HOWARD COUNTY RETIREMENT PLAN

FINANCIAL STATEMENTS AND REQUIRED SUPPLEMENTARY INFORMATION

YEARS ENDED JUNE 30, 2022 AND 2021

HOWARD COUNTY RETIREMENT PLAN
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YEARS ENDED JUNE 30, 2022 AND 2021

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CliftonLarsonAllen LLP
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INDEPENDENT AUDITORS' REPORT

Retirement Plan Committee
Howard County Retirement Plan
Howard County, Maryland

Report on the Audit of the Financial Statements

Opinions

We have audited the accompanying financial statements of the Howard County Retirement Plan (the Plan), as of and for the years ended June 30, 2022 and 2021, and the related notes to the financial statements, which collectively comprise the Plan's basic financial statements as listed in the table of contents.

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the Plan as of June 30, 2022 and 2021, and the respective changes in financial position for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinions

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

Responsibilities of Management for the Financial Statements

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

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

Auditors' Responsibilities for the Audit of the Financial Statements

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

In performing an audit in accordance with GAAS and *Government Auditing Standards*, 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 Plan'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 Plan'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.

Retirement Plan Committee
Howard County Retirement Plan

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis and the Schedule of Changes in the County's Net Pension Liability and Related Ratios, the Schedule of County Contributions, and the Schedule of Investment Returns, as listed 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 who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with GAAS, 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.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated November 27, 2022, on our consideration of the Plan's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Plan's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Plan's internal control over financial reporting and compliance.

CliftonLarsonAllen LLP

CliftonLarsonAllen LLP

Baltimore, Maryland
November 27, 2022

Introduction

The Howard County Retirement Plan (the Plan) is a single-employer defined benefit public employee retirement plan administered by Howard County, Maryland, which provides retirement benefits as well as death and disability benefits and cost-of-living adjustments.

Responsibilities for administration and operation of the Plan are vested in a Retirement Committee with seven members (Committee). The Committee has authority to establish and amend the respective benefit and contribution provisions.

Membership Data

	07/01/21	7/1/2020	7/1/2019
Active	1,854	1,869	1,833
Retired and beneficiaries	954	897	840
Disabled	16	14	15
Terminated vested	217	213	223
Total	3,041	2,993	2,911

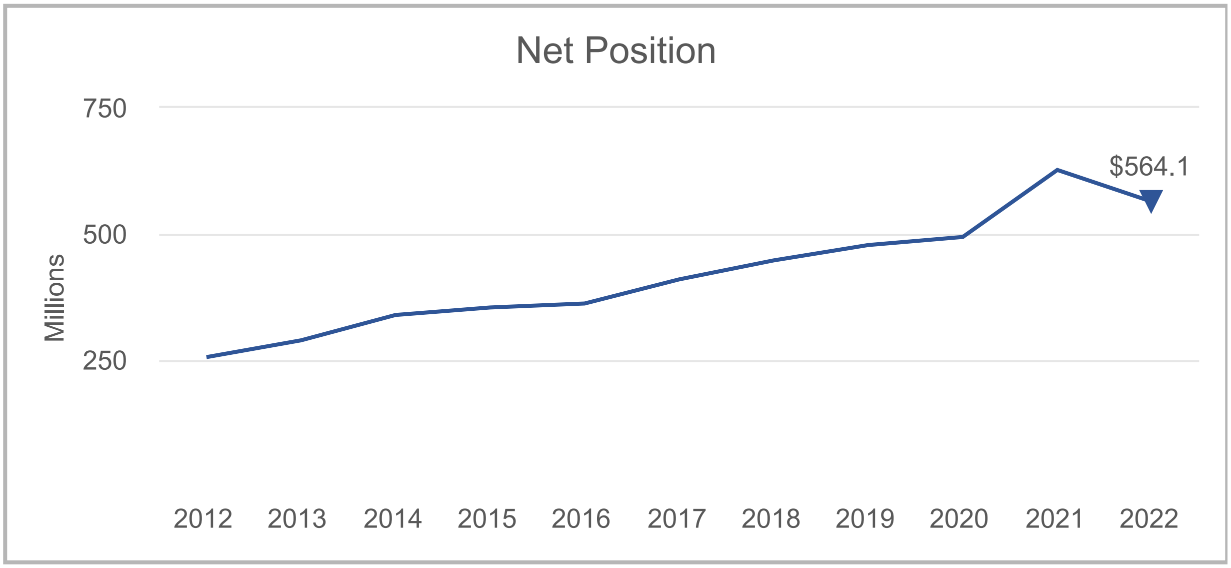
Financial Highlights

The financial statements of the Plan were prepared using the accrual basis of accounting. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan. Employee and employer contributions are recognized as revenues in the period in which employee services are performed and expenses are recorded when the corresponding liabilities are incurred, regardless of when payment is made. Investments are reported at fair value.

As of June 30, 2022, the net position was $564.1 million as compared to $627.1 million at June 30, 2021. The decrease in net position of $62.9 million can be attributable to a broad sell off in public equities and public credit across the portfolio. The market has had to digest higher real and nominal interest rates, accelerated expectations for rate hikes by the fed amid inflation pressures, and increasing recessionary concerns. While public equities and public credit have negative returns for the fiscal year, the alternatives portfolio, which consists of hedge funds, private equity and private debt, have remained positive for the fiscal year, providing nice diversification overall. The Trust has outperformed the medium public plans (All public plans greater than one billion dollars) for the fiscal year ending June 30, 2022.

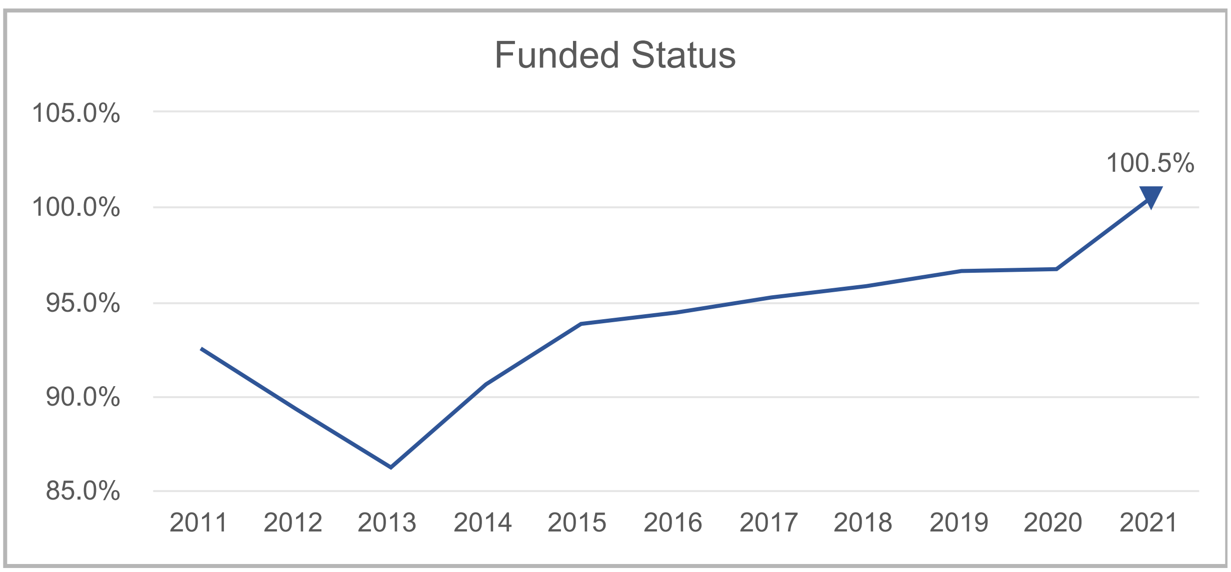
	Fiscal Year*		
	2022	**2021**	**2020**
Contributions	$21.24	$ 20.75	$ 19.78
Benefit Payments	$23.69	$ 21.24	$ 20.07
Contribution rates	11.8%	11.8 %	11.6 %
# of benefit recipients	1,030	950	893

*amounts n m ons



Funded Status

The Plan's funding objective is to meet long-term benefit obligations through contributions and investment income. The funding ratio, which is the actuarial value of assets divided by the actuarial accrued liability is an estimate of how well the Plan is meeting that objective. A higher ratio indicates the Plan is better funded. The funded ratio of the Plan was 100.5% and 96.7% as of July 1, 2021 and July 1, 2020, respectively.



Overview of the Basic Financial Statements

In this financial report, the basic financial statements consist of the Statement of Fiduciary Net Position and the Statement of Changes in Fiduciary Net Position with accompanying notes as of and for the year ended June 30, 2022 with comparative information as of and for the year ended June 30, 2021 and June 30, 2020. The financial position is comprised of assets, which primarily consist of investments less liabilities, including accounts payable and investment commitments payable.

The Statement of Changes in Fiduciary Net Position presents the additions to and deductions from the Plan’s net position during the year. The Plan receives contributions from participants and the County as well as income or losses from investments and related activities. The primary deductions are the payments of benefits, which are the Plan’s primary objectives. Deductions also include refunds to members who leave the Plan as well as administrative expenses.

Notes to the Basic Financial Statements

The Notes to Financial Statements contain disclosures and discussions which support the data presented in the financial statements. The notes present information about the administration of the Plan, significant accounting policies, and investments. The notes are an integral part of the financial statements and should be considered in conjunction with any review of the financial statements.

Required Supplementary Information (RSI)

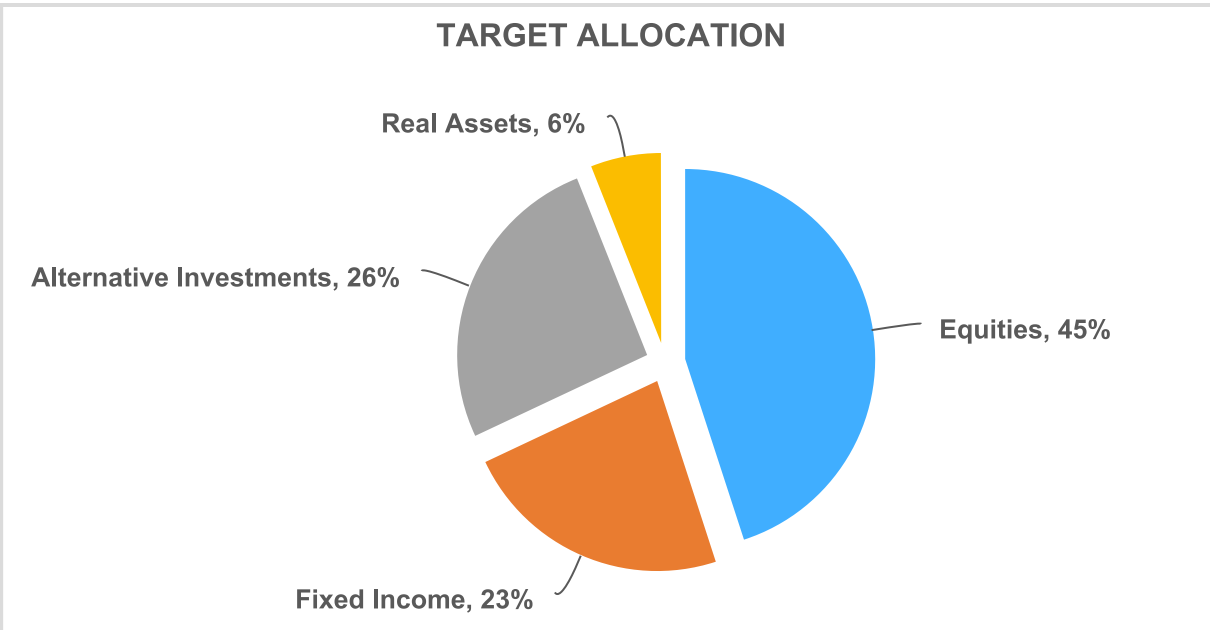
The RSI section provides actuarially determined information about the Plan and displays changes for the Plan’s Net Pension Liability (NPL) and related ratios, contributions related to payrolls by the Plan, and money-weighted investment returns.

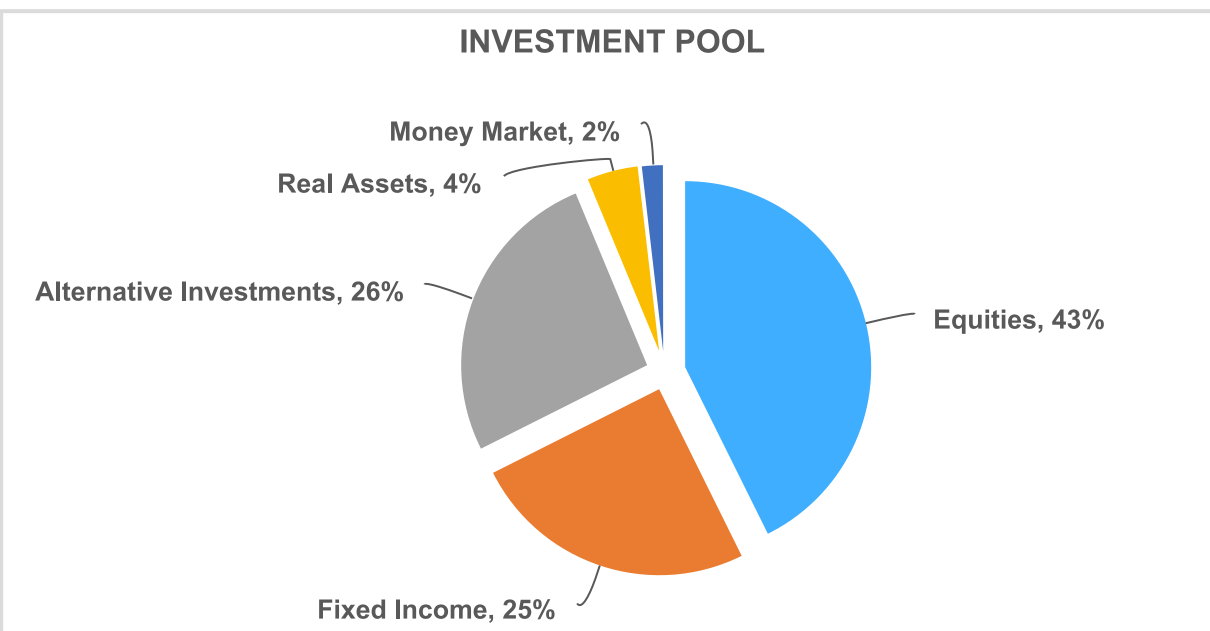
The following Condensed Statements of Fiduciary Net Position and Changes in Fiduciary Net Position present financial information for the Plan and compares fiscal years 2022, 2021, and 2020.

	2022	2021	2020	2022 Percentage Change	2021 Percentage Change
Assets					
Receivables	$ 3,510,031	$ 5,985,893	$ 2,084,541	(41)%	187 %
Investments	563,215,528	626,910,134	493,375,042	(10)%	27 %
Prepaid Insurance	23,874	21,594	19,687	11 %	10 %
Total Assets	566,749,433	632,917,621	495,479,270	(10)%	28 %
Liabilities					
Investment Purchased	2,376,992	5,583,158	906,006	(57)%	516 %
Accounts Payable	234,835	265,515	365,935	(12)%	(27)%
Total Liabilities	2,611,827	5,848,673	1,271,941	(55)%	360 %
Net Position Held in Trust for Pension Benefits	564,137,606	$627,068,948	$494,207,329	(10)%	27 %
Additions					
Employer Contributions	16,347,464	$ 15,888,630	$ 15,034,157	3 %	6 %
Employee Contributions	4,897,184	4,857,068	4,748,920	1 %	2 %
Investment Income (Loss)	(60,063,755)	133,778,266	16,691,053	(145)%	701 %
Total Additions	(38,819,107)	154,523,964	36,474,130	(125)%	324 %
Deductions					
Benefit Payments and Refunds	23,694,999	21,237,784	20,067,428	12 %	6 %
Administrative Expense	417,236	424,561	396,732	(2)%	7 %
Total Deductions	24,112,235	21,662,345	20,464,160	11 %	6 %
Net Change	(62,931,342)	132,861,619	16,009,970	(147)%	730 %
Net Position Held in Trust for Pension Benefits:					
Beginning of Year	627,068,948	494,207,329	478,197,359	27 %	3 %
End of Year	$564,137,606	$627,068,948	$494,207,329	(10)%	27 %

Investments

Investments consist of US equities (large cap and non-large cap), international equities (international developed markets and international emerging markets), fixed income, real assets, money market and alternatives (private equities and hedge funds). The Plan is a participant in a combined pension investment pool and it does not own an undivided interest in specific assets of the Pool. The investments presented by category are the Plan's proportionate share of the investments by category of the Pool that are reported at fair value.



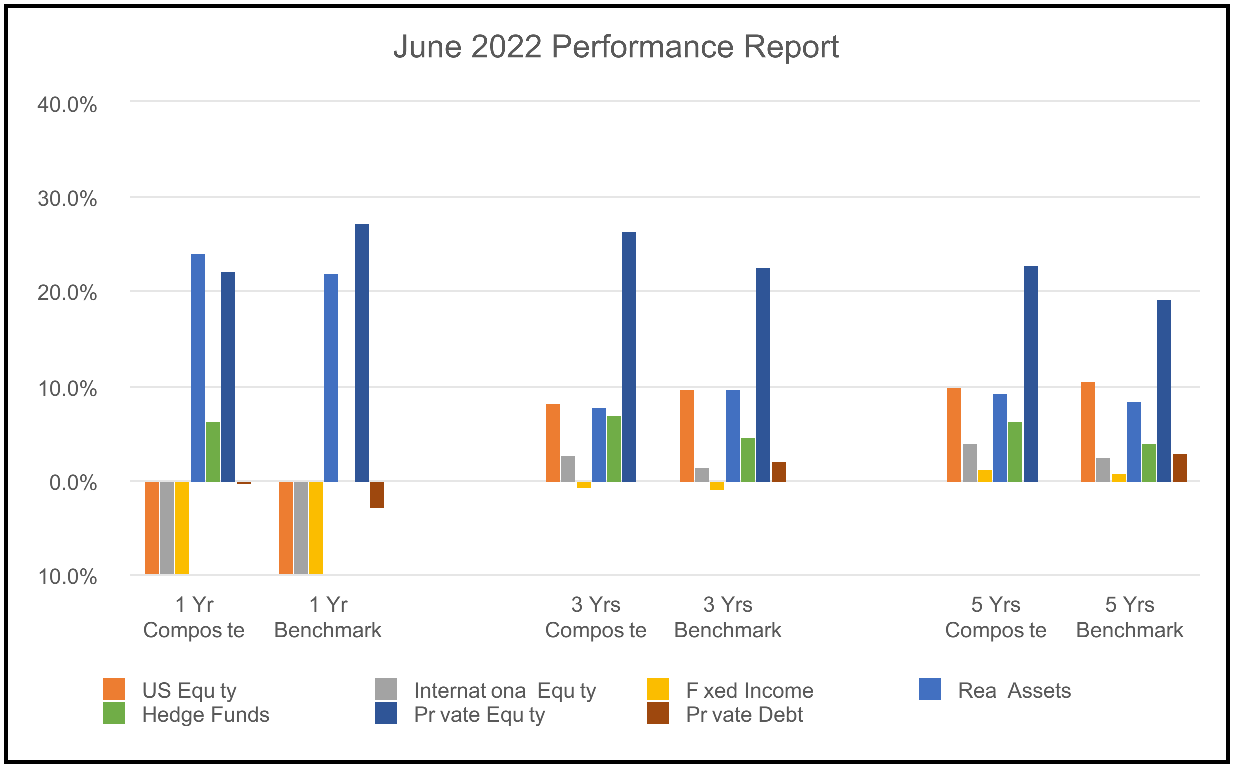


Note: Due to rounding % may not add up to 100%

LONG TERM EXPECTED RATE OF RETURN	
Equities	4.85%
Fixed Income	2.46%
Alternative Investments	6.21%
Real Assets	4.33%

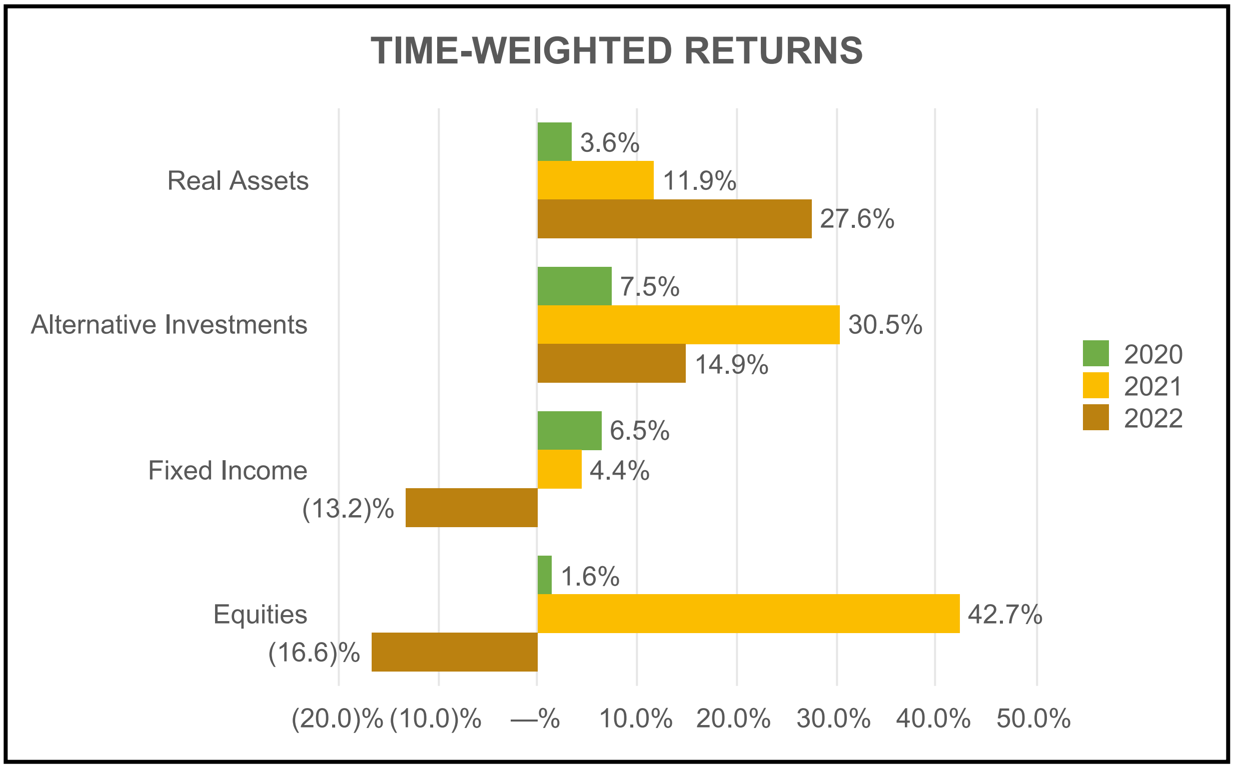
Investment Performance Summary

The retiree's benefit is paid from investment earnings and contributions. Displayed below is a comparison of the portfolio's returns (composite) to its policy benchmark in one year, three years and five years:



Note: The performance listed may not reflect final returns as of the date listed as private markets report investment returns on a quarter basis lag.

The investment Pool's time-weighted returns (gross of fees) are displayed by investment type in the following table.



Additional Information

The Plan's financial statements are presented in accordance with accounting principles generally accepted in the United States of America and are available at Howard County's web page www.howardcountymd.gov/Departments/Finance/Financial-Information/Audit-Information.

HOWARD COUNTY RETIREMENT PLAN
STATEMENTS OF FIDUCIARY NET POSITION
JUNE 30, 2022 and 2021

	2022	2021
ASSETS		
Receivables:		
Employer Contributions	$ 1,271,426	$ 1,196,061
Member Contributions	415,099	331,939
Interest and Dividends	567,941	389,823
Due from Sale of Investments	1,239,514	4,058,526
Other	16,051	9,544
Total Receivables	3,510,031	5,985,893
Investments:		
Money Market	10,299,243	11,475,951
Equities	240,399,081	277,666,862
Fixed Income	140,305,288	162,654,756
Alternative Investments	147,213,189	153,458,261
Real Assets	24,998,727	21,654,304
Total Investments	563,215,528	626,910,134
Prepaid Insurance	23,874	21,594
Total Assets	566,749,433	632,917,621
LIABILITIES		
Investment Purchased	2,376,992	5,583,158
Accounts Payable	233,071	265,515
Other	1,764	—
Total Liabilities	2,611,827	5,848,673
Fiduciary Net Position Held in Trust for Pension Benefits	$ 564,137,606	$ 627,068,948

See accompanying Notes to Financial Statements.

HOWARD COUNTY RETIREMENT PLAN
STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION
YEARS ENDED JUNE 30, 2022 AND 2021

	2022	2021
ADDITIONS:		
CONTRIBUTIONS		
Employer	$ 16,347,464	$ 15,888,630
Member	4,897,184	4,857,068
Total Contributions	21,244,648	20,745,698
INVESTMENT INCOME		
Net Change in Fair Value of Investments	(77,400,195)	115,320,103
Interest	1,659,615	1,625,479
Dividends	16,961,488	18,187,386
Other, Net	75,575	19,869
Total Investment Income (Loss)	(58,703,517)	135,152,837
Less: Investment Expense	1,360,238	1,374,571
Net Investment Income (Loss)	(60,063,755)	133,778,266
Total Additions	(38,819,107)	154,523,964
DEDUCTIONS:		
BENEFITS		
Annuities	22,853,250	20,767,365
Death	335,209	115,512
Refunds of Contributions	506,540	354,907
Total Benefits	23,694,999	21,237,784
Administrative Expenses	417,236	424,561
Total Deductions	24,112,235	21,662,345
NET CHANGE	(62,931,342)	132,861,619
FIDUCIARY NET POSITION HELD IN TRUST FOR PENSION BENEFITS:		
Beginning of Year	627,068,948	494,207,329
End of Year	$ 564,137,606	$ 627,068,948

See accompanying Notes to Financial Statements.

NOTE 1 PLAN DESCRIPTION

Plan Administration

The Howard County Retirement Plan (the Plan) is a single-employer defined benefit public employee retirement system established and administered by Howard County, Maryland (the County), to provide defined pension benefits for those County employees who do not participate in other County and State plans. The Plan was established on July 1, 1995, at which time approximately 73% of the County's employees transferred from the State Retirement and Pension Systems of Maryland to the Plan. The Plan is considered part of the County's financial reporting entity and is included in the County's financial statements as a pension trust fund. The accompanying financial statements present only the operations of the Plan and are not intended to present the financial position and results of operations of the County.

Plan Membership

At July 1, 2021 and 2020, the Plan's membership consisted of the following:

	2021	2020
Active	1,854	1,869
Retired and Beneficiaries	954	897
Disabled	16	14
Terminated Vested	217	213
Total	3,041	2,993

The Plan was established, is operated, and may be amended under the provisions of the Howard County Code, Sections 1.400 and 1.401 to 1.478. Essentially all of the County's full-time benefited and part-time benefited employees (excluding career firefighters and sworn police officers) are eligible to participate in the Plan, with exceptions provided for in Howard County Code Section 1.406. The Retirement Plan Committee established by Howard County Code Section 1.455 has full power and authority to administer and operate the Plan in accordance with its terms and in particular the authority contained in subsection 1.454(a). The Pension Oversight Commission established by Howard County Code, Section 1.482 provides ongoing assessment and evaluation of the Plan's operations.

Benefits Provided

Under the Retirement Plan, participants become vested after five years of eligibility service and are entitled to a benefit beginning at age 62. If an employee leaves employment or dies before five years of eligibility service, accumulated employee contributions plus interest are refunded to the employee or designated beneficiary. A participant who becomes totally and permanently disabled may retire prior to normal retirement and receive a benefit. Both disability and death benefits vary if incurred in the line of duty.

NOTE 1 PLAN DESCRIPTION (CONTINUED)

Benefits Provided (Continued)

Participating general employees with 30 years of eligibility service, regardless of age, or who attain the age of 62 and older, with 2 to 5 years of eligibility service (for a total of 67 years), are entitled to a normal retirement benefit. For creditable service earned prior to June 30, 2012, the benefit is 1.55% of the participant's average compensation times the participant's creditable service; for creditable service after July 1, 2012, the multiplier is 1.66%. The Plan permits early retirement for participants who attain the age of 55 with at least 15 years of Eligibility Service or have 25 years of eligibility service, regardless of age. For early retirement, the benefit is reduced by 0.5% for each month that the benefit begins prior to normal retirement date.

For participating AFSCME Local 3085 the benefit is 1.66% of the participant's average compensation times all years of creditable service.

Participating Corrections employees are entitled to receive a normal retirement benefit of 2.5% of average compensation multiplied by years of creditable service (up to 20 years) plus 1.0% of average compensation multiplied by creditable service greater than 20 years but less than 30 years (excluding sick leave, which is always credited at 1.0% of average compensation). Normal retirement is the attainment of age of 62 and older, with 2 to 5 years of eligibility service (for a total of 67 years), or the completion of 20 years of eligibility service, regardless of age.

Benefits in pay status are adjusted annually for a postretirement cost of living adjustment (COLA). The Plan uses the Consumer Price Index (CPI-U) for the Baltimore-Columbia-Towson area as published by the Bureau of Labor Statistics to calculate the change in retiree allowances each July. The maximum annual COLA is 3%.

Contributions

The Plan is authorized to establish or amend the obligation to make contributions under the provisions of Sections 1.423 and 1.465 of the Howard County Code. The Plan's funding policy provides for periodic employer contributions at actuarially determined rates that, expressed as percentages of annual covered payroll, are sufficient to accumulate assets to pay benefits when due. Participant contributions are 8.5% of base pay for participating Corrections employees with less than 20 years of creditable service, 0% of base pay for participating Correction employees with greater than 20 years of creditable service and effective January 1, 2014, 3% of base pay for other participants. The County funds the remainder of the cost of employees' participation in the Plan which was 11.8% of covered payroll in fiscal year 2022 and fiscal year 2021.The County contribution to the Plan is determined through an actuarial valuation performed by Bolton Partners, Inc. for each fiscal year. In fiscal year 2022, the County contribution to the Plan was in excess of the actuarially determined contribution. This increase in contribution was adopted in order to maintain stability from year to year. Expenses incurred in the administration and operation of the Plan are funded by the Plan.

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES AND PLAN ASSET MATTERS

Method Used to Value Investments

The Plan's investments are maintained in a combined investment pool. The Plan does not own an undivided interest in specific assets of the Pool. The investments presented by category are the Plan's proportionate share of the investments by category of the Pool and are reported at fair value. Short-term investments such as money market investments are reported at amortized cost, which approximates fair value. Securities traded on national or international exchanges are valued at the last reported sales price at current exchange rates. Securities that do not have an established market are reported at estimated fair value derived from third-party pricing services. Purchases and sales of investments are recorded on a trade date basis. The fair values of real estate investments are based on net asset values (NAV) provided by the investment managers. The fair value of non-pooled investments is determined annually and is based on current market prices. The fair value of investments in open-end mutual funds is determined based on the fund's current share price.

The Plan invests in assets measured at NAV and include private equity, private credit, hedge funds, real assets and real estate funds, which are collectively considered alternative investments. Alternative investments include interests in limited partnerships and limited liability companies invested in venture capital, private equities, and other investments. These investments are recorded based on net asset value amounts established by the respective fund managers as a practical approximation of fair value. Because alternative investments are not readily marketable, the estimated value is subject to uncertainty and, therefore, may differ materially from the amount reported.

Basis of Accounting

The Plan's financial statements are prepared using the accrual basis of accounting. Employer and employee contributions are recognized as revenue in the period in which employee services are performed and expenses and refunds are recorded when the corresponding liabilities are incurred, regardless of when payment is made. Benefits are due and payable in accordance with the benefit terms.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates that affect the reported amounts in the financial statements and accompanying notes. Actual results could differ from those estimates.

Income Taxes

The Internal Revenue Service issued a determination letter on September 30, 2016, which stated that the Plan and its underlying trust qualify under the applicable provisions of the Internal Revenue Code and therefore are exempt from Federal income taxes.

NOTE 3 INVESTMENTS

Investment Policy

The Plan's policy in regard to the allocation of invested assets is established and administered by the Retirement Plan Committee. Specific investment goals stated in the policy are reviewed at least annually and, when appropriate, new goals and standards are adopted by the Retirement Plan Committee. The policy is expected to provide diversification of assets in an effort to maximize investment return to the Plan consistent with prudent market and economic risk. All of the Plan's assets are to remain invested at all times in the asset classes as designated by the policy.

The following strategic asset allocation policy was adopted by the Plan on March 21, 2002, last amended on April 29, 2021, and remained in effect as of June 30, 2022:

Asset Class	Target Allocation
Equities	45.0 %
Fixed Income	23.0
Alternative Investments	26.0
Real Assets	6.0
Total	100.0 %

Concentrations - Fiscal Year 2022

The Plan held investments in the following organizations that represent 5% or more of the pension plan's fiduciary net position: Baillie Gifford (5%), BlackRock (8%), Blackstone (5%), Dodge and Cox (6%), LSV (7%), Magnitude (5%), Mondrian (5%), PIMCO (6%), and Westfield (7%).

Concentrations - Fiscal year 2021

The Plan held investments in the following organizations that represent 5% or more of the pension plan's fiduciary net position: Baillie Gifford (5%), BlackRock (8%), Blackstone (5%), Dodge and Cox (9%), LSV (7%), Magnitude (5%), Mondrian (5%), PIMCO (9%), and Westfield (9%).

Risks and Uncertainties

The Plan invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market, foreign currency and credit risks. 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 in the statements of fiduciary net position.

NOTE 3 INVESTMENTS (CONTINUED)

Risks and Uncertainties (Continued)

Interest Rate Risk

The Plan's investment policy does not place any limits on the professional investment managers with respect to the duration of investments for the Plan. The Plan's fixed income investments by maturity and type at June 30, 2022 were as follows:

Investment Type		Fair Value/ NAV	Weighted Average Maturity (in Years)
Corporate Bonds	$	12,754,918	14.24
U.S. Government - Sponsored Enterprises		9,322,081	25.29
Government Issued/Treasuries		33,107,887	12.79
Other Asset-Backed Securities		1,822,826	20.23
Collateralized Mortgage Obligations		2,768,301	43.84
Municipal Securities		555,635	15.33
Interest Rate Swap		(157,403)	4.79
Commingled Funds and Preferred Stock Identified as Fixed Income for Reporting Purposes*		80,131,043	Not Applicable
Total	$	140,305,288	
Portfolio Weighted Average Maturity of Available Categories			16.73

*Inc ud ng nvested cash co atera of $199,568.

The Plan's fixed income investments by maturity and type at June 30, 2021 were as follows:

Investment Type		Fair Value/ NAV	Weighted Average Maturity (in Years)
Corporate Bonds	$	20,329,594	14.15
U.S. Government - Sponsored Enterprises		14,719,432	26.00
Government Issued/Treasuries		10,696,738	6.64
Other Asset-Backed Securities		2,338,018	21.12
Collateralized Mortgage Obligations		3,629,008	44.26
Municipal Securities		895,164	14.72
Commingled Funds and Preferred Stock Identified as Fixed Income for Reporting Purposes		110,046,802	Not Applicable
Total	$	162,654,756	
Portfolio Weighted Average Maturity of Available Categories			25.61

NOTE 3 INVESTMENTS (CONTINUED)

Risks and Uncertainties (Continued)

Credit Risk
The demand deposit accounts (DDA's) held by State Street Bank are unrated, as are the mutual funds used by the plan. At fiscal year-end, the Plan's fixed income investments had the following risk characteristics in fiscal years 2022 and 2021:

Standard & Poor's Rating or Comparable	Fiscal Year 2022 Fair Value
AA to A-	$ 3,693,378
BBB to BB-	11,440,001
Not Rated	125,171,909
Total	$ 140,305,288

Standard & Poor's Rating or Comparable	Fiscal Year 2021 Fair Value
AA to A-	$ 5,111,198
BBB to BB-	18,333,434
Not Rated	139,210,124
Total	$ 162,654,756

Concentration of Credit Risk

The Plan’s investment policy does not establish any limitation on the percentage that the Plan may have with any one issuer, other than to state that the Plan’s assets are to be diversified in accordance with Modern Portfolio Theory. At June 30, 2022 and June 30, 2021, the Plan’s investments did not exceed 5% with any one issuer other than as identified on page 16.

Custodial Credit Risk

State Street Bank invests in interest bearing DDA's in the name of the Plan for all accounts and pays interest equal to the effective Federal Funds rate, which is included in money markets on the Statements of Fiduciary Net Position. At fiscal year-end, the amount in this fund at amortized cost which approximates fair value was $10,299,243, which was partially used for settlement of open purchases of $2,376,992. All other investments of the fund are held by State Street Bank as trustee in the Plan’s names.

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NOTE 3 INVESTMENTS (CONTINUED)

Risks and Uncertainties (Continued)

Credit Risk - Currency Forward Contracts, Futures and Options

One of the Plan’s investment objectives is to diversify assets in accordance with the Modern Portfolio Theory (MPT) in order to reduce overall risk. Consistent with this objective, the Plan invested in some funds that hold currency forward-contracts and invest in futures and options. This strategy is undertaken to protect the dollar value of underlying international investments. The Plan's share of unrealized gain from currency forward contracts was $45,949 and from futures and options was $1,282 and $324, respectively for the fiscal year.

Derivatives - Interest Rate Swaps

In accordance with the investment policy, during FY22, the fixed income manager invested in interest rate swaps which are forward contracts between two parties to exchange or swap one stream of interest payments for another, over a set period of time. Interest rate swaps can exchange fixed or floating rates in order to reduce or increase exposure to fluctuations in interest rates. The following table represents the balances relating to interest rate swaps and the related cash collaterals as of June 30, 2022:

Type	Objective	Notional Amount	Maturity Date	Terms	Base Market Value	Counterparty Credit Rating
Interest Rate Swap	Interest rate exposure and hedging	673,712	10/23/53	Receive 12M SOFR, Pay 1.75%	685,213	Not rated
Interest Rate Swap	Interest rate exposure and hedging	(685,213)	10/23/53	Receive 12M SOFR, Pay 1.75%	(576,074)	Not rated
Interest Rate Swap	Interest rate exposure and hedging	3,347,639	10/23/28	Receive 1.60%, Pay 12M SOFR	3,179,067	Not rated
Interest Rate Swap	Interest rate exposure and hedging	(3,340,411)	10/23/28	Receive 1.60%, Pay 12M SOFR	(3,340,411)	Not rated
Interest Rate Swap	Interest rate exposure and hedging	(599,561)	06/15/52	Receive 1.75%, Pay 12M SOFR	(599,561)	Not rated
Interest Rate Swap	Interest rate exposure and hedging	492,654	06/15/52	Receive 1.75%, Pay 12M SOFR	494,364	Not rated
Cash collateral *	Cash backing for derivative positions	199,568			199,568	

* Cash collateral for $74,517 was invested in futures.

Foreign Currency Risk

The Plan’s exposure to foreign currency risk derives from its investments in foreign currency or instruments denominated in foreign currency. Investments in such securities are limited to a maximum net currency exposure of 36.5% at any given time. These pool of assets may also include hedged assets, therefore, reducing the overall currency risk. The Plan was also exposed to foreign currency risk through the Pools investment in Euro denominated alternative investments. The Pool total of these investments was $15,970,464 and $21,246,284 at June 30,2022 and June 30, 2021, respectively. The Plan's proportionate share was $6,839,477 and $9,164,698 at June 30, 2022 and June 30, 2021, respectively.

NOTE 3 INVESTMENTS (CONTINUED)

Rate of Return

For the fiscal years ended June 30, 2022 and June 30, 2021, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, were -8.5% and 25.9%, respectively The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amount actually invested.

Investments Purchased and Due from Sales of Investments

Investment transactions are recorded on a trade plus three days or less timetable resulting in an amount due to and due from State Street Bank (the "Plan's Trustee") at year-end.

NOTE 4 FAIR VALUE MEASUREMENT

The Plan investments are reported at fair value. The Plan categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles, as follows:

- *Level 1* – Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets that the Plan has the ability to access.

- *Level 2* – Inputs to the valuation methodology include: quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in inactive markets; inputs other than quoted prices that are observable for the asset or liability; inputs that are derived principally from or corroborated by observable market data by correlation of other means. If the asset or liability has a specified (contractual) term, the Level 2 input must be observable for substantially the full term of the asset or liability.

- *Level 3* – Inputs to the valuation methodology are unobservable and significant to the fair value measurement.

The assets or liabilities fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques used need to maximize the use of observable inputs and minimize the use of unobservable inputs. The table below reflects the Plan's proportionate share of the Pool's investments by type and fair value hierarchy established by accounting principles generally accepted in the United States of America as of June 30:

NOTE 4 FAIR VALUE MEASUREMENT (CONTINUED)

		Fair Value Measurement Using		
	June 30, 2022	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable nputs (Level 3)
Investments by Fair Value Level				
Debt Securities:				
Collateralized Mortgage Obligations				
(Fannie Mae and Freddie Mac and GNMA)	$ 2,768,301	$ —	$ 2,768,301	$
Corporate Bonds	12,754,918	—	12,754,918	
Commingled Funds (Fixed Income)	43,279,938	22,179,316	21,100,622	
FHLMC and FNMA Bonds	9,322,081	—	9,322,081	
U.S. Treasury Securities	33,107,887	—	33,107,887	
Short term fixed income securities	4,207,427	—	4,207,427	
Municipal Bonds	555,635	—	555,635	
Other Asset Backed Securities	1,822,826	—	1,822,826	
Preferred Stock	480,899	480,899	—	
Total Debt Securities	108,299,912	22,660,215	85,639,697	
Equity Securities:				
Common Stocks	150,888,303	150,888,303	—	
Emerging Market Equity Portfolio	42,966,779	42,966,779	—	
Real Estate Investment Trusts (REITS)	899,905	899,905	—	
Total Equity Securities	194,754,987	194,754,987	—	
Total Investment by Fair Value Level	303,054,899	$ 217,415,202	$ 85,639,697	$
Investments Measured at the Net Asset Value (NAV):				
Private Equity Funds	88,288,691			
Private Credit Funds	4,858,166			
Hedge Funds	54,066,333			
Real Assets Funds	24,998,727			
International Equity Funds	29,426,592			
Commingled fund within International Equities	16,217,503			
Commingled fund within International Fixed Income	21,424,313			
Commingled fund within Domestic Fixed Income	10,538,896			
Total Investments Measured at the NAV	249,819,221			
Total investments Measured at Fair Value*	$ 552,874,120			

* Net of money market funds tota ng $10,299,243 wh ch nc udes secur t es that have rema n ng matur t es of ess than 1 year and may be measured at amort zed cost.

NOTE 4 FAIR VALUE MEASUREMENT (CONTINUED)

Investments Measured at Fair Value

		Fair Value Measurement Using		
	June 30, 2022	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Investments Derivative Instruments				
Interest Rate Swap - Long	4,358,643		4,358,643	
Interest Rate Swap - Short	(4,516,046)		(4,516,046)	
Futures - Cash Collateral	199,568		199,568	
Total Investments Derivative Instruments	$ 42,165		$ 42,165	

NOTE 4 FAIR VALUE MEASUREMENT (CONTINUED)

		Fair Value Measurement Using		
	June 30 2021	Quoted Prices in Active Markets for dentical Assets (Level 1)	Significant Other Observable nputs (Level 2)	Significant Unobservable nputs (Level 3)
Investments by Fair Value Level				
Debt Securities				
Collateralized Mortgage Obligations				
(Fannie Mae Freddie Mac and GNMA)	$ 3 629 008	$	$ 3 629 008	$
Corporate Bonds	20 329 594		20 329 594	
Commingled Funds (Fixed ncome)	77 750 681	21 285 390	56 465 291	
FHLMC and FNMA Bonds	14 719 432		14 719 432	
U S Treasury Securities	10 696 738		10 696 738	
Municipal Bonds	895 164		895 164	
Other Asset Backed Securities	2 338 018		2 338 018	
Preferred Stock	504 259	504 259		
Total Debt Securities	130 862 894	21 789 649	109 073 245	
Equity Securities				
Common Stocks	163 309 600	163 309 600		
Small Company Portfolio	8 541 553	8 541 553		
Emerging Market Equity Portfolio	51 241 900	51 241 900		
Real Estate nvestment Trusts (RE TS)	1 166 409	1 166 409		
Total Equity Securities	224 259 462	224 259 462		
Total nvestment by Fair Value Level	355 122 356	$ 246 049 111	$ 109 073 245	$
nvestments Measured at the Net Asset Value (NAV)				
Private Equity Funds	91 713 283			
Private Credit Funds	1 785 099			
Hedge Funds	59 959 879			
Real Assets Funds	21 654 304			
nternational Equity Funds	33 500 326			
Commingled Fund within intl equities	19 907 074			
Commingled Fund within nternational Fixed ncome	20 595 117			
Commingled Fund within Domestic Fixed ncome	11 196 745			
Total nvestments Measured at the NAV	260 311 827			
Total investments Measured at Fair Value*	615 434 183			

* Net of money market funds tota ng $11,475,951 wh ch nc udes secur t es that have rema n ng matur t es of ess than 1 year and may be measured at amort zed cost.

NOTE 4 FAIR VALUE MEASUREMENT (CONTINUED)

Debt and equity securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those securities. Debt securities classified in Level 2 of the fair value hierarchy refers to securities not traded on an active market but for which observable market inputs are readily available. Fixed income securities are priced on a daily basis, market to market, using a variety of third-party pricing sources, market data and methodologies.

The valuation method for investments measured at the net asset value ("NAV") per share (or its equivalent) is presented on the following table:

	Fa r Va ue	Unfunded Comm tments	Redempt on Frequency (f Current y E g b e)	Redempt on Not ce Per od
Pr vate Equ ty	$ 88,288,691	$ 20,704,666	I qu d	N/A
Pr vate Cred t	4,858,166	5,888,546	I qu d	N/A
Hedge Fund 1	27,885,452		Quarter y	65 days
Hedge Fund 2	26,180,881		Sem Annua y	95 days
Rea Asset Funds	24,998,727	9,017,050	I qu d	N/A
Internat ona Equ ty Funds	29,426,592		Month y	15 days
Comm ng ed Fund w th n Internat ona Equ t es	16,217,503		Week y	3 days
Comm ng ed Fund w th n Internat ona F xed Income	21,424,313		B month y	5 days
Comm ng ed Fund w th n Domest c F xed Income	10,538,896		Da y	1 day
Tota	$ 249,819,221			

1. Private Equity Funds: Private equity investment strategies include buyout, venture capital, growth capital, and special situations. Investments in the asset class are achieved primarily through commingled funds and may also include direct and co-investment opportunities. The objective of the asset class is to provide high long-term returns. Exposures are diversified by manager, region, strategy, and vintage year. Private equity investments are illiquid and distributions are received over the life of the investments, which can range between 10 and 15 years. These investments do not have set redemption schedules therefore options for exit are limited to sale on the secondary market. Capital commitments are made to these types of investments and funds are invested through a call down structure.

2. Comingled Fund within Private Credit: This strategy will focus on identifying market dislocations and credit-intensive assets, specifically in loan portfolios, corporate securities, structured credit, hard assets and special opportunities. The objective of the fund is to return a 1.5-1.7X multiple and a net IRR of 15% over the life of the fund, which can range between 6 and 8 years. The fund employs a flexible and opportunistic mandate allowing for investments in an assortment of securities which allows it to remain an active investor in a variety of transactions irrespective of market conditions and geographies. The fair value of the partnership interest is based on NAV provided by the General Partner. The partnership's financial statements are audited annually as of December 31 and the NAV is adjusted quarterly by additional contributions to and distributions from the partnership, the net earnings and losses, and unrealized gains and losses resulting from changes in fair value, as determined by the General Partner.

NOTE 4 FAIR VALUE MEASUREMENT (CONTINUED)

3. Hedge Funds: This represents investments in two Hedge FOF managers. Each FOF manager invests in underlying hedge funds to provide a broadly diversified portfolio. One invests with 10-20 underlying managers/funds to execute its global market strategy. The other invests in 20-40 underlying managers/funds in a relative value mandate. The hedge fund strategy is designed to diversify by manager/fund to reduce single manager/ fund risk while offering portfolio diversification and provide a return profile that is uncorrelated to the rest of the assets in the portfolio. The fair values of the investments are determined using the NAV per share (or its equivalent) of the investments. These funds have liquidity restrictions of 3 to 6 months.

4. Real Asset Funds: This represents funds that invest in institutional real estate (office, multi-family, industrial, and retail), natural resources and infrastructure strategies. The fair values of the investments in these strategies are determined using the NAV per share (or its equivalent) of the Plan's ownership interest in partnership's capital. The real estate strategies deployed include a U.S. focused property strategy (core to core plus) and a global FOF strategy. The global FOF manager invests across Directs, Primaries, and Secondaries. The natural resources investments are through FOF strategies and may invest in 10-25 underlying relationships as they build a diversified portfolio with exposure to oil, natural gas, agriculture, timber, and other natural resources. The infrastructure managers will invest in direct portfolio companies in communications, transportations, and energy transition sectors. Capital commitments are made to these types of investments and funds are invested through a call down structure. These funds have liquidity restrictions for the life of the investment, 7-10 years. Options for exit are limited to sale on the secondary market.

5. International Equity Funds: This represents investments primarily in value oriented equity securities of international developed markets (non-U.S. issuers; e.g., MSCI EAFE) with the objective of achieving a long-term return above a passive benchmark (EAFE). This manager focuses on a dividend discount model value based philosophy for publicly traded equity. All securities are recorded at fair value. Foreign securities are valued on the basis of quotations from the primary market in which they are traded and translated at each valuation date from the local currency into U.S. dollars using current exchange rates. The Fund may enter into forward foreign currency exchange contracts primarily to hedge against foreign currency exchange rate risks on its non-U.S. dollar-denominated investment securities.

6. Commingled Fund within International Equities: This represents investments made in predominantly listed large and mega capitalization securities in emerging markets. The objective of this fund is to achieve a long-term return above a passive benchmark (e.g. MSCI EM Index). The manager employs a flexible, research intensive investment approach to own high quality businesses over the long term. NAVs are normally calculated as of 4:00pm Eastern Time for each business day the relevant exchange is open. Securities for which market quotations are readily available and reliable are to be valued using the applicable market quotations.

NOTE 4 FAIR VALUE MEASUREMENT (CONTINUED)

7. Commingled Fund within International Fixed Income: This represents investments primarily in a globally diversified portfolio of high quality sovereign bonds and currencies in emerging markets (non U.S. issuers; e.g. MSCI EM). The objective of this fund is to generate income, preserve capital, and enhance principal above a passive benchmark (JP Morgan GBI-EM Global Diversified Index). NAV for the Fund is only calculated twice a month on the last business day and the 15th (or next business day if the 15th is a nonbusiness day). The ownership interest is only in the units of the Fund, not the underlying holding or securities of the Fund.

8. Commingled Fund within Domestic Fixed Income: The strategy is managed using an "indexing" investment approach, by which the manager attempts to approximate, before expenses, the performance of the Index (e.g. Bloomberg Barclays U.S. Treasury Inflation Protected Securities Index) over the long term. The manager expects that it will typically seek to replicate Index returns for the Portfolio through investments in the "cash" markets – actual holdings of debt securities and other instruments – rather than through "notional" or "synthetic" positions achieved through the use of derivatives, such as futures contracts or swap transactions (except in the unusual case where the manager believes that use of derivatives is necessary to achieve an exposure that is not readily available through the cash markets). NAVs are normally calculated as of 4:00pm Eastern Time for each business day the relevant exchange is open. Securities for which market quotations are readily available and reliable are to be valued using the applicable market quotations.

NOTE 5. DEFERRED RETIREMENT OPTION PROGRAM

The Plan offers a program called Deferred Retirement Option Plan (DROP) to Corrections employees. This is a voluntary benefit program which offers qualified active Participants, who would be entitled to retire and receive benefits, the option to continue working. An individual DROP record is created and is credited with the monthly retirement benefits that would have been paid during the DROP period had the participant actually retired. The record is also credited with interest. The DROP record is paid to the employee, in addition to the benefit payment entitled under the defined benefit plan based on the earlier years of service, when the employee eventually retires. Participating members may elect distribution as one lump sum payment, a rollover or in monthly payments. The balance held by the Plan as of June 30, 2022 was $174,089.

NOTE 6 NET PENSION (ASSET) LIABILITY OF THE COUNTY

The components of the net pension (asset) liability of the County at June 30 were as follows:

	2022	2021
Tota Pens on L ab ty	$ 614,805,127	$ 575,977,127
P an F duc ary Net Pos t on	(564,137,606)	(627,068,948)
County's Net Pens on (Asset) L ab ty	$ 50,667,521	$ (51,091,821)
P an F duc ary Net Pos t on as a Percentage of the Tota Pens on (Asset) L ab ty	91.76 %	108.87 %

Actuarial Assumptions

The total pension liability in the July 1, 2021 actuarial valuation rolled forward to June 30, 2022 was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.50%
Salary Increases	Varies by service, 3.75% to 6.50%, including inflation
Investment Rate of Return	7.25%, net of pension plan investment expense, including inflation
Mortality	RP-2014 Combined Healthy tables with generational projection from 2006 base year using scale MP-2017.

The actuarial assumptions used in this valuation, for GASB 67 purposes, were generally based on the 2018 Experience Study covering the period from July 1, 2013 through June 30, 2017. Economic assumptions and the demographic assumptions were updated to reflect the 2013-2017 experience study.

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. The target allocation and estimates of arithmetic real rates of return for each major asset class are reviewed no less frequently than every four years.

NOTE 6 NET PENSION LIABILITY OF THE COUNTY (CONTINUED)

Best estimates of geometric real rates of return for each major asset class, included in the Plan's target allocation as of June 30, 2021 (see Note 3), are summarized in the following table:

Asset Class	Long-Term Expected Real Rate of Return
Equities	4.85%
Fixed Income	2.46%
Alternative Investments	6.21%
Real Assets	4.33%

Discount Rate

The discount rate used to measure the total pension liability was 7.25%. 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 the County contributions will be made at rates equal to the difference between total actuarially determined contribution rates and the employee rate. Based on those assumptions, the Plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability. The discount rate was reduced from 7.35% to 7.25% for fiscal year ended June 30, 2022.

NOTE 6 NET PENSION LIABILITY OF THE COUNTY (CONTINUED)

Sensitivity of the Net Pension Liability (Asset) to Changes in the Discount Rate

As of June 30, 2022:

The following presents the net pension liability (asset) of the County, calculated using the discount rate of 7.25%, as well as what the County's net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (6.25%) or 1 percentage point higher (8.25%) than the current rate:

	1% Decrease (6.25%)	Current Discount Rate (7.25%)	1% Increase (8.25%)
County's Net Pension Liability/(Asset)	$ 131,602,981	$ 50,667,521	$ (16,763,387)

As of June 30, 2021

The following presents the net pension liability (asset) of the County, calculated using the discount rate of 7.35%, as well as what the County's net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (6.35%) or 1 percentage point higher (8.35%) than the current rate:

	1% Decrease (6.35%)	Current Discount Rate (7.35%)	1% Increase (8.35%)
County's Net Pension Liability/(Asset)	$ 24,592,397	$ (51,091,821)	$ (114,099,772)

HOWARD COUNTY RETIREMENT PLAN
REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF CHANGES IN THE COUNTY'S NET PENSION LIABILITY AND RELATED RATIOS
LAST 10 FISCAL YEARS
(SEE INDEPENDENT AUDITORS' REPORT)

	2022	2021	2020	2019	2018	2017	2016	2015	2014*
TOTAL PENSION LIABILITY									
Service Cost	$ 19 363	19 359	18 342	17 330	16 919	15 861	15 093	14 073	12 727
nterest	40 899	39 129	37 417	34 964	32 786	30 959	29 046	27 198	24 974
Changes of Benefit Terms	(384)								3 534
Differences Between Expected and Actual Experience	926	(5 043)	(9 115)	(5 973)	379	(6 369)	(4 093)	(2 741)	
Changes of Assumptions	1 718	785	743	9 529				(851)	10 918
Benefit Payments ncluding Refunds of Member Contributions	(23 694)	(21 238)	(20 067)	(19 013)	(16 809)	(15 379)	(13 700)	(12 375)	(11 139)
Net Change in Total Pension Liability	38 828	32 992	27 320	36 837	33 275	25 072	26 346	25 304	41 014
Total Pension Liability - Beginning	575 977	542 985	515 665	478 828	445 553	420 481	394 135	368 831	327 817
Total Pension Liability - Ending (a)	$ 614 805	575 977	542 985	515 665	478 828	445 553	420 481	394 135	368 831
PLAN FIDUCIARY NET POSITION									
Contributions - Employer	$ 16 347	15 889	15 034	14 155	14 841	14 179	13 428	13 967	12 778
Contributions - Member	4 897	4 857	4 749	4 378	4 156	3 904	3 757	3 573	2 979
Net nvestment ncome	(60 064)	133 778	16 691	31 355	35 808	45 447	4 743	9 983	45 956
Benefit Payments ncluding Refunds of Member Contributions	(23 695)	(21 238)	(20 067)	(19 012)	(16 809)	(15 379)	(13 700)	(12 375)	(11 139)
Administrative Expense	(417)	(424)	(397)	(439)	(351)	(336)	(341)	(311)	(283)
Net Change in Plan Fiduciary Net Position	(62 932)	132 862	16 010	30 437	37 645	47 815	7 887	14 837	50 291
Plan Fiduciary Net Position - Beginning	627 069	494 207	478 197	447 760	410 115	362 300	354 413	339 576	289 285
Plan Fiduciary Net Position - Ending (b)	$ 564 137	627 069	494 207	478 197	447 760	410 115	362 300	354 413	339 576
County's Net Pension (Asset)/ Liability - Ending (a)-(b)	$ 50 668	(51 092)	48 778	37 468	31 068	35 438	58 181	39 722	29 255
Plan Fiduciary Net Position as a Percentage of the Total Pension (Asset)/ Liability	91 76 %	108 87 %	91 02 %	92 73 %	93 51 %	92 05 %	86 16 %	89 92 %	92 07 %
Covered Payroll	$ 138 538	134 649	129 605	123 090	119 686	114 349	108 292	103 462	97 542
County's Net Pension (Asset)/ Liability as a Percentage of Covered Payroll	36 57 %	(37 94)%	37 64 %	30 44 %	25 96 %	30 99 %	53 73 %	38 39 %	29 99 %
Expected Average Remaining Service Years of all Participants	7	7	7	7	7	7	7	7	7

* nformation for FY 2013 and earlier is not available

Notes to Schedule:

Benefit Changes The Plan adopted a deferred retirement option program (DROP) for Corrections employees effective July 1 2021

Changes of Assumptions The valuation interest rate assumption changed from 7 35% to 7 25%

HOWARD COUNTY RETIREMENT PLAN
REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF COUNTY CONTRIBUTIONS
(DOLLAR AMOUNTS IN THOUSANDS)
LAST 10 FISCAL YEARS
(SEE INDEPENDENT AUDITORS' REPORT)

	2022	2021	2020	2019	2018	2017	2016	2015	2014*
Actuar a y Determ ned Contr but on[1]	$ 16,208	15,889	15,034	14,155	14,003	13,265	13,428	13,967	12,778
Contr but ons n Re at on to the Actuar a y Determ ned Contr but on	16,347	15,889	15,034	14,155	14,841	14,179	13,428	13,967	12,778
Contr but on Def c ency (Excess)	(139)				(838)	(914)			
Covered Payro	138,538	134,649	129,605	123,090	119,685	114,349	108,292	103,462	97,542
Contr but ons as a Percentage of Covered Payro	11.80 %	11.80 %	11.60 %	11.50 %	12.40 %	12.40 %	12.40 %	13.50 %	13.10 %

[1] ADC rates for FY 22 and FY18 were 11 7% & for FY 17 was 11 6%

* nformation for FY 2013 and earlier is not available

Notes to Schedule

<u>Va uat on Date and Actuar a Assumpt ons:</u>

The actuar a y determ ned contr but on amounts are ca cu ated as of the beg nn ng of the f sca year (Ju y1). The assumpt ons shown be ow are those used n the 7/1/2020 actuar a va uat on to ca cu ate the FY 2022 ADC and the assumpt ons used to determ ne a contr but ons n the past wou d not have been the same.

Actuar a Cost Method	Projected Un t Cred t (Entry Age Used for GASB 67 purposes)
Amort zat on Method	Leve percent of pay ncreas ng 2.75% per year
Rema n ng Amort zat on Per od	Rema n ng amort zat on per ods range from 2 to 19 years.
Asset Va uat on Method	5 year smoothed market
Inf at on	2.60%
Sa ary Increases	Var es by serv ce. 3.75% to 6.50%, nc ud ng nf at on
Investment Rate of Return	7.35%, before expenses, nc ud ng nf at on
Ret rement Age	Rates vary by part c pant age and serv ce
Morta ty	RP 2014 Comb ned Hea thy tab es w th generat ona project on From 2006 base year us ng sca e MP 2017
Cost of L v ng Increases	2.60%

HOWARD COUNTY RETIREMENT PLAN
REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF INVESTMENT RETURNS
LAST 10 FISCAL YEARS
(SEE INDEPENDENT AUDITORS' REPORT)

Fiscal Year Ending	Annual Money-Weighted Rate of Return, Net of Investment Expenses
6/30/2022	(8.50)%
6/30/2021	25.92 %
6/30/2020	4.10 %
6/30/2019	7.50 %
6/30/2018	8.55 %
6/30/2017	12.18 %
6/30/2016	1.38 %
6/30/2015	2.95 %
6/30/2014	15.62 %
6/30/2013	11.33 %