
General Retirement System of the City of Detroit

**Financial Report
with Supplemental Information
June 30, 2022**

General Retirement System of the City of Detroit

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Independent Auditor's Report

To the Board of Trustees
General Retirement System of the City of Detroit

Opinion

We have audited the financial statements of the General Retirement System of the City of Detroit (the "System") as of and for the year ended June 30, 2022 and the related notes to the financial statements, which collectively comprise the System'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 fiduciary net position of the System as of June 30, 2022 and the changes in its fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report. We are required to be independent of the System 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 opinion.

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 the System's ability to continue as a going concern for 12 months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditor's 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 auditor's report that includes our opinion. 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 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.

To the Board of Trustees
General Retirement System of the City of Detroit

In performing an audit in accordance with 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 System'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 System'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 and other required supplemental information, as identified in the table of contents, be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, which 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.

Supplemental Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the System's basic financial statements. The other supplemental information, as identified in the table of contents, is presented for the purpose of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the other supplemental information is fairly stated in all material respects in relation to the basic financial statements as a whole.

To the Board of Trustees
General Retirement System of the City of Detroit

Report on Summarized Comparative Information

We have previously audited the System's June 30, 2021 financial statements, and we expressed an unmodified audit opinion on those audited financial statements in our report dated November 30, 2021. In our opinion, the summarized comparative information presented herein as of and for the year ended June 30, 2021 is consistent, in all material respects, with the audited financial statements from which it has been derived.

Plante & Moran, PLLC

December 5, 2022

General Retirement System of the City of Detroit

Management's Discussion and Analysis

As management of the General Retirement System of the City of Detroit (DGRS or the "System"), we offer readers this narrative overview and analysis of the financial activities for the year ended June 30, 2022.

Using This Annual Report

This annual report consists of three parts: (1) management's discussion and analysis (this section), (2) the basic financial statements, and (3) the required supplemental information. The financial statements also include notes that explain some of the information in the financial statements and provide more detailed data. The financial statements are followed by sections of required supplemental information that further explain and support the information in the financial statements.

Financial Highlights

As society learns to live in the post-COVID-19 world, most businesses that interact with their customers face-to-face are fully open. Vaccines, testing, and more knowledge of the virus have made most people more comfortable working in an in-person environment. People are dining out, shopping, going to concerts, and working. However, there are other businesses that are not required to interact face-to-face with the public that have adopted either a hybrid or fully remote work model.

Unfortunately, while working our way back to our new normal, we find ourselves in an economic crisis. Here in the United States, we are seeing inflation hit highs that we have not seen in decades. Consumer interest rates are high, and job growth is slowing. The federal reserve bank has been raising interest rates to slow the economy and combat inflation, but its looking more and more like there will not be a slowing of the economy or a reduction in inflation without causing a recession. Many economists and finance professionals are bracing for the recession to begin in 2023. The severity of the predicted recession is unknown.

The slowing of the economy and looming recession has caused a downturn in the financial markets. The equity and bond markets are both down. This year, the System posted an investment return loss of 7.34 percent.

While today's landscape is ever changing, we remain committed to providing exceptional service to our members and protecting and growing the assets of the System.

Condensed Financial Information

The tables below compare key financial information in a condensed format between the current year and the prior year:

	<u>2022</u>	<u>2021</u>
Assets	\$ 1,864,607,863	\$ 2,170,799,791
Liabilities	<u>74,082,376</u>	<u>93,946,613</u>
Fiduciary Net Position		
Restricted:		
Pension	1,765,307,963	2,046,753,718
Postemployment benefits other than pension	<u>25,217,524</u>	<u>30,099,460</u>
Total fiduciary net position	<u><u>\$ 1,790,525,487</u></u>	<u><u>\$ 2,076,853,178</u></u>

General Retirement System of the City of Detroit

Management's Discussion and Analysis (Continued)

	2022	2021
Additions		
Net investment income (loss):		
Interest, dividends, and other income	\$ 41,900,716	\$ 37,998,415
Net (decrease) increase in fair value of investments	(153,266,843)	429,689,222
Investment-related expenses	(10,176,199)	(9,999,193)
Net investment (loss) income	(121,542,326)	457,688,444
Securities lending income	96,499	523,749
Contributions:		
Employer	63,695,698	59,590,984
Employee	16,205,029	14,748,919
Foundation	375,000	375,000
Total contributions	80,275,727	74,714,903
ASF recoupment interest	5,775,503	6,739,858
Other income	294,045	870,543
Total additions - Net	(35,100,552)	540,537,497
Deductions		
Benefit payments	225,802,140	228,564,857
Member refunds and withdrawals	19,729,042	15,465,278
General and administrative expenses	4,474,226	3,339,815
ASF recoupment write-off	1,221,731	1,171,513
Total deductions	251,227,139	248,541,463
Net (Decrease) Increase in Net Position Held in Trust	\$ (286,327,691)	\$ 291,996,034

Fund Overview, Membership, and Governance

The pension plans of the General Retirement System of the City of Detroit consist of defined benefit pension plans and defined contribution plans for the nonuniformed employees of the City of Detroit, Michigan, composed of Component I and Component II, which are memorialized in a document titled the Combined Plan for the General Retirement System of the City of Detroit, Michigan, made effective July 1, 2014, as amended and restated December 8, 2014 (the "Combined Plan"). The System also manages open and closed death benefit funds (collectively, the "Death Benefit Plans"). The Death Benefit Plans are held in a separate trust; the board of the Death Benefit Plans is substantially the same as the board of the pension plans. This discussion and its accompanying financial statements are concerned primarily with Component I, a new pension plan created by the City effective July 1, 2014 for active nonuniformed employees of the City to earn pension benefits on and after that date (also referred to as the "Hybrid Plan"), and Component II, the legacy pension plan where benefits were earned through June 30, 2014 (the "Legacy Plan").

As discussed in greater detail below, at the conclusion of the 2014 fiscal year, the City froze Component II. The freeze of Component II, which was the pension plan that existed as of June 30, 2014, means that no further benefit accruals occurred after that date, and no new employees are allowed to participate as members.

DGRS exists to pay benefits to its members. Members of the System include active nonuniformed city employees, retirees, and their beneficiaries. Active members still employed with the City on and after July 1, 2014 earn service credit that entitles them to receive benefits in the future in Component I but not in Component II, which, as noted above, has been frozen. Both the employer and municipal plan sponsor for the System, the City, and actively employed members have historically contributed to the System (the employee contributions were voluntary prior to July 1, 2014). Retirees, their beneficiaries, and disabled members are those currently receiving benefits, though the City elected in fiscal year 2015 to transition new disability claims from the benefit program administered by the System to one administered by a third-party insurance carrier.

General Retirement System of the City of Detroit

Management's Discussion and Analysis (Continued)

Component I of DGRS is a newly created plan (effective July 1, 2014), with more active members earning service credit than members eligible to receive or receiving benefits. As of June 30, 2021, there were 4,715 active members, with 587 retirees and 886 terminated plan members entitled to but not yet receiving benefits.

Component II of DGRS is a relatively mature plan in that there are more members receiving current benefits than active members. As of June 30, 2021, in Component II there were 2,185 active members, with 11,173 members receiving benefits and 2,645 terminated plan members entitled to but not yet receiving benefits. On June 30, 2014, the emergency manager of the City of Detroit, Michigan issued Order No. 30, which froze Component II. After that date, no new employees were allowed to participate in Component II, and benefit accruals for members with respect to service rendered prior to July 1, 2014 were frozen based on the member's years of service, average final compensation, and the pension multiplier formula as of the freeze date. Employees working after July 1, 2014 are now earning service credit in the Hybrid Plan, or Component I.

By way of background, a brief review of the City's migration from the Legacy Plan to the Hybrid Plan is appropriate. On June 30, 2014, the emergency manager of the City of Detroit, Michigan issued Order No. 30, which froze Component II. After that date, no new employees were allowed to participate in Component II, and benefit accruals for members with respect to service rendered prior to July 1, 2014 were frozen based on the member's years of service, average final compensation, and the pension multiplier formula as of the freeze date. Employees working after July 1, 2014 are now earning service credit in the Hybrid Plan, or Component I. On July 1, 2014, the City first published the Combined Plan with the city clerk. By August 1, 2014, the City completed the payroll information systems project transitions required to allow the now mandatory employee contributions to be contributed to Component I.

On October 19, 2014, the emergency manager issued Order No. 43, which amended and restated the Combined Plan. On December 8, 2014, before leaving office, the emergency manager issued Order No. 44, which again amended and restated the Combined Plan. According to Order No. 44, the latest amendments and restatements to the Combined Plan conformed the combined plan terms to the requirements of the City's bankruptcy plan and made clarifying modifications. The Combined Plan is available at DGRS' website, www.rscd.org.

In December 2014, DGRS governance was modified as part of the City's bankruptcy plan. DGRS is governed by a board of trustees (the "Board"). Although DGRS' investment management is now the ultimate responsibility of a seven-member investment committee (the "Investment Committee"), the Board maintains its role as the governing board vested with responsibility for the general administration, management, and operation of the System, with which the Investment Committee assists, pursuant to Michigan law.

The Board is composed of 10 members. Five members are elected by the active membership to serve six-year terms. A sixth member is elected by the retiree membership to serve a two-year term. A seventh member is appointed by the mayor of the City of Detroit, Michigan from the citizens of the City to serve a six-year term. The three remaining members serve ex officio, these members being the mayor of the City (or designee), the city treasurer, and one representative from the Detroit City Council. Expirations of terms of elected trustees are staggered, while the remaining trustees serve in accordance with their office or as a designee of an office.

The Investment Committee has five independent members appointed to initial terms with staggered expirations, which terms will all eventually become six years. Two additional members, one active and one retired, serve on the Investment Committee based on appointment by the Board. The Investment Committee will be in place through at least December 2034.

Contributions to the System

Historically, both the City and active employees have made regular contributions to the System, with employee contributions being optional in Component II, essentially before July 1, 2014, though there was a period of transition due to the City's aging information technology infrastructure, which meant that voluntary employee contributions to Component II continued through July 2014, and mandatory employee contributions to Component I from active payroll were implemented as of August 1, 2014.

General Retirement System of the City of Detroit

Management's Discussion and Analysis (Continued)

Basic pension and disability benefits in Component II had been funded through employer contributions plus investment earnings on those contributions, but employee contributions are mandatory in Component I. The required employer contributions had been determined by the System's actuaries using the entry age normal cost method, which is still the case. Assumptions used by the actuaries are subject to experience testing every five years, which is also still the case. Effective December 10, 2014, as part of the resolution of the Chapter 9 case, the investment return assumption and discount rate used by the System's actuary for the purpose of determining the System's assets and liabilities for funding purposes was fixed at 6.75 percent through the period ending June 30, 2023. This applies to both Component I and Component II.

Subsequent to the City's bankruptcy, for the Legacy Plan, the obligations for contributions to support Component II of the System through 2023 are determined as fixed amounts by the provisions in the Plan of Adjustment. Pursuant to the Plan of Adjustment, the System is expected to receive contributions totaling \$718.6 million through fiscal year 2023. The Plan of Adjustment calls for the System to receive \$98.8 million from the State of Michigan; \$428.5 million from the Detroit Water and Sewer Department (DWSD); \$31.7 million from UTGO settlement proceeds; the present value equivalent or actual contribution of \$50 million from the Detroit Institute of Arts (DIA) and its foundation donors during a 10-year period ending in 2024; the present value equivalent or actual contribution of \$18.3 million per year from 2025 through 2034 from certain foundations; and \$114.6 million from the other city-related employer contribution sources, such as the General Fund, Detroit Library Commission, and COBO Authority, over a 10-year period covering fiscal year 2014 through fiscal year 2023. After 2023, the City and various other employer constituents, such as the library, DWSD, and COBO Authority, will retain responsibility for the full funding obligations of Component II of the System, consistent with Michigan law.

The Plan of Adjustment allows for certain of the Legacy Plan's funding obligations to DGRS through 2034 to be met by prepayment of the present value equivalent using a discount rate of 6.75 percent. In the fiscal year ended June 30, 2016, a portion of the DIA obligation to make annual \$5 million contributions over 10 years ending in 2034 was prepaid. This present value prepayment resulted in DGRS receiving \$32,511,827 on June 30, 2016 from the DIA, which represents the present value, using a 6.75 percent discount rate, of \$4,625,000 per year for the 9 years remaining on that annual \$5,000,000 commitment ending in 2024. Pursuant to the Plan of Adjustment, DGRS still expects to receive the equivalent or actual remaining \$375,000 per year from the DIA for that 10-year period ending in 2024 and also received, on June 30, 2016, the amount of \$375,000 in satisfaction of the fiscal year 2016 obligation from the DIA that was not prepaid.

In addition, the City was to remit payments on the UTGO Stub Bonds to the Combined Plan through 2028. In fiscal year 2017, the City of Detroit, Michigan refunded all of its outstanding UTGO Stub Bonds. Upon refunding, the payments to the Combined Plan were accelerated, with a majority of the outstanding balance paid to the Combined Plan in fiscal year 2017; as a result, the Combined Plan received approximately \$7.7 million in the ISP and \$18.3 million in Component II related to this transaction.

With respect to Component I, the Hybrid Plan, nonuniformed employees who are members of DGRS are now required to make mandatory contributions of 4 percent of pay toward their defined benefit pensions earned with the City, and the City contributes an additional 5 percent of pay. The City no longer counts overtime in the calculation of its employer contribution.

The City is also setting aside an additional 0.75 percent of payroll to meet the premium payments required for the disability insurance established with a third-party carrier. DGRS is not administering those disability benefits managed by the third-party carrier.

On June 30, 2022, the City met its obligation for Component I employer contributions by contributing \$15,689,188 to DGRS.

Impact of City of Detroit, Michigan Collective Bargaining and Bankruptcy Pension Adjustments

Pursuant to Emergency Manager Order No. 30, the existing Component II defined contribution plan and defined benefit plan were frozen, preventing any future accruals or new members in Component II effective June 30, 2014.

General Retirement System of the City of Detroit

Management's Discussion and Analysis (Continued)

The following changes became effective July 1, 2014, with the advent of Component I:

- The Hybrid Plan's defined benefit plan commenced with mandatory contributions of 4 percent of base pay. The City contributes 5 percent of employee base pay, not including overtime.
- A new Hybrid Plan defined contribution plan commenced for the annuity savings fund. Employees may make voluntary annuity savings fund contributions of up to 7 percent of total after-tax pay. Interest will be credited at the actual net investment rate of return of DGRS, but in no event will it be lower than 0 percent or higher than 5.25 percent.
- The Hybrid Plan provides that future duty disability and nonduty disability retirement allowances for members who become disabled after July 1, 2014 move to a commercial insurance program through the City.

Benefit Payments

The System exists to pay the benefits that its members have earned pursuant to benefits promised by the City, subject to the Chapter 9 case benefit adjustments going forward in the Legacy Plan and the new promises in the Hybrid Plan. Benefits are paid monthly. In fiscal year 2022, DGRS paid out \$244,400,000 in benefits, consisting of \$224,700,000 in benefits to retirees and beneficiaries plus \$19,700,000 in refunds of annuity savings fund balances and mandatory contributions. The benefits and refunds represent approximately 14 percent of the net position of the System as of June 30, 2022. Employer, foundation, and employee contributions were \$80,100,000, or 4 percent of the net position of the System. The excess of benefits over contributions of \$164.4 million is funded through investment income. The public capital markets represent the primary source of opportunities to earn investment income.

Asset Allocation

The Board and the Investment Committee of DGRS believe that the principal determinant of total fund investment performance over long periods of time is asset allocation. DGRS' asset allocation is built upon the foundation that the obligations of the System to pay the benefits promised to its members are very long-term obligations. Accordingly, the Board and the Investment Committee must make investment decisions that they believe will be the most beneficial to the System over many years, not just one or two years.

DGRS has established asset allocation policies that are expected to deliver investment income over a very long period of time to satisfy the obligations to pay the benefits promised to the members of the System. The following is a summary of the DGRS asset allocation policy as of June 30, 2022:

Asset Class	Target Allocation
Global equity	46.00 %
Global fixed income	33.00
Real estate/Real assets	13.00
Diversifying strategies	8.00

DGRS' asset allocation policies comply with Michigan law.

Investment Results

DGRS calculates investment results on a time-weighted Global Investment Performance Standard (GIPS) basis unless explicitly stated otherwise. All returns for periods of one year or greater have been annualized.

Total Fund Composite

DGRS' total fund composite return for the year was (7.34) percent, net of fees and expenses using a time-weighted methodology. The fund returned 5.8 percent, 5.6 percent, and 7.4 percent for its 3-, 5-, and 10-year annualized returns, respectively, net of fees and expenses.

General Retirement System of the City of Detroit

Management's Discussion and Analysis (Continued)

Financial markets started the first half of the June 2022 fiscal year strong as equity markets rallied, and interest rates moved down slightly leading to a modest increase in bond valuations. The Federal Reserve began increasing interest rates due to rising inflation in early winter, which led to a selloff in bond valuations. With the Russian invasion of Ukraine, commodity prices, especially wheat, oil, and natural gas, spiked upward, causing inflation to rise to levels not seen in over 30 years. This forced the central banks around the world to increase interest rates more rapidly to slow inflation, which resulted in significant losses in bond valuations and their worst performance in over 40 years. As fears of a slowing global economy spread due to central banks increasing interest rates, equity markets around the world sold off, resulting in a global bear market as losses exceeded 20 percent.

As part of the resolution of the City of Detroit, Michigan's Chapter 9 bankruptcy case, the discount rate assumption used to meet current and future benefit obligations was set at 6.75 percent through the period ending June 30, 2023. This discount rate assumption provided in the Chapter 9 case does not purport to establish an investment return assumption or discount rate for purposes of, or in accordance with, generally accepted accounting principles. Although the fund's return for this year fell below this assumption, the fund's longer-term return expectation, which this assumption is intended to characterize, still exceeds this assumption.

Total plan returns, net of fees and expenses, for the recent prior fiscal years ended June 30 are shown below:

2021	28.30 %
2020	(0.96)
2019	3.40
2018	6.50
2017	14.10
2016	1.40
2015	2.60
2014	14.50
2013	11.70
2012	0.10

Money-weighted Rate of Return

GASB Statement No. 67 requires the disclosure of the annual money-weighted rate of return. A money-weighted rate of return (as opposed to the time-weighted rate of return discussed in the previous section) considers both the size and timing of cash flows over the course of the year to determine an internal rate of return (sometimes referred to as IRR). This return is calculated net of expenses and uses cash flows determined on a monthly basis. The DGRS money-weighted rate of return for the year using month-end cash flows was (7.27) percent.

Requests for Further Information

This financial report is intended to provide a general overview of the System's finances and investment results in relation to actuarial projections. It shows the System's accountability for the money it receives from employer and employee contributions. If you have questions about this report or need additional information, we welcome you to contact the System's office or visit its website at www.rscd.org.

General Retirement System of the City of Detroit

Statement of Fiduciary Net Position

June 30, 2022

	Component II Plan (Legacy)		Component I Plan (Hybrid)		Total
	Defined Benefit Fund	Income Stabilization Fund	Defined Benefit Fund	Death Benefit Plans	
Assets					
Cash and cash equivalents (Note 3)	\$ 28,671,736	\$ 581,251	\$ 14,876,255	\$ 1,431,948	\$ 45,561,190
Investments: (Notes 3 and 4)					
Global equities	630,333,961	4,866,269	67,650,549	15,006,082	717,856,861
Global fixed income	297,064,111	3,444,609	68,548,014	2,048,031	371,104,765
Real estate	249,143,314	2,081,053	34,759,148	1,837,563	287,821,078
Private equity	105,689,296	887,327	14,975,183	152,612	121,704,418
Diversifying strategies	112,624,093	945,551	15,957,778	4,844,624	134,372,046
Receivables:					
Investment income	2,380,298	18,725	272,929	-	2,671,952
Contributions (Note 1)	-	-	3,105,032	-	3,105,032
Other receivables	172,717	-	2	-	172,719
ASF recoupment receivable (Note 1)	95,719,734	-	-	-	95,719,734
Notes receivable from participants	2,491,580	-	604,129	-	3,095,709
Receivables from investment sales	1,721,118	12,974	168,342	-	1,902,434
Restricted investments (Note 11)	6,423,257	49,588	689,376	-	7,162,221
Cash and investments held as collateral for securities lending: (Note 3)					
Asset-backed securities	1,806,735	15,169	255,997	-	2,077,901
Repurchase agreements	8,668,838	72,780	1,228,293	-	9,969,911
U.S. corporate floating rate	46,153,716	387,490	6,539,549	-	53,080,755
Capital assets - Net (Note 1)	3,803,811	-	3,425,326	-	7,229,137
Total assets	1,592,868,315	13,362,786	233,055,902	25,320,860	1,864,607,863
Liabilities					
Accrued expenses	4,037,550	7,163	1,490,942	103,336	5,638,991
Payables for investment purchases	1,709,216	12,746	159,407	-	1,881,369
Due to the City of Detroit, Michigan	354,457	-	-	-	354,457
Amounts due to broker under securities lending agreements (Note 3)	55,690,062	467,553	7,890,760	-	64,048,375
Lease liability	1,230,735	-	928,449	-	2,159,184
Total liabilities	63,022,020	487,462	10,469,558	103,336	74,082,376
Net Position - Restricted for					
Pension	1,529,846,295	12,875,324	222,586,344	-	1,765,307,963
Postemployment benefits other than pension	-	-	-	25,217,524	25,217,524
Total net position	\$ 1,529,846,295	\$ 12,875,324	\$ 222,586,344	\$ 25,217,524	\$ 1,790,525,487

General Retirement System of the City of Detroit

Statement of Changes in Fiduciary Net Position

Year Ended June 30, 2022
(with comparative totals for the year ended June 30, 2021)

	Component II Plan (Legacy)		Component I Plan (Hybrid)		Total	2021
	Defined Benefit Fund	Income Stabilization Fund	Defined Benefit Fund	Death Benefit Plans		
Additions						
Investment income (loss):						
Interest, dividends, and other income	\$ 36,744,756	\$ 296,961	\$ 4,625,270	\$ 233,729	\$ 41,900,716	\$ 37,998,415
Net (decrease) increase in fair value of investments	(130,730,949)	(1,074,914)	(17,366,479)	(4,094,501)	(153,266,843)	429,689,222
Investment-related expenses	(8,864,420)	(71,870)	(1,151,622)	(88,287)	(10,176,199)	(9,999,193)
Net investment (loss) gain	(102,850,613)	(849,823)	(13,892,831)	(3,949,059)	(121,542,326)	457,688,444
Securities lending income (loss):						
Interest and dividends	189,146	1,528	23,782	-	214,456	209,774
Net (loss) gain on collateralized securities	(128,563)	(502)	11,108	-	(117,957)	313,975
Total securities lending income (loss)	60,583	1,026	34,890	-	96,499	523,749
Contributions:						
Employer	47,900,000	-	15,689,188	106,510	63,695,698	59,590,984
Employee	-	-	16,110,403	94,626	16,205,029	14,748,919
Foundation	375,000	-	-	-	375,000	375,000
Total contributions	48,275,000	-	31,799,591	201,136	80,275,727	74,714,903
ASF recoupment interest (Note 1)	5,775,503	-	-	-	5,775,503	6,739,858
Other income	252,284	780	40,981	-	294,045	870,543
Total additions - Net	(48,487,243)	(848,017)	17,982,631	(3,747,923)	(35,100,552)	540,537,497
Deductions						
Benefit payments	222,756,595	487,222	1,463,041	1,095,282	225,802,140	228,564,857
Member refunds and withdrawals	13,796,354	-	5,932,688	-	19,729,042	15,465,278
General and administrative expenses	2,541,080	-	1,894,415	38,731	4,474,226	3,339,815
ASF recoupment write-off	1,221,731	-	-	-	1,221,731	1,171,513
Total deductions	240,315,760	487,222	9,290,144	1,134,013	251,227,139	248,541,463
Net (Decrease) Increase in Fiduciary Net Position	(288,803,003)	(1,335,239)	8,692,487	(4,881,936)	(286,327,691)	291,996,034
Net Position Restricted for Pension/OPEB - Beginning of year	1,818,649,298	14,210,563	213,893,857	30,099,460	2,076,853,178	1,784,857,144
Net Position Restricted for Pension/OPEB - End of year	<u>\$ 1,529,846,295</u>	<u>\$ 12,875,324</u>	<u>\$ 222,586,344</u>	<u>\$ 25,217,524</u>	<u>\$ 1,790,525,487</u>	<u>\$ 2,076,853,178</u>

See notes to financial statements.

June 30, 2022

Note 1 - Significant Accounting Policies

Reporting Entity

The pension plans of the General Retirement System of the City of Detroit (the "System" or DGRS) and the Death Benefit Plans are managed by the Retirement System of the City of Detroit. The City of Detroit, Michigan (the "City") sponsors these plans, which consist of four single-employer retirement plans - two pension plans (the "Combined Plan") and two other postemployment benefit plans (the "Death Benefit Plans"), as described below.

Pension Plans

Component II

This is the legacy plan (the "Legacy Plan") that is the original defined benefit plan, which includes a defined benefit component and a defined contribution component. Component II generally applies to benefits accrued by members prior to July 1, 2014. On June 30, 2014, as a result of negotiations between the City and the public employee unions, the existing plan benefit formulas were frozen, and no employees were allowed to earn benefits under the existing plan. The emergency manager issued Order No. 30 (General Retirement System of the City of Detroit) on June 30, 2014, which put these changes into effect. Except as specifically provided in the Combined Plan, benefits provided under Component II are frozen effective June 30, 2014.

Component II also includes the Income Stabilization Fund. The fund, which is part of Component II only and established as a special plan of adjustment provision, was established for the sole purpose of paying the Income Stabilization Benefits and Income Stabilization Benefits Plus to eligible pensioners. A portion of the funds received by the Combined Plan from UTGO Stub Bonds tax proceeds is credited to the Income Stabilization Fund. The allocation is based on the aggregate payments to plan assignees included in the Eighth Amended Plan for the Adjustment of Debts of the City of Detroit (the "Plan of Adjustment" or the "POA"). Beginning in 2022, the Investment Committee may recommend to the board that a portion or all of the assets that exceed income stabilization benefits (including Income Stabilization Benefits Plus) to be paid in the future be used to fund regular pension payments. As of June 30, 2022, no decisions have been made to transfer any income stabilization funds.

Nonemployer Contributing Entity within Component II

On September 9, 2014, a memorandum of understanding (the "MOU") was entered into by the emergency manager and mayor of the City of Detroit, Michigan; the county executive of each of the charter counties of Wayne and Macomb, Michigan; the County of Oakland, Michigan; and the governor of the State of Michigan. The purpose of the MOU was to establish a framework for the creation of a regional authority (known as Great Lakes Water Authority or GLWA) pursuant to Act 233 of 1955 to operate, control, and improve the regional assets of the water supply system and the sewage disposal system owned by the City.

Pursuant to the MOU, the City of Detroit, Michigan and GLWA entered into two lease agreements: the Regional Water Supply System Lease dated June 12, 2015 and the Regional Sewage Supply System Lease dated June 12, 2015. Under the provisions of the lease agreements, GLWA leases the regional assets of the City for a period of at least 40 years.

Pursuant to the lease agreements, on December 1, 2015, a triparty agreement between the City of Detroit, Michigan; the General Retirement System of the City of Detroit (DGRS); and GLWA was signed (referred to as the pension reporting agreement). Per the POA and Section 4.3 of the lease agreements, GLWA is required to pay a portion of the pension obligation that will be allocable to the Detroit Water and Sewer Department (DWSD). The purpose of the pension reporting agreement is to set forth determining the funding status for the DWSD pension pool and for DGRS to agree to provide GLWA with certain actuarial and other reports to enable GLWA to properly manage and pay its portion of the pension obligation that is allocable to DWSD.

June 30, 2022

Note 1 - Significant Accounting Policies (Continued)

Effective January 1, 2016, GLWA was launched. Accordingly, the prior DWSD division was split into two - one representing the ongoing DWSD department, now referenced as DWSD-Retail (DWSD-R), and another to represent Great Lakes Water Authority. In accordance with the pension reporting agreement, the net position and liabilities of DWSD were allocated to DWSD-R and GLWA in accordance with written directions received from DWSD-R and GLWA. Per written directions, GLWA is to be allocated 70.3 percent of the net position and liabilities of DWSD. Because GLWA has no employees or retirees in the Combined Plan, GLWA is considered a nonemployer contributing entity in accordance with GASB Statement No. 67.

The financial statements of the Combined Plan reflect the net position and pension liabilities of the plan as a whole, which includes the portion allocable to GLWA. GLWA's portion of the total Component II net pension liability of \$911,864,450 at June 30, 2022 was \$63,174,609, with the remainder allocable to the City of Detroit, Michigan and related entities.

Component I

As of July 1, 2014, all current and future employees participate in the new hybrid pension plan (the "Hybrid Plan"), or Component I. Active city employees who participated in the Legacy Plan will receive the benefits they have earned under the plan through June 30, 2014 plus an additional benefit under the new hybrid plan formula, assuming all vesting requirements are met.

Other Postemployment Benefit Plans

Death Benefit Plans

Death benefits are provided to certain employees and retirees of the City of Detroit, Michigan through an employee benefit trust. The following are the benefit plans paid through the trust, both of which are defined benefit plans under GAAP:

- Closed Death Benefit Plan (Closed Plan) - This plan covers those retirees who retired on or before December 10, 2014.
- Death Benefit Plan (Open Plan) - This plan is open to all employees providing services after December 10, 2014.

System Reporting

The Combined Plan and the Death Benefit Plan are separate and independent trusts qualified under applicable provisions of the Internal Revenue Code; they are independent entities (separate and distinct from the employer/plan sponsor) as required by (1) state law and (2) Internal Revenue Code provisions setting forth qualified plan status. The trustees of the Combined Plan and the Death Benefit Plan have a fiduciary obligation and legal liability for any violations of fiduciary duties as independent trustees. The Combined Plan provides retirement, disability, and survivor benefits to plan members and beneficiaries. The Death Benefit Plan provides death benefits for plan members.

The assets of the System include no securities of or loans to the City, although the System did pledge collateral related to a loan of the City (see Note 11).

The basic financial statements include certain prior year summarized comparative information in total but not at the level of detail required for a presentation in accordance with generally accepted accounting principles. Accordingly, such information should be read in conjunction with the System's financial statements for the year ended June 30, 2021, from which the summarized information was derived.

June 30, 2022

Note 1 - Significant Accounting Policies (Continued)

Plan Sponsor Financial Condition - Impact on the System

In the past, the City of Detroit, Michigan (the "plan sponsor") has experienced significant financial difficulty and liquidity concerns. As of June 2013, the City had defaulted on approximately \$36 million of pension contributions due to the Combined Plan. During fiscal year 2014, the City did not pay any employer contributions into the Combined Plan, despite the fact that there were actuarially required contributions.

In February 2013, the governor appointed a financial review team, which determined that a local government financial emergency existed in the City. This culminated in bankruptcy proceedings, which the City initiated in July 2013. Part of the federal court's ruling in December 2013 indicated that the bankruptcy status usurped whatever protections may be offered to governmental pensions under the Michigan Constitution. On December 10, 2014, the City exited from bankruptcy through confirmation of the Eighth Amended Plan for the Adjustment of Debts of the City of Detroit. The POA specifies certain provisions pertinent to the legacy and hybrid plans, including contributions and benefits.

Since 2015, the contributions received by the Combined Plan were made in accordance with the provisions of the POA. See Note 12 for significant changes that were implemented by the Combined Plan under the POA.

The POA also resulted in the City closing the existing supplemental death benefit plan to new members effective December 10, 2014. Benefits to be paid to individuals retiring prior to that date are limited to the assets allocated to that closed plan. There are no further contribution requirements for the City for plan members who were retired as of that date.

Summary of Significant Accounting Policies

The following is a summary of the significant accounting policies used by the General Retirement System of the City of Detroit.

Accounting and Reporting Principles

The System follows accounting principles generally accepted in the United States of America (GAAP), as applicable to governmental units. Accounting and financial reporting pronouncements are promulgated by the Governmental Accounting Standards Board.

Basis of Accounting

The System uses the economic resources measurement focus and the full accrual basis of accounting. Revenue is recorded when earned, and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows. Plan member contributions are recognized in the period in which the contributions are due. Employer contributions are recognized when due pursuant to legal requirements. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

Specific Balances and Transactions

Cash and Cash Equivalents

The System considers cash on hand, demand deposits, and short-term investments with an original maturity of three months or less when purchased to be cash equivalents.

June 30, 2022

Note 1 - Significant Accounting Policies (Continued)

Investments

Investments are reported at fair value or estimated fair value. Short-term investments are reported at cost, which approximates fair value. Securities traded on a national or international exchange are valued at the last reported sale price at current exchange rates. Mortgages are valued on the basis of future principal and interest payments. The fair value of real estate investments is based on periodic appraisals, as well as the judgment of independent real estate advisors and management. Investments that do not have an established market value are reported at estimated fair value determined by the System's management.

Approximately \$783,400,000, or 44 percent, of the System's net position as of June 30, 2022 does not have a readily determinable market value. Of this balance, approximately \$21,400,000 has been estimated by management. The remaining \$762,000,000 is valued based on valuations performed by the investee company management, which is subject to annual audits (generally as of December 31).

Investments for which market quotations are readily available are generally priced by the custodian using nationally recognized pricing services and practices. For investments that do not have readily observable market prices, including but not limited to private equity, public and private real estate, alternatives, and direct loans, management's estimate of their fair value is based on information provided by investment managers, general partners, real estate advisors, and other means. These sources are held to a standard of reasonable care in verifying that the valuations presented reasonably reflect the underlying fair value of the investments. A variety of factors is considered in the valuation process, including the nature of the investment, local market conditions, trading values on public exchanges for comparable investments, and current and projected operating performance. However, due to the inherent uncertainty and the degree of judgment involved in determining fair value for such investments, the values reflected in the financial statements may differ significantly from values that would have been used had a readily determinable market value for the investments existed, and the difference could be material.

Contributions Receivable

At June 30, 2022, there was \$3,105,032 in employer contributions receivable. This amount relates to fiscal year 2022 Component I contributions and was paid in July 2022.

ASF Recoupment Receivable - Component II (Legacy)

For members who elected to make employee contributions into the defined contributions-style program, referred to as the annuity savings fund (ASF), between July 1, 2003 and June 30, 2013, the POA called for recoupment of amounts that the City calculated were excess interest credited to individual ASF accounts. In 2011, the City Council adopted an ordinance that limited ASF interest credits to the plan's actual net investment return, with a cap of 7.9 percent and a floor of 0 percent. The POA calculation of excess interest applies the interest formula in the 2011 ordinance to the July 1, 2003 - June 30, 2013 recoupment period, recouping all interest paid in excess of the lower of 7.9 percent or the plan's actual return for that year, with a cap on the recoupment amount of 20 percent of the highest ASF balance in this period. The recoupment amount is also capped at 15.5 percent of the retiree's monthly pension check. The City offered a limited lump sum or a monthly payment option. Repayment of these excess interest amounts is not optional. As of June 30, 2022, the System has approximately \$95,700,000 to be collected. The receivable will be collected, with 6.75 percent interest, as a reduction to monthly pension benefits for those with recoupment balances outstanding.

Receivable/Payable from Investment Sales/Purchases

The System liquidated investments prior to year end and reported a receivable from investment sales at June 30, 2022 in the amount of \$1,902,434. The proceeds from the sales were received subsequent to year end. In addition, the System purchased investments prior to year end and reported a payable from investment purchases at June 30, 2022 in the amount of \$1,881,369. This amount was paid subsequent to year end.

June 30, 2022

Note 1 - Significant Accounting Policies (Continued)

Notes Receivable from Participants

In Component II (Legacy) and Component I (Hybrid), any active general employee who is or has been a participant in the 1973 defined contribution plan (annuity savings fund) may be eligible for the employee loan program. The minimum amount of the loan was established at \$1,000. The maximum loan is the lesser of 50 percent of the member's account balance in the annuity savings fund or \$10,000. Members can borrow as either a general purpose loan payable in 1 to 5 years or a residential loan payable in 1 to 15 years. A member can have only two outstanding loans. The balance of these loans for the year ended June 30, 2022 was \$2,491,580 and \$604,129 for Legacy and Hybrid, respectively. The balance is measured at the unpaid principal balance plus any accrued but unpaid interest. Participant notes receivable are written off when deemed uncollectible.

Capital Assets

Capital assets for the System include software, office equipment, and furniture. Depreciation expense is calculated by allocating the net cost of the assets over their estimated useful lives.

Leases

The System is a lessee for its office building. The System recognizes a lease liability and an intangible right-to-use lease asset in the statement of fiduciary net position.

At the commencement of a lease, the City initially measures the lease liability at the present value of payments expected to be made during the lease term. Subsequently, the lease liability is reduced by the principal portion of lease payments made. The lease asset is initially measured as the initial amount of the lease liability, adjusted for lease payments made at or before the lease commencement date, plus certain initial direct costs. Subsequently, the lease asset is amortized on a straight-line basis over its useful life.

Key estimates and judgments related to leases include how the System determines (1) the discount rate it uses to discount the expected lease payments to present value, (2) lease term, and (3) lease payments. The System uses the interest rate charged by the lessor as the discount rate. When the interest rate charged by the lessor is not provided, the System generally uses its estimated incremental borrowing rate as the discount rate for leases. The lease term includes the noncancelable period of the lease. Lease payments included in the measurement of the lease liability are composed of fixed payments and purchase option price that the System is reasonably certain to exercise.

The System monitors changes in circumstances that would require a remeasurement of its lease and will remeasure the lease asset and liability if certain changes occur that are expected to significantly affect the amount of the lease liability.

Lease assets (reported with other capital assets) and lease liabilities are reported on the statement of fiduciary net position.

Restricted Assets

As part of an agreement with the City, the System has pledged collateral in case of the City's default on a certain loan agreement between the City and the United States Department of Housing and Urban Development (HUD) (see Note 11). At June 30, 2022, this amount has been shown as restricted assets on the statement of fiduciary net position.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of additions and deductions during the reporting period. Actual results could differ from those estimates.

Note 2 - Pension Plan Description

Component II (Legacy Plan) and Component I (Hybrid Plan)

Plan Administration

The Combined Plan's governance was modified in December 2014 as part of the City's bankruptcy plan. The Combined Plan's board of trustees and the Investment Committee administer the General Retirement System of the City of Detroit Pension Plan - a single-employer defined benefit and defined contribution plan that provides retirement benefits, as well as survivor and disability benefits, for plan members and beneficiaries. Plan members include active employees, retirees, and beneficiaries from various departments within the City of Detroit, Michigan. Benefit terms have been established by contractual agreements between the City and the employees' collective bargaining unit, as modified by the POA. Future amendments are subject to the same process. However, pursuant to the POA, pension benefit terms presently expressed in the Combined Plan are not subject to amendment before June 30, 2023, unless an amendment is required to maintain the tax-qualified status of the plans. The obligation to contribute to and maintain the Combined Plan was established by the city charter and negotiations with the employees' collective bargaining units.

The board is composed of 10 members. Five members of the board are elected by the active membership to serve six-year terms. One retiree member is elected by the retiree membership to serve a two-year term. One member is appointed by the mayor of the City of Detroit, Michigan from the citizens of the City to serve a six-year term. Three members serve ex officio, these members being the mayor of the City (or designee), the city treasurer, and one representative from the Detroit City Council. Expirations of terms of elected trustees are staggered.

The Investment Committee has five independent members appointed to initial terms with staggered expirations, which terms will all eventually become six years. Two additional members, one active and one retired, serve on the Investment Committee based on appointment by the board. The Investment Committee will be in place through at least December 2034.

Benefits Provided

The Combined Plan provides retirement and disability benefits. Benefit terms had been established by negotiations between the City Council and the employees' collective bargaining unit and subject to amendment by the City Council. Further changes to benefits were provided for under the POA.

Employees Covered by Benefit Terms

The following members were covered by the benefit terms:

	<u>Component II (Legacy Plan)</u>	<u>Component I (Hybrid Plan)</u>
Date of member count	June 30, 2021	June 30, 2021
Inactive plan members or beneficiaries currently receiving benefits	11,173	587
Inactive plan members entitled to but not yet receiving benefits	2,645	886
Active plan members	<u>2,185</u>	<u>4,715</u>
Total employees covered by the plan	<u><u>16,003</u></u>	<u><u>6,188</u></u>

As of June 30, 2014, Component II has been frozen. As of that date, no new participants were allowed to enter the plan, and no new benefit accruals were allowed for existing participants.

After July 1, 2014, active members will retain existing service credit in the Legacy Plan but will only earn existing service credit in the new Hybrid Plan.

June 30, 2022

Note 2 - Pension Plan Description (Continued)

Contributions

Article 9, Section 24 of the State of Michigan Constitution requires that financial benefits arising on account of employee service rendered in each year be funded during that year. Accordingly, in the past, the Combined Plan had retained an independent actuary to determine the annual contribution. The actuarially determined rate was the estimated amount necessary to finance the costs of benefits earned by plan members during the year, with an additional amount to finance any unfunded accrued liability. However, until 2024, contributions are based on specific provisions in accordance with the Plan of Adjustment.

Employer and Nonemployer Contributing Entity Contributions

Component II

For Component II, during fiscal year 2022, employer contributions are not actuarially determined but rather are determined by the provisions of the POA detailed under Exhibit II.B.3.r.ii.A of the POA. Included within contributions for fiscal year 2022 in Component II are contributions from the Foundation for Detroit's Future (the "Foundation") in the amount of \$375,000 and \$47.9 million of contributions from the city-related entities and GLWA.

Component I

For Component I, during fiscal year 2022, employer contributions are not actuarially determined but rather are determined by the provisions of the Combined Plan detailed under Section 9.3 of Component I. Per Section 9.3, commencing on July 1, 2014 and ending on June 30, 2023, the City is required to contribute 5 percent of compensation of active members. A portion of the employer's annual contribution for each plan year, as determined by the City, shall be credited to the rate stabilization fund reserve, with the remainder allocated to the pension accumulation fund reserve. During fiscal year 2022, the City and related entities contributed \$15,689,188 into the Hybrid Plan. Beginning in 2024, the employer contributions will be actuarially determined based on the amount necessary to fund the plan on an actuarial basis.

Because there were no actuarially determined contributions for Component I, there is no required schedule of city contributions included within these financial statements.

Employee Contributions

Component II

Contribution requirements of plan members historically were established and amended by the board of trustees in accordance with the city charter, union contracts, and plan provisions. For the year ended June 30, 2022, there were no employee contributions into Component II, as the plan was frozen as of June 30, 2014.

Component I

Contribution requirements of plan members are established in Sections 9.3 and 10.1 of Component I of the Combined Plan. For the year ended June 30, 2022, the required active member contribution rate for employees was 4.0 percent of annual pay. Additionally, employees can make voluntary contributions of 3 percent, 5 percent, or 7 percent of annual pay. During fiscal year 2022, the plan received mandatory and voluntary employee contributions of \$16,110,403.

June 30, 2022

Note 2 - Pension Plan Description (Continued)

Fiscal Responsibility Provision

To safeguard the long-term actuarial and financial integrity of the Combined Plan, in the event the funding level of Component I projected over a five-year period falls below 100 percent, certain remedial actions are required, as set forth in Section 9.5 of Component I of the Combined Plan, including elimination of COLA, transfers from the rate stabilization fund reserve to the pension accumulation fund reserve, and increases in mandatory employee contributions from 4 percent to 5 percent.

In the event the funding level of Component I is projected to fall below 80 percent, additional remedial actions are required, including further increasing the mandatory employee contributions to 6 percent and the potential for reducing the retirement allowance.

As of June 30, 2022, the enactment of the remedial actions has not been required based on actuarial projections of the funding levels.

Note 3 - Deposits and Investments

The System is authorized by Michigan Public Act 314 of 1965, as amended, to invest, within the pension and Death Benefit Plans, in certain reverse repurchase agreements, stocks, diversified investment companies, annuity investment contracts, real estate leased to public entities, mortgages, real estate, debt or equity of certain small businesses, certain state and local government obligations, and certain other specified investment vehicles.

The investment policy adopted by the board is in accordance with Public Act 196 of 1997 and has authorized investments according to Michigan Public Act 314 of 1965, as amended. The System's deposits and investment policies are in accordance with statutory authority.

The System invests in various investment securities. Investment securities are exposed to various risks, such as interest rate, market, credit risks, and overall market volatility. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect the amounts reported on the statement of changes in fiduciary net position.

The System's cash and investments are subject to several types of risk, which are examined in more detail below:

Custodial Credit Risk of Bank Deposits

Custodial credit risk is the risk that, in the event of a bank failure, the System's deposits may not be returned to it. The System does not have a deposit policy for custodial credit risk. Approximately \$3.8 million of the System's checking account balances was uninsured and uncollateralized at June 30, 2022. The System believes that, due to the dollar amounts of cash deposits and the limits of FDIC insurance, it is impractical to insure all deposits. As a result, the System evaluates each financial institution with which it deposits funds and assesses the level of risk of each institution; only those institutions with an acceptable estimated risk level are used as depositories.

Interest Rate Risk

Interest rate risk is the risk that the value of investments will decrease as a result of a rise in interest rates. The System's investment policy does not restrict investment maturities.

General Retirement System of the City of Detroit

Notes to Financial Statements

June 30, 2022

Note 3 - Deposits and Investments (Continued)

At year end, the System had the following investments and maturities:

Investment (in Thousands)	Fair Value	Less Than 1 Year	1-5 Years	6-10 Years	More Than 10 Years
Corporate bonds	\$ 150,454	\$ 8,992	\$ 111,705	\$ 19,385	\$ 10,372
U.S. government mortgage-backed securities	27,830	490	16,613	1,236	9,491
Mutual fund	34,373	-	32,325	2,048	-
Government securities	518	-	222	271	25
U.S. government securities	109,692	4,176	88,750	10,246	6,520
Asset backed	347	-	131	216	-

Not all fixed-income securities are subject to interest rate risk.

Credit Risk

State law limits investments in commercial paper to the top two ratings issued by nationally recognized statistical rating organizations. The System has no investment policy that would further limit its investment choices.

At June 30, 2022, the credit quality ratings of debt securities (other than those guaranteed by the U.S. government), as rated by Standard & Poor's, are as follows:

Investment (in Thousands)	AAA	AA	A	BBB	BB	B or lower	NR
Corporate bonds	\$ 1,090	\$ 1,597	\$ 16,917	\$ 14,741	\$ 30,185	\$ 25,472	\$ 60,452
U.S. government mortgage-backed securities	-	690	-	-	-	-	27,140
Mutual funds	-	-	-	-	-	-	34,373
Government securities	-	401	-	-	-	118	-
Asset backed	347	-	-	-	-	-	-
Total	<u>\$ 1,437</u>	<u>\$ 2,688</u>	<u>\$ 16,917</u>	<u>\$ 14,741</u>	<u>\$ 30,185</u>	<u>\$ 25,590</u>	<u>\$ 121,965</u>

Foreign Currency Risk

Foreign currency risk is the risk that an investment denominated in the currency of a foreign country could reduce its U.S. dollar value as a result of changes in foreign currency exchange rates. The System does not restrict the amount of investments in foreign currency.

June 30, 2022

Note 3 - Deposits and Investments (Continued)

The following securities are subject to foreign currency risk:

Currency (in Thousands)	Equity	Net Investment (Payable) Receivable
Brazil real	\$ 1,013	\$ -
Canadian dollar	4,322	58
Eurocurrency unit	14,348	269
Hong Kong dollar	1,167	16
Japanese yen	5,545	105
Mexican peso	787	-
New Taiwan dollar	2,508	108
Norwegian krone	2,157	62
Pound sterling	3,326	-
Singapore dollar	938	-
South Korean won	837	4
Swiss franc	1,022	80
Ukraine hryvana	1	-
Total	<u>\$ 37,971</u>	<u>\$ 702</u>

Securities Lending

As permitted by state statutes and under the provisions of a securities lending authorization agreement, the System, through the Combined Plan, lends securities to broker-dealers and banks for collateral that will be returned for the same securities in the future. The System's custodial bank manages the securities lending program and receives cash, government securities, or irrevocable bank letters of credit as collateral. The custodial bank does not have the ability to pledge or sell collateral securities unless the borrower defaults. Borrowers are required to deliver collateral for each loan equal to no less than 102 percent of the market value of the loaned securities.

As of June 30, 2022, the collateral provided was 105.35 percent of the market value of the loaned securities, which is more than the required 102 percent.

The System did not impose any restrictions during the fiscal year on the amount of loans made on its behalf by the custodial bank. There were no failures by any borrowers to return loaned securities or pay distributions thereon during the fiscal year. Moreover, there were no losses during the fiscal year resulting from a default of the borrowers or custodial bank.

The System and the borrower maintain the right to terminate all securities lending transactions on demand. The cash collateral received on each loan was invested, together with the cash collateral of other lenders, in an investment pool. The average duration of such investment pool as of June 30, 2022 was 3.4 days. Because the loans are terminable on demand, their duration did not generally match the duration of the investments made with cash collateral. On June 30, 2022, the System had no credit risk exposure to borrowers. The collateral held (at cost) and the fair market value of the underlying securities on loans for the System as of June 30, 2022 were \$64,047,278 and \$60,796,386, respectively.

June 30, 2022

Note 3 - Deposits and Investments (Continued)

The following represents the balances relating to the securities lending transactions as of June 30, 2022; investments are reported at fair value:

Securities Lent	Underlying Securities
U.S. corporate fixed income	\$ 20,029,340
U.S. equities	31,813,536
Non-U.S. equities	792,016
U.S. governments	8,161,494
Total	<u>\$ 60,796,386</u>

The fair market value of the collateral pool related to securities lending at June 30, 2022 was \$65,128,567. The investments were in asset-backed securities, floating-rate notes, and repurchase agreements. Approximately 93 percent of these securities had a duration of less than 1 year, 4 percent had a duration between 1 and 3 years, and 3 percent had a duration over 15 years.

The credit ratings of the securities lending collateral pool held at June 30, 2022, as rated by S&P, are as follows:

Ratings	Amount
AAA	\$ 13,311,851
AA	35,569,783
CC	1,358,943
D	737,676
NR	14,150,314
Total	<u>\$ 65,128,567</u>

Note 4 - Fair Value Measurements

In accordance with GASB Statement No. 72, *Fair Value Measurement and Application*, the notes to the financial statements now include enhanced disclosures about fair value measurement, the level of fair value hierarchy, and valuation techniques.

The System categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets, Level 2 inputs are significant other observable inputs, and Level 3 inputs are significant unobservable inputs. Investments that are measured at fair value using net asset value per share (NAV) (or its equivalent) as a practical expedient are not classified in the fair value hierarchy below.

In instances where inputs used to measure fair value fall into different levels in the fair value hierarchy, fair value measurements in their entirety are categorized based on the lowest level input that is significant to the valuation. The System's assessment of the significance of particular inputs to these fair value measurements requires judgment and considers factors specific to each asset.

General Retirement System of the City of Detroit

Notes to Financial Statements

June 30, 2022

Note 4 - Fair Value Measurements (Continued)

The System has the following recurring fair value measurements as of June 30, 2022:

	Assets Measured at Fair Value on a Recurring Basis at June 30, 2022			
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Balance at June 30, 2022
Fixed income:				
Government securities (U.S. and other)	\$ 18,869,967	\$ 18,600,499	\$ -	\$ 37,470,466
Corporate bonds	-	147,842,881	-	147,842,881
U.S. government mortgage-backed	-	10,497,369	-	10,497,369
Asset-backed securities	-	2,443,725	-	2,443,725
Corporate floating rate notes	-	53,080,755	-	53,080,755
Mutual funds	34,373,289	-	-	34,373,289
Privately negotiated debt	-	-	1,861,988	1,861,988
U.S. Treasury	-	90,822,247	-	90,822,247
Total fixed income	53,243,256	323,287,476	1,861,988	378,392,720
Equity:				
Common stock	523,021,450	-	-	523,021,450
Preferred stock	4,781,593	2,575,775	-	7,357,368
Total equity	527,803,043	2,575,775	-	530,378,818
Multiasset mutual fund	4,844,624	-	-	4,844,624
Private equity funds	-	-	2,800,000	2,800,000
Partnership investments	-	-	4,030,000	4,030,000
Real estate private equity funds	-	-	10,195,935	10,195,935
Real estate-related investments	-	-	2,488,000	2,488,000
Total	\$ 585,890,923	\$ 325,863,251	\$ 21,375,923	933,130,097
Investments measured at NAV:				
International equity funds				220,807,127
Fixed-income funds				40,867,297
Hedge funds				129,881,605
Real estate funds				255,619,502
Private equity funds				114,874,417
Total investments measured at NAV				762,049,948
Total investments measured at fair value				\$ 1,695,180,045

A total of \$9,969,911 of repurchase agreements recorded at amortized cost is not included in the fair value table above.

Equity securities, U.S. government securities, and mutual funds classified in Level 1 are valued using prices quoted in active markets for those securities.

The fair value of preferred stock and fixed-income securities at June 30, 2022 was determined primarily based on Level 2 inputs. The System estimates the fair value of these investments using other inputs, such as interest rates and yield curves, that are observable at commonly quoted intervals for identical or similar assets.

Note 4 - Fair Value Measurements (Continued)

The fair value of the remaining investments at June 30, 2022 was determined primarily based on Level 3 inputs. The System estimates the fair value of these investments using the System's own pricing estimate methodology, pricing models, discounted cash flow methodologies, or similar techniques taking into account the characteristics of the asset.

The valuation method for investments measured at net asset value per share (or its equivalent) is presented in the table below.

Investments in Entities that Calculate Net Asset Value per Share

The System holds shares or interests in investment companies where the fair value of the investments is measured on a recurring basis using net asset value per share (or its equivalent) of the investment companies as a practical expedient.

As of June 30, 2022, the fair value, unfunded commitments, and redemption rules of those investments are as follows:

	Fair Value	Unfunded Commitments	Redemption Frequency, if Eligible	Redemption Notice Period
International equity funds	\$ 220,807,127	\$ -	Monthly	Up to 30 days
Fixed-income funds	40,867,297	-	Daily	10 business days
Hedge funds	129,881,605	-	Quarterly	100 days
Real estate funds	255,619,502	5,606,703	Quarterly	90 days
Private equity funds	114,874,417	33,226,072	N/A	N/A
Total investments measured at NAV	<u>\$ 762,049,948</u>	<u>\$ 38,832,775</u>		

Multiple funds are held in each category. For reporting purposes, the redemption frequency and redemption notice period provided are the most restrictive of any of the funds in the category.

The international equity funds class includes investments in funds that invest in predominantly equity securities of non-U.S. companies. The funds invest in developed and emerging market countries and utilize investments across the capitalization spectrum from large to small companies. The fair values of the investments in this class have been estimated using net asset value per share of the investments.

The fixed-income funds class includes investments in funds that invest in predominantly fixed-income instruments in the U.S. and developed and emerging market countries. The funds invest across a diverse group of security types, including government, corporate, and mortgage-backed debt, and across the credit quality spectrum of investment grade and high yield. The fair values of the investments in this class have been estimated using net asset value per share of the investments.

The hedge funds class includes investments in funds that achieve capital appreciation through multimanager and/or multistrategy investments. Within this group of funds, there is exposure to investment strategies, including, but not limited to, credit, event-driven, equity, and relative value. The funds have the ability to invest across all markets and across all asset classes to implement their various strategies. The fair values of the investments in this class have been estimated using net asset value per share of the investments.

The real estate funds class includes investments in funds whose objective is to operate a core portfolio of real estate investments predominantly located in the U.S. The funds acquire ownership in underlying investments either through direct real estate ownership or ownership in real estate companies or the equity of real estate investment trusts. The funds predominantly target purchases in office, industrial, retail, or multifamily real estate classes. The fair values of the investments in this class have been estimated using net asset value per share of the investments (or its equivalent).

Note 4 - Fair Value Measurements (Continued)

The private equity funds class is an alternative investment class and consists of investments in companies that are not listed on a public exchange. The General Retirement System of the City of Detroit maintains a diversified portfolio of private equity investments by both style (buyout, turnaround, venture capital, etc.) and vintage year exposure. With its private equity allocation, the General Retirement System of the City of Detroit seeks to take advantage of the illiquidity premium associated with these private equity investments. The fair values of the investments in this class have been estimated using net asset value per share of the investments (or its equivalent).

Note 5 - Pension Plan Investments - Policy and Rate of Return

Component II (Legacy Plan) and Component I (Hybrid Plan)

Investment Policy

The assets of Components II and I are commingled and invested together, as allowed by the POA. The Combined Plan's policy in regard to the allocation of invested assets is established and may be amended by governance by a majority vote of its members. It is the policy of the governance to pursue an investment strategy that manages risk through the prudent diversification of the portfolio across a broad selection of distinct asset classes. The Combined Plan's investment policy discourages the use of cash equivalents, except for liquidity purposes, and aims to refrain from dramatically shifting asset class allocations over short time spans. The following was the governance's adopted asset allocation policy as of June 30, 2022:

Asset Class	Target Allocation
Global equity	46.00 %
Global fixed income	33.00
Real estate/Real assets	13.00
Diversifying strategies	8.00
Total	100.00 %

Rate of Return

For the year ended June 30, 2022, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was (7.27) percent. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Note 6 - Pension Plan Reserves

Component II (Legacy Plan)

In accordance with the Combined Plan for the General Retirement System of the City of Detroit and state law, the following reserves are required to be set aside within the Component II (Legacy) pension plan:

The annuity reserve fund is an accumulation of transfers that is made from the annuity savings fund when an employee retires or becomes disabled or if a surviving spouse elects an annuity rather than a lump-sum payout of accumulated employee contributions.

The pension reserve fund represents funded pension benefits available for retired members and is funded by actuarially determined transfers from the pension accumulation fund. The transfers from the pension accumulation fund to the pension reserve fund for fiscal year 2022 retirements have not yet been determined.

Note 6 - Pension Plan Reserves (Continued)

The employee reserve (annuity savings fund or ASF) is credited as employee contributions are received throughout the year; the ASF maintains a record of the amount contributed by each employee and credits interest annually at a rate approved by the board. During fiscal year 2022, the board approved the interest rate at 0 percent. Eligible active members may elect to withdraw their accumulated (annuity) contributions plus investment earnings. Upon retirement, members can elect to annuitize or receive a lump sum of their accumulated contribution and interest earnings. When an employee retires or becomes disabled or if a surviving spouse elects an annuity rather than a lump-sum payout of accumulated employee contributions, the balance is transferred to the annuity reserve fund. See Note 12 for disclosure of significant changes to the ASF going forward.

The pension accumulation fund is the fund that will accumulate reserves for the pensions and other benefits payable from the contributions made by the City, including various departments thereof, and certain third parties pursuant to the POA and from which pensions and other benefits will be paid on account of members with prior service credit and transfers, as provided in Section E-18. Contributions to the pension accumulation fund from the effective date of the POA through fiscal year 2023 shall be made only in the amounts and from the sources identified in the POA.

The expense fund is the fund that will be credited with all money provided by the City to pay the administrative expenses of the Combined Plan and from which all the expenses necessary in connection with the administration and operation of the Combined Plan will be paid. At year end, this reserve balance is zero, as all employer contributions were credited to the pension accumulation fund.

The income fund shall be the fund to which all interest, dividends, and other income derived from the investments of Component II of the Combined Plan will be credited. Transfers from the income fund will be made to credit earnings and losses to various reserves of the Combined Plan in accordance with the provisions of Component II of the combined plan document. Amounts credited to the income fund in excess of amounts needed to credit earnings and losses of the Combined Plan, as provided in Component II, for any plan year shall be transferred to the pension accumulation fund and used to pay retirement allowances and other benefits on account of members. During fiscal year 2022, the income fund reserve was not utilized, and all investment income was credited to the pension accumulation fund.

The balances of the reserve accounts for Component II (excluding the Income Stabilization Fund) as of June 30, 2022 are included in the table below. The reserve balances as of June 30, 2022 shown below do not include the current year transfer amount related to fiscal year 2022 retirements for amounts that are transferred from the pension accumulation fund to the pension reserve fund.

The balances of the reserve accounts at June 30, 2022 are as follows:

	Required Reserve	Amount Funded
Annuity savings fund	\$ 91,394,995	\$ 91,394,995
Pension reserve fund	1,915,878,000	1,438,451,304
Annuity reserve fund	-	-
Pension accumulation fund	N/A	-

Component I (Hybrid Plan)

In accordance with the Combined Plan for the General Retirement System of the City of Detroit and state law, the following reserves are required to be set aside within the Component I (Hybrid) pension plan:

The accumulated mandatory employee contribution fund shall be the fund in which shall be accumulated the contributions of members to provide their retirement allowances. Upon the retirement, termination, or death of a member with a vested retirement allowance, the member's accumulated mandatory employee contributions shall be deemed to be part of the pension reserve that shall be used to pay the member's retirement allowance.

Note 6 - Pension Plan Reserves (Continued)

The accumulated voluntary employee contribution fund shall be the fund in which shall be accumulated the voluntary after-tax contributions of members together with earnings thereon.

The pension accumulation fund shall be the fund in which shall be accumulated reserves for the retirement allowances and other benefits payable from that portion of the employer's annual contribution that is not credited to the rate stabilization fund and amounts transferred to Component I and from which shall be paid retirement allowances and other benefits on account of members. During fiscal year 2022, all employer contributions were directed by the City into the pension accumulation fund, and no amounts were credited to the rate stabilization fund.

The rate stabilization fund shall be the fund that shall be credited with the employer's annual contributions in excess of the amount of the employer's contribution that is credited to the pension accumulation fund and amounts transferred to Component I, as provided in Section E-16(C) of Component II. See Note 11 for details on the transfer provisions related to transfers between Component II and Component I. During fiscal year 2022, no amounts were credited to the rate stabilization fund. Therefore, this reserve balance is zero.

The medical benefit fund shall be the fund that will be credited with contributions made for the purpose of funding medical benefits. During the year, no such contributions were made, and, therefore, this reserve balance is zero.

The expense fund shall be the fund to which will be credited any money provided by the employers to pay the administrative expenses of the Combined Plan and from which certain expenses incurred in connection with the administration and operation of the Combined Plan will be paid. At year end, this reserve balance is zero, as all employer contributions were credited to the pension accumulation fund.

The income fund shall be the fund to which all interest, dividends, and other income derived from the investments of Component I of the Combined Plan will be credited. Transfers from the income fund will be made to credit earnings and losses to various reserves of the Combined Plan in accordance with the provisions of Component I of the combined plan document. Amounts credited to the income fund in excess of amounts needed to credit earnings and losses of the Combined Plan, as provided in Component I, for any plan year shall be transferred to the pension accumulation fund. During fiscal year 2022, investment income was transferred to other reserve funds, and, therefore, this reserve balance at June 30, 2022 remains unfunded.

The balances of the reserve accounts for Component I as of June 30, 2022 are included in the table below. As of June 30, 2022, not all transfers from the accumulated mandatory employee contribution fund to the pension accumulation fund for retirements have occurred.

The balances of the above reserves for Component I that were funded as of June 30, 2022 are as follows:

	Required Reserve		Amount Funded
Accumulated mandatory employee contribution fund	\$ 60,978,828	\$	60,978,828
Accumulated voluntary employee contribution fund	34,143,974		34,143,974
Pension accumulation fund	-		127,463,542

Note 7 - Net Pension Liability for Component II (Legacy Plan)

The net pension liability has been measured as of June 30, 2022 and is composed of the following:

Total pension liability	\$ 2,441,710,745
Plan fiduciary net position	<u>1,529,846,295</u>
City's pension liability	<u>\$ 911,864,450</u>
Plan fiduciary net position as a percentage of the total pension liability	62.65 %

Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of June 30, 2021, which used update procedures to roll forward the estimated liability to June 30, 2022. The valuation used the following actuarial assumptions applied to all periods included in the measurement:

Inflation	N/A	
Salary increases	N/A	No inflation assumption or salary increases due to plan freeze as of June 30, 2014
Investment rate of return	6.75%	Net of pension plan investment expense, including inflation

Note that the long-term assumed rate of return used for the purpose of the GASB Statement No. 67 valuations was determined in accordance with generally accepted accounting principles. This rate will change annually based on capital market expectations in consideration of the System's most recently approved asset mix. This should not be confused with the provisions in the Plan of Adjustment, which established a 6.75 percent assumed rate of return that does not change annually as it is set by the POA for the purpose of the various provisions within the plan; the Plan of Adjustment did not attempt to dictate the long-term rate of return to be used for accounting purposes.

The mortality table assumption was based on the PubG-2010(B) Below-Median General Retiree Table. The tables are projected to be fully generational, based on the two-dimensional, sex-distinct mortality scale MP-2021.

The actuarial assumptions, other than the investment rate of return, used in the June 30, 2021 valuation to calculate the total pension liability as of June 30, 2022 were based on the results of an actuarial experience study for the period from July 1, 2015 through June 30, 2020. The assumptions were first used in the June 30, 2021 actuarial valuation and assumption changes included mortality tables (change from the RP-2014 Blue Collar Annuitant Table), withdrawal rates, and disability rates.

Attribution Period

As addressed more fully in Note 12, as of June 30, 2014, the plan was frozen such that no new benefit accruals were allowed, and no new members could join. Starting on July 1, 2014, the participants in the Legacy Plan (Component II) will now be earning benefits under a newly created defined benefit plan (Component I). GASB Statement No. 67 requires that the service costs of all pensions be attributed through all assumed exit ages through retirement. Neither GASB Statement No. 67 nor any other GASB standard has set forth guidance specifically related to frozen plans with successor plans in place. Absent any guidance to the contrary, due to the status as a frozen plan combined with the fact that individuals are now earning service in a new defined benefit pension plan, the retirement date for the purpose of attribution was assumed to be June 30, 2014 for all members. Therefore, the total pension liability at June 30, 2022 is equal to the present value of projected benefit payments.

June 30, 2022

Note 7 - Net Pension Liability for Component II (Legacy Plan) (Continued)

Discount Rate

The discount rate used to measure the total pension liability as of June 30, 2022 was 6.75 percent; however, the single discount rate used at the beginning of the year was 6.50 percent. The projection of cash flows used to determine the discount rate assumed that employee contributions will be made at the current contribution rate and that city contributions will be made at rates equal to the difference between actuarially determined contribution rates and the employee rate.

Projected Cash Flows

Based on the above assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees at both the beginning of the year and the end of the year. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability. The projection of cash flows used to determine the discount rate assumed that employee contributions will be made at the current contribution rate. Contributions to the Combined Plan are projected to be at the minimum amounts required by the Plan of Adjustment through 2023, followed by actuarially determined contributions beginning in 2024. While no funding policy has been adopted by the City of Detroit, Michigan, the projection of cash flows assumes full funding of contributions such that the plan's net position will be sufficient to make all benefit payments. The System believes that the funding practice adopted by the City will be consistent with the underlying objective used in the projection to develop the single discount rate.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of geometric real rates of return as of June 30, 2022 for each major asset class included in the pension plan's target asset allocation, as disclosed in the investment footnote, are summarized in the following table:

Asset Class	Long-term Expected Real Rate of Return
Global equity	5.02 %
Global fixed income	4.02
Real estate/Real assets	3.73
Diversifying strategies	3.95

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability, calculated using the discount rate of 6.75 percent, as well as what the net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (5.75 percent) or 1 percentage point higher (7.75 percent) than the current rate:

	1 Percentage Point Decrease (5.75%)	Current Discount Rate (6.75%)	1 Percentage Point Increase (7.75%)
Net pension liability	\$ 1,116,375,379	\$ 911,864,450	\$ 735,637,319

June 30, 2022

Note 8 - Net Pension Asset of the City for Component I (Hybrid Plan)

The net pension asset of the City has been measured as of June 30, 2022 based on benefits in force as of that date and is composed of the following:

Total pension liability	\$ 208,697,086
Plan fiduciary net position	<u>222,586,344</u>
City's net pension asset	<u>\$ (13,889,258)</u>
Plan fiduciary net position as a percentage of the total pension liability	106.66 %

Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of June 30, 2021, which used update procedures to roll forward the estimated liability to June 30, 2022. The following are the significant assumptions:

Wage inflation assumption was 3 percent.

The investment rate of return (net of pension plan investment expense, including inflation) applied to the beginning of year total pension liability was 6.75 percent as compared to 6.50 percent, which was the assumed long-term rate of return as of the end of year. The rates were determined in accordance with generally accepted accounting principles. This rate will change annually based on capital market expectations in consideration of the System's most recently approved asset mix. This should not be confused with the provisions in the Plan of Adjustment, which established a 6.75 percent assumed rate of return that does not change annually, as it is set by the POA for the purpose of the various provisions within the plan; the Plan of Adjustment did not attempt to dictate the long-term rate of return to be used for accounting purposes.

The mortality table assumption was based on the PubG-2010(B) Below-Median General Retiree Table. The tables are projected to be fully generational, based on the two-dimensional, sex-distinct mortality scale MP-2021.

The actuarial assumptions, other than the investment rate of return, used in the June 30, 2021 valuation to calculate the total pension liability as of June 30, 2022 were based on the results of an actuarial experience study for the period from July 1, 2015 through June 30, 2020. The assumptions were first used in the June 30, 2021 actuarial valuation, and assumption changes included mortality tables (change from the RP-2014 Blue Collar Annuitant Table), wage inflation, withdrawal rates, and disability rates.

Cost of living adjustments (COLA): This plan has a postretirement COLA feature known as the Variable Pension Improvement Factor (VPIF) of a 2 percent simple COLA. It can be granted beginning on July 1, 2018 only if the five-year projection shows the plan's funded status at 100 percent based upon 6.75 percent future investment return. For the purpose of the total pension liability, the actuary assumed a 0.50 percent simple COLA beginning in fiscal year 2020 to model the potential average COLA over time. Had no COLA been assumed, the net pension asset would have been \$20,730,383. Had the full 2 percent COLA been assumed, the net pension liability would have been \$6,498,733.

There were no changes in benefit provisions during the year affecting the total pension liability.

Discount Rate

The discount rate used to measure the total pension liability as of June 30, 2022 was 6.75 percent; however, the single discount rate used at the beginning of the year was 6.50 percent. The projection of cash flows used to determine the discount rate assumed that employee contributions will be made at the current contribution rate and that city contributions will be made at rates equal to the difference between actuarially determined contribution rates and the employee rate.

Note 8 - Net Pension Asset of the City for Component I (Hybrid Plan) (Continued)

Projected Cash Flows

Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees at both the beginning of the year and the end of the year. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability. The projection of cash flows used to determine the discount rate assumed that employee contributions will be made at the current contribution rate. Contributions to the Combined Plan are projected to be at the minimum amounts required by the Plan of Adjustment through 2023, followed by actuarially determined contributions beginning in 2024. While no funding policy has been adopted by the City of Detroit, Michigan, the projection of cash flows assumes full funding of contributions such that the plan's net position will be sufficient to make all benefit payments. The System believes that the funding practice adopted by the City will be consistent with the underlying objective used in the projection to develop the single discount rate.

The long-term expected rate of return on future pension plan investments is the same as Component II given that the assets are commingled (see Note 7).

Sensitivity of the Net Pension Asset to Changes in the Discount Rate

The following presents the net pension asset of the City, calculated using the discount rate of 6.75 percent, as well as what the City's net pension liability (asset) would be if it were calculated using a discount rate that is 1 percentage point lower (5.75 percent) or 1 percentage point higher (7.75 percent) than the current rate:

	1 Percentage Point Decrease (5.75%)	Current Discount Rate (6.75%)	1 Percentage Point Increase (7.75%)
Net pension liability (asset) of the City	\$ 14,827,379	\$ (13,889,258)	\$ (37,336,183)

Note 9 - Other Postemployment Benefit Plan

Closed Death Benefit Plan (Closed Plan) and Death Benefit Plan (Open Plan)

Plan Description

The City of Detroit Employees Death Benefit Board of Trustees administers the Death Benefit Plans, which are single-employer defined benefit OPEB plans used to provide death benefits to employees and retirees. The Death Benefit Board of Trustees is the same as the board of trustees of the General Retirement System of the City of Detroit, with the exception of the civilian member. Also, the one representative from the Detroit City Council is the City Council president.

In accordance with the City of Detroit, Michigan's plan of adjustment, the Death Benefit Plan was split into two parts: an Open Plan and a Closed Plan. Members retired on or before December 10, 2014 are in the Closed Plan. Members who retire after December 10, 2014 (provided they were active on or after December 10, 2014) are in the Open Plan. The City has no further obligations to Closed Plan members. Closed Plan members will receive benefits only if the Closed Plan assets are sufficient.

Benefits Provided

In accordance with the City of Detroit, Michigan Code of Ordinances, effective July 1, 1999, prior to retirement from city services, a death benefit in the amount of \$10,000 or the amount designated in the member's labor agreement, shall be paid. After retirement of the member from the City, the amount of death benefits paid is based upon the retiree's years of city service ranging from \$1,860 (for 8 to 10 years of service) to \$3,720 (for 30 years of service). For years of service beyond 30 years, \$93 will be added per year for each additional year of service.

June 30, 2022

Note 9 - Other Postemployment Benefit Plan (Continued)

Employees Covered by Benefit Terms

Closed plan: As of June 30, 2021, 9,623 retirees are covered by the benefit terms in the Closed Plan.

Open plan: The following members were covered by the benefit terms in the Open Plan:

Date of member count	June 30, 2021
Retirees and beneficiaries	2,988
Active plan members	<u>7,266</u>
Total employees covered by the plan	<u><u>10,254</u></u>

Contributions

Open Plan

The City of Detroit Employee Benefit Plan board establishes contribution rates for the Death Benefit Plan; however, the City of Detroit, Michigan is under no legal obligation to prefund the plan benefits. The board's policy is to develop an employer contribution that is the greater of (1) the per active person rate provided for in the City of Detroit, Michigan Ordinance or (2) normal cost plus a 28-year closed (30-year closed period beginning with the June 30, 2019 valuation) amortization of unfunded actuarial accrued liability on a per active person basis. For the year ended June 30, 2022, the employer contribution rate for each active member was \$13.30 a year, except for police lieutenants and sergeants and fire equivalents. For police lieutenants and sergeants and fire equivalents, the employer contribution rate for each member was \$20.70 a year. For retirees, no employer contribution is required. Active plan members are required to contribute \$10.40 a year, except for police lieutenants and sergeants and fire equivalents, who contribute \$13.00 a year. For retired plan members, required contributions are \$1.08 a year. During the year ended June 30, 2022, the Open Plan received employer contributions of \$106,510 and employee contributions of \$85,236.

Closed Plan

The City of Detroit, Michigan allocated \$30,423,997 to the Closed Death Benefit Plan as of December 31, 2014 to fully fund the plan. There are no required additional employer contributions. For retired plan members, required employee contributions are \$1.08 a year. Total employee contributions for the year ended June 30, 2022 for the closed plan were approximately \$9,400.

Net OPEB Liability

Closed Plan

The Closed Death Benefit Plan will provide future benefits only to the extent that plan assets are available to pay them. After the contribution in 2014, no further employer contributions will be made to the Plan. As such, the total OPEB liability as of June 30, 2022 is equal to the plan net position of \$20,757,008.

Open Plan

The net OPEB liability has been measured as of June 30, 2022 and is composed of the following:

Total OPEB liability	\$ 5,972,022
Plan fiduciary net position	<u>4,460,516</u>
Net OPEB liability of the City	<u><u>\$ 1,511,506</u></u>
Plan fiduciary net position as a percentage of the total OPEB liability	74.69 %

Note 9 - Other Postemployment Benefit Plan (Continued)

Actuarial Assumptions

The total OPEB liability was determined by an actuarial valuation as of June 30, 2021, which used update procedures to roll forward the estimated liability to June 30, 2022. The valuation used the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

The inflation assumption was 2.5 percent. The investment rate of return (net of pension plan investment expense, including inflation) applied to the beginning of year total OPEB liability was 5.99 percent as compared to 5.50 percent, which was the assumed long-term rate of return as of the end of year. The rates were determined in accordance with generally accepted accounting principles.

For members in the general retirement system, the mortality table assumption was based on the PubG-2010(B) Below-Median General Retiree Table. For members in the police and fire retirement system, the mortality table assumption was based on the PubS-2010 Safety Retiree Table. All mortality tables are projected to 2021 based on the two-dimensional, sex-distinct mortality improvement scale MP-2021.

Discount Rate

The discount rate used to measure the total OPEB liability was 5.50 percent, compared to 5.99 percent at the beginning of the year. The projection of cash flows used to determine the discount rate assumed that employer contributions will be made at the current contribution rate.

Based on those assumptions, the OPEB plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

The actuarial assumptions, other than the investment rate of return, used in the June 30, 2021 valuation to calculate the total pension liability as of June 30, 2022 were based on the results of an actuarial experience study for the period from July 1, 2015 through June 30, 2020. The assumptions were first used in the June 30, 2021 actuarial valuation and assumption changes included mortality tables (change from the RP-2014 Blue Collar Annuitant Table), withdrawal rates, and disability rates.

Investment Rate of Return

The long-term expected rate of return on OPEB plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The board has not adopted a formal investment policy; however, the pension board approved a formal investment allocation in August 2014. The target allocation and best estimates of geometric real rates of return for each major asset class are summarized in the following table:

Asset Class	Target Allocation	Long-term Expected Real Rate of Return
Domestic equity	26.00 %	4.14 %
International equities	25.00	4.87
Bonds	25.00	1.46
REITs	4.00	3.48
Global multisector fixed income	20.00	1.37
Total	100.00 %	

Note 9 - Other Postemployment Benefit Plan (Continued)

Sensitivity of the City's Net OPEB Liability to Changes in the Discount Rate

The following presents the net OPEB liability of the City, calculated using the discount rate of 5.50 percent, as well as what the City's net OPEB liability would be if it were calculated using a discount rate that is 1 percentage point lower (4.50 percent) or 1 percentage point higher (6.50 percent) than the current rate:

	1 Percentage Point Decrease (4.50%)	Current Discount Rate (5.50%)	1 Percentage Point Increase (6.50%)
Net OPEB liability of the City	\$ 2,677,537	\$ 1,511,506	\$ 598,819

Since the OPEB benefits in this plan are life insurance only, there is no health care trend assumption. The sensitivity of net OPEB liability using +/-1 percent health care trend is not applicable to this plan.

Rate of Return

For the year ended June 30, 2022, the annual money-weighted rate of return on OPEB plan investments, net of OPEB plan investment expense, was (14.46) percent. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Note 10 - Leases

The System leases its office building from a third party. Payments are generally fixed monthly with certain variable payments not included in the measurement of the lease liability, such as common area maintenance (CAM) and taxes.

The lease asset of the System, reported with other capital assets on the statement of fiduciary net position, is \$2,320,754, with accumulated amortization of \$250,893 as of June 30, 2022.

Future principal and interest payment requirements related to the System's lease liability at June 30, 2022 are as follows:

Years Ending	Principal	Interest	Total
2023	\$ 179,459	\$ 114,276	\$ 293,735
2024	198,620	103,928	302,548
2025	219,132	92,491	311,623
2026	241,081	79,891	320,972
2027	264,556	66,046	330,602
2028-2031	1,056,336	101,927	1,158,263
Total	<u>\$ 2,159,184</u>	<u>\$ 558,559</u>	<u>\$ 2,717,743</u>

June 30, 2022

Note 11 - Commitments

The Combined Plan document setting forth the Legacy Plan (Component II) contains a provision for the transfer of certain excess investment returns to the new Hybrid Plan (Component I). In any plan year during the period beginning on or after July 1, 2014 and ending on June 30, 2023, if the annual rate of return credited to member annuity savings fund accounts is less than the actual rate of return net of expenses of the plan's invested assets for the second plan year preceding the plan year in which the annual rate of return is credited, the excess earned shall be transferred to the pension accumulation fund maintained under Component I of the Combined Plan and will be used to fund transition costs related to Component I. The transition cost is a measure of the liability that Component I of the Combined Plan has at its inception due to the fact that members in Component I receive vesting and eligibility credit under Component I for service that was earned prior to July 1, 2014 and is otherwise credited to members under Component II. Such transition costs have been calculated by the plan's actuary. Yearly transfers to fund these costs are required in the second year following the year in which the return is earned based on a two-year look-back; therefore, as an example, any transfers based on the plan year ended June 30, 2020 will be calculated and transferred during the plan year ended June 30, 2022.

Based on these provisions, \$0 was transferred from Component II to Component I toward the transition costs in the fiscal years ended June 30, 2022 and 2021. The cumulative amount of transfers from prior fiscal years was \$10,193,807.

Account Pledge Agreement

In 2022, the System entered into a collateral pledge agreement with the U.S. Department of Housing and Urban Development, as allowed under MCL 38.1133(8). This collateral pledge agreement requires the System to pledge to HUD as collateral for the City of Detroit, Michigan on its outstanding loan with HUD, an amount equal to the balance of the HUD loan to the City that exceeds \$2 million. The City has provided a covenant that it will make all payments to HUD on this related obligation. As the HUD loan balance held by the City is reduced as the City makes payments, the collateral will decrease in a similar amount. According to the repayment schedule, the City is due to pay off the principal balance in August 2026. As of June 30, 2022, the amount of pledged collateral is \$7,162,221.

Note 12 - City of Detroit, Michigan's Chapter 9 Bankruptcy Plan of Adjustment and Continuing Impact on the Plan

In March 2013, after enduring years of financial difficulty, the City of Detroit, Michigan filed for bankruptcy protection. The Eighth Amended Plan for Adjustment of Debts of the City of Detroit was filed with the Bankruptcy Court on October 22, 2014. In November 2014, after a confirmation hearing lasting several weeks, the Bankruptcy Court confirmed the Plan of Adjustment, which became effective December 10, 2014.

Legacy Plan (Component II)

The pension settlement, as part of the Plan of Adjustment, compromised pension claims and provided funding support for legacy pension benefit obligations under the General Retirement System of the City of Detroit Component II from the State of Michigan, the Detroit Institute of Arts, and certain foundation donors. The Plan of Adjustment also required certain governance changes for DGRS. Those governance changes included establishment of the Investment Committee effective December 10, 2014, which officially marked the beginning of implementation of the Plan of Adjustment, although DGRS had for months already undertaken contingency planning for all of the pension adjustments. In addition to governance changes, the POA requires of the System, through its board of trustees and the Investment Committee, certain periodic and interim reporting obligations to the City, the Foundation for Detroit's Future, and the State of Michigan. Although there were some delays in meeting certain obligations because of new actuarial reporting requirements for governmental systems, which in turn impacted the preparation of the System's audited financial statements, the System believes it has ultimately met its special reporting obligations in fiscal year 2016 and continued to do so in fiscal years 2017, 2018, 2019, 2020, 2021, and 2022.

June 30, 2022

Note 12 - City of Detroit, Michigan's Chapter 9 Bankruptcy Plan of Adjustment and Continuing Impact on the Plan (Continued)

For DGRS, with respect to Component II benefit adjustments, the pension settlement (for which benefit levels were and are contingent on other factors, including receipt of outside contributions) is provided for the following:

- A loss of cost of living adjustments, or escalators, paid after July 1, 2014
- A 4.5 percent cut to the remaining accrued pension benefit after the COLA loss
- For DGRS members who participated in the annuity savings fund plan between 2003 and 2013, subject to certain caps, recoupment of certain amounts of interest deemed by the City to be in excess of that which should have been credited to individual ASF accounts, referred to as "ASF Recoupment." ASF Recoupment, like other provisions of the pension settlement, was not optional. Most members will pay their ASF Recoupment by a monthly deduction from their future pension benefits for a set term of months, including interest calculated at 6.75 percent. All members were offered a lump-sum cash option, which was limited in the aggregate to \$30 million in member recoupment. In fiscal year 2016, the Bankruptcy Court approved certain additional members whose application submissions were not timely received to participate in the lump-sum cash option.
- The possibility of restoration of certain pension benefit cuts, based on a program for the most financially vulnerable pensioners and beneficiaries through the State of Michigan Treasury Department, as well as a new feature of Component II allowing restoration depending on the System's funding level over time
- An Income Stabilization Program (the "ISF Program") was established as part of the State Contribution Agreement, another facet of the pension settlement. The ISF Program, supported by city funds arising from an unlimited tax general obligation bonds settlement, is intended to ensure that the most financially vulnerable retirees and beneficiaries do not fall below the poverty line as a result of bankruptcy-related pension changes. Beginning on March 1, 2015, certain DGRS members also received benefit pension cut restoration under the ISF Program administered by DGRS, pursuant to the State Contribution Agreement, based on eligibility and benefit payments calculated by the State of Michigan. Following the close of the fiscal year ended June 30, 2016 and pursuant to Component II of the Combined Plan and the State Contribution Agreement, the System implemented the first annual ISF Program benefit adjustments effective July 1, 2016.
- The POA also discusses a restoration plan. Terms of the pension restoration are contained in Exhibit II.B.3.r.ii.C of the POA, and the terms govern how accrued pensions, including COLA benefits that were reduced as a part of the POA, may be restored over the 30-year period following the confirmation order. The Investment Committee will supervise the restoration process in accordance with the restoration plan. The restoration plan shall be deemed a part of Component II. The funding levels have not been attained as of June 30, 2022 for the restoration process to initiate.

June 30, 2022

Note 12 - City of Detroit, Michigan's Chapter 9 Bankruptcy Plan of Adjustment and Continuing Impact on the Plan (Continued)

Going forward, the obligations for contributions to support Component II of the System through 2023 are determined as fixed amounts by the provisions in the Plan of Adjustment. Pursuant to the Plan of Adjustment, the System is expected to receive contributions totaling \$718.6 million through fiscal year 2023. The Plan of Adjustment calls for the System to receive \$98.8 million from the State of Michigan; \$428.5 million from DWSD; \$31.7 million from UTGO settlement proceeds; the actual or present value equivalent of \$50 million from the DIA and its foundation donors; and \$114.6 million from the other city-related employer contribution sources, such as the General Fund, Detroit Library Commission, and COBO Authority, over a 10-year period covering fiscal year 2014 through fiscal year 2023. Between 2025 and 2034, DGRS will receive \$18.3 million per year from certain foundation donors. After 2023, the City, and various other employer constituents, such as the Library, DWSD, and COBO Authority, will retain responsibility for the full funding obligations of Component I of the System, consistent with Michigan law.

In fiscal year 2017, DGRS received from the City, its employer-related contribution sources, and the DIA and its foundation donors all contributions required by the Plan of Adjustment. The City was to remit payments on the UTGO Stub Bonds to the Combined Plan through 2028. In fiscal year 2017, the City of Detroit, Michigan refunded all of its outstanding UTGO Stub Bonds. Upon refunding, the payments to the Combined Plan were accelerated, with a majority of the outstanding balance paid to the Combined Plan in fiscal year 2017; as a result, the Combined Plan received approximately \$9.4 million in the ISF and \$18.3 million in the Component II Defined Benefit Fund related to this transaction.

DGRS continues to implement the POA, which includes ongoing compliance and additional reporting requirements by the board and the Investment Committee, annual review of benefit levels, and essentially provides for a 40-year plan to close the DGRS Legacy Component II underfunded liability. ASF Recoupment, in particular, is a notable facet of the Plan of Adjustment that will continue to be implemented as members apply for Component II pension benefits over time.

Note 13 - City of Detroit, Michigan Commitment to Future Funding

In anticipation of significant actuarially required contributions commencing in fiscal year 2024, the City, independent of the System, has established a Retiree Protection Trust Fund (the "Trust"). The Trust, a permanent irrevocable trust under Sections 115 and 414(d) of the Internal Revenue Code, is to receive, maintain, and invest city funds restricted for future deposits to the General Retirement System Plan and the Police and Fire Retirement System Plan as part of an effort to manage and stabilize future required city contributions to the plans. The City has set aside approximately \$357 million for this Trust as of June 30, 2022 for future contributions to the General Retirement System Plan and the Police and Fire Retirement System Plan. Contributions to the System will be recognized as the City makes distributions from this independent trust to the System.

Required Supplemental Information

General Retirement System of the City of Detroit

Required Supplemental Information Schedule of Changes in the Net Pension Liability and Related Ratios Legacy Plan

Last Nine Fiscal Years

	2022	2021	2020	2019	2018	2017	2016	2015	2014
Total Pension Liability									
Service cost	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 32,736,019
Interest	168,079,194	182,140,105	192,888,245	195,489,643	192,359,745	201,919,236	214,011,164	263,007,329	242,611,073
Changes in benefit terms	-	-	-	-	-	-	-	(731,824,895)	(113,311,571)
Differences between expected and actual experience	(12,568,209)	(59,232,849)	(55,836,749)	13,596,902	34,154,327	(27,508,380)	(43,719,112)	24,644,530	-
Changes in assumptions	(181,357,524)	119,876,694	67,677,535	-	(110,274,515)	76,925,957	90,034,927	(101,559,893)	(271,190,194)
Benefit payments, including refunds	(236,552,949)	(237,123,777)	(239,881,652)	(248,790,017)	(253,442,630)	(267,249,539)	(292,282,179)	(297,538,990)	(397,733,807)
Net Change in Total Pension Liability	(262,399,488)	5,660,173	(35,152,621)	(39,703,472)	(137,203,073)	(15,912,726)	(31,955,200)	(843,271,919)	(506,888,480)
Total Pension Liability - Beginning of year	2,704,110,233	2,698,450,060	2,733,602,681	2,773,306,153	2,910,509,226	2,926,421,952	2,958,377,152	3,801,649,071	4,308,537,551
Total Pension Liability - End of year	<u>\$ 2,441,710,745</u>	<u>\$ 2,704,110,233</u>	<u>\$ 2,698,450,060</u>	<u>\$ 2,733,602,681</u>	<u>\$ 2,773,306,153</u>	<u>\$ 2,910,509,226</u>	<u>\$ 2,926,421,952</u>	<u>\$ 2,958,377,152</u>	<u>\$ 3,801,649,071</u>
Plan Fiduciary Net Position									
Contributions - Employer, state, and foundation	\$ 48,275,000	\$ 48,275,000	\$ 48,275,000	\$ 68,275,000	\$ 68,275,000	\$ 91,238,402	\$ 104,792,657	\$ 189,282,094	\$ 25,126,131
Contributions - Employee	-	-	-	-	-	-	-	609,073	10,241,761
Net investment (loss) income	(102,790,030)	406,977,916	(14,002,111)	47,170,004	155,423,193	206,896,568	(12,450,547)	93,054,981	289,789,607
Administrative expenses	(2,541,080)	(1,987,194)	(2,351,273)	(3,023,939)	(3,313,418)	(6,021,837)	(3,742,618)	(4,617,194)	(11,237,767)
Benefit payments, including refunds	(236,552,949)	(237,123,777)	(239,881,652)	(248,790,017)	(253,442,630)	(267,249,539)	(292,282,179)	(297,538,991)	(397,733,807)
Other (includes ASF recoupment)	4,806,056	6,405,364	5,155,198	(5,347,863)	6,952,522	8,324,074	5,945,783	135,280,369	-
Net Change in Plan Fiduciary Net Position	(288,803,003)	222,547,309	(202,804,838)	(141,716,815)	(26,105,333)	33,187,668	(197,736,904)	116,070,332	(83,814,075)
Plan Fiduciary Net Position - Beginning of year	1,818,649,298	1,596,101,989	1,798,906,827	1,940,623,642	1,966,728,975	1,933,541,307	2,131,278,211	2,015,207,879	2,099,021,954
Plan Fiduciary Net Position - End of year	<u>\$ 1,529,846,295</u>	<u>\$ 1,818,649,298</u>	<u>\$ 1,596,101,989</u>	<u>\$ 1,798,906,827</u>	<u>\$ 1,940,623,642</u>	<u>\$ 1,966,728,975</u>	<u>\$ 1,933,541,307</u>	<u>\$ 2,131,278,211</u>	<u>\$ 2,015,207,879</u>
Net Pension Liability - Ending	<u>\$ 911,864,450</u>	<u>\$ 885,460,935</u>	<u>\$ 1,102,348,071</u>	<u>\$ 934,695,854</u>	<u>\$ 832,682,511</u>	<u>\$ 943,780,251</u>	<u>\$ 992,880,645</u>	<u>\$ 827,098,941</u>	<u>\$ 1,786,441,192</u>
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	62.65 %	67.25 %	59.15 %	65.81 %	69.98 %	67.57 %	66.07 %	72.04 %	53.01 %
Covered Payroll	\$ -	\$ -	\$ 149,373,313	\$ 141,646,750	\$ 246,173,916	\$ 199,307,986	\$ 185,147,364	\$ 188,210,536	\$ 238,669,871
Net Pension Liability as a Percentage of Covered Payroll	-	-	737.98 %	659.88 %	338.25 %	473.70 %	536.27 %	439.45 %	748.50 %

GASB Statement No. 67 was implemented on June 30, 2014 and does not require retroactive implementation. Data will be added as information is available until 10 years of such information is available.

GASB Statement No. 67, as amended, requires covered payroll to be presented, as well as the net pension liability as a percentage of covered payroll. Covered payroll for 2021 and 2022 is not available.

General Retirement System of the City of Detroit

Required Supplemental Information
 Schedule of Investment Returns
 Legacy and Hybrid Plans

**Last Nine Fiscal Years
 Years Ended June 30**

	2022	2021	2020	2019	2018	2017	2016	2015*	2014*
Annual money-weighted rate of return - Net of investment expense	(7.27)%	28.31 %	(0.78)%	3.28 %	6.70 %	12.60 %	1.10 %	2.40 %	16.30 %

GASB Statement No. 67 was implemented on June 30, 2014 and does not require retroactive implementation. Data will be added as information is available until 10 years of such information is available.

*Fiscal years 2014 and 2015 do not include information related to the Hybrid Plan. The Hybrid Plan was effective July 1, 2014, and for the first year (fiscal year 2015), it did not invest in anything other than cash and cash equivalents.

General Retirement System of the City of Detroit

Required Supplemental Information Schedule of Pension Contributions Legacy Plan

	Last Ten Fiscal Years Years Ended June 30									
	2022*	2021*	2020*	2019*	2018*	2017*	2016*	2015*	2014	2013
Actuarially determined contribution	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 72,643,307	\$ 62,297,432
Contributions in relation to the actuarially determined contribution	-	-	-	-	-	-	-	-	25,126,131	26,515,782
Contribution Deficiency	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (47,517,176)	\$ (35,781,650)
Covered Payroll	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 238,669,871	\$ 213,291,089
Contributions as a Percentage of Covered Payroll	- %	- %	- %	- %	- %	- %	- %	- %	10.53 %	12.43 %

*The contributions starting with fiscal year 2015 were determined by the provisions of the POA; the contributions were not actuarially determined and, therefore, not subject to disclosure within this schedule in accordance with GASB Statement No. 67.

General Retirement System of the City of Detroit

Required Supplemental Information Schedule of Changes in the City's Net Pension (Asset) Liability and Related Ratios Hybrid Plan

	Last Eight Fiscal Years							
	2022	2021	2020	2019	2018	2017	2016	2015
Total Pension Liability								
Service cost	\$ 27,040,658	\$ 25,208,118	\$ 22,532,002	\$ 20,171,596	\$ 17,056,732	\$ 18,417,036	\$ 18,302,706	\$ 19,318,576
Interest	14,050,863	12,218,430	10,270,622	7,531,400	5,438,061	4,084,390	2,495,896	695,469
Differences between expected and actual experience	(18,137,902)	(10,183,406)	(7,464,424)	7,556,858	4,546,865	(4,667,487)	(1,263,760)	(1,202,108)
Changes in assumptions	(22,668,570)	14,453,739	6,518,200	-	(5,758,189)	2,780,462	2,111,451	-
Voluntary employee contributions	5,691,594	5,183,291	5,723,982	5,804,274	5,302,650	5,043,347	5,213,744	5,775,885
Benefit payments, including refunds	(7,395,729)	(5,118,404)	(3,629,833)	(3,539,384)	(2,390,592)	(2,134,809)	(2,287,214)	-
Net Change in Total Pension Liability	(1,419,086)	41,761,768	33,950,549	37,524,744	24,195,527	23,522,939	24,572,823	24,587,822
Total Pension Liability - Beginning of year	210,116,172	168,354,404	134,403,855	96,879,111	72,683,584	49,160,645	24,587,822	-
Total Pension Liability - End of year	\$ 208,697,086	\$ 210,116,172	\$ 168,354,404	\$ 134,403,855	\$ 96,879,111	\$ 72,683,584	\$ 49,160,645	\$ 24,587,822
Plan Fiduciary Net Position								
Contributions - Employer	\$ 15,689,188	\$ 11,690,984	\$ 12,515,861	\$ 12,205,699	\$ 14,673,644	\$ 9,484,992	\$ 9,048,831	\$ 8,811,369
Mandatory employee contributions	10,418,809	9,333,975	10,205,770	9,765,911	8,837,967	7,752,058	7,345,515	6,970,544
Net investment (loss) income	(13,857,941)	41,527,492	(2,216,167)	3,270,862	8,445,590	9,109,732	(76,608)	20,690
Administrative expenses	(1,894,415)	(1,316,430)	(1,540,433)	(1,942,064)	(2,171,693)	(2,648,385)	(3,094,197)	(1,481,590)
Voluntary employee contributions	5,691,594	5,183,291	5,723,982	5,804,274	5,302,650	5,043,347	5,213,744	5,786,488
Benefit payments, including refunds of mandatory contributions	(4,058,032)	(2,743,760)	(2,048,198)	(1,920,550)	(1,308,550)	(1,021,847)	(1,031,060)	(10,603)
Refunds based on voluntary contributions	(3,337,697)	(2,374,644)	(1,581,635)	(1,618,834)	(1,082,042)	(1,112,962)	(1,256,154)	-
Other	40,981	32,244	1,237,613	9,066,288	12,436	61,834	6,586	-
Net Change in Plan Fiduciary Net Position	8,692,487	61,333,152	22,296,793	34,631,586	32,710,002	26,668,769	16,156,657	20,096,898
Plan Fiduciary Net Position - Beginning of year	213,893,857	152,560,705	130,263,912	95,632,326	62,922,324	36,253,555	20,096,898	-
Plan Fiduciary Net Position - End of year	\$ 222,586,344	\$ 213,893,857	\$ 152,560,705	\$ 130,263,912	\$ 95,632,326	\$ 62,922,324	\$ 36,253,555	\$ 20,096,898
City's Net Pension (Asset) Liability - Ending	\$ (13,889,258)	\$ (3,777,685)	\$ 15,793,699	\$ 4,139,943	\$ 1,246,785	\$ 9,761,260	\$ 12,907,090	\$ 4,490,924
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	106.66 %	101.80 %	90.62 %	96.92 %	98.71 %	86.57 %	73.75 %	81.74 %
Covered Payroll	\$ 260,683,104	\$ 233,681,019	\$ 245,732,111	\$ 224,726,503	\$ 246,173,916	\$ 199,307,987	\$ 185,147,364	\$ 180,069,852
City's Net Pension (Asset) Liability as a Percentage of Covered Payroll	(5.33)%	(1.62)%	6.43 %	1.84 %	0.51 %	4.90 %	6.97 %	2.49 %

General Retirement System of the City of Detroit

Required Supplemental Information Schedule of Changes in the City's Net OPEB Liability and Related Ratios Open Death Benefit Plan

	Last Six Fiscal Years					
	2022	2021	2020	2019	2018	2017
Total OPEB Liability						
Service cost	\$ 154,693	\$ 129,692	\$ 142,198	\$ 129,558	\$ 114,919	\$ 103,457
Interest	331,758	311,172	281,348	255,501	223,231	215,053
Differences between expected and actual experience	33,174	2,304	215,945	197,652	325,148	-
Changes in assumptions	117,486	806,689	-	-	-	-
Benefit payments, including refunds	(186,198)	(213,821)	(205,148)	(234,422)	(184,826)	(230,000)
Net Change in Total OPEB Liability	450,913	1,036,036	434,343	348,289	478,472	88,510
Total OPEB Liability - Beginning of year	5,521,109	4,485,073	4,050,730	3,702,441	3,223,969	3,135,459
Total OPEB Liability - End of year	\$ 5,972,022	\$ 5,521,109	\$ 4,485,073	\$ 4,050,730	\$ 3,702,441	\$ 3,223,969
Plan Fiduciary Net Position						
Contributions - Employer	\$ 106,510	\$ 114,790	\$ 113,842	\$ 92,990	\$ 107,627	\$ 88,709
Contributions - Employee	85,236	96,996	86,147	73,457	96,337	80,151
Net investment (loss) income	(671,339)	1,128,321	11,617	246,685	296,957	315,310
Administrative expenses	(6,584)	(18,094)	(55,108)	(61,160)	(32,001)	(61,755)
Benefit payments, including refunds	(186,198)	(213,821)	(205,148)	(234,422)	(184,826)	(230,000)
Other	-	-	-	(221,948)	(221,948)	-
Net Change in Plan Fiduciary Net Position	(672,375)	1,108,192	(48,650)	(104,398)	62,146	192,415
Plan Fiduciary Net Position - Beginning of year	5,132,891	4,024,699	4,073,349	3,955,799	3,893,653	3,701,238
Plan Fiduciary Net Position - End of year	\$ 4,460,516	\$ 5,132,891	\$ 4,024,699	\$ 3,851,401	\$ 3,955,799	\$ 3,893,653
City's Net OPEB Liability (Asset) - Ending	\$ 1,511,506	\$ 388,218	\$ 460,374	\$ 199,329	\$ (253,358)	\$ (669,684)
Plan Fiduciary Net Position as a Percentage of Total OPEB Liability	74.69 %	92.97 %	89.74 %	95.08 %	106.84 %	120.77 %

Contributions to the OPEB plan are not based on a measure of pay; therefore, no covered payroll is presented.

GASB Statement No. 74 was implemented on June 30, 2017 and does not require retroactive implementation. Data will be added as information is available until 10 years of such information is available.

General Retirement System of the City of Detroit

Required Supplemental Information Schedule of OPEB Contributions Open Death Benefit Plan

	Last Six Fiscal Years					
	Years Ended June 30					
	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>
Actuarially determined contribution	\$ 106,510	\$ 114,790	\$ 113,842	\$ 92,990	\$ 93,797	\$ 104,659
Contributions in relation to the actuarially determined contribution	<u>106,510</u>	<u>114,790</u>	<u>113,842</u>	<u>92,990</u>	<u>107,627</u>	<u>88,709</u>
Contribution Excess (Deficiency)	<u><u>\$ -</u></u>	<u><u>\$ -</u></u>	<u><u>\$ -</u></u>	<u><u>\$ -</u></u>	<u><u>\$ 13,830</u></u>	<u><u>\$ (15,950)</u></u>

GASB Statement No. 74 was implemented for the fiscal year ended June 30, 2017 and does not require retrospective implementation. Data will be added as information is available until 10 years of such information is reported.

Notes to Schedule of Contributions

Actuarial valuation information relative to the determination of contributions:

Valuation date Actuarially determined contribution rates are calculated as of June 30, two years prior to the end of the fiscal year in which the contributions are reported.

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Level dollar entry age normal
Amortization method	Level dollar, closed
Remaining amortization period	29 years, board policy
Asset valuation method	3-year smoothed market, no corridor
Inflation	N/A
Investment rate of return	7 percent, net of OPEB plan expenses, including price inflation at 2.50 percent
Retirement age	Experience-based table of rates that are specific to the type of eligibility condition.
Mortality	General, EMS, and DDOT - 100 percent of the RP-2014 Blue Collar Annuitant Table set forward one year for males and females Police and Fire -100 percent of the RP-2014 Blue Collar Annuitant Table with no set forward
Other information	There were no benefit changes during the year.

General Retirement System of the City of Detroit

Required Supplemental Information Schedule of OPEB Investment Returns Open and Closed Death Benefit Plans

	Last Six Fiscal Years Years Ended June 30					
	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>
Annual money-weighted rate of return, net of investment expense	(14.46)%	24.52 %	0.30 %	2.97 %	5.93 %	7.23 %

GASB Statement No. 74 was implemented for the fiscal year ended June 30, 2017 and does not require retrospective implementation. Data will be added as information is available until 10 years of such information is reported.

General Retirement System of the City of Detroit

Required Supplemental Information Schedule of Changes in the City's Net OPEB Liability and Related Ratios Closed Death Benefit Plan

	Last Six Fiscal Years					
	2022	2021	2020	2019	2018	2017
Total OPEB Liability -						
(Decrease) increase in total OPEB liability due to availability of assets	\$ (4,209,561)	\$ 4,496,393	\$ (944,616)	\$ 12,295	\$ 38,822	\$ (15,035)
Total OPEB Liability - Beginning of year	<u>24,966,569</u>	<u>20,470,176</u>	<u>21,414,792</u>	<u>21,402,497</u>	<u>21,363,675</u>	<u>21,378,710</u>
Total OPEB Liability - End of year	<u>\$ 20,757,008</u>	<u>\$ 24,966,569</u>	<u>\$ 20,470,176</u>	<u>\$ 21,414,792</u>	<u>\$ 21,402,497</u>	<u>\$ 21,363,675</u>
Plan Fiduciary Net Position						
Retiree contribution	\$ 9,390	\$ 19,867	\$ 12,925	\$ 9,080	\$ 9,528	\$ -
Net investment (loss) income	(3,277,720)	5,538,571	63,605	1,295,090	1,416,686	1,996,352
Administrative expenses	(32,147)	(18,096)	-	-	-	-
Benefit payments, including refunds	(909,084)	(1,043,949)	(1,074,935)	(1,230,715)	(1,355,391)	(1,949,612)
Other	-	-	53,789	(61,160)	(32,001)	(61,775)
Net Change in Plan Fiduciary Net Position	(4,209,561)	4,496,393	(944,616)	12,295	38,822	(15,035)
Plan Fiduciary Net Position - Beginning of year	<u>24,966,569</u>	<u>20,470,176</u>	<u>21,414,792</u>	<u>21,402,497</u>	<u>21,363,675</u>	<u>21,378,710</u>
Plan Fiduciary Net Position - End of year	<u>\$ 20,757,008</u>	<u>\$ 24,966,569</u>	<u>\$ 20,470,176</u>	<u>\$ 21,414,792</u>	<u>\$ 21,402,497</u>	<u>\$ 21,363,675</u>
City's Net OPEB Liability - Ending	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Plan Fiduciary Net Position as a Percentage of Total OPEB Liability	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %

GASB Statement No. 74 was implemented for the fiscal year ended June 30, 2017 and does not require retrospective implementation. Data will be added as information is available until 10 years of such information is reported.

As the plan will provide future benefits only to the extent that plan assets are available to pay them, the total OPEB liability is equal to the plan's ending net position.

Contributions to the OPEB plan are not based on a measure of pay nor is there applicable payroll; therefore, no covered payroll is presented.

General Retirement System of the City of Detroit

Notes to Required Supplemental Information Schedules

June 30, 2022

Pension Information

Benefit Changes

Legacy Plan

In 2014, the pension plan was frozen. No new employees are allowed to participate in the plan. All benefits for actives were frozen as of June 30, 2014 based on service and average final compensation accrued as of that date.

In 2015, benefits were reduced by 4.5 percent, and the cost of living adjustments were eliminated.

Changes in Assumptions

Legacy Plan

In 2014, amounts reported as changes of assumptions resulted from adjustment of the discount rate from 5.88 percent to 7.2 percent and updating the mortality tables from RP-2000 Combined Table to RP-2014 Blue Collar Mortality Table, and adjustments for longevity and unused sick leave were eliminated.

Legacy and Hybrid Plan

In 2015, amounts reported as changes of assumptions resulted from adjustment of the discount rate from 7.2 to 7.61 percent.

In 2016, amounts reported as changes of assumptions resulted from adjustment of the discount rate from 7.61 to 7.23 percent.

In 2017, amounts reported as changes of assumptions resulted from adjustment of the discount rate from 7.23 to 6.91 percent.

In 2018, amounts reported as changes of assumptions resulted from adjustment of the discount rate from 6.91 to 7.38 percent.

In 2020, amounts reported as changes of assumptions resulted from adjustment of the discount rate from 7.38 to 7.06 percent.

In 2021, amounts reported as changes of assumptions resulted from adjustment of the discount rate from 7.06 to 6.50 percent.

In 2022, amounts reported as changes of assumptions resulted from adjustment of the discount rate from 6.50 to 6.75 percent and updating the mortality tables from the RP-2014 Blue Collar Annuitant Table to the Pub-2010 General Employee table, as well as updates to wage inflation, withdrawal, and disability rates.

OPEB Information

Changes in Assumptions

In 2021, the discount rate changed from 7.00 to 5.99 percent.

In 2022, the discount rate changed from 5.99 to 5.50 percent and updating the mortality tables from the RP-2014 Blue Collar Annuitant Table to the PubG-2010(B) Below-Median General Retiree table for members in the general retirement system and to the PubS-2010 Safety Retiree table for members in the police and fire retirement system, as well as updates to the withdrawal and disability rates.

Other Supplemental Information

Combined Plan for the General Retirement System of the City of Detroit

Statement of Changes in Fiduciary Net Position by Division - Legacy Defined Benefit Plan

For the Year Ended June 30, 2022

	DWSD Subdivisions		General Retirement System - Divisions				Total - General Retirement System (all Divisions)
	GLWA	DWSD-R	DWSD - Division Total (all DWSD Subdivisions)	General Division	DOT	Library	
Beginning Net Position - July 1, 2021	446,947,615	188,824,247	635,771,862	956,924,896	136,380,233	89,572,307	1,818,649,298
Additions:							
Investment income (loss):							
Interest, dividends, and other income	9,370,637	3,958,861	13,329,498	19,404,483	2,437,982	1,761,939	36,933,902
Net decrease in fair value of investments	(33,166,626)	(14,012,074)	(47,178,700)	(68,657,466)	(8,664,985)	(6,229,798)	(130,730,949)
Net unrealized loss on collateralized securities	(32,617)	(13,780)	(46,397)	(67,518)	(8,521)	(6,127)	(128,563)
Investment related expenses	(2,248,916)	(950,111)	(3,199,027)	(4,655,429)	(587,543)	(422,421)	(8,864,420)
Net investment income	(26,077,522)	(11,017,104)	(37,094,626)	(53,975,930)	(6,823,067)	(4,896,407)	(102,790,030)
Contributions:							
Employer contributions:							
Originating from DWSD:							
Regular pension contribution	30,158,700	12,741,300	42,900,000	-	-	-	42,900,000
Contribution for administrative expenses	1,757,500	742,500	2,500,000	-	-	-	2,500,000
DWSD transfer to General Division for administrative expenses	(1,757,500)	(742,500)	(2,500,000)	2,500,000	-	-	-
Total contributions originating from DWSD	30,158,700	12,741,300	42,900,000	2,500,000	-	-	45,400,000
Contributions from other divisions	-	-	-	-	-	2,500,000	2,500,000
Total employer contributions	30,158,700	12,741,300	42,900,000	2,500,000	-	2,500,000	47,900,000
Foundation for Detroit's Future	-	-	-	265,012	109,988	-	375,000
Total contributions	30,158,700	12,741,300	42,900,000	2,765,012	109,988	2,500,000	48,275,000
ASF recoupment interest	1,143,661	483,168	1,626,829	2,980,845	1,045,293	122,536	5,775,503
Other income	75,956	32,089	108,045	133,251	4,083	6,905	252,284
Total additions - net	5,300,795	2,239,453	7,540,248	(48,096,822)	(5,663,703)	(2,266,966)	(48,487,243)
Deductions:							
Member refunds and withdrawals	2,280,297	963,369	3,243,666	5,749,975	4,514,011	288,702	13,796,354
Retirees' pension and annuity benefits	42,793,934	18,079,372	60,873,306	123,652,198	31,726,347	6,504,744	222,756,595
General and administrative expenses	624,491	263,832	888,323	1,337,048	190,555	125,154	2,541,080
ASF Recoupment Write-off	201,945	85,317	287,262	756,740	68,081	109,648	1,221,731
Transfer of general and administrative expenses to General Division	(624,491)	(263,832)	(888,323)	888,323	-	-	-
Total deductions	45,276,176	19,128,058	64,404,234	132,384,284	36,498,994	7,028,248	240,315,760
Net Decrease in Net Position	(39,975,381)	(16,888,605)	(56,863,986)	(180,481,106)	(42,162,697)	(9,295,214)	(288,803,003)
End of Year Net Position Restricted for Pensions - June 30, 2022	406,972,234	171,935,642	578,907,876	776,443,790	94,217,536	80,277,093	1,529,846,295

Combined Plan for the General Retirement System of the City of Detroit

Schedule of DWSD/GLWA Contributions Toward Administrative Expenses as Compared to Actual
DWSD/GLWA Allocable Administrative Expenses

For the Year Ended June 30, 2022

	DWSD Division Total	
	GLWA	DWSD-R
Amount Paid in Excess of Administrative Expenses		
Otherwise Allocable - June 30, 2021	\$ 6,934,650	\$ 2,929,720
DWSD/GLWA contribution for administrative expenses in accordance with plan of adjustment and bankruptcy order	1,757,500	742,500
Administrative expenses otherwise allocable to DWSD/GLWA	<u>(624,491)</u>	<u>(263,832)</u>
Cumulative Amount Paid in Excess of Administrative Expenses		
Otherwise Allocable - June 30, 2022	<u>\$ 8,067,659</u>	<u>\$ 3,408,388</u>

Allocation Between Divisions

The Combined Plan's allocation methodology to allocate fiscal year 2022 activity between the four main divisions (General Division, DOT, DWSD, and Library) is dependent upon each revenue or expense type. Below is a description of the allocation methodology used by the Combined Plan. Where applicable, the allocation methodology outlined in the pension reporting agreement was utilized.

Investment Income - Investment income (including income from securities lending activity) and investment expenses were allocated to the divisions, with the exception of the allocation between DWSD-R and GLWA, based on the net position of each division compared to total net position (excluding the Annuity Savings Fund) as of fiscal year ended June 30, 2021. The investment income and expenses allocated were after adjusting for interest credited to the Annuity Savings Fund.

Administrative Expenses - In accordance with Section 2.3 of the pension reporting agreement, DWSD-R and GLWA's collective allocable share of administrative expenses of approximately \$888,000 has been allocated to the general division. Correspondingly, the expenses transferred to the general division are offset by a \$2.5 million contribution made by DWSD-R and GLWA, collectively, for administrative expenses, which was credited to the general division. This will occur until 2023, at which point the City and GLWA will mutually determine and resolve whether any aggregate over- or underpayment will impact the obligation of DWSD-R and GLWA to make payments to GRS under the pension reporting agreement.

Contributions - In fiscal year 2022, the Plan received contributions from the divisions and the Foundation for Detroit's Future. The employer contributions were allocated between the divisions according to which division the contribution was received from, with the exception of DWSD-R and GLWA's collective payments of \$45,400,00, which were allocated as outlined in the POA and/or the pension reporting agreement (see below). Of the total payment of \$45,400,000, \$2,500,000 reflects DWSD-R and GLWA's agreed-upon share of administrative expenses which, per the pension reporting agreement, is to be transferred to the credit of the general division. The payment from the Foundation was allocated based on a common understanding from the bankruptcy proceedings, which was ultimately determined by the City of Detroit and agreed to by the other divisions. The Foundation proceeds were allocated solely to the general division and DOT in proportion to their respective net pension liability as determined by the City's actuary as of June 30, 2022.

ASF Recoupment - Revenue from the ASF recoupment was allocated between the divisions, other than between DWSD-R and GLWA, according to the division under which the individual's ASF earnings were originally accumulated and paid out.

Member Refunds, Withdrawals, Retirees' Pension, and Annuity Benefits - These deductions were allocated, other than the allocation between DWSD-R and GLWA, based on the original division from which benefits were being provided and withdrawals were being made.

Allocation between DWSD-R and GLWA - Once the above activity was allocated to the divisions, the DWSD division was further subdivided between DWSD-R and GLWA in accordance with the pension reporting agreement, which stipulated such allocation would be dictated to the Plan by DWSD-R and GLWA. Per those instructions, the Plan allocated the DWSD activity between GLWA (70.3 percent) and DWSD-R (29.7 percent).

December 5, 2022

To the Board of Trustees, the
Investment Committee, and Management
General Retirement System
of the City of Detroit

We have audited the financial statements of the General Retirement System of the City of Detroit (the "System") as of and for the year ended June 30, 2022 and have issued our report thereon dated December 5, 2022. Professional standards require that we provide you with the following information related to our audit, which is divided into the following sections:

Sections I - Internal Control Related Matters Identified in an Audit - This includes any deficiencies we observed in the System's internal control that we believe are significant. Current auditing standards require us to formally communicate on an annual basis matters we note about the System's accounting policies and internal control.

Section II - Required Communications with Those Charged with Governance - This includes information that current auditing standards require independent auditors to communicate to those individuals charged with governance. We will report this information annually to the board of trustees and the investment committee of the System.

Section III - Other Recommendations and Related Information - This presents recommendations related to internal control, procedures, and other matters noted during our current year audit. These comments are offered in the interest of helping the System in its efforts toward continuous improvement, not just in the areas of internal control and accounting procedures, but also in operational or administrative efficiency and effectiveness.

We would like to take this opportunity to thank the System's staff for the cooperation and courtesy extended to us during our audit. Their assistance and professionalism are invaluable.

This report is intended solely for the use of the board of trustees, the investment committee, and management of the System and is not intended to be and should not be used by anyone other than these specified parties.

We welcome any questions you may have regarding the following communications, and we would be willing to discuss these or any other questions that you might have at your convenience.

Very truly yours,

Plante & Moran, PLLC

Michelle Watterworth

Michelle M. Watterworth, CPA

Spencer Tawa

Spencer Tawa, CPA

Section I - Internal Control Related Matters Identified in an Audit

In planning and performing our audit of the financial statements of the System as of and for the year ended June 30, 2022, in accordance with auditing standards generally accepted in the United States of America, we considered the System's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control. Accordingly, we do not express an opinion on the effectiveness of the System's internal control.

Our consideration of internal control was for the limited purpose described in the preceding paragraph and was not designed to identify all deficiencies in internal control that might be significant deficiencies or material weaknesses, and, therefore, material weaknesses or significant deficiencies may exist that were not identified. However, as discussed below, we identified certain deficiencies in internal control that we consider to be material weaknesses and another deficiency that we consider to be a significant deficiency.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis.

A material weakness is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected, on a timely basis.

We consider the following deficiencies in the System's internal control to be material weaknesses:

Controls Over the System's Census Data and Actuarial Valuation Process (Repeat Finding)

Background: The System has to accumulate and transmit voluminous member data to the actuary. The System accumulates member data based on information from the City of Detroit, Michigan (the "City"), as well as data the System independently obtains. The System relies on data it extracts from the City of Detroit, Michigan's databases primarily for active and deferred members. The System is responsible for data on retirees, as it will obtain additional information when a member commences retirement.

The actuary then uses this information to prepare the actuarial valuation, which impacts the calculation of the actuarially determined contribution (ADC) and the actuarial accrued liability (AAL) for funding purposes and, under GASB Statement No. 67, impacts the total pension liability disclosed in the System's financial statements.

It is key that the information provided to the actuary is complete and accurate in order to ensure that the funding levels, AAL, and disclosures under GASB Statement No. 67, including the total pension liability, also are accurate.

Issues and recommendations: The System has had issues with the accuracy of the member data for many years. We continued to identify a number of errors with the census data. The more significant errors are as follows:

- Inaccuracies with the average final compensation (AFC) and service years being used in the calculation of frozen accrued benefits (Component II only). Based on our procedures, it was noted that the majority of our sample's actual AFC was higher than reported in the census data. The majority of the discrepancies ranged from 3 to 8 percent of AFC but there were also certain outliers where reported AFC was significantly overstated. Reporting inaccurate AFC could lead to a potential misstatement of the plan's total pension liability. Based on follow-up with the System, the discrepancies in the data are not clear. We recommend the System perform a comprehensive review to determine how to pull the most accurate AFC information to provide to the actuary.
- Service years - During our testing procedures, we noted changes to service years for deferred members in Component II. We do not expect any changes in benefit service years given this plan is frozen as of June 30, 2014. We recommend the System perform procedures in analyzing changes in service years to ensure the only changes relate to data corrections.

Section I - Internal Control Related Matters Identified in an Audit (Continued)

- Death audit - During our testing procedures, we noted a death audit was performed on the deferred members; however, these members were not removed from the census data sent to the actuary. This resulted in 31 members included in the valuation when they should have been removed, thus resulting in the total pension liability calculated being overstated. We recommend the System continue performing these death audits and ensure they are properly utilized to update the census data.

The magnitude of the census issues identified during our testing was significant, particularly with AFC; given our concerns about the potential impact of these errors on the accuracy of the calculation of the total pension liability (TPL), the System's actuary performed additional testing that targeted not only AFC but the totality of the census data used in calculating the TPL. That testing, based on the sample utilized by the actuary, provided substantiation that a load was not required to adjust the data. That said, we continue to encourage the System to put in place controls to further validate the census information each year prior to sending it to the actuary to ensure the data utilized in the valuations is accurate enough not to materially misstate financial data.

Controls Over the System's Information Technology Processes (Repeat Finding)

The System has complex modifiable information technology that integrates with the City of Detroit, Michigan's various payroll databases. The System's IT department is independent of the City and the System's other departments. The security provided by the IT system is important to the validity and the accuracy of the data maintained, including the census information provided to the actuary.

Although the System is currently in the process of modifying the information technology system, we offer the following, which the System should keep in mind as it continues to fully implement the new ERP system:

- Use of automated logs - The System uses customized software for a majority of the System's needs, which includes maintaining the census data and benefits calculation application, which are managed internally by the System's IT personnel and can be modified by the IT department. For all changes to that software, there should be an automated log maintained listing those changes, and no single individual should be able to effect a change without proper authorization. Currently, the System has a process to review, authorize, and track changes, but it is not automated; therefore, it is subject to human error and possible circumvention.
- Master file changes - Additionally, it is recommended that the System implement processes to ensure that master file changes are documented, authorized, and reviewed. The lack of this documentation could result in unauthorized and undocumented changes that go undetected by the System.
- Segregation of duties - Segregation of duty controls provide a separation of users with access to program source code and users with the ability to make or implement changes into the production environment. The ability to make or implement program source code changes should be limited to individuals who cannot access and edit source code. The lack of this control could result in inaccurate or unauthorized changes.

**Section I - Internal Control Related Matters Identified in an Audit
(Continued)**

A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance. We consider the following deficiency in the System's internal control to be a significant deficiency:

Controls Over Investment Reporting

Over 95 percent of the System's reported net position relates to investments. The System has a process in place to accumulate and report investments to be in compliance with generally accepted accounting principles; however, we noted two errors during our audit:

- An investment was overstated by \$1,600,000. This investment is jointly owned along with the Police and Fire Retirement System of the City of Detroit. The investment department internally values this investment. The process is to value the total investment, and then each system records their portion of the investment (each system owns 50 percent). The System incorrectly recorded the total investment value instead of their portion.
- As part of an agreement entered during the year with the City of Detroit, Michigan, the System has pledged collateral in case of a City default on a certain loan agreement between the City and the United States Department of Housing and Urban Development (HUD). The existence of the collateral agreement had financial reporting implications that the System did not identify.

We recommend the System implement additional controls over the System's reporting of investments to ensure investments continue to be recorded in compliance with generally accepted accounting principles. This would include added communication between investment and accounting departments to ensure all activity related to investments is being accounted for properly.

Section II - Required Communications with Those Charged with Governance

Our Responsibility Under U.S. Generally Accepted Auditing Standards

As stated in our engagement letter dated July 15, 2022, our responsibility, as described by professional standards, is to express an opinion about whether the financial statements prepared by management with your oversight are fairly presented, in all material respects, in conformity with U.S. generally accepted accounting principles. Our audit of the financial statements does not relieve you or management of your responsibilities. Our responsibility is to plan and perform the audit to obtain reasonable, but not absolute, assurance that the financial statements are free of material misstatement.

As part of our audit, we considered the internal control of the System. Such considerations were solely for the purpose of determining our audit procedures and not to provide any assurance concerning such internal control.

We are responsible for communicating significant matters related to the audit that are, in our professional judgment, relevant to your responsibilities in overseeing the financial reporting process. However, we are not required to design procedures specifically to identify such matters.

Planned Scope and Timing of the Audit

We performed the audit according to the planned scope and timing previously communicated to you in our meeting about planning matters on August 23, 2022.

Significant Audit Findings

Qualitative Aspects of Accounting Practices

Management is responsible for the selection and use of appropriate accounting policies. In accordance with the terms of our engagement letter, we will advise management about the appropriateness of accounting policies and their application. The significant accounting policies used by the System are described in Note 1 to the financial statements. In the current year, the System implemented both Governmental Accounting Standards Board (GASB) Statement No. 87, *Leases*, and GASB Statement No. 96, *Subscription-Based Information Technology Arrangements (SBITAs)*. GASB Statement No. 87 establishes criteria for identifying and recording leases entered into by the System. GASB Statement No. 96 defines SBITAs and establishes accounting and financial reporting requirements for SBITAs. This implementation had minimal impact on the financial statements.

We noted no transactions entered into by the System during the year for which there is a lack of authoritative guidance or consensus.

There are no significant transactions that have been recognized in the financial statements in a different period than when the transaction occurred.

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected.

The following are the significant estimates affecting the financial statements:

Investment valuations:

The financial statements include investments valued at approximately \$21.4 million (1 percent of net position) on June 30, 2022 whose fair values have been estimated by management in the absence of readily determinable market values (Level 3 investments). In addition, the System has approximately \$762 million of investments for which management estimated values based on net asset values provided by investee management. These investments all have underlying audited financial statements, but those financial statements are not audited as of the same year end as the System.

Section II - Required Communications with Those Charged with Governance (Continued)

The valuation of alternative investments constitutes a very sensitive and significant estimate affecting the financial statements. Management uses various means to value the investments, including utilizing a third-party valuation firm, confirmations from the investment managers, periodic appraisals, guidance from real estate advisors, etc. These estimates are very subjective and highly sensitive to change. We believe management's estimates are in accordance with GAAP.

Estimates inherent in the development of the total pension liability:

The financial statement disclosures and required supplemental information schedules contain information about the System's total pension liability. In order to determine the total pension liability, the actuary must apply certain assumptions that are highly sensitive to estimation. The most sensitive estimates used in the valuation were as follows:

- Assumed long-term rate of return - For the purpose of GASB Statement No. 67, as of June 30, 2022, the System is currently using 6.75 percent for the assumed long-term expected rate of return based on information provided by the System's investment advisor combined with calculations performed by the System. This assumed rate of return was also the single discount rate used at the end of the year. Nationally, this long-term rate of return assumption has garnered significant public attention, with many being critical of the average return assumption used by plans across the United States, which, according to a March 2022 National Association of State Retirement Administrators (NASRA) study, was 6.99 percent. We commend the System on continuing to be critical of this significant assumption, watching the trends nationally, and reevaluating the return assumption annually with a critical eye.
- Single discount rate calculation - The calculation of the single discount rate under GASB Statement No. 67, which is calculated using the long-term assumed rate of return as one of many assumptions, is highly sensitive to estimates the actuary makes about future contributions and future benefit payments. Inherent in those assumptions is some subjectivity surrounding the projection of future contributions, since the System does not have an explicit written funding policy dictating contributions after 2023, although we understand that the System and the City are working on defining such a policy. The assumption made in these calculations is that the actuarially assumed contributions will be made at rates sufficient to fund the benefits by amortizing the unfunded liability over a closed 30-year period.
- Mortality and other assumptions - The mortality and other assumptions were estimated by the actuary based on the results of an experience study for the period July 1, 2015 through June 30, 2020. Generally, the actuary used variations of the Pub-2010 tables.

We evaluated the key factors and assumptions used to develop the estimates above and determined that they are reasonable in relation to the financial statements taken as a whole.

The disclosure of these assumptions and resultant sensitivity of the discount rate can be found in Notes 7 and 8 to the financial statements.

The disclosures in the financial statements are neutral, consistent, and clear. Certain financial statement disclosures are particularly sensitive because of their significance to financial statement and schedule users. The most sensitive disclosures affecting the financial statements and the schedules are the disclosures related to GASB Statement No. 67, including the actuarial valuation results.

Difficulties Encountered in Performing the Audit

We are required to inform those charged with governance of any difficulties encountered related to the performance of the audit. We encountered no significant difficulties in performing and completing our audit.

Disagreements with Management

For the purpose of this letter, professional standards define a disagreement with management as a financial accounting, reporting, or auditing matter, whether or not resolved to our satisfaction, that could be significant to the financial statements or the auditor's report. We are pleased to report that no such disagreements arose during the course of our audit.

Section II - Required Communications with Those Charged with Governance (Continued)

Corrected and Uncorrected Misstatements

Professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that are trivial, and communicate them to the appropriate level of management. None of the misstatements detected as a result of audit procedures and corrected by management were material, either individually or in the aggregate, to the financial statements taken as a whole. The attached schedule summarizes uncorrected misstatements of the financial statements. Management has determined that their effects are immaterial, both individually and in the aggregate, to the financial statements taken as a whole.

Significant Findings or Issues

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, business conditions affecting the System, and business plans and strategies that may affect the risks of material misstatement, with management each year prior to our retention as the System's auditors. However, these discussions occurred in the normal course of our professional relationship, and our responses were not a condition of our retention.

Management Representations

We have requested certain representations from management that are included in the management representation letter dated December 5, 2022.

Management Consultations with Other Independent Accountants

In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a second opinion on certain situations. If a consultation involves application of an accounting principle to the System's financial statements or a determination of the type of auditor's opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all the relevant facts. To our knowledge, there were no such consultations with other accountants.

Section III - Other Recommendations and Related Information

During our audit, we noted areas where we believe there are opportunities for the System to further strengthen internal control or to increase operating efficiencies. Our observations on those areas are presented below for your consideration:

Benefit Payment Classification

The System processes monthly benefit payments for each retiree that are summarized and journalized in a monthly entry. These monthly payroll entries are based on the plan to which each retiree is coded (Component II or I). During testing, it was identified that some individuals' pensions are incorrectly classified between Component I and Component II. While the number of individuals incorrectly classified was insignificant, we recommend the System implement a control to ensure proper classification of members in the IT system. This will become more important as the longevity of Component I grows.

Information Technology Processes

- Currently, there is no formal process to fill out a production release form. Usually, a member of the IT department will inform Ray Tchou to review a production change. Ray is the only individual with the ability to release a production change. We recommend the System have a formal policy for individuals to submit a production release form to document change requests and maintain proper support of approval of any changes.
- It was noted there are administrative user profiles that remained in the System for users no longer employed at the System. These profiles have remained active, as staff need to access old files. In addition, we noted duplicate administrative user profiles for current employees. We recommend the System perform a user profile review and only allow one user profile for each current employee and that user profiles for former employees be immediately deleted upon ceasing employment.

Benefit Payment Calculations

Pension factors are used in calculating an individual's pension payment based on age and option selected. Currently, the pension factor used in the calculation of benefit payments is using an old mortality table (1984 table) and a 7.5 percent rate of return. Pension factors should be updated with a newer mortality table (Pub-2010 Mortality Table is currently being used in the actuarial valuations) and rate of return of 6.75 percent (current rate of return used for funding purposes, as stipulated by the Plan of Adjustment). Our understanding is the System will update these amounts once the benefit calculation software is implemented.

Informational Items

Income Stabilization Fund

As you are aware, based on the Plan of Adjustment, the investment committee may recommend to the board of trustees that a portion or all of the assets that exceed the income stabilization benefits to be paid in the future be used to fund regular pension payments (up to \$35 million). This is allowed beginning in 2022 and requires agreement from at least 75 percent of the independent members of the investment committee on the recommendation. As of June 30, 2022, the Income Stabilization Fund's net position was \$12,875,324. The investment committee may want to utilize this option; if so, it will need to utilize an actuary to assist in making this determination.

Upcoming Accounting Standards Requiring Preparation

We actively monitor new Governmental Accounting Standards Board standards and due process documents and provide periodic updates to help you understand how the latest financial reporting developments will impact the System. In addition to the summaries below and to stay up to date, Plante & Moran, PLLC issues a biannual GASB accounting standard update. The most recent fall 2022 update and a link to previous fall and spring updates are available [here](#).

Section III - Other Recommendations and Related Information (Continued)

GASB Statement No. 99 - Omnibus 2022

This new accounting pronouncement has various effective dates. This statement addresses accounting and financial reporting requirements for specific issues related to financial guarantees, derivative instruments, leases, public-public and public-private partnerships (PPPs), subscription-based information technology arrangements, the transition from the London Interbank Offered Rate (LIBOR), the Supplemental Nutrition Assistance Program (SNAP), nonmonetary transactions, pledges of future revenue, the focus of government-wide financial statements, and terminology.

GASB Statement No. 100 - Accounting Changes and Error Corrections

This new accounting pronouncement will be effective for fiscal years ending June 30, 2024 and after. This statement enhances the accounting and financial reporting requirements for accounting changes and error corrections.

GASB Statement No. 101 - Compensated Absences

This new accounting pronouncement will be effective for fiscal years ending December 31, 2024 and after. This statement updates the recognition and measurement guidance for compensated absences under a unified model, requiring that liabilities for compensated absences be recognized for leave that has not been used and leave that has been used but not yet paid in cash or settled through noncash means. This statement also establishes guidance for measuring a liability for leave that has not been used and updates disclosure requirements for compensated absences.

Significant GASB Proposals Worth Watching

The GASB is working on several projects that result in a comprehensive look at financial reporting for state and local governments. The following are likely to result in significant changes to governmental financial statements in the future.

The Financial Reporting Model exposure draft was issued in June 2020, and the final statement is expected to be released in late 2023. This standard proposes changes to many aspects of the governmental financial statements, mainly for those entities that present fund statements using the modified accrual basis of accounting. While the System does not report such fund statements, there are several smaller changes being proposed in this proposal that may impact the System's financial reporting.

The Revenue and Expense Recognition project aims to develop a comprehensive accounting and financial reporting model for transactions that result in revenue and expenses. The GASB has issued a preliminary views document that proposes a new categorization framework that replaces the exchange/nonexchange transaction notion with a four-step categorization process for classifying a transaction. In addition to this new framework, the proposal also addresses recognition and measurement of revenue and expense transactions. The exposure draft for this project is expected sometime in 2025.

Plante & Moran, PLLC has spent significant time digesting these new proposed standards. We strongly encourage the System to monitor developments with these standards, as the potential impacts are quite broad.

Attachment

Client: **General Retirement System of the City of Detroit**
 Opinion Unit: **Fiduciary Funds (all)**
 Y/E: **6/30/2022**

SUMMARY OF UNRECORDED POSSIBLE ADJUSTMENTS

The effect of misstatements and classification errors identified would be to increase (decrease) the reported amounts in the financial statement categories identified below:

Ref. #	Description of Misstatement	Current Assets	Long-term Assets	Deferred Outflows of Resources	Current Liabilities	Long-term Liabilities	Deferred Inflows of Resources	Equity	Revenue	Expenses	Net Income Statement Impact
FACTUAL MISSTATEMENTS:											
A1	To adjust value of investment in Life Assurance Fund, L.P.	\$ (1,600,000)							\$ (1,600,000)		\$ (1,600,000)
A2	To remove pension payroll liability due to report error				\$ (1,597,526)				1,597,526		
JUDGMENTAL ADJUSTMENTS:											
B1	None										
ITEMS UNABLE TO AUDIT:											
C1	Insight investment - Plante Moran is unable to obtain sufficient audit evidence	(2,800,000)								\$ 2,800,000	
	Total	<u>\$ (4,400,000)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (1,597,526)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (2,474)</u>	<u>\$ 2,800,000</u>	<u>\$ (1,600,000)</u>

PASSED DISCLOSURES AND FINANCIAL STATEMENT PRESENTATION ISSUES:

- D1 The total pension liability, as calculated by the actuary, is based on census information that is either incomplete or inaccurate. The total pension liability would be different had accurate and complete information been provided to the actuary. Based on errors identified, projected understatement of the total pension liability of approximately \$11 million.
- D2 In the Schedule of Changes in the City's Net Pension Liability and Related Ratios (Legacy Plan), covered payroll was unavailable. This information is required, but has been noted as not available.
- D3 The money weighted rate of return disclosed in the financial statements related to the Combined Plan was unable to be substantiated.