



PENNSYLVANIA
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ANNUAL INVESTMENT REPORT

Fiscal Year Ending June 30, 2016

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, 2016

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 Annual Investment Report pursuant to Act 53 of 2008.

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

Sincerely,

A handwritten signature in black ink that reads "Timothy A. Reese".

Timothy A. Reese
State Treasurer

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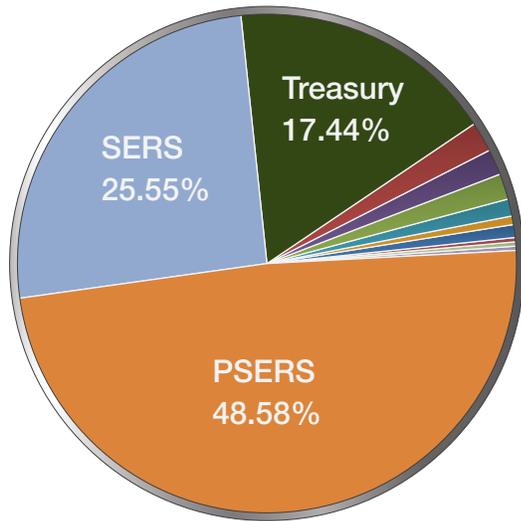
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About the Pennsylvania Treasury

The 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.

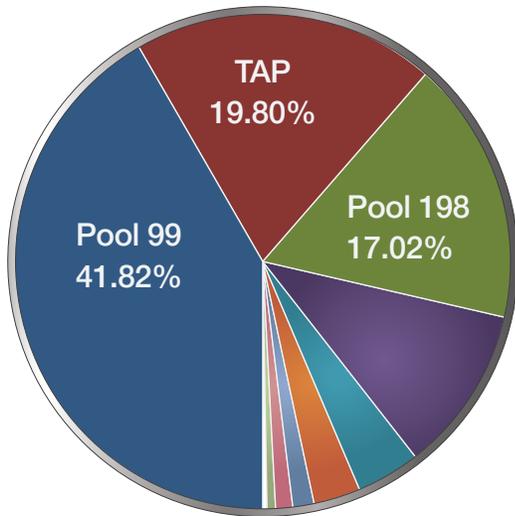


As statutory custodian, the State Treasurer monitors and safeguards virtually all state agency funds, which totaled approximately \$100.6 billion as of June 30, 2016. The composition of those funds is provided in the following chart. This role also requires the Treasurer to collect interest and dividends, execute securities transactions, and handle daily trade settlements.

Programs	Net Asset Value	% Under Custody
Public School Employees’ Retirement System (PSERS)	\$ 48,855,618,391	48.58%
State Employees’ Retirement System (SERS)	\$ 25,697,817,385	25.55%
Treasury Total ⁽¹⁾	\$ 17,538,100,546	17.44%
Pennsylvania Municipal Retirement System (PMRS)	\$ 2,008,320,887	2.00%
Refunding Bond Issuances	\$ 1,656,393,405	1.65%
State Workers’ Insurance Fund (SWIF)	\$ 1,455,664,753	1.45%
Deferred Compensation	\$ 1,114,390,892	1.11%
Workmen’s Compensation Security Fund (WCSF)	\$ 820,958,325	0.82%
Commonwealth Financing Authority (CFA)	\$ 758,717,849	0.75%
Post Employment Benefits Other Than Pensions (OPEB)	\$ 283,128,854	0.28%
Pennsylvania Industrial Development Authority (PIDA)	\$ 205,373,108	0.20%
Underground Storage Tank Indemnification Fund (USTIF)	\$ 172,959,100	0.17%
SERS Benefit Completion Plan (SERS BCP) ⁽²⁾	\$ 3,852,408	0.00%
Total Under Custody	\$100,571,295,902	100%

⁽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 Savings Program, and others.

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



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.

Of the approximately \$100.6 billion in state agency funds under Treasury custody on June 30, 2016, Treasury directly *managed* \$18.3 billion, as illustrated here:

Programs	Net Asset Value	% Under Custody
Pool 99	\$ 7,651,332,918	41.82%
PA 529 College Savings Program (TAP) ⁽¹⁾	\$ 3,621,708,151	19.80%
Pool 198	\$ 3,113,246,421	17.02%
Pool 124	\$ 2,006,165,787	10.97%
CFA	\$ 758,717,849	4.15%
INVEST	\$ 549,569,613	3.00%
OPEB	\$ 283,128,854	1.55%
PIDA	\$ 205,373,108	1.12%
Fund 65	\$ 74,485,312	0.41%
Higher Education Services, Inc (HES) ⁽²⁾	\$ 22,387,625	0.12%
Treasury Programs ⁽²⁾	\$ 9,226,273	0.05%
Float ⁽²⁾	\$ 5,339	0.00%
Total Directly Managed	\$ 18,295,347,251	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, 2016.

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 Workers Compensation Security Fund.

HES is a program that provides investment management services for monies from higher education institutions.

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 \$178,328,453 investment in Pool 124. Total TAP NAV including 124 investment is \$3,800,036,604.

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

For fiscal year 2015-16, Pennsylvania Treasury's General Fund General Government Operations appropriation equaled approximately \$37 million. It ended the fiscal year with a staff of 345 employees. The state's current Treasurer, Timothy A. Reese, was nominated by Governor Wolf and confirmed by the Pennsylvania Senate in June 2015.

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

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 13 different mutual fund options from The Vanguard Group with oversight from Treasury. As of June 30, 2016, more than 108,500 accounts comprised the PA 529 GSP and over 103,000 accounts used the IP to help save for higher education.

Treasury's INVEST Program is designed specifically to offer a safe 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. 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 distributed \$727,022 to participants in fiscal year 2015-16. As of June 30, 2016, there were 479 participants in the two pools.

PRUDENT INVESTOR STANDARD

Act 53 of 2008 modified the Treasurer's investment authority from a "Prudent Person" to a "Prudent Investor" standard, including specific investment criteria accounting for economic conditions, liquidity, maintenance of principal and other factors. The standard requires Treasury's chief executive to act as a fiduciary with care, skill, prudence and diligence given prevailing market conditions and anticipated funding needs when investing, reinvesting purchasing, acquiring, exchanging, selling, or managing public funds..

Treasury's "prudent investor" 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, invest 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 Reese continually seeks quality investments – those that protect principal yet are projected to outperform 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.



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Overview of the Commonwealth Investment Program

About Pool 99 and 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.

The first, known as Pool 99, maintains a stable net asset value of \$1 per share by investing exclusively in high quality fixed-income securities, primarily of short duration. Thus, Pool 99 is designed to generate income while minimizing investment volatility. This protects principal and ensures ready access to account balances through investments with easy liquidity. Pool 99's permitted investments include U.S. Treasury securities, federal agency securities, certificates of deposit, commercial paper, money market funds, repurchase agreements, and similar short-term fixed income instruments.

For assets in excess of liquidity needs, Treasury uses Pool 198. This variable net asset value investment vehicle uses longer-term fixed income, alternative investments, and equity securities to generate enhanced investment returns over time. Funds in Pool 198 are intended to weather short-term ups and downs in the market in the interest of long-term capital appreciation.

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.

Fiscal Year 2015-16 Change in Balances

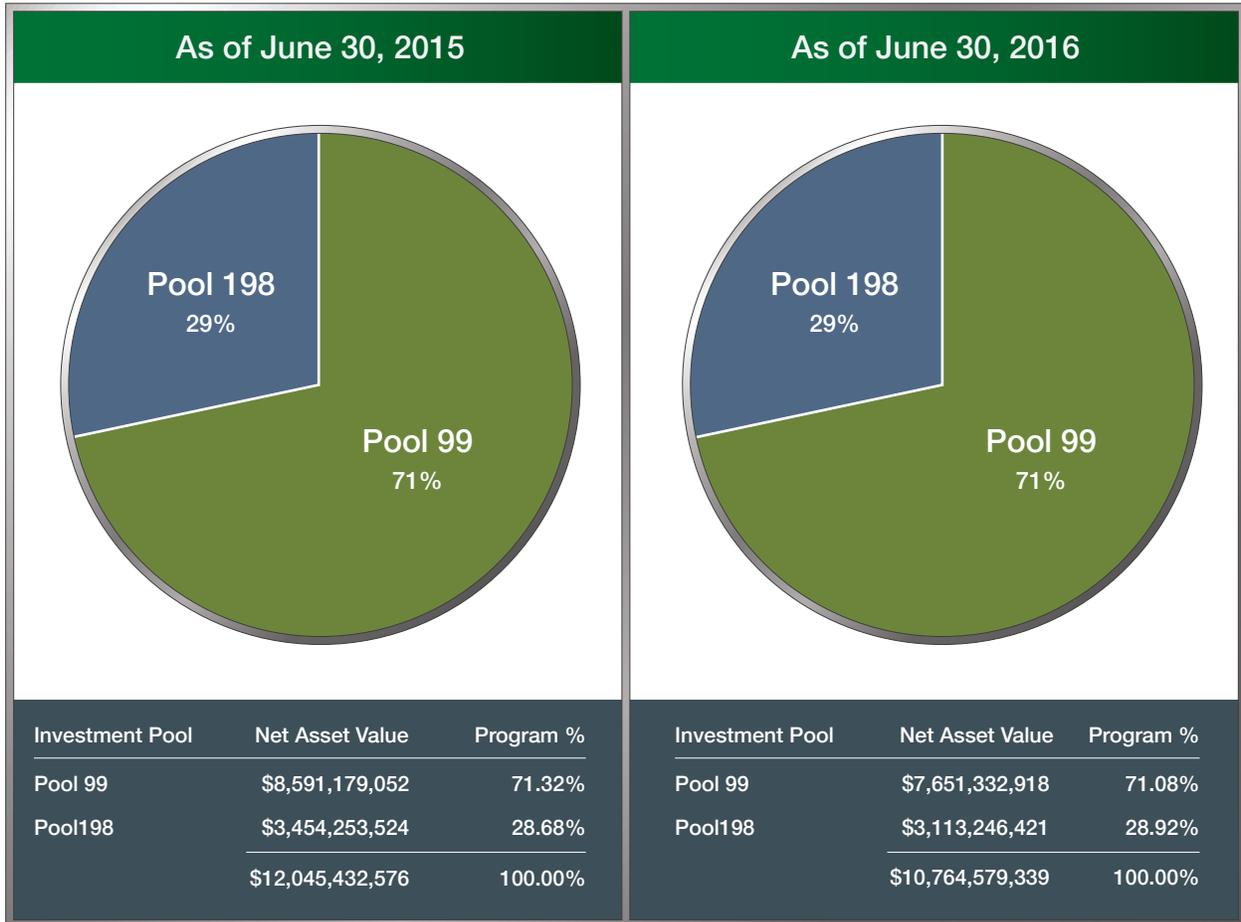
The fiscal year 2015-16 combined balance for the Commonwealth Investment Programs decreased from fiscal year 2014-15. On June 30, 2015, the combined net asset value of Pool 99 and 198 was approximately \$12.05 billion. One year later, the pools' NAV decreased to \$10.76 billion, which represented a decrease of \$1.28 billion, or 10.63%.

As illustrated in the following charts, the balance in Pool 99 decreased by approximately \$939 million, or 11%, during this period, while the balance in Pool 198 decreased by approximately \$341 million, or 10%.

These decreases are the result of investment returns and net cash flow related to participant activity. Investment results alone are discussed on page 11.

The following charts illustrate the cumulative change in the net asset value of Pools 99 and 198 between fiscal years 2014-15 and 2015-16.

Commonwealth Investment Program Summary



A Commonwealth Investment Program Participant Holdings report as of June 30, 2016 is reflected on pages 21-25 of this report.



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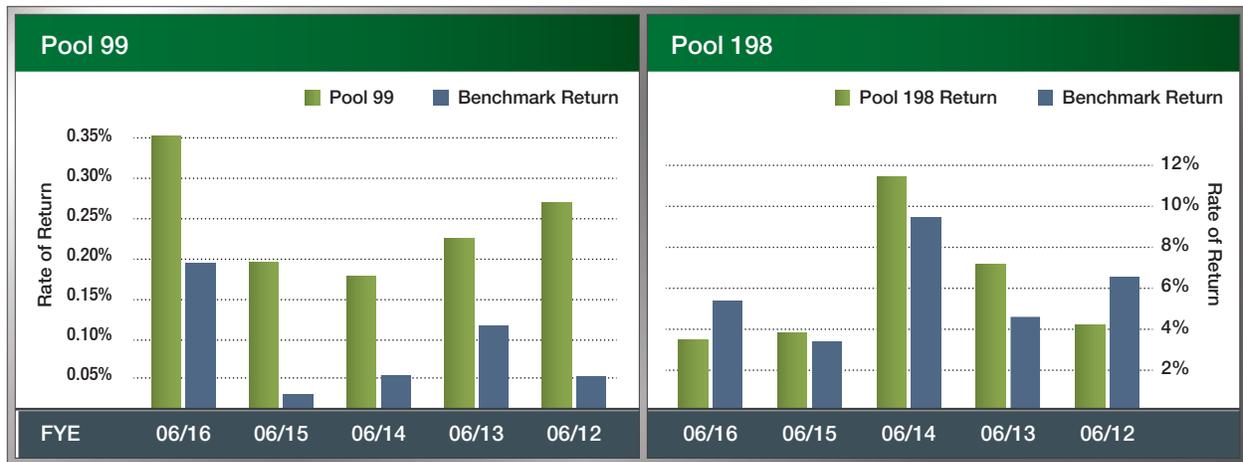
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Statutory Annual Investment Reporting Requirements

Investment Status and Performance

Pool 99’s one-year return of 0.35% exceeded its benchmark of 0.19%, while Pool 198 returned 3.17% which fell below its benchmark of 5.04% for the year.

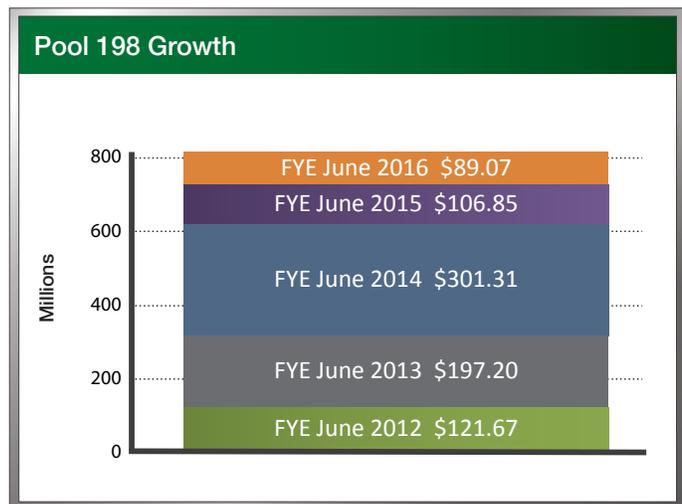
One-year returns for Pool 99 and Pool 198 and their respective benchmarks, for the most recent and prior four fiscal years, are displayed in the graphs below.



In total, Pool 99 distributed \$25,217,560 to its participants during last fiscal year. Investment earnings distributed to participants of Pool 198 for the fiscal year ended June 30, 2016 totaled \$63,020,339.

Five-Year Pool 198 Growth

Despite the market volatility over the last several years, Pool 198 continued to see significantly strong returns. During the five most recent fiscal years, Pool 198 grew due to earnings and cash flow increases related to participant activity by more than \$816 million, as illustrated in the following graph.



Quarterly Asset Allocation

Pool 99 is designed to generate income and minimize investment volatility, while Pool 198 is designed to generate both income and capital appreciation over longer periods of time. To reflect this, Treasury invests in a diversified mix of assets. Pool 99 invests in fixed income securities, cash equivalent securities, such as commercial paper, certificates of deposit, money market funds, and repurchase agreements.

The table below compares Pool 99's and Pool 198's actual asset allocations to their corresponding targets for the quarters ended on the dates shown.

Pool 99 Asset Class	Target Allocation	9/30/15	12/31/15	3/31/16	6/30/16
Fixed Income (including Cash & Cash Equivalents) ⁽¹⁾	100%	100%	100%	100%	100%
Pool 198 Asset Class	Target Allocation	9/30/15	12/31/15	3/31/16	6/30/16
Fixed Income (including Cash & Cash Equivalents)	55%-70%	73%	72%	50%	56%
Equity & Alternatives	30%-45%	27%	28%	50%	44%

The passive equity portion of Pool 198 includes exchange-traded funds (ETFs) and mutual funds to obtain exposure to certain asset classes at a lower cost, as well as securities where a buy-and-hold strategy is employed. On June 30, 2016, passive equity investments accounted for 10% of Pool 198.

Treasury also employs a passive investment approach with a portion of its Pool 198 fixed income assets invested in Strategic Investment Opportunities, or SIOs. SIOs afford Treasury an opportunity to benefit Pennsylvania's economy, create jobs, and make progress towards positive policy objectives – all while generating above-market rates of return on the Commonwealth's assets. Treasury's SIOs include the Keystone Home Energy Loan Program, the PHEAA HelpStart Program, and the Micro-Lending Investment Initiative.

Approximately 13% of Pool 198's fixed income assets were invested in SIOs on June 30, 2016. The following table summarizes those investments.

Pool 198 Strategic Investment Opportunities

Program Investment	Security Type	6/30/16 NAV	% of SIO
PHEAA (Line of Credit)	Municipal Securities	\$200,198,662	92%
Keystone HELP	Whole Loans	\$14,224,348	7%
Micro-Lending	Certificates of Deposit	\$3,022,362	1%
		\$217,445,372	100%
SIO as a % of Pool 198's Fixed Income Allocation			12.56%

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.

Commonwealth Investment Program Performance and Risk Measures

Pool/Asset Class	Benchmark	Risk Measure
Pool 99 Fixed Income (including Cash & Cash Equivalents)	Merrill Lynch 3-Month U.S. Treasury Bill Index	130-day Weighted Average Maturity (WAM)
Pool 198 Equity	75% Standard & Poor's 500 Index 25% MSCI ACWI ex U.S. Index	5.0 Standard Deviation
Pool 198 Fixed Income (including Cash & Cash Equivalents)	83% Barclays Capital U.S. Aggregate Bond Index 17% Merrill Lynch 6-Month U.S. Treasury Bill Index	

Returns by Asset Class

Treasury measures the performance of its asset classes against the respective benchmarks. For the fiscal year ended June 30, 2016, Treasury exceeded its benchmarks for Pool 99 and for the equity and alternative investments in Pool 198 by 16 basis points, 140 basis points, and 370 basis points respectively. Pool 198's fixed income investments missed their mark by 221 basis points.

Pool 99 Asset Class Returns (Net of Fees)

Asset Class	Benchmark	FY 15-16 Return	Benchmark Return	Over/Under Performance vs Benchmark
Fixed Income (including Cash & Cash Equivalents)	Merrill Lynch 3-Month U.S. Treasury Bill Index	0.35%	0.19%	0.16%

Pool 198 Asset Class Returns (Net of Fees)

Asset Class	Benchmark	FY 15-16 Return	Benchmark Return	Over/Under Performance vs Benchmark
Equity	75% Standard & Poor's 500 Index 25% MSCI ACWI ex U.S. Index	1.68%	0.28%	1.40%
Fixed Income (including Cash & Cash Equivalents)	83% Barclays Capital U.S. Aggregate Bond Index 17% Merrill Lynch 6-Month U.S. Treasury Bill Index	2.84%	5.05%	-2.21%
Alternative	HFRI Fund of Funds Composite Index	-1.75%	-5.45%	3.70%

External Investment Managers: Selection, Fees, and Performance

The Pennsylvania Treasury employed 20 external investment managers for Pool 198 as of June 30, 2016. A list follows of those managers, including principals and key staff, as well as the date each received funding for investments.

Pool 198 External Investment Manager List as of June 30, 2016

Investment Managers	Principals/Key Staff	Title	Funding Date	Selection Method ⁽¹⁾	Asset Class
Aksia LLC	Jim Vos	Chief Executive Officer	01/13	Negotiated	Alternative
	Joseph Larucci	Head of Equity Strategies			
	Simon Fludgate	Head of Operational Due Diligence			
	Maya Fishman	Head of Legal and Compliance			
Ariel Investments	John Rogers, Jr.	Chairman, CEO, and CIO	4/16	Negotiated	Equity
	Melody Hobson	President			
	Mareile Cusack	Senior VP and General Counsel			
	Maureen Longoria	Chief Financial 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	Managing Partner	09/03	Negotiated	Fixed Income
	Timothy J. Riddle	CEO, Managing Partner			
	G. Gregory Hagar	CFO, COO			
ClearArc Capital	Mitchell L. Stapley	Chief Investment Officer	01/12	Negotiated	Fixed Income
	Stephen G. Mullins	President			
	Diane J. Hulls	Chief Compliance Officer			
Community Capital Mgmt, Inc.	Joseph Hastings	Chief Financial Officer	08/06	Negotiated	Fixed Income
	Alyssa Greenspan Goldstein	President, COO			
	Todd Cohen	Founder, CEO, CIO			
	Julie Egan	Senio VP, Portfolio Manager			
	David Sand	Chief Investment Strategist			
Credit Suisse	Tidjane Thiam	Chief Executive Officer	12/09	Negotiated	Fixed Income
	David Mathers	Chief Financial Officer			
	James Amine	CEO Investment Banking & Capital Markets			
EnTrust Permal	Gregg Hymowitz	Chairman & CEO	11/09	Negotiated	Alternative
	Bruce Gimpel	Chief Operating Officer			
	Francois Becquaert	Chief Financial Officer			
Federated Investors, Inc.	John Donahue	Chairman, President, CEO	08/01	Negotiated	Fixed Income
	Gordon Ceresino	Vice Chairman			
	Thomas R. Donahue	CFO, Treasurer, Trustee			
	Eugene Maloney	Executive Vice President			
	Richard Novak	VP, Principal Accounting Officer			
	John McGonigle	EVP, Chief Legal Officer, Secretary			
	Stephen Van Meter	VP, Chief Compliance Officer			

Pool 198 External Investment Manager List as of June 30, 2016

Investment Managers	Principals/Key Staff	Title	Funding Date	Selection Method ⁽¹⁾	Asset Class
Intercontinental	Paul J. Nasser	CFO, COO	08/11	Negotiated	Alternative
	Thomas Taranto Jr.	Chief Investment Officer			
	Peter A. Palandjian	Chairman & CEO			
Kabouter International OP	Linda Choi	Chief Operating Officer	05/16	Negotiated	Equity
Mesirow Financial Management	Richard S. Price	Chairman, CEO	03/06	Negotiated	Fixed Income
	Thomas E. Galuhn	President			
	Kristie P. Paskvan	Chief Financial Officer			
Oakbrook Investments	Peter Jankovskis	Co-Chief Investment Officer	04/16	Negotiated	Equity
	Janna Sampson	Co-Chief Investment Officer			
Perella Weinberg Partners	Robert K. Steel	Chief Executive Officer	01/16	Negotiated	Equity
	Joseph R. Perella	Founding Partner, Chairman			
	Vladimir Shendelman	General Counsel			
RhumbLine Advisers	Wayne T. Owen	Chief Executive Officer	01/16	Negotiated	Equity
	Kim Roger McCant	Chief Financial Officer			
	Norman H. Meltz	Chief Investment Officer			
	Jennifer S. Pilgrim	Chief Compliance Officer			
Sound Point	Stephen J. Ketchum	Managing Partner, CIO, CEO	12/11	Negotiated	Fixed Income
	Brian Feldman	General Counsel, Chief Compliance Officer			
	Kevin P. Gerlitz	Chief Operating Officer			
Sterling Asset	Bernard A. Francis, Jr.	Senior Managing Director	12/00	Negotiated	Fixed Income
	James E. Gibson	Managing Director			
	David M. Killian	Senior Vice President			
Stoneridge Management	Steven L. Sanders	CEO, Chief Investment Strategist	01/12	Negotiated	Fixed Income
	Wayne O. Leevy	COO, CFO			
	Joseph E. Stocke	CIO			
	Kimberly Clarke	Chief Compliance Officer			
The Swarthmore Group	James E. Nevels	Founder, Chairman	12/00	Negotiated	Equity
	Paula R. Mandle	CEO, Chief Compliance Officer			
	Glenn E. Becker	President			
Weaver C. Barksdale & Assoc, Inc.	Weaver C. Barksdale	Founding Principal, Chairman	07/01	Negotiated	Fixed Income
	John E. McDowell	President, CEO, Principal			
	Robert O'Donnell	Senior Vice President			
	Charles H. Webb	CIO, Principal			
	Deborah K. Slocum	Chief Compliance Officer, Principal			
	Ann Loden Roberts	Principal, Executive Vice President			
	Timothy A. Carpenter	Chief Operations Manager, Principal			

⁽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.

Pool 198 External Investment Manager Fee and Performance Summary (As of June 30, 2016) ⁽¹⁾

Investment Manager	Asset Class	Investment Mandate	FY '15-'16 Manager Fess	Assigned Benchmark	FY '15-'16 Portfolio Return (Net of Fees)	FY '15-'16 Benchmark Return	Over/Under Performance vs. Benchmark
Ariel ⁽⁴⁾	Equity	Int'l Equity	\$88,338	MSCI ACWI ex USA	0.55	-0.40	0.95
Avenue ⁽²⁾	Alternative	Absolute Return	\$401,381	HFRX Absolute Return Index	9.12	0.60	8.52
Blue Hill Investment Partners, LP	Alternative	Private Equity	\$144,542	Cambridge Associates Private Equity Index	-1.94	3.23	-5.17
Chartwell Investment Partners	Fixed Income	High Yield	\$161,011	Merrill Lynch U.S. High Yield Cash BB-B Index	1.06	2.43	-1.37
ClearArc Capital (Fifth Third Asset Mgmt)	Fixed Income	Enhanced Cash	\$41,343	Barclays Capital Government/Credit 1-3 Year Index	1.88	1.59	0.29
Community Capital Mgmt, Inc.	Fixed Income	Core	\$236,713	Barclays Capital U.S. Aggregate Bond Index	4.82	6.00	-1.18
COPA Keystone	Alternative	Absolute Return	\$1,084,771	HFRX Fund of Funds Composite Index + 50bp	-3.28	-4.97	1.69
Credit Suisse	Fixed Income	Senior Secured Debt	\$642,871	Credit Suisse Leveraged Loan Value Index	1.51	0.93	0.58
EnTrust Capital	Alternative	Absolute Return	\$266,494	HFRX Fund of Funds Composite Index	-10.24	-5.45	-4.79
Federated Investors, Inc	Fixed Income	High Yield	\$286,615	Bank of America/Merrill Lynch High Yield F4excl 144A	2.64	1.61	1.03
Intercontinental	Alternative	REIT	\$212,157	NCREIF Property Index	12.79	10.64	2.15
Kabouter International OP ⁽⁵⁾	Equity	Int'l Equity	\$20,833	MSCI EAFE Small Cap Gross	-3.49	-5.24	1.75
Mesirow Financial Mgmt	Fixed Income	Core	\$135,874	Barclays Capital U.S. Aggregate Bond Index	6.02	6.00	0.02
Oakbrook Investments ⁽⁴⁾	Equity	Large Cap Core	\$35,427	Russell 1000	2.73	2.54	0.19
Perella Weinberg Partners	Equity	Large Cap/ Int'l Equity	\$1,090,647				
PWP Rhumblin MSCI ⁽³⁾	Equity	Int'l Equity	\$76,883	MSCI ACWI ex USA	-1.11	-0.40	-0.71
PWP Rhumblin Russell ⁽³⁾	Equity	Large Cap Core	\$34,942	Russell 1000	2.27	2.54	-0.27
Sound Point	Fixed Income	Senior Secured Debt	\$162,286	Credit Suisse Leveraged Loan Value Index	1.88	0.93	0.95
Sterling Asset Mgmt	Fixed Income	Core	\$471,042	Barclays Capital U.S. Aggregate Bond Index	5.91	6.00	-0.09
Stoneridge	Fixed Income	Enhanced Cash	\$97,623	Barclays Capital Government/Credit 1-3 Year Index	1.90	1.59	0.31
The Swarthmore Group	Equity	Large Cap Core	\$1,257,188	S&P 500 Index	-1.04	3.99	-5.03
Weaver C. Barksdale & Associates, Inc	Fixed Income	Intermediate	\$638,912	Barclays Capital U.S. Intermediate Government/Credit Bond Index	4.28	4.33	-0.05
Total Fees Paid			\$7,587,894				

⁽¹⁾ Performance information obtained from Global Beta Advisors June 30, 2016 Investment Performance Reports.

⁽²⁾ Manager terminated March, 2015.

⁽³⁾ Manager funded January, 2016 - 3 month return.

⁽⁴⁾ Manager funded April, 2016 - 3 month return.

⁽⁵⁾ Manager funded May, 2016 - 1 month return.

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 2015-16, 51 brokers placed 6,153 trades, resulting in gross commissions of \$771,526 for Pool 198. On a per-share-basis, the gross commissions translated into an average gross commission price of just \$0.0064 per share. A summary of commissions paid to brokers for Pool 198 is reflected in the following table.

Pool 198 Broker Commissions Fiscal Year 2015-16

BROKER	COMMISSION	BROKER	COMMISSION
ABEL NOSER CORP, NEW YORK	\$313	ISI GROUP INC., NEW YORK	\$37
BANK OF NEW YORK MELLON, NEW YORK	\$11,081	J P MORGAN SEC, SYDNEY	\$1,235
BARCLAYS CAPITAL LE, JERSEY CITY	\$1,817	J P MORGAN SECS LTD, LONDON	\$28,007
BARCLAYS CAPITAL, LONDON (BARCGB33)	\$5,847	J P MORGAN SECURITIES INC, BROOKLYN	\$10,304
BARCLAYS CAPITAL, NEW YORK	\$191	JEFFERIES & CO INC, NEW YORK	\$1,024
BTIG LLC, SAN FRANCISCO	\$6,673	JP MORGAN SECS ASIA PACIFIC, HONG KONG	\$4,263
CIBC WORLD MKTS INC, TORONTO	\$6,935	JP MORGAN SECS, SINGAPORE	\$244
CITIGROUP GBL MKTS/SALOMON, NEW YORK	\$129	JPMORGAN SECURITIES INC, NEW YORK	\$2,353
CITIGROUP GLOBAL MARKETS LTD, LONDON	\$467	LIQUIDNET INC, NEW YORK	\$135
CREDIT SUISSE, NEW YORK (CSUS)	\$2,094	LOOP CAPITAL MARKETS, JERSEY CITY	\$25,725
DEUTSCHE BK SECS INC, NY (NWCUS33)	\$1,062	MELLON FINANCIAL MRKTS LLC, JERSEY CITY	\$20,545
DREXEL HAMILTON LLC, JERSEY CITY	\$101	MERRILL LYNCH INTL LONDON EQUITIES	\$2,603
FIRST SOUTHWEST CO, DALLAS	\$1,962	MERRILL LYNCH PIERCE FENNER, WILMINGTON	\$134
GOLDMAN SACHS & CO, NY	\$14,906	MERRILL LYNCH PROFESSIONAL CLRG, PURCHAS	\$41,025
GOLDMAN SACHS EQUITY SECS, LONDON	\$2,277	MORGAN STANLEY & CO INC, NY	\$1,255
GUZMAN & COMPANY, CORAL GABLES	\$8	SEI FINANCIAL SERVICES CO, NEW YORK	\$187,967
HILLTOP SECURITIES INC, DALLAS	\$9,575	SEI FUNDS EVALUATION	\$177,143
HILLTOP SECURITIES INC, DALLAS	\$1,673	STIFEL NICOLAUS	\$14,677
HILLTOP SECURITIES INC, DALLAS	\$3,055	STRATEGAS SECURITIES LLC, NEW YORK	\$1,606
INSTINET AUSTRALIA CLEARING SERV, SYDNEY	\$5,918	UBS SECURITIES LLC, STAMFORD	\$161
INSTINET CORP, NEW YORK	\$1,324	UBS WARBURG ASIA LTD, HONG KONG	\$321
INSTINET CORP, NY	\$29,126	UBS WARBURG, LONDON	\$3,050
INSTINET EUROPE LIMITED, LONDON	\$82,199	WELLS FARGO SECURITIES LLC, CHARLOTTE	\$4,597
INSTINET PACIFIC LTD, HONG KONG	\$10,053	WILLIAMS CAPITAL GROUP LP, JERSEY CITY	\$3,339
INSTINET, SINGAPORE	\$1,699	YAMNER & COMPANY INC, JERSEY CITY	\$38,187
INVESTMENT TECHNOLOGY GROUP, NEW YORK	\$1,105	TOTAL COMMISSIONS PAID FY 15-16	\$771,526

Eighty-four percent of the total trade commissions paid in fiscal year 2015-16, or \$644,830, were made to 10 of the 51 brokers that placed such trades. A list of the top 10 brokers Treasury's external investment managers utilized for Pool 198 is included below.

Top Ten Pool 198 Broker Comissions Fiscal Year 2015-2016

BROKER	COMMISSION
SEI FINANCIAL SERVICES CO, NEW YORK	\$187,967
SEI FUNDS EVALUATION	\$177,143
INSTINET EUROPE LIMITED, LONDON	\$82,199
MERRILL LYNCH PROFESSIONAL CLRG, PURCHAS	\$41,025
YAMNER & COMPANY INC, JERSEY CITY	\$38,187
INSTINET CORP, NY	\$29,126
J P MORGAN SECS LTD, LONDON	\$28,007
LOOP CAPITAL MARKETS, JERSEY CITY	\$25,725
MELLON FINANCIAL MRKTS LLC, JERSEY CITY	\$20,545
GOLDMAN SACHS & CO, NY	\$14,906
TOTAL	\$644,830

The Pennsylvania Treasury uses SEI Investments Distribution Company, a third-party broker commission recapture agent, to administer its equity and fixed income client-directed trading program. Treasury encourages its investment managers to utilize SEI's brokerage services for security transactions generated on behalf of Treasury's investment programs, subject to obtaining best price and execution.

Of the total gross commissions paid in fiscal year 2015-16, \$365,110 was paid to brokers participating in the broker commission recapture program. Treasury was able to recapture 78%, or \$283,031 of those commissions paid in fiscal year 2015-16. All recaptured commissions ultimately are used to benefit the applicable investment program.

Security Lending

Treasury makes the portfolios of the Commonwealth Investment Program available for security lending to generate additional revenue for Pennsylvania. In fiscal year 2015-16 the program generated \$556,415 with 5.15% of Pool 198's securities on loan as of June 30, 2016. The table on the following page provides a snapshot of Treasury's Security Lending Program as of that date.

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, 2016, repurchase agreements composed 100% of the Cash Collateral Reinvestment Pool.

Pool	Market Value of Lendable Securities	Market Value of Securities on Loan	% of Lendable Securities on Loan
Pool 99	\$-	\$-	0.00%
Pool 198	\$1,553,137,854	\$79,910,901	5.15%
Total	\$1,553,137,854	\$79,910,901	

Proxy Voting

Treasury – via its third-party proxy voting agent, Glass Lewis – uses specific proxy voting guidelines to voice its positions as an institutional investor. Under its arrangement with Treasury, Glass Lewis is responsible for executing proxy votes in a timely manner, maintaining records of all voting decisions, and reconciling proxy ballots for all accounts it manages on Treasury’s behalf. While Glass Lewis is required to vote all proxies in accordance with Treasury’s proxy voting guidelines, Treasury reserves the right to approve or determine any specific vote, either by issue or by security, if it chooses to deviate from its guidelines.

In fiscal year 2015-16, Glass Lewis voted 117 ballots. Those ballots contained 1,233 proposals, of which 1,183 represented management proposals and 50 represented shareholder proposals.

To obtain a copy of Glass Lewis’s Proxy Policy Guidelines, contact Treasury’s Office of External Affairs at 717-787-2991.

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.

Likelihood of an Unfavorable Outcome:

REMOTE

Commonwealth Investment Program Participant Holdings

Acct	Name	Shares	Cost Basis	MV Pool 198	MV Pool 99	Total MV
001	General				2,717,686,017	2,717,686,017
002	Lottery	2,018	2,358	2,430	232,157,695	232,160,125
003	Wild Resource				229,763	229,763
004	Energy Development	3,966,719	4,011,863	4,774,708	46,019	4,820,727
005	State Racing	9,572,130	9,681,068	11,521,896	21,112,345	32,634,240
006	Hazardous Sites Cleanup	31,923,850	34,653,930	38,426,480	37,538,477	75,964,957
007	Highway Beautification				711,483	711,483
008	Environmental Stewardship	66,686,078	70,600,699	80,269,494	18,430,943	98,700,437
009	Recycling Fund	67,916,885	71,056,593	81,751,006	17,218,326	98,969,333
010	Motor License	437,665,609	508,605,781	526,814,560	353,243,788	880,058,348
011	Game	29,867,340	30,207,289	35,951,076	17,830,077	53,781,153
012	Fish	47,892,473	50,015,367	57,647,783	20,136,223	77,784,006
013	Banking	11,243,622	11,371,583	13,533,858	16,120,441	29,654,298
014	Milk Marketing Board				4,077,529	4,077,529
015	State Farm Products				4,956,977	4,956,977
016	Oil & Gas Lease	17,067,425	18,848,331	20,543,922	4,037,294	24,581,216
017	State Treasury Armory				3,864,064	3,864,064
018	Historical Preservation				5,807,715	5,807,715
019	PA Infrastructure Bank	39,960,451	40,415,270	48,100,073	8,033,463	56,133,536
020	Surface Mining Conserv.	61,675,392	62,377,304	74,238,172	67,609	74,305,781
021	Special Administration				7,204,552	7,204,552
022	Capitol Restoration Trust				428,816	428,816
023	Vocational Rehabilitation				9,007,294	9,007,294
024	Pharmaceutical Assis	1,173,715	1,187,035	1,412,791	14,757,761	16,170,552
025	Boating	22,538,065	22,794,565	27,128,887	3,258,819	30,387,706
026	Administration				2,979,827	2,979,827
027	Liquid Fuel Tax				6,184,751	6,184,751
028	Liquor License				2,326,929	2,326,929
029	Fire Insurance Tax				80,362,767	80,362,767
030	Volunteer Companies Loan	33,730,867	34,114,750	40,601,573	16,956,753	57,558,326
031	Manufacturing	16,865,434	17,057,375	20,300,786	8,748,216	29,049,003
032	Purchasing				6,822,680	6,822,680
033	Employment for the Blind				2,275,820	2,275,820
034	Industrial Development				47,052	47,052
037	Pennvest Drinking Water	119,073,960	128,249,129	143,328,365	41,380,151	184,708,516
038	CAP. FACILITIES TOTAL				424,719,458	424,719,458
039	Land & Water Development				56,739	56,739

Commonwealth Investment Program Participant Holdings

Acct	Name	Shares	Cost Basis	MV Pool 198	MV Pool 99	Total MV
042	PA Economic Revitalization				2,874,109	2,874,109
044	Land & Water Dev. Sinking				84	84
045	Sinking				145,245	145,245
049	Tax Note Sinking				83,984	83,984
051	Conrad Weiser Memorial Park				73,943	73,943
052	Judicial Admin Leave				1,595,925	1,595,925
053	PA Historical/Museum Comm.				184,591	184,591
054	Agric. College Land Script				624,236	624,236
055	State College Exper. Farm				24,194	24,194
056	State School				665,546	665,546
058	State Insurance	5,972,642	6,040,668	7,189,220	369,001	7,558,221
066	Clean System Upgrade				87,152	87,152
068	Energy Conserv. & Assist				784	784
069	Workmens' Compen. Super.				3,891,468	3,891,468
071	Tobacco Settlement Fund				350,147,688	350,147,688
072	Real Estate Recovery				670,589	670,589
073	Noncoal Surface Mining Conser	8,613,060	8,710,430	10,367,471	521,183	10,888,654
074	Soc Sec				0	0
076	Municipal Pension				278,451,611	278,451,611
077	Supplemental Municipal Pensio				50	50
078	PA Municipal Employ Retire				2,266,664	2,266,664
079	Higher Ed. Assistance	112,436,225	113,715,832	135,338,576	447,028,471	582,367,047
080	Emergency Med. Oper. Serv.	10,901,887	11,025,953	13,122,513	1,683,539	14,806,052
081	State Restaurant				1,001,471	1,001,471
082	Swif				10,408,465	10,408,465
083	Solid Waste				444,869	444,869
084	State Stores				275,395,461	275,395,461
085	Rehabilitation Center				10,091,711	10,091,711
086	Coal & Clay Mine Sub Ins.	87,245,152	89,815,908	105,016,285	15,659,035	120,675,320
087	Coal Lands Improvement				2,760,697	2,760,697
088	Minority Business Development				3,821,349	3,821,349
091	Capital Debt				29,021,002	29,021,002
092	Volunteer Loan Sinking				0	0
093	Budget Stabilization Reserve				243,932	243,932
094	Tax Stabilization Reserve				0	0
096	PA Veterans' Memorial Trust				565,549	565,549
097	Anthracite Emergency Bond				669,818	669,818

Commonwealth Investment Program Participant Holdings

Acct	Name	Shares	Cost Basis	MV Pool 198	MV Pool 99	Total MV
101	Low Level Waste				1,935	1,935
104	PA Infrastructure Invest. Auth	208,544,124	220,680,545	251,022,878	52,211,568	303,234,446
105	Pennvest Bonds Authority				6,083,069	6,083,069
106	Pennvest Revolving				1	1
107	Pennvest Nonrevolving Equity				0	0
108	Pennvest Redemption				2,310,289	2,310,289
109	Pennvest Water Pollution	446,427,764	471,435,028	537,361,495	121,262,543	658,624,038
111	Machinery & Equipment Loan	13,226,789	13,377,320	15,920,980	28,222,093	44,143,072
112	Insurance Liquidation	59,450,411	60,127,000	71,559,979	8,860,202	80,420,181
113	Agricultural Conservation				30,573,034	30,573,034
115	Children's Trust				1,497,418	1,497,418
116	Revolving Aid Fund				14,825,211	14,825,211
117	Catastrophic Loss Benefit	80,059,105	80,964,689	96,366,499	2,268,393	98,634,892
118	Storage Tank Fund				5,321,871	5,321,871
119	Underground Storage Tank	33,979,591	36,448,194	40,900,959	7,827,253	48,728,212
121	Resting Facilities Siting				0	0
123	Motor Vehicle Trans. Rec.				2,269,855	2,269,855
125	Hazardous Material Response	1,665,954	1,684,913	2,005,295	686,880	2,692,175
126	PHFA Home Buyer Fund				0	0
127	Local Govt. Cap. Loan				3,726,231	3,726,231
128	Local Sales and Use Tax				25,101,331	25,101,331
129	Pa. Intergovernment Co-op				5,042,060	5,042,060
130	Public Transportation				8,763,785	8,763,785
131	Acid Mine Drain	48,502,119	53,567,356	58,381,609	27,821,361	86,202,970
133	Local Crime Justice				28	28
134	Local Crime Justice Sink				40,404	40,404
138	Clean Air	42,380,245	42,862,892	51,012,758	778,967	51,791,726
139	Home Investment Trust				131,018	131,018
140	Phila Re. Port Auth				441,227	441,227
141	Port of PGH Commission				2,530,402	2,530,402
144	Pennvest Trustee				0	0
145	Remining Environment				0	0
146	Remining Financial Assurance				4,378,522	4,378,522
147	Environmental Education				1,306,772	1,306,772
148	Self-Ins. Guaranty	44,974,490	45,486,333	54,135,430	26,983,556	81,118,987
149	Keystone Recreation, Park	97,136,860	100,609,113	116,922,854	36,095,396	153,018,250
151	PA Employee Benefit Trust	8,994,898	9,097,267	10,827,086	4,102,953	14,930,039

Commonwealth Investment Program Participant Holdings

Acct	Name	Shares	Cost Basis	MV Pool 198	MV Pool 99	Total MV
152	Nutrient Mgmt				1,984,554	1,984,554
153	Allrgh.Reg.Asset Dist.Sales				15,748,849	15,748,849
155	Organ Donation				1,652,355	1,652,355
156	Insurance Fraud				5,094,975	5,094,975
157	Automobile Theft Prevention				6,663	6,663
158	Industrial Sites Cleanup	11,243,622	11,371,583	13,533,858	6,835,577	20,369,435
159	DNA Detection				8,101,099	8,101,099
160	Small Business First	11,967,873	12,104,076	14,405,632	16,269,799	30,675,431
161	Ben Franklin Tech Development				16,565,426	16,565,426
162	M-Care	18,740,255	21,442,131	22,557,493	89,447,576	112,005,069
163	Patient Safety Trust Fund				5,194,892	5,194,892
164	Substance Abuse Education & D	8,994,898	9,097,267	10,827,086	1,439,357	12,266,443
166	Wireless E-911 Emergency Serv				50,512,273	50,512,273
167	Rightful Owners Claims Paymen				555,124	555,124
168	State Gaming Fund				139,019,657	139,019,657
169	Comp & Problem Gambling				8,623,061	8,623,061
170	Property Tax Relief Fund				472,486,319	472,486,319
171	Pa Gaming Eco Dev & Tourism				15,423,778	15,423,778
172	Pa Race Horse Dev Fund				10,315,727	10,315,727
173	Emergency Energy Assistance F				34	34
174	Broadband Outreach and Agg				6,083	6,083
175	Education Technology Fund				4,012	4,012
176	Educational Assistance Progra				703,666	703,666
177	Job Training Fund				356,187	356,187
178	Community College Capital				5,587,036	5,587,036
179	Growing Greener Bond Fund				17,602,859	17,602,859
180	Growing Greener Sinking Fund				0	0
181	Water Sup/Wastewater Treat				24,095,513	24,095,513
182	Water Sup/Waste Sinking Fund				0	0
183	Conservation District Fund				6,073,236	6,073,236
184	Uninsured Employers Guar				4,814,772	4,814,772
185	Persian Gulf Con Vet Bond				2,106,870	2,106,870
186	Persian Gulf Con Vet Sinking				0	0
187	The Public Transportation Tru	169,910,463	187,439,792	204,519,853	357,727,415	562,247,267
188	Neighborhood Improvement				320	320
190	Fire Prevention & Public Safe				0	0
191	Cigarette Fire Safety				475,913	475,913

Commonwealth Investment Program Participant Holdings

Acct	Name	Shares	Cost Basis	MV Pool 198	MV Pool 99	Total MV
192	Mine Safety Fund				106,343	106,343
193	Water Resources Fund				0	0
194	Water & Sewer Bond Fund				7,162,184	7,162,184
195	Water & Sewer Sinking				0	0
196	196 Treasury Initiatives	759,308	828,051	913,973	0	913,973
197	Spec Juvenile Victim Comp				0	0
201	Housing Afford & Rehab				6,536,164	6,536,164
202	Unconv Gas Well Fund				112,898,734	112,898,734
203	Marcellus Legacy Fund				42,014,861	42,014,861
204	Homeowner Asst Stlmt Fund				7,475,346	7,475,346
205	Pa. eHealth Partnership Fund				2,192,452	2,192,452
206	Veterans' Trust Fund				2,370,555	2,370,555
207	Justice Reinvestment Fund				2,209,013	2,209,013
208	Insurance				17,124,342	17,124,342
209	Phila. Taxicab Limousine				367,427	367,427
210	Philadelphia Taxicab				936,611	936,611
211	Multimodal Transportation				148,249,915	148,249,915
212	City Revitalization and Improvement				7	7
213	Local Cigarette tax				5,107,660	5,107,660
215	Monetary Penalty Endowment	34,716,212	40,324,395	41,787,624	7,688,644	49,476,267
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
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
457	Foxwood Casino Philadelphia				0	0
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	468				997,179	997,179
896	196A Treasury Initiatives	160,187	186,601	192,816	0	192,816
Totals		2,585,826,168	2,763,693,628	3,112,538,081	7,646,634,999	10,759,173,079



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