Police and Fire Retirement System of the City of Detroit

Financial Report
with Supplemental Information
June 30, 2022

Contents

plante moran

Plante & Moran, PLLC
P.O. Box 307
3000 Town Center, Suite 100
Southfield, MI 48075
Tel: 248.352.2500
Fax: 248.352.0018
plantemoran.com

Independent Auditor's Report

To the Board of Trustees
Police and Fire Retirement System of the City of Detroit

Opinion

We have audited the financial statements of the Police and Fire 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
Police and Fire 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.

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

As management of the Police and Fire Retirement System of the City of Detroit (DPFRS 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 it is looking more and more like there will not be a slowing of the economy or 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 2.0 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:

	2022	2021
Assets	$ 2,907,340,458	$ 3,260,866,411
Liabilities	183,853,966	247,381,334
Fiduciary Net Position Restricted for Pensions	**$ 2,723,486,492**	**$ 3,013,485,077**

	2022	2021
Additions		
Net investment (loss) income	$ (30,853,768)	$ 665,745,824
Securities lending (loss) income	(29,660)	930,517
Contributions:		
Employer	20,055,026	19,209,594
Employee	11,693,749	11,079,231
Foundation	18,300,000	18,300,000
Total contributions	50,048,775	48,588,825
Other income	1,055,717	1,624,032
Total additions	20,221,064	716,889,198
Deductions		
Retirees' pension and annuity benefits	288,107,672	289,020,199
Member refunds and withdrawals	17,779,094	17,154,140
Other expenses	4,332,883	3,276,163
Total deductions	310,219,649	309,450,502
Net (Decrease) Increase in Net Position Held in Trust	**$ (289,998,585)**	**$ 407,438,696**

Fund Overview, Membership, and Governance

The Police and Fire Retirement System of the City of Detroit is a defined benefit pension plan with a defined contribution element, which, as discussed in greater detail below, was frozen by the City of Detroit, Michigan (the “City”) at the conclusion of the 2014 fiscal year. This existing plan, the legacy plan (the “Legacy Plan”), is also referred to as Component II. A new pension plan (the “Hybrid Plan,” also referred to as Component I) was created by the City for its uniformed employees on July 1, 2014. Both the Legacy Plan and the Hybrid Plan are being reported in these financial statements.

DPFRS exists to pay benefits to its active members, retirees, and beneficiaries. Active members earn service credit that entitles them to receive benefits in the future. Both the employer and municipal plan sponsor for the System, the City, and active members have historically contributed to the System. Retirees, beneficiaries, and disabled members are those currently receiving benefits.

Component I of DPFRS was created 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 2,662 active members, with 269 retirees and 761 terminated plan members entitled to but not yet receiving benefits.

Component II of DPFRS is a relatively mature plan in that there are more retirees and beneficiaries receiving current benefits than active members. Membership of the System at June 30, 2021 consisted of 1,962 active members, with 7,904 inactive members receiving benefits and 385 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. 29, which froze the existing pension plan, the Legacy Plan. As of June 30, 2014, no new employees were allowed to participate in the Legacy Plan, and benefit accruals for members with respect to service rendered prior to July 1, 2014 were frozen based on the members' 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.

On July 1, 2014, the City first published a document titled the Combined Plan for the Police and Fire Retirement System of the City of Detroit, Michigan (the “Combined Plan”). On October 19, 2014, the emergency manager issued Order No. 43, which amended and restated the Combined Plan. Before leaving office on December 8, 2014, 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 made changes related to collective bargaining agreements; conformed the combined plan terms to the requirements of the City of Detroit, Michigan's bankruptcy plan; and made clarifying modifications. The Combined Plan is available at DPFRS' website, www.pfrsdetroit.org.

DPFRS governance was modified in December 2014 as part of the City of Detroit, Michigan's bankruptcy plan. DPFRS is governed by a board of trustees (the “Board”) composed of 17 seats. While DPFRS' investment management is now the ultimate responsibility of a nine-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 six members elected by the active membership to serve three-year terms. Expirations of terms of elected trustees are staggered. Two retired members are elected by the retired membership and serve three-year terms. Eight members serve ex officio, these members being the mayor of the City of Detroit, Michigan (or designee); the city treasurer (or deputy treasurer); one representative from the Detroit City Council; the Corporation Counsel (or designee); the finance director (or designee); the budget director (or designee); and two ex officio trustees to be appointed by the mayor. A 17th trustee, who is not a participant of the plan and is not employed by the City, may be selected to serve two years by the board of trustees.

The Investment Committee has five independent members appointed to initial terms with staggered expirations, which terms will all eventually become six years. Four additional members, two active and two 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. Basic pension and disability benefits have been funded through employer and employee contributions plus investment earnings on those contributions. The required employer contributions, previously to the bankruptcy, have been determined by the System's actuaries using the entry age normal cost method. Assumptions used by the actuaries are subject to experience testing every five years. 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.

Subsequent to the City's bankruptcy, for the Legacy Plan, the obligations for contributions to the System through 2023 are determined as fixed amounts pursuant to the provisions in the Plan of Adjustment. Pursuant to the Plan of Adjustment, the System was expected to receive contributions totaling $260.7 million, including $96.0 million from the State of Michigan and at least the present value equivalent of $164.7 million from the foundation donors over a 10-year period covering fiscal year 2015 through fiscal year 2023, as well as at least the present value of $50 million over a 10-year period ending in 2034. The City will retain responsibility for the full funding obligations of the System after 2023, consistent with Michigan law.

The Plan of Adjustment allows for certain of the funding obligations to DPFRS 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 Detroit Institute of Arts (DIA) obligation to make annual $5 million contributions over 10 years ending in 2034 was prepaid. This present value prepayment resulted in DPFRS receiving $19,487,744 on June 30, 2016 from the DIA, which represents the present value, using a 6.75 percent discount rate of $4,650,000 per year for 10 years ending in 2034. DPFRS still expects to receive the equivalent or actual remaining $375,000 per year from the DIA for that 10-year period from 2025 to 2034.

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

As further noted below, depending on the bargaining unit, the following changes became effective with EM Order No. 29:

- The Legacy Plan's obligations, or the existing defined contribution plan and defined benefit plan, were frozen as of June 30, 2014, as referenced above.
- As of July 1, 2014, a new defined benefit plan commenced with mandatory contributions as part of the new Hybrid Plan. Members hired on or before June 30, 2014 contribute 6 percent of base compensation, and all employees hired on or after July 1, 2014 will contribute 8 percent of base compensation.

- As of July 1, 2014, a new defined contribution plan became optional for the annuity savings fund in the new Hybrid Plan. Employees may make voluntary annuity savings fund contributions up to 10 percent of total after-tax pay. Interest will be credited at the actual net investment rate of return of DPFRS, but in no event will it be lower than 0 percent or higher than 5.25 percent.

In the Legacy Plan, active employees historically made a mandatory contribution of 5 percent of pay toward their defined contribution benefits (annuity savings fund) until the date at which they are eligible for retirement. These employee contributions are maintained in separate accounts in the defined contribution plan solely for the benefit of the contributing employee. Before the Legacy Plan was frozen, employee annuity savings fund accounts were credited with investment earnings equal to the rate of return earned by the System subject to minimum earnings of 0 percent. An active employee is allowed in the Legacy Plan to withdraw his or her accumulated contributions in the annuity savings fund plus investment earnings once he or she is eligible for retirement or upon completion of 25 years of service (Detroit Police Officers Association (DPOA) and fire equivalents may do so at 20 years, consistent with new collective bargaining agreements entered in 2014).

Following the freeze of the Legacy Plan, no member was allowed to make contributions into the annuity savings fund of the Legacy Plan with respect to payroll dates occurring on or after August 1, 2014. Mandatory employee contributions of 6 percent of pay after that date support the defined benefits allowed as part of the new Hybrid Plan.

In the new Hybrid Plan, effective July 1, 2014 and beginning with payroll on or after August 1, 2014, active employees were allowed to make voluntary contributions to a new annuity savings fund account of up to 10 percent of total after-tax pay. Interest will be credited to those accounts at the actual net investment rate of return for DPFRS, but it will not be lower than 0 percent or more than 5.25 percent. No in-service withdrawals are permitted from the Hybrid Plan annuity savings fund accounts.

In the Hybrid Plan, employer contributions by the City are allocated according to bargaining unit and the respective collective bargaining agreement (CBA). For Detroit Fire Fighter Association employees, the City will contribute 11.2 percent of base compensation prior to the effective date of the CBA and 12.25 percent after the effective date of the CBA. For Detroit Police Command Officers Association employees, the City will contribute 12.25 percent of base compensation. For Detroit Police Officers Association employees, the City will contribute 11.2 percent of base compensation prior to the effective date of the CBA and 12.25 percent after the effective date of the CBA. For Detroit Police Lieutenants and Sergeants Association employees, 12.25 percent of base compensation will be contributed by the City. For all of these employees, a portion of these contributions will be contributed to a rate stabilization fund, as determined by the City.

Additionally, as noted above, as a result of the Chapter 9 case, cost of living adjustments (COLA) made to annual pension benefits to account for the effects of inflation in the Legacy Plan from and after June 30, 2014 were reduced to 45 percent of the COLAs provided for in police and fire collective bargaining agreements, other contracts, or ordinances. These adjustments were implemented with pension payments made on and after March 1, 2015. Base benefits for DPFRS member benefits accrued through June 30, 2014 were not subject to any cuts in resolution of the Chapter 9 case.

Beginning on March 1, 2015, certain DPFRS members also received benefit pension cut restoration under the Income Stabilization Fund program administered by DPFRS pursuant to the State Contribution Agreement based on eligibility and benefit payments calculated by the State of Michigan.

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, DPFRS paid out approximately $305,900,000 in benefits, consisting of $288,100,000 in benefits to retirees and beneficiaries plus $17,800,000 in refunds of annuity savings fund balances. This represents approximately 11.2 percent of the net position of the System as of June 30, 2022. Employer and employee contributions, including those from the Foundation in accordance with the Plan of Adjustment, were approximately $50,000,000, or 1.8 percent, of the net position of the System. The excess of benefits over contributions is funded through investment income. The public capital markets represent the primary source of opportunities to earn investment income.

As of June 30, 2014, due to the freeze for the Legacy Plan, no additional benefit accruals are being earned in the Legacy Plan.

Asset Allocation

The Board and the Investment Committee believe that the principal determinant of total fund investment performance over long periods of time is asset allocation. The DPFRS asset allocation is built upon the foundation that the obligations of DPFRS 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.

DPFRS has established asset allocation policies that are expected to deliver more than enough 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 System's target asset allocation policy as of June 30, 2022:

Asset Class	Target Allocation
U.S. equity	15.00 %
Non-U.S. equity	12.00
Private equity	10.00
Global minimum volatility	5.00
Private credit	5.00
High yield	10.00
Short duration high yield	4.50
Core fixed income	17.50
Cash	1.00
Midstream energy	5.00
Private real estate	10.00
Hedge funds	5.00

DPFRS asset allocation policies comply with Michigan law.

Investment Results

DPFRS 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

DPFRS' total fund composite return for the year was (2.00) percent, net of fees and expenses, using a time-weighted methodology. The 3-year, 5-year, and 10-year annualized total fund returns were 9.4 percent, 8.3 percent, and 9.2 percent, respectively, net of fees and expenses.

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 lead 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	25.12 %
2020	1.60
2019	5.10
2018	8.20
2017	12.00
2016	2.60
2015	3.40
2014	18.40
2013	9.70
2012	(1.50)
2011	13.80

During fiscal year 2022, the Police and Fire Retirement System of the City of Detroit’s custodial bank and private equity manager reconciled the System’s private equity performance. This reconciliation involved data from a period prior to the fiscal year under audit. The reconciliation resulted in a one-time performance markup of 4.4 percent. As a result of the reconciliation, the System’s investment consultant tasked with the responsibility of calculating and tracking the System’s portfolio performance, including the markup in the cumulative investment return calculation for the 2022 fiscal year. This action produced a cumulative investment return of 2.4 percent for the System. When the System’s cumulative return is calculated without the markup, a loss of 2.0 percent is reported.

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.pfrsdetroit.org or www.rscd.org.

Statement of Fiduciary Net Position

June 30, 2022

	Component II Plan (Legacy)		Component I Plan (Hybrid)	
	Defined Benefit Fund	Income Stabilization Fund	Defined Benefit Fund	Total Combined Plan
Assets				
Cash and cash equivalents (Note 3)	$ 9,930,388	$ 34,219	$ 1,872,389	$ 11,836,996
Investments: (Notes 3 and 4)				
Global equities	875,687,982	1,851,560	81,262,975	958,802,517
Global fixed income	575,276,136	1,620,655	78,157,778	655,054,569
Real assets	399,232,955	925,142	42,884,778	443,042,875
Private equity	425,448,652	992,490	46,174,555	472,615,697
Diversifying strategies	151,767,866	354,046	16,471,585	168,593,497
Receivables:				
Accrued interest receivable	6,881,051	14,187	618,174	7,513,412
Contributions (Note 1)	193	-	4,654,418	4,654,611
Other accounts receivable	16,887	103	1,375,916	1,392,906
Notes receivable from participants	4,557,279	-	52,633	4,609,912
Receivables from investment sales	45,906,116	95,154	4,118,358	50,119,628
Cash and investments held as collateral for securities lending: (Note 3)				
Asset-backed securities	5,596,029	13,055	607,345	6,216,429
Repurchase agreements	12,465,244	29,079	1,352,871	13,847,194
U.S. corporate floating rate	91,651,138	213,805	9,947,030	101,811,973
Capital assets - Net (Note 1)	3,802,916	-	3,425,326	7,228,242
Total assets	2,608,220,832	6,143,495	292,976,131	2,907,340,458
Liabilities				
Claims payable to retirees and beneficiaries	579,481	-	-	579,481
Payables for investment purchases	52,270,049	106,665	4,601,573	56,978,287
Due to City of Detroit, Michigan	354,457	-	-	354,457
Amounts due to broker under securities lending arrangements (Note 3)	107,594,357	250,998	11,677,370	119,522,725
Other liabilities	4,077,499	4,017	178,316	4,259,832
Lease liability	1,230,735	-	928,449	2,159,184
Total liabilities	166,106,578	361,680	17,385,708	183,853,966
Net Position - Restricted for pensions	**$ 2,442,114,254**	**$ 5,781,815**	**$ 275,590,423**	**$ 2,723,486,492**

See notes to financial statements.

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)		
	Defined Benefit Fund	Income Stabilization Fund	Defined Benefit Fund	Total Combined Plan	2021
Additions					
Investment income (loss):					
Interest, dividends, and other income	$ 98,534,100	$ 214,289	$ 9,673,974	$ 108,422,363	$ 73,593,352
Net (decrease) increase in fair value of investments	(111,705,568)	(261,277)	(12,483,972)	(124,450,817)	605,257,996
Investment-related expenses	(13,436,250)	(29,810)	(1,359,254)	(14,825,314)	(13,105,524)
Net investment (loss) gain	(26,607,718)	(76,798)	(4,169,252)	(30,853,768)	665,745,824
Securities lending income (loss):					
Income	407,025	886	40,043	447,954	552,356
Net (loss) income on collateralized securities	(472,971)	(437)	(4,206)	(477,614)	378,161
Net securities lending (loss) income	(65,946)	449	35,837	(29,660)	930,517
Contributions: (Note 2)					
Employer	-	-	20,055,026	20,055,026	19,209,594
Employee	-	-	11,693,749	11,693,749	11,079,231
Foundation	18,300,000	-	-	18,300,000	18,300,000
Total contributions	18,300,000	-	31,748,775	50,048,775	48,588,825
Other income	1,034,190	394	21,133	1,055,717	1,624,032
Total additions - Net	(7,339,474)	(75,955)	27,636,493	20,221,064	716,889,198
Deductions					
Retirees' pension and annuity benefits	280,872,134	59,665	7,175,873	288,107,672	289,020,199
Member refunds and withdrawals	16,264,962	-	1,514,132	17,779,094	17,154,140
General and administrative expenses	2,482,715	-	1,850,168	4,332,883	3,276,163
Total deductions	299,619,811	59,665	10,540,173	310,219,649	309,450,502
Net (Decrease) Increase in Net Position	(306,959,285)	(135,620)	17,096,320	(289,998,585)	407,438,696
Net Position Restricted for Pensions - Beginning of year	2,749,073,539	5,917,435	258,494,103	3,013,485,077	2,606,046,381
Net Position Restricted for Pensions - End of year	**$ 2,442,114,254**	**$ 5,781,815**	**$ 275,590,423**	**$ 2,723,486,492**	**$ 3,013,485,077**

See notes to financial statements.

Note 1 - Significant Accounting Policies

Reporting Entity

The City of Detroit, Michigan (the "City") sponsors the Police and Fire Retirement System of the City of Detroit (the "System" or DPFRS), which consists of two single-employer retirement plans (the "Combined Plan"), as described below.

Component II

This is the legacy plan (the "Legacy Plan"), which represents the original defined benefit plan and 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 new employees were allowed to earn benefits under the existing plan. The emergency manager issued Order No. 29 (Police and Fire 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 I

As of July 1, 2014, all current and future employees participate in the new hybrid pension plan (the "Hybrid Plan"), or Component I. This hybrid plan includes a defined benefit component and a defined contribution component. Component I of the plan document applies to benefits accrued by members on or after July 1, 2014.

Active city employees who participate in the current plan will receive the benefits they have earned under the System through June 30, 2014 plus an additional benefit under the new hybrid plan formula, assuming all vesting requirements are met.

The Combined Plan is a separate and independent trust qualified under applicable provisions of the Internal Revenue Code; it is an independent entity (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 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 financial statements for fiscal year 2022 represent the Legacy Plan, or Component II, and the new Hybrid Plan, or Component I. 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. Any funds received by the System that are designated by the City as UTGO Bond Tax Proceeds or a contribution to the Income Stabilization Fund are credited to the Income Stabilization Fund, as defined in the State Contribution Agreement, which is an exhibit to the Plan of Adjustment. Beginning in 2022, the Investment Committee may recommend to the board of trustees (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.

The assets of the pension trust funds include no securities of or loans to the City or other related parties.

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.

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") had experienced significant financial difficulty and liquidity concerns. As of June 2013, the City had defaulted on approximately $71 million of pension contributions due to the System. During fiscal year 2014, the City did not pay any employer contributions into the System, 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" or the "Plan of Adjustment"). The POA specifies certain provisions pertinent to the Legacy and Hybrid plans, including contributions and benefits.

Since 2015, the contributions received by the System were made in accordance with the provisions of the POA. See Note 10 for significant changes that were implemented by the System under the POA.

Summary of Significant Accounting Policies

The following is a summary of the significant accounting policies used by the Police and Fire 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.

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 $1,417,100,000, or 52 percent, of the System's net position as of June 30, 2022 does not have a readily determinable market value. Of this balance, approximately $13,500,000 has been estimated by management. The remaining $1,403,600,000 is based on a valuation performed by the investee company management, which is subject to annual audits (generally as of December 31).

Note 1 - Significant Accounting Policies (Continued)

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 $4,654,611 in employer contributions receivable. This amount relates to fiscal year 2022 Component I contributions and was paid in July 2022.

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 $50,119,628. 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 $56,978,287. This amount was paid subsequent to year end.

Notes Receivable from Participants

In Component II (Legacy) and Component I (Hybrid), any active, terminated, duty-disabled, or retired police and fire employee who is or has been a participant in the Annuity Savings Plan 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 saving 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 $4,557,279 and $52,633 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 System 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.

Note 1 - Significant Accounting Policies (Continued)

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 the 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.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the Unites 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 System's governance was modified in December 2014 as part of the City's bankruptcy plan. The System's board of trustees and Investment Committee administer the Police and Fire 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, calculation of pension benefits presently expressed in the System are not subject to amendment before June 30, 2023, unless an amendment is required to maintain the tax-qualified status of the System. The obligation to contribute to and maintain the System was established by the city charter and negotiations with the employees' collective bargaining units.

The board of trustees is composed of 17 seats. Six members of the Board are elected by the active membership to serve three-year terms. Expirations of terms of elected trustees are staggered. Two retired members are elected by the retired membership and serve three-year terms. Eight members serve ex officio, these members being the mayor of the City of Detroit, Michigan (or designee); the city treasurer (or deputy treasurer); one representative from the Detroit City Council; the Corporation Counsel (or designee); the finance director (or designee); the budget director (or designee); and two ex officio trustees to be appointed by the mayor. A 17th trustee, who is not a participant of the plan and is not employed by the City, may be selected to service two years by the board of trustees.

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

Note 2 - Pension Plan Description (Continued)

Benefits Provided

The System provides retirement, disability, and death 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:

	Component II (Legacy Plan)	Component I (Hybrid Plan)
Date of member count	June 30, 2021	June 30, 2021
Inactive plan members or beneficiaries currently receiving benefits	7,904	269
Inactive plan members entitled to but not yet receiving benefits	385	761
Active plan members (includes DROP members of 728 for Component II and 111 for Component I)	1,962	2,662
Total employees covered by the plan	10,251	3,692

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.

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 System 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 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.q.ii.A of the POA. For fiscal year 2022, contributions were from the Foundation for Detroit's Future (the "Foundation") in the amount of $18.3 million. Going forward, no more employer contributions will be made toward Component II until 2024, other than those that will continue to be made from proceeds of the Foundation's contributions, as specified in the POA, assuming all requirements are met.

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 11.2 percent, or 12.25 percent of base compensation of active members, depending on the bargaining unit. These contribution rates are fixed by the POA through June 30, 2023. During fiscal year 2022, the City contributed $20,055,026 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.

Note 2 - Pension Plan Description (Continued)

Because there were no actuarially determined contributions for Component I, there is no required schedule of the City's 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 by the Combined Plan. For the year ended June 30, 2022, the active member contribution rate for employees hired before July 1, 2014 was 6 percent of annual pay and was 8 percent of annual pay for employees hired after July 1, 2014. During fiscal year 2022, the plan received mandatory and voluntary employee contributions of $11,693,749.

Deferred Retirement Option Program (DROP)

The contribution and benefits provisions of Component I plan may not be amended by the City prior to July 1, 2023 other than as required to comply with (i) applicable federal law or (ii) the Plan of Adjustment. However, on September 13, 2018, the City filed a Motion for Authority to Modify the Confirmed Plan of Adjustment to revise the Deferred Retirement Option Program for certain Component I plan members. The motion was filed pursuant to recently negotiated collective bargaining agreements and sought to extend the DROP from a maximum period of 5 years to 10 years for eligible command officers, lieutenants, and sergeants. Under the DROP, eligible Component I plan members may defer the receipt of their full retirement benefit and instead continue active service while collecting 75 percent of their monthly retirement benefit into a third-party account. DROP participants no longer accrue additional service credit in the Component I plan during their remaining active service. The DROP allocations continue if the member continues to be actively employed as a police officer or a firefighter with the City. The member is eligible to withdraw the amounts deposited with the third-party administrator upon retirement. In addition, upon retirement, the retiree receives 100 percent of his or her retirement benefits. On October 31, 2018, the bankruptcy court granted the City's motion to extend the DROP for command officers, lieutenants, and sergeants. On April 19, 2019, the City filed a similar motion to extend the DROP for all other police officers pursuant to a similar provision in a negotiated collective bargaining agreement approved in October 2018. This motion was also granted by the bankruptcy court on May 9, 2019. On August 31, 2021, the City filed a motion to extend the DROP from a maximum period of 10 years for lieutenants and sergeants whose retirement would result in a hardship on department needs or operations determined by the chief of police. After mutual agreement with the member, an extension of the retirement date may be granted in 1-year increments, not to exceed an additional 5 years, for a total of 15 total years in the DROP. This motion was granted by the bankruptcy court on September 21, 2021.

Note 3 - Deposits and Investments

The System is authorized by Michigan Public Act 314 of 1965, as amended, to invest 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.

Note 3 - Deposits and Investments (Continued)

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 $2.9 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.

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
U.S. government	$ 93,150	$ 3,276	$ 28,259	$ 29,198	$ 32,417
U.S. government mortgage-backed securities	90,501	2,091	2,800	6,502	79,108
Government securities	45,894	36,885	2,012	3,390	3,607
Corporate bonds	316,566	15,946	148,125	77,247	75,248
Asset-backed securities	8,628	4,370	3,639	619	-
Total	$ 554,739	$ 62,568	$ 184,835	$ 116,956	$ 190,380

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.

Note 3 - Deposits and Investments (Continued)

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	CCC	NR
Corporate bonds	$ 12,270	$ 5,707	$ 53,044	$ 97,948	$ 55,225	$ 40,685	$ 3,095	$ 48,592
U.S. government mortgage-backed securities	1,795	1,377	780	-	-	-	-	86,549
Government securities	38,411	3,362	1,591	876	397	230	1,026	-
Asset backed	7,938	-	690	-	-	-	-	-
Total	$ 60,414	$ 10,446	$ 56,105	$ 98,824	$ 55,622	$ 40,915	$ 4,121	$ 135,141

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.

The following securities are subject to foreign currency risk:

Currency (in Thousands)	Equity	Fixed Income	Cash	Forward Contracts, including Receivable (Payable)	Net Investment Receivable
Australian dollar	$ 2,214	$ -	$ -	$ 3,201	$ -
Brazil real	1,058	-	13	(11)	33
Canadian dollar	6,590	-	46	4,535	290
Chinese Yuan Renminbi	-	-	-	-	8
Danish krone	3,960	-	-	-	54
Eurocurrency unit	65,337	-	59	(2,389)	1,345
Hong Kong dollar	11,988	-	24	(24)	76
Indian rupee	779	-	-	-	-
Indonesian rupiah	261	-	-	-	-
Japanese yen	16,327	-	39	6,038	497
Mexican peso	590	1,498	-	-	15
New Taiwan dollar	3,862	-	3	-	24
Norwegian krone	1,352	-	-	-	5
Pound sterling	28,190	-	(88)	(12,695)	500
South African rand	873	-	-	-	19
South Korean won	216	-	8	-	1
Swedish krona	2,640	-	2	1,181	76
Swiss franc	3,921	-	9	2,760	220
Thailand baht	197	-	-	-	-
Uruguayan peso	-	1,008	-	-	-
Total	$ 150,355	$ 2,506	$ 115	$ 2,596	$ 3,163

Note 3 - Deposits and Investments (Continued)

Securities Lending

As permitted by state statutes and under the provisions of a securities lending authorization agreement, the System 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 103.75 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 five 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 $119,507,265 and $115,190,834, respectively.

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	$ 27,861,190
U.S. equities	59,919,610
Non-U.S. equities	1,330,642
U.S. governments	24,595,231
Non-U.S. fixed income	1,484,161
Total	$ 115,190,834

The fair market value of the collateral pool related to securities lending at June 30, 2022 was $121,875,596. The investments were in asset-backed securities, floating rate notes, and repurchase agreements. Approximately 92 percent of these securities had a duration of less than 1 year, 5 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	$ 2,924,806
AA	30,289,244
A	66,023,946
CC	3,292,336
NR	19,345,264
Total	$ 121,875,596

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.

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)	$ 93,149,898	$ 45,937,804	$ -	$ 139,087,702
U.S. government mortgage-backed securities	-	90,500,687	-	90,500,687
Corporate bonds	-	316,751,262	-	316,751,262
Corporate floating rate notes	-	101,811,975	-	101,811,975
Asset-backed securities	-	14,844,952	-	14,844,952
Total debt securities	93,149,898	569,846,680	-	662,996,578
Equity:				
Common stock	693,890,945	-	-	693,890,945
Preferred stock	26,533,016	5,652,324	-	32,185,340
Total equity	720,423,961	5,652,324	-	726,076,285
Partnership investments	-	-	3,200,000	3,200,000
Real estate private equity funds	-	-	10,195,935	10,195,935
Real estate-related investments	-	-	58,000	58,000
Total	$ 813,573,859	$ 575,499,004	$ 13,453,935	1,402,526,798
Investments measured at NAV:				
International equity fund				162,568,133
Fixed-income funds				66,825,970
Global equity funds				125,279,466
Hedge funds				168,593,497
Real estate funds				403,766,047
Private equity funds				476,577,646
Total investments measured at NAV				1,403,610,759
Total investments measured at fair value				$ 2,806,137,557

A total of $13,847,194 of repurchase agreements recorded at amortized cost is not included in the fair value table above.

Fixed-income and equity securities 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	$ 162,568,133	$ -	Monthly	Up to 30 days
Fixed-income funds	66,825,970	-	Monthly	Up to 30 days
Global equity funds	125,279,466	-	Monthly	Up to 30 days
Hedge funds	168,593,497	-	Annually	Up to 100 days
Real estate funds	403,766,047	10,399,200	Quarterly	Up to 90 days
Private equity funds	476,577,646	188,253,059	N/A	N/A
Total investments measured at NAV	$ 1,403,610,759	$ 198,652,259		

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 predominantly in 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 predominantly in 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 global equity funds include investments in funds that are designed to achieve a return volatility considerably less than the global equity market while providing market-like or above-market returns over a full market cycle. 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.

Note 4 - Fair Value Measurements (Continued)

The real estate funds class include 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 equivalents).

The private equity class is an alternative investment class and consists of investments in companies that are not listed on a public exchange. The Police and Fire 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 Police and Fire 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 System'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 System'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
U.S. equity	15.00 %
Non-U.S. equity	12.00
Private equity	10.00
Global minimum volatility	5.00
Private credit	5.00
High yield	10.00
Short duration high yield	4.50
Core fixed income	17.50
Cash	1.00
Midstream energy	5.00
Private real estate	10.00
Hedge funds	5.00
Total	100.00 %

Note 6 - Pension Plan Reserves

Component II (Legacy Plan)

In accordance with the Combined Plan for the Police and Fire Retirement System of the City of Detroit, Michigan 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.

Note 6 - Pension Plan Reserves (Continued)

The survivor's benefit fund accumulates regular interest on funds contributed by members prior to July 1, 2014 and from which benefits will be paid but only to the extent sufficient assets are credited to the fund at the time a claim for benefits is made. In the event there are insufficient assets credited to the survivor's benefit fund to pay the benefits, then the benefits will be payable from the pension reserve fund.

The employee reserve (the "Annuity Savings Fund" or ASF) is credited as employee contributions are received throughout the year; the System maintains a record of the amount contributed by each employee and credits interest annually. Eligible active members may elect to withdraw their accumulated (annuity) contributions plus investment earnings. Upon retirement, a member can elect to annuitize or receive a lump sum of his or her 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.

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. 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 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.

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

Section K-3 of the Combined Plan provides for restoring the pension improvement factor (COLA) that was reduced as part of the POA under certain circumstances (see Note 10 for further information). As part of the terms of the restoration, a Restoration Reserve Account is established based on an actuary analysis. In 2022, the Restoration Reserve Account was established based on an actuarial calculation as of June 30, 2021, with a balance of $26.5 million. The Restoration Reserve Account will be credited with interest in an amount equal to the net return on plan investments but capped at the actuarially assumed rate of investment return. In the event of net losses, the credited asset value of the restoration reserve account will be diminished to reflect such losses and any required transfer the PFRS pension reserve account, as provided in the POA.

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	$ 90,444,830	$ 90,444,830
Pension reserve fund	2,785,276,714	2,295,064,604
Annuity reserve fund	30,359,225	30,359,225
Survivor's benefit fund	N/A	-
Pension accumulation fund	N/A	-
Restoration reserve account	26,245,595	26,245,595

Note 6 - Pension Plan Reserves (Continued)

Component I (Hybrid Plan)

In accordance with the Combined Plan for the Police and Fire Retirement System of the City of Detroit, Michigan 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.

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 G-2(f) of Component II. See Note 9 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.

The deferred retirement option plan fund shall accumulate the amounts credited to the DROP accounts of members who have elected to participate in that program pursuant to Article 12, together with earnings thereon, provided that the DROP accounts are held and invested within the System. At year end, the DROP reserve is zero because the System is not holding those assets.

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 System and from which certain expenses incurred in connection with the administration and operation of the System 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 System will be credited. Transfers from the income fund will be made to credit earnings and losses to various reserves of the System 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 System, 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.

Note 6 - Pension Plan Reserves (Continued)

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	$ 70,564,978	$ 70,564,978
Accumulated voluntary employee contribution fund	2,808,182	2,808,182
Pension accumulation fund	N/A*	196,567,706
Rate stabilization fund	5,649,557	5,649,557

*Required reserve has not been calculated as of June 30, 2022.

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

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

Total pension liability	$ 3,205,964,135
Plan fiduciary net position	2,442,114,254
City's net pension liability	$ 763,849,881
Plan fiduciary net position as a percentage of the total pension liability	76.17 %

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	6.93%	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 PubS-2010 Public Safety Retiree Table for males and females. 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.

Cost of Living Adjustments (COLA)

For the calculation of the total pension liability, COLA has been limited in accordance with the Plan of Adjustment to 1.0125 percent.

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

Attribution Period

As addressed more fully in Note 10, 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 this 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.

Discount Rate

The discount rate used to measure the total pension liability as of June 30, 2022 was 6.93 percent; however, the single discount rate used at the beginning of the year was 6.88 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 both at the beginning of the year and at 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 System are projected to be at the minimum amounts required by the Plan of Adjustment through 2023, followed by actuarially determined contributions beginning in 2024. The projection of cash flows assumes full funding of the actuarially assumed contributions will be made at rates sufficient to fund the benefits by amortizing the unfunded liability over a closed 20-year period, based on the System's adopted funding policy.

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

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 note, are summarized in the following table:

Asset Class	Long-term Expected Real Rate of Return
U.S. equity	4.60 %
Non-U.S. equity	5.35
Private equity	8.00
Global minimum volatility	5.03
Private credit	4.65
High yield	4.28
Short duration high yield	1.98
Core fixed income	2.08
Cash	0.85
Midstream energy	5.95
Private real estate	4.94
Hedge funds	4.38

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

The following presents the net pension liability of the City, calculated using the discount rate of 6.93 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 (5.93 percent) or 1 percentage point higher (7.93 percent) than the current rate:

	1 Percentage Point Decrease (5.93%)	Current Discount Rate (6.93%)	1 Percentage Point Increase (7.93%)
Net pension liability of the City	$ 1,062,624,883	$ 763,849,881	$ 509,368,538

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	$ 244,303,670
Plan fiduciary net position	275,590,423
City's net pension asset	$ (31,286,753)
Plan fiduciary net position as a percentage of the total pension liability	112.81 %

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 per year.

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

The investment rate of return (net of pension plan investment expense, including inflation) applied to the beginning of year total pension liability was 6.88 percent as compared to 6.93 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 PubS-2010 Public Safety 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: This plan has a postretirement COLA feature known as the Variable Pension Improvement Factor (VPIF) of a 1 percent compound COLA. It can be granted beginning on July 1, 2015 only if the five-year projection shows the plan's funded status above 90 percent based upon 6.75 percent future investment return. For the purpose of the total pension liability, the actuary assumed the full 1.00 percent compound COLA beginning on July 1, 2022 to model the potential average COLA over time (beginning of year total pension liability was based on a 0.50 percent COLA assumption). Had no COLA been assumed, the net pension asset would have been $55,383,934. Had 0.50 percent COLA been assumed, the net pension asset would have been $43,838,957.

Discount Rate

The discount rate used to measure the total pension liability as of June 30, 2022 was 6.93 percent; however, the single discount rate used at the beginning of the year was 6.88 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 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 System are projected to be at the minimum amounts required by the Plan of Adjustment through 2023, followed by actuarially determined contributions beginning in 2024. The projection of cash flows assumes full funding of the actuarially assumed contributions will be made at rates sufficient to fund the benefits by amortizing the unfunded liability over a closed 20-year period, based on the System's adopted funding policy.

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).

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

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 6.93 percent, as well as what the City's net pension asset would be if it were calculated using a discount rate that is 1 percentage point lower (5.93 percent) or 1 percentage point higher (7.93 percent) than the current rate:

	1 Percentage Point Decrease (5.93%)	Current Discount Rate (6.93%)	1 Percentage Point Increase (7.93%)
Net pension liability (asset) of the City	$ 11,928,253	$ (31,286,753)	$ (65,821,937)

Note 9 - 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 System and will be used to fund transition costs related to Component I. The transition cost is a measure of the liability that Component I 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 System'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 fiscal years ended June 30, 2022 and 2021. The cumulative amount of transfers from prior fiscal years was $25,649,557.

Note 10 - 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 on December 10, 2014.

In fiscal year 2015, the System began implementing the provisions of the POA, which included a 55 percent reduction in cost of living adjustments (or escalators) and a program for income stabilization for certain of the most vulnerable retirees. Separately, at the start of the 2015 fiscal year, the City, through the emergency manager, adopted ordinances that resulted in the freeze of the Legacy Plan (Component II) as of June 30, 2014 and creation of the new Hybrid Plan (Component I) effective July 1, 2014.

Note 10 - City of Detroit, Michigan's Chapter 9 Bankruptcy Plan of Adjustment and Continuing Impact on the Plan (Continued)

The POA also required certain governance changes for the System. Those governance changes included establishment of the Investment Committee effective December 10, 2014, which officially marked the beginning of implementation of the POA, though the System had for several 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. Though there were some delays in fiscal year 2017 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 2017 and continued to do so in 2018 through 2022.

Legacy Plan (Component II)

The Fourth Amended Disclosure Statement (the "Pension Settlement"), as part of the POA, compromised pension claims and provided funding support for legacy pension benefit obligations under the Police and Fire Retirement System of the City of Detroit Component II from the State of Michigan and the Detroit Institute of Arts.

For DPFRS, 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) provided for the following:

- A 55 percent reduction in cost of living adjustments or escalators, paid after July 1, 2014
- 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 as 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 DPFRS members also received benefit pension cut restoration under the Income Stabilization Program administered by DPFRS, 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.3q.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. As of June 30, 2022, no pension restorations have been approved.

As of March 1, 2015, less than three months after the effective date of the POA, DPFRS successfully implemented the vast majority of benefit changes required by the POA, including the ISF Program coordinated in conjunction with the Michigan Department of Treasury.

Note 10 - 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 POA. Pursuant to the POA, the System is expected to receive contributions totaling $260.7 million through fiscal year 2023. The POA calls for the System to receive $96 million from the State of Michigan and at least the present value of $164.7 million from foundation donors covering fiscal year 2015 through fiscal year 2023, as well as at least the present value of $50 million over a 10-year period ending in 2034. After 2023, the City will retain responsibility for the full funding obligations of Component II of the System, consistent with Michigan law.

In fiscal year 2022, DPFRS received all contributions required by the POA from the foundation donors.

Hybrid Plan (Component I)

In the new Hybrid Plan, effective July 1, 2014, the following provisions were in place:

- Active employees are allowed to make voluntary contributions up to 10 percent of total after-tax pay. Interest will be credited to those accounts at the actual net investment rate of return for DPFRS, but it will not be lower than 0 percent or more than 5.25 percent.
- Employer contributions by the City will be between 11.2 and 12.25 percent of base compensation.
- A variable pension improvement factor of 1.0 percent, which operates similar to an escalator (or COLA), is available, subject to certain Hybrid Plan (Component I) funding level requirements being maintained.

DPFRS 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 DPFRS Legacy Component II underfunded liability.

Note 11 - 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

Required Supplemental Information

Schedule of Changes in the City's 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	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 34,967,708
Interest	237,148,881	248,397,228	253,048,801	256,873,505	257,841,119	261,449,503	264,233,821	306,063,331	304,737,369
Changes in benefit terms	(2,370,648)	-	(4,490,368)	(3,111,623)	-	-	-	(555,898,068)	(102,236,878)
Differences between expected and actual experience	(51,650,288)	(57,047,219)	(13,062,993)	(3,862,962)	32,674,674	(10,648,606)	45,955,553	(59,621,651)	-
Changes in assumptions	(275,526,672)	87,209,168	13,171,037	-	(6,975,457)	(4,082,068)	114,463,362	(95,014,469)	540,356,835
Benefit payments, including refunds	(297,137,096)	(300,892,657)	(300,575,691)	(305,611,684)	(308,390,724)	(306,098,871)	(304,467,162)	(313,816,916)	(323,540,473)
Net Change in Total Pension Liability	(389,535,823)	(22,333,480)	(51,909,214)	(55,712,764)	(24,850,388)	(59,380,042)	120,185,574	(718,287,773)	454,284,561
Total Pension Liability - Beginning of year	3,595,499,958	3,617,833,438	3,669,742,652	3,725,455,416	3,750,305,804	3,809,685,846	3,689,500,272	4,407,788,045	3,953,503,484
Total Pension Liability - End of year	**$ 3,205,964,135**	**$ 3,595,499,958**	**$ 3,617,833,438**	**$ 3,669,742,652**	**$ 3,725,455,416**	**$ 3,750,305,804**	**$ 3,809,685,846**	**$ 3,689,500,272**	**$ 4,407,788,045**
Plan Fiduciary Net Position									
Contributions - Employer, state, and foundation	$ 18,300,000	$ 18,300,000	$ 18,300,000	$ 18,300,000	$ 18,300,000	$ 18,300,000	$ 37,787,744	$ 114,300,000	$ -
Contributions - Employee	-	-	-	3,600	42,114	14,055	24,801	593,292	7,783,141
Net investment (loss) income	(26,673,664)	614,813,767	31,216,638	98,338,862	237,675,162	282,398,410	24,618,573	122,736,820	568,760,793
Administrative expenses	(2,482,715)	(1,970,846)	(2,449,246)	(2,956,754)	(4,933,926)	(4,433,656)	(3,103,689)	(7,630,692)	(11,373,226)
Benefit payments, including refunds	(297,137,096)	(300,892,657)	(300,575,691)	(305,611,684)	(308,390,724)	(306,098,871)	(304,467,163)	(313,816,916)	(323,540,473)
Other	1,034,190	1,575,135	(86,917)	(3,534,473)	1,469,201	(18,508,410)	855,743	2,368,638	-
Net Change in Plan Fiduciary Net Position	(306,959,285)	331,825,399	(253,595,216)	(195,460,449)	(55,838,173)	(28,328,472)	(244,283,991)	(81,448,858)	241,630,235
Plan Fiduciary Net Position - Beginning of year	2,749,073,539	2,417,248,140	2,670,843,356	2,866,303,805	2,922,141,978	2,950,470,450	3,194,754,441	3,276,203,299	3,034,573,064
Plan Fiduciary Net Position - End of year	**$ 2,442,114,254**	**$ 2,749,073,539**	**$ 2,417,248,140**	**$ 2,670,843,356**	**$ 2,866,303,805**	**$ 2,922,141,978**	**$ 2,950,470,450**	**$ 3,194,754,441**	**$ 3,276,203,299**
Net Pension Liability - Ending	**$ 763,849,881**	**$ 846,426,419**	**$ 1,200,585,298**	**$ 998,899,296**	**$ 859,151,611**	**$ 828,163,826**	**$ 859,215,396**	**$ 494,745,831**	**$ 1,131,584,746**
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	76.17 %	76.46 %	66.81 %	72.78 %	76.94 %	77.92 %	77.45 %	86.59 %	74.33 %
Covered Payroll	$ -	$ -	$ 105,233,078	$ 121,642,956	$ 145,936,144	$ 137,250,599	$ 130,510,339	$ 131,220,124	$ 165,552,280
Net Pension Liability as a Percentage of Covered Payroll	- %	- %	1,140.88 %	821.17 %	588.72 %	603.40 %	658.35 %	377.04 %	683.52 %

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 2022 and 2021 is not available.

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	(2.00)%	25.40 %	1.97 %	4.95 %	8.20 %	11.30 %	1.30 %	3.80 %	19.80 %

*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) did not invest in anything other than cash and cash equivalents.

See notes to required supplemental information schedules.

Required Supplemental Information
Schedule of City Contributions (Legacy Plan)

Last Ten Fiscal Years

Years Ended June 30

	2022**	2021**	2020**	2019**	2018**	2017**	2016**	2015**	2014*	2013*
Actuarially determined contribution	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 50,642,443	$ 42,005,173
Contributions in relation to the actuarially determined contribution	-	-	-	-	-	-	-	-	-	-
Contribution Deficiency	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ (50,642,443)**	**$ (42,005,173)**
Covered Payroll	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 165,552,280	$ 186,694,166
Contributions as a Percentage of Covered Payroll	- %	- %	- %	- %	- %	- %	- %	- %	- %	- %

*As of June 30, 2022, the June 30, 2013 and 2014 annual required contributions have not been paid and have not been recognized as revenue.

**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 in accordance with GASB Statement No. 67 within this schedule.

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	$ 31,313,616	$ 29,728,185	$ 28,748,296	$ 26,663,624	$ 24,811,302	$ 25,414,182	$ 24,068,808	$ 24,835,814
Interest	13,848,191	12,024,767	9,617,240	7,633,137	5,787,404	4,474,574	2,743,066	894,089
Changes in benefit terms	(879,115)	-	(748,011)	(518,835)	-	-	-	-
Differences between expected and actual experience	26,669,076	(11,056,157)	(62,923)	(3,122,804)	(3,622,053)	(10,708,737)	(4,077,124)	-
Changes in assumptions	(8,591,674)	8,358,707	1,037,498	-	(305,021)	(221,533)	2,424,058	(1,008,119)
Voluntary employee contributions	379,146	387,694	439,745	278,811	96,205	34,134	15,459	14,370
Benefit payments, including refunds	(8,690,005)	(5,218,373)	(4,707,048)	(4,013,358)	(561,561)	(223,826)	(101,251)	-
Net Change in Total Pension Liability	54,049,235	34,224,823	34,324,797	26,920,575	26,206,276	18,768,794	25,073,016	24,736,154
Total Pension Liability - Beginning of year	190,254,435	156,029,612	121,704,815	94,784,240	68,577,964	49,809,170	24,736,154	-
Total Pension Liability - End of year	**$ 244,303,670**	**$ 190,254,435**	**$ 156,029,612**	**$ 121,704,815**	**$ 94,784,240**	**$ 68,577,964**	**$ 49,809,170**	**$ 24,736,154**
Plan Fiduciary Net Position								
Contributions - Employer	$ 20,055,026	$ 19,209,594	$ 18,028,236	$ 17,832,015	$ 19,244,806	$ 16,448,246	$ 15,831,763	$ 14,606,971
Mandatory employee contributions	11,314,603	10,691,537	9,926,428	9,489,473	9,074,671	8,554,893	7,958,271	7,390,335
Net investment (loss) income	(4,133,415)	50,626,671	1,389,177	5,235,528	8,634,505	8,897,786	252,426	21,019
Administrative expenses	(1,850,168)	(1,305,317)	(1,619,042)	(1,868,784)	(1,928,614)	(2,648,034)	(3,000,369)	(685,677)
Voluntary employee contributions	379,146	387,694	439,745	278,811	96,205	34,134	15,459	14,370
Benefit payments	(7,175,873)	(4,530,674)	(4,361,603)	(3,617,625)	(345,297)	(137,325)	(63,882)	(19,554)
Refunds	(1,514,132)	(687,699)	(345,445)	(395,733)	(216,264)	(86,501)	(37,369)	-
Other	21,133	48,759	1,628,497	4,042,474	55,354	20,009,058	-	-
Net Change in Plan Fiduciary Net Position	17,096,320	74,440,565	25,085,993	30,996,159	34,615,366	51,072,257	20,956,299	21,327,464
Plan Fiduciary Net Position - Beginning of year	258,494,103	184,053,538	158,967,545	127,971,386	93,356,020	42,283,763	21,327,464	-
Plan Fiduciary Net Position - End of year	**$ 275,590,423**	**$ 258,494,103**	**$ 184,053,538**	**$ 158,967,545**	**$ 127,971,386**	**$ 93,356,020**	**$ 42,283,763**	**$ 21,327,464**
City's Net Pension (Asset) Liability - Ending	**$ (31,286,753)**	**$ (68,239,668)**	**$ (28,023,926)**	**$ (37,262,730)**	**$ (33,187,146)**	**$ (24,778,056)**	**$ 7,525,407**	**$ 3,408,690**
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	112.81 %	135.87 %	117.96 %	130.62 %	135.01 %	136.13 %	84.89 %	86.22 %
Covered Payroll	$ 163,686,288	$ 156,812,283	$ 150,648,322	$ 133,730,109	$ 145,936,144	$ 137,250,599	$ 130,510,339	$ 121,627,871
City's Net Pension (Asset) Liability as a Percentage of Covered Payroll	(19.11)%	(43.52)%	(18.60)%	(27.86)%	(22.74)%	(18.05)%	5.77 %	2.80 %

See notes to required supplemental information schedules.

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, the cost of living adjustments decreased to 1.0125 percent.

Legacy and Hybrid Plan

In 2019, new DROP plan provisions were adopted. The new provisions allow DPLSA members to participate in the program for a maximum of 10 years, up from the prior maximum of 5 years.

In 2020, new DROP plan provisions were adopted. The new provisions allow DPOA members to participate in the program for a maximum of 10 years, up from the prior maximum of 5 years.

In 2022, new DROP plan provisions were adopted. The new provisions allow DPLSA members to participate in the DROP program for a maximum of 15 years, up from the prior maximum of 10 years.

Changes in Assumptions

Legacy Plan

In 2014, amounts reported as changes of assumptions resulted from adjustment of the discount rate from 8 percent to 7.2 percent and updating the mortality tables from the RP-2000 Combined Table to the RP-2014 Blue Collar Annuitant Table.

Legacy and Hybrid Plan

In 2015, amounts reported as changes of assumptions resulted from adjustment of the discount rate from 7.2 percent to 7.47 percent.

In 2016, amounts reported as changes of assumptions resulted from adjustment of the discount rate from 7.47 percent to 7.15 percent.

In 2017, amounts reported as changes of assumptions resulted from adjustment of the discount rate from 7.15 percent to 7.17 percent.

In 2018, amounts reported as changes of assumptions resulted from adjustment of the discount rate from 7.17 percent to 7.19 percent.

In 2020, amounts reported as changes of assumptions resulted from adjustment of the discount rate from 7.19 percent to 7.15 percent.

In 2021, amounts reported as changes of assumptions resulted from adjustment of the discount rate from 7.15 percent to 6.88 percent.

In 2022, amounts reported as changes of assumptions resulted from adjustment of the discount rate from 6.88 percent to 6.93 percent and updating the mortality tables from the RP-2014 Blue Collar Annuitant Table to the Pub-2010 Public Safety Employee table, as well as updates to the wage inflation, withdrawal, and disability rates.