge accounting to our interest rate swap agreements. Effective December 31, 2013, we voluntarily discontinued hedge accounting for our interest rate swap agreements by de-designating the interest rate swaps as cash flow hedges. As long as we expect the forecasted transactions that were being hedged (i.e., rollovers of our repurchase agreement borrowings) to still occur, the balance recorded in accumulated other comprehensive income (loss) ("AOCI") from the interest rate swap activity through December 31, 2013 will remain in AOCI and be recognized in our consolidated statements of operations as interest expense over the remaining term of the interest rate swaps.

Prior to December 31, 2020, we were a party to hybrid financial instruments that contained embedded derivative instruments and for which we did not elect the fair value option. We assessed at inception whether the economic characteristics of the embedded derivative instruments were clearly and closely related to the economic characteristics of the remaining component of the financial instrument (i.e., the debt host contract), whether the financial instrument was remeasured to fair value through earnings and whether a separate instrument with the same terms as the embedded instrument would meet the definition of a derivative instrument. When it was determined that (1) the embedded instrument possessed economic characteristics that were not clearly and closely related to the economic characteristics of the debt host contract, (2) the financial instrument was not remeasured to fair value through earnings and (3) a separate instrument with the same terms would qualify as a derivative instrument, the embedded instrument qualified as an embedded derivative that was separated from the debt host contract. The embedded derivative was recorded at fair value, and changes in fair value were recorded in realized and unrealized credit derivative income (loss), net in our consolidated statements of operations.

We evaluate the terms and conditions of our holdings of swaptions, currency forward contracts and TBAs to determine if an instrument has the characteristics of an investment or should be considered a derivative under U.S. GAAP. Accordingly, swaptions, currency forward contracts and TBAs having the characteristics of derivatives are accounted for at fair value with such changes recognized in gain (loss) on derivative instruments, net in the consolidated statements of operations. The fair value of these swaptions, currency forward contracts and TBAs is included in derivative assets or derivative liabilities on the consolidated balance sheets.

Income Taxes

We elected to be taxed as a REIT commencing with our taxable year ended December 31, 2009. Accordingly, we will generally not be subject to U.S. federal and applicable state and local corporate income tax to the extent that we make qualifying distributions to our stockholders, and provided we satisfy on a continuing basis, through actual investment and operating results, the REIT requirements including certain asset, income, distribution and stock ownership tests. If we fail to qualify as a REIT and do not qualify for certain statutory relief provisions, we will be subject to U.S. federal, state and local income taxes and may be precluded from qualifying as a REIT for the four taxable years following the year in which we lost our REIT qualification. Accordingly, our failure to qualify as a REIT could have a material adverse impact on our results of operations and amounts available for distribution to stockholders.

Our dividends paid deduction for qualifying dividends to our stockholders is computed using our REIT taxable income as opposed to net income reported on the consolidated financial statements. REIT taxable income will generally differ from net income because the determination of REIT taxable income is based on tax regulations and not financial accounting principles.

We have elected to treat one of our subsidiaries as taxable REIT subsidiaries ("TRS"). In general, a TRS may hold assets and engage in activities that we cannot hold or engage in directly and generally may engage in any real estate or non-real estate-related business. A TRS is subject to U.S. federal, state and local corporate income taxes. Our TRS did not generate material taxable income for the years ended December 31, 2022, 2021 and 2020.

We do not have any accruals for uncertain tax positions. We would recognize interest and penalties related to uncertain tax positions, if any, as income tax expense, which would be included in general and administrative expenses.

Note 3 – Variable Interest Entities ("VIEs")

Our maximum risk of loss in VIEs in which we are not the primary beneficiary at December 31, 2022 is presented in the table below.

\$ in thousands	Carrying Amount	Company's Maximum Risk of Loss
Non-Agency CMBS	36,787	36,787
Non-Agency RMBS	8,413	8,413
Investments in unconsolidated ventures	552	552
Total	45,752	45,752

Refer to Note 4 - "Mortgage-Backed and Credit Risk Transfer Securities" and Note 5 - "Other Assets" for additional details regarding these investments.

Note 4 - Mortgage-Backed and Credit Risk Transfer Securities

During the first half of 2020, we experienced unprecedented market conditions as a result of the COVID-19 pandemic and sold a substantial portion of our MBS and GSE CRT portfolio to generate liquidity and reduce leverage. We resumed investing in Agency RMBS in July 2020.

The following tables summarize our MBS portfolio by asset type at December 31, 2022 and 2021.

December 31, 2022

\$ in thousands	Principal/ Notional Balance	Unamortized Premium (Discount)	Amortized Cost	Unrealized Gain/ (Loss), net	Fair Value	Period- end Weighted Average Yield ⁽¹⁾
30 year fixed-rate Agency RMBS	4,722,768	(115,365)	4,607,403	54,334	4,661,737	5.26 %
Agency-CMO (2)	619,069	(536,376)	82,693	2,263	84,956	9.09 %
Non-Agency CMBS	38,652	(1,472)	37,180	(393)	36,787	8.35 %
Non-Agency RMBS (3)(4)(5)	307,016	(299,012)	8,004	409	8,413	8.33 %
Total	5,687,505	(952,225)	4,735,280	56,613	4,791,893	5.35 %

- (1) Period-end weighted average yield is based on amortized cost as of December 31, 2022 and incorporates future prepayment and loss assumptions.
- (2) All Agency collateralized mortgage obligations ("Agency-CMO") are interest-only securities ("Agency IO").
- (3) Non-Agency RMBS is 68.6% fixed rate, 30.6% variable rate and 0.8% floating rate based on fair value. Coupon payments on variable rate investments are based upon changes in the underlying hybrid adjustable-rate mortgage ("ARM") loan coupons, while coupon payments on floating rate investments are based upon a spread to a reference index.
- (4) Of the total discount in non-Agency RMBS, \$2.1 million is non-accretable calculated using the principal/notional balance and based on estimated future cash flows of the securities
- (5) Non-Agency RMBS includes interest-only securities ("non-Agency IO") which represent 97.1% of principal/notional balance, 41.6% of amortized cost and 35.3% of fair value.

December 31, 2021

\$ in thousands	Principal/ Notional Balance	Unamortized Premium (Discount)	Amortized Cost	Unrealized Gain/ (Loss), net	Fair Value	Period- end Weighted Average Yield ⁽¹⁾
30 year fixed-rate Agency RMBS	7,514,229	246,183	7,760,412	(58,889)	7,701,523	2.07 %
Agency-CMO (2)	235,216	(203,180)	32,036	(1,279)	30,757	6.47 %
Non-Agency CMBS	61,427	(3,096)	58,331	4,578	62,909	8.63 %
Non-Agency RMBS (3)(4)(5)	392,543	(383,591)	8,952	118	9,070	5.26 %
Total	8,203,415	(343,684)	7,859,731	(55,472)	7,804,259	2.14 %

- (1) Period-end weighted average yield is based on amortized cost as of December 31, 2021 and incorporates future prepayment and loss assumptions.
- (2) All Agency-CMO are Agency IO.
- (3) Non-Agency RMBS is 63.5% fixed rate, 35.6% variable rate and 0.9% floating rate based on fair value. Coupon payments on variable rate investments are based upon changes in the underlying hybrid ARM loan coupons, while coupon payments on floating rate investments are based upon a spread to a reference index.
- (4) Of the total discount in non-Agency RMBS, \$2.1 million is non-accretable calculated using the principal/notional balance and based on estimated future cash flows of the securities.
- (5) Non-Agency RMBS includes non-Agency IO which represent 97.7% of principal/notional balance, 44.8% of amortized cost and 19.9% of fair value.

The following table presents the fair value of our available-for-sale securities and securities accounted for under the fair value option by asset type as of December 31, 2022 and December 31, 2021. We have elected the fair value option for all of our RMBS interest-only securities and our MBS purchased on or after September 1, 2016. As of December 31, 2022 and December 31, 2021, approximately 99% of our MBS are accounted for under the fair value option.

		December 31, 202	2		December 31, 2021		
\$ in thousands	Available- for-sale Securities	Securities under Fair Value Option	Total Fair Value	Available- for-sale Securities	Securities under Fair Value Option	Total Fair Value	
30 year fixed-rate Agency RMBS	_	4,661,737	4,661,737	_	7,701,523	7,701,523	
Agency-CMO	_	84,956	84,956	_	30,757	30,757	
Non-Agency CMBS	36,787	_	36,787	62,909	_	62,909	
Non-Agency RMBS	5,667	2,746	8,413	7,288	1,782	9,070	
Total	42,454	4,749,439	4,791,893	70,197	7,734,062	7,804,259	

The components of the carrying value of our MBS portfolio at December 31, 2022 and 2021 are presented below. Accrued interest receivable on our MBS portfolio, which is recorded within investment related receivable on our consolidated balance sheets, was \$21.3 million at December 31, 2022 (December 31, 2021: \$16.6 million).

	D	ecember 31, 2022	31, 2022 December 31, 2021			
\$ in thousands	MBS	Interest-Only Securities	Total	MBS	Interest-Only Securities	Total
Principal/notional balance	4,770,175	917,330	5,687,505	7,584,812	618,603	8,203,415
Unamortized premium	5,195	_	5,195	250,771	_	250,771
Unamortized discount	(126,112)	(831,308)	(957,420)	(11,902)	(582,553)	(594,455)
Gross unrealized gains (1)	62,245	4,605	66,850	8,754	109	8,863
Gross unrealized losses (1)	(7,535)	(2,702)	(10,237)	(60,741)	(3,594)	(64,335)
Fair value	4,703,968	87,925	4,791,893	7,771,694	32,565	7,804,259

(1) Gross unrealized gains and losses includes gains (losses) recognized in net income for securities accounted for under the fair value option as well as gains (losses) for available-for-sale securities which are recognized as adjustments to other comprehensive income. Realization occurs upon sale or settlement of such securities. Further detail on the components of our total gains (losses) on investments, net for the years ended December 31, 2022 and 2021 is provided below within this Note 4.

The following table summarizes our MBS portfolio according to estimated weighted average life classifications as of December 31, 2022 and 2021.

\$ in thousands	December 31, 2022	December 31, 2021
Less than one year	26,593	23,150
Greater than one year and less than five years	10,194	891,510
Greater than or equal to five years	4,755,106	6,889,599
Total	4,791,893	7,804,259

The following tables present the estimated fair value and gross unrealized losses of our MBS by length of time that such securities have been in a continuous unrealized loss position at December 31, 2022 and 2021.

December 31, 2022	Les	ss than 12 Mon	iths	12 Months or More				Total		
\$ in thousands	Fair Value	Unrealized Losses	Number of Securities	Fair Value	Unrealized Losses	Number of Securities	Fair Value	Unrealized Losses	Number of Securities	
30 year fixed-rate Agency RMBS (1)	929,292	(7,060)	7	_	_	_	929,292	(7,060)	7	
Agency-CMO (1)	25,417	(1,645)	6	2,934	(496)	1	28,351	(2,141)	7	
Non-Agency CMBS (2)	26,592	(439)	2	_	_	_	26,592	(439)	2	
Non-Agency RMBS (3)	349	(36)	2	1,411	(561)	9	1,760	(597)	11	
Total	981,650	(9,180)	17	4,345	(1,057)	10	985,995	(10,237)	27	

- (1) Fair value option has been elected for all Agency securities in an unrealized loss position.
- 2) Unrealized losses on non-Agency CMBS are included in accumulated other comprehensive income. These losses are not reflected in an allowance for credit losses based on a comparison of discounted expected cash flows to current amortized cost basis.
- (3) Includes non-Agency IO with fair value of \$1.4 million for which the fair value option has been elected. Such securities have unrealized losses of \$561,000.

December 31, 2021	Les	ss than 12 Mon	ths	12 Months or More Total					
\$ in thousands	Fair Value	Unrealized Losses	Number of Securities	Fair Value	Unrealized Losses	Number of Securities	Fair Value	Unrealized Losses	Number of Securities
30 year fixed-rate Agency RMBS (1)	6,838,999	(60,741)	54	_	_	_	6,838,999	(60,741)	54
Agency-CMO (1)	21,810	(1,389)	5	_	_	_	21,810	(1,389)	5
Non-Agency RMBS (2)	767	(1,132)	5	1,042	(1,073)	9	1,809	(2,205)	14
Total	6,861,576	(63,262)	64	1,042	(1,073)	9	6,862,618	(64,335)	73

- (1) Fair value option has been elected for all Agency securities in an unrealized loss position.
- (2) Includes non-Agency IO with a fair value of \$1.7 million for which the fair value option has been elected. Such securities have unrealized losses of \$2.1 million. The remaining \$136,000 of unrealized losses on non-Agency RMBS are included in accumulated other comprehensive income. These losses are not reflected in an allowance for credit losses based on a comparison of discounted expected cash flows to current amortized cost basis.

As of December 31, 2022 and 2021, we did not have an allowance for credit losses recorded on our consolidated balance sheet. The following table presents a roll-forward of our allowance for credit losses.

\$ in thousands	Years Ended l	December 31,
	2021	2020
Beginning allowance for credit losses	(1,768)	_
Additions to the allowance for credit losses on securities for which credit losses were not previously recorded	_	(1,768)
Decreases in the allowance for credit losses on securities that had an allowance recorded in a previous period	1,768	_
Ending allowance for credit losses		(1,768)

The following table summarizes the components of our total gain (loss) on investments, net for the years ended December 31, 2022, 2021 and 2020.

	Years Ended December 31,		
\$ in thousands	2022	2021	2020
Gross realized gains on sale of MBS and GSE CRT	5,348	3,297	656,915
Gross realized losses on sale of MBS and GSE CRT	(1,169,258)	(284,521)	(1,020,696)
Impairment of investments the Company intends to sell or more likely than not will be required to sell before recovery of amortized cost basis and other impairments	_	_	(101,138)
Net unrealized gains (losses) on MBS and GSE CRT accounted for under the fair value option	118,365	(85,702)	(492,047)
Net unrealized gains (losses) on commercial loan	404	417	(1,164)
Net realized gains (losses) on U.S. Treasury securities	(34,198)	_	_
Realized loss on loan participation interest	_		(3,808)
Total gain (loss) on investments, net	(1,079,339)	(366,509)	(961,938)

The following tables present components of interest income recognized on our mortgage-backed and other securities portfolio for the years ended December 31, 2022, 2021 and 2020. GSE CRT interest income excludes coupon interest associated with embedded derivatives not accounted for under the fair value option of \$6.3 million for the years ended December 31, 2020 that was recorded as realized and unrealized credit derivative income (loss), net.

For the Year ended December 31, 2022

\$ in thousands	Coupon Interest	Net (Premium Amortization)/ Discount Accretion	Interest Income
Agency RMBS	191,898	(6,755)	185,143
Non-Agency CMBS	2,366	1,624	3,990
Non-Agency RMBS	1,223	(552)	671
U.S. Treasury Securities	1,773	(41)	1,732
Other	1,030		1,030
Total	198,290	(5,724)	192,566

For the Year ended December 31, 2021

\$ in thousands	Coupon Interest	Net (Premium Amortization)/ Discount Accretion	Interest Income
Agency RMBS	201,694	(41,881)	159,813
Non-Agency CMBS	3,841	2,695	6,536
Non-Agency RMBS	1,950	(1,264)	686
Other	21	_	21
Total	207,506	(40,450)	167,056

For the Year ended December 31, 2020

\$ in thousands	Coupon Interest	Net (Premium Amortization)/ Discount Accretion	Interest Income
Agency RMBS	161,845	(32,737)	129,108
Agency CMBS	35,822	(1,744)	34,078
Non-Agency CMBS	76,068	14,721	90,789
Non-Agency RMBS	13,895	1,107	15,002
GSE CRT	10,232	(2,560)	7,672
Other	751		751
Total	298,613	(21,213)	277,400

Note 5 – Other Assets

The following table summarizes our other assets as of December 31, 2022 and 2021:

\$ in thousands	December 31, 2022	December 31, 2021
Commercial loan, held-for-investment	_	23,515
Investments in unconsolidated ventures	552	12,476
Prepaid expenses and other assets	1,179	1,518
Total	1,731	37,509

Our commercial loan was fully repaid in October 2022. The loan had a principal balance of \$23.9 million and a weighted average coupon rate of 8.60% as of December 31, 2021. During the year ended December 31, 2022 we recorded unrealized gains of \$404,000 on our commercial loan (2021: unrealized gains of \$417,000, 2020: unrealized losses of \$1.2 million).

We have invested in unconsolidated ventures that are managed by an affiliate of our Manager. The unconsolidated ventures invest in our target assets. Refer to Note 14 - "Commitments and Contingencies" for additional details regarding our commitments to these unconsolidated ventures.

Note 6 – Borrowings

We finance the majority of our investment portfolio through repurchase agreements. The following tables summarize certain characteristics of our repurchase agreements at December 31, 2022 and 2021. Refer to Note 7 - "Collateral Positions" for collateral pledged and held under our repurchase agreements.

		December 31, 2022				
\$ in thousands	Amount Outstanding	Weighted Average Interest Rate	Weighted Average Remaining Maturity (days)			
Repurchase Agreements - Agency RMBS	4,234,823	4.24 %	28			
Total Borrowings	4,234,823	4.24 %	28			
		December 31, 2021				
\$ in thousands	Amount Outstanding	Weighted Average Interest Rate	Weighted Average Remaining Maturity (days)			
Repurchase Agreements - Agency RMBS	6,987,834	0.14 %	29			
Total Borrowings	6,987,834	0.14 %	29			

Our repurchase agreements bear interest at a contractually agreed upon rate. Agency RMBS repurchase agreements generally have maturities ranging from one to six months. Repurchase agreements are accounted for as secured borrowings since we maintain effective control of the financed assets. The repurchase agreements are subject to certain financial covenants. We were in compliance with all of these covenants as of December 31, 2022.

In the first half of 2020, we experienced unprecedented market conditions as a result of the COVID-19 pandemic. We received an unusually high number of margin calls from our repurchase agreement counterparties during March 2020 following significant spread widening in both Agency and non-Agency securities. As a result, we were unable to meet margin calls and were not in compliance with all of the financial covenants of our repurchase agreements as of March 31, 2020. While certain of our repurchase agreement counterparties permitted our repurchase agreements to remain outstanding while we were not in compliance, other counterparties seized and sold securities that we had posted as collateral for our repurchase agreements. As of May 7, 2020, we repaid all of our repurchase agreements that may have been in default. Gains and losses associated with the termination of these repurchase agreements during the year ended December 31, 2020 are reported as net gain (loss) on extinguishment of debt in our consolidated statement of operations.

Note 7 – Collateral Positions

The following table summarizes the fair value of collateral that we pledged and held under our repurchase agreements, interest rate swaps, currency forward contracts, and TBAs as of December 31, 2022 and 2021. Refer to Note 2 - "Summary of Significant Accounting Policies - Fair Value Measurements" for a description of how we determine fair value. Agency RMBS collateral pledged is included in mortgage-backed securities on our consolidated balance sheets. Cash collateral pledged on centrally cleared interest rate swaps and currency forward contracts is classified as restricted cash on our consolidated balance sheets. Cash collateral pledged on repurchase agreements and TBAs accounted for as derivatives is classified as due from counterparties on our consolidated balance sheets.

Cash collateral held that is not restricted for use is included in cash and cash equivalents on our consolidated balance sheets and the liability to return the collateral is included in collateral held payable. Non-cash collateral held is only recognized if the counterparty defaults or if we sell the pledged collateral. As of December 31, 2022 and 2021, we did not recognize any non-cash collateral held on our consolidated balance sheets.

Cash 1,584 4,458 Restricted cash 103,246 219,918 Total derivative instruments collateral pledged 104,830 224,376 Total collateral pledged: ———————————————————————————————————	\$ in thousands	A	s of
Agency RMBS 4,439,583 7,326,175 Cash — 3,527 Total repurchase agreements collateral pledged 4,439,583 7,329,702 Derivative instruments: Total collateral pledged 1,584 4,458 Restricted cash 103,246 219,918 Total collateral pledged: 1,584 7,326,175 Cash 4,439,583 7,326,175 Cash 4,439,583 7,326,175 Cash 1,584 7,985 Restricted cash 103,246 219,918 Total collateral pledged 4,439,583 7,326,175 Cash 103,246 219,918 Total collateral pledged 4,439,583 7,326,175 Cash 9 9 9 Collateral Held 9 9 9 9 Cash 4,892 9 - Total collateral 12,108 248 Derivative instruments collateral held - 280 Total collateral held: - 280 <th< th=""><th>Collateral Pledged</th><th>December 31, 2022</th><th>December 31, 2021</th></th<>	Collateral Pledged	December 31, 2022	December 31, 2021
Cash — 3,527 Total repurchase agreements collateral pledged 4,439,583 7,329,702 Derivative instruments: Userivative instruments: Cash 1,584 4,458 Restricted cash 103,246 219,918 Total derivative instruments collateral pledged 104,830 224,376 Total collateral pledged: 4,439,583 7,326,175 Cash 1,584 7,985 Restricted cash 103,246 219,918 Total collateral pledged 4,544,413 7,554,078 Restricted cash 103,246 219,918 Total collateral pledged 4,544,413 7,554,078 Collateral Held December 31, 2022 December 31, 2021 Repurchase agreements: 280 Cash 4,892 — Non-cash collateral 12,108 248 Total repurchase agreements collateral held 12,108 248 Total derivative instruments collateral held — 280 Total derivative instruments collateral held — 280 <td>Repurchase agreements:</td> <td></td> <td></td>	Repurchase agreements:		
Total repurchase agreements collateral pledged 4,439,583 7,329,702 Derivative instruments: 7,329,702 Cash 1,584 4,458 Restricted cash 103,246 219,918 Total derivative instruments collateral pledged 104,830 224,376 Total collateral pledged: 4,439,583 7,326,175 Cash 4,439,583 7,326,175 Cash 1,584 7,985 Restricted cash 103,246 219,918 Total collateral pledged 4,544,413 7,554,078 Collateral Held December 31, 202 December 31, 202 Repurchase agreements: 2 C Cash 4,892 — Non-cash collateral 12,108 248 Total repurchase agreements collateral held 12,108 248 Derivative instruments: 2 280 Total collateral held: 2 280 Total collateral held: 2 280 Total collateral held: 2 280 Total collateral held: <t< td=""><td>Agency RMBS</td><td>4,439,583</td><td>7,326,175</td></t<>	Agency RMBS	4,439,583	7,326,175
Derivative instruments: Cash 1,584 4,458 Restricted cash 103,246 219,918 Total derivative instruments collateral pledged 104,830 224,376 Total collateral pledged: Agency RMBS 4,439,583 7,326,175 Cash 1,584 7,985 Restricted cash 103,246 219,918 Total collateral pledged 4,544,413 7,554,078 Collateral Held December 31, 2022 December 31, 2021 Repurchase agreements: Cash 4,892 — Non-cash collateral 7,216 248 Total repurchase agreements collateral held 12,108 248 Derivative instruments: 280 Cash — 280 Total derivative instruments collateral held — 280 Total collateral held: — 280 <th< td=""><td>Cash</td><td><u> </u></td><td>3,527</td></th<>	Cash	<u> </u>	3,527
Cash 1,584 4,458 Restricted cash 103,246 219,918 Total derivative instruments collateral pledged 104,830 224,376 Total collateral pledged: ———————————————————————————————————	Total repurchase agreements collateral pledged	4,439,583	7,329,702
Restricted cash 1,304 4,308 Total derivative instruments collateral pledged 104,830 224,376 Total collateral pledged: — Agency RMBS 4,439,583 7,326,175 Cash 1,584 7,985 Restricted cash 103,246 219,918 Total collateral pledged 4,544,413 7,554,078 Collateral Held December 31, 2022 December 31, 2021 Repurchase agreements: — Cash 4,892 — Non-cash collateral 7,216 248 248 Total repurchase agreements collateral held 12,108 248 Derivative instruments: — 280 Total derivative instruments collateral held — 280 Total collateral held: — 280 Total collateral held: — 280 Non-cash collateral 4,892 280 Non-cash collateral 7,216 248	Derivative instruments:		
Total derivative instruments collateral pledged 103,810 224,376 Total collateral pledged: 24,339,583 7,326,175 Agency RMBS 4,439,583 7,326,175 Cash 1,584 7,985 Restricted cash 103,246 219,918 Total collateral pledged 4,544,413 7,554,078 Collateral Held December 31, 2022 December 31, 2021 Repurchase agreements: Cash 4,892 — Non-cash collateral 7,216 248 Total repurchase agreements collateral held 12,108 248 Derivative instruments: — 280 Total derivative instruments collateral held — 280 Total collateral held: — 280 Total collateral held: — 280 Non-cash collateral 7,216 248 Non-cash collateral 7,216 248	Cash	1,584	4,458
Total collateral pledged: Agency RMBS 4,439,583 7,326,175 Cash 1,584 7,985 Restricted cash 103,246 219,918 Total collateral pledged 4,544,413 7,554,078 Collateral Held December 31, 2022 December 31, 2021 Repurchase agreements: Cash 4,892 — Non-cash collateral 12,108 248 Derivative instruments: — 280 Total derivative instruments collateral held — 280 Total collateral held: — 280 Total collateral held: — 280 Non-cash collateral 7,216 248	Restricted cash	103,246	219,918
Agency RMBS 4,439,583 7,326,175 Cash 1,584 7,985 Restricted cash 103,246 219,918 Total collateral pledged 4,544,413 7,554,078 Collateral Held December 31, 2022 December 31, 2021 Repurchase agreements: 4,892 — Non-cash collateral 4,892 — Total repurchase agreements collateral held 12,108 248 Derivative instruments: 280 Total derivative instruments collateral held — 280 Total collateral held: — 280 Total collateral held: — 280 Non-cash collateral 4,892 280 Non-cash collateral 4,892 280	Total derivative instruments collateral pledged	104,830	224,376
Cash 1,584 7,985 Restricted cash 103,246 219,918 Total collateral pledged 4,544,413 7,554,078 Collateral Held December 31, 2022 December 31, 2022 December 31, 2022 Repurchase agreements: 4,892 — Non-cash collateral 7,216 248 Total repurchase agreements collateral held 12,108 248 Derivative instruments: 280 Total derivative instruments collateral held — 280 Total collateral held: — 280 Total collateral held: — 280 Non-cash collateral 4,892 280 Non-cash collateral 7,216 248	Total collateral pledged:		
Restricted cash 103,246 219,918 Total collateral pledged 4,544,413 7,554,078 Collateral Held December 31, 2022 December 31, 2022 December 31, 2021 Repurchase agreements: — — — — — — 248 <td< td=""><td>Agency RMBS</td><td>4,439,583</td><td>7,326,175</td></td<>	Agency RMBS	4,439,583	7,326,175
Total collateral pledged 4,544,413 7,554,078 Collateral Held December 31, 2022 December 31, 2021 Repurchase agreements: — Cash 4,892 — Non-cash collateral 7,216 248 Total repurchase agreements collateral held 12,108 248 Derivative instruments: — 280 Total derivative instruments collateral held — 280 Total collateral held: — 280 Cash 4,892 280 Non-cash collateral 7,216 248	Cash	1,584	7,985
Collateral Held December 31, 2022 December 31, 2021 Repurchase agreements: Cash 4,892 — Non-cash collateral 7,216 248 Total repurchase agreements collateral held 12,108 248 Derivative instruments: Cash — 280 Total derivative instruments collateral held: Cash 4,892 280 Non-cash collateral 4,892 280 Non-cash collateral 7,216 248	Restricted cash	103,246	219,918
Repurchase agreements: Cash 4,892 — Non-cash collateral 7,216 248 Total repurchase agreements collateral held 12,108 248 Derivative instruments: — 280 Total derivative instruments collateral held — 280 Total collateral held: — 280 Non-cash collateral 4,892 280 Non-cash collateral 7,216 248	Total collateral pledged	4,544,413	7,554,078
Repurchase agreements: Cash 4,892 — Non-cash collateral 7,216 248 Total repurchase agreements collateral held 12,108 248 Derivative instruments: — 280 Total derivative instruments collateral held — 280 Total collateral held: — 280 Non-cash collateral 4,892 280 Non-cash collateral 7,216 248	Collateral Held	December 31, 2022	December 31, 2021
Non-cash collateral 7,216 248 Total repurchase agreements collateral held 12,108 248 Derivative instruments: Cash 280 Total derivative instruments collateral held 280 Total collateral held: Cash	Repurchase agreements:	<u> </u>	,
Total repurchase agreements collateral held Derivative instruments: Cash Total derivative instruments collateral held Total collateral held: Cash Non-cash collateral Total collateral Total collateral Total collateral Total collateral held: Cash Total collateral Total collateral Total collateral held: Cash Total collateral Total collateral Total collateral held: Cash Total collateral	Cash	4,892	_
Derivative instruments: Cash — 280 Total derivative instruments collateral held — 280 Total collateral held: Cash 4,892 280 Non-cash collateral 7,216 248	Non-cash collateral	7,216	248
Cash — 280 Total derivative instruments collateral held — 280 Total collateral held: Cash 4,892 280 Non-cash collateral 7,216 248	Total repurchase agreements collateral held	12,108	248
Total derivative instruments collateral held — 280 Total collateral held: Cash 4,892 280 Non-cash collateral 7,216 248	Derivative instruments:		
Total collateral held: Cash Non-cash collateral 7,216 248	Cash	_	280
Cash 4,892 280 Non-cash collateral 7,216 248	Total derivative instruments collateral held		280
Non-cash collateral 7,216 248	Total collateral held:		
7,210	Cash	4,892	280
Total collateral held 12,108 528	Non-cash collateral	7,216	248
	Total collateral held	12,108	528

Repurchase Agreements

Collateral pledged with our repurchase agreement counterparties is segregated in our books and records. The repurchase agreement counterparties have the right to resell and repledge the collateral posted but have the obligation to return the pledged collateral, or substantially the same collateral if agreed to by us, upon maturity of the repurchase agreement. Under the repurchase agreements, the respective lender retains the contractual right to mark the underlying collateral to fair value. We would be required to provide additional collateral to fund margin calls if the value of pledged assets declined. We intend to maintain a level of liquidity that will enable us to meet margin calls.

As of December 31, 2022 and 2021, our repurchase agreement collateral ratio (MBS pledged as collateral/repurchase agreement amount outstanding) was 105%.

Interest Rate Swaps

As of December 31, 2022 and 2021, all of our interest rate swaps were centrally cleared by a registered clearing organization such as the Chicago Mercantile Exchange ("CME") and LCH Limited ("LCH") through a Futures Commission Merchant ("FCM"). We are required to pledge initial margin and daily variation margin for our centrally cleared interest rate swaps that is based on the fair value of our contracts as determined by our FCM. Collateral pledged with our FCM is segregated in our books and records and can be in the form of cash or securities. Daily variation margin for centrally cleared interest rate swaps is characterized as settlement of the derivative itself rather than collateral and is recorded as gain (loss) on derivative instruments, net in our consolidated statements of operations. Certain of our FCM agreements include cross default provisions.

TBAs and Currency Forward Contracts

Our TBAs and currency forward contracts provide for bilateral collateral pledging based on market value as determined by our counterparties. Collateral pledged with our TBA and currency forward counterparties is segregated in our books and records and can be in the form of cash or securities. Our counterparties have the right to repledge the collateral posted and have the obligation to return the pledged collateral, or substantially the same collateral, if agreed to by us, as the market value of the contracts changes.

Note 8 – Derivatives and Hedging Activities

Risk Management Objective of Using Derivatives

We are exposed to certain risks arising from both our business operations and economic conditions. We principally manage our exposures to a wide variety of business and operational risks through management of our core business activities. We manage economic risks, including interest rate, liquidity, credit and foreign exchange rate risk primarily by managing the amount, sources, and duration of our investments, borrowings, and the use of derivative financial instruments. Specifically, we use derivative financial instruments to manage exposures that arise from business activities that result in the receipt or payment of future known and uncertain cash amounts, the value of which are determined by interest rates or foreign exchange rates. Our derivative financial instruments are used to manage differences in the amount, timing, and duration of our known or expected cash receipts and our known or expected cash payments principally related to our investments and borrowings.

The following table summarizes changes in the notional amount of our derivative instruments during 2022:

\$ in thousands	Notional Amount as of December 31, 2021	Additions	Settlement, Termination, Expiration or Exercise	Notional Amount as of December 31, 2022
Interest Rate Swaps (1)(2)	8,050,000	10,075,000	(9,975,000)	8,150,000
Currency Forward Contracts	13,596	23,485	(37,081)	_
TBA Purchase Contracts	1,600,000	20,072,000	(21,272,000)	400,000
TBA Sale Contracts		(21,672,000)	21,272,000	(400,000)
Total	9,663,596	8,498,485	(10,012,081)	8,150,000

- (1) Does not include interest rate swaps with forward start dates. See below for additional details on our interest rate swaps with forward start dates.
- (2) Notional amount as of December 31, 2022 includes \$5.8 billion of interest rate swaps whereby we pay interest at a fixed rate and receive interest at a floating rate and \$2.4 billion of interest rate swaps whereby we pay interest at a floating rate and receive interest at a fixed rate. Notional amount as of December 31, 2021 includes \$6.3 billion of interest rate swaps whereby we pay interest at a fixed rate and receive interest at a floating rate and \$1.8 billion of interest rate swaps whereby we pay interest at a fixed rate.

Refer to Note 7 - "Collateral Positions" for further information regarding our collateral pledged to and received from our derivative counterparties.

Interest Rate Swaps

Our repurchase agreements are usually settled on a short-term basis ranging from one month to six months. At each settlement date, we typically refinance each repurchase agreement at the market interest rate at that time. Our objectives in using interest rate derivatives are to add stability to interest expense and to manage our exposures to interest rate movements. To accomplish these objectives, we primarily use interest rate swaps as part of our interest rate risk management strategy. Under the terms of the majority of our interest rate swap contracts, we make fixed-rate payments to a counterparty in exchange for the receipt of floating-rate amounts over the life of the agreements without exchange of the underlying notional amount. To a lesser extent, we also enter into interest rate swap contracts whereby we make floating-rate payments to a counterparty in exchange for the receipt of fixed-rate amounts as part of our overall risk management strategy.

Amounts recorded in accumulated other comprehensive income ("AOCI") before we discontinued cash flow hedge accounting for our interest rate swaps are reclassified to interest expense on repurchase agreements on the consolidated statements of operations as interest is accrued and paid on the related repurchase agreements over the remaining life of the interest rate swap agreements. We reclassified \$19.7 million as a decrease to interest expense for the year ended December 31, 2022 (2021: \$22.0 million as a decrease; 2020: \$23.8 million as a decrease). As of December 31, 2022, \$10.4 million (2021: \$30.1 million) of net unrealized gains on discontinued cash flow hedges are still included in accumulated other comprehensive income. We expect to reclassify the remaining amount of net unrealized gains recorded in AOCI as a decrease to interest expense on repurchase agreements on the consolidated statements of operations in 2023.

As of December 31, 2022 and 2021, we had interest rate swaps whereby we pay interest at a fixed rate and receive floating interest based on the secured overnight financing rate ("SOFR") with the following maturities outstanding, excluding interest rate swaps with forward start dates.

\$ in thousands	As of December 31, 2022					
Maturities	Notional Amount	Weighted Average Fixed Pay Rate	Weighted Average Floating Receive Rate	Weighted Average Years to Maturity		
Less than 3 years	1,550,000	0.09 %	4.30 %	2.2		
3 to 5 years	1,475,000	0.27 %	4.30 %	4.7		
5 to 7 years	850,000	0.38 %	4.30 %	6.2		
7 to 10 years	1,425,000	0.55 %	4.30 %	7.8		
Greater than 10 years	500,000	1.92 %	4.30 %	19.2		
Total	5,800,000	0.45 %	4.30 %	6.3		
\$ in thousands		As of Decemb	ber 31, 2021			
Maturities	Notional Amount	Weighted Average Fixed Pay Rate	Weighted Average Floating Receive Rate	Weighted Average Years to Maturity		
Less than 3 years	1,000,000	0.06 %	0.05 %	2.6		
3 to 5 years	1,250,000	0.12 %	0.05 %	3.6		
5 to 7 years				5.0		
J to 7 years	2,225,000	0.32 %	0.05 %	5.9		
7 to 10 years	2,225,000 1,825,000	0.32 % 0.52 %	0.05 %	5.9 8.6		

As of December 31, 2022, we held \$975.0 million notional amount of interest rate swaps with forward start dates that will receive floating interest based on SOFR (December 31, 2021: \$1.3 billion). As of December 31, 2022, these interest rate swaps had a weighted average maturity of 16.5 years (December 31, 2021: 20.8 years) and a weighted average fixed pay rate of 0.89% (December 31, 2021: 0.99%).

As of December 31, 2022 and December 31, 2021, we had interest rate swaps whereby we pay floating interest based on SOFR and receive interest at a fixed rate with the following maturities outstanding, excluding interest rate swaps with forward start dates.

\$ in thousands	As of December 31, 2022					
Maturities	Notional Amounts	Weighted Average Floating Pay Rate	Weighted Average Fixed Receive Rate	Weighted Average Years to Maturity		
Less than 3 years	100,000	4.30 %	4.90 %	0.9		
3 to 5 years	550,000	4.30 %	2.74 %	4.0		
5 to 7 years	1,125,000	4.30 %	2.66 %	6.0		
7 to 10 years	200,000	4.30 %	2.66 %	8.4		
Greater than 10 years	375,000	4.30 %	2.67 %	29.5		
Total	2,350,000	4.30 %	2.78 %	9.3		

\$ in thousands	As of December 31, 2021				
Maturities	Notional Amounts	Weighted Average Floating Pay Rate	Weighted Average Fixed Receive Rate	Weighted Average Years to Maturity	
Less than 3 years	1,000,000	0.05 %	0.77 %	2.6	
5 to 7 years	500,000	0.05 %	1.26 %	6.9	
7 to 10 years	250,000	0.05 %	1.27 %	10.0	
Total	1,750,000	0.05 %	0.98 %	4.9	

As of December 31, 2022, we held \$275.0 million notional amount of interest rate swaps with forward start dates that will pay floating interest based on SOFR. As of December 31, 2022, these interest rate swaps had a weighted average maturity of 16.0 years and a weighted average fixed receive rate of 2.63%. We did not hold any such interest rate swaps as of December 31, 2021.

Swaptions and Currency Forward Contracts

We periodically purchase interest rate swaptions to help mitigate the potential impact of increases or decreases in interest rates on the performance of our Agency RMBS portfolio (referred to as "convexity risk"). The interest rate swaptions provide us the option to enter into interest rate swap agreements for a predetermined notional amount, stated term and pay and receive interest rates in the future. The premium paid for interest rate swaptions is reported as a derivative asset in our consolidated balance sheets. The premium is valued at an amount equal to the fair value of the swaption that would have the effect of closing the position adjusted for nonperformance risk, if any. The difference between the premium and the fair value of the swaption is reported in gain (loss) on derivative instruments, net in our consolidated statements of operations. If an interest rate swaption expires unexercised, the loss on the interest rate swaption would equal the premium paid. If we sell or exercise an interest rate swaption, the realized gain or loss on the interest rate swaption would equal the difference between the cash or the fair value of the underlying interest rate swap received and the premium paid.

We use currency forward contracts to help mitigate the potential impact of changes in foreign currency exchange rates on our investments denominated in foreign currencies. We recognize realized and unrealized gains and losses associated with the purchases or sales of currency forward contracts in gain (loss) on derivative instruments, net in our consolidated statements of operations. We did not have any currency forward contracts outstanding as of December 31, 2022. As of December 31, 2021 we had \$13.6 million of notional amount of currency forward contracts related to an investment in an unconsolidated venture denominated in euro.

Credit Derivatives

Our GSE CRTs purchased before August 24, 2015 were accounted for as hybrid financial instruments consisting of a debt host contract and an embedded credit derivative. Embedded derivatives associated with GSE CRTs were recorded within mortgage-backed and credit risk transfer securities, at fair value, on our consolidated balance sheets. We sold all of our GSE CRT investments that were accounted for as hybrid financial instruments in 2020.

TBAs

We primarily use TBAs that we do not intend to physically settle on the contractual settlement date as an alternative means of investing in and financing Agency RMBS. The following table summarizes certain characteristics of our TBAs accounted for as derivatives as of December 31, 2022 and 2021.

\$ in thousands	As of December 31, 2022				
	Notional Amount Implied Cost Basis Value I				
TBA purchase contracts (1)	400,000	404,144	402,237	(1,907)	
TBA sales contracts (2)	(400,000)	(402,707)	(402,237)	470	
Net TBA derivatives		1,437		(1,437)	

- (1) Net carrying value of TBA purchase contracts includes \$1.9 million of derivative liabilities.
- (2) Net carrying value of TBA sales contract includes \$642,000 of derivative assets and \$172,000 of derivative liabilities.

\$ in thousands		As of December 31, 2021				
	Notional Amount	Implied Cost Basis	Implied Market Value	Net Carrying Value		
TBA purchase contracts	1,600,000	1,636,906	1,633,955	(2,951)		

Tabular Disclosure of the Effect of Derivative Instruments on the Balance Sheet

The table below presents the fair value of our derivative financial instruments, as well as their classification on our consolidated balance sheets as of December 31, 2022 and 2021.

\$ in thousands

Derivative	Derivative Assets			Derivative Liabilities			
	As of December 31, 2022	As of December 31, 2021		As of December 31, 2022	As of December 31, 2021		
Balance Sheet	Fair Value	Fair Value	Balance Sheet	Fair Value	Fair Value		
Interest Rate Swaps Asset	20	_	Interest Rate Swaps Liability	_	11,405		
Currency Forward Contracts		270	Currency Forward Contracts	_			
TBAs	642		TBAs	2,079	2,951		
Total Derivative Assets	662	270	Total Derivative Liabilities	2,079	14,356		

Tabular Disclosure of the Effect of Derivative Instruments on the Income Statement

The tables below present the effect of our credit derivatives on our consolidated statements of operations for the year ended December 31, 2020.

\$ in thousands	Year Ended December 31, 2020					
Derivative not designated as hedging instrument	Realized gain (loss), net	GSE CRT embedded derivative coupon interest	Unrealized gain (loss), net	Realized and unrealized credit derivative income (loss), net		
GSE CRT Embedded Derivatives	(31.354)	6.323	(10.281)	(35,312)		

The following tables summarize the effect of interest rate swaps, interest rate swaptions, currency forward contracts and TBAs reported in gain (loss) on derivative instruments, net on the consolidated statements of operations for the years ended December 31, 2022, 2021 and 2020.

S in thousands	Year ended December 31, 2022

Derivative not designated as hedging instrument	Realized gain (loss) on derivative instruments, net	Contractual net interest income (expense)	Unrealized gain (loss), net	Gain (loss) on derivative instruments, net
Interest Rate Swaps	593,035	86,872	11,426	691,333
Currency Forward Contracts	919	_	(271)	648
TBAs	(134,488)	_	1,514	(132,974)
Total	459,466	86,872	12,669	559,007

\$ in thousands Year ended December 31, 2021

Derivative not designated as hedging instrument	Realized gain (loss) on derivative instruments, net	Contractual net interest income (expense)	Unrealized gain (loss), net	Gain (loss) on derivative instruments, net
Interest Rate Swaps	185,232	(15,803)	(5,869)	163,560
Interest Rate Swaptions	(553)	_	_	(553)
Currency Forward Contracts	209	_	970	1,179
TBAs	(28,731)		(12,844)	(41,575)
Total	156,157	(15,803)	(17,743)	122,611

\$ in thousands Year ended December 31, 2020

Derivative not designated as hedging instrument	Realized gain (loss) on derivative instruments, net	Contractual net interest income (expense)	Unrealized gain (loss), net	Gain (loss) on derivative instruments, net
Interest Rate Swaps	(857,753)	8,047	(24,068)	(873,774)
Currency Forward Contracts	(1,301)	_	(345)	(1,646)
TBAs	14,477		9,893	24,370
Total	(844,577)	8,047	(14,520)	(851,050)

Note 9 – Offsetting Assets and Liabilities

Certain of our repurchase agreements and derivative transactions are governed by underlying agreements that generally provide for a right of offset under master netting arrangements (or similar agreements) in the event of default or in the event of bankruptcy of either party to the transactions. Assets and liabilities subject to such arrangements are presented on a gross basis in the consolidated balance sheets.

The following tables present information about the assets and liabilities that are subject to master netting arrangements (or similar agreements) and can potentially be offset on our consolidated balance sheets at December 31, 2022 and December 31, 2021. The daily variation margin payment for centrally cleared interest rate swaps is characterized as settlement of the derivative itself rather than collateral. Our derivative asset of \$20,000 at December 31, 2022 (December 31, 2021: liability of \$11.4 million) related to centrally cleared interest rate swaps is not included in the table below as a result of this characterization of daily variation margin.

As of December 31, 2022

				Consolidated Ba	Consolidated Balance Sheets	
\$ in thousands	Gross Amounts of Recognized Assets (Liabilities)	Gross Amounts Offset in the Consolidated Balance Sheets	Net Amounts of Assets (Liabilities) presented in the Consolidated Balance Sheets	Financial Instruments	Cash Collateral (Received) Pledged	Net Amount
Assets						
Derivatives (1)(2)	642	<u> </u>	642	(642)		
Total Assets	642		642	(642)		
Liabilities						
Derivatives (1)(2)	(2,079)	_	(2,079)	642	1,297	(140)
Repurchase Agreements (3)	(4,234,823)	_	(4,234,823)	4,234,823	_	
Total Liabilities	(4,236,902)		(4,236,902)	4,235,465	1,297	(140)

Gross Amounts Not Offset in the

Gross Amounts Not Offset in the

As of December 31, 2021

				Consolidated Ba	lance Sheets	
\$ in thousands	Gross Amounts of Recognized Assets (Liabilities)	Gross Amounts Offset in the Consolidated Balance Sheets	Net Amounts of Assets (Liabilities) presented in the Consolidated Balance Sheets	Financial Instruments	Cash Collateral (Received) Pledged	Net Amount
Assets						
Derivatives (1)(2)	270	<u> </u>	270		(270)	
Total Assets	270		270		(270)	
Liabilities						
Derivatives (1)(2)	(2,951)	_	(2,951)	_	2,951	_
Repurchase Agreements (3)	(6,987,834)	_	(6,987,834)	6,987,834		
Total Liabilities	(6,990,785)		(6,990,785)	6,987,834	2,951	

- (1) Amounts represent derivative assets and derivative liabilities which could potentially be offset against other derivative assets, derivative liabilities and cash collateral pledged or received.
- (2) Cash collateral pledged by us on our currency forward contracts, TBAs and centrally cleared interest rate swaps was \$104.8 million and \$224.4 million at December 31, 2022 and December 31, 2021, respectively. Cash collateral pledged on our centrally cleared interest rate swaps is settled against the fair value of these swaps and is therefore excluded from the tables above. We held no cash collateral on our derivatives as of December 31, 2022 and \$280,000 as of December 31, 2021.
- (3) The fair value of securities pledged against our borrowings under repurchase agreements was \$4.4 billion and \$7.3 billion as of December 31, 2022 and December 31, 2021, respectively. We pledged no cash collateral and \$3.5 million of cash collateral under repurchase agreements as of December 31, 2022 and December 31, 2021, respectively. We held cash collateral of \$4.9 million and no cash collateral under repurchase agreements as of December 31, 2022 and December 31, 2021, respectively.

Note 10 – Fair Value of Financial Instruments

A three-level valuation hierarchy exists for disclosure of fair value measurements based upon the transparency of inputs to the valuation of an asset or liability as of the measurement date. Observable inputs reflect readily obtainable data from independent sources, while unobservable inputs reflect our market assumptions. The three levels are defined as follows:

- Level 1 Inputs Quoted prices for identical instruments in active markets.
- Level 2 Inputs Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations whose inputs are observable or whose significant value drivers are observable.
- Level 3 Inputs Instruments with primarily unobservable value drivers.

The following tables present our assets and liabilities measured at fair value on a recurring basis.

December 31, 2022 Fair Value Measurements Using:

	Tan Tana Managaran Sang.				
\$ in thousands	Level 1	Level 2	Level 3	NAV as a practical expedient (2)	Total at Fair Value
Assets:					
Mortgage-backed securities (1)	_	4,791,893			4,791,893
Derivative assets	_	662	_	_	662
Other assets			<u> </u>	552	552
Total assets		4,792,555		552	4,793,107
Liabilities:					
Derivative liabilities	_	2,079	_	_	2,079
Total liabilities		2,079			2,079
	December 31, 2021 Fair Value Measurements Using:				

\$ in thousands	Level 1	Level 2	Level 3 (3)	NAV as a practical expedient ⁽²⁾	Total at Fair Value
Assets:					
Mortgage-backed securities (1)		7,804,259			7,804,259
Derivative assets	_	270	_	_	270
Other assets			23,515	12,476	35,991
Total assets		7,804,529	23,515	12,476	7,840,520
Liabilities:					
Derivative liabilities	_	14,356	_	_	14,356
Total liabilities		14,356			14,356

- (1) For more detail about the fair value of our MBS, refer to Note 4 "Mortgage-Backed Securities".
- Investments in unconsolidated ventures are valued using the net asset value ("NAV") as a practical expedient and are not subject to redemption, although investors may sell or transfer their interest at the approval of the general partner of the underlying funds. As of December 31, 2022, our unconsolidated ventures were in liquidation and plan to sell or settle their remaining investments as expeditiously as possible.
- We used an independent third party appraisal to value our commercial loan investment.

The following table shows a reconciliation of the beginning and ending fair value measurements of our commercial loan investment, which we valued utilizing Level 3 inputs.

	Years	Ended
\$ in thousands	December 31, 2022	December 31, 2021
Beginning balance	23,515	23,098
Repayments	(23,919)	
Total net unrealized gains (losses) included in net income:		
Unrealized gain (loss)	404	417
Ending balance		23,515

Unrealized gains and losses on our commercial loan investment are included in gain (loss) on investments, net in our consolidated statements of operations.

The following table summarizes the significant unobservable input used in the fair value measurement of our commercial loan investment:

	Fair Value at	Valuation	Unobservable	
\$ in thousands	December 31, 2021	Technique	Input	Rate
Commercial Loan	23,515	Discounted Cash Flow	Discount rate	18.8 %

The following table presents the carrying value and estimated fair value of our financial instruments that are not carried at fair value on the consolidated balance sheets at December 31, 2022 and December 31, 2021:

	December 31, 2022		December	31, 2021	
\$ in thousands	Carrying Estimated Value Fair Value		Carrying Value	Estimated Fair Value	
Financial Liabilities:					
Repurchase agreements	4,234,823	4,233,627	6,987,834	6,987,806	
Total	4,234,823	4,233,627	6,987,834	6,987,806	

The estimated fair value of repurchase agreements is a Level 3 fair value measurement based on an expected present value technique. This method discounts future estimated cash flows using rates we determined best reflect current market interest rates that would be offered for repurchase agreements with similar characteristics and credit quality.

Note 11 - Related Party Transactions

Our Manager is at all times subject to the supervision and oversight of our board of directors and has only such functions and authority as we delegate to it. Under the terms of our management agreement, our Manager and its affiliates provide us with our management team, including our officers and appropriate support personnel. Each of our officers is an employee of our Manager or one of its affiliates. We do not have any employees. Our Manager is not obligated to dedicate any of its employees exclusively to us, nor is our Manager obligated to dedicate any specific portion of time to our business. During the year ended December 31, 2022, we reimbursed our Manager \$1.5 million (2021: \$1.1 million; 2020: \$1.1 million) for costs of support personnel.

Management Fee

We pay our Manager a fee equal to 1.50% of our stockholders' equity per annum. For purposes of calculating the management fee, stockholders' equity is calculated as average month-end stockholders' equity for the prior calendar quarter as determined in accordance with U.S. GAAP. Stockholders' equity may exclude one-time events due to changes in U.S. GAAP and certain non-cash items upon approval by a majority of our independent directors.

We do not pay any management fees on our investments in unconsolidated ventures that are managed by an affiliate of our Manager.

Expense Reimbursement

We are required to reimburse our Manager for operating expenses incurred on our behalf, including directors and officers insurance, accounting services, auditing and tax services, legal services, filing fees, and miscellaneous general and administrative costs. Our reimbursement obligation is not subject to any dollar limitation.

The following table summarizes the costs incurred on our behalf by our Manager for the years ended December 31, 2022, 2021 and 2020.

	Years ended December 31,		er 31,
\$ in thousands	2022	2021	2020
Incurred costs, prepaid or expensed	8,085	7,108	10,845
Incurred costs, charged against equity as a cost of raising capital	223	692	239
Total incurred costs, originally paid by our Manager	8,308	7,800	11,084

Termination Fee

If we terminate our management agreement, we owe our Manager a termination fee equal to three times the sum of our average annual management fee during the 24-month period before termination, calculated as of the end of the most recently completed fiscal quarter.

Note 12 – Stockholders' Equity

Preferred Stock

In June 2021, we redeemed all issued and outstanding shares of our Series A Preferred Stock for \$140.0 million plus accrued and unpaid dividends. The excess of the consideration transferred over carrying value was accounted for as a deemed dividend and resulted in a reduction of \$4.7 million in net income (loss) attributable to common stockholders during the year ended December 31, 2021.

In May 2022, our board of directors approved a share repurchase program for our Series B and Series C Preferred Stock. During the year ended December 31, 2022, we repurchased and retired 1,662,366 shares of Series B Preferred Stock and 3,683,530 shares of Series C Preferred Stock and recorded a gain on repurchase and retirement of preferred stock of \$14.2 million. As of December 31, 2022, we had authority to purchase 1,337,634 additional shares of our Series B Preferred Stock and 1,316,470 additional shares of our Series C Preferred Stock under the current share repurchase program.

Holders of our Series B Preferred Stock are entitled to receive dividends at an annual rate of 7.75% of the liquidation preference of \$25.00 per share or \$1.9375 per share per annum until December 27, 2024. After December 27, 2024, holders are entitled to receive dividends at a floating rate equal to three-month London Interbank Offered Rate ("LIBOR") plus a spread of 5.18% of the \$25.00 liquidation preference per annum. Dividends are cumulative and payable quarterly in arrears.

Holders of our Series C Preferred Stock are entitled to receive dividends at an annual rate of 7.50% of the liquidation preference of \$25.00 per share or \$1.875 per share per annum until September 27, 2027. After September 27, 2027, holders are entitled to receive dividends at a floating rate equal to three-month LIBOR plus a spread of 5.289% of the \$25.00 liquidation preference per annum. Dividends are cumulative and payable quarterly in arrears.

The United Kingdom Financial Conduct Authority, which regulates LIBOR, announced that it will cease to publish three-month USD LIBOR settings on July 1, 2023. We do not currently intend to amend our Series B or Series C Preferred Stock to change the existing USD LIBOR cessation fallback language.

We have the option to redeem shares of our Series B Preferred Stock after December 27, 2024 and shares of our Series C Preferred Stock after September 27, 2027 for \$25.00 per share, plus any accumulated and unpaid dividends through the date of the redemption. Shares of Series B and Series C Preferred Stock are not redeemable, convertible into or exchangeable for any other property or any other securities of the Company before those times, except under circumstances intended to preserve our qualification as a REIT or upon the occurrence of a change in control.

Common Stock

In May 2022, our board of directors approved a one-for-ten reverse split of outstanding shares of our common stock. The reverse stock split was effected following the close of business on June 3, 2022 (the "Effective Time"). At the Effective Time, every ten issued and outstanding shares of our common stock were converted into one share of our common stock. No fractional shares were issued in connection with the reverse stock split. Instead, each stockholder holding fractional shares received cash, in lieu of such fractional shares, in an amount determined based on the closing price of our common stock at the

Effective Time. The reverse stock split applied to all of our outstanding shares of common stock and did not affect any stockholder's ownership percentage of our common stock, except for changes resulting from the payment of cash for fractional shares.

During the year ended December 31, 2022, we sold 5,686,598 shares (2021: 5,574,402 shares) of common stock in at-the-market transactions under our equity distribution agreements for proceeds of \$81.6 million (2021: \$180.5 million) net of approximately \$1.3 million (2021: \$2.6 million) in commissions and fees. We did not have any remaining shares authorized under our at-the-market program as of December 31, 2022.

During the years ended December 31, 2022 and December 31, 2021, we did not repurchase any shares of our common stock. As of December 31, 2022, we had authority to purchase 1,816,398 shares of our common stock through our share repurchase program.

In May 2022, we granted 32,571 restricted shares of common stock to our independent directors. The restricted shares will become unrestricted shares of common stock on the first anniversary of the grant date unless forfeited, subject to certain conditions that accelerate vesting.

Accumulated Other Comprehensive Income

The following tables present the components of total other comprehensive income (loss), net and accumulated other comprehensive income ("AOCI") at December 31, 2022 and December 31, 2021, respectively. The tables exclude gains and losses on MBS and GSE CRTs that are accounted for under the fair value option.

	December 31, 2022				
\$ in thousands	Equity method investments	Available-for- sale securities	Derivatives and hedging	Total	
Total other comprehensive income (loss)					
Unrealized gain (loss) on mortgage-backed securities, net	_	(6,280)	_	(6,280)	
Reclassification of amortization of net deferred (gain) loss on de-designated interest rate swaps to repurchase agreements interest expense	_	_	(19,708)	(19,708)	
Currency translation adjustments on investment in unconsolidated venture	(537)			(537)	
Total other comprehensive income (loss)	(537)	(6,280)	(19,708)	(26,525)	
10011	40.4	6.740	20.112	27.207	
AOCI balance at beginning of period	424	6,749	30,113	37,286	
Total other comprehensive income (loss)	(537)	(6,280)	(19,708)	(26,525)	
AOCI balance at end of period	(113)	469	10,405	10,761	
	December 31, 2021				
		December	r 31, 2021		
\$ in thousands	Equity method investments	December Available-for- sale securities	Derivatives and hedging	Total	
\$ in thousands Total other comprehensive income (loss)		Available-for-	Derivatives and	Total	
		Available-for-	Derivatives and	Total 756	
Total other comprehensive income (loss) Unrealized gain (loss) on mortgage-backed securities,		Available-for- sale securities	Derivatives and		
Total other comprehensive income (loss) Unrealized gain (loss) on mortgage-backed securities, net Reclassification of amortization of net deferred (gain) loss on de-designated interest rate swaps to repurchase		Available-for- sale securities	Derivatives and hedging	756	
Total other comprehensive income (loss) Unrealized gain (loss) on mortgage-backed securities, net Reclassification of amortization of net deferred (gain) loss on de-designated interest rate swaps to repurchase agreements interest expense Currency translation adjustments on investment in	investments	Available-for- sale securities	Derivatives and hedging	756 (22,000)	
Total other comprehensive income (loss) Unrealized gain (loss) on mortgage-backed securities, net Reclassification of amortization of net deferred (gain) loss on de-designated interest rate swaps to repurchase agreements interest expense Currency translation adjustments on investment in unconsolidated venture		Available-for-sale securities 756	Derivatives and hedging (22,000)	756 (22,000) (75)	
Total other comprehensive income (loss) Unrealized gain (loss) on mortgage-backed securities, net Reclassification of amortization of net deferred (gain) loss on de-designated interest rate swaps to repurchase agreements interest expense Currency translation adjustments on investment in unconsolidated venture Total other comprehensive income (loss)	(75) (75)	Available-for-sale securities 756 — — 756	Derivatives and hedging (22,000) (22,000)	756 (22,000) (75) (21,319)	

Amounts recorded in AOCI before we discontinued cash flow hedge accounting for our interest rate swaps are reclassified

to interest expense on repurchase agreements on the consolidated statements of operations as interest is accrued and paid on the related repurchase agreements over the remaining original life of the interest rate swap agreements.

Dividends

Dividends declared per share on our common stock have been retroactively adjusted to reflect our one-for-ten reverse stock split that was effected following the close of business on June 3, 2022. We declared the following dividends during 2022 and 2021:

\$ in thousands, except per share amounts		Dividends Declared				
Series A Preferred Stock	Per Share	In Aggregate	Date of Payment			
<u>2021</u> ⁽¹⁾						
February 19, 2021	0.4844	2,713	April 26, 2021			

(1) On June 16, 2021, we paid a final dividend of \$0.2691 per share (\$1.5 million in aggregate) in connection with the redemption of our Series A Preferred Stock. The final dividend was treated as a component of the redemption price for tax purposes.

\$ in thousands, except per share amounts		Dividends Declared			
Series B Preferred Stock	Per Share	In Aggregate	Date of Payment		
<u>2022</u>					
November 1, 2022	0.4844	2,198	December 27, 2022		
August 2, 2022	0.4844	2,198	September 27, 2022		
May 3, 2022	0.4844	2,991	June 27, 2022		
February 16, 2022	0.4844	3,003	March 28, 2022		
<u>2021</u>					
November 2, 2021	0.4844	3,003	December 27, 2021		
August 3, 2021	0.4844	3,003	September 27, 2021		
May 4, 2021	0.4844	3,004	June 28, 2021		
February 19, 2021	0.4844	3,003	March 29, 2021		
\$ in thousands, except per share amounts		Dividends Declared			
\$ in thousands, except per share amounts Series C Preferred Stock	Per Share	Dividends Declared In Aggregate	Date of Payment		
· • •	Per Share		Date of Payment		
Series C Preferred Stock	Per Share 0.46875		Date of Payment December 27, 2022		
Series C Preferred Stock 2022		In Aggregate			
Series C Preferred Stock 2022 November 1, 2022	0.46875	In Aggregate 3,664	December 27, 2022		
Series C Preferred Stock 2022 November 1, 2022 August 2, 2022	0.46875 0.46875	3,664 3,664	December 27, 2022 September 27, 2022		
Series C Preferred Stock 2022 November 1, 2022 August 2, 2022 May 3, 2022	0.46875 0.46875 0.46875	3,664 3,664 5,109	December 27, 2022 September 27, 2022 June 27, 2022		
Series C Preferred Stock 2022 November 1, 2022 August 2, 2022 May 3, 2022 February 16, 2022	0.46875 0.46875 0.46875	3,664 3,664 5,109	December 27, 2022 September 27, 2022 June 27, 2022		
Series C Preferred Stock 2022 November 1, 2022 August 2, 2022 May 3, 2022 February 16, 2022 2021	0.46875 0.46875 0.46875 0.46875	3,664 3,664 5,109 5,391	December 27, 2022 September 27, 2022 June 27, 2022 March 28, 2022		
Series C Preferred Stock 2022 November 1, 2022 August 2, 2022 May 3, 2022 February 16, 2022 2021 November 2, 2021	0.46875 0.46875 0.46875 0.46875	3,664 3,664 5,109 5,391	December 27, 2022 September 27, 2022 June 27, 2022 March 28, 2022 December 27, 2021		

\$ in thousands, except per share amounts	Dividends Declared			
Common Stock	Per Share	In Aggregate	Date of Payment	
<u>2022</u>				
December 19, 2022	0.65	25,162	January 27, 2023	
September 26, 2022	0.65	22,979	October 27, 2022	
June 27, 2022	0.90	29,721	July 27, 2022	
March 28, 2022	0.90	29,693	April 27, 2022	
<u>2021</u>				
December 27, 2021	0.90	29,689	January 27, 2022	
September 28, 2021	0.90	28,057	October 26, 2021	
June 23, 2021	0.90	26,071	July 27, 2021	
March 26, 2021	0.90	22,176	April 27, 2021	

The following table sets forth the dividends declared per share of our preferred and common stock and their related tax characterization for the fiscal tax years ended December 31, 2022 and 2021. Common stock dividends on CUSIP 46131B100, which were declared and paid prior to our one-for-ten reverse stock split that was effected following the close of business on June 3, 2022, have not been retroactively adjusted in the table below.

			Tax Char	acterization of	Dividends
Fiscal Tax Year	Dividends Declared in Prior Year and Taxable in Current Year	Dividends Declared and Taxable in Current Year	Ordinary Dividends	Return of Capital	Capital Gain Distribution
Series A Preferred Stock Dividends					
Fiscal tax year 2021	0.484400	0.484400	0.968800	_	_
Series B Preferred Stock Dividends					
Fiscal tax year 2022	_	1.963700	1.936700	_	
Fiscal tax year 2021		1.936700	1.936700	_	_
Series C Preferred Stock Dividends					
Fiscal tax year 2022	_	1.875000	1.875000	_	_
Fiscal tax year 2021	_	1.875000	0.590720	1.284280	_
Common Stock Dividends					
Fiscal tax year 2022 (CUSIP 46131B704) ⁽¹⁾	_	1.550000	0.873081	0.676919	_
Fiscal tax year 2022 (CUSIP 46131B100)	0.090000	0.090000	0.101390	0.078610	_
Fiscal tax year 2021 (CUSIP 46131B100) ⁽²⁾	0.080000	0.270000	_	0.350000	_

⁽¹⁾ Excludes common stock dividend of \$0.65 per share declared on December 19, 2022 that had a record date of January 9, 2023. This dividend is a 2023 dividend for federal income tax purposes.

⁽²⁾ Excludes common stock dividend of \$0.09 per share declared on December 27, 2021 that had a record date of January 11, 2022. This dividend is a 2022 dividend for federal income tax purposes.

Note 13 – Earnings (Loss) per Common Share

Common share amounts and earnings (loss) per share have been retroactively adjusted to reflect our one-for-ten reverse stock split that was effected following the close of business on June 3, 2022. Earnings per share for the years ended December 31, 2022, 2021 and 2020 is computed as follows:

In thousands except per share amounts	Years Ended December 31,			
	2022	2021	2020	
Numerator (Income)				
Basic Earnings:				
Net income (loss) available to common stockholders	(416,963)	(132,477)	(1,718,778)	
Denominator (Weighted Average Shares)				
Basic Earnings:				
Shares available to common stockholders	34,160	27,513	17,373	
Dilutive Shares	34,160	27,513	17,373	
Earnings (loss) per share:				
Net income (loss) attributable to common stockholders				
Basic	(12.21)	(4.82)	(98.93)	
Diluted	(12.21)	(4.82)	(98.93)	

The following potential weighted average common shares were excluded from diluted earnings per share as the effect would be anti-dilutive. For the year ended December 31, 2022, 1,216 shares for restricted stock awards. (December 31, 2021: 1,606 for restricted stock awards, December 31, 2020: 1,102 for restricted stock awards).

Note 14 - Commitments and Contingencies

Commitments and contingencies may arise in the ordinary course of business. Our material off balance sheet commitments and contingencies as of December 31, 2022 are discussed below.

As discussed in Note 5 - "Other Assets", we have invested in unconsolidated ventures that are sponsored by an affiliate of our Manager. The unconsolidated ventures are structured as partnerships, and we invested in the partnerships as a limited partner. Both of the unconsolidated ventures are in liquidation and plan to sell or settle their remaining investments as expeditiously as possible. Until the ventures complete their liquidation, we are committed to fund \$6.3 million in additional capital to cover future expenses should they occur.

Note 15 – Subsequent Events

Dividends

We declared the following dividends on February 17, 2023: a Series B Preferred Stock dividend of \$0.4844 per share payable on March 27, 2023 to our stockholders of record as of March 5, 2023, and a Series C Preferred Stock dividend of \$0.46875 per share payable on March 27, 2023 to our stockholders of record on March 5, 2023.

INVESCO MORTGAGE CAPITAL INC. AND SUBSIDIARIES

Schedule IV Mortgage Loans on Real Estate As of December 31, 2022

\$ in thousands

Reconciliation of Carrying Value of Mortgage Loans on Real Estate:

	2022	2021	2020
Beginning balance	23,515	23,098	24,055
Additions:			
Unrealized gain	404	417	_
Deductions:			
Collection of principal	23,919	_	136
Unrealized loss			821
Ending balance		23,515	23,098

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this Report to be signed on its behalf by the undersigned, thereunto duly authorized.

Invesco Mortgage Capital Inc.

By: /s/ John M. Anzalone

John M. Anzalone Chief Executive Officer

Date: February 21, 2023

Pursuant to the requirements of the Securities Exchange Act of 1934, this Report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

	Signatures	Title	Date
By:	/s/ John M. Anzalone	Chief Executive Officer	February 21, 2023
_	John M. Anzalone	(principal executive officer)	
By:	/s/ R. Lee Phegley, Jr.	Chief Financial Officer	February 21, 2023
_	R. Lee Phegley, Jr.	(principal financial officer)	
By:	/s/ Roseann M. Perlis	Chief Accounting Officer	February 21, 2023
_	Roseann M. Perlis	(principal accounting officer)	
By:	/s/ John S. Day	Director	February 21, 2023
	John S. Day		
By:	/s/ Carolyn B. Handlon	Director	February 21, 2023
	Carolyn B. Handlon		
By:	/s/ Edward J. Hardin	Director	February 21, 2023
	Edward J. Hardin		
By:	/s/ James R. Lientz, Jr.	Director	February 21, 2023
	James R. Lientz, Jr.		
By:	/s/ Don H. Liu	Director	February 21, 2023
	Don H. Liu		
By:	/s/ Dennis P. Lockhart	Director	February 21, 2023
	Dennis P. Lockhart		
By:	/s/ Gregory G. McGreevey	Director	February 21, 2023
	Gregory G. McGreevey		
By:	/s/ Beth A. Zayicek	Director	February 21, 2023
	Beth A. Zayicek		

