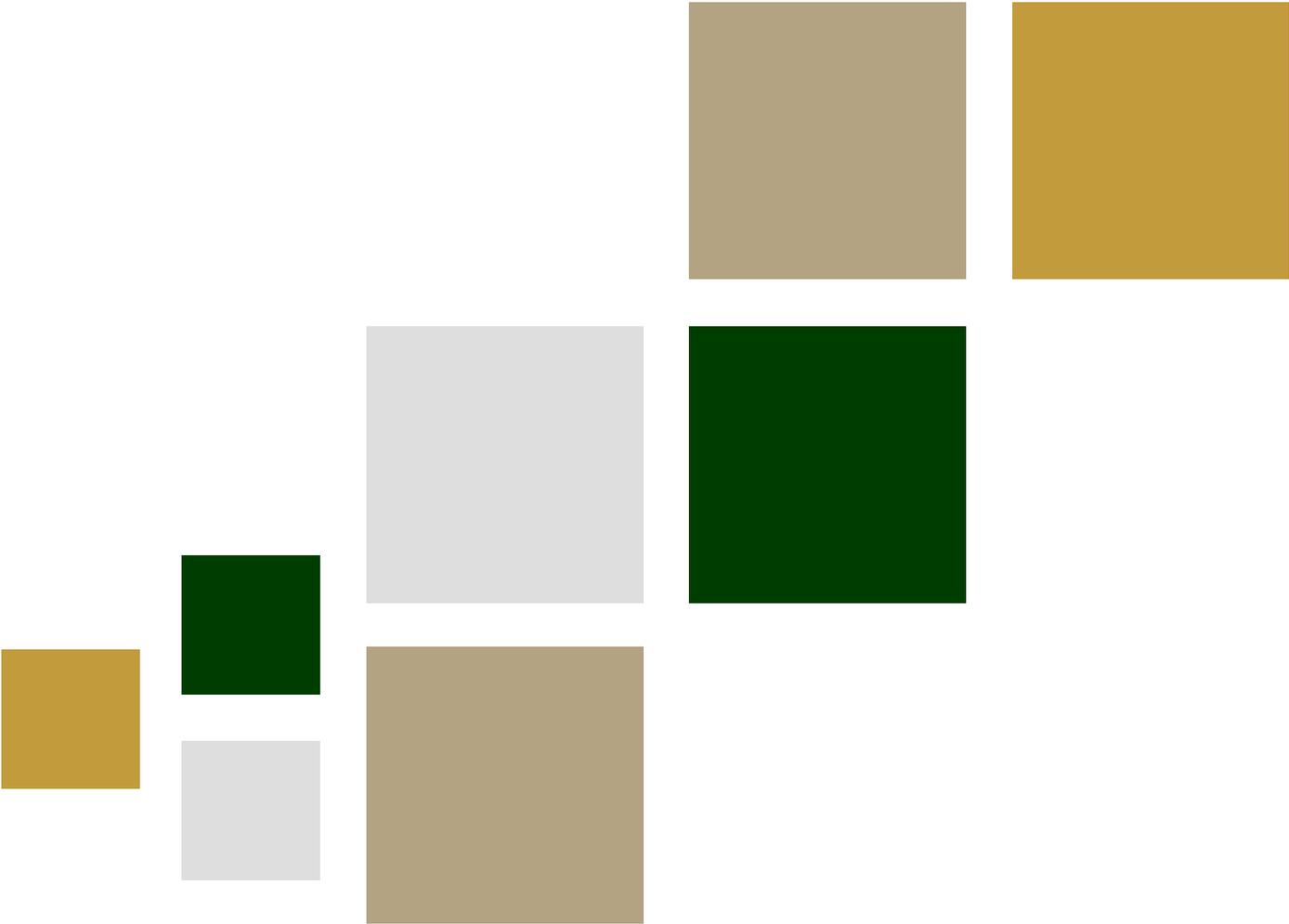
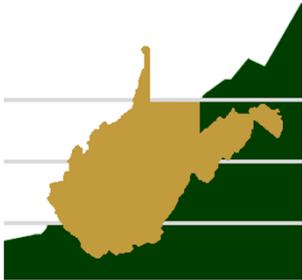
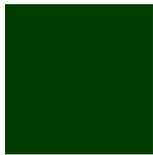


# West Virginia Investment Management Board

2022 ANNUAL REPORT

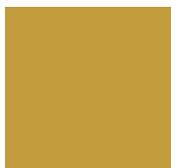
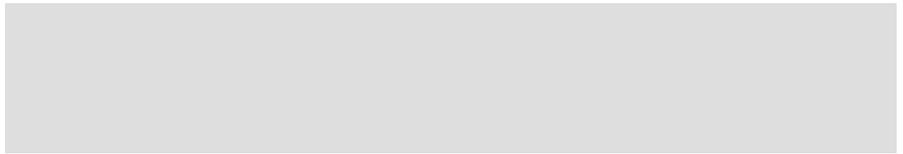






# **ANNUAL REPORT**

Year Ended June 30, 2022



Our mission is to exercise our best independent judgment in providing prudent and professional investment management for the exclusive benefit of the beneficiaries.

# Table of Contents

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## **Introduction**

Message from Chairman.....	1
Message from Executive Director .....	2

## **Organization**

Board of Trustees .....	4
Representatives and Committee Members .....	5
Staff Members .....	6
Organizational History .....	7
Statutory Mandate .....	8
Administrative Mandate .....	9
Organization Chart .....	10
Investment Philosophy .....	11

## **Investment Objectives and Financial Highlights**

Equity Pool.....	12
Short-Term Fixed Income Pool.....	18
Fixed Income Pool.....	20
TIPS Pool .....	23
Private Markets Pool .....	25
Hedge Fund Pool.....	28

# Table of Contents

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## Participant Plans

Participant Plans Overview .....	30
Deputy Sheriff's Retirement System .....	31
Emergency Medical Services Retirement System .....	33
Judges' Retirement System .....	35
Municipal Police Officers' and Firefighters' Retirement System .....	37
Municipal Policemen's or Firemen's Pension and Relief Funds.....	39
Natural Resources Police Officer Retirement System.....	42
Public Employees' Retirement System .....	44
State Police Death, Disability and Retirement Fund .....	46
State Police Retirement System.....	48
Teachers' Retirement System.....	50
Board of Risk and Insurance Management.....	52
Coal Workers' Pneumoconiosis Fund .....	54
Public Employees Insurance Agency .....	56
West Virginia Retiree Health Benefit Trust Fund .....	58
Workers' Compensation Old Fund.....	60
Workers' Compensation Self-Insured Employer Guaranty Risk Pool .....	62
Workers' Compensation Self-Insured Employer Security Risk Pool.....	64
Workers' Compensation Uninsured Employers' Fund.....	66
Berkeley County Development Authority .....	68
Revenue Shortfall Reserve Fund .....	70
Revenue Shortfall Reserve Fund – Part B .....	72
West Virginia Department of Environmental Protection Agency .....	74
West Virginia Department of Environmental Protection Trust .....	76
West Virginia State Parks and Recreation Endowment Fund .....	78
Wildlife Endowment Fund .....	80

## Definition of Terms and Abbreviations

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The following terms and abbreviations are used throughout the West Virginia Investment Management Board's Annual Report and are listed here to help with the overall understanding and readability of this document.

<b>Allocation Committee</b>	The Allocation Committee is a committee of the West Virginia Investment Management Board's general investment consultant, as approved by the Board, and the West Virginia Investment Management Board's investment officers: The Executive Director, who is also the Chief Investment Officer, and the Investment Officers with specific asset class responsibilities. The Allocation Committee is permitted to make adjustments within set ranges around the Strategic Allocation, based upon current market conditions and forward looking market views.
<b>Base Allocation</b>	The allocation between the three major asset classes – global equity, fixed income, and cash – whose purpose is to serve as return generators, or diversifiers, or some combination of both.
<b>Board</b>	The thirteen-member Board of Trustees that governs the West Virginia Investment Management Board.
<b>Cap</b>	Abbreviation for “capitalization,” referring to the size of the investment market for that particular asset style.
<b>Neutral Target</b>	The absolute percentage weighting assigned to an asset class or the secondary components within an allocation to which rebalancing should ultimately occur in the absence of an Allocation Committee modification.
<b>Participant Plan (Participant)</b>	A specific group of assets entrusted to the West Virginia Investment Management Board. Retirement plans, endowments, and insurance trusts, for example, are all Participant Plans.
<b>Pool</b>	Refers to the specific investment pool created and operated by the West Virginia Investment Management Board for a specific investment asset class.
<b>Range Allocation</b>	The Board has placed ranges (Allocation Ranges) around the Strategic Allocation in order to maintain appropriate risk controls. Allocation decisions made by the Allocation Committee are defined as the Range Allocation.
<b>Strategic Allocation</b>	The first level of adjustment to the Base Allocation is the principal focus of the asset allocation process and results in the Strategic Allocation. The broad types of assets considered at the Strategic Allocation level include global equities, fixed income, TIPS, private credit and income, private equity, real estate, and cash, as well as the opportunity set and management style of hedge funds.
<b>WVIMB</b>	The “West Virginia Investment Management Board” including its Trustees, plan Representatives, Committee Members, and staff.

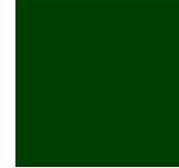
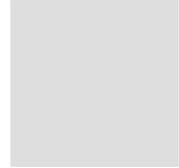
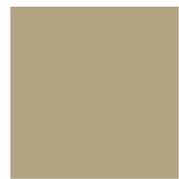
## Definition of Terms and Abbreviations

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The following terms and abbreviations refer to the investment performance benchmarks used for comparison purposes in the Investment Objectives and Financial Highlights section.

<b>Bloomberg Barclays U.S. Aggregate Bond</b>	A market capitalization weighted index that includes most U. S. traded investment grade bonds.
<b>Bloomberg Barclays U.S. TIPS</b>	An index that measures the performance of U.S. Treasury Inflation Protected Securities.
<b>Bloomberg Barclays U.S. Universal Bond</b>	The index covers U.S. dollar-denominated, taxable bonds that are rated either investment-grade or below investment-grade.
<b>FTSE 3 Month U.S. T-Bill</b>	An index intended to track the daily performance of 3-month U.S. Treasury bills.
<b>Credit Suisse Leveraged Loan</b>	An index designed to mirror the investable universe of the U.S. dollar-denominated leveraged loan market.
<b>HRFI FoF</b>	Hedge Fund Research, Inc.'s composite index of fund of funds.
<b>MSCI ACWI (IMI)</b>	A market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets. The “ <b>IMI</b> ” qualifier limits the index to investable markets. It is maintained by MSCI Barra, formerly Morgan Stanley Capital International.
<b>MSCI ACWI ex U.S. (IMI)</b>	A market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets. The “ <b>ex U.S.</b> ” qualifier indicates that the index excludes the United States markets. The “ <b>IMI</b> ” qualifier further limits the index to investable markets. It is maintained by MSCI Barra, formerly Morgan Stanley Capital International.
<b>MSCI EAFE</b>	A stock market index that is designed to measure the equity market performance of developed markets outside of the U.S. & Canada. It is maintained by MSCI Barra, formerly Morgan Stanley Capital International. The EAFE acronym stands for Europe, Australasia and Far East.
<b>NCREIF Property Index</b>	National Council of Real Estate Investment Fiduciaries’ property index.
<b>Russell 2500/ Russell 3000</b>	The Russell 2500 Index is comprised of the smallest 2,500 securities in the Russell 3000 Index, which is a broad market index comprised of the largest 3,000 publicly held U.S. companies, as determined by market capitalization.
<b>S&amp;P 500</b>	Standard & Poor's 500 is a stock market index based on the market capitalizations of 500 large companies having common stock listed on the New York Stock Exchange or NASDAQ.





**INTRODUCTION**



## Message from Chairman

---

October 31, 2022

Dear Fellow West Virginians:

On behalf of the Trustees of the West Virginia Investment Management Board (WVIMB), I present the WVIMB's Annual Financial Report for the fiscal year ending June 30, 2022. Please note that additional information about the WVIMB may be accessed at, [www.wvimb.org](http://www.wvimb.org).

The WVIMB generated a return of -6.4 percent in the fiscal year 2022 (using the Public Employees Retirement System as a proxy for all long-term assets). While disappointing, this is a positive result on a relative basis as a portfolio of 60 percent public stocks and 40 percent bonds would have returned -13.4 percent over the same time period. Capital markets are fickle in the short term, and it's important not to focus on any one year's results. Thus, last year's 32.1 percent return is followed by this year's -6.4 percent return. Neither are representative of long-term expectations. The WVIMB has a long-term plan that accounts for year-to-year volatility, knowing that volatility is the price one pays for a return on one's money.

I wish to thank my fellow Trustees and the staff for their dedicated service. I commend the WVIMB on its professionalism, commitment, and service to West Virginians.

Sincerely,



Jim Justice  
Governor of the State of West Virginia  
Chairman of the Board of Trustees

## Message from Executive Director

---

October 31, 2022

It is with great pleasure that I submit the Annual Report of the West Virginia Investment Management Board (WVIMB). The WVIMB is considered an internal service fund of the State of West Virginia for financial reporting purposes, and as such, the significant financial information contained in the report is also included in the State of West Virginia's comprehensive annual financial report. The information presented in this report is the responsibility of the management of the WVIMB, and sufficient internal accounting controls exist to provide reasonable assurance regarding the safekeeping of assets and fair presentation of the financial statements, supporting schedules, and statistical tables. The report is also designed to comply with the reporting requirements of Chapter 12, Article 6, Section 6 of the *West Virginia Code*, as amended. This report is divided into the following sections:

- **Organization** – Contains general information regarding Trustees and staff, history of the WVIMB, statutory mandate, administrative mandate, and investment philosophy.
- **Investment Objectives and Financial Highlights** – Outlines the more specific objectives and performance of each of the investment pools.
- **Participant Plans** – Contains a brief description of each of the participant plans whose assets are entrusted to the WVIMB.

Please note that the audited financial statements of the investment pools administered by the WVIMB and the WVIMB's Administrative Fund are published as separate documents. The audited financial statements are available on the WVIMB website.

As an investment organization, the WVIMB's constant focus is the performance of its investments as it seeks to satisfy the investment needs of the beneficiaries of the participant plans entrusted to it. To a large extent, each participant plan's performance is a function of the asset classes in which it invests. As such, a review of asset class performance for the year may be helpful.

The fiscal year ending June 30, 2022, looked a whole lot different from the prior year when market euphoria in anticipation of a return to normalcy resulted in some of the best returns for the stock market in many years. As the fiscal year unfolded, the euphoria gave way to concerns over inflation due to COVID-19 supply chain disruptions and Federal stimulus geared to compensate for the economic disruptions. Despite the reemergence of the COVID-19 Omicron variant, inflationary pressures persisted into the winter, only to be exacerbated in February by the invasion of the Ukraine by Russia. The US and virtually all the world's liberal democracies responded decisively, cutting off Russia from much of the world's financial system, while Russia responded by threatening restrictions on flows of oil and gas to Europe. The geopolitical significance of the Russian invasion cannot be overstated. If nothing else, it underlined the tenuous nature of the global economic infrastructure as the long-simmering tension between China and Taiwan and its potential implications were thrust into every household. Meanwhile, the flow of grains and other raw products from the Ukraine was disrupted, threatening food supplies in many third world countries and stretching the supplies worldwide. The net effect was inflation at levels not seen in forty years. As the year closed, falling GDP in the U.S., energy uncertainty in Europe, grain shortages, geopolitical concerns, and a Federal Reserve intent on gaining control of inflation increased the likelihood of a recession on the horizon. In that environment, U.S. stocks were down (13.9) percent (Russell 3000) and international stocks were down (19.5) percent (MSCI ACWI ex U.S. IMI). Significantly, fixed income was also down almost as much as equity at (10.9) percent (Bloomberg Barclays U.S. Universal Bond) as bond prices fell to compensate for higher rates.

The WVIMB experienced relative outperformance in almost all asset classes for the fiscal year ending June 30, 2022. The WVIMB's large-cap U.S. public stock portfolio was one of the few outliers returning (10.9) percent, underperforming its benchmark (S&P 500) by 0.3 percent. The non-large cap U.S. public stock portfolio returned (20.5) percent, outperforming its benchmark by 0.5 percent. The WVIMB's international public stock portfolio returned (19.2) percent, outperforming the index (MSCI ACWI ex U.S. IMI) by 0.2 percent. The fixed income portfolio also outperformed with a return of (10.6) percent, 0.3 percent better than the benchmark (Bloomberg Barclays U.S. Universal Bond). Performance measurement of private market assets, which includes private equity, private real estate, and private credit, is fraught with measurement issues, so it is less meaningful over shorter time periods. Regardless, the private market portfolio helped significantly to balance the negative returns in public markets. Private equity returned 8.6 percent and real estate returned 16.4 percent. The private credit portfolio returned 7.3 percent for the year. The hedge fund portfolio, which is intended to be a diversifying component of the entire portfolio, returned 1.6 percent, which bettered its benchmark (HFRI FOF plus 1 percent) by 6.1 percent.

## Message from Executive Director

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The majority of assets managed by the WVIMB are for participants with longer time horizons. These include the defined benefit pension plans, some employment security plans, and other trust assets. Still others, like Revenue Shortfall Reserve Funds A and B, have shorter time horizons of varying degrees.

Defined benefit pension plans make up approximately 82 percent of the WVIMB's total assets under management. For general comparison purposes, the WVIMB uses the Public Employees' Retirement System (PERS) as a proxy for the other pension plans because of its similarity to other statewide public pension plans throughout the nation. As of June 30, 2022, the return for PERS was (6.4) percent, net of expenses, for the fiscal year. Of greater significance is the longer-term performance. In that regard, over the ten-year period ending June 30, 2022, the WVIMB's annualized return was 9.1 percent versus the base portfolio benchmark of 6.5 percent. This difference represents millions of dollars in value, added by Trustees and staff. The other defined benefit pension plans' returns for the fiscal year ending June 30, 2022, were essentially identical to PERS. Since asset allocations are virtually the same for each plan, any differences in the returns for the various pension plans are a function of the differences in the timing of cash flows into and out of each plan and relative levels of cash equivalent securities necessary to make benefit payments. The Wildlife Endowment Fund, the West Virginia State Parks and Recreation Endowment Fund, and the West Virginia Retiree Health Benefit Trust Fund also have similar asset allocations to the defined benefit pension plans, and similar returns.

With regard to employment security assets, the reader will note a significant difference in returns from defined benefit plans. This is primarily a function of differences in the time horizon and liquidity needs, which vary quite significantly by plan. This leads to a wide divergence in the respective plans' allocations to various asset classes. The returns for employment security assets for the fiscal year ending June 30, 2022, ranged from (8.9) percent for the Coal Workers' Pneumoconiosis Fund to (9.6) percent for the Workers' Compensation Old Fund. The WVIMB manages assets for other state entities as well. Specific data on the returns and objectives of all Participant Plans may be found in the pages that follow.

As an investor, the WVIMB's capacity to generate a return on assets is largely a function of growth in the world capital markets. Diversification helps reduce short-term volatility in the capital markets (commonly referred to as risk), but it is generally at the expense of long-term growth. Growth is the engine of returns. The WVIMB's asset allocation is tilted towards long-term growth for those assets with long time horizons, such as defined benefit pension plans. These plans are structured to spread risk and cost over multiple generations. The correct target rate of return is one that fairly does this. While the WVIMB does not set that rate, it has an obligation to advise those that do. The WVIMB believes that the current target is attainable over very long time periods. That being said, the state of the capital markets will make it very difficult to achieve that rate in the near term. As I look out on the horizon, concerns raised in last year's letter seem prescient. Inflation, fueled by the indiscriminate fiscal stimulus during the Pandemic and COVID-19 supply chain disruptions, is now a significant concern in the U.S. At the same time geopolitical tensions have increased and show no signs of abating anytime soon. While the invasion of Ukraine by Russia was the immediate cause, the effect was to highlight and define more distinctly the perspectives of various countries around the globe, likely reducing global interaction and trade. We should not be surprised to see a reduction in the growth rate of global GDP as a result.

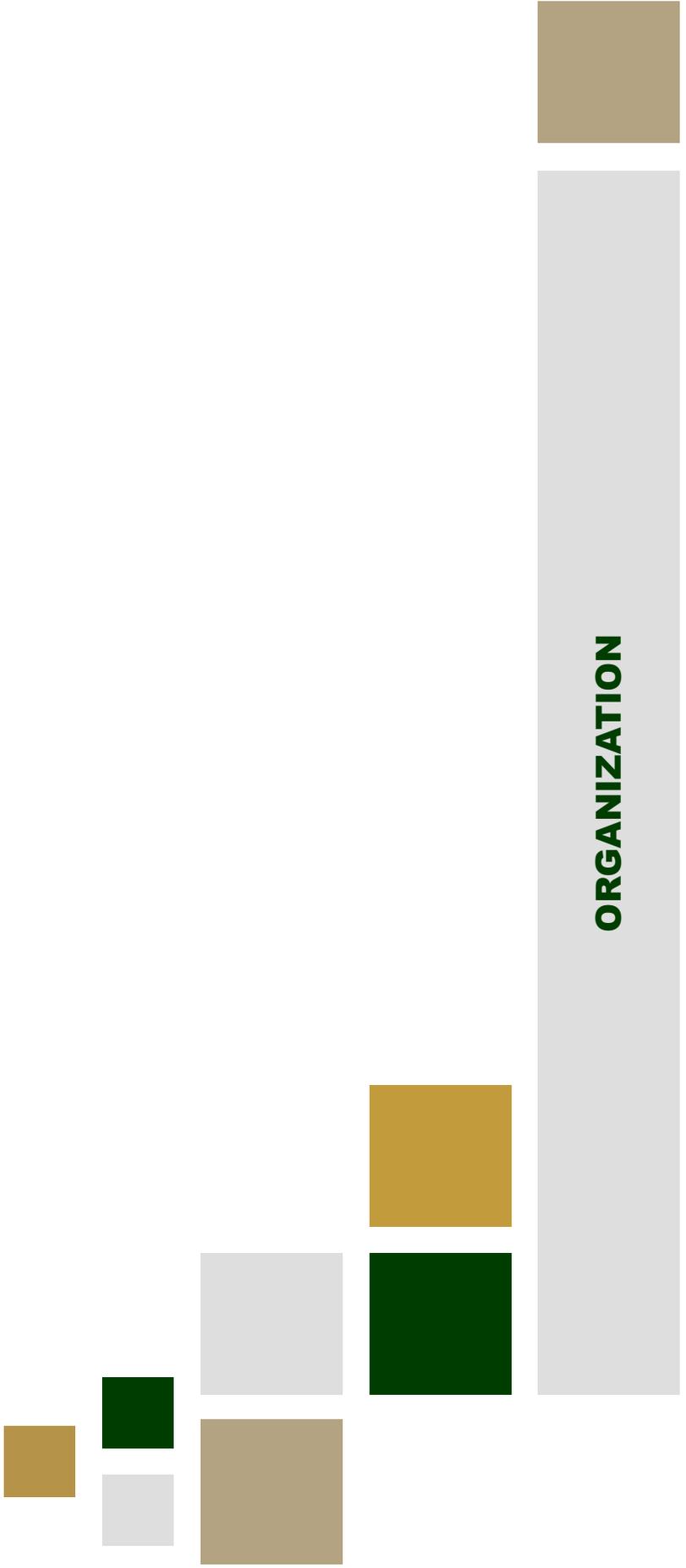
There is much to be concerned about. Nevertheless, the future is unknowable. The WVIMB's portfolio is built for the long-term, seeking return from risky assets while diversifying to reduce risk. The WVIMB will continue to monitor its portfolio, moderate the structure on the margins to accommodate what we believe the markets are offering, but not so much as to compromise the portfolio's ability to take advantage of long-term growth. The staff looks forward to helping Trustees meet these challenges as fiscal year 2023 unfolds.

Respectfully Submitted,



Craig Slaughter, JD, CFA  
Executive Director/Chief Investment Officer







## Board of Trustees – Fiscal Year 2022

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**Jim Justice, Chairman**

Governor of the State of West Virginia

**John B. McCuskey**

Auditor of the State of West Virginia

**Riley Moore**

Treasurer of the State of West Virginia

**Patrick Bond**

General Partner, Mountaineer Capital, LP

**G. Kurt Dettinger**

Member in Steptoe & Johnson, PLLC

**David H. Gardner** *(Served through October 15, 2021)*

Chief Business Development Officer, Stonerise Healthcare LLC

**Georgette Rashid George**

CEO, Monarch Holdings, LLC

**Mike Hall**

President, First Avenue Strategies

**Charles S. Houck**

Director of Public Relations, Little General Stores, Inc

**Marie L. Prezioso**

Executive Director, West Virginia Water Development Authority

**Jack Rossi**

Executive Vice President of Business Development, Summit Community Bank

**Steven L. Smith**

Retired Executive

**Randall E. Snider**

Executive Chairman of the Board, Community Bank

**Byrd E. White** *(Appointed March 21, 2022)*

Retired Executive

## Representatives and Committee Members – Fiscal Year 2022

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### *Deputy Sheriff's Retirement System*

**David Gentry**, Representative

**J. Scott Gittings**, Committee Member

**Paul J. Odell, Jr.**, Committee Member

### *Judges' Retirement System*

**Vacancy**

### *Public Employees' Retirement System*

**Terasa L. Miller**, Representative

### *State Police Death, Disability and Retirement Fund*

**David M. Nelson**, Representative

### *State Police Retirement System*

**Jeffery S. Chumley**, Representative

### *Teachers' Retirement System*

**Tony Lautar, Jr.**, Representative

**Robert L. Brown**, Committee Member

**Dale Lee**, Committee Member

### *Emergency Medical Services Retirement System*

**Vacancy**, Representative

**Derek Pinson**, Committee Member

**Matthew Ashcraft**, Committee Member

### *Workers' Compensation Old Fund and Coal Workers' Pneumoconiosis Fund*

**Melinda Kiss**, Representative

**Cheri Harpold**, Committee Member

**Rhonda Hartwell**, Committee Member

*By statute, the Consolidated Public Retirement Board and the West Virginia Offices of the Insurance Commissioner are responsible for appointing a representative for each plan who may select a committee of up to three individuals. The Representative and Committee Members work with the Investment Management Board to develop the investment policy for their respective plan. They are appointed on an annual basis.*

## Staff Members – Fiscal Year 2022

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### *Executive Staff*

**Craig Slaughter, J.D., CFA**, Executive Director / Chief Investment Officer

**Matthew Jones, CPA, CCM, CGMA**, Chief Financial Officer / Chief Operating Officer

**Deborah Sink, J.D.**, General Counsel / Corporate Secretary

### *Internal Audit*

**Melissa Petit, CPA, CIA, CIDA, CISA, MBA**, Director of Internal Audit

**Johnna Campbell, CPA**, Internal Auditor

### *Investments Division*

**Rod Livingston, CFA, CAIA, CCM, MBA**, Senior Investment Officer

**Tom Sauvageot, CAIA, MBA**, Fixed Income and Real Estate Investment Officer

**Jim Herrington, CFA, CAIA, MBA/MSM**, Private Equity Investment Officer

**Trent Gregory**, Public Equity Investment Officer

### *Operations Division*

**Steve Frenchik, CPA, CGMA, MBA**, Director of Operations

**Anna Scott, CPA, CGMA, MS**, Financial Reporting Manager

**Brian DuBois**, Senior Investment Accountant

**Aaron Souza, CPA**, Investment Accountant

**Kesa Young, CPA**, Investment Accountant

**James Atkins, CPA, CAIA, CGMA**, Senior Alternative Investment Analyst

**Mallory Engel, CPA**, Alternative Investment Analyst

**Mika Hubbard, CPA**, Alternative Investment Analyst

### *Support Staff*

**Shane Jividen, CPA, MA**, Human Resources and Office Administrator

**Milly Torman**, Senior Administrative Assistant

**Margy McCroskey**, Administrative Assistant

### *Technology Division*

**Darius Walker, MSCE, CompTIA Security+, CEH**, Director of Technology

**Fred Branham, MSCE, MCSA, CompTIA Security+**, Senior Network Engineer

**Rick Greathouse, CompTIA A+, CompTIA Security+, Network+**, Network Administrator

**Rebecca King, CPA-Inactive**, Enterprise Information Architect

## Organizational History

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The West Virginia Investment Management Board came into existence in the spring of 1997 after years of hard work modernizing the State's investment management structure. This structural modernization was widely acknowledged as a necessary precursor to the passage of a constitutional referendum to allow investment in stocks. The risks were perceived to be too great to be managed by anything but a modern, professional entity.

Although the West Virginia Investment Management Board's predecessors, the West Virginia State Board of Investments and the West Virginia Trust Fund, Inc., brought about vast improvements, each had significant shortcomings. However, with the creation of the West Virginia Investment Management Board, the State achieved a balance between control and independence that helps foster efficient and prudent investment management of long-term assets well into the future.

The beginning of the modern era in investment management by the State goes back to the late 1970s with the consolidation of the investment authority for the State's defined benefit plans, employment security plans, and other assets into a newly created West Virginia State Board of Investments. One of the goals of the legislation was to achieve economies of scale by commingling like assets.

Significantly, this newly created West Virginia Board of Investments was staffed by the State Treasury and the board itself was made up of the State's Governor, Treasurer, and Auditor.

Although a step in the right direction, the initial West Virginia State Board of Investments lacked proper or sufficient control features. After a few problems in the 1980s, principally involving its short-term pool, the Consolidated Fund, the board was expanded to seven members, adding four members from the private sector including an attorney experienced in financial matters and a Certified Public Accountant.

In the fall of 1990, the Legislature took a huge leap forward by creating a staff for the West Virginia State Board of Investments separate from the staff of the Treasury. This provided clear accountability to the Board of Investments – something that did not exist previously. Other very important control features included: (1) a statutory requirement for an Internal Auditor, (2) an annual external audit by a certified public accounting firm, and (3) monthly reporting requirements to government leaders in accordance with generally accepted accounting principles. This last feature dictated that all pools with a weighted average maturity in excess of 90 days must be marked-to-market (carried at market value), something that had not been done in the 1980s.

At the same time, the West Virginia Board of Investments made its first tepid step towards a diversified portfolio to be invested in stocks domiciled in the United States. Although it made some initial stock purchases in 1993, which were subsequently liquidated at a gain, the statute was challenged and the West Virginia Supreme Court ruled that investing in equities was unconstitutional.

In 1996, in an effort to satisfy the constitutional strictures, the Legislature carved out the pension and employment security funds with long time horizons and placed them in a trust to be managed by a new entity called the West Virginia Trust Fund, Inc. The creation of the trust as a vehicle to allow investment in stocks was also challenged and was struck down, failing to satisfy the constitutional concerns of the Supreme Court. It did, however, bring about three very important changes. The Legislature, demonstrating impeccable managerial foresight, granted the West Virginia Trust Fund, Inc. control over its own budget. With the same foresight, the Legislature imposed personal fiduciary liability on the board and staff of the West Virginia Trust Fund, Inc. Of no less importance was the creation of representative roles for members of the retirement systems and employment security systems.

With the failure of the West Virginia Trust Fund, Inc., it and the West Virginia State Board of Investments were replaced in 1997 by a new entity, the present day West Virginia Investment Management Board. The basic modernization process was complete. All of the improvements made in the Board of Investments and the West Virginia Trust Fund, Inc. were incorporated into the new entity.

The Legislature, for policy reasons, transferred the Consolidated Fund on July 8, 2005 to a newly created West Virginia Board of Treasury Investments, chaired by the State Treasurer. This was widely perceived as a policy move to ensure direct governmental oversight of State general and special revenue funds. The West Virginia Investment Management Board continues to manage the retirement funds, the employment security funds, and other assets with long time horizons.

In 2007, the Legislature expanded the investable universe of assets, increasing the allowable allocation to public equity and international securities, while also providing for a significant allocation to "alternative investments," loosely defined as hedge funds and private equity. Then, in 2014, the Legislature eliminated the percentage limitations on allowable asset classes or securities, joining most of its peers in recognizing the prudent investor standard of care is the most effective control on investor behavior for institutions.

## Statutory Mandate

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The bill creating the West Virginia Investment Management Board passed during the 1997 legislative session and is cited as the *West Virginia Investment Management Board Act* (the Act). The legislative findings of the Act make it clear that the West Virginia Investment Management Board was intended to be a professional, apolitical, financial management organization dedicated to the interests of the State's teachers, public employees and workers in general. The Act was intended to give the West Virginia Investment Management Board "...the authority to develop, implement and maintain an efficient and modern system for the investment and management of the State's money." In order to accomplish this purpose, the Act further stated that the West Virginia Investment Management Board must "...operate as an independent board with its own full-time staff of financial professionals immune to changing political climates..." [*West Virginia Code §12-6-1(a)(b)*] The Act also mandates that the assets contributed by the public employee and employer to the 401(a) Plans and the assets of the Workers' Compensation Fund and the Coal Workers' Pneumoconiosis Fund, are "declared to be irrevocable trusts, available for no use or purpose other than for the benefit of those public employees...workers, miners and their beneficiaries..." [*West Virginia Code §12-6-1(c)(d)*] The West Virginia Investment Management Board is further "empowered by this Article to act as Trustee of the irrevocable trusts created by this Article, and to manage and invest other state funds." [*West Virginia Code §12-6-1a(f)*]

The standard of care mandated by the Statute is that codified in the "Uniform Prudent Investor Act," Article 6C of Chapter 44 of the *West Virginia Code*. The West Virginia Investment Management Board is further subject to the following requirements:

- (a) Trustees shall discharge their duties with respect to the 401(a) Plans for the exclusive purpose of providing benefits to participants and their beneficiaries;
- (b) Trustees shall diversify fund investments so as to minimize the risk of large losses unless, under the circumstances, it is clearly prudent not to do so;
- (c) Trustees shall defray reasonable expenses of investing and operating the funds under management;
- (d) Trustees shall discharge their duties in accordance with the trust documents and instruments governing the trusts or other funds under the management insofar as the documents and instruments are consistent with provisions of this Article; and
- (e) The duties of the Board apply only with respect to those assets deposited with or otherwise held by it. [*West Virginia Code §12-6-11*]

## Administrative Mandate

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Governance of the West Virginia Investment Management Board is vested, by statute, in a thirteen-member Board of Trustees. Three members of the Board serve by virtue of their office: the Governor, the Auditor, and the Treasurer. The other ten are appointed by the Governor and confirmed by the Senate. All appointees must have experience in pension management, institutional management or financial markets. In addition, one must be an attorney experienced in finance and investment matters and another must be a Certified Public Accountant. Only six of the ten appointed Trustees may be from the same political party. The Governor serves as Chairman of the Board. A Vice-Chairman is elected by the Trustees. A Secretary, who need not be a member of the Board, is also elected by the Trustees to keep a record of the proceedings of the Board.

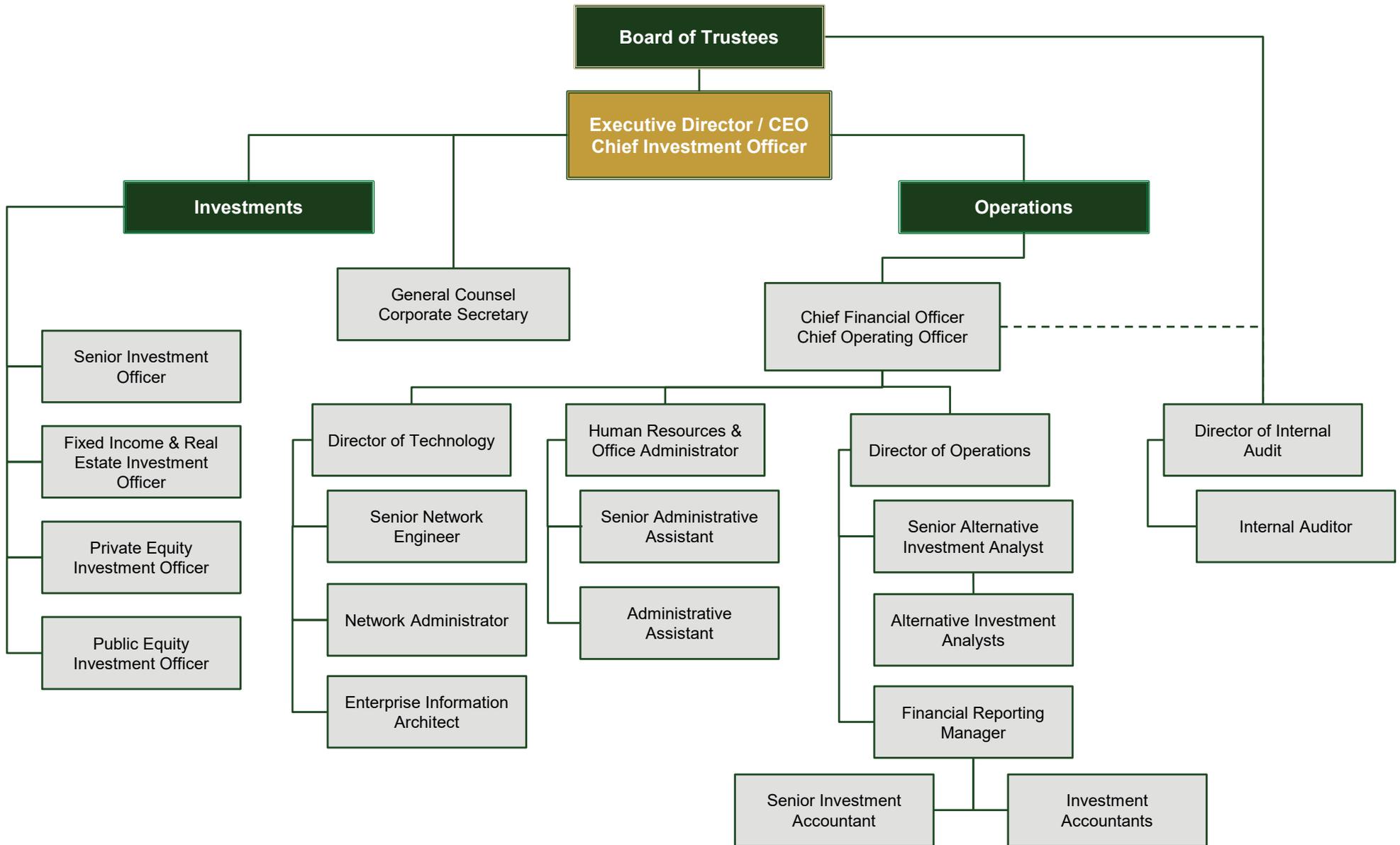
A member of each defined benefit retirement plan is designated by the Consolidated Public Retirement Board to represent the Participant Plans' interests. Likewise, the West Virginia Insurance Commission designates a representative for the Coal Workers' Pneumoconiosis Fund and the Workers' Compensation Old Fund. Each of the Representatives may designate up to three persons to comprise a committee representing their respective plan's beneficiaries. The Representatives and Committee Members do not have a vote but have the right to be heard at the annual meetings of the Board and are subject to the same code of conduct and requirements of confidentiality that apply to the Trustees.

The day-to-day management of the West Virginia Investment Management Board is delegated to the Executive Director who is appointed by the Board and serves at its will and pleasure. The Executive Director acts as an advisor to the Board on all matters.

The staff of the West Virginia Investment Management Board is divided into two principal divisions—Investments and Operations.

The Operations Division is focused on providing the back office support necessary for the organization to function on a day-to-day basis. The Investments Division is structured to devote its time and resources to staying current with new developments and research in the investment field and being prepared to apply this knowledge to the investment of assets for the West Virginia Investment Management Board. See the organization chart on the following page.

# Organization Chart



# Investment Philosophy

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The primary objective of the investment pools is to provide benefits to its participants and beneficiaries. Based on general beliefs about the investment return available from a well-diversified, prudently invested portfolio, the Board has adopted specific investment objectives for each Participant Plan.

In order to achieve the investment objectives for each Participant Plan, the WVIMB relies on prevailing financial theory. This is a philosophy that is generally characterized by prudent diversification across different asset classes (stocks, bonds, cash, non-traditional, etc.) to reduce risk, taking into account each Participant Plan's time horizon, liquidity needs, financial condition (funded status), and return objectives in determining each Participant Plan's appropriate allocation to various assets. Diversification is not just limited to asset classes although it is, generally, considered the most significant factor. Other factors, including, but not limited to, geography/country, industry, maturity, and cash flow projections, are also considered from the Participant Plan's perspective. These factors may also dictate the extent to which the Participant Plan may be impacted by general business conditions. Importantly, the factors mentioned here are not intended to be limiting; rather, they are outlined as a general indication of the importance of diversification and customization to proper asset allocation. The Board determines the proper allocation among asset classes and managers, based on advice and analysis provided by the WVIMB and an external general investment consultant.

The Board recognizes that even though its investments may be subject to short-term volatility, it is critical that the WVIMB maintain a focus on longer time horizons for most Participant Plans, during which time the impact of short-term market volatility generally averages out. Impulsive reactions to short-term market events are not conducive to achieving long-term investment objectives. The strategies employed for each Participant Plan factor in an acceptable level of expected volatility given the relevant time horizon and liquidity needs for that Participant Plan. This prevents ad-hoc revisions to its philosophy and policies in reaction to either speculation or short-term market fluctuations. It is important to note that the Board recognizes that markets may become dislocated due to behavioral or other factors. When major dislocations occur, the Board has allowed for minor adjustments to the asset allocation for each Participant Plan through its Allocation Committee. In order to preserve a longer-term perspective generally, however, the Board of Trustees has adopted the following formal review schedule:

<b>Agenda Item</b>	<b>Review Schedule</b>
Investment Performance	Quarterly
Investment Policy	Every Year
Allocation Ranges	Every Three Years
Asset Allocation Review for Each Participant Plan	At Least Every Three Years

The Board may hire investment managers to implement its objectives. These managers will be given specific tactical roles within the overall strategic investment plan. Depending on their assignments, the managers may be judged on some or all of the following: (1) consistency of philosophy, style and key personnel, (2) performance relative to an appropriate index or proxy group, and (3) ability to add incremental value after costs. The Board and staff shall monitor performance and supervise all fund managers.

In determining the appropriate level of risk, the Board considers, in addition to its fiduciary obligations and statutory requirements, each entity's purpose and characteristics, financial condition, liquidity needs, sources and level of contributions, income and general business conditions. Based upon these many factors, the Board identifies where either a more aggressive or more conservative investment approach is warranted, on an individual plan-by-plan basis.

## INVESTMENT OBJECTIVES

*"Trustees, at the annual meeting...shall review, establish and modify, if necessary, the investment objectives of the individual participant plans, as incorporated in the investment policy statements of the respective trusts so as to provide for the financial security of the trust funds giving consideration to the following: (1) Preservation of Capital; (2) Diversification; (3) Risk Tolerance; (4) Rate of Return; (5) Stability; (6) Turnover; (7) Liquidity; and (8) Reasonable Costs of Fees." [West Virginia Code §12-6-11(a)(5)]*

## PARTICIPANT PLANS

The Board's objective is to manage the Participant Plans' moneys in an efficient and economical manner, managing risk as it seeks to achieve the specific goals set out in each Participant Plan's investment program.



**INVESTMENT OBJECTIVES & FINANCIAL HIGHLIGHTS**



# Equity Pool

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## OBJECTIVES

The main objective for the Equity Pool is to provide for long-term growth for all participants. The Equity Pool is comprised of sub-components that enable adequate diversification when taken in aggregate. Separate investment pools have been established for each investment style or to comply with specific legal and accounting requirements.

Each Participant invested in the Equity Pool has its own Equity Strategic Allocation, set out in each Participant Plan Description within Appendix A of the WVIMB's Investment Policy Statement. The Allocation Committee has the authority to adjust a Participant's Equity Strategic Allocation 10 percent of the approved allocation. As an example, if a Participant has a 50 percent Strategic Allocation to Equity, the Strategic Range would be 45 to 55 percent.

The Allocation Committee also has the authority to adjust strategic asset class sub-components of the Equity Pool, as outlined below:

Strategic Asset Class Sub-Components	Neutral Target*	Allocation Range
Domestic vs. International	Domestic vs. International Percentage in MSCI ACWI (IMI)	0.5 to 2.5 times benchmark weight Sum must equal 100% of Equity allocation
U.S. Large Cap vs. U.S. Non-Large Cap	Large = 1 minus Non-Large Non-Large = Russell 2500/Russell 3000	0.5 to 2.5 times benchmark weight Sum must equal 100% of Domestic Equity allocation
U.S. Non-Large Value vs. U.S. Non-Large Growth	Value vs. Growth Percentage in Russell 2500	0.5 to 2.5 times benchmark weight Sum must equal 100% of Non-Large Cap Domestic Equity allocation
International Large Cap vs. International Small Capvs. Emerging Markets	Large vs. Small vs. Emerging Percentage in MSCI ACWI ex U.S. (IMI)	0.5 to 2.5 times benchmark weight Sum must equal 100% of International Equity allocation

\* The Neutral Target is established based on these index weights every June 30.

# Equity Pool

## MANAGEMENT STRUCTURE

The equity pools are managed by the following firms, in accordance with a particular investment style.

Manager	Style
<b>Portable Alpha Pool</b>	
<i>U.S. Large Capitalization</i>	
Russell Investments Implementation Services, LLC	Equity Beta Replication (including margin accounts)
BlackRock Institutional Trust Company, N.A.	Index Core
Hedge Fund Committee/Albourne America, LLC (consultant)	Alternative Risk Premia
<b>Large Cap Domestic Equity Pool</b>	
BlackRock Institutional Trust Company, N.A.	Index Core
<b>Non-Large Domestic Equity Pool</b>	
Westfield Capital Management Company, LLC	Growth at a Reasonable Price
Cooper Creek Partners Management, LLC	Value
<b>International Qualified and International Nonqualified Pools</b>	
<i>International Large Capitalization</i>	
Silchester International Investors	All Country, Value
<b>International Equity Pool</b>	
<i>International Large Capitalization</i>	
LSV Asset Management	All Country, Relative Value
<i>International Small Capitalization</i>	
Oberweis Asset Management, Inc.	All Country, Growth
Acadian Asset Management, LLC	All Country, Quantitative Value
<i>Emerging Markets</i>	
Russell Investments Implementation Services, LLC	Emerging Market, Value
Axiom International Investors, LLC	Emerging Market, Growth at a Reasonable Price

## FINANCIAL HIGHLIGHTS (in \$000s)

Audited financial statements are prepared for each of the equity pools and are available at [www.WVIMB.org](http://www.WVIMB.org). Financial Highlights for each pool are presented below:

Condensed Statement of Net Position	Portable Alpha	Large Cap Domestic Equity	Non-Large Cap Domestic Equity
Investments	\$ 4,375,857	\$ 308,837	\$ 1,031,390
Investment derivatives	(124,020)	-	-
Payable upon return of securities loaned	-	-	(168,389)
Cash with brokers for derivative contracts	96,764	-	-
Receivable for investments sold	407,000	-	2,378
Payable for investments purchased	(7,000)	-	(10,324)
Other assets and liabilities, net	1,812	(19)	(1,252)
Net position - June 30, 2022	\$ 4,750,413	\$ 308,818	\$ 853,803

## Equity Pool

### FINANCIAL HIGHLIGHTS (continued in \$000s)

#### Condensed Statement of Net Position

	International Qualified	International Nonqualified	International Equity
Investments	\$ 1,185,907	\$ 183,582	\$ 2,795,255
Payable upon return of securities loaned	-	-	(57,625)
Cash	-	-	19,017
Receivable for investments sold	-	-	24,140
Payable for investments purchased	-	-	(3,606)
Other assets and liabilities, net	(47)	(7)	16,979
Net position - June 30, 2022	\$ 1,185,860	\$ 183,575	\$ 2,794,160

#### Investments

#### Portable Alpha

	Fair Value	Percent of Securities
Notional value of S&P 500 derivatives	\$ 3,253,096	76.5%
S&P 500 index fund	1,335,973	31.4
Total S&P 500 exposure	4,589,069	107.9
Margin accounts:		
Money market mutual fund	364,703	8.6
Enhanced cash collateral	359,355	8.5
Downside protection (U.S. TIPS and Treasuries)	418,347	9.8
Total available margin	1,142,405	26.9
Alternative risk premia funds	1,897,479	44.6
Total investment exposure	7,628,953	179.4
Reconciliation to total investments:		
Less: Notional value of S&P 500 derivatives	(3,253,096)	(76.5)
Add: Unrealized depreciation of S&P 500 derivatives	(124,020)	(2.9)
Total	\$ 4,251,837	100.0%

#### Investments

#### Large Cap Domestic Equity

	Fair Value	Percent of Securities
S&P 500 index fund	\$ 308,837	100.0%

## Equity Pool

### FINANCIAL HIGHLIGHTS (continued in \$000s)

Investments	<b>Non-Large Cap Domestic Equity</b>	
	Fair Value	Percent of Securities
Equity sector exposure:		
Basic Materials	\$ 34,305	3.3%
Communications Services	11,471	1.1
Consumer Discretionary	167,292	16.2
Consumer Staples	6,284	0.6
Energy	74,012	7.2
Financial Services	68,006	6.6
Health Care	86,501	8.4
Industrials	188,863	18.3
Real Estate	8,327	0.8
Technology	161,602	15.7
Total equities	806,663	78.2
Money market mutual funds	56,338	5.5
Investments made with cash collateral for securities loaned	168,389	16.3
Total	\$ 1,031,390	100.0%

Investments	<b>International Qualified</b>		<b>International Nonqualified</b>	
	Fair Value	Percent of Securities	Fair Value	Percent of Securities
MSCI EAFE commingled fund	\$ 1,185,907	100.0%	\$ 183,582	100.0%

Investments	<b>International Equity</b>	
	Fair Value	Percent of Securities
International equities country exposure:		
Australia	\$ 89,917	3.2%
Brazil	97,972	3.5
Canada	129,521	4.6
China	466,605	16.7
France	124,885	4.5
Germany	98,280	3.5
Hong Kong	58,135	2.1
India	122,363	4.4
Japan	251,895	9.0
Korea	170,253	6.1
Switzerland	80,108	2.9
Taiwan	197,402	7.1
United Kingdom	203,242	7.3
All others (none greater than 2%)	604,244	21.5
Total international equities	2,694,822	96.4
Money market mutual fund	42,808	1.5
Securities lending collateral	57,625	2.1
Total	\$ 2,795,255	100.0%

## Equity Pool

### FINANCIAL HIGHLIGHTS (continued in \$000s)

#### Progression of Net Position

	Portable Alpha	Large Cap Domestic Equity	Non-Large Cap Domestic Equity
Net position - June 30, 2021	\$ 5,086,185	\$ 372,877	\$ 926,654
Net investment loss	(555,869)	(35,385)	(220,207)
Net increase (decrease) from unit transactions	220,097	(28,674)	147,356
Net position - June 30, 2022	<b>\$ 4,750,413</b>	<b>\$ 308,818</b>	<b>\$ 853,803</b>

#### Progression of Net Position

	International Qualified	International Nonqualified	International Equity
Net position - June 30, 2021	\$ 1,451,771	\$ 219,104	\$ 3,913,130
Net investment loss	(161,272)	(25,586)	(831,664)
Net decrease from unit transactions	(104,639)	(9,943)	(287,306)
Net position - June 30, 2022	<b>\$ 1,185,860</b>	<b>\$ 183,575</b>	<b>\$ 2,794,160</b>

### INVESTMENT PERFORMANCE

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of investment advisor fees.

Period	Portable Alpha		Large Cap Domestic Equity		Non-Large Cap Domestic Equity	
	Actual	S&P 500	Actual	S&P 500	Actual	Russell 2500
One-year	(10.9)%	(10.6)%	(10.7)%	(10.6)%	(20.5)%	(21.0)%
Three-year	N/A	N/A	10.6%	10.6%	5.6%	5.9%
Five-year	N/A	N/A	11.1%	11.3%	6.8%	7.0%
Ten-year	N/A	N/A	12.9%	13.0%	10.2%	10.5%
Twenty-year	N/A	N/A	9.1%	9.1%	9.0%	9.2%

Period	International Qualified		International Nonqualified		International Equity	
	Actual	MSCI EAFE	Actual	MSCI EAFE	Actual	MSCI ACWI ex U.S. (IMI)*
One-year	(11.8)%	(17.3)%	(11.9)%	(17.3)%	(22.4)%	(19.5)%
Three-year	2.4%	1.5%	2.2%	1.5%	3.4%	2.0%
Five-year	2.3%	2.7%	2.1%	2.7%	3.3%	3.0%
Ten-year	7.6%	5.9%	7.4%	5.9%	5.9%	5.4%
Twenty-year	8.5%	5.8%	8.2%	5.8%	6.3%	6.3%

\*Prior to January 2014, the International Equity Pool index was the MSCI ACWI ex U.S. (Standard).

## Equity Pool

### EXPENSES

The WVIMB charges each investment pool for its direct investment-related expenses, such as investment advisor fees, custodian bank fees, and certain professional service fees, and an allocated share of other expenses. Expense ratios and trading costs do not reflect the pool's proportionate share of expenses of the underlying investee funds. The Equity Pool's expenses for the year, divided by the average net position, are as follows:

<b>Expense Ratios (in basis points)</b>	Portable Alpha	Large Cap Domestic Equity	Non-Large Cap Domestic Equity	International Qualified	International Nonqualified	International Equity
Investment advisor fees	2.1	0.8	66.4	51.1	58.2	41.4
Trustee fees	0.0*	0.0*	0.0*	0.0*	0.0*	0.0*
Custodian bank fees	0.0*	0.0*	0.4	N/A	N/A	2.8
Management fees	2.2	2.2	2.2	2.2	2.2	2.2
Fiduciary bond fees	0.0*	0.0*	0.0*	0.0*	0.0*	0.0*
Professional service fees	0.9	0.4	0.4	0.4	0.4	0.4
<b>Total</b>	<b>5.2</b>	<b>3.4</b>	<b>69.4</b>	<b>53.7</b>	<b>60.8</b>	<b>46.8</b>

\* Expense Ratio rounds to less than 0.1 basis points.

<b>Trading Costs (in \$000s)</b>	Portable Alpha	Large Cap Domestic Equity	Non-Large Cap Domestic Equity	International Qualified	International Nonqualified	International Equity
Net commission costs	\$ 245	N/A	\$ 2,835	N/A	N/A	\$ 2,908

# Short-Term Fixed Income Pool

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## OBJECTIVES

The Short-Term Fixed Income Pool was created to maintain sufficient liquidity to meet the daily disbursements requested by the Participants and to invest any contributions until the time the money is transferred to other asset classes without sustaining capital losses and while earning a small return above inflation. The Short-Term Fixed Income Pool is structured as a money market fund where the goal is a stable dollar value per share, thus preserving principal. The pool's risk factor is low and managed through numerous maturity restrictions, diversification guidelines, and credit limits. The participants are paid on an income basis that includes interest income net of expenses.

## MANAGEMENT STRUCTURE

The Short-Term Fixed Income Pool is managed by JPMorgan Investment Advisors, Inc.

## FINANCIAL HIGHLIGHTS (in \$000s)

Audited financial statements for the Short-Term Fixed Income Pool are available at [www.WVIMB.org](http://www.WVIMB.org). Financial Highlights are presented below.

### Condensed Statement of Net Position

Investments	\$ 145,435
Other assets and liabilities, net	(16)
Net position - June 30, 2022	<u>\$ 145,419</u>

### Investments

	Fair Value	Percent of Securities
Repurchase agreement	35,461	24.4%
U.S. Government agency bonds	93,991	64.6
U.S. Treasury bonds	15,983	11.0
Total	<u>\$ 145,435</u>	<u>100.0%</u>

### Progression of Net Position

Net position - June 30, 2021	\$ 192,222
Net investment income	183
Distributions to unitholders	(183)
Net decrease from unit transactions	(46,803)
Net position - June 30, 2022	<u>\$ 145,419</u>

## Short-Term Fixed Income Pool

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### INVESTMENT PERFORMANCE

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of investment advisor fees.

Period	Actual	FTSE 3 Month US T-Bill*
One-year	0.2%	0.2%
Three-year	0.5%	0.6%
Five-year	1.0%	1.1%
Ten-year	0.6%	0.6%
Twenty-year	1.3%	1.3%

*\*Prior to January 2014, the Short-Term Fixed Income Pool index was the Citigroup 90 Day Treasury Bill plus 15 basis points.*

### EXPENSES

The WVIMB charges the pool for its direct investment-related expenses, such as investment advisor fees and custodian bank fees. Expense ratios do not reflect the pool's proportionate share of expenses of the underlying investee funds. The Short-Term Fixed Income Pool's expenses for the year, divided by the average net position, are as follows:

#### Expense Ratios (in basis points)

Investment advisor fees	4.1
Custodian bank fees	0.4
Total	<u>4.5</u>

## Fixed Income Pool

### OBJECTIVES

The main objectives for the Fixed Income Pool are to generate investment income, provide stability, and enhance diversification but not at the expense of total return. Separate investment pools have been established for particular investment styles or to comply with specific accounting requirements. The strategic asset class, the Neutral Target allocation to the sub-component of the strategic asset class, as well as the approved Allocation Ranges within which the Allocation Committee can operate, are outlined below:

Category	Strategic Allocation	Allocation Range
Core Fixed Income	--	--
Total Return Fixed Income	--	--
Fixed Income Pool	20.0%	+/- 5% (15% to 25%)

*Note: Each Participant has its own unique Strategic Allocation. The above example is for clarification purposes only.*

Neutral Target	Allocation Range
30% Core Fixed Income	Minimum 20% to Maximum 70%
70% Total Return Fixed Income	Minimum 30% to Maximum 80%
	Sum must equal 100% of the Fixed Income allocation

*\*The Neutral Target is approved by the Board.*

### MANAGEMENT STRUCTURE

The fixed income pools are managed by the following firms, in accordance with a particular investment style.

Manager	Style
<b>Total Return Fixed Income Pool</b>	
Western Asset Management Company	Core Plus Fixed Income
Dodge & Cox	Core Plus Fixed Income
Franklin Templeton Investments	Emerging Markets Fixed Income
<b>Core Fixed Income Pool</b>	
JPMorgan Investment Advisors, Inc.	Core Fixed Income

### FINANCIAL HIGHLIGHTS (in \$000s)

Audited financial statements are prepared for each of the fixed income pools and are available at [www.WVIMB.org](http://www.WVIMB.org). Financial Highlights for each pool are presented below.

Condensed Statement of Net Position	Total Return Fixed Income	Core Fixed Income
Investments	\$ 2,596,656	\$ 1,118,950
Investment derivatives	(25,054)	-
Payable upon return of securities loaned	(125,567)	(59,920)
Cash	84,834	-
Receivable for investments sold	430,387	136,598
Payable for investments purchased	(227,018)	(11,002)
Other assets and liabilities, net	20,997	4,019
Net position – June 30, 2022	<u>\$ 2,755,235</u>	<u>\$ 1,188,645</u>

## Fixed Income Pool

### FINANCIAL HIGHLIGHTS (continued in \$000s)

Investments	Total Return Fixed Income		Core Fixed Income	
	Fair Value	Percentage of Securities	Fair Value	Percentage of Securities
Bank loan	\$ 2,980	0.1%	\$ -	0.0%
Commingled debt funds	242,023	9.4	-	0.0
Corporate asset backed issues	78,291	3.0	126,155	11.3
Corporate CMO	81,472	3.2	96,077	8.6
Corporate preferred security	10,423	0.4	-	0.0
Foreign asset backed issues	87,664	3.4	2,441	0.2
Foreign corporate bonds	352,447	13.7	75,517	6.7
Foreign currency forward contracts	2,221	0.1	-	0.0
Foreign equity investments	792	0.0	-	0.0
Foreign government bonds	194,192	7.6	2,731	0.2
Futures contracts	(15,201)	(0.6)	-	0.0
Money market mutual fund	130,798	5.1	13,437	1.2
Municipal bonds	22,293	0.9	9,051	0.8
Option contracts purchased	8,230	0.3	-	0.0
Option contracts written	(23,753)	(0.9)	-	0.0
Securities lending collateral	125,567	4.9	59,920	5.4
Swaps	3,449	0.1	-	0.0
U.S. corporate bonds	458,781	17.8	178,510	16.0
U.S. government agency bonds	28,382	1.1	-	0.0
U.S. government agency CMO	81,105	3.2	102,960	9.2
U.S. government agency MBS	361,941	14.1	166,732	14.9
U.S. Treasury issues	337,505	13.1	285,419	25.5
<b>Total</b>	<b>\$ 2,571,602</b>	<b>100.0%</b>	<b>\$ 1,118,950</b>	<b>100.0%</b>

### Progression of Net Position

	Total Return Fixed Income	Core Fixed Income
Net position - June 30, 2021	\$ 3,064,803	\$ 1,315,827
Net investment loss	(360,950)	(128,924)
Net increase from unit transactions	51,382	1,742
<b>Net position - June 30, 2022</b>	<b>\$ 2,755,235</b>	<b>\$ 1,188,645</b>

### INVESTMENT PERFORMANCE

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of investment advisor fees.

Period	Total Return Fixed Income		Core Fixed Income	
	Actual	Bloomberg Barclays U.S. Universal Bond*	Actual	Bloomberg Barclays U.S. Aggregate Bond
One-year	(11.2)%	(10.9)%	(9.3)%	(10.3)%
Three-year	(0.2)%	(0.9)%	0.0%	(0.9)%
Five-year	1.5%	0.9%	1.6%	0.9%
Ten-year	2.8%	1.8%	2.2%	1.5%
Twenty-year	4.7%	3.9%	N/A	N/A

\* Prior to April 2008, the Total Return Fixed Income Pool index was a custom index.

## Fixed Income Pool

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### EXPENSES

The WVIMB charges each investment pool for its direct investment-related expenses, such as investment advisor fees, custodian bank fees, and certain professional service fees, and an allocated share of other expenses. Expense ratios and trading costs do not reflect the pool's proportionate share of expenses of the underlying investee funds. The Fixed Income Pools' expenses for the operating period, divided by the average net position, are as follows:

<b>Expense Ratios (in basis points)</b>	<b>Total Return Fixed Income</b>	<b>Core Fixed Income</b>
Investment advisor fees	21.2	14.9
Trustee fees	0.0*	0.0*
Custodian bank fees	0.5	0.3
Management fees	2.2	2.2
Fiduciary bond fees	0.0*	0.0*
Professional service fees	0.4	0.4
Total	24.3	17.8

\* Expense Ratio rounds to less than 0.1 basis points.

<b>Trading Costs (in \$000s)</b>	<b>Total Return Fixed Income</b>	<b>Core Fixed Income</b>
Commission costs	\$ 1,693	N/A

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# TIPS Pool

## OBJECTIVES

The TIPS Pool was established to offer an additional level of diversification over and above nominal fixed income securities in an attempt to mitigate the risk of inflation. The main objective for the pool is to generate a return that exceeds the rate of inflation over a market cycle, to provide investment income and stability of principal, and to diversify interest rate exposure.

## MANAGEMENT STRUCTURE

The TIPS Pool is managed by BlackRock Institutional Trust Company, N.A.

## FINANCIAL HIGHLIGHTS (in \$000s)

Audited financial statements for the TIPS Pool are available at [www.WVIMB.org](http://www.WVIMB.org). Financial Highlights are presented below.

### Condensed Statement of Net Position

Investments	\$ 440,765
Other liabilities	(37)
Net position - June 30, 2022	<u>\$ 440,728</u>

### Investments

	Fair Value	Percent of Securities
U.S. TIPS commingled fund	<u>\$ 440,765</u>	<u>100.0%</u>

### Progression of Net Position

Net position - June 30, 2021	\$ 478,928
Net investment loss	(24,433)
Net decrease from unit transactions	(13,767)
Net position - June 30, 2022	<u>\$ 440,728</u>

## INVESTMENT PERFORMANCE

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of investment advisor fees.

Period	Actual	Bloomberg Barclays U.S. TIPS
One-year	(5.1)%	(5.1)%
Three-year	3.1%	3.0%
Five-year	3.3%	3.2%
Ten-year	1.8%	1.7%

## TIPS Pool

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### EXPENSES

The WVIMB charges the pool for its direct investment-related expenses, such as investment advisor fees, custodian bank fees, and certain professional service fees, and an allocated share of other expenses. Expense ratios do not reflect the pool's proportionate share of expenses of the underlying investee funds. The TIPS Pool's expenses for the operating period, divided by the average net position, are as follows:

#### Expense Ratios (in basis points)

Investment advisor fees	1.8
Trustee fees	0.0*
Custodian bank fees	0.0*
Management fees	2.2
Fiduciary bond fees	0.0*
Professional service fees	0.4
Total	<u>4.4</u>

\* Expense Ratio rounds to less than 0.1 basis points.

# Private Markets Pool

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## OBJECTIVES

The objective of the Private Markets Pool is to enhance the diversification and stability of the portfolio, while generating a higher level of income than generally available in the public fixed income markets and to provide for long-term growth of participants' assets and risk-reduction through diversification. The Private Markets Pool is comprised of the private credit & income, private equity, and real estate strategies. Prior to July 1, 2017, each of these strategies were operated as individual investment pools. For operational efficiencies, the three pools were combined on July 1, 2017 to form the Private Markets Pool. Investment performance for the Private Markets Pool and each of these strategies is presented on the following page.

The private credit & income strategy is to invest in a broad spectrum of non-traditional income-oriented assets.

The private equity strategy is comprised of the following categories and target range allocations:

Category	Target Range
Corporate Finance	90-100%
Venture Capital	0-10%
U.S.	80-100%
Non-U.S.	0-20%

The real estate strategy is comprised of the following categories and target range allocations:

Category	Target	Target Range
Core	50%	+/- 20% (30% to 70%)
Value-Added	30%	+/- 20% (10% to 50%)
Opportunistic	20%	+/- 10% (10% to 30%)

## MANAGEMENT STRUCTURE

Franklin Park, StepStone Group LP, and Verus have been retained by the WVIMB to provide consulting services related to the selection of limited partnerships and funds. The selection of investments are approved by the Private Equity or Real Estate Committees.

## FINANCIAL HIGHLIGHTS (in \$000s)

Audited financial statements for the Private Markets Pool are available at [www.WVIMB.org](http://www.WVIMB.org). Financial Highlights are presented below.

### Condensed Statement of Net Position

Investments	\$ 6,127,217
Payable upon return of securities loaned	(51,390)
Fund distributions receivable	12,159
Other assets and liabilities, net	789
Net position - June 30, 2022	<u>\$ 6,088,775</u>

## Private Markets Pool

### FINANCIAL HIGHLIGHTS (in \$000s) (continued)

Investments	Fair Value	Percent of Securities
Corporate bonds	\$ 10,767	0.2%
Equity investments	237,821	3.9
Money market mutual fund	113,410	1.9
Private credit & income funds	735,089	12.0
Private equity partnerships	2,757,816	45.0
Private real estate partnerships and funds	2,220,924	36.2
Securities lending collateral	51,390	0.8
<b>Total</b>	<b>\$ 6,127,217</b>	<b>100.0%</b>

### Progression of Net Position

Net position - June 30, 2021	\$ 5,920,744
Net investment income	654,452
Net decrease from unit transactions	(486,421)
<b>Net position - June 30, 2022</b>	<b>\$ 6,088,775</b>

### INVESTMENT PERFORMANCE

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of external investment management and/or partnership fees and expenses.

Period	Private Credit & Income		Private Equity	
	Actual	Credit Suisse Leveraged Loan plus 200 basis points**	Actual	Russell 3000 plus 300 basis points*
One-year	7.3%	(0.7)%	8.6%	(10.9)%
Three-year	7.1%	4.0%	26.5%	12.8%
Five-year	6.7%	5.0%	24.3%	13.6%
Ten-year	N/A	N/A	19.0%	15.7%

\*Prior to January 2014, the Private Equity index was the S&P 500 plus 500 basis points.

\*\*Prior to April 2017, the Private Credit & Income index was the Credit Suisse Leveraged Loan plus 250 basis points.

Period	Real Estate		Private Markets Pool*
	Actual	NCREIF Property Index plus 100 basis points	Actual
One-year	16.4%	22.9%	11.5%
Three-year	9.1%	10.6%	16.5%
Five-year	8.8%	9.6%	15.2%
Ten-year	9.5%	10.6%	N/A

\*The Private Markets Pool does not have a benchmark.

## Private Markets Pool

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### EXPENSES

The WVIMB charges the pool for its direct investment-related expenses, such as investment advisor fees, custodian bank fees, and certain professional service fees, and an allocated share of other expenses. Expense ratios and trading costs do not reflect the pool's proportionate share of expenses of the underlying investee funds. Commission trading costs were \$182,000 for the year ended June 30, 2022. The Private Market Pool's expenses for the year, divided by the average net position, are as follows:

#### Expense Ratio (in basis points)

Investment advisor fees	1.8
Trustee fees	0.0*
Custodian bank fees	0.1
Management fees	2.1
Fiduciary bond fees	0.0*
External fees/Fund closing costs	14.7
Professional service fees	2.9
Total	<u>21.6</u>

\* Expense Ratio rounds to less than 0.1 basis points.

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# Hedge Fund Pool

## OBJECTIVES

The main objective for the Hedge Fund Pool is to reduce risk through diversification of participants' assets. Secondly, the Hedge Fund Pool should provide for long-term growth.

The Hedge Funds are comprised of the following strategic categories and target range allocations:

Category	Target Range	Allocation Range
<b>Core</b>		
Relative Value	25-35%	20-50%
Event Driven	20-30%	15-35%
Long-Short Equity	20-30%	15-35%
Directional	10-20%	5-25%
<b>Supplemental</b>		
Long Biased	3-15%	0-20%
Private Equity	0-3%	0-5%
Private Credit	0-3%	0-5%
Real Assets	0-3%	0-5%

## MANAGEMENT STRUCTURE

Albourne America, LLC has been retained by the WVIMB to provide consulting services for this investment strategy. The selection of investments are approved by the Hedge Fund Committee.

## FINANCIAL HIGHLIGHTS (in \$000s)

Audited financial statements for the Hedge Fund Pool are available at [www.WVIMB.org](http://www.WVIMB.org). Financial Highlights are presented below.

### Condensed Statement of Net Position

Investments	\$ 2,282,106
Investment funds redeemed	14,343
Other assets and liabilities, net	(38)
Net position - June 30, 2022	<u>\$ 2,296,411</u>

### Investments

	Fair Value	Percent of Securities
Hedge funds	\$ 2,281,790	100.0%
Money market mutual fund	316	0.0
Total	<u>\$ 2,282,106</u>	<u>100.0%</u>

### Progression of Net Position

Net position - June 30, 2021	\$ 2,403,053
Net investment income	36,633
Net decrease from unit transactions	(143,275)
Net position - June 30, 2022	<u>\$ 2,296,411</u>

# Hedge Fund Pool

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## INVESTMENT PERFORMANCE

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of external investment management and/or partnership fees and expenses.

Period	Actual	HFRI FoF plus 100 basis points*
One-year	1.6%	(4.5)%
Three-year	6.4%	4.9%
Five-year	5.6%	4.6%
Ten-year	5.4%	4.0%

*\* Prior to January 2014, the Hedge Fund index was LIBOR plus 400 basis points.*

## EXPENSES

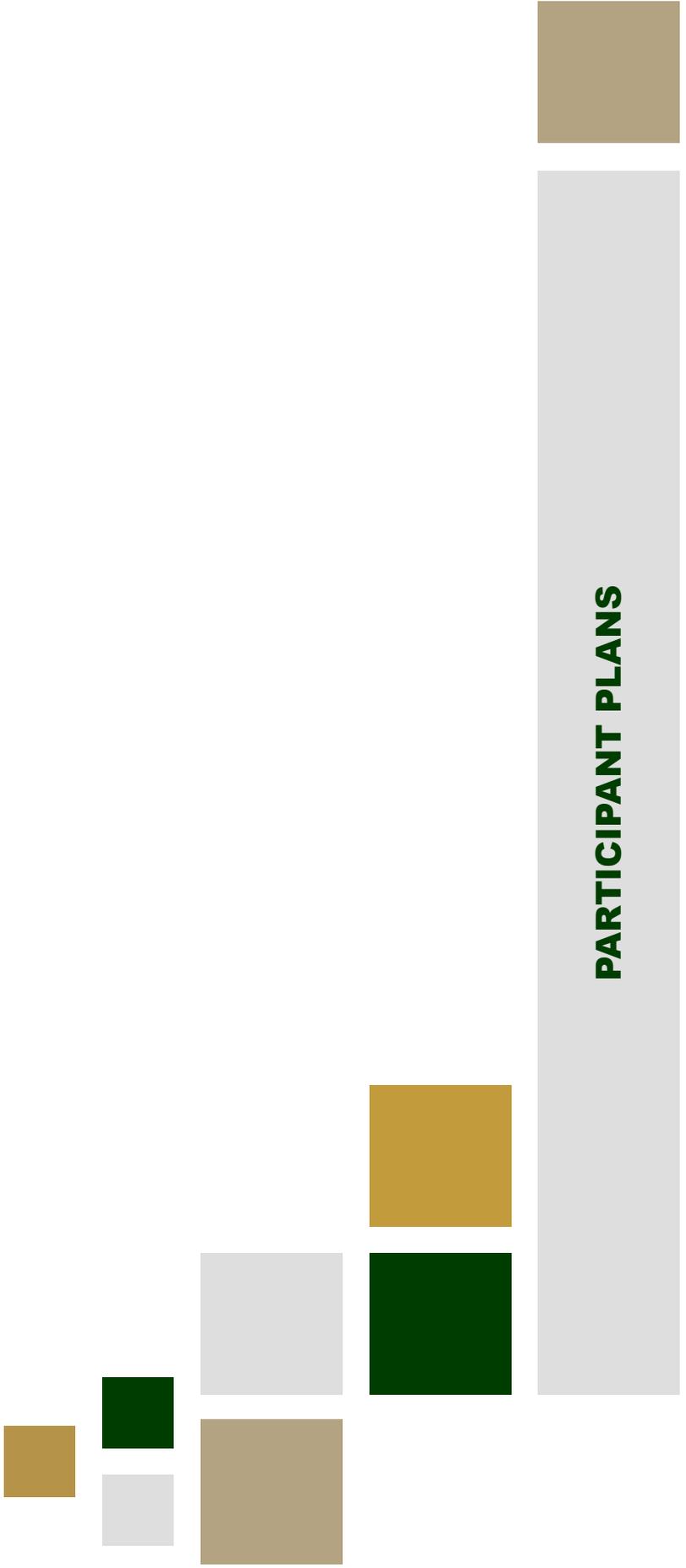
The WVIMB charges the pool for its direct investment-related expenses, such as custodian bank fees and certain professional service fees, and an allocated share of other expenses. Expense ratios do not reflect the pool's proportionate share of expenses of the underlying investee funds. The Hedge Fund Pool's expenses for the year, divided by the average net position, are as follows:

### Expense Ratio (in basis points)

Trustee fees	0.0*
Custodian bank fees	0.0*
Management fees	2.2
Fiduciary bond fees	0.0*
Professional service fees	2.2
Total	<u>4.4</u>

\* Expense Ratio rounds to less than 0.1 basis points.







## Participant Plans Overview

### FINANCIAL HIGHLIGHTS (in \$000s)

#### Plan Balances as of June 30, 2022

	Assets	Percent of Total	Page Reference
<b>Pension Assets</b>			
Deputy Sheriff's Retirement System	\$ 293,315	1.3%	31
Emergency Medical Services Retirement System	112,407	0.5	33
Judges' Retirement System	259,323	1.1	35
Municipal Police Officers' and Firefighters' Retirement System	26,796	0.1	37
Municipal Policemen's or Firemen's Pension and Relief Funds	70,624	0.3	39
Natural Resources Police Officer Retirement System	24,467	0.1	42
Public Employees' Retirement System	8,004,835	34.8	44
State Police Death, Disability and Retirement Fund	767,508	3.3	46
State Police Retirement System	289,417	1.3	48
Teachers' Retirement System	8,980,424	39.0	50
<b>Insurance Assets</b>			
Board of Risk and Insurance Management	175,463	0.8	52
Coal Workers' Pneumoconiosis Fund	207,487	0.9	54
Public Employees Insurance Agency	134,812	0.6	56
West Virginia Retiree Health Benefit Trust Fund	1,508,309	6.6	58
Workers' Compensation Old Fund	881,990	3.8	60
Workers' Compensation Self-Insured Employer Guaranty Risk Pool	35,691	0.2	62
Workers' Compensation Self-Insured Employer Security Risk Pool	48,590	0.2	64
Workers' Compensation Uninsured Employers' Fund	15,559	0.1	66
<b>Endowment Assets</b>			
Berkeley County Development Authority	7,886	0.0	68
Revenue Shortfall Reserve Fund	329,802	1.4	70
Revenue Shortfall Reserve Fund - Part B	498,719	2.2	72
West Virginia Department of Environmental Protection Agency	219,650	1.0	74
West Virginia Department of Environmental Protection Trust	10,357	0.0	76
West Virginia State Parks and Recreation Endowment Fund	14,770	0.1	78
Wildlife Endowment Fund	73,641	0.3	80
<b>Total</b>	<b>\$ 22,991,842</b>	<b>100.0%</b>	

# Deputy Sheriff's Retirement System

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## HISTORY

The Deputy Sheriff's Retirement System (DSRS) was created in 1998.

## LIQUIDITY NEEDS

DSRS currently has positive net cash flows.

## INVESTMENT OBJECTIVES

The investment objectives are as follows:

- Exceed the actuarial interest rate assumption of 7.25 percent per annum, net of fees.
- Preserve the current well-funded position while not subjecting DSRS to an undue level of risk.

## ASSET ALLOCATION

Based upon a determination of the appropriate risk tolerance, the Board adopted the following broad asset allocation guidelines for the assets managed for DSRS. Base and Strategic Allocations are established on a market value basis. The Allocation Committee has the authority to change the allocation within an established range around the Strategic Allocation for the public equity and fixed income asset classes. The range authority for public equities and fixed income is defined in the WVIMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. The domestic large capitalization allocation to Equity will be implemented through the use of the Portable Alpha Pool described in Appendix C. WVIMB Staff, in consultation with the appropriate representative(s) from DSRS will from time to time set a target for transactional cash needs. The Board will receive a report on the target level annually.

Asset Class	Base Allocation	Strategic Allocation
Equity (including Portable Alpha)	60.0%	50.0%
Fixed Income	40.0%	15.0%
Private Markets		
Private Credit and Income	0.0%	5.0%
Private Equity	0.0%	10.0%
Real Estate	0.0%	10.0%
Hedge Funds	0.0%	10.0%

# Deputy Sheriff's Retirement System

## FINANCIAL HIGHLIGHTS (in \$000s)

### Progression of Plan Balance

June 30, 2021	\$ 314,633
Contributions	7,060
Withdrawals	(8,385)
Net	<u>(1,325)</u>
Investment income	1
Net depreciation	(19,994)
June 30, 2022	<u><u>\$ 293,315</u></u>

### Asset Allocation

	Amount	Percent of Total
Portable Alpha	\$ 68,426	23.2%
Non-Large Cap Domestic Equity	11,472	3.9
International Qualified	18,512	6.3
International Equity	37,479	12.8
Short-Term Fixed Income	595	0.2
Total Return Fixed Income	28,313	9.7
Core Fixed Income	12,212	4.2
Private Markets	87,641	29.9
Hedge Fund	28,665	9.8
Total	<u><u>\$ 293,315</u></u>	<u><u>100.0%</u></u>

## INVESTMENT PERFORMANCE

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of fees.

Period	Actual	Target
One-year	(6.4)%	7.25%
Three-year	8.5%	7.25%
Five-year	8.2%	7.25%
Ten-year	9.1%	7.25%
Twenty-year	7.9%	7.25%

# Emergency Medical Services Retirement System

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## HISTORY

The Emergency Medical Services Retirement System (EMSRS) was created by the *Emergency Medical Services Retirement System Act* effective January 1, 2008, under *West Virginia Code §16-5V-4*. EMSRS members with benefits earned in the Public Employees' Retirement System (PERS) transferred their full membership and benefits under PERS to EMSRS on the effective date.

## LIQUIDITY NEEDS

EMSRS is expected to be in a positive net cash flow position for the foreseeable future.

## INVESTMENT OBJECTIVES

The investment objectives are as follows:

- Exceed the actuarial interest rate assumption of 7.25 percent per annum, net of fees.
- Maintain adequate liquidity to satisfy benefit payments and not subject EMSRS to an undue level of risk.

## ASSET ALLOCATION

Based upon a determination of the appropriate risk tolerance, the Board adopted the following broad asset allocation guidelines for the assets managed for EMSRS. Base and Strategic Allocations are established on a market value basis. The Allocation Committee has the authority to change the allocation within an established range around the Strategic Allocation for the public equity and fixed income asset classes. The range authority for public equities and fixed income is defined in the WVIMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. The domestic large capitalization allocation to Equity will be implemented through the use of the Portable Alpha Pool described in Appendix C. WVIMB Staff, in consultation with the appropriate representative(s) from EMSRS will from time to time set a target for transactional cash needs. The Board will receive a report on the target level annually.

Asset Class	Base Allocation	Strategic Allocation
Equity (including Portable Alpha)	60.0%	50.0%
Fixed Income	40.0%	15.0%
Private Markets		
Private Credit and Income	0.0%	5.0%
Private Equity	0.0%	10.0%
Real Estate	0.0%	10.0%
Hedge Funds	0.0%	10.0%

# Emergency Medical Services Retirement System

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## FINANCIAL HIGHLIGHTS (in \$000s)

### Progression of Plan Balance

June 30, 2021	\$ 118,769
Contributions	2,630
Withdrawals	(1,320)
Net	<u>1,310</u>
Investment income	-
Net depreciation	(7,672)
June 30, 2022	<u><u>\$ 112,407</u></u>

### Asset Allocation

	Amount	Percent of Total
Portable Alpha	\$ 26,138	23.1%
Non-Large Cap Domestic Equity	4,384	3.9
International Qualified	7,082	6.3
International Equity	14,338	12.8
Short-Term Fixed Income	410	0.4
Total Return Fixed Income	10,857	9.7
Core Fixed Income	4,706	4.2
Private Markets	33,526	29.8
Hedge Fund	10,966	9.8
Total	<u><u>\$ 112,407</u></u>	<u><u>100.0%</u></u>

## INVESTMENT PERFORMANCE

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of fees.

Period	Actual	Target
One-year	(6.4)%	7.25%
Three-year	8.5%	7.25%
Five-year	8.2%	7.25%
Ten-year	9.0%	7.25%

# Judges' Retirement System

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## HISTORY

The Judges' Retirement System (JRS) was created in 1949.

## LIQUIDITY NEEDS

JRS currently has slightly negative net cash flows.

## INVESTMENT OBJECTIVES

The investment objectives are as follows:

- Exceed the actuarial interest rate assumption of 7.25 percent per annum, net of fees.
- Reduce the unfunded liability while maintaining adequate liquidity to satisfy benefit payments but not subjecting JRS to an undue level of risk.

## ASSET ALLOCATION

Based upon a determination of the appropriate risk tolerance, the Board adopted the following broad asset allocation guidelines for the assets managed for JRS. Base and Strategic Allocations are established on a market value basis. The Allocation Committee has the authority to change the allocation within an established range around the Strategic Allocation for the public equity and fixed income asset classes. The range authority for public equities and fixed income is defined in the WVIMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. The domestic large capitalization allocation to Equity will be implemented through the use of the Portable Alpha Pool described in Appendix C. WVIMB Staff, in consultation with the appropriate representative(s) from JRS will from time to time set a target for transactional cash needs. The Board will receive a report on the target level annually.

Asset Class	Base Allocation	Strategic Allocation
Equity (including Portable Alpha)	60.0%	50.0%
Fixed Income	40.0%	15.0%
Private Markets		
Private Credit and Income	0.0%	5.0%
Private Equity	0.0%	10.0%
Real Estate	0.0%	10.0%
Hedge Funds	0.0%	10.0%

## Judges' Retirement System

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### FINANCIAL HIGHLIGHTS (in \$000s)

#### Progression of Plan Balance

June 30, 2021	\$ 280,670
Contributions	610
Withdrawals	(4,325)
Net	<u>(3,715)</u>
Investment income	1
Net depreciation	(17,633)
June 30, 2022	<u><u>\$ 259,323</u></u>

#### Asset Allocation

	Amount	Percent of Total
Portable Alpha	\$ 60,589	23.3%
Non-Large Cap Domestic Equity	10,154	3.9
International Qualified	16,364	6.3
International Equity	33,166	12.8
Short-Term Fixed Income	682	0.3
Total Return Fixed Income	24,847	9.6
Core Fixed Income	10,710	4.1
Private Markets	77,474	29.9
Hedge Fund	25,337	9.8
Total	<u><u>\$ 259,323</u></u>	<u>100.0%</u>

### INVESTMENT PERFORMANCE

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of fees.

Period	Actual	Target
One-year	(6.4)%	7.25%
Three-year	8.5%	7.25%
Five-year	8.2%	7.25%
Ten-year	9.1%	7.25%
Twenty-year	7.9%	7.25%

# Municipal Police Officers' and Firefighters' Retirement System

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## HISTORY

Municipal Police Officers' and Firefighters' Retirement System (MPFRS) was created in 2010.

## LIQUIDITY NEEDS

There are no anticipated liquidity needs at this time.

## INVESTMENT OBJECTIVES

The investment objectives are as follows:

- Exceed the actuarial interest rate assumption of 7.25 percent per annum, net of fees.
- Maintain adequate liquidity to satisfy benefit payments and not subject MPFRS to an undue level of risk.

## ASSET ALLOCATION

Based upon a determination of the appropriate risk tolerance, the Board adopted the following broad asset allocation guidelines for the assets managed for MPFRS. Base and Strategic Allocations are established on a market value basis. The Allocation Committee has the authority to change the allocation within an established range around the Strategic Allocation for the public equity and fixed income asset classes. The range authority for public equities and fixed income is defined in the WVIMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. The domestic large capitalization allocation to Equity will be implemented through the use of the Portable Alpha Pool described in Appendix C. WVIMB Staff, in consultation with the appropriate representative(s) from MPFRS will from time to time set a target for transactional cash needs. The Board will receive a report on the target level annually.

Asset Class	Base Allocation	Strategic Allocation
Equity (including Portable Alpha)	60.0%	50.0%
Fixed Income	40.0%	15.0%
Private Markets		
Private Credit and Income	0.0%	5.0%
Private Equity	0.0%	10.0%
Real Estate	0.0%	10.0%
Hedge Funds	0.0%	10.0%

# Municipal Police Officers' and Firefighters' Retirement System

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## FINANCIAL HIGHLIGHTS (in \$000s)

### Progression of Plan Balance

June 30, 2021	\$	23,816
Contributions		4,835
Withdrawals		(25)
Net		4,810
Investment income		1
Net depreciation		(1,831)
June 30, 2022	\$	26,796

### Asset Allocation

	Amount	Percent of Total
Portable Alpha	\$ 6,056	22.6%
Non-Large Cap Domestic Equity	1,011	3.8
International Qualified	1,659	6.2
International Equity	3,305	12.3
Short-Term Fixed Income	515	1.9
Total Return Fixed Income	2,673	10.0
Core Fixed Income	1,155	4.3
Private Markets	7,852	29.3
Hedge Fund	2,570	9.6
Total	\$ 26,796	100.0%

## INVESTMENT PERFORMANCE

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of fees.

Period	Actual	Target
One-year	(6.3)%	7.25%
Three-year	8.4%	7.25%
Five-year	8.1%	7.25%
Ten-year	8.8%	7.25%

# Municipal Policemen’s or Firemen’s Pension and Relief Funds

## HISTORY

West Virginia Code §8-22-22 offers municipalities the ability to invest Policemen’s or Firemen’s Pension and Relief Funds (Plan) established under West Virginia Code §8-22 in the investment pools operated by the WVIMB. Collectively all municipal plans will be grouped in this section and referred to as the Municipal Policemen’s or Firemen’s Pension and Relief Funds. The WVIMB received monies from the first municipality on July 17, 2013.

## LIQUIDITY NEEDS

Liquidity needs are analyzed and established on an individual Plan basis as each Plan elects to invest with the WVIMB.

## INVESTMENT OBJECTIVES

Investment objectives are analyzed and established on an individual Plan basis as each Plan elects to invest with the WVIMB. All Plans adopt an Investment Policy Statement approved by the WVIMB.

## MUNICIPAL RETIREMENT PLANS INVESTMENT ALLOCATIONS

The WVIMB investment staff has created two model allocations that utilize percentage mixes of the investment pools operated by the WVIMB. The models can be found in the tables below. The WVIMB will work with the municipal retirement plan’s authorized party to determine the appropriate investment model based on information provided by the plan and Municipal Pensions Oversight Board. Model A plans are those that meet statutory or actuarially required minimum employer contributions. Model B plans are those that do not meet statutory or actuarially required minimum employer contributions. Base and Strategic Allocations are established on a market value basis. The Allocation Committee has the authority to change the allocation within an established range around the Strategic Allocation for the public equity and fixed income asset classes. The range authority for public equities and fixed income is defined in the WVIMB’s Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. WVIMB Staff, in consultation with the appropriate representative(s) from the Participant Plan will from time to time set a target for transactional cash needs. The Board will receive a report on the target level annually.

The potential investment models include:

Model / Asset Class	Base Allocation	Strategic Allocation
<b>Model A:</b>		
Equity (including Portable Alpha)	60%	50%
Fixed Income	40%	15%
Private Markets		
Private Credit and Income	0%	5%
Private Equity	0%	10%
Real Estate	0%	10%
Hedge Funds	0%	10%
<b>Model B:</b>		
Equity	55%	55%
Fixed Income	45%	45%

## Municipal Policemen's or Firemen's Pension and Relief Funds

### SUMMARY OF PLAN BALANCES (in \$000s)

	Amount
<b>Model A:</b>	
Town of Belle Policemen's Pension and Relief Fund	\$ 1,465
City of Chester Policemen's Pension and Relief Fund	1,884
Williamson Firemen's Pension and Relief Fund	2,037
City of Williamson Policemen's Pension and Protection Fund	1,516
City of Charleston West Virginia Firemen's Pension Plan	32,297
City of Charleston West Virginia Policemen's Pension Plan	29,138
	68,337
<b>Model B:</b>	
The Policemen's Pension and Relief Fund of Point Pleasant	2,287
 Total	\$ 70,624

### FINANCIAL HIGHLIGHTS (in \$000s)

#### Progression of Plan Balances

	Model A	Model B
June 30, 2021	\$ 7,477	\$ 2,338
Contributions	66,221	483
Withdrawals	(120)	(203)
Net	66,101	280
Investment income	1	-
Net depreciation	(5,242)	(331)
June 30, 2022	\$ 68,337	\$ 2,287

	Model A		Model B	
	Amount	Percent of Total	Amount	Percent of Total
Portable Alpha	\$ 15,793	23.1%	\$ -	0.0%
Large Cap Domestic Equity	-	0.0	588	25.7
Non-Large Cap Domestic Equity	2,640	3.9	102	4.5
International Qualified	4,265	6.2	165	7.2
International Equity	8,596	12.6	333	14.6
Short-Term Fixed Income	870	1.3	94	4.1
Total Return Fixed Income	6,549	9.6	702	30.7
Core Fixed Income	2,829	4.1	303	13.2
Private Markets	20,191	29.5	-	0.0
Hedge Fund	6,604	9.7	-	0.0
Total	\$ 68,337	100.0%	\$ 2,287	100.0%

# Municipal Policemen's or Firemen's Pension and Relief Funds

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## INVESTMENT PERFORMANCE

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of fees.

Period	Model A	Model B
One-year	(6.0)%	(13.0)%
Three-year	8.7%	3.9%
Five-year	8.5%	N/A

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# Natural Resources Police Officer Retirement System

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## HISTORY

The Natural Resources Police Officers' Retirement System (NRPORS) was created under the Natural Resources Police Officers' Retirement System Act effective January 2, 2021, under West Virginia Code §20-18-4. NRPORS members with benefits earned in the Public Employees' Retirement System (PERS) transferred their full membership and benefits under PERS to NRPORS on the effective date January 2, 2021.

## LIQUIDITY NEEDS

NRPORS is expected to be in a positive net cash flow position through fiscal year 2022.

## INVESTMENT OBJECTIVES

The investment objectives are as follows:

- Exceed the actuarial interest rate assumption of 7.25 percent per annum, net of fees.
- Maintain adequate liquidity to satisfy benefit payments and not subject NRPORS to an undue level of risk.

## ASSET ALLOCATION

Based upon a determination of the appropriate risk tolerance, the Board adopted the following broad asset allocation guidelines for the assets managed for NRPORS. Base and Strategic Allocations are established on a market value basis. The Allocation Committee has the authority to change the allocation within an established range around the Strategic Allocation for the public equity and fixed income asset classes. The range authority for public equities and fixed income is defined in the WVIMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. The domestic large capitalization allocation to Equity will be implemented through the use of the Portable Alpha Pool described in Appendix C. WVIMB Staff, in consultation with the appropriate representative(s) from NRPORS will from time to time set a target for transactional cash needs. The Board will receive a report on the target level annually.

Asset Class	Base Allocation	Strategic Allocation
Equity (including Portable Alpha)	60.0%	50.0%
Fixed Income	40.0%	15.0%
Private Markets		
Private Credit and Income	0.0%	5.0%
Private Equity	0.0%	10.0%
Real Estate	0.0%	10.0%
Hedge Funds	0.0%	10.0%

# Natural Resources Police Officer Retirement System

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## FINANCIAL HIGHLIGHTS (in \$000s)

### Progression of Plan Balance

June 30, 2021	\$	25,063
Contributions		1,225
Withdrawals		(160)
Net		1,065
Investment income		-
Net depreciation		(1,661)
June 30, 2022	\$	24,467

### Asset Allocation

	Amount	Percent of Total
Portable Alpha	\$ 5,652	23.1%
Non-Large Cap Domestic Equity	945	3.9
International Qualified	1,533	6.3
International Equity	3,088	12.6
Short-Term Fixed Income	227	0.8
Total Return Fixed Income	2,365	9.7
Core Fixed Income	1,024	4.2
Private Markets	7,258	29.7
Hedge Fund	2,375	9.7
Total	\$ 24,467	100.0%

## INVESTMENT PERFORMANCE

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of fees.

Period	Actual	Target
One-year	(6.4)%	7.25%

# Public Employees' Retirement System

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## HISTORY

The Public Employees' Retirement System (PERS) was created in 1961.

## LIQUIDITY NEEDS

PERS is expected to have modest liquidity needs of approximately 1 to 2 percent per year for the foreseeable future.

## INVESTMENT OBJECTIVES

The investment objectives are as follows:

- Exceed the actuarial interest rate assumption of 7.25 percent per annum, net of fees.
- Reduce the unfunded liability while maintaining adequate liquidity to satisfy benefit payments and not subjecting PERS to an undue level of risk.

## ASSET ALLOCATION

Based upon a determination of the appropriate risk tolerance, the Board adopted the following broad asset allocation guidelines for the assets managed for PERS. Base and Strategic Allocations are established on a market value basis. The Allocation Committee has the authority to change the allocation within an established range around the Strategic Allocation for the public equity and fixed income asset classes. The range authority for public equities and fixed income is defined in the WVIMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. The domestic large capitalization allocation to Equity will be implemented through the use of the Portable Alpha Pool described in Appendix C. WVIMB Staff, in consultation with the appropriate representative(s) from PERS will from time to time set a target for transactional cash needs. The Board will receive a report on the target level annually.

Asset Class	Base Allocation	Strategic Allocation
Equity (including Portable Alpha)	60.0%	50.0%
Fixed Income	40.0%	15.0%
Private Markets		
Private Credit and Income	0.0%	5.0%
Private Equity	0.0%	10.0%
Real Estate	0.0%	10.0%
Hedge Funds	0.0%	10.0%

# Public Employees' Retirement System

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## FINANCIAL HIGHLIGHTS (in \$000s)

### Progression of Plan Balance

June 30, 2021	\$ 8,807,095
Contributions	148,190
Withdrawals	<u>(407,950)</u>
Net	(259,760)
Investment income	28
Net depreciation	<u>(542,528)</u>
June 30, 2022	<u><u>\$ 8,004,835</u></u>

### Asset Allocation

	Amount	Percent of Total
Portable Alpha	\$ 1,871,060	23.5%
Non-Large Cap Domestic Equity	314,951	3.9
International Qualified	506,449	6.3
International Equity	1,029,958	12.9
Short-Term Fixed Income	10,009	0.1
Total Return Fixed Income	762,545	9.5
Core Fixed Income	329,794	4.1
Private Markets	2,395,882	29.9
Hedge Fund	784,187	9.8
Total	<u><u>\$ 8,004,835</u></u>	<u><u>100.0%</u></u>

## INVESTMENT PERFORMANCE

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of fees.

Period	Actual	Target
One-year	(6.4)%	7.25%
Three-year	8.5%	7.25%
Five-year	8.2%	7.25%
Ten-year	9.1%	7.25%
Twenty-year	7.9%	7.25%

# State Police Death, Disability and Retirement Fund

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## HISTORY

The State Police Death, Disability and Retirement Fund (SPDDRF) was created in 1925.

## LIQUIDITY NEEDS

SPDDRF is now a closed plan and is expected to experience an increasingly negative cash flow position in the near future.

## INVESTMENT OBJECTIVES

The investment objectives are as follows:

- Exceed the actuarial interest rate assumption of 7.25 percent per annum, net of fees.
- Reduce the unfunded liability while maintaining adequate liquidity to satisfy benefit payments and not subjecting SPDDRF to an undue level of risk.

## ASSET ALLOCATION

Based upon a determination of the appropriate risk tolerance, the Board adopted the following broad asset allocation guidelines for the assets managed for SPDDRF. Base and Strategic Allocations are established on a market value basis. The Allocation Committee has the authority to change the allocation within an established range around the Strategic Allocation for the public equity and fixed income asset classes. The range authority for public equities and fixed income is defined in the WVIMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. The domestic large capitalization allocation to Equity will be implemented through the use of the Portable Alpha Pool described in Appendix C. WVIMB Staff, in consultation with the appropriate representative(s) from SPDDRF will from time to time set a target for transactional cash needs. The Board will receive a report on the target level annually.

Asset Class	Base Allocation	Strategic Allocation
Equity (including Portable Alpha)	60.0%	50.0%
Fixed Income	40.0%	15.0%
Private Markets		
Private Credit and Income	0.0%	5.0%
Private Equity	0.0%	10.0%
Real Estate	0.0%	10.0%
Hedge Funds	0.0%	10.0%

# State Police Death, Disability and Retirement Fund

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## FINANCIAL HIGHLIGHTS (in \$000s)

### Progression of Plan Balance

June 30, 2021	\$ 851,520
Contributions	14,293
Withdrawals	(47,175)
Net	<u>(32,882)</u>
Investment income	8
Net depreciation	(51,138)
June 30, 2022	<u><u>\$ 767,508</u></u>

### Asset Allocation

	Amount	Percent of Total
Portable Alpha	\$ 177,554	23.3%
Non-Large Cap Domestic Equity	30,029	3.9
International Qualified	48,704	6.3
International Equity	97,758	12.7
Short-Term Fixed Income	455	0.1
Total Return Fixed Income	74,796	9.7
Core Fixed Income	32,338	4.2
Private Markets	230,448	30.0
Hedge Fund	75,426	9.8
Total	<u><u>\$ 767,508</u></u>	<u><u>100.0%</u></u>

## INVESTMENT PERFORMANCE

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of fees.

Period	Actual	Target
One-year	(6.3)%	7.25%
Three-year	8.5%	7.25%
Five-year	8.2%	7.25%
Ten-year	9.1%	7.25%
Twenty-year	7.9%	7.25%

# State Police Retirement System

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## HISTORY

The State Police Retirement System (SPRS) was created in 1994.

## LIQUIDITY NEEDS

SPRS is expected to be in a positive net cash flow position for the foreseeable future.

## INVESTMENT OBJECTIVES

The investment objectives are as follows:

- Exceed the actuarial interest rate assumption of 7.25 percent per annum, net of fees.
- Reduce the unfunded liability while maintaining adequate liquidity to satisfy benefit payments and not subjecting SPRS to an undue level of risk.

## ASSET ALLOCATION

Based upon a determination of the appropriate risk tolerance, the Board adopted the following broad asset allocation guidelines for the assets managed for SPRS. Base and Strategic Allocations are established on a market value basis. The Allocation Committee has the authority to change the allocation within an established range around the Strategic Allocation for the public equity and fixed income asset classes. The range authority for public equities and fixed income is defined in the WVIMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. The domestic large capitalization allocation to Equity will be implemented through the use of the Portable Alpha Pool described in Appendix C. WVIMB Staff, in consultation with the appropriate representative(s) from SPRS will from time to time set a target for transactional cash needs. The Board will receive a report on the target level annually.

Asset Class	Base Allocation	Strategic Allocation
Equity (including Portable Alpha)	60.0%	50.0%
Fixed Income	40.0%	15.0%
Private Markets		
Private Credit and Income	0.0%	5.0%
Private Equity	0.0%	10.0%
Real Estate	0.0%	10.0%
Hedge Funds	0.0%	10.0%

# State Police Retirement System

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## FINANCIAL HIGHLIGHTS (in \$000s)

### Progression of Plan Balance

June 30, 2021	\$ 301,156
Contributions	10,865
Withdrawals	<u>(2,790)</u>
Net	8,075
Investment income	1
Net depreciation	<u>(19,815)</u>
June 30, 2022	<u><u>\$ 289,417</u></u>

### Asset Allocation

	Amount	Percent of Total
Portable Alpha	\$ 67,126	23.2%
Non-Large Cap Domestic Equity	11,252	3.9
International Qualified	18,207	6.3
International Equity	36,760	12.7
Short-Term Fixed Income	1,088	0.4
Total Return Fixed Income	28,353	9.8
Core Fixed Income	12,250	4.2
Private Markets	86,188	29.8
Hedge Fund	28,193	9.7
Total	<u><u>\$ 289,417</u></u>	<u><u>100.0%</u></u>

## INVESTMENT PERFORMANCE

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of fees.

Period	Actual	Target
One-year	(6.4)%	7.25%
Three-year	8.5%	7.25%
Five-year	8.2%	7.25%
Ten-year	9.1%	7.25%
Twenty-year	7.9%	7.25%

# Teachers' Retirement System

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## HISTORY

The Teachers' Retirement System (TRS) was created in 1941. It was closed to new members in 1991, but reopened to first-time hires as of July 1, 2005. Employees hired from 1991 through June 30, 2005, joined the Teachers' Defined Contribution Plan (TDC). In the spring of 2008, more than 78 percent of the participants in the Teachers' Defined Contribution Plan elected to transfer their TDC account balance to TRS and become participants in TRS. This transfer occurred in July 2008.

## LIQUIDITY NEEDS

TRS has a net negative cash flow position and will likely continue to have substantial liquidity needs of at least 10 percent per year.

## INVESTMENT OBJECTIVES

The investment objectives are as follows:

- Exceed the actuarial interest rate assumption of 7.25 percent per annum, net of fees.
- Reduce the unfunded liability while maintaining adequate liquidity to satisfy benefit payments and not subjecting TRS to an undue level of risk.

## ASSET ALLOCATION

Based upon a determination of the appropriate risk tolerance, the Board adopted the following broad asset allocation guidelines for the assets managed for TRS. Base and Strategic Allocations are established on a market value basis. The Allocation Committee has the authority to change the allocation within an established range around the Strategic Allocation for the public equity and fixed income asset classes. The range authority for public equities and fixed income is defined in the WVIMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. The domestic large capitalization allocation to Equity will be implemented through the use of the Portable Alpha Pool described in Appendix C. WVIMB Staff, in consultation with the appropriate representative(s) from TRS will from time to time set a target for transactional cash needs. The Board will receive a report on the target level annually.

Asset Class	Base Allocation	Strategic Allocation
Equity (including Portable Alpha)	60.0%	50.0%
Fixed Income	40.0%	15.0%
Private Markets		
Private Credit and Income	0.0%	5.0%
Private Equity	0.0%	10.0%
Real Estate	0.0%	10.0%
Hedge Funds	0.0%	10.0%

# Teachers' Retirement System

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## FINANCIAL HIGHLIGHTS (in \$000s)

### Progression of Plan Balance

June 30, 2021	\$ 9,886,658
Contributions	392,260
Withdrawals	<u>(697,930)</u>
Net	(305,670)
Investment income	61
Net depreciation	<u>(600,625)</u>
June 30, 2022	<u><u>\$ 8,980,424</u></u>

### Asset Allocation

	Amount	Percent of Total
Portable Alpha	\$ 2,076,954	23.1%
Non-Large Cap Domestic Equity	349,672	3.9
International Qualified	562,920	6.3
International Equity	1,143,307	12.7
Short-Term Fixed Income	100,719	1.1
Total Return Fixed Income	844,704	9.4
Core Fixed Income	367,428	4.1
Private Markets	2,663,077	29.7
Hedge Fund	871,643	9.7
Total	<u><u>\$ 8,980,424</u></u>	<u>100.0%</u>

## INVESTMENT PERFORMANCE

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of fees.

Period	Actual	Target
One-year	(6.3)%	7.25%
Three-year	8.5%	7.25%
Five-year	8.2%	7.25%
Ten-year	9.0%	7.25%
Twenty-year	7.7%	7.25%

# Board of Risk and Insurance Management

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## HISTORY

The Board of Risk and Insurance Management (BRIM) is a State entity charged with providing insurance coverage to all State agencies, as well as cities, counties, and non-profit organizations throughout West Virginia. BRIM also provides a coal mine subsidence reinsurance program that allows homeowners and businesses to obtain insurance coverage up to \$75,000 for collapses and damage caused by underground coal mines.

## LIQUIDITY NEEDS

According to representatives of the Plan, there may be some current liquidity needs in the next few fiscal years, not to exceed 10 percent in any given year. BRIM requires a cash reserve account for collateral purposes amounting to approximately 15 percent of the funds for investment. This amount is held in the Consolidated Fund, which is administered by the West Virginia Board of Treasury Investments and utilized at BRIM's discretion.

## INVESTMENT OBJECTIVES

The investment objectives are as follows:

- Provide adequate liquidity to meet the cash flow requirements.
- Given the expected infinite life of the fund, allow for growth of assets in an amount at least equal to expected inflation.

## ASSET ALLOCATION

Based upon a determination of the appropriate risk tolerance, the Board adopted the following broad asset allocation guidelines for the assets managed for BRIM. Base and Strategic Allocations are established on a market value basis. The Allocation Committee has the authority to change the allocation within an established range around the Strategic Allocation for the public equity and fixed income asset classes. The range authority for public equities and fixed income is defined in the WVIMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C.

Asset Class	Base Allocation	Strategic Allocation
Equity	20.0%	30.0%
Fixed Income	80.0%	35.0%
TIPS	0.0%	10.0%
Hedge Fund	0.0%	20.0%
Cash*	0.0%	5.0%

*\* WVIMB Staff has authority to change the cash target up to 5 percent during a fiscal year, in consultation with the appropriate representative(s) from BRIM.*

## Board of Risk and Insurance Management

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### FINANCIAL HIGHLIGHTS (in \$000s)

#### Progression of Plan Balance

June 30, 2021	\$ 194,839
Contributions	-
Withdrawals	(2,000)
Net	<u>(2,000)</u>
Investment income	13
Net depreciation	(17,389)
June 30, 2022	<u><u>\$ 175,463</u></u>

#### Asset Allocation

	Amount	Percent of Total
Large Cap Domestic Equity	\$ 24,673	14.1%
Non-Large Cap Domestic Equity	4,357	2.5
International Nonqualified	6,879	3.9
International Equity	14,252	8.1
Short-Term Fixed Income	7,218	4.1
Total Return Fixed Income	45,767	26.1
Core Fixed Income	19,777	11.3
TIPS	17,796	10.1
Hedge Fund	34,744	19.8
Total	<u><u>\$ 175,463</u></u>	<u><u>100.0%</u></u>

### INVESTMENT PERFORMANCE

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of fees. A target rate of return has not been set for this plan.

Period	Actual
One-year	(8.9)%
Three-year	3.8%
Five-year	4.2%
Ten-year	4.8%

# Coal Workers' Pneumoconiosis Fund

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## HISTORY

The Coal Workers' Pneumoconiosis Fund (CWPF) was formed in 1974 to provide insurance coverage to coal operators for their potential liability under the *Federal Coal Mine Health and Safety Act of 1969*. Upon termination of the West Virginia Workers' Compensation Commission, the assets and liabilities of CWPF remained with the State for administration of the run-off of the liabilities incurred during the years of operation. Effective January 1, 2006, insurance coverage for liabilities incurred under the *Federal Coal Mine Health and Safety Act of 1969* is provided by private insurance carriers and is no longer available through the State.

## LIQUIDITY NEEDS

Liquidity needs are actuarially determined based on the run-off of liabilities, which are assessed annually.

## INVESTMENT OBJECTIVES

The investment objectives are as follows:

- Exceed the actuarial interest rate assumption of 3.0 percent per annum, net of fees.
- Preserve the current surplus position.

## ASSET ALLOCATION

Based upon a determination of the appropriate risk tolerance, the Board adopted the following broad asset allocation guidelines for the assets managed for CWPF. Base and Strategic Allocations are established on a market value basis. The Allocation Committee has the authority to change the allocation within an established range around the Strategic Allocation for the public equity and fixed income asset classes. The range authority for public equities and fixed income is defined in the WVIMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C.

Asset Class	Base Allocation	Strategic Allocation
Equity	30.0%	30.0%
Fixed Income	70.0%	35.0%
TIPS	0.0%	10.0%
Hedge Fund	0.0%	20.0%
Cash*	0.0%	5.0%

\* WVIMB Staff has authority to change the cash target up to 5 percent, within a fiscal year, in consultation with the appropriate representative(s) from CWPF.

# Coal Workers' Pneumoconiosis Fund

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## FINANCIAL HIGHLIGHTS (in \$000s)

### Progression of Plan Balance

June 30, 2021	\$ 247,663
Contributions	938
Withdrawals	(20,485)
Net	<u>(19,547)</u>
Investment income	14
Net depreciation	(20,643)
June 30, 2022	<u><u>\$ 207,487</u></u>

### Asset Allocation

	Amount	Percent of Total
Large Cap Domestic Equity	\$ 29,121	14.0%
Non-Large Cap Domestic Equity	5,181	2.5
International Nonqualified	8,101	3.9
International Equity	16,784	8.1
Short-Term Fixed Income	9,398	4.5
Total Return Fixed Income	53,644	25.9
Core Fixed Income	23,163	11.2
TIPS	21,186	10.2
Hedge Fund	40,909	19.7
Total	<u><u>\$ 207,487</u></u>	<u><u>100.0%</u></u>

## INVESTMENT PERFORMANCE

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of fees.

Period	Actual	Target
One-year	(8.9)%	3.0%
Three-year	3.8%	3.0%
Five-year	4.2%	3.0%
Ten-year	4.8%	3.0%
Twenty-year	5.3%	3.0%

# Public Employees Insurance Agency

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## HISTORY

The Public Employees Insurance Agency (PEIA) is a State entity charged with providing health insurance coverage to eligible public employees.

## LIQUIDITY NEEDS

PEIA projects net cash outflows from operations every year going forward. This anticipated liquidity need within a three-year time horizon indicates a substantial allocation to cash is appropriate. PEIA currently manages part of its cash allocation and invests this amount with the West Virginia Board of Treasury Investments. The WVIMB collaborates with management at PEIA to monitor combined cash levels.

## INVESTMENT OBJECTIVES

The investment objectives are as follows:

- Provide adequate liquidity to meet the cash flow requirements.
- Given the expected infinite life of the fund, allow for growth of assets in an amount at least equal to expected inflation.

## ASSET ALLOCATION

Based upon a determination of the appropriate risk tolerance, the Board adopted the following broad asset allocation guidelines for the assets managed for PEIA. Base and Strategic Allocations are established on a market value basis. The Allocation Committee has the authority to change the allocation within an established range around the Strategic Allocation for the public equity and fixed income asset classes. The range authority for public equities and fixed income is defined in the WVIMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. WVIMB Staff, in consultation with the appropriate representative(s) from PEIA will from time to time set a target for transactional cash needs. The Board will receive a report on the target level annually.

Asset Class	Base Allocation	Strategic Allocation
Equity	20.0%	25.0%
Fixed Income	80.0%	40.0%
TIPS	0.0%	15.0%
Hedge Fund	0.0%	20.0%

# Public Employees Insurance Agency

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## FINANCIAL HIGHLIGHTS (in \$000s)

### Progression of Plan Balance

June 30, 2021	\$ 270,948
Contributions	-
Withdrawals	(120,000)
Net	<u>(120,000)</u>
Investment income	-
Net depreciation	(16,136)
June 30, 2022	<u><u>\$ 134,812</u></u>

### Asset Allocation

	Amount	Percent of Total
Large Cap Domestic Equity	\$ 14,756	10.9%
Non-Large Cap Domestic Equity	3,321	2.5
International Nonqualified	5,296	3.9
International Equity	10,571	7.8
Total Return Fixed Income	33,321	24.7
Core Fixed Income	10,862	8.1
TIPS	24,630	18.3
Hedge Fund	32,055	23.8
Total	<u><u>\$ 134,812</u></u>	<u><u>100.0%</u></u>

## INVESTMENT PERFORMANCE

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of fees. A target rate of return has not been set for this plan.

Period	Actual
One-year	(9.0)%
Three-year	3.2%
Five-year	3.9%
Ten-year	4.6%

# West Virginia Retiree Health Benefit Trust Fund

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## HISTORY

The West Virginia Retiree Health Benefit Trust Fund (RHBTF) was created under *West Virginia Code §5-16D* for the purpose of providing for and administering retiree post-employment health care benefits, and the respective revenues and costs of those benefits as a cost sharing multiple employer plan.

## LIQUIDITY NEEDS

RHBTF assets managed by the WVIMB are expected to be long-term in nature and have no liquidity needs as deemed by PEIA, which administers these assets. Short-term projected cash needs for RHBTF are calculated by PEIA and held in reserve in PEIA cash accounts.

## INVESTMENT OBJECTIVES

The investment objectives are as follows:

- Exceed the investment return assumption of 7.25 percent per annum, net of fees.
- To provide stable, long term growth of assets, while seeking to minimize the risk of loss.

## ASSET ALLOCATION

Based upon a determination of the appropriate risk tolerance, the Board adopted the following broad asset allocation guidelines for the assets managed for RHBTF. Base and Strategic Allocations are established on a market value basis. The Allocation Committee has the authority to change the allocation within an established range around the Strategic Allocation for the public equity and fixed income asset classes. The range authority for public equities and fixed income is defined in the WVIMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. The domestic large capitalization allocation to Equity will be implemented through the use of the Portable Alpha Pool described in Appendix C. WVIMB Staff, in consultation with the appropriate representative(s) from RHBTF will from time to time set a target for transactional cash needs. The Board will receive a report on the target level annually.

Asset Class	Base Allocation	Strategic Allocation
Equity (including Portable Alpha)	60.0%	50.0%
Fixed Income	40.0%	15.0%
Private Markets		
Private Credit and Income	0.0%	5.0%
Private Equity	0.0%	10.0%
Real Estate	0.0%	10.0%
Hedge Funds	0.0%	10.0%

# West Virginia Retiree Health Benefit Trust Fund

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## FINANCIAL HIGHLIGHTS (in \$000s)

### Progression of Plan Balance

June 30, 2021	\$ 1,611,764
Contributions	-
Withdrawals	-
Net	-
Investment income	-
Net depreciation	(103,455)
June 30, 2022	<u>\$ 1,508,309</u>

### Asset Allocation

	Amount	Percent of Total
Portable Alpha	\$ 352,757	23.3%
Non-Large Cap Domestic Equity	59,010	3.9
International Nonqualified	92,251	6.1
International Equity	192,464	12.8
Total Return Fixed Income	149,070	9.9
Core Fixed Income	64,520	4.3
Private Markets	450,798	29.9
Hedge Fund	147,439	9.8
Total	<u>\$ 1,508,309</u>	<u>100.0%</u>

## INVESTMENT PERFORMANCE

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of fees. A target rate of return has not been set for this plan.

Period	Actual	Target
One-year	(6.4)%	7.25%
Three-year	8.5%	7.25%
Five-year	8.2%	7.25%
Ten-year	8.9%	7.25%

# Workers' Compensation Old Fund

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## HISTORY

Formed in January 2006, the Workers' Compensation Old Fund (Old Fund) assumed responsibility for payment of all workers' compensation claims and liabilities incurred by the former West Virginia Workers' Compensation Commission prior to July 1, 2005. After July 1, 2005, workers' compensation claims or liabilities incurred are covered by private insurance carriers.

## LIQUIDITY NEEDS

Liquidity needs are uncertain due to legislation that reduced funding sources. Regardless, the Old Fund is expected to have a negative net cash flow position. Liquidity needs for short-term cash (amount necessary for approximately 12 months' worth of anticipated claims) will continue to be reviewed annually with the West Virginia Office of the Insurance Commissioner. Currently, a cash balance is held in the Old Fund in an amount equal to 5 percent of assets which should be adequate to meet the needs of the Old Fund even with funding uncertainty.

## INVESTMENT OBJECTIVES

The investment objectives are as follows:

- Preservation of principal and minimization of volatility, while still achieving some investment earnings growth adjusted for inflation.
- Provide adequate liquidity to meet cash flow requirements.

## ASSET ALLOCATION

Based upon a determination of the appropriate risk tolerance, the Board adopted the following broad asset allocation guidelines for the assets managed for the Old Fund. Base and Strategic Allocations are established on a market value basis. The Allocation Committee has the authority to change the allocation within an established range around the Strategic Allocation for the public equity and fixed income asset classes. The range authority for public equities and fixed income is defined in the WVIMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C.

Asset Class	Base Allocation	Strategic Allocation
Equity	30.0%	30.0%
Fixed Income	70.0%	40.0%
TIPS	0.0%	10.0%
Hedge Funds	0.0%	15.0%
Cash*	0.0%	5.0%

*\* WVIMB Staff has authority to change the cash target up to 5 percent, during a fiscal year, in consultation with the appropriate representative(s) from the Old Fund.*

## Workers' Compensation Old Fund

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### FINANCIAL HIGHLIGHTS (in \$000s)

#### Progression of Plan Balance

June 30, 2021	\$ 1,086,608
Contributions	98
Withdrawals	(109,159)
Net	<u>(109,061)</u>
Investment income	44
Net depreciation	(95,601)
June 30, 2022	<u><u>\$ 881,990</u></u>

#### Asset Allocation

	Amount	Percent of Total
Large Cap Domestic Equity	\$ 129,374	14.7%
Non-Large Cap Domestic Equity	22,164	2.5
International Nonqualified	34,542	3.9
International Equity	76,125	8.6
Short-Term Fixed Income	7,141	0.8
Total Return Fixed Income	273,607	31.0
Core Fixed Income	117,279	13.3
TIPS	90,674	10.3
Hedge Fund	131,084	14.9
Total	<u><u>\$ 881,990</u></u>	<u><u>100.0%</u></u>

### INVESTMENT PERFORMANCE

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of fees. A target rate of return has not been set for this plan.

Period	Actual
One-year	(9.6)%
Three-year	3.4%
Five-year	4.0%
Ten-year	4.5%

# Workers' Compensation Self-Insured Employer Guaranty Risk Pool

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## HISTORY

The Workers' Compensation Self-Insured Guaranty Risk Pool (Self-Insured Pool) was established on January 1, 2006, for the purpose of paying the workers' compensation claims of defaulted self-insured employers occurring on or after July 1, 2004. It consists of those funds transferred, and any future funds collected, as provided by law.

## LIQUIDITY NEEDS

As all current and active self-insured employers are required to provide a bond, security, or other collateral to the West Virginia Office of the Insurance Commissioner in the event of a deteriorating financial condition, it is anticipated that the liquidity position of this fund should remain stable. A small cash reserve will be held in the event of an unforeseen emergency, as is possible with an insurance program of this kind.

## INVESTMENT OBJECTIVES

The investment objectives are as follows:

- Provide adequate liquidity to meet cash flow requirements.
- Given the expected infinite life of the fund, allow for growth of assets in an amount at least equal to expected inflation.

## ASSET ALLOCATION

Based upon a determination of the appropriate risk tolerance, the Board adopted the following broad asset allocation guidelines for the assets managed for the Self-Insured Pool. Base and Strategic Allocations are established on a market value basis. The Allocation Committee has the authority to change the allocation within an established range around the Strategic Allocation for the public equity and fixed income asset classes. The range authority for public equities and fixed income is defined in the WVIMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C.

Asset Class	Base Allocation	Strategic Allocation
Equity	30.0%	30.0%
Fixed Income	70.0%	35.0%
TIPS	0.0%	10.0%
Hedge Fund	0.0%	20.0%
Cash*	0.0%	5.0%

*\* WVIMB Staff has authority to change the cash target up to 5 percent, during a fiscal year, in consultation with the appropriate representative(s) from the Self-Insured Pool.*

# Workers' Compensation Self-Insured Employer Guaranty Risk Pool

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## FINANCIAL HIGHLIGHTS (in \$000s)

### Progression of Plan Balance

June 30, 2021	\$ 39,772
Contributions	91
Withdrawals	(679)
Net	<u>(588)</u>
Investment income	3
Net depreciation	(3,496)
June 30, 2022	<u><u>\$ 35,691</u></u>

### Asset Allocation

	Amount	Percent of Total
Large Cap Domestic Equity	\$ 4,971	13.8%
Non-Large Cap Domestic Equity	878	2.5
International Nonqualified	1,386	3.9
International Equity	2,874	8.1
Short-Term Fixed Income	1,805	5.1
Total Return Fixed Income	9,212	25.8
Core Fixed Income	3,978	11.1
TIPS	3,589	10.1
Hedge Fund	6,998	19.6
Total	<u><u>\$ 35,691</u></u>	<u><u>100.0%</u></u>

## INVESTMENT PERFORMANCE

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of fees. A target rate of return has not been set for this plan.

Period	Actual
One-year	(8.9)%
Three-year	3.8%
Five-year	4.2%
Ten-year	4.8%

# Workers' Compensation Self-Insured Employer Security Risk Pool

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## HISTORY

The Workers' Compensation Self-Insured Security Risk Pool (Security Pool) was established on January 1, 2006, and initially funded with the WVIMB in March 2014, for the purpose of paying the workers' compensation claims of defaulted self-insured employers with dates of injury occurring prior to July 1, 2004, provided that the default of the self-insured employer took place on or after the creation of the Security Pool on January 1, 2006. It consists of those funds transferred, and any future funds collected, as provided by law.

## LIQUIDITY NEEDS

It is anticipated that the Security Pool will have a net cash inflow over the next five years. A small cash reserve will be held in the event of an unforeseen emergency, as is possible with an insurance program of this kind.

## INVESTMENT OBJECTIVES

The investment objectives are as follows:

- Provide adequate liquidity to meet cash flow requirements.
- Given the expected infinite life of the fund, allow for growth of assets in an amount at least equal to expected inflation.

## ASSET ALLOCATION

Based upon a determination of the appropriate risk tolerance, the Board adopted the following broad asset allocation guidelines for the assets managed for the Security Pool. Base and Strategic Allocations are established on a market value basis. The Allocation Committee has the authority to change the allocation within an established range around the Strategic Allocation for the public equity and fixed income asset classes. The range authority for public equities and fixed income is defined in the WVIMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C.

Asset Class	Base Allocation	Strategic Allocation
Equity	30.0%	30.0%
Fixed Income	70.0%	35.0%
TIPS	0.0%	10.0%
Hedge Fund	0.0%	20.0%
Cash*	0.0%	5.0%

*\* WVIMB Staff has authority to change the cash target up to 5 percent, within a fiscal year, in consultation with the appropriate representative(s) from the Security Pool.*

# Workers' Compensation Self-Insured Employer Security Risk Pool

## FINANCIAL HIGHLIGHTS (in \$000s)

### Progression of Plan Balance

June 30, 2021	\$	56,201
Contributions		232
Withdrawals		(3,042)
Net		<u>(2,810)</u>
Investment income		4
Net depreciation		(4,805)
June 30, 2022	\$	<u><u>48,590</u></u>

### Asset Allocation

	Amount	Percent of Total
Large Cap Domestic Equity	\$ 6,793	13.9%
Non-Large Cap Domestic Equity	1,206	2.5
International Nonqualified	1,894	3.9
International Equity	3,935	8.1
Short-Term Fixed Income	2,284	4.7
Total Return Fixed Income	12,561	25.9
Core Fixed Income	5,427	11.2
TIPS	4,927	10.1
Hedge Fund	9,563	19.7
Total	<u><u>\$ 48,590</u></u>	<u><u>100.0%</u></u>

## INVESTMENT PERFORMANCE

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of fees. A target rate of return has not been set for this plan.

Period	Actual
One-year	(8.9)%
Three-year	3.8%
Five-year	4.2%

# Workers' Compensation Uninsured Employers' Fund

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## HISTORY

The Workers' Compensation Uninsured Employers' Fund (Uninsured Fund) was established January 1, 2006, to provide for the benefit of injured workers, whose employers failed to provide mandatory workers' compensation coverage. The Uninsured Fund received initial funding of \$5 million by proclamation of the Governor.

## LIQUIDITY NEEDS

There are minimal liquidity needs projected at this time as cash inflows (premiums) are expected to be sufficiently above cash outflows (claims) for the near future. At the Uninsured Fund's request, moderate liquidity needs are being reserved in anticipation of cash that may be needed for a settlement program. A small cash reserve will be held in the event of an unforeseen emergency, as is possible with an insurance program of this kind.

## INVESTMENT OBJECTIVES

The investment objectives are as follows:

- Provide adequate liquidity to meet cash flow requirements.
- Given the expected infinite life of the fund, allow for growth of assets in an amount at least equal to expected inflation.

## ASSET ALLOCATION

Based upon a determination of the appropriate risk tolerance, the Board adopted the following broad asset allocation guidelines for the assets managed for the Uninsured Fund. Base and Strategic Allocations are established on a market value basis. The Allocation Committee has the authority to change the allocation within an established range around the Strategic Allocation for the public equity and fixed income asset classes. The range authority for public equities and fixed income is defined in the WVIMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C.

Asset Class	Base Allocation	Strategic Allocation
Equity	30.0%	30.0%
Fixed Income	70.0%	35.0%
TIPS	0.0%	10.0%
Hedge Fund	0.0%	20.0%
Cash*	0.0%	5.0%

*\* WVIMB Staff has authority to change the cash target up to 5 percent, within a fiscal year, in consultation with the appropriate representative(s) from the Uninsured Fund.*

# Workers' Compensation Uninsured Employers' Fund

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## FINANCIAL HIGHLIGHTS (in \$000s)

### Progression of Plan Balance

June 30, 2021	\$ 16,909
Contributions	310
Withdrawals	(139)
Net	171
Investment income	1
Net depreciation	(1,522)
June 30, 2022	\$ 15,559

### Asset Allocation

	Amount	Percent of Total
Large Cap Domestic Equity	\$ 2,164	14.0%
Non-Large Cap Domestic Equity	381	2.4
International Nonqualified	604	3.9
International Equity	1,249	8.0
Short-Term Fixed Income	785	5.0
Total Return Fixed Income	4,027	25.9
Core Fixed Income	1,739	11.2
TIPS	1,559	10.0
Hedge Fund	3,051	19.6
Total	\$ 15,559	100.0%

## INVESTMENT PERFORMANCE

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of fees. A target rate of return has not been set for this plan.

Period	Actual
One-year	(8.9)%
Three-year	3.6%
Five-year	4.1%
Ten-year	4.6%

# Berkeley County Development Authority

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## HISTORY

Berkeley County is the second most populous county in West Virginia and benefits economically from its close proximity to the Washington, D.C. metropolitan area. The Berkeley County Development Authority (BCDA) seeks to attract business through tax credits and financing programs.

## LIQUIDITY NEEDS

No cash outflows were expected for several years when the account was established. This has now changed and there is the potential that \$1-\$3 million will be withdrawn sometime between 2023 and 2028.

## INVESTMENT OBJECTIVES

The investment objectives are as follows:

- Meet or exceed 7.25 percent per annum, net of fees.
- Achieve long-term growth by investing in a well-diversified portfolio.

## ASSET ALLOCATION

Based upon a determination of the appropriate risk tolerance, the Board adopted the following broad asset allocation guidelines for the assets managed for BCDA. Base and Strategic Allocations are established on a market value basis. The Allocation Committee has the authority to change the allocation within an established range around the Strategic Allocation for the public equity and fixed income asset classes. The range authority for public equities and fixed income is defined in the WVIMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. The domestic large capitalization allocation to Equity will be implemented through the use of the Portable Alpha Pool described in Appendix C. WVIMB Staff, in consultation with the appropriate representative(s) from BCDA will from time to time set a target for transactional cash needs. The Board will receive a report on the target level annually.

Asset Class	Base Allocation	Strategic Allocation
Equity (including Portable Alpha)	60.0%	50.0%
Fixed Income	40.0%	15.0%
Private Markets		
Private Credit and Income	0.0%	5.0%
Private Equity	0.0%	10.0%
Real Estate	0.0%	10.0%
Hedge Funds	0.0%	10.0%

# Berkeley County Development Authority

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## FINANCIAL HIGHLIGHTS (in \$000s)

### Progression of Plan Balance

June 30, 2021	\$	8,428
Contributions		-
Withdrawals		-
Net		-
Investment income		-
Net depreciation		(542)
June 30, 2022	\$	7,886

### Asset Allocation

	Amount	Percent of Total
Portable Alpha	\$ 1,843	23.4%
Non-Large Cap Domestic Equity	309	3.9
International Nonqualified	483	6.1
International Equity	1,004	12.7
Total Return Fixed Income	781	9.9
Core Fixed Income	338	4.3
Private Markets	2,357	29.9
Hedge Fund	771	9.8
Total	\$ 7,886	100.0%

## INVESTMENT PERFORMANCE

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of fees.

Period	Actual	Target
One-year	(6.4)%	7.25%
Three-year	8.5%	7.25%
Five-year	8.2%	7.25%

# Revenue Shortfall Reserve Fund

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## HISTORY

The Revenue Shortfall Reserve Fund (Reserve Fund), created under *West Virginia Code §11B-2-20*, is funded from state surplus revenues accrued, if any, during the most recent fiscal year. The first 50 percent of all such surplus revenues are deposited into the Reserve Fund within 60 days of the end of each fiscal year. The deposit of surplus revenue into the Reserve Fund becomes discretionary when the balance in the Reserve Fund meets or exceeds 13 percent of the state's General Revenue Fund Budget for the expiring fiscal year. The West Virginia Legislature is authorized to make an appropriation from the Reserve Fund for revenue shortfalls, for emergency revenue needs caused by acts of God or natural disasters, or for other fiscal needs.

## LIQUIDITY NEEDS

The Reserve Fund is intended to be co-managed between the WVIMB and the West Virginia Board of Treasury Investments. A cash account of \$100 million must be invested throughout the life of the Reserve Fund in cash with the West Virginia Board of Treasury Investments. Any assets in excess of \$100 million will be invested with the WVIMB. Statute dictates that expenditures will occur out of the Board of Treasury Investments first until those assets are depleted, and then out of the assets managed at the WVIMB. The West Virginia State Budget Office will monitor these asset balances and will direct both the WVIMB and the West Virginia Board of Treasury Investments when the transfer of funds is necessary from one to the other.

Future cash outflows are uncertain. The assets may be withdrawn, in whole or in part, at any time as directed by the West Virginia Legislature or by executive order.

## INVESTMENT OBJECTIVES (for the assets managed by the WVIMB)

The investment objective is to provide for preservation of principal and minimization of volatility. There is no specifically identified target rate of return, as the Reserve Fund is a perpetual, endowment-like fund with no anticipated or scheduled liabilities.

## ASSET ALLOCATION

Based upon a determination of the appropriate risk tolerance, the Board adopted the following broad asset allocation guidelines for the assets managed for the Reserve Fund. Base and Strategic Allocations are established on a market value basis. The Allocation Committee has the authority to change the allocation within an established range around the Strategic Allocation for the fixed income asset class. The range authority for fixed income is defined in the WVIMB's Investment Policy Statement for the Fixed Income Pool Appendix C. WVIMB Staff, in consultation with the appropriate representative(s) from the Reserve Fund will from time to time set a target for transactional cash needs. The Board will receive a report on the target level annually.

Asset Class	Base Allocation	Strategic Allocation
Fixed Income	100.0%	50.0%
TIPS	0.0%	50.0%

*\* Statutory cash requirements of \$100 million will be invested by the West Virginia Board of Treasury Investments.*

## Revenue Shortfall Reserve Fund

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### FINANCIAL HIGHLIGHTS (in \$000s)

#### Progression of Plan Balance

June 30, 2021	\$ 293,538
Contributions	65,514
Withdrawals	-
Net	65,514
Investment income	1
Net depreciation	(29,251)
June 30, 2022	\$ 329,802

#### Asset Allocation

	Amount	Percent of Total
Total Return Fixed Income	\$ 116,364	35.3%
Core Fixed Income	50,093	15.2
TIPS	163,345	49.5
Total	\$ 329,802	100.0%

### INVESTMENT PERFORMANCE

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of fees. A target rate of return has not been set for this plan.

Period	Actual
One-year	(8.0)%
Three-year	(0.2)%
Five-year	1.3%
Ten-year	1.5%

## Revenue Shortfall Reserve Fund – Part B

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### HISTORY

The Revenue Shortfall Reserve Fund - Part B (Reserve Fund - Part B), created under *West Virginia Code §11B-2-20*, was funded using the entire balance of the assets in the former Tobacco Settlement Medical Trust Fund. The West Virginia Legislature is authorized and may make expenditures from the Reserve Fund - Part B for the purposes set forth in *West Virginia Code §4-11A-3* or in instances of revenue shortfalls or fiscal emergencies of an extraordinary nature.

### LIQUIDITY NEEDS

The Reserve Fund - Part B is intended to experience no cash outflows, but this is not entirely certain, as the West Virginia Legislature may appropriate a qualified expenditure as noted above. Cash inflows are expected to be minimal and emanate from insurance tax payments.

### INVESTMENT OBJECTIVES

The investment objective is to provide for stable, long-term growth of assets, while seeking to minimize risk of loss. There is no specifically identified rate of return target as the Reserve Fund - Part B is a perpetual, endowment-like fund with no anticipated or scheduled liabilities.

### ASSET ALLOCATION

Based upon a determination of the appropriate risk tolerance, the Board adopted the following broad asset allocation guidelines for the assets managed for the Reserve Fund - Part B. Base and Strategic Allocations are established on a market value basis. The Allocation Committee has the authority to change the allocation within an established range around the Strategic Allocation for the public equity and fixed income asset classes. The range authority for public equities and fixed income is defined in the WVIMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. WVIMB Staff, in consultation with the appropriate representative(s) from the Reserve Fund - Part B will from time to time set a target for transactional cash needs. The Board will receive a report on the target level annually.

Asset Class	Base Allocation	Strategic Allocation
Equity	20.0%	22.50%
Fixed Income	80.0%	55.00%
TIPS	0.0%	22.50%

## Revenue Shortfall Reserve Fund – Part B

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### FINANCIAL HIGHLIGHTS (in \$000s)

#### Progression of Plan Balance

June 30, 2021	\$ 557,458
Contributions	-
Withdrawals	-
Net	-
Investment income	-
Net depreciation	(58,739)
June 30, 2022	<u>\$ 498,719</u>

#### Asset Allocation

	Amount	Percent of Total
Large Cap Domestic Equity	\$ 51,988	10.5%
Non-Large Cap Domestic Equity	9,195	1.8
International Nonqualified	14,500	2.9
International Equity	30,069	6.0
Total Return Fixed Income	195,495	39.2
Core Fixed Income	84,450	16.9
TIPS	113,022	22.7
Total	<u>\$ 498,719</u>	<u>100.0%</u>

### INVESTMENT PERFORMANCE

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of fees. A target rate of return has not been set for this plan.

Period	Actual
One-year	(10.5)%
Three-year	2.3%
Five-year	3.2%
Ten-year	4.1%

## HISTORY

The West Virginia Department of Environmental Protection Agency (DEP Agency) was established in 1991, for the primary purpose of protecting the environment and the health and welfare of the public, including providing for the long-term maintenance of certain water control facilities. The DEP Agency has established reserve funds for reclamation efforts related to these areas of responsibility.

## LIQUIDITY NEEDS

The DEP Agency has had no liquidity needs, but anticipates that liquidity needs may increase to fund reclamation activities.

## INVESTMENT OBJECTIVES

The investment objectives are as follows:

- Provide adequate liquidity to meet the cash flow requirements.
- Given the expected infinite life of the fund, allow for growth of assets in an amount at least equal to expected inflation.

## ASSET ALLOCATION

Based upon a determination of the appropriate risk tolerance, the Board adopted the following broad asset allocation guidelines for the assets managed for the DEP Agency. Base and Strategic Allocations are established on a market value basis. The Allocation Committee has the authority to change the allocation within an established range around the Strategic Allocation for the public equity and fixed income asset classes. The range authority for public equities and fixed income is defined in the WVIMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. WVIMB Staff, in consultation with the appropriate representative(s) from the DEP Agency will from time to time set a target for transactional cash needs. The Board will receive a report on the target level annually.

Asset Class	Base Allocation	Strategic Allocation
Equity	40.0%	40.0%
Fixed Income	60.0%	40.0%
Hedge Funds	0.0%	20.0%

# West Virginia Department of Environmental Protection Agency

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## FINANCIAL HIGHLIGHTS (in \$000s)

### Progression of Plan Balance

June 30, 2021	\$ 245,392
Contributions	-
Withdrawals	-
Net	-
Investment income	-
Net depreciation	(25,742)
June 30, 2022	<u>\$ 219,650</u>

### Asset Allocation

	Amount	Percent of Total
Large Cap Domestic Equity	\$ 41,177	18.7%
Non-Large Cap Domestic Equity	7,229	3.3
International Nonqualified	11,411	5.2
International Equity	23,773	10.8
Total Return Fixed Income	64,818	29.5
Core Fixed Income	28,018	12.8
Hedge Fund	43,224	19.7
Total	<u>\$ 219,650</u>	<u>100.0%</u>

## INVESTMENT PERFORMANCE

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of fees. A target rate of return has not been set for this plan.

Period	Actual
One-year	(10.5)%
Three-year	4.0%
Five-year	4.5%

# West Virginia Department of Environmental Protection Trust

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## HISTORY

The West Virginia Department of Environmental Protection Trust (DEP Trust) was established on January 29, 2010, for the primary purpose of protecting the environment and the health and welfare of the public, including providing for the long-term maintenance of certain water control facilities. The DEP Trust seeks to provide an economical way by which funds contributed for that purpose may be invested and managed. The sole trustee of the DEP Trust is the Treasurer of the State of West Virginia. The beneficiary of the DEP Trust is the West Virginia Department of Environmental Protection. The DEP Trust began investing funds with the WVIMB on May 27, 2011.

## LIQUIDITY NEEDS

There are limited liquidity needs for the DEP Trust going forward, based on historical actual needs incurred by the DEP Trust, adjusted for inflation.

## INVESTMENT OBJECTIVES

The investment objectives are as follows:

- Meet or exceed 7.0 percent per annum. This is the discount rate by the DEP Trust and the Federal Office of Surface Mining in determining the amount of assets invested in the DEP Trust.
- Achieve long-term growth by investing the DEP Trust in a well-diversified portfolio.
- Achieve a real rate of return that is high enough to protect the purchasing power of the DEP Trust.

## ASSET ALLOCATION

Based upon a determination of the appropriate risk tolerance, the Board adopted the following broad asset allocation guidelines for the assets managed for the DEP Trust. Base and Strategic Allocations are established on a market value basis. The Allocation Committee has the authority to change the allocation within an established range around the Strategic Allocation for the public equity and fixed income asset classes. The range authority for public equities and fixed income is defined in the WVIMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. WVIMB Staff, in consultation with the appropriate representative(s) from the DEP Trust will from time to time set a target for transactional cash needs. The Board will receive a report on the target level annually.

Asset Class	Base Allocation	Strategic Allocation
Equity	65.0%	65.0%
Fixed Income	35.0%	15.0%
Hedge Funds	0.0%	20.0%

# West Virginia Department of Environmental Protection Trust

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## FINANCIAL HIGHLIGHTS (in \$000s)

### Progression of Plan Balance

June 30, 2021	\$ 11,837
Contributions	-
Withdrawals	(94)
Net	<u>(94)</u>
Investment income	-
Net depreciation	(1,386)
June 30, 2022	<u><u>\$ 10,357</u></u>

### Asset Allocation

	Amount	Percent of Total
Large Cap Domestic Equity	\$ 3,213	30.9%
Non-Large Cap Domestic Equity	568	5.5
International Nonqualified	889	8.6
International Equity	1,871	18.1
Total Return Fixed Income	1,218	11.8
Core Fixed Income	525	5.1
Hedge Fund	2,073	20.0
Total	<u><u>\$ 10,357</u></u>	<u><u>100.0%</u></u>

## INVESTMENT PERFORMANCE

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. The actual rate of return is net of fees.

Period	Actual	Target
One-year	(11.8)%	7.0%
Three-year	5.7%	7.0%
Five-year	5.8%	7.0%
Ten-year	7.5%	7.0%

# West Virginia State Parks and Recreation Endowment Fund

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## HISTORY

The West Virginia State Parks and Recreation Endowment Fund (SPREF) was created by the Legislature in 2020, adding §20-5A-1 and §20-5A-2 to the West Virginia Code. SPREF was created to provide revenues to help support the maintenance, repair and improvement of recreational facilities, and any supporting infrastructure, in the state parks, state forests, and state rail trails. The SPREF Board of Trustees will determine the timing and amount of expenditures from income.

## LIQUIDITY NEEDS

The SPREF will not make any disbursements until its Board of Trustees determines that accrued income is sufficient to begin disbursements. The SPREF is not expected to have any liquidity needs for the first two-to-three years. Any distributions will be set on an annual basis. The SPREF is expected to receive principal contributions from statutorily designated sources going forward, creating a net cash inflow.

## INVESTMENT OBJECTIVES

The investment objectives are as follows:

- Achieve a total rate of return of at least 6.0 percent per annum, net of fees.
- Provide adequate liquidity to meet cash flow requirements.

## ASSET ALLOCATION

Based upon a determination of the appropriate risk tolerance, the Board adopted the following broad asset allocation guidelines for the assets managed for the SPREF. Base and Strategic Allocations are established on a market value basis. The Allocation Committee has the authority to change the allocation within an established range around the Strategic Allocation for the public equity and fixed income asset classes. The range authority for public equities and fixed income is defined in the WVIMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. The domestic large capitalization allocation to Equity will be implemented through the use of the Portable Alpha Pool described in Appendix C. WVIMB Staff, in consultation with the appropriate representative(s) from the SPREF will from time to time set a target for transactional cash needs. The Board will receive a report on the target level annually.

Asset Class	Base Allocation	Strategic Allocation
Equity (including Portable Alpha)	60.0%	50.0%
Fixed Income	40.0%	15.0%
Private Markets		
Private Credit and Income	0.0%	5.0%
Private Equity	0.0%	10.0%
Real Estate	0.0%	10.0%
Hedge Funds	0.0%	10.0%

# West Virginia State Parks and Recreation Endowment Fund

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## FINANCIAL HIGHLIGHTS (in \$000s)

### Progression of Plan Balance

June 30, 2021	\$	6,465
Contributions		9,307
Withdrawals		-
Net		9,307
Investment income		1
Net depreciation		(1,003)
June 30, 2022	\$	14,770

### Asset Allocation

	Amount	Percent of Total
Portable Alpha	\$ 3,223	21.9%
Non-Large Cap Domestic Equity	521	3.5
International Nonqualified	843	5.7
International Equity	1,719	11.6
Short-Term Fixed Income	991	6.7
Total Return Fixed Income	1,403	9.5
Core Fixed Income	607	4.1
Private Markets	4,115	27.9
Hedge Fund	1,348	9.1
Total	\$ 14,770	100.0%

## INVESTMENT PERFORMANCE

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of fees.

Period	Actual	Target
One-year	(6.5)%	6.0%

# Wildlife Endowment Fund

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## HISTORY

The Wildlife Endowment Fund (WEF) was created in 1986 to supplement the Division of Natural Resources' annual budget in support of various statewide projects.

## LIQUIDITY NEEDS

The liquidity needs of the WEF will be set on an annual basis and determined by a separate Wildlife Endowment Board as established by West Virginia State Code.

## INVESTMENT OBJECTIVES

The investment objectives are as follows:

- Achieve a total rate of return of at least 6.0 percent per annum, net of fees.
- Provide adequate liquidity to meet cash flow requirements.

## ASSET ALLOCATION

Based upon a determination of the appropriate risk tolerance, the Board adopted the following broad asset allocation guidelines for the assets managed for the WEF. Base and Strategic Allocations are established on a market value basis. The Allocation Committee has the authority to change the allocation within an established range around the Strategic Allocation for the public equity and fixed income asset classes. The range authority for public equities and fixed income is defined in the WVIMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. The domestic large capitalization allocation to Equity will be implemented through the use of the Portable Alpha Pool described in Appendix C. WVIMB Staff, in consultation with the appropriate representative(s) from the WEF will from time to time set a target for transactional cash needs. The Board will receive a report on the target level annually.

Asset Class	Base Allocation	Strategic Allocation
Equity (including Portable Alpha)	60.0%	50.0%
Fixed Income	40.0%	15.0%
Private Markets		
Private Credit and Income	0.0%	5.0%
Private Equity	0.0%	10.0%
Real Estate	0.0%	10.0%
Hedge Funds	0.0%	10.0%

# Wildlife Endowment Fund

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## FINANCIAL HIGHLIGHTS (in \$000s)

### Progression of Plan Balance

June 30, 2021	\$	78,281
Contributions		2,663
Withdrawals		(2,280)
Net		383
Investment income		-
Net depreciation		(5,023)
June 30, 2022	\$	73,641

### Asset Allocation

	Amount	Percent of Total
Portable Alpha	\$ 17,242	23.5%
Non-Large Cap Domestic Equity	2,871	3.9
International Nonqualified	4,496	6.1
International Equity	9,382	12.7
Short-Term Fixed Income	133	0.2
Total Return Fixed Income	7,243	9.8
Core Fixed Income	3,120	4.2
Private Markets	21,968	29.8
Hedge Fund	7,186	9.8
Total	\$ 73,641	100.0%

## INVESTMENT PERFORMANCE

The WVIMB calculates total rates of return using the time-weighted rate of return methodology. The time-weighted method determines the rate of return exclusive of the effects of participant contributions or withdrawals. Actual rates of return are net of fees.

Period	Actual	Target
One-year	(6.4)%	6.0%
Three-year	8.4%	6.0%
Five-year	8.2%	6.0%
Ten-year	9.0%	6.0%
Twenty-year	7.9%	6.0%