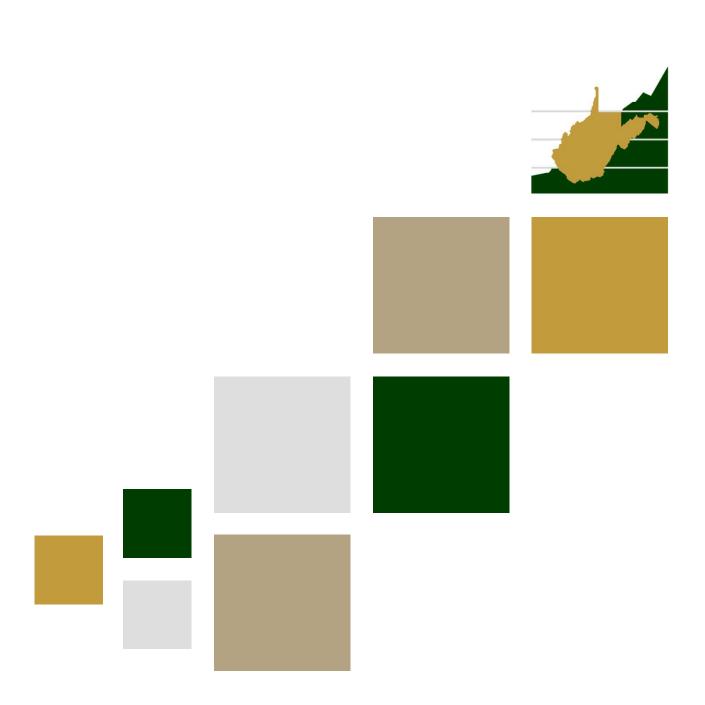
West Virginia Investment Management Board

2020 ANNUAL REPORT







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

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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.

Allocation Committee	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.
Base Allocation	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.
Board	The thirteen-member Board of Trustees that governs the West Virginia Investment Management Board.
Сар	Abbreviation for "capitalization," referring to the size of the investment market for that particular asset style.
IMB	The "West Virginia Investment Management Board" including its Trustees, plan Representatives, Committee Members, and staff.
Neutral Target	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.
Participant Plan (Participant)	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.
Pool	Refers to the specific investment pool created and operated by the West Virginia Investment Management Board for a specific investment asset class.
Range Allocation	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.
Strategic Allocation	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 (commonly referred to as stocks), fixed income (broadly notes, bills, bonds issued by corporations and countries), real estate, private equity, and cash, as well as the opportunity set and management style of hedge funds.

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

Bloomberg Barclays U.S. Aggregate Bond	A market capitalization weighted index that includes most U. S. traded investment grade bonds.			
Bloomberg Barclays U.S. TIPS	An index that measures the performance of U.S. Treasury Inflation Protected Securities.			
Bloomberg Barclays U.S. Universal Bond	The index covers U.S. dollar-denominated, taxable bonds that are rated either investment-grade or below investment-grade.			
Citigroup 90-Day Treasury Bill	An unmanaged index representing monthly return equivalents of yield averages of the last 3 month Treasury Bill issues.			
Credit Suisse Leveraged Loan	An index designed to mirror the investable universe of the U.S. dollar-denominated leveraged loan market.			
HRFI FoF	Hedge Fund Research, Inc.'s composite index of fund of funds.			
MSCI ACWI (IMI)	A market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets. The "IMI" qualifier limits the index to investable markets. It is maintained by MSCI Barra, formerly Morgan Stanley Capital International.			
MSCI ACWI ex U.S. (IMI)	A market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets. The " ex U.S. " qualifier indicates that the index excludes the United States markets. The " IMI " qualifier further limits the index to investable markets. It is maintained by MSCI Barra, formerly Morgan Stanley Capital International.			
MSCI EAFE	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.			
NCREIF Property Index	National Council of Real Estate Investment Fiduciaries' property index.			
Russell 2500/ Russell 3000	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.			
S&P 500	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.			



November 23, 2020

Dear Fellow West Virginians:

On behalf of the trustees of the West Virginia Investment Management Board (IMB), I present the IMB's Annual Financial Report for the fiscal year ending June 30, 2020. Please note that additional information about the IMB may be accessed electronically on its website, <u>www.wvimb.org</u>.

The IMB was able to return 3.2 percent in fiscal year 2020 (using the Public Employees' Retirement System as a proxy for all long-term assets). While this is a seemingly modest result, one must take the economic environment into account. This past year was dramatically marked by the COVID-19 virus and resulting pandemic. The pandemic derailed economic growth internationally since January and since March domestically, causing capital market declines of unprecedented proportions. In the past I have warned readers of the vagaries of the world's capital markets, the year to year "ups" and "downs". The pandemic is a stark reminder of how unpredictable those ups and downs can be. The IMB, however, is a long-term investor, with an asset allocation plan to achieve its return goals fully cognizant that year to year volatility is the price one pays for return on one's money. It is important to maintain a long-term perspective.

I wish to thank fellow trustees and the staff for their dedicated service. I commend the IMB on its professionalism, commitment to the mission, and customer service.

Sincerely,

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

November 23, 2020

It is with great pleasure that I submit the Annual Report of the West Virginia Investment Management Board (IMB). The IMB 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 IMB, 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 IMB, 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 IMB.

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

As an investment organization, the IMB'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, 2020, started on a weak note with global equities returning an aggregate 0.1 percent (MSCI ACWI) for the fiscal year's initial quarter reflecting uncertainty over trade relations between the US and China that could negatively impact growth. Although personal consumption came in stronger than at any time since 2014 the Federal Reserve, concerned about sluggish growth, lowered rates twice, in July and September, by a quarter of a point on each occasion. Another rate decrease in the second quarter of the fiscal year generated confidence in the Federal Reserve's determination to encourage growth. Meanwhile, the signing of "phase one" of a US-China trade agreement removed uncertainty on the geopolitical front. Personal consumption remained strong and global equity markets shot up 9.1 percent (MSCI ACWI). The story of the second half of the fiscal year was the COVID-19 Pandemic. Equity markets plummeted and volatility skyrocketed on the realization that the virus was sweeping around the world. Governments instituted lockdowns causing a shutdown of many businesses with corresponding job losses. While many were temporary, uncertainty abounded and the impact on the global economy was devastating. The Federal Reserve dropped the fed funds rate a full 1.0 percent, down to virtually zero, and bought up securities in the open market. Congress responded with the CARES Act, the largest fiscal stimulus package since the Great Depression years, to support income losses and to keep businesses afloat. Eventually social distancing, masks and warming weather allowed the gradual reopening of businesses. Results were encouraging as markets picked up, reflecting hope that the worst was behind. As the fiscal year came to a close, the possibility of a surge of infections in the fall weighed on government decisionmakers, but economic growth expectations for the future were rising. For the fiscal year, US stocks were up 6.5 percent (Russell 3000) and international stocks were down 4.3 percent (MSCI ACWI ex US IMI). Fixed income was again the relative star of the year returning 7.9 percent (Bloomberg Barclays U.S. Universal Bond).

The IMB experienced relative underperformance in all the major asset classes in the fiscal year ending June 30, 2020. The IMB's U.S. public equity portfolio returned 5.7 percent but fell short of its benchmark (Russell 3000) by 0.8 percent, as market activity concentrated on the technology and healthcare sectors. International public equity was a significant detractor returning (4.7) percent and falling short of its benchmark (MSCI AC World ex U.S. IMI) by 0.4 percent. The IMB's value bias in international markets was a significant headwind. The fixed income portfolio contributed positively to the portfolio returning 6.7 percent, but it also fell short of its benchmark (Bloomberg Barclays U.S. Universal Bond) by 1.2 percent. The IMB suffered relatively due to its underweight in US Treasury securities. Performance measurement of private market assets, which include private equity and a majority of the IMB's real estate portfolio returned 17.2 percent and the real estate portfolio returned 0.4 percent. The hedge fund portfolio, which is intended to be a diversifying component of the entire portfolio, returned

0.0 percent, which was short of its benchmark (HFRI FOF plus 1 percent) by 1.5 percent. The opportunistic income composite outperformed its benchmark by 2.0 percent (Credit Suisse Leveraged Loan plus 2.0 percent) returning 1.8 percent for the year.

The majority of assets managed by the IMB 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 80 percent of the IMB's total assets under management. For general comparison purposes, the IMB 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, 2020, the return for PERS was 3.2 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, 2020, the IMB's annualized return was 8.9 percent versus the base portfolio benchmark of 7.8 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, 2020, 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 and the West Virginia Retiree Health Benefit Trust Fund have similar asset allocations to the defined benefit pension plans, respectively, returning 3.2 and 3.4 percent.

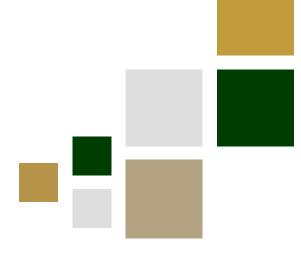
With regard to employment security assets, the reader will note a significant difference in returns from defined benefit plans. This is, primarily, a function of differences in the time horizon and liquidity needs, which vary quite significantly by plan. This leads to a wide divergence in the respective plans' allocations to various asset classes. The returns for employment security assets for the fiscal year ending June 30, 2020, ranged from 3.5 percent for the Workers' Compensation Uninsured Employer Fund to 4.1 percent for the Workers' Compensation Old Fund. The IMB 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 IMB'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, what is commonly referred to as risk, but it is generally at the expense of long-term growth. Growth is the engine of returns. The IMB's asset allocation is clearly tilted towards longterm 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 IMB does not set that rate, it has an obligation to advise those that do. The IMB 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 one looks out over the horizon, there are many concerns. In the short-term the Covid-19 Pandemic is still with us and will continue to constrain growth until the world can reach "herd" immunity either by rates of infection or development of vaccines. It will pass but leave lingering effects as a result of the fiscal spending to counteract its impact on growth. Of possibly greater import long-term is the rise of China as the major rival to the U.S. creating geopolitical tensions with farreaching ramifications. Meanwhile, the disparity between the haves and have-nots in society has spawned a global wave of populism threatening the underpinnings of democracy and the liberal world order that has, despite its faults, raised unprecedented numbers out of poverty across the globe. In this environment autocrats and wannabe autocrats sow the seeds of hatred and divisiveness as they seek political power. There is much to be concerned about. Nevertheless, the future is unknowable. The IMB's portfolio is built for the long-term, seeking return from risky assets, while diversifying to reduce risk. The IMB 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 the challenges as fiscal year 2021 unfolds.

Respectfully Submitted,

Craig Slaughter, JD, CFA Executive Director





Jim Justice, Chairman

Governor of the State of West Virginia

John B. McCuskey

Auditor of the State of West Virginia

John D. Perdue Treasurer of the State of West Virginia

Patrick Bond

General Partner, Mountaineer Capital, LP Appointed September 10, 2019

G. Kurt Dettinger

Member in Steptoe & Johnson, PLLC

Georgette Rashid George

CEO, Monarch Holdings, LLC Appointed December 5, 2019

David A. Haney

Executive Director of the West Virginia Education Association

Judy Hale Served through September 10, 2019

Charles S. Houck Appointed March 9, 2020

Roger D. Hunter

Special Counsel, Bowles Rice, LLP Served through December 5, 2019

David H. McKinley

President and Managing Director of McKinley | Carter Wealth Services

Marie L. Prezioso

Executive Director, West Virginia Water Development Authority

Jack Rossi

Executive Vice President of Business Development, Summit Community Bank

Steven L. Smith

Administrator of the West Virginia Laborers Trust Funds

Randall E. Snider

Executive Chairman of the Board, Community Bank

Deputy Sheriff's Retirement System

David Gentry, Representative

J. Scott Gittings, Committee Member

Judges' Retirement System

Thomas A. Bedell, Representative

Public Employees' Retirement System

Melissa G. Smith, Representative

Shelly L. Murray, Committee Member

Sheri Richardson, Committee Member

State Police Death, Disability and Retirement Fund

William J. Scott, Representative

State Police Retirement System

Christopher Joe White, Representative

Teachers' Retirement System

Tony Lautar, Jr., Representative

Robert L. Brown, Committee Member

Dale Lee, Committee Member

Emergency Medical Services Retirement System

Mark Kerns, Representative

Robert A. Ford, Committee Member

Gregory Wolfe, 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.

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

Crystal Hunt, Investment Accountant

Aaron Souza, CPA, Investment Accountant

Brittney Medley, 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, 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

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.

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 $\frac{12-6-1a(f)}{2}$

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]

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.

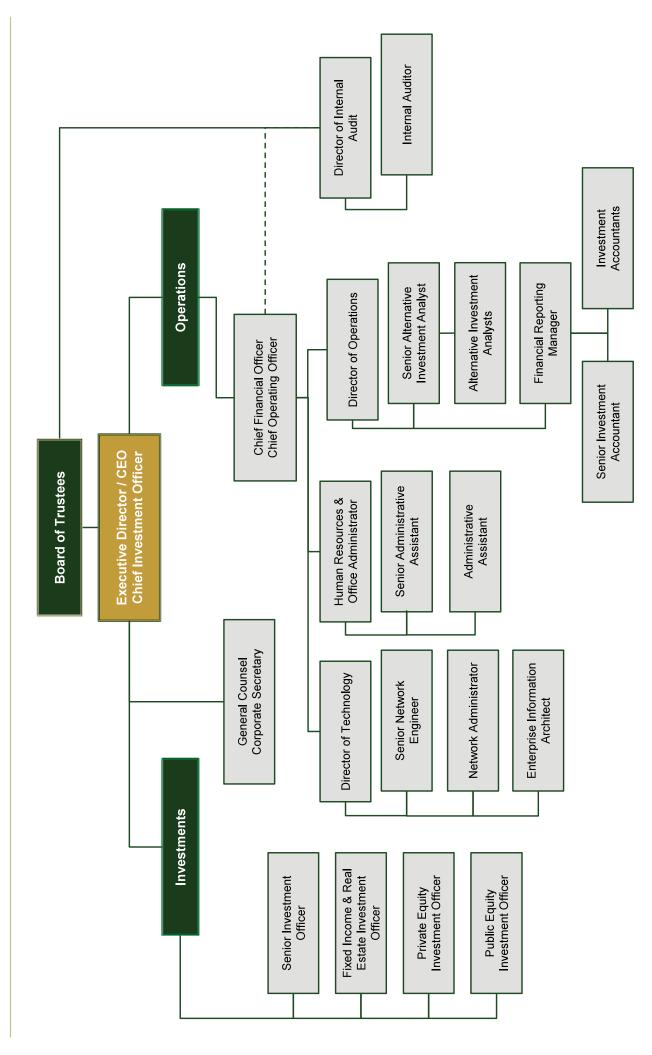
A member of each defined benefit retirement plan is designated by the Consolidated Public Retirement Board to represent the Participant Plans' interests. Likewise, the West Virginia Insurance Commission designates a representative for the Coal Workers' Pneumoconiosis Fund and the Workers' Compensation 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 dayto-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



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 IMB 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, and maturity, 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 IMB 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 IMB 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 longerterm perspective generally, however, the Board of Trustees has adopted the following formal review schedule:

Agenda Item	Review Schedule
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.

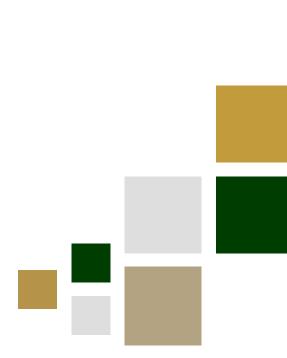
INVESTMENT OBJECTIVES

"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



OBJECTIVES

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

Each Participant Plan invested in the Equity Pool has its own Equity Strategic Allocation, set out in each Participant Plan Description within Appendix A of the IMB's Investment Policy Statement. The Allocation Committee has the authority to adjust a Participant's Plan Equity Strategic Allocation within the approved range. In the case of Equity, the Allocation Committee's range authority is: 10 percent of the approved Equity Strategic Allocation. As an example, if a Participant Plan 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 asset class components within the Equity Pool. The authority of the Allocation Committee for each strategic asset class sub-components are outline below:

Strategic Asset Class Sub-Components	Neutral Target*	Allocation Range
Domestic vs.	Domestic vs. International	0.5 to 2.5 times benchmark weight
International	Percentage in MSCI ACWI (IMI)	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 vs. International Small vs. 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.

MANAGEMENT STRUCTURE

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

Manager	Style
Domestic Equity Pool	
BlackRock Institutional Trust Company, N.A.	Index Core
INTECH Investment Management, LLC	Quantitative Core
Westfield Capital Management Company, LLC	Growth at a Reasonable Price
AJO, LP	Relative Value
International Qualified and International Nonqualified P	ools
Developed Markets	
Silchester International Investors	All Country, Value
International Equity Pool	
Developed Markets	
LSV Asset Management	All Country, Relative Value
Small Capitalization	
Oberweis Asset Management, Inc.	All Country, Growth
Acadian Asset Management, LLC	All Country, Quantitative Value
Emerging Markets	
Brandes Investment Partners, L.P.	Emerging Market, Value
Allianz Global Investors U.S. LLC	Emerging Market, Growth at a Reasonable Price
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. Financial Highlights for each pool are presented below.

Composite	Individual Pools per Audited Financial Statements
Domestic International	Domestic Equity Pool International Qualified Pool
International	International Qualified Pool
	International Equity Pool

Condensed Statement of Net Position	Domestic International Equity Qualified		International Nonqualified		International Equity		
Investments	\$	4,691,140	\$ 1,029,369	\$	163,136	\$	3,430,779
Payable upon return of securities loaned		(4,617)	-		-		(19,475)
Cash		-	-		-		20,601
Receivable for investments sold		29,423	-		-		7,041
Payable for investments purchased		(8,042)	-		-		(2,012)
Other assets and liabilities, net		1,676	(45)		(7)		11,922
Net position - June 30, 2020	\$	4,709,580	\$ 1,029,324	\$	163,129	\$	3,448,856

FINANCIAL HIGHLIGHTS (continued in \$000s)

Investments	Domestic Equity					
	F	air Value	Percent of Securities			
Domestic equities sector exposure:						
Basic Materials	\$	72,848	1.6%			
Communication Services		267,865	5.7			
Consumer Discretionary		332,032	7.1			
Consumer Staples		95,650	2.0			
Energy		25,181	0.5			
Financial Services		316,122	6.8			
Health Care		424,511	9.0			
Industrials		304,807	6.5			
Real Estate		47,729	1.0			
Technology		640,959	13.7			
Utilities		61,106	1.3			
Total domestic equities		2,588,810	55.2			
Commingled equity fund		2,014,708	42.9			
Money market mutual funds		82,999	1.8			
Rights		6	0.0			
Securities lending collateral		4,617	0.1			
Total	\$	4,691,140	100.0%			

Investments	Internationa	l Qualified	International Nonqualified			
	Fair Value	Percent of Securities	Fair Value	Percent of Securities		
Commingled equity funds	\$ 1,029,369	100.0%	\$ 163,136	100.0%		

Investments	International Equity				
	I	Fair Value	Percent of Securities		
International equities country exposure:					
Australia	\$	82,579	2.4%		
Brazil		75,038	2.2		
Canada		93,528	2.7		
China		991,815	28.9		
France		94,133	2.7		
Germany		118,343	3.4		
Hong Kong		110,199	3.2		
India		107,157	3.1		
Japan		365,518	10.7		
Korea		183,124	5.3		
Russia		85,647	2.5		
Sweden		79,127	2.3		
Switzerland		100,413	2.9		
Taiwan		150,042	4.4		
United Kingdom		184,433	5.4		
All others (none greater than 2%)		552,473	16.2		
Total international equities		3,373,569	98.3		
Money market mutual fund		37,694	1.1		
Rights		41	0.0		
Securities lending collateral		19,475	0.6		
Total	\$	3,430,779	100.0%		

Equity Pool

FINANCIAL HIGHLIGHTS (continued in \$000s)

Progression of Net Position	Domestic Equity	nternational Qualified	ternational onqualified	It	nternational Equity
Net position - June 30, 2019	\$ 4,589,989	\$ 1,301,475	\$ 210,172	\$	3,263,337
Net investment income (loss)	282,004	(122,539)	(20,106)		(52,314)
Net increase (decrease) from unit transactions	 (162,413)	(149,612)	(26,937)		237,833
Net position - June 30, 2020	\$ 4,709,580	\$ 1,029,324	\$ 163,129	\$	3,448,856

INVESTMENT PERFORMANCE

The IMB 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.

	Domesti	ic Equity	Internation	al Qualified		ational Ialified	Internatio	onal Equity
Period	Actual	Russell 3000	Actual	MSCI EAFE	Actual	MSCI EAFE	Actual	MSCI ACWI ex U.S.(IMI)*
One-year	5.7%	6.5%	(9.6)%	(4.7)%	(9.8)%	(4.7)%	(2.6)%	(4.3)%
Three-year	9.3%	10.0%	(1.9)%	1.3%	(2.1)%	1.3%	1.1%	1.4%
Five-year	9.4%	10.0%	1.7%	2.5%	1.5%	2.5%	3.6%	2.8%
Ten-year	13.7%	13.7%	7.3%	6.2%	7.0%	6.2%	5.7%	5.5%
Twenty-year	7.1%	6.2%	8.8%	3.4%	8.5%	3.4%	3.5%	3.9%

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

EXPENSES

The IMB charges each investment pool for its direct investment-related expenses, such as investment advisor fees, custodian bank fees, and some professional service fees, and an allocated share of other expenses. The Equity Pool's expenses for the year, divided by the average net position, are as follows:

Expense Ratios (in basis points)	Domestic Equity	International Qualified	International Nonqualified	International Equity
Investment advisor fees	5.3	51.2	58.7	49.2
Trustee fees	0.0*	0.0*	0.0*	0.0*
Custodian bank fees	0.2	N/A	N/A	3.3
Management fees	2.6	2.6	2.6	2.6
Fiduciary bond fees	0.0*	0.0*	0.0*	0.0*
Professional service fees	0.5	0.5	0.5	0.5
Total	8.6	54.3	61.8	55.6

* Expense Ratio rounds to less than 0.1 basis points.

Trading Costs	Domestic Equity	International Equity	Total
Net commission costs (in \$000s)	\$ 2,039	\$ 2,992	\$ 5,031
Domestic equity commission rate (cents per share)	1.4		
International equity commission rate (basis points per dollar volume)		8.9	

OBJECTIVES

The Short-Term Fixed Income Pool was created to maintain sufficient liquidity to meet the daily disbursements requested by the Plans 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 risk factor on this pool 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. Financial Highlights are presented below.

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Condensed Statement of Net Position		
Investments	\$ 642,482	
Payable for investments purchased	(25,895)	
Other liabilities	(46)	
Net position - June 30, 2020	\$ 616,541	
Investments	Fair Value Perce Secur	
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Money market mutual funds	\$ 25,896	4.0%
Repurchase agreement	75,658	11.8
U.S. government agency bonds	265,950	41.4
U.S. Treasury bonds	 274,978	42.8
Total	\$ 642,482	100.0%

Progression of Net Position

Net position - June 30, 2019	\$ 186,030
Net investment income	2,210
Distributions to unitholders	(2,210)
Net increase from unit transactions	 430,511
Net position - June 30, 2020	\$ 616,541

INVESTMENT PERFORMANCE

The IMB 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	Citigroup 90 Day Treasury Bill*
One-year	1.3%	1.6%
Three-year	1.6%	1.7%
Five-year	1.1%	1.2%
Ten-year	0.6%	0.7%
Twenty-year	1.7%	1.7%

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

EXPENSES

The IMB charges each investment pool for its direct investment-related expenses, such as investment advisor fees, custodian bank fees, and some professional service fees, and an allocated share of other expenses. 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	4.9
Trustee fees	0.0*
Custodian bank fees	0.6
Management fees	2.7
Fiduciary bond fees	0.0*
Professional service fees	0.5
Total	8.7

* Expense Ratio rounds to less than 0.1 basis points.

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 Plan 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
Total Return Fixed Income Pool	
Western Asset Management Company	Core Plus Fixed Income
Dodge & Cox	Core Plus Fixed Income
Franklin Templeton Investments	Emerging Markets Fixed Income
Core Fixed Income Pool	
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. Financial Highlights for each pool are presented below.

Condensed Statement of Net Position	Total Return Fixed Income	Core Fixed Income	
Investments	\$ 2,116,693	\$ 934,921	
Investment derivatives	(28,874)	-	
Payable upon return of securities loaned	(4,029)	(4,868)	
Cash	50,633	-	
Receivable for investments sold	9,496	104	
Payable for investments purchased	(48,944)	(7,571)	
Other assets and liabilities, net	15,170	3,663	
Net position – June 30, 2020	\$ 2,110,145	\$ 926,249	

FINANCIAL HIGHLIGHTS (continued in \$000s)

Investments	r	Total Return Fixed Income		Core Fixed Income	
	1	Fair Value	Percentage of Securities	Fair Value	Percentage of Securities
Commingled debt funds	\$	206,712	9.9%	\$ -	0.0%
Corporate asset backed issues		56,292	2.7	104,830	11.2
Corporate CMO		59,777	2.9	46,393	5.0
Corporate preferred security		10,307	0.5	-	0.0
Foreign asset backed issues		28,152	1.3	2,168	0.2
Foreign corporate bonds		264,553	12.7	61,479	6.6
Foreign currency forward contracts		(1,269)	(0.1)	-	0.0
Foreign government bonds		251,488	12.0	5,870	0.6
Futures contracts		(11,152)	(0.5)	-	0.0
Money market mutual fund		80,424	3.9	10,949	1.2
Municipal bonds		33,423	1.6	12,331	1.3
Option contracts purchased		441	0.0	-	0.0
Option contracts written		(879)	0.0	-	0.0
Securities lending collateral		4,029	0.2	4,868	0.5
Swaps		(16,015)	(0.8)	-	0.0
U.S. corporate bonds		495,554	23.7	189,911	20.4
U.S. government agency bonds		1,530	0.1	3,100	0.3
U.S. government agency CMO		84,384	4.0	104,603	11.2
U.S. government agency MBS		224,769	10.8	186,507	19.9
U.S. Treasury issues		315,299	15.1	201,912	21.6
Total	\$	2,087,819	100.0%	\$ 934,921	100.0%

	otal Return xed Income	(Core Fixed Income
\$	2,219,493	\$	968,208
	102,738		83,918
	(212,086)		(125,877)
\$	2,110,145	\$	926,249

INVESTMENT PERFORMANCE

Progression of Net Position

Net position - June 30, 2019 Net investment income

Net decrease from unit transactions Net position - June 30, 2020

The IMB 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.

	Total Retur	n Fixed Income	Core Fi	xed Income
Period	Actual	Bloomberg Barclays U.S. Universal Bond*	Actual	Bloomberg Barclays U.S. Aggregate Bond
One-year	5.7%	7.9%	9.0%	8.7%
Three-year	4.7%	5.2%	5.6%	5.3%
Five-year	4.6%	4.4%	4.6%	4.3%
Ten-year	4.6%	4.1%	4.4%	3.8%
Twenty-year	6.1%	5.3%	N/A	N/A

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

EXPENSES

The IMB charges each investment pool for its direct investment-related expenses, such as investment advisor fees, custodian bank fees, and some professional service fees, and an allocated share of other expenses. The Fixed Income Pools' expenses for the operating period, divided by the average net position, are as follows:

Expense Ratios (in basis points)	Total Return Fixed Income	Core Fixed Income
Investment advisor fees	22.0	10.8
Trustee fees	0.0*	0.0*
Custodian bank fees	0.7	0.4
Management fees	2.6	2.6
Fiduciary bond fees	0.0*	0.0*
Professional service fees	0.5	0.5
Total	25.8	14.3

* Expense Ratio rounds to less than 0.1 basis points.

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OBJECTIVES

The 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. Financial Highlights are presented below.

Condensed Statement of Net Position Investments Other liabilities Net position - June 30, 2020	\$ 290,667 (33) \$ 290,634	
Investments	Fair Value	Percent of Securities
Commingled bond fund	\$ 290,665	100.0%
Money market mutual fund	2	0.0
Total	\$ 290,667	100.0%
Progression of Net Position Net position - June 30, 2019 Net investment income Net decrease from unit transactions Net position - June 30, 2020	\$ 403,310 32,175 (144,851) \$ 290,634	

INVESTMENT PERFORMANCE

The IMB 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	8.4%	8.3%
Three-year	5.1%	5.0%
Five-year	3.8%	3.8%

EXPENSES

The IMB charges each investment pool for its direct investment-related expenses, such as investment advisor fees, custodian bank fees, and some professional service fees, and an allocated share of other expenses. 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	2.6			
Fiduciary bond fees	0.0*			
Professional service fees	0.5			
Total	4.9			

* Expense Ratio rounds to less than 0.1 basis points.

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 equity, real estate, and opportunistic income 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 each of these strategies is tracked separately and presented on the following page.

The private equity strategy is comprised of the following categories and target range allocations as of June 30, 2020:

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 three categories. The target range allocations as of June 30, 2020, are as follows:

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

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

MANAGEMENT STRUCTURE

The selection of investments in the Private Markets Pool are approved by the Board of Trustees or by its established committees.

FINANCIAL HIGHLIGHTS (in \$000s)

Audited financial statements for the Private Markets Pool are available at www.WVIMB.org. Financial Highlights are presented below.

Condensed Statement of Net Position	
Investments	\$ 4,801,594
Payable upon return of securities loaned	(4,257)
Cash	27
Fund distributions receivable	10,983
Receivable for investments sold	1,973
Payable for investments purchased	(1,435)
Other assets and liabilities, net	 (1,340)
Net position - June 30, 2020	\$ 4,807,545

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

Investments]	Fair Value	Percent of Securities	
Corporate bonds	\$	10,110	0.2%	
Equity investments		126,496	2.6	
Money market mutual fund		139,391	2.9	
Opportunistic income funds		632,804	13.2	
Private equity partnerships		2,098,272	43.7	
Private real estate partnerships and funds		1,790,264	37.3	
Securities lending collateral		4,257	0.1	
Total	\$	4,801,594	100.0%	
Progression of Net Position				
Net position - June 30, 2019	\$	4,472,105		
Net investment income		333,679		
Net increase from unit transactions		1,761		
Net position - June 30, 2020	\$	4,807,545		

INVESTMENT PERFORMANCE BY STRATEGY

The IMB 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. For Private Equity and Real Estate, a benchmark return is not reported for periods less than five years, as a meaningful comparison

Private Equity		Real Estate		Opportunistic Income		
Period	Actual	Russell 3000 plus 300 basis points*	Actual	NCREIF Property Index plus 100 basis points	Actual	Credit Suisse Leveraged Loan plus 200 basis points**
One-year	17.2%	9.5%	0.4%	6.3%	1.8%	(0.3)%
Three-year	19.8%	13.0%	5.6%	7.4%	4.7%	4.1%
Five-year	17.2%	13.0%	7.2%	8.7%	N/A	N/A
Ten-year	16.1%	17.3%	8.9%	11.2%	N/A	N/A

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

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

EXPENSES

The IMB charges each investment pool for its direct investment-related expenses, such as investment advisor fees, custodian bank fees, and some professional service fees, and an allocated share of other expenses. 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	2.3
Trustee fees	0.0*
Custodian bank fees	0.1
Management fees	2.6
Fiduciary bond fees	0.0*
External fees/Fund closing costs	13.5
Professional service fees	4.2
Total	22.7

* Expense Ratio rounds to less than 0.1 basis points.

OBJECTIVES

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

The Hedge Funds are comprised of the following strategic categories and target range allocations as of June 30, 2020:

Category	Target Range	Allocation Range
Core		
Relative Value	25-35%	20-50%
Event Driven	20-30%	15-35%
Long-Short Equity	20-30%	15-35%
Directional	10-20%	5-25%
Supplemental		
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

The selection of investments in the Hedge Fund Pool are approved by the Hedge Fund Subcommittee.

FINANCIAL HIGHLIGHTS (in \$000s)

Audited financial statements for the Hedge Fund Pool are available at www.WVIMB.org. Financial Highlights are presented below.

Condensed Statement of Net Position		
Investments	\$ 1,893,324	
Advance on investments in hedge funds	105,000	
Investment funds redeemed	35,799	
Other assets and liabilities, net	(35)	
Net position - June 30, 2020	\$ 2,034,088	
Investments	Fair Value	Percent of
	rall value	Securities
Hedge funds	\$ 1,893,312	100.0%
Money market mutual fund	12	0.0
Total	\$ 1,893,324	100.0%
Progression of Net Position Net position - June 30, 2019 Net investment income Net decrease from unit transactions Net position - June 30, 2020	\$ 2,372,033 3,004 (340,949) \$ 2,034,088	

INVESTMENT PERFORMANCE

The IMB 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	(0.0)%	1.4%
Three-year	3.0%	3.2%
Five-year	1.9%	2.5%
Ten-year	4.2%	3.5%

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

EXPENSES

The IMB charges each investment pool for its direct investment-related expenses, such as custodian bank fees and some professional service fees, and an allocated share of other expenses. 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	2.6
Fiduciary bond fees	0.0*
Professional service fees	2.5
Total	5.1

* Expense Ratio rounds to less than 0.1 basis points.



Plan Balances as of June 30, 2020	Assets	Percent of Total	Page Reference
Pension Assets			
Deputy Sheriff's Retirement System	\$ 239,121	1.2%	28
Emergency Medical Services Retirement System	88,627	0.4	30
Judges' Retirement System	215,698	1.1	32
Municipal Police Officers' and Firefighters' Retirement System	14,669	0.1	34
Municipal Policemen's or Firemen's Pension and Relief Funds	7,421	0.0	36
Public Employees' Retirement System	6,899,129	34.3	38
State Police Death, Disability and Retirement Fund	675,608	3.4	40
State Police Retirement System	220,921	1.1	42
Teachers' Retirement System	7,820,075	38.8	44
Insurance Assets			
Board of Risk and Insurance Management	164,662	0.8	46
Coal Workers' Pneumoconiosis Fund	223,717	1.1	48
Public Employees Insurance Agency	260,386	1.3	50
West Virginia Retiree Health Benefit Trust Fund	1,150,228	5.7	52
Workers' Compensation Old Fund	1,013,189	5.0	54
Workers' Compensation Self-Insured Employer Guaranty Risk Pool	34,115	0.2	56
Workers' Compensation Self-Insured Employer Security Risk Pool	50,505	0.3	58
Workers' Compensation Uninsured Employers' Fund	14,005	0.1	60
Endowment Assets			
Berkeley County Development Authority	6,378	0.0	62
Revenue Shortfall Reserve Fund	272,021	1.4	64
Revenue Shortfall Reserve Fund - Part B	492,955	2.4	66
West Virginia Department of Environmental Protection Agency	200,909	1.0	68
West Virginia Department of Environmental Protection Trust	9,053	0.0	70
West Virginia Prepaid Tuition Trust Fund	-	0.0	72
Wildlife Endowment Fund	62,699	0.3	73
Total	\$ 20,136,091	100.0%	

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 7.5 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, fixed income, and opportunistic income asset classes. The range authority for public equities and fixed income is defined in the IMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. The Base and Strategic Allocations to opportunistic income are 0 percent, but the Allocation Committee has the authority to make a range allocation of up to 5 percent to this asset class. IMB 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. Private Equity, Opportunistic Income, and Real Estate together comprise the Private Markets Pool.

Asset Class	Base Allocation	Strategic Allocation
Equity	60.0%	55.0%
Private Equity	0.0%	10.0%
Fixed Income	40.0%	15.0%
Opportunistic Income	0.0%	0.0%
Hedge Fund	0.0%	10.0%
Real Estate	0.0%	10.0%

Progression of Plan Balance

June 30, 2019	\$ 232,576
Contributions Withdrawals Net	 4,632 (5,586) (954)
Investment income Net appreciation June 30, 2020	\$ 5 7,494 239,121

Asset Allocation	Amount	Percent of Total
Domestic Equity	\$ 60,222	25.2%
International Qualified	15,612	6.5
International Equity	43,790	18.3
Short-Term Fixed Income	813	0.3
Total Return Fixed Income	20,157	8.4
Core Fixed Income	8,976	3.8
Private Markets	65,968	27.6
Hedge Fund	 23,583	9.9
Total	\$ 239,121	100.0%

INVESTMENT PERFORMANCE

Period	Actual	Target
One-year	3.3%	7.5%
Three-year	6.3%	7.5%
Five-year	6.8%	7.5%
Ten-year	8.9%	7.5%
Twenty-year	6.6%	7.5%

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 7.5 percent per annum, net of fees.
- Maintain adequate liquidity to satisfy benefit payments while not subjecting 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, fixed income, and opportunistic income asset classes. The range authority for public equities and fixed income is defined in the IMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. The Base and Strategic Allocations to opportunistic income are 0 percent, but the Allocation Committee has the authority to make a range allocation of up to 5 percent to this asset class. IMB 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. Private Equity, Opportunistic Income, and Real Estate together comprise the Private Markets Pool.

Asset Class	Base Allocation	Strategic Allocation
Equity	60.0%	55.0%
Private Equity	0.0%	10.0%
Fixed Income	40.0%	15.0%
Opportunistic Income	0.0%	0.0%
Hedge Fund	0.0%	10.0%
Real Estate	0.0%	10.0%

Progression of Plan Balance

June 30, 2019	\$ 84,650
Contributions Withdrawals	2,099 (937)
Net	1,162
Investment income	3
Net appreciation	2,812
June 30, 2020	\$ 88,627

Asset Allocation	Amount	Percent of Total
Domestic Equity	\$ 22,271	25.1%
International Qualified	5,808	6.6
International Equity	16,164	18.2
Short-Term Fixed Income	753	0.8
Total Return Fixed Income	7,514	8.5
Core Fixed Income	3,273	3.7
Private Markets	24,151	27.3
Hedge Fund	 8,693	9.8
Total	\$ 88,627	100.0%

INVESTMENT PERFORMANCE

Period	Actual	Target
One-year	3.3%	7.5%
Three-year	6.3%	7.5%
Five-year	6.8%	7.5%
Ten-year	8.9%	7.5%

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 7.5 percent per annum, net of fees.
- Reduce the unfunded liability while maintaining adequate liquidity to satisfy benefit payments and 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, fixed income, and opportunistic income asset classes. The range authority for public equities and fixed income is defined in the IMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. The Base and Strategic Allocations to opportunistic income are 0 percent, but the Allocation Committee has the authority to make a range allocation of up to 5 percent to this asset class. IMB 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. Private Equity, Opportunistic Income, and Real Estate together comprise the Private Markets Pool.

Asset Class	Base Allocation	Strategic Allocation
Equity	60.0%	55.0%
Private Equity	0.0%	10.0%
Fixed Income	40.0%	15.0%
Opportunistic Income	0.0%	0.0%
Hedge Fund	0.0%	10.0%
Real Estate	0.0%	10.0%

Progression of Plan Balance

June 30, 2019	\$ 212,655
Contributions Withdrawals	 833 (4,637)
Net	(3,804)
Investment income	6
Net appreciation	6,841
June 30, 2020	\$ 215,698

Asset Allocation	Amount	Percent of Total
Domestic Equity	\$ 54,393	25.3%
International Qualified	13,901	6.4
International Equity	39,701	18.4
Short-Term Fixed Income	445	0.2
Total Return Fixed Income	17,942	8.3
Core Fixed Income	8,010	3.7
Private Markets	59,992	27.8
Hedge Fund	21,314	9.9
Total	\$ 215,698	100.0%

INVESTMENT PERFORMANCE

Period	Actual	Target
One-year	3.3%	7.5%
Three-year	6.3%	7.5%
Five-year	6.8%	7.5%
Ten-year	8.9%	7.5%
Twenty-year	6.6%	7.5%

Municipal Police Officers' and Firefighters' Retirement System (MPFRS) was created in 2010 for the purpose of providing retirement benefits for municipal police officers and paid professional firefighters hired into covered employment by participating municipalities on or after January 1, 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 7.5 percent per annum, net of fees.
- Maintain adequate liquidity to satisfy benefit payments while not subjecting 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, fixed income, and opportunistic income asset classes. The range authority for public equities and fixed income is defined in the IMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. The Base and Strategic Allocations to opportunistic income are 0 percent, but the Allocation Committee has the authority to make a range allocation of up to 5 percent to this asset class. IMB 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. Private Equity, Opportunistic Income, and Real Estate together comprise the Private Markets Pool.

Asset Class	Base Allocation	Strategic Allocation
Equity	60.0%	55.0%
Private Equity	0.0%	10.0%
Fixed Income	40.0%	15.0%
Opportunistic Income	0.0%	0.0%
Hedge Fund	0.0%	10.0%
Real Estate	0.0%	10.0%

Progression of Plan Balance

June 30, 2019	\$ 11,090
Contributions Withdrawals	3,162 (20)
Net	3,142
Investment income Net appreciation	3 434
June 30, 2020	\$ 14,669

Asset Allocation	Amount	Percent of Total
Domestic Equity	\$ 3,664	25.0%
International Qualified	891	6.1
International Equity	2,704	18.4
Short-Term Fixed Income	499	3.4
Total Return Fixed Income	1,330	9.1
Core Fixed Income	593	4.0
Private Markets	3,584	24.4
Hedge Fund	 1,404	9.6
Total	\$ 14,669	100.0%

INVESTMENT PERFORMANCE

Period	Actual	Target
One-year	3.4%	7.5%
Three-year	6.3%	7.5%
Five-year	6.7%	7.5%
Ten-year	6.9%	7.5%

West Virginia Code §8-22-22 offers municipalities the ability to invest Policemen's or Firemen's Pension and Relief Funds established under West Virginia Code §8-22 in the investment pools operated by the IMB. 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 IMB received monies from the first municipality on July 17, 2013.

MUNICIPAL RETIREMENT PLANS INVESTMENT ALLOCATIONS

The IMB investment staff has created various model allocations that utilize percentage mixes of the investment pools operated by the IMB. The models can be found in the tables below. The IMB 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 that includes, but is not limited to, actuarial studies, cash flow projections, etc. The IMB may change the allocation within an established range for the public equity, fixed income, and opportunistic income asset classes. The range authority for public equities and fixed income is defined in the IMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively. The model allocation to opportunistic income is 0%, but the IMB has the authority to make an allocation of up to 5 percent to this asset class. IMB 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. Private Equity, Opportunistic Income, and Real Estate together comprise the Private Markets Pool.

The potential investment models include:

	Investment Allocation Percentages					
Investment Type	Model A	Model B	Model C	Model D	Model E	Model F
Equity	55%	70%	50%	65%	35%	55%
Fixed Income	15%	30%	30%	35%	35%	45%
Opportunistic Income	0%	0%	0%	0%	0%	0%
Hedge Fund	10%	0%	10%	0%	10%	0%
Private Equity	10%	0%	5%	0%	10%	0%
Real Estate	10%	0%	5%	0%	10%	0%

The following IMB Investment Pools may be used for these Investment Types. The weighting and allocation of the Pools within each Investment Type is determined by the Board as expressed in the IMB's Investment Policy Statement.

Equity

- Domestic Equity
- International Qualified
- International Equity

Fixed Income

- Total Return Fixed Income
- Core Fixed Income

Opportunistic Income

• Private Markets

Hedge Fund

• Hedge Fund

Private Equity

• Private Markets

Real Estate

• Private Markets

Cash

• Short-Term Fixed Income (exact allocations to be determined based on plan needs)

SUMMARY OF PLAN BALANCES (in \$000s)

	Amount
Model A: Town of Belle Policemen's Pension and Relief Fund City of Chester Policemen's Pension and Relief Fund	\$ 1,353 1,617
Model C: City of Williamson Policemen's Pension and Protection Fund	1,222
Model D: Williamson Firemen's Pension and Relief Fund	1,659
Model F: The Policemen's Pension and Relief Fund of Point Pleasant Total	\$ <u>1,570</u> 7,421

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 7.5 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, fixed income, and opportunistic income asset classes. The range authority for public equities and fixed income is defined in the IMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. The Base and Strategic Allocations to opportunistic income are 0 percent, but the Allocation Committee has the authority to make a range allocation of up to 5 percent to this asset class. IMB 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. Private Equity, Opportunistic Income, and Real Estate together comprise the Private Markets Pool.

Asset Class	Base Allocation	Strategic Allocation
Equity	60.0%	55.0%
Private Equity	0.0%	10.0%
Fixed Income	40.0%	15.0%
Opportunistic Income	0.0%	0.0%
Hedge Fund	0.0%	10.0%
Real Estate	0.0%	10.0%

Progression of Plan Balance

June 30, 2019	\$ 6,895,387
Contributions	162,837
Withdrawals	(374,450)
Net	(211,613)
Investment income	310
Net appreciation	215,045
June 30, 2020	\$ 6,899,129

Asset Allocation	Amount		Percent of Total
Domestic Equity	\$	1,736,978	25.2%
International Qualified		441,466	6.4
International Equity		1,269,763	18.4
Short-Term Fixed Income		22,498	0.3
Total Return Fixed Income		561,216	8.1
Core Fixed Income		252,421	3.7
Private Markets		1,932,867	28.0
Hedge Fund		681,920	9.9
Total	\$	6,899,129	100.0%

INVESTMENT PERFORMANCE

Period	Actual	Target
One-year	3.2%	7.5%
Three-year	6.3%	7.5%
Five-year	6.8%	7.5%
Ten-year	8.9%	7.5%
Twenty-year	6.6%	7.5%

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 7.5 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, fixed income, and opportunistic income asset classes. The range authority for public equities and fixed income is defined in the IMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. The Base and Strategic Allocations to opportunistic income are 0 percent, but the Allocation Committee has the authority to make a range allocation of up to 5 percent to this asset class. IMB 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. Private Equity, Opportunistic Income, and Real Estate together comprise the Private Markets Pool.

Asset Class	Base Allocation	Strategic Allocation
Equity	60.0%	55.0%
Private Equity	0.0%	10.0%
Fixed Income	40.0%	15.0%
Opportunistic Income	0.0%	0.0%
Hedge Fund	0.0%	10.0%
Real Estate	0.0%	10.0%

Progression of Plan Balance

June 30, 2019	\$ 689,820
Contributions Withdrawals	9,380 (44,846)
Net	 (35,466)
Investment income Net appreciation	 61 21,193
June 30, 2020	\$ 675,608

Asset Allocation	Amount	Percent of Total
Domestic Equity	\$ 167,274	24.7%
International Qualified	42,449	6.3
International Equity	121,674	18.0
Short-Term Fixed Income	13,880	2.1
Total Return Fixed Income	51,961	7.7
Core Fixed Income	22,543	3.3
Private Markets	189,943	28.1
Hedge Fund	 65,884	9.8
Total	\$ 675,608	100.0%

INVESTMENT PERFORMANCE

Period	Actual	Target
One-year	3.2%	7.5%
Three-year	6.3%	7.5%
Five-year	6.8%	7.5%
Ten-year	8.9%	7.5%
Twenty-year	6.6%	7.5%

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 7.5 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, fixed income, and opportunistic income asset classes. The range authority for public equities and fixed income is defined in the IMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. The Base and Strategic Allocations to opportunistic income are 0 percent, but the Allocation Committee has the authority to make a range allocation of up to 5 percent to this asset class. IMB 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. Private Equity, Opportunistic Income, and Real Estate together comprise the Private Markets Pool.

Asset Class	Base Allocation	Strategic Allocation
Equity	60.0%	55.0%
Private Equity	0.0%	10.0%
Fixed Income	40.0%	15.0%
Opportunistic Income	0.0%	0.0%
Hedge Fund	0.0%	10.0%
Real Estate	0.0%	10.0%

Progression of Plan Balance

June 30, 2019	\$ 207,102
Contributions Withdrawals	7,637 (827)
Net	6,810
Investment income	8
Net appreciation June 30, 2020	\$ 7,001 220,921

Asset Allocation	Amount	Percent of Total
Domestic Equity	\$ 55,819	25.2%
International Qualified	14,522	6.6
International Equity	40,508	18.3
Short-Term Fixed Income	1,296	0.6
Total Return Fixed Income	19,113	8.7
Core Fixed Income	8,425	3.8
Private Markets	59,552	27.0
Hedge Fund	 21,686	9.8
Total	\$ 220,921	100.0%

INVESTMENT PERFORMANCE

Period	Actual	Target
One-year	3.3%	7.5%
Three-year	6.3%	7.5%
Five-year	6.8%	7.5%
Ten-year	8.9%	7.5%
Twenty-year	6.6%	7.5%

The Teachers' Retirement System (TRS) was created in 1941. It was closed to new members in 1991, but reopened to firsttime 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 7.5 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, fixed income, and opportunistic income asset classes. The range authority for public equities and fixed income is defined in the IMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. The Base and Strategic Allocations to opportunistic income are 0 percent, but the Allocation Committee has the authority to make a range allocation of up to 5 percent to this asset class. IMB 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. Private Equity, Opportunistic Income, and Real Estate together comprise the Private Markets Pool.

Asset Class	Base Allocation	Strategic Allocation
Equity	60.0%	55.0%
Private Equity	0.0%	10.0%
Fixed Income	40.0%	15.0%
Opportunistic Income	0.0%	0.0%
Hedge Fund	0.0%	10.0%
Real Estate	0.0%	10.0%

Progression of Plan Balance

June 30, 2019	\$ 7,836,785
Contributions	520,000
Withdrawals	 (778,183)
Net	(258,183)
Investment income	519
Net appreciation	 240,954
June 30, 2020	\$ 7,820,075

Asset Allocation	Amount		Percent of Total
Domestic Equity	\$	1,946,889	24.9%
International Qualified		494,158	6.3
International Equity		1,425,786	18.2
Short-Term Fixed Income		118,108	1.5
Total Return Fixed Income		616,988	7.9
Core Fixed Income		275,831	3.5
Private Markets		2,177,942	27.9
Hedge Fund		764,373	9.8
Total	\$	7,820,075	100.0%

INVESTMENT PERFORMANCE

Period	Actual	Target
One-year	3.2%	7.5%
Three-year	6.3%	7.5%
Five-year	6.8%	7.5%
Ten-year	8.9%	7.5%
Twenty-year	6.4%	7.5%

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 IMB'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%

* *IMB* 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.

Progression of Plan Balance

June 30, 2019	\$ 158,696
Contributions Withdrawals	 -
Net	-
Investment income	103
Net appreciation	 5,863
June 30, 2020	\$ 164,662

Asset Allocation	Amount	Percent of Total
Domestic Equity	\$ 25,684	15.6%
International Nonqualified	5,933	3.6
International Equity	19,416	11.8
Short-Term Fixed Income	7,863	4.8
Total Return Fixed Income	40,013	24.3
Core Fixed Income	16,907	10.3
TIPS	16,161	9.8
Hedge Fund	 32,685	19.8
Total	\$ 164,662	100.0%

INVESTMENT PERFORMANCE

Period	Actual
One-year	3.8%
Three-year	4.5%
Five-year	4.4%
Ten-year	5.5%

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 runoff 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 5.0 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 IMB'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%

* *IMB 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.*

Progression of Plan Balance

June 30, 2019	\$ 238,605
Contributions Withdrawals	 2,501 (25,372)
Net	(22,871)
Investment income Net appreciation	 134 7,849
June 30, 2020	\$ 223,717

Asset Allocation	Amount	Percent of Total
Domestic Equity	\$ 34,769	15.7%
International Nonqualified	8,262	3.7
International Equity	25,935	11.6
Short-Term Fixed Income	12,860	5.7
Total Return Fixed Income	53,316	23.8
Core Fixed Income	22,466	10.0
TIPS	22,242	9.9
Hedge Fund	 43,867	19.6
Total	\$ 223,717	100.0%

INVESTMENT PERFORMANCE

Period	Actual	Target
One-year	3.7%	5.0%
Three-year	4.4%	5.0%
Five-year	4.4%	5.0%
Ten-year	5.4%	5.0%
Twenty-year	5.5%	5.0%

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 IMB 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 IMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. IMB 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%

Progression of Plan Balance

June 30, 2019	\$ 225,314
Contributions Withdrawals	 91,000 (60,000)
Net	31,000
Investment income Net appreciation	28 4,044
June 30, 2020	\$ 260,386

Asset Allocation	Amount	Percent of Total
Domestic Equity	\$ 27,301	10.4%
International Nonqualified	7,161	2.8
International Equity	19,678	7.6
Short Term Fixed Income	51,000	19.6
Total Return Fixed Income	58,208	22.4
Core Fixed Income	24,557	9.4
TIPS	30,849	11.8
Hedge Fund	 41,632	16.0
Total	\$ 260,386	100.0%

INVESTMENT PERFORMANCE

Period	Actual
One-year	4.2%
Three-year	4.6%
Five-year	4.5%
Ten-year	5.4%

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 IMB 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 7.5 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, fixed income, and opportunistic income asset classes. The range authority for public equities and fixed income is defined in the IMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. The Base and Strategic Allocations to opportunistic income are 0 percent, but the Allocation Committee has the authority to make a range allocation of up to 5 percent to this asset class. IMB 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. Private Equity, Opportunistic Income, and Real Estate together comprise the Private Markets Pool.

Asset Class	Base Allocation	Strategic Allocation
Equity	60.0%	55.0%
Private Equity	0.0%	10.0%
Fixed Income	40.0%	15.0%
Opportunistic Income	0.0%	0.0%
Hedge Funds	0.0%	10.0%
Real Estate	0.0%	10.0%

Progression of Plan Balance

June 30, 2019	\$ 1,001,570
Contributions Withdrawals	 190,000 (70,000)
Net	120,000
Investment income	87
Net appreciation	28,571
June 30, 2020	\$ 1,150,228

Asset Allocation	Amount	Percent of Total
Domestic Equity	\$ 275,410	23.9%
International Nonqualified	73,848	6.4
International Equity	198,284	17.2
Short Term Fixed Income	80,000	7.0
Total Return Fixed Income	100,930	8.8
Core Fixed Income	43,026	3.7
Private Markets	273,197	23.8
Hedge Fund	 105,533	9.2
Total	\$ 1,150,228	100.0%

INVESTMENT PERFORMANCE

Period	Actual
One-year	3.4%
Three-year	6.4%
Five-year	6.9%
Ten-year	8.0%

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 IMB'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%

* *IMB* 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.

Progression of Plan Balance

June 30, 2019	\$ 1,105,721
Contributions Withdrawals Net	 8,469 (142,896) (134,427)
Investment income Net appreciation June 30, 2020	\$ 611 41,284 1,013,189

Asset Allocation	Amount	Percent of Total
Domestic Equity	\$ 161,541	16.1%
International Nonqualified	34,504	3.4
International Equity	124,043	12.2
Short-Term Fixed Income	29,276	2.9
Total Return Fixed Income	284,974	28.1
Core Fixed Income	122,947	12.1
TIPS	102,620	10.1
Hedge Fund	153,284	15.1
Total	\$ 1,013,189	100.0%

INVESTMENT PERFORMANCE

Period	Actual
One-year	4.1%
Three-year	4.6%
Five-year	4.7%
Ten-year	5.1%

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 IMB'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%

* *IMB* 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.

Progression of Plan Balance

June 30, 2019	\$ 34,206
Contributions Withdrawals	 28 (1,347)
Net	(1,319)
Investment income Net appreciation	21 1,207
June 30, 2020	\$ 34,115

Asset Allocation	Amount	Percent of Total
Domestic Equity	\$ 5,337	15.7%
International Nonqualified	1,238	3.6
International Equity	4,040	11.8
Short-Term Fixed Income	1,486	4.4
Total Return Fixed Income	8,296	24.3
Core Fixed Income	3,540	10.4
TIPS	3,378	9.9
Hedge Fund	 6,800	19.9
Total	\$ 34,115	100.0%

INVESTMENT PERFORMANCE

Period	Actual
One-year	3.7%
Three-year	4.5%
Five-year	4.4%
Ten-year	4.9%

The Workers' Compensation Self-Insured Security Risk Pool (Security Pool) was established on January 1, 2006, and initially funded with the IMB 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 IMB'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%

* *IMB* 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.

Progression of Plan Balance

June 30, 2019	\$ 52,220
Contributions Withdrawals	 55 (3,602)
Net	(3,547)
Investment income	31
Net appreciation	1,801
June 30, 2020	\$ 50,505

Asset Allocation	Amount	Percent of Total
Domestic Equity	\$ 7,917	15.8%
International Nonqualified	1,827	3.6
International Equity	5,981	11.8
Short-Term Fixed Income	2,188	4.3
Total Return Fixed Income	12,264	24.3
Core Fixed Income	5,238	10.4
TIPS	5,018	9.9
Hedge Fund	 10,072	19.9
Total	\$ 50,505	100.0%

INVESTMENT PERFORMANCE

Period	Actual
One-year	3.7%
Three-year	4.5%
Five-year	4.5%

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 IMB'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%	30.0%
TIPS	0.0%	10.0%
Hedge Fund	0.0%	20.0%
Cash*	0.0%	10.0%

* *IMB 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.*

Progression of Plan Balance

June 30, 2019	\$ 13,468
Contributions Withdrawals	561 (493)
Net	 68
Investment income Net appreciation	 18 451
June 30, 2020	\$ 14,005

Asset Allocation	Amount	Percent of Total
Domestic Equity	\$ 2,178	15.4%
International Nonqualified	503	3.6
International Equity	1,647	11.8
Short-Term Fixed Income	1,408	10.1
Total Return Fixed Income	2,883	20.6
Core Fixed Income	1,245	8.9
TIPS	1,371	9.8
Hedge Fund	 2,770	19.8
Total	\$ 14,005	100.0%

INVESTMENT PERFORMANCE

Period	Actual
One-year	3.5%
Three-year	4.3%
Five-year	4.2%
Ten-year	4.6%

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

BCDA is expected to experience no cash outflows for the next five years. Large cash inflows are expected but on an ad hoc basis emanating from land sales in excess of expenses.

INVESTMENT OBJECTIVES

The investment objectives are as follows:

- Meet or exceed 7.5 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, fixed income, and opportunistic income asset classes. The range authority for public equities and fixed income is defined in the IMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. The Base and Strategic Allocations to opportunistic income are 0 percent, but the Allocation Committee has the authority to make a range allocation of up to 5 percent to this asset class. IMB 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. Private Equity, Opportunistic Income, and Real Estate together comprise the Private Markets Pool.

Asset Class	Base Allocation	Strategic Allocation
Equity	60.0%	55.0%
Private Equity	0.0%	10.0%
Fixed Income	40.0%	15.0%
Opportunistic Income	0.0%	0.0%
Hedge Fund	0.0%	10.0%
Real Estate	0.0%	10.0%

Progression of Plan Balance

June 30, 2019	\$ 6,177
Contributions Withdrawals	-
Net	-
Investment income	-
Net appreciation	 201
June 30, 2020	\$ 6,378

Asset Allocation	Amount	Percent of Total
Domestic Equity	\$ 1,613	25.3%
International Nonqualified	398	6.2
International Equity	1,190	18.7
Total Return Fixed Income	554	8.7
Core Fixed Income	238	3.7
Private Markets	1,756	27.5
Hedge Fund	629	9.9
Total	\$ 6,378	100.0%

INVESTMENT PERFORMANCE

Period	Actual	Target
One-year	3.2%	7.5%
Three-year	6.3%	7.5%

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 IMB 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 IMB. 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 IMB. The West Virginia State Budget Office will monitor these asset balances and will direct both the IMB 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 IMB)

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 IMB's Investment Policy Statement for the Fixed Income Pool Appendix C. IMB 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.

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.

Progression of Plan Balance

June 30, 2019	\$ 197,342
Contributions Withdrawals	61,294
Net	 61,294
Investment income Net appreciation	 94 13,291
June 30, 2020	\$ 272,021

Asset Allocation	Amount	Percent of Total
Short Term Fixed Income	\$ 272,021	100.0%

INVESTMENT PERFORMANCE

Period	Actual
One-year	5.7%
Three-year	4.4%
Five-year	3.6%
Ten-year	3.6%

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 IMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. IMB 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%

Progression of Plan Balance

June 30, 2019	\$ 465,189
Contributions Withdrawals	-
Net	-
Investment income Net appreciation June 30, 2020	\$ 27,766 492,955

Asset Allocation	Amount	Percent of Total
Domestic Equity	\$ 57,971	11.8%
International Nonqualified	15,135	3.1
International Equity	41,835	8.5
Total Return Fixed Income	189,529	38.4
Core Fixed Income	79,490	16.1
TIPS	 108,995	22.1
Total	\$ 492,955	100.0%

INVESTMENT PERFORMANCE

Period	Actual
One-year	6.0%
Three-year	5.1%
Five-year	5.1%
Ten-year	5.7%

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 IMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. IMB 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%

Progression of Plan Balance

June 30, 2019	\$ 204,701
Contributions Withdrawals	6,783 (16,493)
Net	(9,710)
Investment income Net appreciation	53 5,865
June 30, 2020	\$ 200,909

Asset Allocation	Amount		Percent of Total
Domestic Equity	\$	41,484	20.7%
International Nonqualified		9,647	4.8
International Equity		31,346	15.6
Total Return Fixed Income		55,505	27.6
Core Fixed Income		23,326	11.6
Hedge Fund		39,601	19.7
Total	\$	200,909	100.0%

INVESTMENT PERFORMANCE

Period	Actual
One-year	3.0%
Three-year	4.5%
Five-year	4.8%

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 IMB 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 IMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. IMB 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%

Progression of Plan Balance

June 30, 2019	\$ 9,258
Contributions	-
Withdrawals	 (338)
Net	(338)
Investment income	-
Net appreciation	 133
June 30, 2020	\$ 9,053

Asset Allocation	Amount		Percent of Total
Domestic Equity	\$	3,055	33.7%
International Nonqualified		758	8.4
International Equity		2,252	24.9
Total Return Fixed Income		866	9.6
Core Fixed Income		366	4.0
Hedge Fund		1,756	19.4
Total	\$	9,053	100.0%

INVESTMENT PERFORMANCE

The IMB 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	1.5%	7.0%
Three-year	4.5%	7.0%
Five-year	5.2%	7.0%

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The West Virginia Prepaid Tuition Trust Fund (Tuition Trust) was established in 1997 with the objective of enhancing and improving higher education in the State. The Tuition Trust provided individuals and organizations a means for paying future college tuition and fees in advance at a rate set at current levels. The IMB ceased managing the assets of the Tuition Trust in April 2020.

FINANCIAL HIGHLIGHTS (in \$000s)

Progression of Plan Balance

June 30, 2019	\$ 34,513
Contributions	-
Withdrawals	 (34,954)
Net	(34,954)
Investment income	109
Net appreciation	 332
May 1, 2020	\$ -

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, fixed income, and opportunistic income asset classes. The range authority for public equities and fixed income is defined in the IMB's Investment Policy Statement for the Equity and Fixed Income Pools, respectively Appendix C. The Base and Strategic Allocations to opportunistic income are 0 percent, but the Allocation Committee has the authority to make a range allocation of up to 5 percent to this asset class. IMB 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. Private Equity, Opportunistic Income, and Real Estate together comprise the Private Markets Pool.

Asset Class	Base Allocation	Strategic Allocation
Equity	60.0%	55.0%
Private Equity	0.0%	10.0%
Fixed Income	40.0%	15.0%
Opportunistic Income	0.0%	0.0%
Hedge Fund	0.0%	10.0%
Real Estate	0.0%	10.0%

Progression of Plan Balance

June 30, 2019	\$ 65,000
Contributions Withdrawals	 867 (5,174)
Net	(4,307)
Investment income	1
Net appreciation	 2,005
June 30, 2020	\$ 62,699

Asset Allocation	Amount	Percent of Total
Domestic Equity	\$ 15,754	25.2%
International Nonqualified	3,915	6.2
International Equity	11,608	18.5
Short-Term Fixed Income	84	0.1
Total Return Fixed Income	5,269	8.4
Core Fixed Income	2,269	3.6
Private Markets	17,612	28.1
Hedge Fund	 6,188	9.9
Total	\$ 62,699	100.0%

INVESTMENT PERFORMANCE

Period	Actual	Target
One-year	3.2%	6.0%
Three-year	6.3%	6.0%
Five-year	6.8%	6.0%
Ten-year	8.9%	6.0%
Twenty-year	7.2%	6.0%