

ANNUAL INVESTMENT REPORT

Fiscal Year Ending June 30, 2019



The following report was prepared pursuant to Act 53 of 2008 (Act), which amended various provisions of the Act of April 9, 1929 (P.L. 343, No. 176), known as the Fiscal Code. Specifically, Section 301.3 of the Act requires the State Treasurer to submit an Annual Investment Report by November 30 to the Governor and to the State House and State Senate Chairperson and Minority Chairperson of both the Appropriations and Finance committees for the most recently-ended fiscal year.

Additional information pertaining to the custodial and investment functions performed by the Pennsylvania Treasury, along with an overview of the Commonwealth Investment Program, are also included herein.



TREASURY DEPARTMENT
COMMONWEALTH OF PENNSYLVANIA
HARRISBURG, PA 17120

November 30, 2019

The Honorable Thomas W. Wolf
Governor
Commonwealth of Pennsylvania
Room 225 Main Capitol Building
Harrisburg, Pennsylvania 17120

RE: Pennsylvania Treasury Annual Investment Report

Dear Governor Wolf:

I am pleased to present the Pennsylvania Treasury 2019 Annual Investment Report pursuant to Act 53 of 2008.

As State Treasurer it is my fiduciary responsibility to oversee Commonwealth investments and ensure that all funds are carefully monitored and the most prudent investment decisions are made for the best interest of Pennsylvania taxpayers.

Treasury increased transparency around public investing again this fiscal year, adding new disclosures of all asset management fees. These fees are expected to decline substantially as Treasury transitions out of hedge fund investing. This brings previously unreported fees, such as carried interest, to light. Such fees for the 2018-2019 fiscal year totaled \$10,568,584.37, and will be included in this and other annual reports going forward. Treasury distributed a total of \$257,069,142 to pool participants during the same time period. This included \$172,695,819 from the Short Term Investment Pool (STIP or Pool 99) and \$84,373,323 from the Long Term Investment Pool (LTIP or Pool 198).

Treasury continues to see tremendous growth in consumer savings programs. 2018 saw the most annual contributions in the history of the PA 529 College and Career Savings Program. Since taking office, I have taken significant steps to improve the plan, including hiring an investment consultant, increasing international diversification and reducing fees for families. These improvements resulted in the PA 529 Investment Plan's new Morningstar Bronze RatingTM—a first in the program's history.

PA ABLE is the largest program in the National ABLE Alliance, helping Pennsylvanians with disabilities and their families save. PA ABLE assets have more than doubled in the past year.

Treasury continues to engage with companies it invests in and demands responsible corporate governance to ensure the security of those Commonwealth funds. We have joined with other shareholders to call for changes and hold leading companies, such as Facebook, accountable for their actions. Treasury works closely with the Investors for Opioid Accountability, pushing for action by drug manufacturers and distributors to change governance practices to combat the opioid epidemic. This year we have been part of successful campaigns to bring change at Walgreens and Amerisource Bergen. Walgreens has agreed to provide continued reporting about how it manages opioid-related risks, while Amerisource announced the separation of its CEO and Board Chair roles. All of these actions are steps to protect Pennsylvanians and their tax dollars.

As State Treasurer I have initiated a lawsuit, joined by other institutional investors, against some of the biggest banks, alleging them of price fixing Fannie Mae and Freddie Mac bonds purchased frequently by public investors such as the Commonwealth. To date, Treasury has reached a settlement with three of the accused banks that include monetary compensation to investors, but more importantly requirements of more rigorous reforms to prevent such behavior from undermining investors in the future. These improved practices will ensure that more money benefits Pennsylvania taxpayers and investors, not banks.

All of us at the Treasury Department are committed to serving the people of Pennsylvania, through the prudent, cost-efficient investments of public funds.

If you have any questions, please do not hesitate to contact me.

Sincerely,

Joseph M. Torsella
State Treasurer

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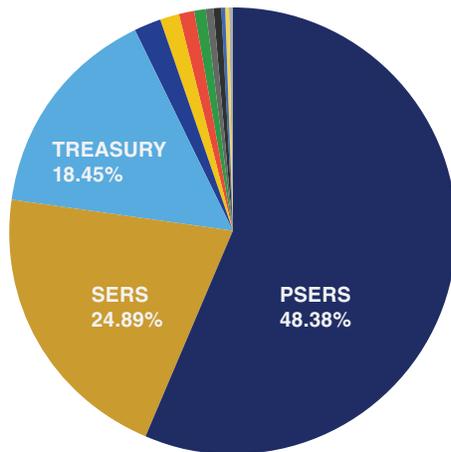


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About the Pennsylvania Treasury

Pennsylvania Treasury

Pennsylvania's Constitution established the Pennsylvania Treasury Department as an independent executive office. The State Treasurer serves as the department's chief executive, as well as the Commonwealth's chief financial officer. In that capacity, the Treasurer serves, among other things, as custodian and investor.



As statutory custodian, the State Treasurer monitors and safeguards virtually all state agency funds, which totaled approximately \$119 billion as of June 30, 2019. The composition of those funds is provided in the following chart. This role also requires the Treasurer to collect interest and dividends, execute securities transactions, and oversee daily trade settlements.

PROGRAMS	NET ASSET VALUE	% UNDER CUSTODY
Public School Employees' Retirement System	\$57,413,857,042	48.38%
State Employees' Retirement System	\$29,533,887,592	24.89%
Treasury Total ⁽¹⁾	\$21,896,881,254	18.45%
Pennsylvania Municipal Retirement System	\$2,625,348,913	2.21%
Refunding Bond Issuances	\$2,056,953,506	1.73%
State Workers' Insurance Fund	\$1,412,001,786	1.19%
Deferred Compensation	\$1,123,638,903	0.95%
Workers' Compensation Security Fund	\$804,517,803	0.68%
Commonwealth Financing Authority	\$795,002,505	0.67%
Post Employment Benefits Other Than Pensions ⁽²⁾	\$540,297,976	0.46%
Underground Storage Tank Indemnification Fund ⁽²⁾	\$247,315,063	0.21%
Pennsylvania Industrial Development Authority ⁽²⁾	\$190,244,786	0.16%
Achieving a Better Life Experience ⁽²⁾	\$17,885,791	0.02%
Deferred Compensation 401A ⁽²⁾	\$3,348,948	0.00%
State Employees' Retirement System Benefit Completion Plan ⁽²⁾	\$776,292	0.00%
TOTAL UNDER CUSTODY	\$118,661,958,162	100.00%*

⁽¹⁾ Treasury Total includes those Treasury programs and pools that directly fall under Treasury's investment authority, including Pool 198, Pool 99, PA 529 College and Career Savings Program, and others.

⁽²⁾ Not reflected in the chart due to the small portfolio NAV in relation to the other portfolios.

* Percentages may not sum to 100% due to rounding.

In his investing function, the Treasurer manages and invests any funds in excess of the Commonwealth's current operational needs, unless those funds are explicitly under the control of another board, commission, or state official.

Investment Philosophy:

Treasury maintains a set of investment beliefs about its own office, the companies and securities in which it invests to earn a return, and the capital markets through which Treasury transacts. These investment beliefs inform specific investment policies and guidelines which guide the investment activities of Treasury as fiduciary of Commonwealth assets for Commonwealth agencies, taxpayers, current and future Pennsylvanians, and other stakeholders. Treasury Investment staff are governed by these investment beliefs in their partnership with managers and in selection of investment securities. In order to integrate fully these investment beliefs, Investment staff partner with Policy, General Counsel, and other offices within Treasury. Treasury Investment Office staff invest across multiple asset classes and security types in their stewardship of investment programs under Prudent Investor guidelines. These beliefs hold across all assets. Treasury investments benefit from well-functioning capital markets, where those investing and seeking investment can do so fairly. Pennsylvania, a large state with significant financial assets, has a responsibility to advance healthy capital markets.

Treasury Investment Beliefs:

- 1. Transparency provides a basis for trust.**
- 2. Accountability enforces trust.**
- 3. Costs have a material impact on returns.**
- 4. Simplicity facilitates responsible stewardship of funds.**
- 5. Time Horizons of portfolios and stakeholders influence portfolio management.**
- 6. Risk is both qualitative and quantitative, and future risks may differ from historical risks.**

When prioritizing issues of investment strategy, Treasury will address issues which are material, consistent with policy and these investment beliefs, and for which the Investment Office has the expertise and capacity to improve outcomes.

Investment Changes in the Last Year:

- 1. Treasury adopted new Investment Policy Statements (IPS) for the Commonwealth Investment Pools and Tuition Account Programs.**

The purpose of an IPS is to outline a philosophy which will guide the investment management of each Pool's assets toward the desired results. The IPS is intended to serve as a reference tool, an operating code, and a communication link among the Treasury, the Investment Consultant, and the Investment Managers.

- a. Separate policies are intended to simplify the governance of the funds and their management.**

2. Treasury hired a new general investment consultant: Marquette Associates.

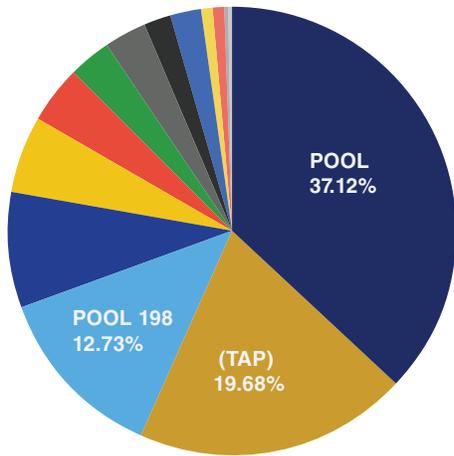
Treasury issued an RFP for investment consulting services, and Marquette won both the technical scoring and the scoring of the cost proposals.

Marquette Associates was founded in 1986, and has over \$182 billion under advisement that include 93 public fund clients with \$61 billion invested.

In addition, Marquette Associates has a robust relationship support team not only for consulting services but also research and reporting.

3. Treasury adapted an asset allocation that increased its exposure to Real Estate and International Equities, while reducing allocations to Domestic Equities, Bank Loans, and Hedge Funds.

The Asset allocation was revised to increase diversification in the portfolio. In addition, during the fiscal year, Treasury reduced the hedge fund assets, subsequently announcing the transition out of hedge funds in November of 2019. This decision comes after a comprehensive analysis of the historical performance of PA Treasury's hedge fund portfolio. The study found that a simple focus on asset allocation, using low-cost and transparent index investments, will allow Treasury to better measure and manage investment risk, providing similar returns with less volatility, and much less expensively. Using simple, low-cost, and liquid investment instruments creates a more efficient portfolio that is easily defined, managed, and rebalanced. The exit out of hedge funds will save taxpayers \$14 million annually and \$404 million over 20 years.



Of the approximately \$119 billion in state agency funds under Treasury custody on June 30, 2019, Treasury directly managed \$25.9 billion, as illustrated here:

PROGRAMS	NET ASSET VALUE	% UNDER CUSTODY
Pool 99	\$9,604,906,012	37.12%
PA 529 College and Career Savings Program (TAP) ⁽¹⁾	\$5,091,754,769	19.68%
Pool 198	\$3,292,620,741	12.73%
Pool 124	\$2,164,219,993	8.36%
State Workers' Insurance Fund	\$1,412,001,786	5.46%
INVEST	\$1,082,155,550	4.18%
Workers' Compensation Security Fund	\$804,517,803	3.11%
Commonwealth Financing Authority	\$795,002,505	3.07%
Float	\$550,279,110	2.13%
Post Employment Benefits Other Than Pensions	\$540,297,976	2.09%
Underground Storage Tank Indemnification Fund	\$247,315,063	0.96%
Pennsylvania Industrial Development Authority	\$190,244,786	0.74%
Fund 65 ⁽²⁾	\$82,090,728	0.32%
Treasury Programs ⁽²⁾	\$10,364,146	0.04%
PENNVEST ⁽²⁾	\$5,349,465	0.02%
PennSEF ⁽²⁾	\$6,255	0.00%
TOTAL DIRECTLY MANAGED	\$25,873,126,690	100.00%*

Pool 99 is the Commonwealth Operating Funds Liquidity Pool.

Pool 198 is the Commonwealth Operating Funds Investment Pool.

Pool 124 is comprised of uninvested cash of Commonwealth agencies' investment managers as of June 30, 2018.

CFA is an independent agency of the Commonwealth administering Pennsylvania's economic stimulus packages.

OPEB is a pool for other post-employment benefits.

PIDA is an independent agency of the Commonwealth that provides low interest loans and lines of credits to eligible businesses that commit to creating and retaining full time jobs and for the development of industrial parks and multi-tenant facilities.

Fund 65 is the Workmen's Compensation Administration Fund.

Treasury Programs are comprised of multiple internally managed programs.

Float is a one-day investment of expended but uncashed payments at Commonwealth depositories.

⁽¹⁾ TAP NAV does not include \$108,095,948 investment in Pool 124. Total TAP NAV including Pool124 investment is \$5,199,850,717.

⁽²⁾ Not reflected in the chart due to the small portfolio NAV in relation to the other portfolios.

* Percentages may not sum to 100% due to rounding.

For fiscal year 2018-19, Treasury had operating budgets of approximately \$45.2 million and an authorized staff of 369 employees (across all line item appropriations under the Treasury Department). The state's current Treasurer, Joseph M. Torsella, took office in January 2017.

In addition to managing funds and investments on behalf of state agencies, the Treasurer's investment function also serves families and local governments, as well as charitable and nonprofit organizations, through three specialized Treasury programs: the ABLE Program, the PA 529 College and Career Savings Program, and the INVEST Program.

Treasury's ABLE program provides individuals with qualified disabilities and their families a tax-advantaged means to save for disability-related expenses while maintaining government benefits. The Pennsylvania ABLE program was authorized by the federal Achieving a Better Life Experience (ABLE) Act of 2013. The ABLE Act amends Section 529 of the Internal Revenue Service Code of 1986. These accounts can be used to cover qualified expenses such as, but not limited to, education, housing and transportation.

The Pennsylvania General Assembly enacted legislation in 2016, signed into law by Governor Wolf, authorizing Treasury to create ABLE accounts under the Federal ABLE Act. Treasury launched PA ABLE in April 2017, and has to date enrolled more than 2,600 accounts with a net asset value of approximately \$18 million, making it the largest in the National ABLE Alliance. PA ABLE funds are invested in products offered by BlackRock, Charles Schwab, Sallie Mae, Vanguard, and in an FDIC insured bank account offered by Fifth Third Bank.

Treasury's PA 529 College Savings Program consists of two plans: the PA 529 Guaranteed Savings Plan (GSP) and the PA 529 Investment Plan (IP). Treasury is responsible for investing contributions to GSP accounts, while savings in the IP are invested in 17 different mutual fund options from The Vanguard Group with oversight from Treasury. As of June 30, 2019, more than 108,200 accounts comprised the PA 529 GSP and over 130,400 accounts used the IP to help save for higher education.

Treasury's INVEST Program is designed specifically to offer a high-quality and liquid investment alternative to local government and nonprofit groups. The program offers two funds: the INVEST Daily Fund and the INVEST Community Fund. The program also offers periodic custom investment opportunities for longer-term investment needs. Treasury administers the INVEST Daily Fund on behalf of local governments within Pennsylvania. The INVEST Community Fund is a very similar fund administered on behalf of participating Pennsylvania nonprofits.

TREASURER'S INVESTMENT AUTHORITY

The Pennsylvania Fiscal Code grants the Treasurer the exclusive management and full power to invest funds that are beyond the ordinary needs of the Commonwealth and that are not otherwise authorized to be invested by any other board, commission or public official. The Treasurer is directed to exercise his authority as a fiduciary with care, skill, prudence and diligence under the circumstances then prevailing, specifically including the general economic conditions and the anticipated needs of the funds.

Treasury's investment mandate means the department must exercise careful judgment when determining which investments are appropriate for each Commonwealth fund based upon different criteria such as income needs, cash flow requirements, investment time horizons, and risk tolerance. These judgments must also take into account different legal standards that limit the particular kinds of investments each fund could hold.

Treasurer Torsella continually seeks quality investments – those that safeguard principal over appropriate time horizons while tracking the performance of benchmarks - in order to maximize the benefits to the Commonwealth and its citizens. At the same time, the Treasurer actively pursues promising investment opportunities that offer a reasonable risk-adjusted rate of return, but also help to strengthen certain strategically important segments of Pennsylvania's economy.

Act 20 of 2019 passed in 2018 extended the standard of time to provide the authority to invest or reinvest the moneys of any fund pursuant to this act to December 31, 2024.

The department's investment staff manages both funds, which do not require minimum investment periods, minimum account balances, or notifications prior to redeeming funds.

Standard and Poor's rates both funds "AAAm" – its highest rating for such funds – signifying the extremely strong capacity of each to maintain principal value and limit exposure to losses due to credit, market, and/or liquidity risks.

The INVEST Program's two pools combined distributed \$19,941,560 in earnings to participants in fiscal year 2018-19. As of June 30, 2019, the INVEST Daily Fund had 468 participants and a net asset value just over \$1 billion, while the INVEST Community Fund had 180 participants and a net asset value of approximately \$63 million.



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Overview of the Commonwealth Investment Program

Short Term Investment Pool – STIP (Pool 99) & Long Term Investment Pool – LTIP (Pool 198)

When managing the Commonwealth's assets, Treasury does more than simply act as a checking account. It looks for opportunities to generate returns using a variety of investment strategies and vehicles. In doing so, it must take into account each operating fund's liquidity needs. Accordingly, Treasury's Commonwealth Investment Program consists of two separate pools.

Short Term Investment Pool – STIP (Pool 99)

STIP (Pool 99) is organized similarly to a money market fund, with an expectation of a stable net asset value (NAV) per share. Pool 99 seeks to maintain a stable NAV per share of \$1.0000. The value of a share in Pool 99 is calculated daily, incorporating all realized and unrealized gains and losses, and any cash returned from investments.

Pool 99 does not directly hold securities, but rather shares of the Consolidated Cash Pool (CCP), a separate investment instrument used to invest all short-term assets of the Commonwealth. Depending on the daily net activity, Pool 99 purchases or sells shares of the CCP at \$1.0000 per share. Income earned on the CCP's investments is accrued daily and distributed monthly to each participant of the CCP.

For fiscal year ending June 30, 2019, Pool 99 returned 2.42%.

Long Term Investment Pool – LTIP (Pool 198)

LTIP (Pool 198) is designed to provide an opportunity for Funds that can sustain a higher degree of volatility to earn higher investment returns. It is intended for agencies that do not have a short-term liquidity need. The primary purpose of Pool 198 is preserving the long-term purchasing power of the funds. Pool 198 can diversify across a wide variety of asset classes with a purpose to conserve and enhance the value of Pool 198 through asset appreciation and income generation, while maintaining a reasonable investment risk profile.

Pool 198 operates much like a mutual fund: depending on market conditions, an account owner who makes a withdrawal may realize a gain or a loss. Shares in Pool 198 are priced at the most recent net asset value per share, which fluctuates daily. Consequently, if a participant's average cost per share (based on its own history of purchases and redemptions) is less than the share price on the day of redemption, the participant will realize a capital gain in the shares redeemed. Conversely, if a participant's average cost per share exceeds the share price on the day of redemption, the participant will realize a capital loss on the shares redeemed.



VS.

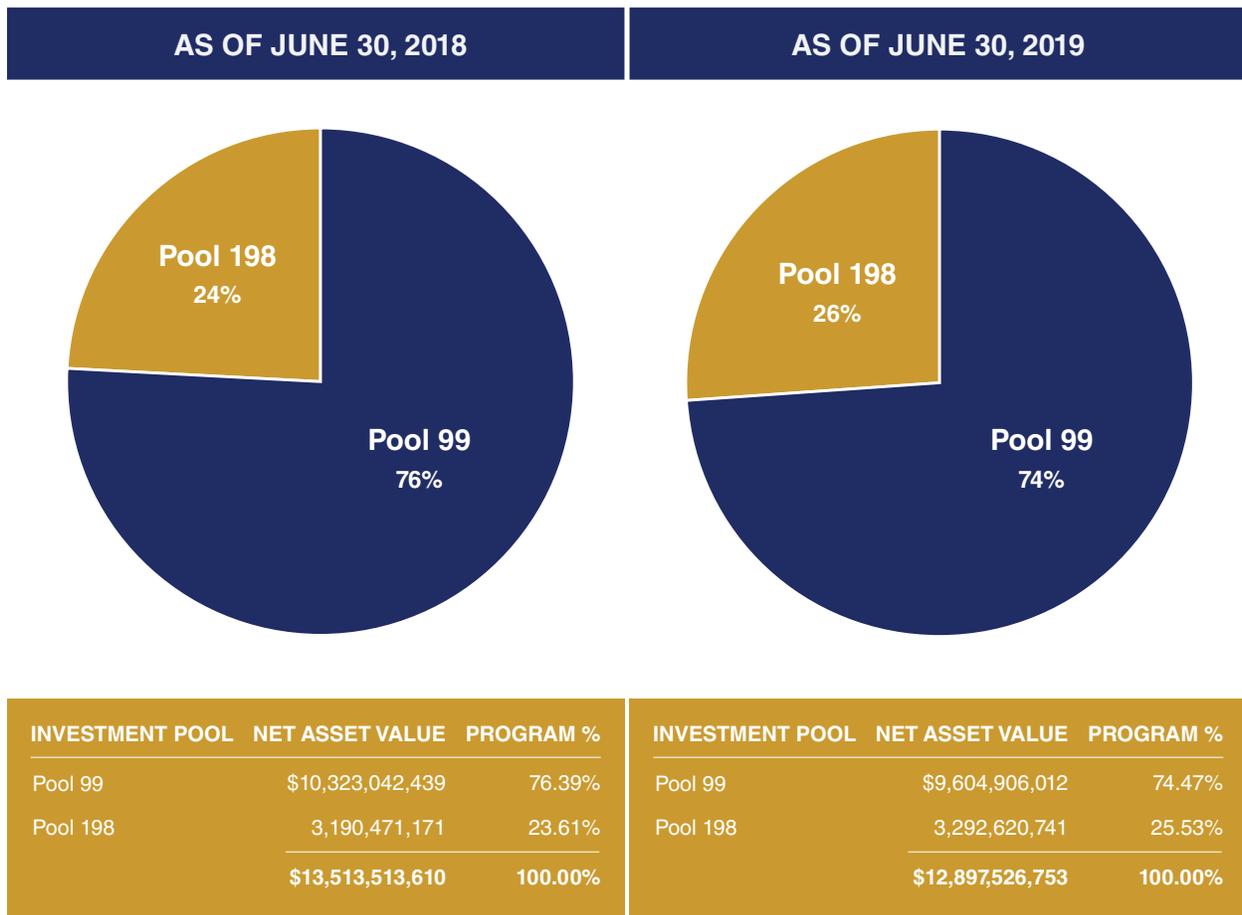


For fiscal year ending June 30, 2019, Pool 198 returned 6.91%.

Fiscal Year 2018-19 Change in Balances

The fiscal year 2018-19 combined balance for the Commonwealth Investment Programs decreased from fiscal year 2017-18. On June 30, 2018, the combined net asset value of Pool 99 and 198 was approximately \$13.51 billion. One year later, the pools' NAV decreased to \$12.90 billion, which represented a decrease of \$616 million, or 4.56%.

As illustrated in the following charts, the balance in Pool 99 decreased by approximately \$718 million, or 6.96%, during this period, while the balance in Pool 198 increased by approximately \$102 million, or 3.20%.



Commonwealth Investment Program Summary

The balance in Pool 99 decreased by approximately \$718 million. The decrease is primarily attributable to outflows of the General Obligation Bond proceeds via the Capital Facilities Fund. The General Fund ended the fiscal year with a balance of \$3,668,447,162 and will be required to transfer approximately \$316 million to the Budget Stabilization Fund by the end of the first quarter of fiscal year 2019-2020.

The balance in Pool 198 increased by approximately \$102 million due to the reinvestment of \$84 million in distributed income as well as market value appreciation.



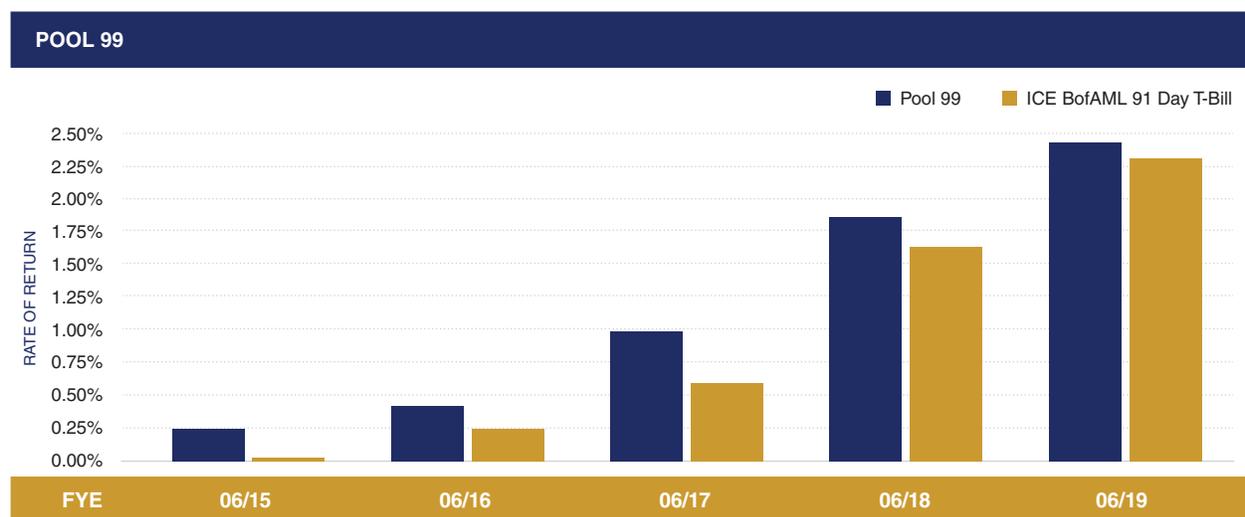
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Statutory Annual Investment Reporting Requirements

Short Term Investment Pool – STIP (Pool 99)

Pool 99 seeks to generate income and minimize investment volatility and therefore invests in only fixed income securities and cash equivalents,¹ such as commercial paper, certificates of deposit, money market funds, and repurchase agreements. The portfolio is managed to not exceed a weighted average maturity (WAM) of 130 days and performance is compared to the ICE Bank of America Merrill Lynch 91 Day Treasury Bill Index—an index that measures the performance of the 3-month U.S. Treasury Bill.

Pool 99's one-year return was 2.42%, which exceeded its benchmark's return of 2.31% by 0.11%. In total, the Short Term Investment Pool distributed \$172,695,819 to its participants during last fiscal year. The graph below shows current and historical fiscal year returns for the Short Term Investment Pool and its benchmark.

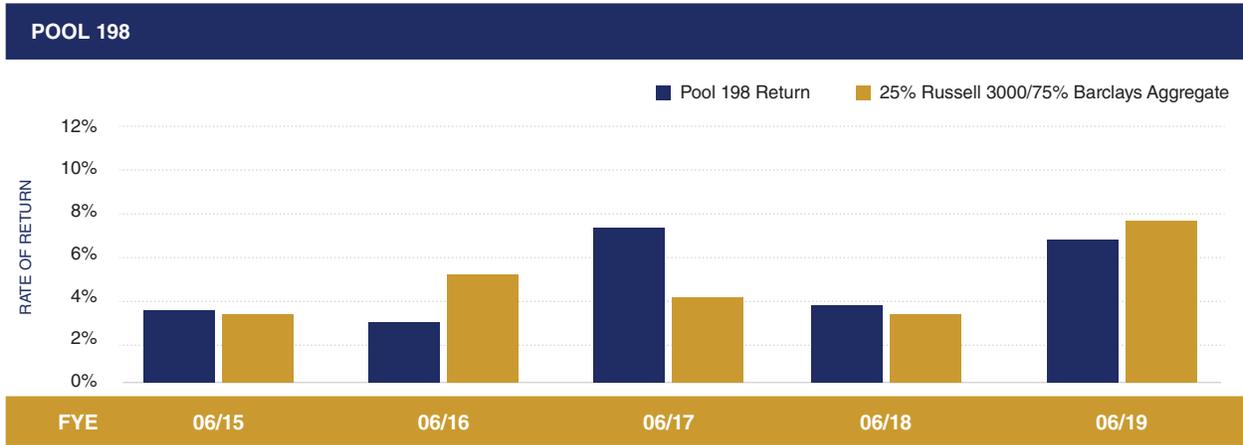


Long Term Investment Pool – LTIP (Pool 198)

Pool 198 seeks to generate both income and capital appreciation over longer periods of time. Treasury is able to invest in a diversified mix of assets due to the longer term nature of the funds.

Pool 198's one-year return was 6.91%, which fell short of the 7.09% return of its policy benchmark and the 7.63% performance of the reference portfolio. The performance is attributed to both the combined Fixed Income and Alternative allocations falling short of the fixed income benchmark, which is 75% of the reference portfolio. Investment earnings distributed to participants of Pool 198 for the fiscal year ended June 30, 2019, totaled \$84,373,323. One-year returns for the Long Term Investment Pool and its benchmark for the most recent and prior four fiscal years are displayed in the graph on the next page.

⁽¹⁾ A portion of the Short Term Investment Pool is invested in time deposits held within Pennsylvania banking institutions.



Long Term Investment Pool: Five-Year Growth

Despite the market volatility over the last several years, the Long Term Investment Pool continued to see strong returns. During the five most recent fiscal years, assets in the Long Term Investment Pool grew due to both earnings and cash flow increases related to participant activity by more than \$794 million.



Quarterly Asset Allocation

The Long Term Investment Pool seeks to generate both income and capital appreciation over longer periods of time. Because of this longer time horizon, Treasury is able to invest in a diversified mix of assets that seek to preserve the long-term purchasing power of the capital invested, with a careful eye on risk management and capital preservation.

Consistent with the investment beliefs discussed earlier, Treasury adopted a new Strategic Asset Allocation, which it began implementing in July 2018. Several important changes were made to the portfolio in an effort to increase diversification of the pool and reduce volatility. These changes involved reducing our allocation to Hedge Funds, Bank Loans, and Domestic Equity, while boosting the allocation to Real Estate and increasing our International Equity diversification using a Global Minimum Volatility investment. The Minimum Volatility investment is a passively managed vehicle, which invests in a global index, but weights the holdings based on volatility instead of market capitalization. The Hedge Fund allocation remained slightly above target because of the illiquid nature of these investments. Real Estate was below target for the first two quarters as Treasury was funding the increased Real Estate exposure by reducing the size of the Bank Loan portfolio, which was not fully transitioned until January.

It is also notable that there was a large liquidity event in the ETI portfolio in December, which resulted in an unusually high cash balance at year-end. The assets were deployed in the Fixed Income portfolio when the portfolio was rebalanced in January, causing the Fixed Income portfolio to be slightly above target for the remainder of the year.

The table below shows the Long Term Investment Pool's actual asset allocations compared to their corresponding targets for the quarters ended on the dates shown.

LONG TERM INVESTMENT POOL ASSET CLASS	TARGET ALLOCATION	9/30/18	12/31/18	TARGET ALLOCATION	3/31/19	6/30/19
Fixed Income	52%	53%	56%	56%	55%	55%
Equity	25%	26%	23%	25%	26%	25%
Alternatives	21%	19%	15%	17%	17%	17%
Cash & Cash Equivalents	2%	2%	6%	2%	2%	3%

Approximately 81% of the Long Term Investment Pool is invested in passive strategies, which utilize exchange-traded funds (ETFs), separately managed accounts (SMAs), and mutual funds to obtain exposure to certain asset classes at a lower cost.

Treasury historically invests a portion of its Long Term Investment Pool in Economically Targeted Investments (ETIs). ETIs afford Treasury an opportunity to benefit Pennsylvania's economy, create jobs, and make progress towards positive policy objectives – all while generating market rates of return on the Commonwealth's assets. Treasury's ETIs include the Keystone Home Energy Loan Program and the PHEAA HelpStart Program. Approximately 2% of the Long Term Investment Pool's assets were invested in ETIs on June 30, 2019.

Investment Performance Standards, Measures and Benchmarks

Treasury applies different benchmarks and risk measures for each class of assets in Pools 99 and 198, a summary of which follows. The department chooses or constructs each benchmark and risk measure to offer a comparative analysis of performance or risk by reflecting a representative asset class or allocation.

Returns by Asset Class

Treasury measures the performance of its asset classes against the respective benchmarks. For the fiscal year ended June 30, 2019, Treasury exceeded its benchmark for Pool 99 by 11 basis points (0.11%). Treasury also exceeded its benchmarks in the Long Term Investment Pool by 261 basis points (2.61%) in Equity, 505 basis points (5.05%) in Real Estate, 152 basis points (1.52%) in Hedge Funds, 34 basis points (0.34%) in ETIs, and 10 basis points (0.10%) in Cash. The Fixed Income portfolio, however, did trail its benchmark by 129 basis points (1.29%).

The Long Term Investment Pool Asset Class Returns (Net of Fees)

ASSET CLASS	BENCHMARK	FY 18-19 RETURN	BENCHMARK RETURN	OVER/UNDER PERFORMANCE VS BENCHMARK
Equity	60% Russell 3000 40% MSCI ACWI ex U.S. Index	8.10%	5.49%	2.61%
Fixed Income	Barclay's Capital U.S. Aggregate Bond Index	6.58%	7.87	-1.29%
Hedge Funds	HFRI Fund of Funds Composite + 50 bp	3.18%	1.66%	1.52%
Real Estate	NCREIF Property Index	11.55%	6.50%	5.05%
ETIs	BofA ML 6 Month Tbill 50 bp	2.90%	2.56%	0.34%
Cash & Cash Equivalents	ICE Bank of America Merrill Lynch 91 Day T-Bill	2.41%	2.31%	0.10%

Treasury invests to track broad asset class benchmarks, and examines all tracking error – positive and negative – carefully. In the Equity portfolio, the outperformance was driven by strong performance of the Global Minimum Volatility Fund, which was added as a way to achieve global diversification while minimizing the volatility inherent in that exposure. We expect outperformance in any given year to be balanced by underperformance in others, so that the long-term results should closely follow the index. In the Fixed income portfolio, our Bank Loan and High Yield investments fell short of their individual benchmarks and the Aggregate Fixed Income market. The Bank Loan portfolio was hampered by two bankruptcies in the portfolio, and the High Yield portfolio also lagged the index in a volatile year for credit. The U.S. Treasury portfolio underperformed because it had less exposure to the long end of the yield curve (30-year Bonds) than the index, and that underweight was exacerbated by tremendous volatility in that sector. Public markets were extremely volatile in the last fiscal year and the Hedge Fund portfolio outperformed its benchmark, but trailed the broader Fixed Income market significantly and has lagged benchmarks in the longer term. Real Estate became a larger weight in the portfolio this year, and outperformed because of the strong performance of the REIT Index. The REIT Index is expected to have more volatility than the NCREIF Property Index because it is more liquid and prices daily, but should produce similar returns to the benchmark over time.

External Investment Managers: Selection, Fees, and Performance

The Pennsylvania Treasury employed seven external investment managers for the Long Term Investment Pool as of June 30, 2019. The list includes principals and key staff, as well as the date each received funding for investments.

Long Term Investment Pool: External Investment Manager List as of June 30, 2019

INVESTMENT MANAGERS	PRINCIPALS/KEY STAFF	TITLE	FUNDING DATE	SELECTION METHOD ⁽¹⁾	ASSET CLASS
Aksia LLC (Aksia manages the COPA Keystone portfolio)	Jim Vos	Chief Executive Officer	01/13	Negotiated	Alternative
	Joseph Larucci	Head of Equity Strategies			
	Simon Fludgate	Head of Operational Due Diligence			
	Matt Mullarkey	Head of Advisory, Americas			
BlackRock	Larry Fink	Chairman, Chief Executive Officer	11/17	Negotiated	Equity
	Rob Kapito	President			
	Gary Shedlin	Chief Financial Officer			
	Christopher Meade	Chief Legal Officer			
Blue Hill Investment Partners, LP	Joyce Ferris	Managing Partner & Founder	11/06	Negotiated	Alternative
	Emily Landsburg	Managing Partner			
	Karen Naughton	Business Manager			
Chartwell Investment Partners	Michael J. McCloskey	Dir. of Client Services, Managing Partner	09/03	Negotiated	Fixed Income
	Timothy J. Riddle	CEO, Managing Partner			
	G. Gregory Hagar	CFO, Managing Partner			
	Michael P. Magee	Chief Operating Officer			
Credit Suisse	Tidjane Thiam	Chief Executive Officer	12/09	Negotiated	Fixed Income
	David Mathers	Chief Financial Officer			
	Pierre-Olivier Bouee	Chief Operating Officer			
	James Amine	CEO Investment Banking & Capital Markets			
Intercontinental	Paul J. Nasser	CFO, COO	08/11	Negotiated	Alternative
	Thomas R. Taranto Jr.	Chief Investment Officer			
	Peter A. Palandjian	Chairman & CEO			
RhumbLine Advisers	Wayne T. Owen	Chief Executive Officer, General Partner	1/16	Negotiated	Equity
	Kim Roger McCant	Chief Financial Officer, General Partner			
	Alexander D. Ryer	Chief Investment Officer			
	John P. Pilgrim	Director of Investment Operations			

⁽¹⁾ The Commonwealth Procurement Code (62 PA.C.S.A. § 515(9)) permits contracts to be awarded for a supply, service or construction item without competition if the contracting officer first determines in writing that the contract is for financial or investment experts to be used and selected by the Treasury Department.

Long Term Investment Pool: External Investment Manager Fees for Fiscal Year 2018-2019

MANAGERS	1ST QUARTER INVOICE AMT.	2ND QUARTER INVOICE AMT.	3RD QUARTER INVOICE AMT.	4TH QUARTER INVOICE AMT.	YTD TOTALS
Aksia (COPA)	\$223,895.43	\$216,072.84	\$219,830.86	\$216,889.07	\$876,688.20
BlackRock	\$14,969.95	\$28,220.57	\$9,897.09	\$9,875.75	\$62,963.36
Blue Hill EEP	\$12,375.00	\$-	\$-	\$-	\$12,375.00
Chartwell	\$48,139.77	\$42,048.97	\$43,163.88	\$43,807.90	\$177,160.52
Credit Suisse Alternative Capital	\$186,786.60	\$186,205.49	\$137,032.67	\$64,087.16	\$574,111.92
Federated	\$17,957.84	\$-	\$-	\$-	\$17,957.84
Intercontinental	\$42,918.76	\$44,038.82	\$44,617.27	\$44,110.13	\$175,684.98
RhumbLine	\$30,761.00	\$34,303.00	\$30,067.00	\$30,582.00	\$125,713.00
Sound Point	\$46,895.00	\$45,909.00	\$6,724.00	\$-	\$99,528.00
TOTALS	\$624,699.35	\$596,798.69	\$491,332.77	\$409,352.01	\$2,122,182.82

ETF / MF / SUB-MANAGERS	CALCULATED ESTIMATES				
Aksia (COPA) Sub-managers*					\$7,052,889.50
iShares Core S&P Small-Cap	\$-	\$2,739.56	\$29,931.94	\$9,490.28	\$42,161.78
iShares CMBS ETF	\$31,086.81	\$31,178.22	\$32,150.14	\$33,856.92	\$128,272.09
iShares 0-5 Year Investment Grade Corp Bond	\$52,594.35	\$54,723.73	\$59,900.01	\$66,561.88	\$233,779.97
iShares MSCI IXUS ETF	\$-	\$-	\$10,040.84	\$9,112.42	\$19,153.26
Vanguard REIT	\$13,171.07	\$20,291.48	\$44,782.53	\$56,402.72	\$134,647.80
Vanguard TIPS Fund Institutional Shares	\$4,356.94	\$4,296.81	\$4,402.94	\$4,531.01	\$17,587.70
Vanguard Mortgage-Backed Securities ETF	\$92,630.04	\$92,781.09	\$94,586.65	\$98,747.78	\$378,745.56
Vanguard Min Volatility Fund Admiral Shares	\$110,148.38	\$105,005.00	\$112,202.52	\$111,807.99	\$439,163.89
ETF & MUTUAL FUNDS SUBTOTAL	\$303,987.59	\$311,015.89	\$387,997.57	\$390,511.00	\$8,446,401.55
GRAND TOTAL	928,686.94	907,814.58	879,330.34	799,863.01	10,568,584.37

* Includes carried interest, profit sharing, and other fees charged to the fund.

Long Term Investment Pool: External Investment Manager Fees and Performance Summary as of June 30, 2019 ⁽¹⁾

INVESTMENT MANAGERS	ASSET CLASS	INVESTMENT MANDATE	FY 18-19 MANAGER FEES	ASSIGNED BENCHMARK	FY 18-19 PORTFOLIO RETURN (Net of Fees)	FY 18-19 BENCHMARK RETURN	OVER/UNDER PERFORMANCE VS. BENCHMARK
Aksia (COPA Keystone)	Alternative	Absolute Return	\$876,688	HFRI Fund of Funds Composite Index + 50bp	3.18	1.66	1.52
BlackRock	Equity	Large Cap Core	\$62,990	S&P 500 Index	10.17	10.42	-0.25
Blue Hill Investment Partners, LP	Alternative	Private Equity	\$-	Cambridge Associates Private Equity Index	0.00	12.95	-12.95
Blue Hill EEP	Alternative	Private Equity	\$12,375	Cambridge Associates Private Equity Index	0.00	12.95	-12.95
Chartwell Investment Partners	Fixed Income	High Yield	\$177,161	ICE BofAML 1-3 Yrs BB-B US High Yield	5.70	6.39	-0.69
Credit Suisse	Fixed Income	Senior Secured Debt	\$574,192	S&P/LSTA Leveraged Loan Total Return Index	3.29	3.97	-0.68
Intercontinental	Alternative	REIT	\$175,685	NCREIF ODCE	7.78	5.47	2.31
PWP RhumbLine MSCI	Equity	Int'l Equity	\$94,862	MSCI ACWI ex USA	1.56	1.29	0.27
PWP RhumbLine Russell	Equity	Large Cap Core	\$30,851	Russell 1000	9.89	10.02	-0.13
Total Fees Paid			\$2,004,805				
			⁽²⁾ Fees Paid to Terminated Managers During FY 18-19	<u>\$117,486</u>			
GRAND TOTAL FEES PAID			\$2,122,290				

⁽¹⁾ Performance information obtained from Marquette Associates.

⁽²⁾ Terminated Fixed Income Managers:

- Federated (July 2018)
- Sound Point (January 2019)

Brokerage Fees

Treasury requires its investment managers to seek the best possible execution of orders through responsible brokerage firms at competitive prices when placing portfolio transaction orders on behalf of the Commonwealth.

In fiscal year 2018-19, 37 brokers placed 6,337 trades, resulting in gross commissions of \$176,511 for the Long Term Investment Pool. On a per-share-basis, the gross equity commissions translated into an average gross commission price of just \$0.0025 per share. A summary of commissions paid to brokers for the Long Term Investment Pool is reflected in the following table.

Long Term Investment Pool: Broker Commissions Fiscal Year 2018-19

BROKER	COMMISSION	BROKER	COMMISSION
BANQUE PARIBAS, PARIS	\$28	INSTINET EUROPE LIMITED, LONDON	\$7,566
BARCLAYS CAPITAL INC./LE, NEW JERSEY	\$104	INSTINET PACIFIC LTD, HONG KONG	\$1,904
BNP PARIBAS SEC SRVS SA, SINGAPORE	\$167	INSTINET, PARIS	\$69
BNY CAPITAL MARKETS INC, NEW YORK	\$59,277	INSTINET, SINGAPORE	\$242
BNY CONVERGEX EXECUTION SOL, NEW YORK	\$617	INVESTMENT TECH GROUP INC, NEW YORK	\$310
BNY CONVERGEX, NEW YORK	\$10,827	ITG INC, NEW YORK	\$10
CABRERA CAPITAL MARKETS, CHICAGO	\$50	J.P. MORGAN SECURITIES LLC, NEW YORK	\$73
CIBC WORLD MKTS INC, TORONTO	\$999	JEFFERIES & CO INC, NEW YORK	\$4,543
CITIGROUP GBL MKTS INC, NEW YORK	\$6	JONESTRADING INST SVCS LLC, NEW YORK	\$960
CITIGROUP GLOBAL MARKETS, INC., NEW YORK	\$52	LIQUIDNET INC, NEW YORK	\$99
COWEN AND CO LLC, NEW YORK	\$8	LOOP CAPITAL MARKETS, JERSEY CITY	\$1,890
CREDIT SUISSE, NEW YORK (CSUS)	\$169	MERRILL LYNCH PIERCE FENNER SMITH INC NY	\$234
DAVIDSON(D A) & CO INC, NEW YORK	-\$161	MORGAN STANLEY & CO INC, NY	\$3,127
DEUTSCHE BK SECS INC, NY (NWSCUS33)	\$335	NATIONAL FINL SVCS CORP, NEW YORK	\$10
EUROCLEAR BANK SA NV, BRUSSELS	\$90	PERSHING LLC, JERSEY CITY	\$75,481
GOLDMAN SACHS & CO, NY	\$79	UBS SECURITIES LLC, STAMFORD	\$18
INSTINET AUSTRALIA CLEARING SERV, SYDNEY	\$642	WELLS FARGO SECURITIES LLC, CHARLOTTE	\$3
INSTINET CLEARING SER INC, NEW YORK	\$6,106	WILLIAMS CAPITAL GROUP LP, JERSEY CITY	\$193
INSTINET CORP, NEW YORK	\$384	TOTAL COMMISSIONS PAID FY 18-19	\$176,511

97.29% of the total trade commissions paid in fiscal year 2018-19, or \$171,720, were made to 10 of the 37 brokers that placed such trades. A list of the top 10 brokers Treasury's external investment managers utilized for Pool 198 appears on the following page.

Top Ten Long Term Investment Pool Broker Commissions Fiscal Year 2018-19

BROKER	COMMISSION
PERSHING LLC, JERSEY CITY	\$75,481
BNY CAPITAL MARKETS INC, NEW YORK	\$59,277
BNY CONVERGEX, NEW YORK	\$10,827
INSTINET EUROPE LIMITED, LONDON	\$7,566
INSTINET CLEARING SER INC, NEW YORK	\$6,106
JEFFERIES & CO INC, NEW YORK	\$4,543
MORGAN STANLEY & CO INC, NY	\$3,127
INSTINET PACIFIC LTD, HONG KONG	\$1,904
LOOP CAPITAL MARKETS, JERSEY CITY	\$1,890
CIBC WORLD MKTS INC, TORONTO	\$999
TOTAL	\$171,720

Security Lending

Treasury makes the portfolios of the Commonwealth Investment Program available for security lending to generate additional revenue for Pennsylvania. In fiscal year 2018-19 the program generated \$222,394 with 0.87% of the Long Term Investment Pool's securities on loan as of June 30, 2019. The table below provides a snapshot of Treasury's Security Lending Program as of that date.

POOL	MARKET VALUE OF LENDABLE SECURITIES	MARKET VALUE OF SECURITIES ON LOAN	% OF LENDABLE SECURITIES ON LOAN
Pool 99	\$-	\$-	0.00%
Pool 198	2,427,955,681	21,144,246	0.87%
TOTAL	\$2,427,955,681	\$21,144,246	

Treasury will only accept cash collateral on loans of securities related to Treasury funds. This cash collateral can be invested in U.S. Treasury notes, bonds, and bills; federal agency securities; and repurchase agreements backed by the above securities subject to a minimum of 102% collateralization with daily updated valuation. As of June 30, 2019, repurchase agreements comprised 100% of the Cash Collateral Reinvestment Pool.

Responsible Investing and Proxy Voting

As an index investor, Treasury is a long-term, universal owner, obligated to consider material governance as well as environmental and social factors to prudently manage risk and return. Rather than divestment, Treasury seeks to actively vote proxy and work with coalitions of like-minded institutional investors to engage with portfolio companies to mitigate risks by promoting good governance and risk management of environmental and social considerations.

Treasury has been actively involved with 11 different coalitions of peer institutional investors, including groups focused on best practices in governance such as the Council of Institutional Investors and Institutional Limited Partners Association, environmental risk (Ceres, Sustainability Accounting Standards Board, We Are Still In, Climate Majority Project), diversity (Thirty Percent Coalition), the opioid crisis (Investors for Opioid Accountability), and firearm responsibility (signatory to Principles for a Responsible Civilian Firearms Industry). Treasury also participates in the National Association of State Treasurers.

Specifically, Treasury's involvement in the Investors for Opioid Accountability coalition brought change at Walgreens and Amerisource Bergen. Walgreens has agreed to provide continued reporting about how it manages opioid-related risks, while Amerisource announced the separation of its CEO and Board Chair roles. All of these actions are steps to protect Pennsylvanians and their tax dollars.

Through equity separately managed accounts which track indices, Treasury is a partial owner of public companies. As an active owner, Treasury votes its shares every year on various topics so that the corporate boards which represent shareholders put in place policies and actions consistent with our interests: long-term value creation. Treasury retains an advisor, Glass Lewis, to assist in the execution of proxy voting consistent with Treasury's Guidelines.

In fiscal year 2018-19, Glass Lewis voted 508 ballots. Those ballots contained 6,394 proposals, of which 6,058 represented management proposals and 336 represented shareholder proposals.

Litigation

Philadelphia Entertainment Development Partners v. Commonwealth – federal bankruptcy action filed in the Eastern District of Pennsylvania. The action seeks the Commonwealth's return of the casino licensing fee to a casino whose license had been revoked. If successful, the Commonwealth would be compelled to return the \$50 million licensing fee, including interest and costs from the General Fund.

Progress:

- The Federal Bankruptcy Court dismissed the case against the Commonwealth. However, the case was appealed to the U.S. District Court for the Eastern District of Pennsylvania.
- The U.S. District Court for the Eastern District affirmed the Bankruptcy Court's ruling.
- In May 2017, the Appellant appealed the case to the Third Circuit Court of Appeals.

- In January 2018, the Third Court reversed and remanded the case back to the Eastern District.
- The Eastern District has since remanded the case back to Bankruptcy Court.
- A series of briefs were filed and a hearing was held on the Defendants' Motion to Dismiss Adversary complaint. The Commonwealth is awaiting a decision.

Likelihood of an Unfavorable Outcome: REMOTE Commonwealth Investment Program Participant Holdings as of June 30, 2019

ACCT	NAME	SHARES	COST BASIS	MV POOL 198	MV POOL 99	TOTAL MV
001	General				3,668,447,162	3,668,447,162
002	Lottery	2,168	2,550	2,918	254,553,050	254,555,968
003	Wild Resource				269,033	269,033
004	Energy Development	3,075,928	3,166,908	4,139,424	319,542	4,458,966
005	State Racing	10,281,555	10,589,602	13,836,380	27,721,513	41,557,893
006	Hazardous Sites Cleanup	34,289,840	37,683,966	46,145,478	25,635,361	71,780,839
007	Highway Beautification				477,223	477,223
008	Environmental Stewardship	71,628,420	76,930,175	96,393,792	38,885,830	135,279,622
009	Recycling Fund	64,587,254	68,596,505	86,918,158	27,726,896	114,645,054
010	Motor License	122,315,392	143,141,948	164,605,676	878,678,887	1,043,284,562
011	Game	32,080,914	33,042,132	43,172,822	50,827,309	94,000,131
012	Fish	51,597,439	55,487,404	69,437,142	21,408,429	90,845,571
013	Banking	12,076,927	12,438,766	16,252,499	25,027,251	41,279,749
014	Milk Marketing Board				3,048,990	3,048,990
015	State Farm Products				3,998,088	3,998,088
016	Oil & Gas Lease	12,213,215	13,636,191	16,435,908	2,491,507	18,927,415
017	State Treasury Armory				1,257,935	1,257,935
018	Historical Preservation				7,791,678	7,791,678
019	PA Infrastructure Bank	29,166,070	30,028,764	39,250,176	2,739,307	41,989,482
020	Surface Mining Conserv.	63,484,761	65,386,839	85,434,481	434,924	85,869,405
021	Special Administration				3,169,367	3,169,367
022	Capitol Restoration Trust				441,149	441,149
023	Vocational Rehabilitation				13,866,962	13,866,962
024	Pharmaceutical Assis	1,260,703	1,298,438	1,696,588	34,760,348	36,456,936
025	Boating	24,208,441	24,933,754	32,578,457	39,303,937	71,882,394
026	Administration				7,062,749	7,062,749
027	Liquid Fuel Tax				3,005,204	3,005,204
028	Liquor License				2,204,798	2,204,798

ACCT	NAME	SHARES	COST BASIS	MV POOL 198	MV POOL 99	TOTAL MV
029	Fire Insurance Tax				74,469,488	74,469,488
030	Volunteer Companies Loan	27,867,589	28,691,850	37,502,748	23,555,810	61,058,558
031	Manufacturing	18,115,391	18,658,149	24,378,748	12,604,342	36,983,090
032	Purchasing				3,360,757	3,360,757
033	Employment for the Blind				2,392,481	2,392,481
034	Industrial Development				104	104
037	PENNVEST Drinking Water	148,806,934	165,923,311	200,256,612	43,286,261	243,542,873
038	CAP. FACILITIES TOTAL				758,896,159	758,896,159
039	Land & Water Development					0
042	PA Economic Revitalization				2	2
044	Land & Water Dev. Sinking					0
045	Sinking				148,725	148,725
049	Tax Note Sinking					0
051	Conrad Weiser Memorial Park				77,397	77,397
052	Judicial Admin Leave				1,152,573	1,152,573
053	PA Historical/Museum Comm.				193,212	193,212
054	Agric. College Land Script				658,724	658,724
055	State College Exper. Farm					0
056	State School					0
058	State Insurance	2,654,202	2,732,192	3,571,887	1,247,819	4,819,705
066	Clean System Upgrade					0
068	Energy Conserv. & Assist					0
069	Workmens' Compen. Super.				419,367	419,367
071	Tobacco Settlement Fund				59,837,572	59,837,572
072	Real Estate Recovery				464,561	464,561
073	Noncoal Surface Mining Conser	6,904,669	7,103,578	9,291,943	33,269	9,325,212
074	Social Security Contribution					0
076	Municipal Pension				324,449,964	324,449,964
077	Supplemental Municipal Pensio					0
078	PA Municipal Employ Retire				2,597,456	2,597,456
079	Higher Ed. Assistance	120,769,271	124,387,659	162,524,987	200,648,761	363,173,748
080	Emergency Med. Oper. Serv.	9,494,292	9,778,748	12,776,923	1,268,000	14,044,924
081	State Restaurant				708,268	708,268
082	State Workmens Insurance				10,408,367	10,408,367
083	Solid Waste					0
084	State Stores				226,279,517	226,279,517
085	Rehabilitation Center				4,936,729	4,936,729

ACCT	NAME	SHARES	COST BASIS	MV POOL 198	MV POOL 99	TOTAL MV
086	Coal & Clay Mine Sub Ins.	93,711,199	98,096,738	126,111,644	23,295,201	149,406,845
087	Coal Lands Improvement				2,089,112	2,089,112
088	Minority Business Development				2,870,257	2,870,257
091	Capital Debt				3,642,976	3,642,976
092	Volunteer Companies					0
093	Budget Stabilization Reserve				23,224,041	23,224,041
094	Tax Stabilization Reserve					0
096	PA Veterans' Memorial Trust				283,838	283,838
097	Anthracite Emergency Bond				703,526	703,526
101	Low Level Waste					0
104	PA Infrastructure Invest. Auth	231,896,722	254,467,967	312,074,515	24,413,244	336,487,759
105	PENNVEST Bonds Authority				6,070,267	6,070,267
106	PENNVEST Revolving					0
107	PENNVEST Nonrevolving Equity					0
108	PENNVEST Redemption				13,491,179	13,491,179
109	PENNVEST Water Pollution	546,583,406	598,211,475	735,563,442	120,824,024	856,387,466
111	Machinery & Equipment Loan	14,207,074	14,632,734	19,119,139	33,222,804	52,341,943
112	Insurance Liquidation				93,134,592	93,134,592
113	Agricultural Conservation				37,396,283	37,396,283
115	Children's Trust				1,627,765	1,627,765
116	Revolving Aid Fund				8,692,935	8,692,935
117	Catastrophic Loss Benefit	77,198,491	79,338,115	103,889,704	43,556	103,933,260
118	Storage Tank Fund				3,300,529	3,300,529
119	Underground Storage Tank	38,494,736	42,208,363	51,804,208	8,473,513	60,277,721
121	Resting Facilities Siting					0
123	Motor Vehicle Trans. Rec.				2,438,204	2,438,204
125	Hazardous Material Response	1,057,612	1,089,300	1,423,280	186,579	1,609,859
127	Local Govt. Cap. Loan				3,806,615	3,806,615
128	Local Sales and Use Tax				27,978,594	27,978,594
129	Pa. Intergovernment Co-op				5,049,251	5,049,251
130	Public Transportation				10,004,221	10,004,221
131	Acid Mine Drain	56,278,379	63,445,378	75,736,507	12,357,080	88,093,587
133	Local Crime Justice					0
134	Local Crime Justice Sink					0
138	Clean Air	34,026,480	35,338,405	45,791,063	1,020,025	46,811,088
139	Home Investment Trust				41,284	41,284
140	Phila Re. Port Auth				1,068,190	1,068,190

ACCT	NAME	SHARES	COST BASIS	MV POOL 198	MV POOL 99	TOTAL MV
141	Port of PGH Commission				2,352,894	2,352,894
144	PENNVEST Trustee					0
145	Remining Environment					0
146	Remining Financial Assurance				4,544,536	4,544,536
147	Environmental Education				2,141,919	2,141,919
148	Self-Ins. Guaranty	48,307,709	49,755,064	65,009,995	15,743,843	80,753,838
149	Keystone Recreation, Park	112,699,209	120,377,744	151,664,718	51,870,069	203,534,788
151	PA Employee Benefit Trust	9,661,542	9,951,013	13,001,999	4,294,650	17,296,649
152	Nutrient Mgmt				1,224,976	1,224,976
153	Allrgh.Reg.Asset Dist.Sales				17,678,529	17,678,529
155	Organ Donation				989,948	989,948
156	Insurance Fraud				5,835,786	5,835,786
157	Automobile Theft Prevention				1,121,589	1,121,589
158	Industrial Sites Cleanup	12,076,927	12,438,766	16,252,499	4,332,292	20,584,791
159	DNA Detection				6,737,460	6,737,460
160	Small Business First	12,854,854	13,240,001	17,299,393	7,323,060	24,622,453
161	Ben Franklin Tech Development				33,313,909	33,313,909
162	M-Care				94,951,833	94,951,833
163	Patient Safety Trust Fund				9,512,976	9,512,976
164	Substance Abuse Education & D	7,297,076	7,515,732	9,820,024	725,211	10,545,235
166	Wireless E-911 Emergency Serv				101,308,302	101,308,302
167	Rightful Owners Claims Paymen				20,851	20,851
168	State Gaming Fund				123,710,346	123,710,346
169	Comp & Problem Gambling				9,107,894	9,107,894
170	Property Tax Relief Fund				439,919,400	439,919,400
171	Pa Gaming Eco Dev & Tourism				30,461,711	30,461,711
172	Pa Race Horse Dev Fund				9,448,861	9,448,861
173	Emergency Energy Assistance F					0
174	Broadband Outreach and Agg					0
175	Education Technology Fund					0
176	Educational Assistance Progra				3,447,764	3,447,764
177	Job Training Fund				372,858	372,858
178	Community College Capital				3,918,551	3,918,551
179	Growing Greener Bond Fund				9,814,454	9,814,454
180	Growing Greener Sinking Fund				5,470	5,470
181	Water Sup/Wastewater Treat				27,414,898	27,414,898
182	Water Sup/Waste Sinking Fund					0

ACCT	NAME	SHARES	COST BASIS	MV POOL 198	MV POOL 99	TOTAL MV
183	Conservation District Fund				2,269,195	2,269,195
184	Uninsured Employers Guar				2,566,172	2,566,172
185	Persian Gulf Con Vet Bond				1,887,223	1,887,223
186	Persian Gulf Con Vet Sinking					0
187	The Public Transportation Tru	245,227,073	282,683,771	330,013,806	87,652,338	417,666,144
188	Neighborhood Improvement				21,687	21,687
190	Fire Prevention & Public Safe					0
191	Cigarette Fire Safety				464,774	464,774
192	Mine Safety Fund				146,479	146,479
193	Water Resources Fund					0
194	Water & Sewer Bond Fund				9,683,480	9,683,480
195	Water & Sewer Sinking				1,917	1,917
196	196 Treasury Initiatives	541,598	597,738	728,854		728,854
197	Spec Juvenile Victim Comp					0
201	Housing Afford & Rehab				495,871	495,871
202	Unconv Gas Well Fund				239,949,989	239,949,989
203	Marcellus Legacy Fund				29,300,368	29,300,368
204	Homeowner Asst Stlmt Fund				10,266	10,266
205	Pa. eHealth Partnership Fund					0
206	Veterans' Trust Fund				2,413,808	2,413,808
207	Justice Reinvestment Fund				1,033,372	1,033,372
208	Insurance				30,490,336	30,490,336
209	Phila. Taxicab Limousine				25,898	25,898
210	Philadelphia Taxicab				6,764	6,764
211	Multimodal Transportation				268,491,156	268,491,156
212	City Revitalization and Improvement				1,904	1,904
213	Local Cigarette Tax				2,355,945	2,355,945
215	Monetary Penalty Endowment	37,289,153	43,619,467	50,181,797	725,434	50,907,231
216	Achieving a Better Life Exp				1,209,805	1,209,805
217	Medical Marijuana Program					0
218	PlanCon Bond Projects Fund				467,047,005	467,047,005
221	Video Gaming Fund				5,712	5,712
222	Fantasy Contest Fund				381,702	381,702
223	School Safety & Security				25,390,076	25,390,076
451	Chester Downs				1,339,275	1,339,275
452	Pocono Downs				1,337,858	1,337,858
453	Philadelphia Park				1,210,538	1,210,538

ACCT	NAME	SHARES	COST BASIS	MV POOL 198	MV POOL 99	TOTAL MV
454	Penn National				1,354,697	1,354,697
455	The Meadows				1,329,263	1,329,263
456	Sugar House Casino				1,552,854	1,552,854
458	PITG Rivers Gaming Casino				1,357,801	1,357,801
459	Mount Airy Casino				1,377,484	1,377,484
460	Sands Bethworks Casino				1,303,444	1,303,444
461	Presque Isle Downs				1,411,595	1,411,595
466	Valley Forge Casino				1,028,103	1,028,103
468	Nemacolin				997,179	997,179
469	Presque Isle - Churchill				1,500,000	1,500,000
470	Nemacolin 3 Churchill Downs				1,000,000	1,000,000
896	196A Treasury Initiatives	83,488	97,922	112,354		112,354
TOTALS		2,446,374,103	2,660,745,123	3,292,202,683	9,586,175,408	12,878,378,091