MASSHOUSING MORTGAGE INSURANCE FUND

ANNUAL FINANCIAL REPORT
JUNE 30, 2022 and 2021

MASSHOUSING MORTGAGE INSURANCE FUND
FINANCIAL STATEMENTS
JUNE 30, 2022 and 2021

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FINANCIAL STATEMENTS

Report of Independent Auditors

To the Members of the
Massachusetts Housing Finance Agency

Opinions

We have audited the accompanying financial statements of the business-type activities of the MassHousing Mortgage Insurance Fund (the "MIF"), a fund within the Massachusetts Housing Finance Agency's (the "Agency") Working Capital Fund, as of and for the years ended June 30, 2021 and 2020, including the related notes, which collectively comprise MIF's basic financial statements as listed in the table of contents.

In our opinion, the accompanying financial statements present fairly, in all material respects, the respective financial position of the business-type activities of the MassHousing Mortgage Insurance Fund, a fund within the Massachusetts Housing Finance Agency's Working Capital Fund, as of June 30, 2022 and 2021, and the respective changes in financial position and, where applicable, cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinions

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (US GAAS). Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the MIF and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about MIF's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditors' Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with US GAAS, will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with US GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the MIF's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the MIF's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Required Supplemental Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages **3** through **12** be presented to supplement the basic financial statements. Such information is the responsibility of management, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplemental information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

PricewaterhouseCoopers LLP

September 23, 2022

MassHousing Mortgage Insurance Fund
Annual Financial Report

Prepared by the
Office of the Financial Director
Rachel C. Madden, Financial Director
Stephen E. Vickery, Comptroller

MANAGEMENT'S DISCUSSION AND ANALYSIS

Overview of the Annual Report

This annual financial report of the MassHousing Mortgage Insurance Fund (MIF) consists of three sections: (1) management's discussion and analysis; (2) the financial statements; and (3) notes to the financial statements.

The financial statements and notes to the financial statements were prepared in conformity with the accounting principles generally accepted in the United States of America (GAAP) using the accounting standards promulgated by the Governmental Accounting Standards Board (GASB).

Management's Discussion and Analysis

The following is an unaudited narrative overview of MIF's financial position and the results of its operations for fiscal years ended June 30, 2022 (FY 2022) and June 30, 2021 (FY 2021), with selected comparative information for the fiscal year ended June 30, 2020 (FY 2020). Readers are encouraged to consider the information presented in this discussion and analysis in conjunction with the information presented in the financial statements and notes to the financial statements, all of which follow this narrative overview.

Management's discussion and analysis is designed (1) to assist the reader in focusing on significant financial matters and activities and (2) to identify any significant changes in MIF's financial position and results of its operations during FY 2022 and FY 2021, with selected comparative information for FY 2020. The primary accounting policies followed by MIF are presented in Note B to the financial statements and are not repeated herein.

The Financial Statements

- The statement of net position provides information about MIF's financial condition at the end of the fiscal year by indicating the nature and amounts of its investments in resources (assets), its obligations to creditors (liabilities), its deferred outflows and inflows of resources, if applicable, and its resulting net position at the end of the fiscal year. Net position represents total assets, plus deferred outflows of resources, less total liabilities, less deferred inflows of resources. The organization of the statement of net position separates assets and liabilities into their current and non-current components. It also separately displays deferred outflows and inflows of resources if there are any.

- The statement of revenues, expenses, and changes in net position provides information about MIF's revenues and expenses for the year in order to measure the performance (or results) of MIF's operations over the year. This statement measures operating results and the change in net position for the fiscal year. If revenues exceed expenses for the year, the result is operating income which increases the net position for the year. If expenses exceed revenues, the result is a decrease in net position for the year.

- The statement of cash flows provides detailed information about the net change in cash and cash equivalents for the year, resulting from four principal types of activities: operating activities, capital financing activities, if any, non-capital financing activities, if any, and investing activities. Cash collections (receipts) and payments (disbursements) are presented in this statement to arrive at the net increase or decrease in cash and cash equivalents for the year.

The Notes to Financial Statements

- The notes to financial statements provide information that is useful to the reader in understanding MIF's financial statements, including the description of its programs, accounting methods, and policies.

- The notes include disclosures regarding MIF's investments and cash and cash equivalents, as well as its contractual obligations, future commitments, and contingencies.

- The notes also include information regarding events or developments that did have or could have a material impact on MIF's financial condition, results of operations, or cash flows.

Background

In June 1988, the Massachusetts Housing Finance Agency (MassHousing or the Agency) established the Massachusetts Housing Loan Loss Reserve Fund within the Agency's Working Capital Fund (WCF) under an escrow agreement, last amended on June 21, 2010, between the Agency and U.S. Bank National Association (successor trustee to State Street Bank & Trust Company). In October 2003, the Fund's name was changed to MassHousing Mortgage Insurance Fund (MIF). MIF's net position is presented as restricted net position within the Agency's Working Capital Fund. MIF was created in response to the Agency's assessment and determination that insurance provided by private mortgage insurers was not available to borrowers at prices and with terms and conditions consistent with the requirements of the Agency's single-family loan programs. Under the terms of the escrow agreement, MIF may not issue any mortgage insurance policy for a loan, or make any commitment for a policy, if it is determined that the MIF's capital is not sufficient to satisfy the capital adequacy requirements of both Standard & Poor's Rating Services (S&P) and Moody's Investors Service, Inc. (Moody's) necessary to maintain the Agency's credit rating and the credit ratings on the Agency's outstanding bonds based on reserve models provided by such rating agencies.

MIF has reinsurance arrangements with the following independent insurers: Mortgage Guaranty Insurance Corporation, United Guaranty Residential Insurance Corporation, Enact Mortgage Insurance Corporation (formerly known as Genworth Mortgage Insurance Corporation) and Willis Re, acting as a broker for Aspen Insurance UK Limited, Everest Reinsurance Company, Insurance Company of the West, Markel Global Reinsurance Company, Partner Reinsurance Europe SE (Zurich Branch), and Partner Reinsurance Company of the U.S. These insurers provide greater diversification of risk, minimize exposure on large losses, and allow MIF to access increased limits of liability. Although reinsurance agreements contractually obligate MIF's reinsurers to reimburse MIF for their proportionate share of any losses, they do not discharge MIF's primary responsibility to pay the loss claim.

MIF does not have separate legal standing from MassHousing and therefore is not a component unit as defined by GASB Statement No. 14 – The Financial Reporting Entity. MIF is part of MassHousing and is included in MassHousing's combined financial statements as a part of the Agency. At its discretion, MassHousing's Board of Directors may elect to contribute cash to MIF to increase or stabilize MIF's insurance capacity.

All fees, charges, and premiums collected from borrowers and lenders and all investment earnings are deposited into MIF accounts. All mortgage insurance claims, including all costs associated therewith, as well as all administrative expenses incurred by MassHousing in connection with the administration of MIF, are payable from MIF accounts. MIF operates separately and independently from the Agency's Home Ownership loan program’s origination and monitoring operations. MIF currently derives all its business from either MassHousing or MassHousing’s approved lender network.

As of June 30, 2022 and 2021, approximately $2.2 billion and $2.2 billion, respectively, of loans, net of principal reductions, were insured by MIF. Of these amounts, the reinsurers have covered $1.5 billion and $1.5 billion, respectively of the Insurance in Force and MIF retains $0.7 billion and $0.7 billion, respectively. As of June 30, 2022, MIF estimates that it is authorized to extend mortgage insurance coverage up to an additional $2.0 billion of loans without reinsurance, or $19.5 billion with reinsurance, or any combination which arrives at the same additional exposure.

In fiscal year 2014, MIF commenced the Lender Paid Mortgage Insurance (LPMI) program. Through this program, the cost of mortgage insurance is paid up-front by the lender with a single premium rather than spreading it out in monthly payments over the life of the loan. This cost is offset by a higher interest rate on the mortgage, compared to a loan with Borrower Paid Mortgage Insurance (BPMI). Even with the higher rate, the LPMI generally results in a lower monthly payment for the borrower for the first several years of the loan, and still provides MassHousing's signature MIPlus® unemployment benefit protection that pays a borrower's monthly principal and interest payment for up to six months if the borrower becomes unemployed.

The LPMI program is generally best suited for homebuyers who expect to sell their home, refinance, or pay off their mortgage within 10 years. Because the higher interest rate of an LPMI loan remains in place until the loan is refinanced or paid off, and because BPMI can be cancelled once the loan-to-value reaches 80%, BPMI is usually a more favorable option for homebuyers who intend to keep their mortgage beyond 10 years.

COVID-19 Response

From the time the President of the United States declared a national emergency due to the COVID-19 pandemic on March 13, 2020 to the present, several Federally and State funded COVID-19 related relief packages, regulations, and programs have been enacted, implemented and administered to provide assistance to address the financial impacts arising from the pandemic. Despite the initial and ongoing effects of the pandemic, MassHousing has not experienced any materially adverse impacts to its financial condition or operations due to the COVID-19 pandemic and seeks ways to access and facilitate use of housing related COVID-19 relief funds as well as comply with programs to assist renters and homeowners. MassHousing has adhered to all state and federal emergency mandates, continues to comply with applicable laws and regulations, and has adapted its business accordingly. Management continues to monitor its business lines and operations to minimize potential disruptions.

MassHousing, in its capacity as a “Contractor,” has and continues to provide administration and project management services to distribute federal financial assistance funded from various COVID-19 relief statutes. These include the Homeowner Assistance Fund established under Section 3206 of the American Rescue Plan Act of 2021 (ARPA), signed into law on March 11, 2021 (the Federal HAF Program), The Commonwealth of Massachusetts’ Subsidized Housing Emergency Rental Assistance (SHERA) program funded with federal moneys pursuant to section 501 of the Division N of the Consolidated Appropriates Acts, 2021, Pub. L. No. 116 260, and State and Local Fiscal Recovery Funds (SLFRF) available pursuant to Section 9901 of ARPA.

The Federal HAF Program is intended to help remedy mortgage delinquencies caused by the COVID-19 pandemic for eligible homeowners. MassHousing participates with other state public and quasi-public partners in the Massachusetts statewide program to promote the availability of financial assistance administered by The Commonwealth of Massachusetts’ Executive Office for Administration and Finance and managed by Massachusetts Housing Partnership Fund Board (the Statewide HAF Program). MassHousing established and continues to manage the statewide marketing campaign to encourage homeowners affected by COVID-19 pandemic to take advantage of the financial assistance under the Statewide HAF Program.

The SHERA Program helps residents clear rent arrearages incurred due to the COVID-19 pandemic. MassHousing's borrowers were among the first phase of eligible participants in the program and MassHousing is one of the administrators of the SHERA program. The SHERA program is winding down in the second calendar quarter of 2022 and MassHousing's contract for administrative services expires June 30, 2022.

The Commonwealth has also allocated $180 million of SLFRF moneys to housing programs that will be administered in whole or in part by MassHousing. MassHousing is presently working with The Commonwealth towards implementation of programs to deploy SLFRF moneys in fiscal year 2023.

Because it is generally difficult to predict the full impact of the pandemic or the impact of actions taken or to be taken by the government to address the pandemic and its repercussions, there can be no assurances that the pandemic, and resulting business and market disruptions, will not have future adverse impacts on the operations of MassHousing, its financial condition or any of its contractual obligations.

Financial Markets

MIF relies on its ability to obtain orderly access to reinsurance markets to procure guaranties that will preserve capital adequacy. While the financial markets have been stable for several years, the COVID-19 pandemic may impact the MIF's ability to secure reinsurance contracts with terms that they have received in the past for calendar year 2023 and beyond. There is uncertainty in the reinsurance market, however loans insured by the MIF come with MIPlus®, which is a natural risk mitigator and is well received by reinsurers. No assurances can be given that future events will not have an adverse impact on the provision and availability of financial services and products required by MIF in connection with the financing of its activities.

Summarized Financial Information – Statements of Net Position (dollars in thousands)

The table below presents summarized comparative statements of net position of MIF as of June 30:

		Change from 2021			Change from 2020		
	Fiscal 2022	**$**	**%**	**Fiscal 2021**	**$**	**%**	**Fiscal 2020**
Assets							
Cash and cash equivalents	$ 11,413	(1,081)	-8.7%	$ 12,494	1,287	11.5%	$ 11,207
Investments	120,196	(2,102)	-1.7%	122,298	1,781	1.5%	120,517
Prepaid reinsurance premiums	6,290	(1,755)	-21.8%	8,045	(1,967)	-19.6%	10,012
Other assets	675	260	62.7%	415	(173)	-29.4%	588
Total Assets	$ 138,574	(4,678)	-3.3%	$ 143,252	928	0.7%	$ 142,324
Liabilities							
Unearned premiums	$ 11,502	(2,954)	-20.4%	$ 14,456	(3,059)	-17.5%	$ 17,515
Loss reserves	1,978	(2,335)	-54.1%	4,313	(390)	-8.3%	4,703
Other liabilities	2,005	757	60.7%	1,248	29	2.4%	1,219
Total Liabilities	$ 15,485	(4,532)	-22.6%	$ 20,017	(3,420)	-14.6%	$ 23,437
Net Position							
Restricted net position	$ 123,089	(146)	-0.1%	$ 123,235	4,348	3.7%	$ 118,887
Total Net Position	$ 123,089	(146)	-0.1%	$ 123,235	4,348	3.7%	$ 118,887

Discussion of Changes in the Statement of Net Position

Assets

Cash and Cash Equivalents

Cash and cash equivalents decreased to $11.4 million at June 30, 2022 from $12.5 million at June 30, 2021, a decrease of approximately $1.1 million, or 9%. This can be compared with an increase to $12.5 million at June 30, 2021 from $11.2 million at June 30, 2020, an increase of approximately $1.3 million, or 12%. The decrease in cash and cash equivalents in FY 2022 was primarily due to utilizing funds to purchase investments. The increase in cash and cash equivalents in FY 2021 was primarily due to operating and investment income.

Investments

The primary objectives of investment activity, in order of priority, are safety of principal, liquidity and investment yield. The types of investments permitted under MassHousing's Investment Policy (which is followed by MIF) and the investments held at year-end are disclosed in Note C to MIF's financial statements. Investments decreased to $120.2 million at June 30, 2022 from $122.3 million at June 30, 2021, a decrease of approximately $2.1 million, or 2%. This can be compared with an increase to $122.3 million at June 30, 2021 from $120.5 million at June 30, 2020, an increase of approximately $1.8 million, or 2%. The decrease in FY 2022 was primarily the result of market value adjustments of investments due to a rising rate environment. The increase in FY 2021 was the result of the purchase of investments in excess of maturities of investments.

Prepaid Reinsurance Premiums

Prepaid reinsurance premiums are the unamortized portion of the reinsurance premiums paid to the reinsurer. Prepaid reinsurance premiums decreased to $6.3 million at June 30, 2022 from $8.0 million at June 30, 2021, a decrease of approximately $1.8 million, or 22%. This can be compared to a decrease to $8 million at June 30, 2021 from $10.0 million at June 30, 2020, a decrease of approximately $2.0 million, or 20%. The FY 2022 and FY 2021 decreases in prepaid reinsurance premiums were the result of a shift to more monthly, borrower paid, policies and away from single premiums.

Liabilities

Unearned Premiums

Unearned premiums are the unamortized balance of the mortgage insurance premiums paid up front to MIF by the lender or the borrower. The LPMI and BPMI single premiums are amortized over the expected life of the loan. Borrower annual premiums are amortized over a twelve-month basis. Unearned premiums decreased to $11.5 million at June 30, 2022 from $14.5 million at June 30, 2021, a decrease of approximately $3.0 million, or 20%. This can be compared with a decrease to $14.5 million as of June 30, 2021 from $17.5 million as of June 30, 2020, a decrease of approximately $3.0 million, or 18%. The FY 2022 and FY 2021 decreases in unearned premiums were the result of a shift to more monthly, borrower paid, policies and away from single premiums.

Loss Reserves

Loss reserves are an estimate of future paid claims that exist as of the balance sheet date. These loss reserves are based upon MIF's continued review and analysis of the Agency's loan delinquency and default data and consideration of an analysis prepared by an independent consultant overseen by management. The loss reserve is based on the recommendation of the independent consultant and approved by management of MIF. MIF loss reserves decreased to $2.0 million at June 30, 2022 from $4.3 million at June 30, 2021, a decrease of approximately $2.3 million, or 54%. This can be compared with a decrease to $4.3 million at June 30, 2021 from $4.7 million at June 30, 2020, a decrease of approximately $390 thousand, or 8%. The FY 2022 decrease in loss reserves was primarily due to the decrease in defaults. The FY 2021 decrease in loss reserves was due to a large decrease in open MIPlus® claims, partially offset by an increase in Mortgage Insurance (MI) reserves. The number of defaults decreased to 343 on June 30, 2022 from 696 on June 30, 2021. The number of defaults decreased to 696 on June 30, 2021 from 705 on June 30, 2020. June 2020 was the highest month to date for MIPlus® benefits, with over $200 thousand paid.

Net Position

Changes in Net Position

Restricted net position is that portion of net position upon which constraints have been placed that are either (1) externally imposed by creditors, grantors or laws, regulations of other governments or (2) are imposed by law through constitutional provisions or enabling legislation. The funds and accounts established by MIF are held under an Escrow Agreement between the Agency and the Escrow Agent. Accordingly, all funds and accounts established by MIF are restricted as to their use. Additionally, MIF is subject to various capital requirements under its Escrow Agreement and under Private Mortgage Insurer Eligibility Requirements (PMIERS). The most restrictive requirement is the Required Reserve Balance under its Escrow Agreement which requires MIF to maintain capital reserves based on the risk of the insured portfolio and ten years of general and administrative expenses. If certain terms and conditions are met, including the completion, submission, and approval of defined compliance and covenants, MassHousing may direct the Escrow Agent to withdraw from MIF and pay to MassHousing any portion of the amount on deposit in MIF in excess of the Required Reserve Balance.

As of June 30, 2022, the Required Reserve Balance, as specified by S&P's reserving formula, was $63.0 million. The remaining net position balance, $60.1 million, was reserved to support future new insurance to be written by MIF. As of June 30, 2021, the Required Reserve Balance, as specified by S&P's reserving formula, was $56.0 million. The remaining net position balance, $67.2 million, was reserved to support future new insurance to be written by MIF.

Total net position decreased to $123.1 million at June 30, 2022 from $123.2 million at June 30, 2021, a decrease of approximately $146 thousand, or .1%. This can be compared with an increase to $123.3 million at June 30, 2021 from $118.9 million at June 30, 2020, an increase of approximately $4.3 million, or 4%.

Summarized Financial Information – Statements of Revenues, Expenses, and Changes in Net Position (dollars in thousands)

The table below presents summarized comparative statements of revenues, expenses, and changes in net position of MIF for the fiscal years ended June 30:

		Change from 2021			Change from 2020		
	Fiscal 2022	**$**	**%**	**Fiscal 2021**	**$**	**%**	**Fiscal 2020**
Operating Revenues							
Interest income	$ 1,663	(473)	-22.1%	$ 2,136	(1,221)	-36.4%	$ 3,357
Net increase (decrease) in fair value of investment	(6,679)	(4,937)	283.4%	(1,742)	(3,963)	-178.4%	2,221
Net premiums earned	5,888	(371)	-5.9%	6,259	195	3.2%	6,064
Other revenue	15	(32)	-68.1%	47	12	34.3%	35
Total Operating Revenues	$ 887	(5,813)	-86.8%	$ 6,700	(4,977)	-42.6%	$ 11,677
Operating Expenses							
Underwriting and administrative expenses	$ 3,174	1,409	79.8%	$ 1,765	(444)	-20.1%	$ 2,209
Claims paid, net	194	(783)	-80.1%	977	243	33.1%	734
Total Operating Expenses	$ 3,368	626	22.8%	$ 2,742	(201)	-6.8%	$ 2,943
Operating Income (Loss) Before Provision for Losses	$ (2,481)	(6,439)	-162.7%	$ 3,958	(4,776)	-54.7%	$ 8,734
(Provision for) reduction to losses	$ 2,335	1,945	-498.7%	$ 390	3,461	-112.7%	$ (3,071)
Operating Income (Loss)	$ (146)	(4,494)	-103.4%	$ 4,348	(1,315)	-23.2%	$ 5,663
Net position at beginning of fiscal year	$ 123,235	4,348	3.7%	$ 118,887	5,663	5.0%	$ 113,224
Net position at end of fiscal year	$ 123,089	(146)	-0.1%	$ 123,235	4,348	3.7%	$ 118,887

Discussion of Operating Results

Reference is made to the statements of revenues, expenses, and changes in net position for the fiscal years ended June 30, 2022, 2021, and 2020 and the year-to-year increases and decreases presented above.

The changes in Operating Income were the result of several major items that positively or negatively affected Operating Income as described below:

Operating Revenues

Interest Income on Investments
The decreases in interest income in FY 2022 and FY 2021 were primarily due to lower average returns on investments.

Net Decrease in Fair Value of Investments
The FY 2022 and FY 2021 decreases in the fair value of investments was primarily due to increasing interest rates after the time of initial investment.

Net Premiums Earned
Net premiums earned represent the gross premium earned in the period, net of reinsurance premiums expensed in the period. The decrease in net premiums earned in FY 2022 was primarily the result of lower insurance placements in FY 2022 and high loan payoffs in FY 2021. The increase in net premiums earned in FY 2021 was due to an increase in monthly borrower paid policies, net of a corresponding, slightly smaller, increase in reinsurance premiums expensed. The FY 2022 production included 19.6% of loans with single premiums, whereas FY 2021 MI production included 8.7% of loans with single premiums.

The table below summarizes the loan portfolio activity for the fiscal years ended June 30, 2022, 2021 and 2020, respectively (balance in millions):

	Fiscal 2022		Fiscal 2021		Fiscal 2020	
	Number of Loans	Balance	Number of Loans	Balance	Number of Loans	Balance
Insured loans, beginning of year	9,856	$ 2,244.2	11,317	$ 2,470.9	12,295	$ 2,667.9
New loans	1,378	422.5	2,415	699.4	1,641	440.0
Cancelled loans	(2,094)	(456.5)	(3,876)	(877.6)	(2,619)	(586.0)
Amortization	-	(50.3)	-	(48.5)	-	(51.0)
Insured loans, end of year	9,140	$ 2,159.9	9,856	$ 2,244.2	11,317	$ 2,470.9

The decrease in cancelled loans is primarily due to a decrease in the refinancing of mortgage loans due to an increase in interest rates. The increase in cancelled loans in FY 2021 was primarily due to an increase in the refinancing of mortgage loans due to a decrease in interest rates.

Operating Expenses

Underwriting and Administrative Expenses
The increase in underwriting and administrative expenses in FY 2022 was primarily due to an increase in service contracts and IT. MIF engaged its actuarial consultant to assist in developing the logic for new pricing methods for its products. In addition, a new front-end system was implemented in FY 2022. The decrease in underwriting and administrative expenses in FY 2021 was primarily due to a decrease in direct payroll.

Mortgage Insurance Claims

The following table summarizes the mortgage insurance claims, excluding MIPlus® claims (see separate section below), for FY 2022, 2021, and 2020 (dollars in thousands):

		Change from 2021			Change from 2020		
	Fiscal 2022	$/#	%	Fiscal 2021	$/#	%	Fiscal 2020
Dollars	$ 147.3	$ 98.8	204%	$ 48.5	$ (814.4)	-94%	$ 862.9
Number	5	4	400%	1	(17)	-94%	18

The increase in mortgage insurance claims in FY 2022 was a moderate increase over the prior year's unusually low claim level. The decrease in mortgage insurance claims in FY 2021 was due to moratoriums on foreclosures. The reserves for insurance claims are generated from operating income, reinsurance proceeds, and periodic contributions from MassHousing.

MIPlus® Activity

MIF manages a mortgage payment protection insurance program (MIPlus®). The MIPlus® program pays the borrower's monthly principal and interest requirements for up to six months if the borrower becomes an "enrolled unemployed," as defined by the Commonwealth's unemployment compensation program. This is included as an additional no-cost feature of MIF's basic insurance policy offered to borrowers. MIPlus® payments are made directly to the borrower's mortgage loan servicer and are designed to keep the mortgage loan current, avoiding foreclosure, loan loss, and mortgage insurance claims. At June 30, 2022, 2021, and 2020 96% of loans with in force mortgage insurance had in force MIPlus® mortgage payment protection.

During FY 2020, MIF made changes to MIPlus® by waiving the six-month waiting period and the ten-year term for MIPlus®. MIF's waiving of the six-month waiting period and extension of the ten-year term was done in response to the actual and anticipated increases in unemployment claims for mortgage insurance based on COVID-19. MIF believes that these changes to MIPlus® have helped mitigate mortgage insurance losses now and in the future.

The following table summarizes the claims under the MIPlus® program for FY 2022, 2021, and 2020 (dollars in thousands):

		Change from 2021			Change from 2020		
Claims	Fiscal 2022	$/#	%	Fiscal 2021	$/#	%	Fiscal 2020
Dollars	$ 144.4	$ (828.3)	-85%	$ 972.7	$ 550.8	131%	$ 421.9
Number	125	(887)	-88%	1,012	598	144%	414
Recipients	32	(221)	-87%	253	52	26%	201

The decrease in FY 2022 was due to a decrease in unemployment rates and the expiration of benefits for those that utilized the six months of coverage in the prior year.

The increase in FY 2021 was due to increased unemployment rates in Massachusetts and in the U.S., as well as the changes to MIPlus® by waiving the six-month waiting period and the ten-year term for MIPlus®. MIF's waiving of the six-month waiting period and the extension of the ten-year term was done in response to the actual and anticipated increases in unemployment claims for mortgage insurance based on COVID-19. MIF believes that these changes to MIPlus® will help mitigate mortgage insurance losses in the future.

The average duration of benefits under the MIPlus® program was 4.8 months in FY 2022 and FY 2021, and 4.5 months in FY 2020.

Mortgage Insurance Claim Recoveries and Net Claims

The following table summarizes claim recoveries on all loans and net claims paid (mortgage insurance claims less claim recoveries, including MIPlus® claims) for FY 2022, 2021, and 2020 (dollars in thousands):

		Change from 2021			Change from 2020		
	Fiscal 2022	$	%	Fiscal 2021	$	%	Fiscal 2020
Claims Paid, gross	$ 292	$ (729)	-71%	$ 1,021	$ (264)	-21%	$ 1,285
Claims Recoveries	98	54	123%	44	(507)	-92%	551
Net Claims Paid	$ 194	$ (783)	-80%	$ 977	$ 243	33%	$ 734

The significant decrease in net claims paid in FY 2022 from FY 2021 was the significant reduction in MIPlus® claims paid. The significant decrease in claims recoveries in FY 2021 from FY 2020 was due to paying fewer claims primarily driven by the foreclosure moratorium.

MassHousing Mortgage Insurance Fund
Statements of Net Position
June 30, 2022 and 2021
In thousands

	June 30, 2022	June 30, 2021
<u>Assets</u>		
Current Assets		
Cash and cash equivalents (Notes B and C)	$ 11,413	$ 12,494
Interest receivable	283	277
Investments (Notes B and C)	30,850	24,473
Premium receivables	392	138
Prepaid reinsurance premiums (Notes B and G)	2,701	2,570
Total Current Assets	45,639	39,952
Non-current Assets		
Investments (Notes B and C)	89,346	97,825
Prepaid reinsurance premiums (Note B)	3,589	5,475
Total Non-current Assets	92,935	103,300
Total assets	$ 138,574	$ 143,252
<u>Liabilities</u>		
Current Liabilities		
Payable to reinsurers and others	$ 1,035	$ 1,168
Due to WCF (Notes B and D)	970	80
Unearned premiums (Note B)	4,390	4,242
Total Current Liabilities	6,395	5,490
Non-current Liabilities		
Loss reserves (Notes B and I)	1,978	4,313
Unearned premiums (Note B)	7,112	10,214
Total Non-current Liabilities	9,090	14,527
Total Liabilities	15,485	20,017
Commitments and Contingencies (Note J)		
<u>Net Position</u>		
Restricted net position (Note B)	123,089	123,235
Total Net Position	$ 123,089	$ 123,235

The accompanying notes are an integral part of the financial statements

MassHousing Mortgage Insurance Fund
Statements of Revenues, Expenses, and Changes in Net Position
For the Fiscal Years Ended June 30, 2022 and 2021
In thousands

	2022	2021
Underwriting Income		
Premiums	$ 12,138	$ 12,325
Reinsurance premiums (Note G)	(6,250)	(6,066)
Net premiums earned (Note B)	5,888	6,259
Claims paid, net (Notes E & H)	(194)	(977)
Underwriting and administrative expenses (Notes B & D)	(3,174)	(1,765)
Net underwriting income	2,520	3,517
Other Income		
Recoveries on promissory notes (Note F)	15	47
Investment Earnings (Losses)		
Interest income (Note B)	1,663	2,136
Net decrease in fair value of investments	(6,679)	(1,742)
Total investment earnings (losses), net	(5,016)	394
Operating income (loss) before provision for losses	(2,481)	3,958
Reduction to provision for losses (Notes B and I)	2,335	390
Operating income (loss)	(146)	4,348
Net position at beginning of fiscal year	123,235	118,887
Net position at end of fiscal year	$ 123,089	$ 123,235

MassHousing Mortgage Insurance Fund
Statements of Cash Flows
For the Fiscal Years Ended June 30, 2022 and 2021
In thousands

	2022	2021
<u>Increase (Decrease) in Cash and Cash Equivalents</u>		
Cash flows from operating activities:		
Collections on promissory notes	$ 33	$ 29
Premiums collected	9,161	9,342
Reinsurance premiums paid, net	(4,778)	(3,890)
Claims paid	(292)	(1,021)
Administrative expenses	(2,284)	(1,902)
Net cash provided by operating activities	1,840	2,558
Cash flows from investing activities:		
Purchase of investments	(82,145)	(74,298)
Proceeds from investments maturity	77,538	70,777
Interest income	1,686	2,250
Net cash (used for) investing activities	(2,921)	(1,271)
Net increase (decrease) in cash and cash equivalents	(1,081)	1,287
Cash and cash equivalents at beginning of fiscal year	12,494	11,207
Cash and cash equivalents at end of fiscal year	$ 11,413	$ 12,494

The accompanying notes are an integral part of the financial statements

MassHousing Mortgage Insurance Fund
Statements of Cash Flows, continued
For the Fiscal Years Ended June 30, 2022 and 2021
In thousands

	2022	2021
Reconciliation of operating income (loss) to net cash provided by operating activities		
Operating income (loss)	$ (146)	$ 4,348
Adjustments to reconcile operating income (loss) to net cash provided by operating activities:		
Amortization of reinsurance premiums	2,651	2,518
Amortization of premiums	(4,355)	(4,166)
Reduction to provision for losses	(2,335)	(390)
Interest income	(1,663)	(2,136)
Increase in fair value of investments	6,679	1,742
Change in assets and liabilities:		
Decrease (increase) in premiums receivable	(255)	58
Increase in prepaid reinsurance premiums	(895)	(551)
Increase (decrease) in payable to reinsurers and others	(133)	167
Increase (decrease) in amounts due to WCF	890	(138)
Increase in unearned premiums	1,402	1,106
Total adjustments	1,986	(1,790)
Net cash provided by operating activities	$ 1,840	$ 2,558

Note A. Fund Description and Recent Events

In June 1988, the Massachusetts Housing Finance Agency (“MassHousing” or “the Agency") established the Massachusetts Housing Loan Loss Reserve Fund within the Agency's Working Capital Fund under an escrow agreement last amended on June 21, 2010 between the Agency and U.S. Bank National Association (successor trustee to State Street Bank & Trust Company). In October 2003, the Fund’s name was changed to MassHousing Mortgage Insurance Fund (MIF). MIF’s net position is presented as restricted net position within the Agency’s Working Capital Fund. MIF was created in response to the Agency’s assessment and determination that insurance provided by private mortgage insurers was not available at prices and with terms and conditions consistent with the requirements of the Agency's single-family loan programs.

From time to time MassHousing’s Board of Directors may elect to contribute cash to MIF in order to stabilize MIF’s insurance capacity.

All fees, charges, and premiums collected from borrowers, as well as all investment income, are deposited into MIF accounts. All mortgage insurance claims and costs associated there-with and all administrative expenses incurred by MassHousing in connection with the administration of MIF are payable by MIF.

Under the terms of the escrow agreement, MIF may not issue any mortgage insurance policy for a loan, nor make any commitment for a policy, if it is determined that MIF’s capital is not sufficient to satisfy the capital adequacy requirements of both Standard & Poor’s Rating Services (S&P) and Moody’s Investors Service, Inc. (Moody’s) necessary to maintain the Agency’s credit rating and the credit ratings on the Agency’s outstanding bonds based on reserve models provided by such rating agencies.

MIF is also subject to the Private Mortgage Insurer Eligibility Requirements (PMIERs) issued by Fannie Mae on September 27, 2018, as amended, which became applicable to MIF on March 31, 2019. PMIERS includes a number of Business and Financial Requirements that MIF must maintain.

MIF operates separately and independently from the Agency's Home Ownership loan program’s origination and monitoring operations. MIF currently derives all its business from either MassHousing or MassHousing’s approved lender network.

Note B. Summary of Significant Accounting Policies

Basis of Presentation

MIF’s financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America (GAAP).

Basis of Accounting

MIF accounts for and reports its activities by applying Standards of Governmental Accounting and Financial Reporting, as promulgated by the Governmental Accounting Standards Board (GASB). The statements are prepared utilizing the economic resources measurement focus and the accrual basis of accounting, wherein revenues are recognized when earned, and expenses when incurred.

Operating revenues and expenses generally result from providing services in connection with MIF's ongoing operations. The principal operating revenues of MIF are insurance premiums and investment income. Operating expenses consist of reinsurance expense, underwriting and administrative expenses, and claims expense. All items of revenue and expense are classified as operating.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. These estimates are based on management's best knowledge of current events, historical experience, actions that MIF may undertake in the future, and on various other assumptions that are believed to be reasonable under the circumstances. Actual results could differ from those estimates. Significant estimates are more fully described in the applicable following notes.

Cash and Cash Equivalents

Cash includes amounts in checking and savings accounts, which are insured (subject to maximum limits) by the Federal Deposit Insurance Corporation (FDIC). Each savings account depositor is insured by the FDIC up to $250,000 at each bank.

Cash equivalents include investments with maturities of three months or less when acquired and consist of money-market mutual fund shares. MIF's principal money-market type mutual fund is the First American Government Obligation Money Market Fund.

Investments and Investment Earnings

Investments are carried at fair value unless they are purchased with maturities of one year or less, in which case they are carried at amortized cost, which approximates fair value. For investments carried at their fair values at the Statement of Net Position date, MIF uses quoted market prices, where available, to determine the fair value of long-term investments at the close of each reporting period. For non-trading long-term investments, if any, MIF uses composite quotes set by a third party and evaluated by management. The change in fair value of those investments from one period to the next is a separately stated component of investment earnings and is separately disclosed in the Statement of Revenues, Expenses, and Changes in Net Position. Investment earnings are accrued as earned.

Restricted Net Position

Restricted net position is that portion of net position upon which constraints have been placed that are either (1) externally imposed by creditors, grantors or laws, regulations of other governments or (2) are imposed by law through constitutional provisions or enabling legislation. The funds and accounts established by MIF are held under an Escrow Agreement between the Agency and the independent Escrow Agent. Accordingly, all funds and accounts established by MIF are restricted as to their use. If certain terms and conditions are met, including the completion, submission, and approval of defined compliance and covenants, MassHousing may direct the Escrow Agent to withdraw from MIF, and pay to MassHousing any portion of the amount on deposit in MIF in excess of the Required Reserve Balance.

Premiums Earned and Unearned

Single premium (borrower paid and lender paid) mortgage insurance premiums are recorded as income on a pro-rata basis during the expected average life of the related loan. The expected average life is equivalent to the average expected policy period. Annual mortgage insurance premiums are recorded as income on a pro-rata-basis over twelve months. Unearned premiums represent the portion of premiums written which are applicable to the expected unexpired terms of policies in force. Policy premiums paid by the borrower are given the option to choose either a single or a monthly premium payment. Borrower paid single premiums and borrower paid annual premiums are paid at the beginning of the policy period and are recorded as income on a pro-rata basis over the expected life and year term, respectively.

Lender Paid Mortgage Insurance ("LPMI")

In fiscal year 2014, MIF commenced the LPMI program. Through this program, the cost of mortgage insurance is paid up-front to MIF by the lender, with a single premium rather than spreading it out in monthly payments over the life of the loan. This cost is offset by a higher interest rate on the mortgage, compared to a loan with Borrower Paid Mortgage Insurance (BPMI). Even with the higher rate, the LPMI generally results in a lower monthly payment for the borrower for the first several years of the loan, and still provides MassHousing's signature MIPlus® unemployment benefit protection that pays a borrower's monthly principal and interest payment for up to six months if the borrower becomes unemployed.

Prepaid Reinsurance Premiums

Prepaid reinsurance premiums are the unamortized portion of the reinsurance premiums paid to the reinsurer. The premiums paid are being amortized over the expected average life of the related loans, which ranges from 6 to 10 years depending on the policy.

Administrative Expenses / Related Party Transactions

MassHousing allocates overhead expenses, including payroll, payroll related, rent and other operating costs to MIF. Because of the relationship between MassHousing and MIF, it is possible that the allocation is different from what it would be in an arm's length transaction.

Loss Reserves and Provision for Losses

The loss reserves is a valuation allowance that reflects an estimate of insurance losses related to the MIF's insured portfolio. An evaluation is performed which takes into consideration such factors as delinquency and default data, claims experience, reinsurance policies in place, and settlement expenses. MIF establishes a loss reserve when deemed necessary.

Note C. Cash, Cash Equivalents, and Investments

MIF follows MassHousing's approved Investment Policy. This policy is designed to ensure the prudent management of funds and the availability of operating and capital funds when required, while earning a competitive return within the policy framework. The primary objectives of investment activity, in order of priority, are safety of principal, liquidity, and investment yield.

Under MassHousing's approved Investment Policy, adopted April 13, 2021, authorized investments may include:

1. U.S. Treasury/U.S. Government Guaranteed Obligations
2. Federal Agency or U.S. government sponsored enterprises (GSE) obligations
3. Agency or GSE Mortgage Backed Securities
4. U.S. Instrumentalities ("Supranationals") – U.S. dollar denominated debt obligations of a multilateral organization of governments for which the United States government is a participant, shareholder, and/or voting member with minimum ratings of AAA/Aaa (or the equivalent) or A-1/P-1 (or the equivalent) by any one rating agency.
5. Municipal Bonds – Minimum ratings of A-/A3 (or the equivalent) or SP-1/MIG 1 (or the equivalent) by any one rating agency.
6. Corporates and Other Debt Obligations – Minimum ratings of A-/A3 (or the equivalent) or A-1/P-1 (or the equivalent) by any one rating agency.
7. Commercial Paper – Minimum ratings of A-1/P-1 (or the equivalent) by any one rating agency.
8. Asset-Backed Securities - Minimum ratings of AAA/Aaa (or the equivalent) or A-1+/P-1 (or the equivalent) by any one rating agency.
9. Bankers' Acceptances - Minimum ratings of A-1/P-1 (or the equivalent) by any one rating agency.
10. Negotiable Bank Deposit Obligations - Minimum ratings of A-/A3 (or the equivalent) or A-1/P-1 (or the equivalent) by any one rating agency.
11. Collateralized Bank Deposits
12. Insured Bank Deposits
13. Money Market Funds – Maintain the highest rating at the time of investment from Standard & Poor's or Moody's, or the equivalent from a nationally-recognized statistical rating organization (NRSRO).
14. Massachusetts Municipal Depository Trust ("MMDT")
15. Repurchase agreements - The counterparty maintains a short-term credit rating of at least A-1/P-1 (or the equivalent) by any one rating agency and has been in operation for at least five years.
16. Investment agreements or guaranteed investment contracts - Minimum ratings of at least AA-/Aa3 (or the equivalent) from any one rating agency. Short term investment agreements with durations of less than three years may be entered into with companies that have a short term rating of at least SP-1/VMIG1/F1 (or the equivalent) from any one rating agency.
17. Any other investments expressly permitted by Commonwealth statute and authorized by MassHousing.

MMDT is an external investment pool not subject to U.S. Securities and Exchange Commission registration but regulated by the Treasurer of the Commonwealth. MMDT's manager seeks to maintain a net asset value at $1.00 per share.

MIF's investment balances are maintained in order to meet the capital adequacy reserves required to underwrite mortgage insurance risk. At June 30, 2022 and 2021, under S&P's reserve methodology, MIF was required to maintain a reserve of $63.0 million and $56.0 million, respectively, to underwrite MIF's insurance in force. MIF met the required capital adequacy reserves at both June 30, 2022 and 2021.

At June 30, 2022, MIF had the following investments and cash equivalents and their maturities (in thousands):

	Total Cost, Amortized Cost or Fair Value	Investment Maturities (in Years) Less Than 1	1-5	6-10	More Than 10
Corporate Obligations	$ 38,941		$ 37,708	$ 1,233	
GSE MBS and Obligations	28,529	$ 4,524	12,934	3,498	$ 7,573
U.S. Treasuries	28,304	16,177	12,127		
Cash Equivalents	11,405	11,405			
Asset-Backed Securities	8,246		7,151	1,095	
Negotiable Bank Debt Obligations	8,170	8,170			
Government Guaranteed Obligations	6,027		6,027		
Commercial Paper	1,979	1,979			
Total Investments and Cash Equivalents	$ 131,601	$ 42,255	$ 75,947	$ 5,826	$ 7,573

At June 30, 2021, MIF had the following investments and cash equivalents and their maturities (in thousands):

	Total Cost, Amortized Cost or Fair Value	Investment Maturities (in Years) Less Than 1	1-5	6-10	More Than 10
GSE MBS and Obligations	$ 48,677	$ 6,210	$ 27,397	$ 4,804	$ 10,266
U.S. Treasuries	29,032	372	28,660		
Corporate Obligations	14,177		14,177		
Cash Equivalents	12,440	12,440			
Commercial Paper	11,713	11,713			
Negotiable Bank Debt Obligations	10,925	6,178	4,747		
Government Guaranteed Obligations	5,981		5,981		
Asset-Backed Securities	1,793		1,563	230	
Total Investments and Cash Equivalents	$ 134,738	$ 36,913	$ 82,525	$ 5,034	$ 10,266

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Under MassHousing's Investment Policy, followed by MIF, in order to minimize interest rate risk, the investment portfolio is structured so that the maturities of the investments are scheduled to meet the timing of cash requirements for ongoing operations. MIF thereby avoids the need to sell investments on the open market prior to their maturities. Interest rate risk is also minimized by investing operating funds primarily in money-market funds that are backed with U.S. Treasury obligations and/or in the MMDT.

Credit Risk and Custodial Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. Custodial credit risk is the risk that, in the event of the failure of the counterparty to a transaction, MIF will not be able to recover the value of its investment from the custodian.

MIF mitigates credit risk and custodial credit risk by limiting investments to those permitted by the approved Investment Policy and investing or entering into custodial arrangements with institutions which meet the specified criteria such as, but not limited to, minimum levels of capital, surplus, and specified minimum ratings by recognized rating agencies.

MIF had the following money-market fund investments at June 30, 2022 and 2021 for which credit ratings had been issued (in thousands):

	June 30, 2022		June 30, 2021	
Money Market Fund	**Amount**	**S&P Rating**	**Amount**	**S&P Rating**
First American Government Obligation Money Market Fund	$ 11,405	AAAm	$ 12,440	AAAm
Total Money Market Funds	**$ 11,405**		**$ 12,440**	

Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of MIF's investment in a single issuer. MIF diversifies its investment portfolio to minimize the impact of potential losses from one type of security or individual issuer, excluding U.S. Treasuries, GSEs, and the MMDT. When making new investment decisions, MIF seeks to limit new investment concentration to no more than approximately 15% with any single counterparty. This limit may be exceeded under appropriate circumstances that mitigate risk, which may include, but are not limited to, the short term of the investment, the amount and nature of the investment, the rating of the counterparty, or the amount of collateral pledged by the counterparty.

Cash Deposits

Cash balances on the Statement of Net Position at June 30, 2022 and 2021 were approximately $8 thousand and $54 thousand, respectively. These balances were fully insured by the FDIC (see Note B).

Fair Value

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants in the principal market or, if none exists, the most advantageous market, for the specific asset or liability at the measurement date ("exit price"). The fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value is as follows:

Level 1 – Quoted prices (unadjusted) in active markets for identical assets or liabilities at the measurement date.

Level 2 – Inputs, other than quoted prices included in Level 1 that are observable for the asset and liability, either directly or indirectly, for substantially the full term of the asset or liability.

Level 3 – Prices or valuation techniques that require inputs that are both significant to the fair value measurement and unobservable.

MIF has the following recurring fair value measurements as of June 30, 2022 and June 30, 2021:

- U.S. Treasuries purchased with an initial maturity of more than one year are valued using quoted market prices for identical instruments (Level 1 inputs)
- U.S. Treasuries purchased with an initial maturity of one year or less are recorded at amortized cost, which approximates fair value (Level 2 inputs)
- GSE MBS and Obligations are valued using quoted market prices for similar instruments (Level 2 inputs)
- Government Guaranteed Obligations purchased with an initial maturity of more than one year are valued using quoted market prices for similar instruments (Level 2 inputs)
- Government Guaranteed Obligations purchased with an initial maturity of one year or less are recorded at amortized cost, which approximates fair value (Level 2 inputs)
- Negotiable Bank Debt Obligations with an initial maturity of more than one year are valued using quoted market prices for similar instruments (Level 2 inputs)
- Negotiable Bank Debt Obligations with an initial maturity of one year or less are recorded at amortized cost, which approximates fair value (Level 2 inputs)
- Corporate Obligations are valued using quoted market prices for similar instruments (Level 2 inputs)
- Commercial Paper is valued using amortized cost, which approximates fair value (Level 2 inputs)
- Asset-Backed Securities are valued using quoted market prices for similar instruments (Level 2 inputs)

MIF had the following Investments, which are measured at fair value as of June 30, 2022:

Investment Measured at Fair Value
(in thousands)

June 30, 2022	**Total Fair Value 06/30/22**	**Quoted Prices in Active Markets (Level 1)**	**Significant Other Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**
Investments by fair value level				
Debt securities				
Corporate Obligations	$ 38,941		$ 38,941	
GSE MBS and Obligations	28,529		28,529	
U.S. Treasuries	28,304	$ 18,431	9,873	
Asset-Backed Securities	8,246		8,246	
Negotiable Bank Debt Obligations	8,170		8,170	
Government Guaranteed Obligations	6,027		6,027	
Commercial Paper	1,979		1,979	
Total Debt Securities	**$ 120,196**	**$ 18,431**	**$ 101,765**	**$ -**

MIF had the following Investments, which are measured at fair value as of June 30, 2021:

Investment Measured at Fair Value
(in thousands)

June 30, 2021	**Total Fair Value 06/30/21**	**Quoted Prices in Active Markets (Level 1)[1]**	**Significant Other Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**
Investments by fair value level				
Debt securities				
GSE MBS and Obligations	$ 48,677		$ 48,677	
U.S. Treasuries	29,032		29,032	
Corporate Obligations	14,177		14,177	
Commercial Paper	11,713		11,713	
Negotiable Bank Debt Obligations	10,925		10,925	
Government Guaranteed Obligations	5,981		5,981	
Asset-Backed Securities	1,793		1,793	
Total Debt Securities	**$ 122,298**	**$ -**	**$ 122,298**	**$ -**

[1] Due to an immaterial adjustment, the following investments and amounts presented in the June 30, 2021 table above have been reclassified from Level 1 to Level 2: GSE MBS Obligations ($48,667), U.S. Treasuries ($29,032), Corporate Obligations ($14,177) ,Negotiable Bank Debt Obligations ($5,940), Government Guaranteed Obligations ($5,981), and Asset-Backed Securities ($1,793).

Note D. Administrative Expenses

Overhead expenses allocated to MIF by the Agency during the fiscal years 2022 and 2021 were approximately $1.5 million and $640 thousand, respectively. The interfund payable due to the WCF at June 30, 2022 and 2021 was $970 thousand and $80 thousand, respectively.

Note E. Claims Paid, Net

Claims paid, net represents claim expenses incurred by MIF, less claim recoveries from third party reinsurers. For FY 2022, MIF had total claim expenses of approximately $292 thousand and claim recoveries totaling approximately $98 thousand, yielding a net claim of approximately $194 thousand. For FY 2021, MIF had total claim expenses of approximately $1.0 million and claim recoveries totaling approximately $44 thousand, yielding a net claim of approximately $977 thousand.

Note F. Promissory Notes

In an effort to recoup some of the claims paid out as a result of granting a short-sale transaction to a borrower (a real estate sale in which the proceeds from the sale fall short of the balance owed on the loan secured by the property sold), MIF requests that the borrower assume responsibility for the unpaid mortgage loan balance at the time of the short-sale, or some other agreed upon amount, by signing an uncollateralized promissory note. MIF did not enter into any promissory note agreements in FY 2022 or FY 2021. Due to the risky nature of these loans, a reserve allowance for 100% of the amount of the note is recorded at the time of its issuance. Notes outstanding as of June 30, 2022 and 2021 were $17 thousand and $32 thousand, respectively. Recoveries on promissory notes during FY 2022 and FY 2021 were $15 thousand and $47 thousand, respectively.

Note G. Reinsurance Contracts

MIF has reinsurance arrangements with independent insurers to provide greater diversification of risk, minimize exposures on large losses, and allow MIF to access increased limits of liability. MIF regularly evaluates the financial condition of its reinsurers and monitors the counterparty risk to minimize significant exposure. Although reinsurance agreements contractually obligate MIF's reinsurers to reimburse it for their proportionate share of losses, they do not discharge MIF's primary responsibility to pay the loss claim.

MIF has reinsurance agreements with the Mortgage Guaranty Insurance Corporation (MGIC), United Guaranty Residential Insurance Corporation (UG), Enact Mortgage Insurance Corporation (EMIC) (formerly known as Genworth Mortgage Insurance Corporation) and Willis Re, acting as a broker for Aspen Insurance UK Limited, Everest Reinsurance Company, Insurance Company of the West, Markel Global Reinsurance Company, Partner Reinsurance Europe SE (Zurich Branch), and Partner Reinsurance Company of the U.S. These agreements provide reinsurance of MassHousing's HomeOwnership loans and, in certain cases, other conventional mortgage loans purchased by MassHousing, loans which were made to persons and families of low- and moderate-income which were originated by other mortgage lenders on Massachusetts one-to-four-unit, owner-occupied residential dwellings, as well as other bank portfolio loans held by Massachusetts banks.

Under each agreement, MIF retains a 10% share of the insurance coverage written on any reinsured loan and the reinsurer reinsures the remaining 90% of the coverage. In addition to

MIF's 10% quota share, MIF receives a ceding commission ranging from 20% to 37% of the reinsurance premiums paid under the MGIC, UG, EMIC and Willis Re agreements. The first contract with EMIC includes an excess of loss coverage which costs 1.7% of the gross written premium. The net benefits to MIF under the agreements are likely to range from 26.3% to 43.3% of the premiums for the assumption of 10% of the mortgage risk. Under certain circumstances, MIF may be due additional commissions contingent upon reinsurer operational results.

At June 30, 2022 and 2021, the S&P ratings of the reinsurers were as follows:

Reinsurance Contract Providers	June 30, 2022	June 30, 2021
Aspen Insurance UK Limited	A-	A-
Enact Mortgage Insurance Corporation	BBB	BB+
Everest Reinsurance Company	A+	A+
Insurance Company of the West[1]	A	A
Markel Global Reinsurance Company	A	A
Mortgage Guaranty Insurance Corporation	BBB+	BBB+
Partner Reinsurance Company of the U.S.	A+	A+
Partner Reinsurance Europe SE (Zurich Branch)	A+	A+
United Guaranty Residential Insurance Corporation	A+	A

[1] Not rated by S&P, rate reflected is from A.M. Best

Reinsurance Credit Risk

Reinsurance credit risk is the risk that an issuer or other counterparty to a mortgage reinsurance contract will not be able to fulfill its obligations.

Concentration of Reinsurance Credit Risk

Concentration of reinsurance credit risk is the risk of loss attributed to the magnitude of MIF's reinsurance activity with a single underwriter. MIF diversifies its reinsurance activity to minimize the impact of potential losses from one individual issuer

At June 30, 2022 and 2021, the amounts reinsured were as follows (in thousands):

	June 30, 2022		June 30, 2021	
	Reinsurance Amount	% of Total	Reinsurance Amount	% of Total
Everest Reinsurance Company	$ 899,069	59.8%	$ 889,847	59.2%
Partner Reinsurance Company of the U.S.	177,656	11.8%	255,605	17.0%
Partner Reinsurance Europe SE	162,403	10.8%	220,767	14.7%
Aspen Insurance UK Limited	107,519	7.1%	35,909	2.4%
Insurance Company of the West	53,760	3.6%	17,954	1.2%
Markel Global Reinsurance Company	53,760	3.6%	17,954	1.2%
Enact Mortgage Insurance Corporation	34,695	2.3%	45,065	3.0%
Mortgage Guaranty Insurance Corporation	10,449	0.7%	13,251	0.9%
United Guaranty Residential Insurance Corporation	5,061	0.3%	6,013	0.4%
Total Reinsurance	$ 1,504,372	100.0%	$ 1,502,365	100.0%

Note H. MIPlus®

In addition to providing traditional mortgage insurance coverage, MIF also provides under its MIPlus® program, additional mortgage payment protection on new loans insured on or after July 1, 2004. The MIPlus® program pays the borrower's monthly mortgage principal and interest requirements for up to six months if the borrower becomes an "enrolled unemployed," as defined by the Commonwealth's unemployment compensation program. MIPlus® payments are made directly to the borrower's mortgage loan servicer and are designed to keep the mortgage loan current, avoiding foreclosure, loan loss, and mortgage insurance claims. MIF paid 125 MIPlus® claims for a total of $144 thousand during FY 2022 and 1,012 MIPlus® claims for a total of $973 thousand during FY 2021.

Note I. Loss Reserves

Loss reserves are determined by a review and analysis of loan delinquencies and claims reported, in addition to an estimate of claims incurred but not yet reported, reinsurance policies in place, and settlement expenses. These reserves are based on the experience of MIF's existing insurance portfolio, taking into consideration an analysis prepared by an independent consultant overseen by management and the Agency's existing single-family mortgage loan portfolio and current standard industry derived delinquency and default data. Loss reserves are after applying loss coverage of the reinsurers. Loss reserves are periodically reviewed and updated and any required adjustments are reflected in the current provision for potential losses.

The table below summarizes the increase and decreases in the loss reserve balance for the fiscal years ended June 30, 2022 and June 30, 2021:

Loss Reserves	**June 30, 2022**	**June 30, 2021**
Beginning Balance	$ 4,313	$ 4,703
Decrease	(2,335)	(390)
Ending Balance	$ 1,978	$ 4,313

Actuarial estimates are subject to uncertainty from various sources, including changes in claim reporting patterns, claim settlement patterns, judicial decisions, legislation, and economic conditions. Analysis of future operating results involves estimates of future contingencies. The estimates make no provision for extraordinary future emergence of new classes of losses not sufficiently represented in MIF's historical databases, or that are not yet quantifiable.

Differences between estimates and actual results depend on the extent to which future experience conforms to the assumptions made for the analysis. It is likely that actual experience will not conform exactly to the assumptions to be used in the analysis. Actual amounts could differ from projected amounts, and the differences could be material to the financial statements.

Note J. Commitments and Contingencies

Capital Requirements

MIF is subject to various capital requirements under its Escrow Agreement and under PMIERS. The most restrictive requirement is the Required Reserve Balance under its Escrow Agreement which requires MIF to maintain capital reserves based on the risk of the insured portfolio and ten years of general and administrative expenses. On June 30, 2022 and 2021, the requirement was $63.0 million and $56.0 million, respectively.

Note K. Events Subsequent to June 30, 2022

MIF has performed an evaluation of subsequent events and transactions from June 30, 2022 through September 23, 2022, the date the financial statements were available to be issued. MIF has determined that there were no material events or transactions that would require disclosure in the financial statements through this date.