Report to the Colorado State Auditor
Department of Treasury
Treasury Investment Program

Performance Evaluation
June 2011

Submitted by:
Buck Global Investment Advisors

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This report contains the results of an evaluation of the Department of Treasury, Treasury Investment Program. The evaluation was conducted pursuant to Section 2-3-103, C.R.S., which authorizes the State Auditor to conduct audits and evaluations of all departments, institutions, and agencies of state government. The report presents our findings, conclusions, and recommendations, and the responses of the Department of Treasury.

Sincerely,

Donald R. Eibsen, CFA
Principal

Review of the Department of the Treasury Investment Program

Purpose and Scope

The Colorado Department of the Treasury (the Treasury) is part of the Executive Branch of the Colorado state government. The State Treasurer, which is an elected position, is authorized by statutes (Section 24-36-101, et seq., C.R.S.) to maintain custody of and invest state monies. Statutes (Section 24-36-113, C.R.S.) also direct the State Treasurer to form investment policies regarding liquidity, maturity, and diversification appropriate to each fund or pool of funds in the State Treasurer's custody available for investment. The Treasury does not have taxation authority, but it does have the authority to issue certain types of debt instruments.

As of December 31, 2010, the Treasury had approximately $6.7 billion in investments in the following five funds or portfolios, which are covered in this review and will be discussed in more detail later in the report:

- **Treasury Pool (includes T-Pool Cash and T-Pool 1-5 years)**—an operating fund invested in short-term, high quality fixed income.

- **Public School Permanent Fund**—a fund invested safely and in perpetuity to provide a benefit to state education.

- **Major Medical Insurance Fund**—a fund that pays benefits related to workers' injuries.

- **Unclaimed Property Tourism Promotion Trust Fund**—a fund that pays claims related to unclaimed property and also provides a benefit to tourism promotion.

- **State Education Fund**—a fund that provides for specified education-related purposes.

Because of the importance of the Treasury's investments to state operations, Buck Global Investment Advisors (Buck) was retained by the Colorado Office of the State Auditor in February 2011 to review the Colorado Treasury Investment Program. We did not conduct this review in accordance with Generally Accepted Government Auditing Standards. This review encompassed the following six areas.

- An analysis of the performance of the Treasury's investments as a whole and by segment. This includes analyses of the performance of each of the Treasury's five major portfolios on an annual basis and overall for the period of January 1, 2007, through December 31, 2010.

- A review of the Treasury's short- and long-term investment objectives, policies, and practices, including a determination of whether the Treasury's investment practices are in compliance with state law, prudent industry practice, and other applicable criteria. This review also includes an analysis of cash management strategies, liquidity needs, and associated monitoring practices.

- A review of asset mix in relationship to stated objectives, including implied risk, diversification, and return. This review also includes a determination of the appropriateness of the asset mix.

- A review of internal controls over investments.

- A review of the efficiency and effectiveness of electronic and manual systems used to track and report on investments, investment performance, earnings, and interest allocations.

- Status of prior recommendations contained in the Office of the State Auditor's November 2007 performance review of the Colorado Department of the Treasury Investment Program.

During the review, Buck relied upon performance data provided by the Treasury and its custodian, JP Morgan Chase. Buck reviewed all policy documents and conducted interviews with the Treasury's investment and accounting staff. In addition, Buck contacted and interviewed the Treasury's custodian, JP Morgan Chase, and reviewed the custodian's Statement on Auditing Standards No. 70, *Service Organizations*, examination reports.

Summary of Findings

As stated above, our review included six evaluation objectives covering three major areas of the Treasury's operations, including: (1) investment performance, (2) investment objectives and internal controls over investments, and (3) investment monitoring. Our review did not identify any recommendations with respect to the first area of review, analysis of the performance of the Treasury's investments. Specifically, we found that for the period January 1, 2007, through December 31, 2010, the investments in the portfolios of the Treasury Investment Program performed better than their benchmarks in difficult financial markets. We reviewed the performance of each portfolio separately and as a whole. Individually, the performance of each of the five portfolios met or exceeded its performance benchmarks over the four-year period. Additionally, as a whole, we found that the portfolios have generally achieved the Investment Program's objectives of legality, safety, liquidity, and yield.

While Treasury staff can be commended for maintaining strong performance in the Treasury Investment Program during difficult market conditions, we did identify several areas where the Treasury should make improvements to its operations. Specifically, we identified four recommendations related to: (1) the need for written, prior approval from the State Treasurer, or deputy, prior to deviating from the investment policy; (2) a need for statutory change to allow for additional types of investments; (3) the use of improved tools to better monitor the safety of investments; and (4) the clarification of the role of the Advisory Committee in the Investment Policy Statement. We discuss the Treasury Investment Program and these findings in more detail in the sections below.

Background

As previously discussed, the Colorado Department of the Treasury is part of the Executive Branch of the Colorado state government and is overseen by the State Treasurer, which is an elected position. The State Treasurer is authorized by statute (Section 24-36-113, C.R.S.) to maintain custody of and invest state monies. The State Treasurer bears ultimate responsibility for the Treasury Investment Program (Section 24-36-101, C.R.S.). However, the daily operations are handled by the staff and Investment Officers of the Investment Program. The State Treasurer authorizes Investment Officers to make decisions and take actions necessary to fulfill the objectives of the Treasury Investment Program. Currently there are three named Investment Officers with this authority, and an overall staff of approximately 16 FTE. Of those 16 FTE, three are dedicated Investment Officers and four others have significant investment program duties.

In addition, since 1989, the State Treasurer has traditionally appointed an Advisory Committee to offer Treasury Investment Officers and the State Treasurer suggestions and advice regarding the Investment Program. The Advisory Committee is not identified in statute. Advisory Committee members are appointed by the State Treasurer. The Advisory Committee has no voting power, and the Committee meets about twice each year.

The Treasury Investment Program comprises five separate portfolios or funds, including the Treasury Pool, the Public School Permanent Fund, the Major Medical Insurance Fund, the Unclaimed Property Fund, and the State Education Fund. The Treasury Pool is further split between cash (T-Pool Cash) and investments maturing between one and five years (T-Pool 1–5). We reviewed each of the five funds managed by the Treasury for the period January 1, 2007, through December 31, 2010. The five funds and their market values, as of December 31, 2010, are provided in the table below:

Colorado Department of the Treasury Funds and Fund Balances as of December 31, 2010			
Pool/Fund		**Total Fund ($Millions)**	
Treasury Pool:			
T-Pool Cash		$ 2,498	
T-Pool 1-5		$ 3,419	
Total Treasury Poo1		***$ 5,917***	
Individual Funds	**Held in T-Pool ($Millions)[1]**	**Held Outside of the T-Pool ($Millions)**	**Total Value of Individual Fund[2] ($Millions)**
Public School Permanent Fund	$ 58	$ 557	$ 615
Major Medical Insurance Fund	$ 0	$ 104	$ 104
Unclaimed Property Tourism Promotion Trust Fund	$ 65	$ 47	$ 112
State Education Fund	$ 233	$ 53	$ 286
Subtotal Individual Funds	***$ 356***	***$ 761***	***$ 1,117***
Unduplicated Total of All Funds		**$ 6,678**	

Source: Buck Global Investment Advisors analysis of the Colorado Department of the Treasury Holdings Spreadsheet.

[1] Some of the monies in each of the individual funds are held in the Treasury Pool (T-Pool). A breakout of the amount of each fund's balance that is held in the T-Pool is shown in the column labeled "Held in T-Pool."

[2] The Total Value of the Individual Fund shows the value of the individual fund, including the amounts invested in the T-Pool.

Description of the Funds

With the exception of assets that are permitted by statute to be separately invested or managed by other state entities (e.g., College Invest and University of Colorado), the Treasury Pool is where the Treasury invests the remaining financial assets of the state, including the General Fund and state agency monies deposited with the Treasury. The pooling of a large proportion of the State's assets in a single investment fund (the Treasury Pool) creates economies of scale that result in administrative efficiency and increased diversification opportunities, which in turn should result in higher earnings.

A large portion of the activity of the Treasury concerns short-term transactions, or cash management. The Treasury collects tax receipts and dispenses cash to State agencies and their vendors to cover operating expenses. The Treasurer requires significant liquid assets to cover these activities, yet it seeks to earn income on these liquid assets at market rates.

The most liquid assets are analogous to an interest-bearing checking account. The Treasury Pool is managed from an investment perspective as two separate portfolios:

- *T-Pool Cash* represents the shorter maturity, more liquid portion of the Treasury Pool.

- *T-Pool 1-5* represents the remainder of the Treasury Pool and is invested in securities with maturity of one to five years. While these securities are highly liquid, the Treasury does not anticipate that the assets in this portfolio will be expended in the near term.

The other four funds covered in this review are dedicated to more specific purposes, and thus are segregated from the T-Pool and governed by distinct investment policies. The other four funds routinely make use of the T-Pool for some assets to satisfy liquidity needs.

The ***Public School Permanent Fund*** was established in the State Constitution (Section 3 of Article IX) to hold assets from the sale or use of lands that have been granted by the federal government to the State for educational purposes. Interest earned on the fund is credited to the Public School Income Fund and then transferred to the Colorado Department of Education. Beginning in Fiscal Year 2004, the General Assembly (through the passage of Senate Bill 03-248) limited the amount of interest expended from the fund to $19 million annually and requires that any interest in excess of $19 million be added to the principal of the fund. Statue [Section 2-3-105(5), C.R.S.] requires the State Auditor to annually evaluate the investments of the fund and report any loss of principal of the fund to the Legislative Audit Committee.

The ***State Education Fund*** was created as a result of the passage of Amendment 23 to the State Constitution (Section 17 of Article IX). A portion of state income tax revenues collected after December 28, 2000, are credited to this fund and may be appropriated only for specified education-related purposes. New allocations to the fund are invested in the Treasury Pool due to the fact that annual contributions to the fund are spent within the following year.

The ***Major Medical Insurance Fund*** is invested by the Treasury under the authority of Section 8-46-210, C.R.S. This fund contains assets for the Division of Workers' Compensation of the Colorado Department of Labor and Employment. Funds are generated by a surcharge to insurance carriers based on premiums. The Department of Labor and Employment uses the assets from the Major Medical Insurance Fund to pay injury-related benefits to workers who meet specific criteria. Assets in excess of current needs are invested by the Treasury. Investment performance for this fund began in the third quarter of 1997.

The ***Unclaimed Property Tourism Promotion Trust Fund*** was created in statute (Section 38-13-116.7, C.R.S.) in 2004 and initially funded in May 2005. The principal represents unclaimed property and is not to be expended except to pay claims. The interest derived from the investment of the principal is credited to the Travel and Tourism Promotion Fund, and since Fiscal Year 2006 the Unclaimed Property Tourism Promotion Trust Fund has been subject to appropriation by the General Assembly.

Review of Investment Performance

As stated, one of the six areas we reviewed as part of this evaluation was the performance of the five funds included in the Treasury's Investment Program. We reviewed the performance of the Treasury's investments in two ways: (1) book yield and (2) total rate of return. Book yield is the primary performance measure used by the Treasury.

- **Book yield**. Measures the return on investment based on the original purchase price of the investments. If a bond cost $100 and it provided $3 of income during the year, the book yield is 3 percent. This is appropriate for an investment program like the Treasury that uses a buy and hold strategy focused on measuring investment income (rather than capital gains). The investment philosophy of the Treasury Investment Program—oriented to cash, income, holding to maturity, and preservation of value—is particularly suited for measurement by book yield.

- **Total rate of return**. Measures both the income earned and changes in the market value of the fund's principal. The market price of a bond fluctuates based on changes in the credit quality of issuers and the yields of new issues in the bond market. Newer bonds may offer higher or lower yields than the same type of bond already included in the portfolio. Therefore, if an investor wanted to sell the old bonds prior to maturity, he or she might not be able to sell them for the $100 book value, or original price. The total rate of return valuation method provides more information about current and future market conditions compared to book yield. Because the Treasury's Investment Program uses a buy and hold strategy, the total rate of return method of measuring performance is less applicable than it would be for a strategy that actively buys and sells financial instruments before maturity. However, total rate of return better reflects the totality of current investor views about the value of the portfolio as a whole.

Overall, we found that the Treasury Investment Program outperformed benchmarks in all areas, for all portfolios. We present the results for each fund's performance compared to the fund's respective benchmarks. Both the book yield and total rate of return benchmarks used for our review are those stated in the Treasury's Investment Policy Statement for each type of fund. For an additional total return performance comparison, we also compare performance to a peer group of active managers with similar investment strategies and objectives.

For purposes of analyzing investment strategy and performance, Buck found it useful to review T-Pool Cash and T-Pool 1-5 separately, as well as T-Pool Combined. The primary objective of T-Pool Cash is availability of principal. Because T-Pool 1-5 has a longer time horizon than T-Pool Cash, the two pools (T-Pool 1-5 and T-Pool Cash) use different investment styles and should therefore be compared against different benchmarks.

Book Yield Performance Comparisons

The following table lists the book yield performance benchmarks for each fund as listed in the 2010 Investment Policy Statement.

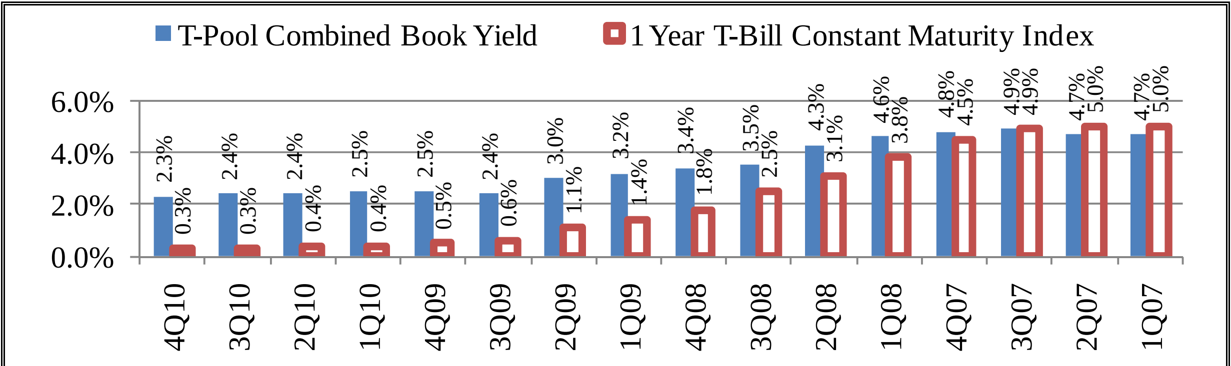
Colorado Department of the Treasury Book Yield Performance Benchmarks 2007 and 2010 Investment Policy Statements							
Book Yield Performance Benchmark	**T-Pool**			**Public School Permanent Fund**	**Major Medical Insurance Fund**	**State Education Fund**	**Unclaimed Property Tourism Promotion Trust Fund**
	T-Pool Combined	*T-Pool Cash*	*T-Pool 1-5*				
Last 12 month average yield of the following U.S. treasury security:	1-year Constant Maturity Index	30-day Treasury Bill	2-year Constant Maturity Index	5-year Constant Maturity Index	7-year Constant Maturity Index	1-year Constant Maturity Index*	7-year Constant Maturity Index

Source: Buck Global Investment Advisors analysis of Colorado Treasury 2007 and 2010 Investment Policy Statements.
* The State Education Fund uses the T-Pool Combined benchmark as a proxy.

Combined Treasury Pool

Portfolio Book Yield compared to Benchmark (Quarterly)

This chart compares the trailing 12-month book yield of the portfolio (blue) to its benchmark (red) for each quarter of Calendar Years 2007 through 2010.

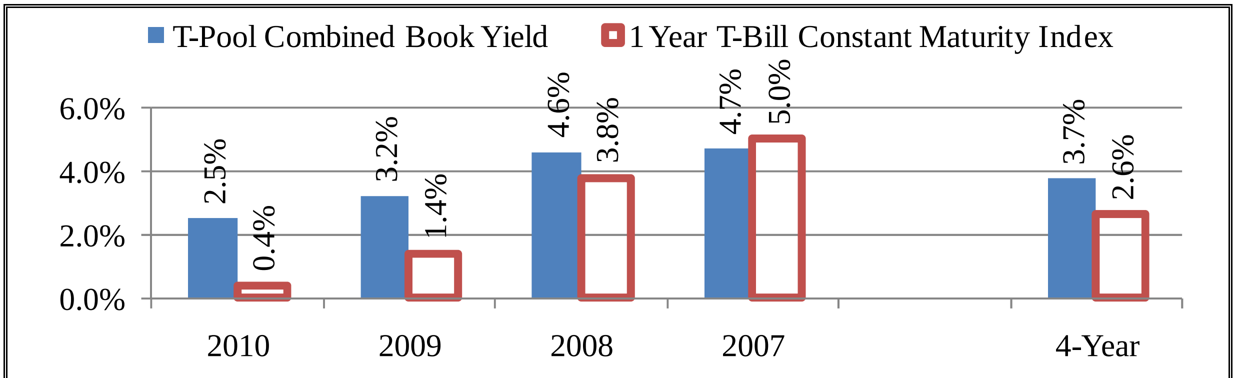


Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury Earnings and Yield Statements

The book yield benchmark for T-Pool Combined is the trailing 12-month average yield on the 1-year Treasury Bill Constant Maturity Index. The Combined Treasury Pool has exceeded this benchmark in 13 of 16 quarters (above). Furthermore, the T-Pool Combined produced a higher book yield than its benchmark in each of the past four years, and over the 4-year period as a whole (below).

Book Yield compared to Benchmark (Annually and over 4 years)

This chart compares the 12-month book yield of the portfolio (blue) to its benchmark (red) for Calendar Years 2007 through 2010, and for the period as a whole.

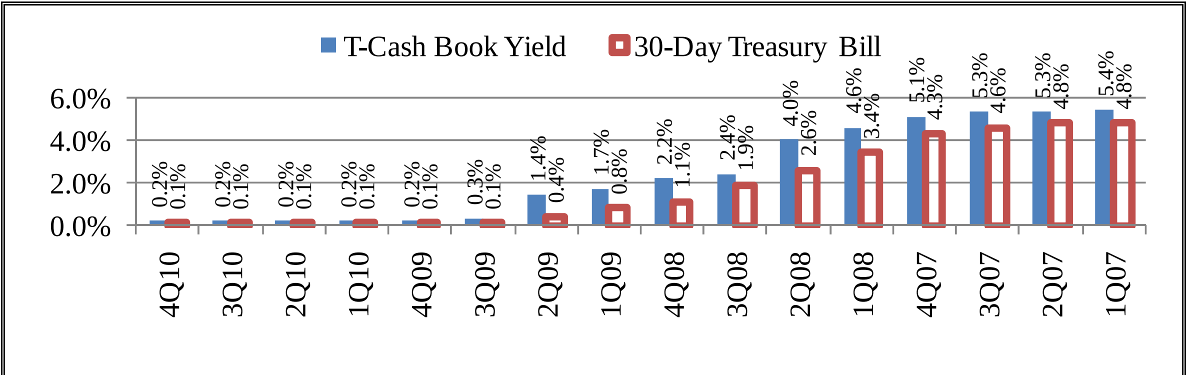


Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury Earnings and Yield Statements

T-Pool Cash

Portfolio Book Yield compared to Benchmark (Quarterly)

This chart compares the trailing 12-month book yield of the portfolio (blue) to its benchmark (red) for each quarter during Calendar Years 2007 through 2010.

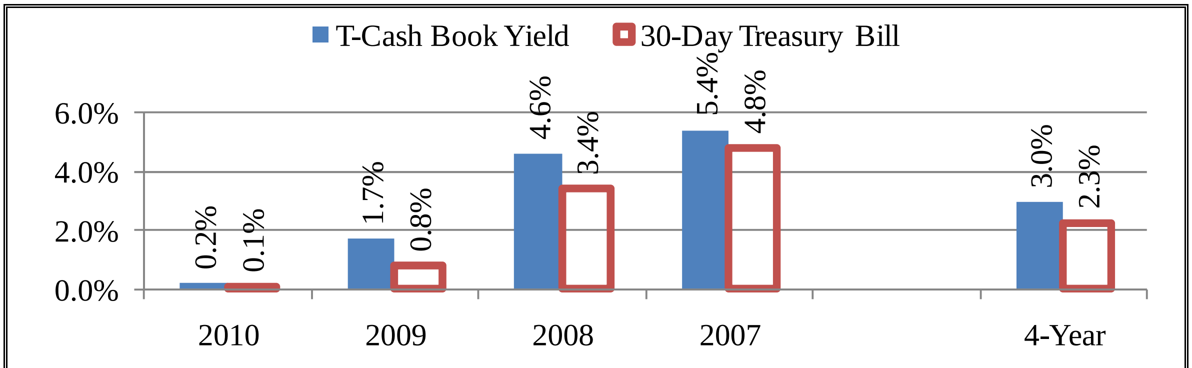


Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury Earnings and Yield Statements

The book yield benchmark for T-Pool Cash is the trailing 12-month average yield on the 30-day Treasury Bill, or T-bill. T-Pool Cash has exceeded this benchmark in 16 of 16 quarters (above). Furthermore, T-Pool Cash produced a higher book yield than its benchmark in each of the past four years, and over the 4-year period as a whole (below).

Book Yield compared to Benchmark (Annually and over 4 years)

This chart compares the 12-month book yield of the portfolio (blue) to its benchmark (red) for Calendar Years 2007 through 2010, and for the period as a whole.

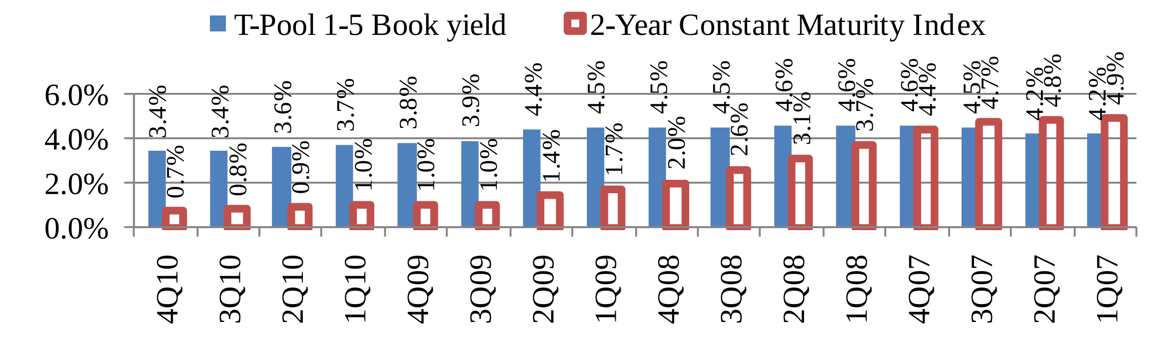


Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury Earnings and Yield Statements

T-Pool 1-5

Portfolio Book Yield compared to Benchmark (Quarterly)

This chart compares the trailing 12-month book yield of the portfolio (blue) to its benchmark (red) for each quarter during Calendar Years 2007 through 2010.

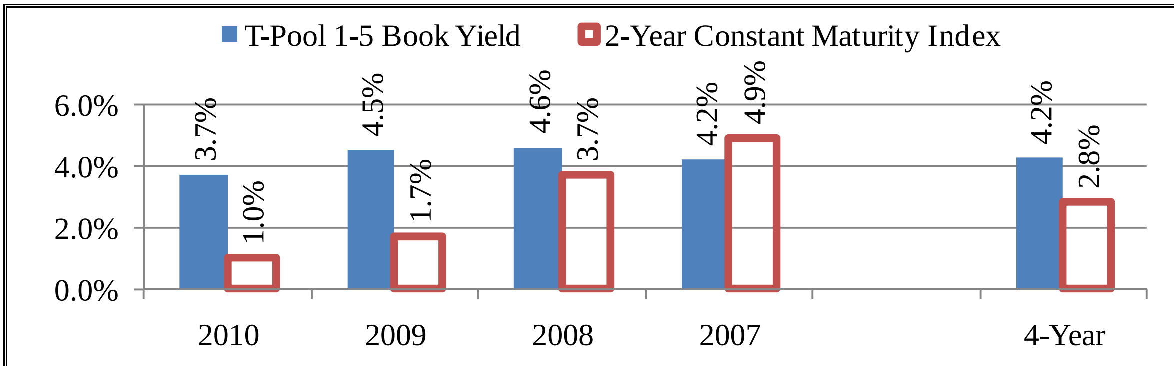


Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury Earnings and Yield Statements

The book yield benchmark for T-Pool 1-5 is the trailing 12-month average yield on the 2-year Constant Maturity Index. T-Pool 1-5 has exceeded this benchmark in 13 of 16 quarters (above). Furthermore, T-Pool 1-5 produced a higher book yield than its benchmark each of the past four years, and over the 4-year period as a whole (below).

Book Yield compared to Benchmark (Annually and over 4 years)

This chart compares the 12-month book yield of the portfolio (blue) to its benchmark (red) for Calendar Years 2007 through 2010, and for the period as a whole.

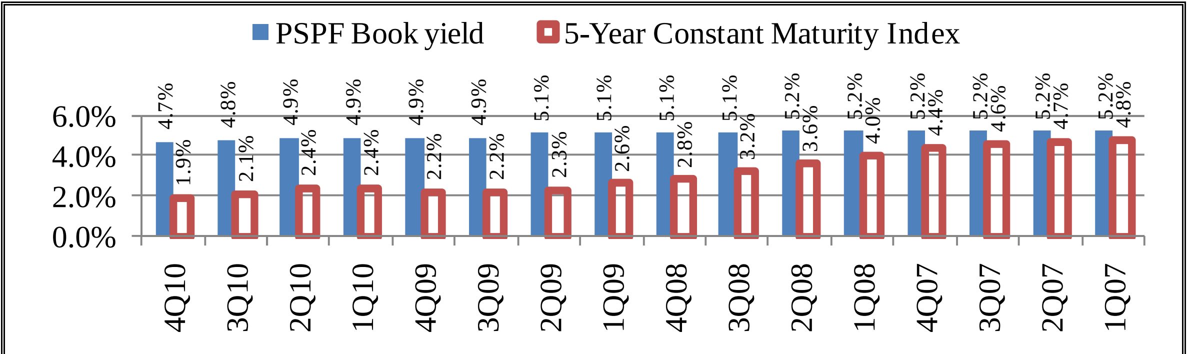


Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury Earnings and Yield Statements

Public School Permanent Fund

Portfolio Book Yield compared to Benchmark (Quarterly)

This chart compares the trailing 12-month book yield of the portfolio (blue) to its benchmark (red) for each quarter during Calendar Years 2007 through 2010.

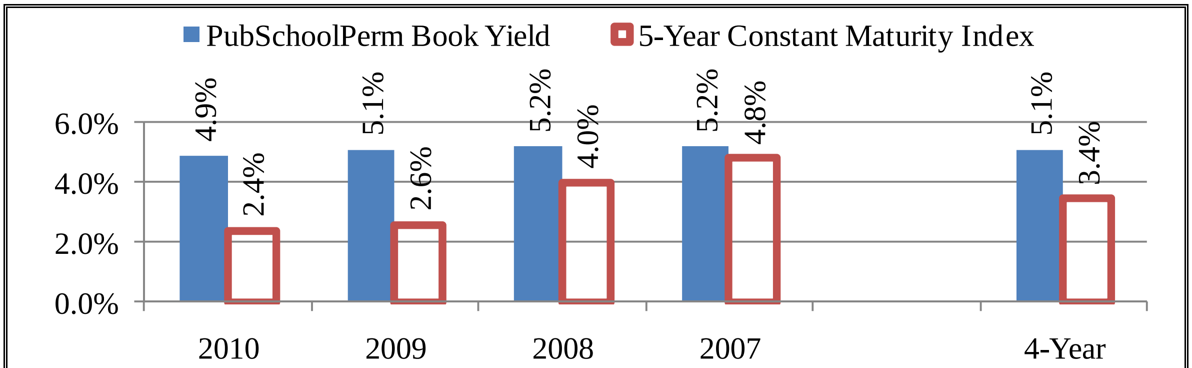


Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury Earnings and Yield Statement

The book yield benchmark for the Public School Permanent Fund is the trailing 12-month average yield on the 5-year Treasury Constant Maturity Index. The Public School Permanent Fund has exceeded this benchmark in 16 of 16 quarters (above). Furthermore, the Public School Permanent Fund produced a higher book yield than its benchmark each of the past four years, and over the 4-year period as a whole (below).

Book Yield compared to Benchmark (Annually and over 4 years)

This chart compares the 12-month book yield of the portfolio (blue) to its benchmark (red) for Calendar Years 2007 through 2010, and for the period as a whole.

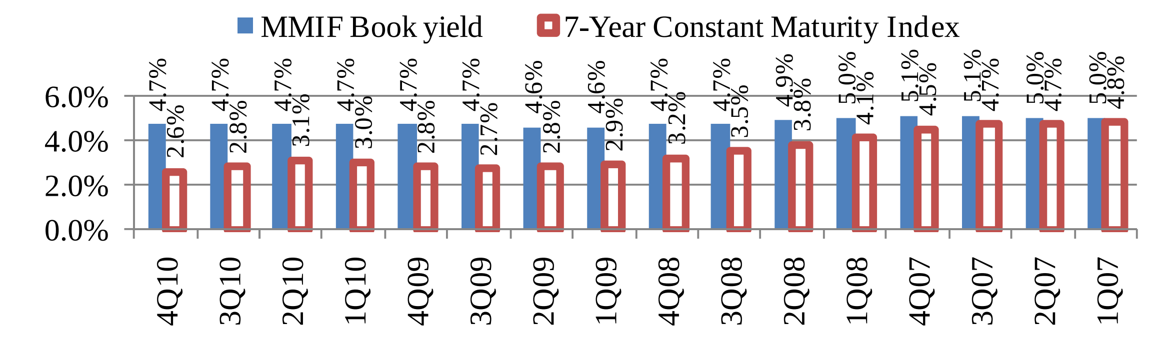


Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury Earnings and Yield Statement

Major Medical Insurance Fund

Portfolio Book Yield compared to Benchmark (Quarterly)

This chart compares the trailing 12-month book yield of the portfolio (blue) to its benchmark (red) for each quarter during Calendar Years 2007 through 2010.

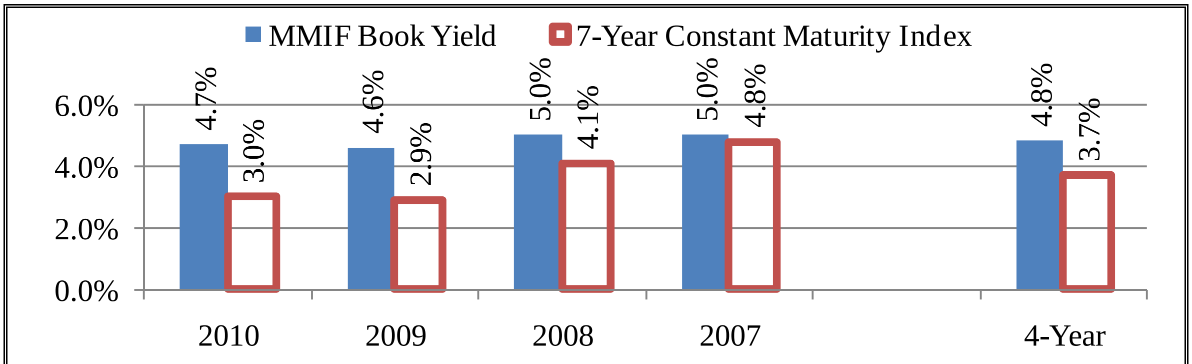


Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury Earnings and Yield Statement

The book yield benchmark for the Major Medical Insurance Fund is the trailing 12-month average yield on the 7-year Treasury Constant Maturity Index. The Major Medical Insurance Fund has exceeded this benchmark in 16 of 16 quarters (above). Furthermore, the Major Medical Insurance Fund produced a higher book yield than its benchmark in each of the past four years, and over the 4-year period as a whole (below).

Book Yield compared to Benchmark (Annually and over 4 years)

This chart compares the 12-month book yield of the portfolio (blue) to its benchmark (red) for Calendar Years 2007 through 2010, and for the period as a whole.

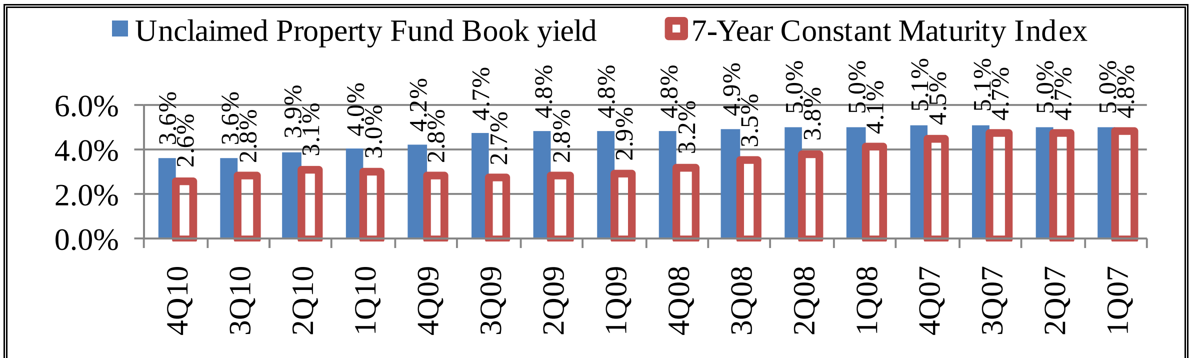


Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury Earnings and Yield Statement

Unclaimed Property Tourism Promotion Trust Fund

Portfolio Book Yield compared to Benchmark (Quarterly)

This chart compares the trailing 12-month book yield of the portfolio (blue) to its benchmark (red) for each quarter during Calendar Years 2007 through 2010.

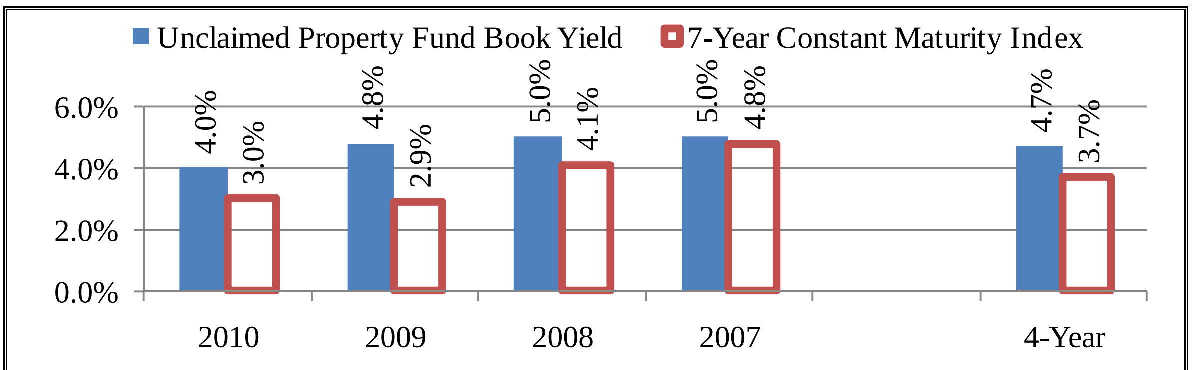


Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury Earnings and Yield Statement.

The book yield benchmark for the Unclaimed Property Tourism Promotion Trust Fund is the trailing 12-month average yield on the 7-year Treasury Constant Maturity Index. It has exceeded this benchmark in 16 of 16 quarters (above). Furthermore, the Unclaimed Property Tourism Promotion Trust Fund produced a higher book yield than its benchmark in each of the past four years, and over the 4-year period as a whole (below).

Book Yield compared to Benchmark (Annually and over 4 years)

This chart compares the 12-month book yield of the portfolio (blue) to its benchmark (red) for Calendar Years 2007 through 2010, and for the period as a whole.

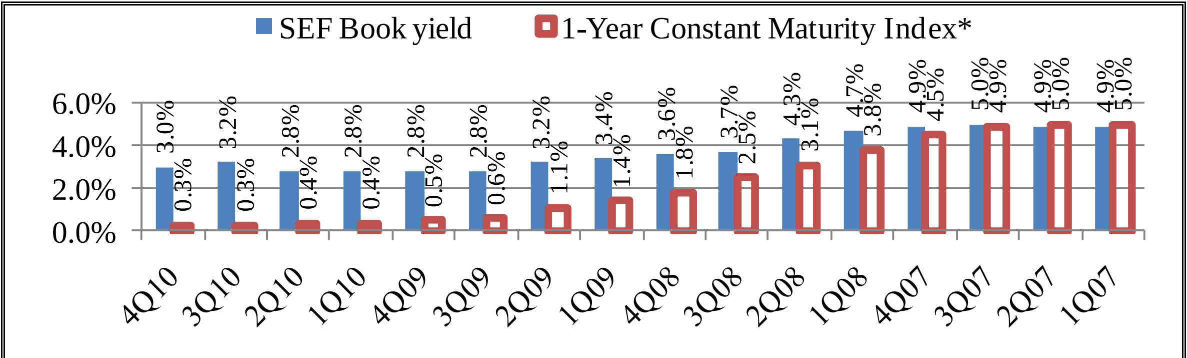


Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury Earnings and Yield Statement.

State Education Fund

Portfolio Book Yield compared to Benchmark (Quarterly)

This chart compares the trailing 12-month book yield of the portfolio (blue) to its benchmark (red) for each quarter during Calendar Years 2007 through 2010.

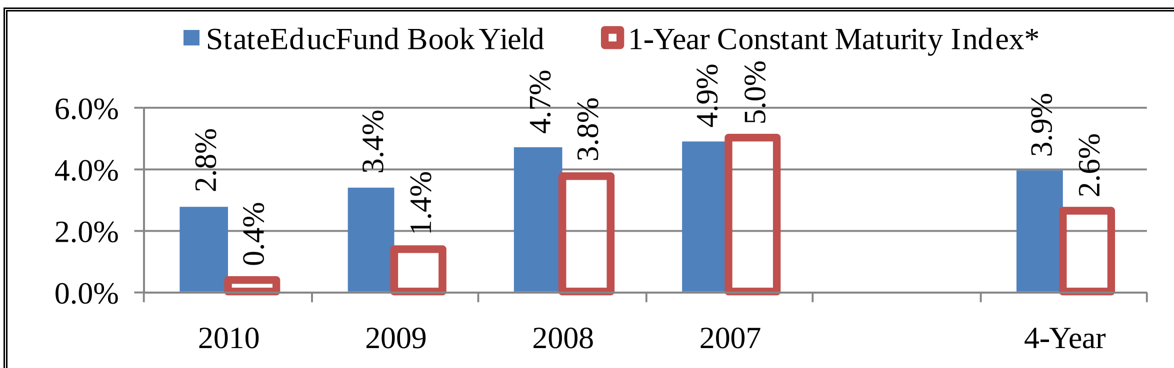


Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury Earnings and Yield Statements.
*Using T-Pool Combined Index as directed by Investment Policy Statement

While there is no explicit book yield benchmark for the State Education Fund, the majority of assets are held in the Combined Treasury Pool, so the State Education Fund uses the T-Pool Combined benchmark. We used the trailing 12-month average yield on the 1-year Treasury Constant Maturity Index as its benchmark. The State Education Fund has exceeded this benchmark in 14 of 16 quarters (above), in each of the past four years, and over the 4-year period as a whole (below).

Book Yield compared to Benchmark (Annually and over 4 years)

This chart compares the 12-month book yield of the portfolio (blue) to its benchmark (red) for Calendar Years 2007 through 2010, and for the period as a whole.



Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury Earnings and Yield Statements.
*Using T-Pool Combined Index as directed by Investment Policy Statement

Total Rate of Return Performance Comparisons

In the pages that follow, we provide a review of the total rate of return achieved for each fund. Total rate of return reflects both earned income and changes in the market value of principal. Unlike book yield, total rate of return provides an updated value of the portfolio and captures both unrealized gains and losses.

The total rates of return used in the following pages were provided by the Treasury and its custodian, JP Morgan Chase. For the primary performance comparison, we compare each fund's total return as provided to its respective total return policy benchmark. The total return policy benchmarks are established by the Treasury's Investment Policy Statement and are shown in the table below.

The Treasury's Investment Policy Statement defines the appropriate benchmarks against which to evaluate four of the five Treasury funds, excluding the T-Pool Cash Fund. For example, when evaluating the performance of the T-Pool 1-5 Fund, the Investment Policy states that the Fund should be evaluated against the total return of a mix of three different indices; the U.S. Corporate A–AAA rated 1-5 Year Index, the Treasuries/Agencies 1-5 Year Index, and the Asset-Backed Securities 0–3 year index. Evaluating the total return for the combination of each of these three indices, using the weight prescribed for each, is considered to mirror the types of investments in the T-Pool 1-5 Fund and therefore, to be an appropriate benchmark against which we can measure the T-Pool 1-5 Fund's total return performance.

Colorado Department of the Treasury
2010 Investment Policy Statement Total Return Benchmarks

Fund	***Benchmark***
T-Pool 1-5	20% U.S. Corporates A-AAA rated, 1-5 Years Index 70% Treasuries/Agencies, 1-5 Years Index 10% Asset-Backed Securities, 0-3 Years, Fixed-Rate Index
Public School Permanent Fund	37% Merrill Lynch U.S. Treasury, 1-10 Years Index 34% Merrill Lynch Mortgages, 0-10 Years WAL Index 19% Merrill Lynch AAA U.S. Agencies, 1-10 Years Index 10% Merrill Lynch U.S. Corporates, A-AAA Rated, 1-10 Years Index
State Education Fund	Not stated in policy; T-Pool is the implied benchmark
Major Medical Insurance Fund	65% Merrill Lynch U.S. Domestic Master 1-10 Years, A-rated and above 35% Merrill Lynch U.S. Corporate & Government, 10+ years, A-rated and above
Unclaimed Property Tourism Promotion Trust Fund	65% Merrill Lynch U.S. Domestic Master 1-10 Years, A-rated and above 35% Merrill Lynch U.S. Corporate & Government, 10+ years, A-rated and above

Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury Investment Policy, 2010.

Although no total return benchmark for T-Pool Cash is specified in the Treasury's Policy Statement, its book yield benchmark (30-day Treasury bill) is a reasonable total return benchmark as well. We used the 30-day Treasury Bill index as the benchmark for the T-Pool Cash Fund. In addition to using the benchmarks prescribed by the Treasury's Investment Policy Statement, we also compare each fund to a Morningstar mutual fund peer group.

The table below shows a comparison of the total return for four of the five Treasury Funds, excluding the T-Pool Cash Fund, against the total return policy benchmark and an appropriate Morningstar mutual fund peer group. As stated, the Treasury's Investment Policy Statement does not identify a total return benchmark for the T-Pool Cash Fund. As a result we compared the T-Pool Cash Fund's total return performance with that of both a Morningstar peer group fund and the Federal Funds rate (or the 30 year Treasury Bill rate).

Finally, we measured risk by calculating the standard deviation of a three-year holding period (Calendar Years 2008 through 2010). In general, a lower standard deviation means a more stable series of returns.

Total Return by Portfolio
Calendar Years 2007 through 2010

	Periods Longer Than 1 Year are Annualized					**Standard Deviation 2008-2010**
Fund/Benchmark	**2010**	**2009**	**2008**	**2007**	**4 Yrs**	**3 Years**
T-Cash	**0.17**	**0.45**	**2.62**	**5.38**	**2.13**	**0.34**
Peer Group: Ultrashort Bond Mutual Funds	2.27	6.67	-7.89	2.42	0.71	2.58
Federal Funds Rate (30-year Treasury Bill)	0.12	0.11	1.37	3.52	1.27	0.15
Treasury Pool 1-5	**3.91**	**4.40**	**5.01**	**7.24**	**5.13**	**2.09**
Total Return Policy Index	3.91	4.45	5.04	7.20	5.14	2.29
Peer Group: Short-Term Bond Mutual Funds	4.11	9.30	-4.23	4.29	3.04	3.23
Public School Permanent Fund	**5.85**	**8.09**	**6.20**	**7.28**	**6.86**	**3.58**
Total Return Policy Index (Buck)	5.39	3.14	8.13	7.70	6.07	3.29
Total Return Policy Index (JPMorgan)	5.38	3.15	8.13	7.67	6.06	3.42
Peer Group: Short-Term Bond Mutual Funds	4.11	9.30	-4.23	4.29	3.04	3.23
Peer Group: Intermediate-Term Bond Mutual Funds	7.72	13.97	-4.70	4.70	4.97	5.91
State Education Fund	**2.80**	**6.31**	**6.43**	**8.49**	**5.99**	**3.26**
Total Return Policy Index	3.91	4.45	5.04	7.20	5.14	2.29
Peer Group: Short-Term Bond Fund	4.11	9.30	-4.23	4.29	3.04	3.23
Major Medical Insurance Fund	**7.73**	**6.85**	**7.28**	**7.67**	**7.38**	**4.56**
Total Return Policy Index (Buck)	7.23	1.18	9.36	7.48	6.27	6.38
Total Return Policy Index (JPMorgan)	7.19	1.13	9.44	7.41	6.25	6.43
Peer Group: Intermediate-Term Bond Fund	7.72	13.97	-4.70	4.70	4.97	5.91
Peer Group: Short-Term Bond Fund	4.11	9.30	-4.23	4.29	3.04	3.23
Unclaimed Property Tourism Promotion Trust Fund	**6.09**	**6.36**	**7.26**	**7.18**	**6.72**	**3.63**
Total Return Policy Index (Buck)	7.23	1.18	9.36	7.48	6.27	6.38
Total Return Policy Index (JPMorgan)	7.19	1.13	9.44	7.41	6.25	6.43
Peer Group: Short-Term Bond Fund	4.11	9.30	-4.23	4.29	3.04	3.23
Peer Group: Intermediate-Term Bond Fund	7.72	13.97	-4.70	4.70	4.97	5.91

Source: Buck Global Investment Advisor's analysis of monthly Total Return Reports from JP Morgan Chase, the Treasury's investment custodian and appropriate indices and peer groups for comparison with the Treasury funds.

Green indicates fund outperformed both benchmarks
Blue indicates fund performed between benchmarks
Red indicates fund underperformed both benchmarks

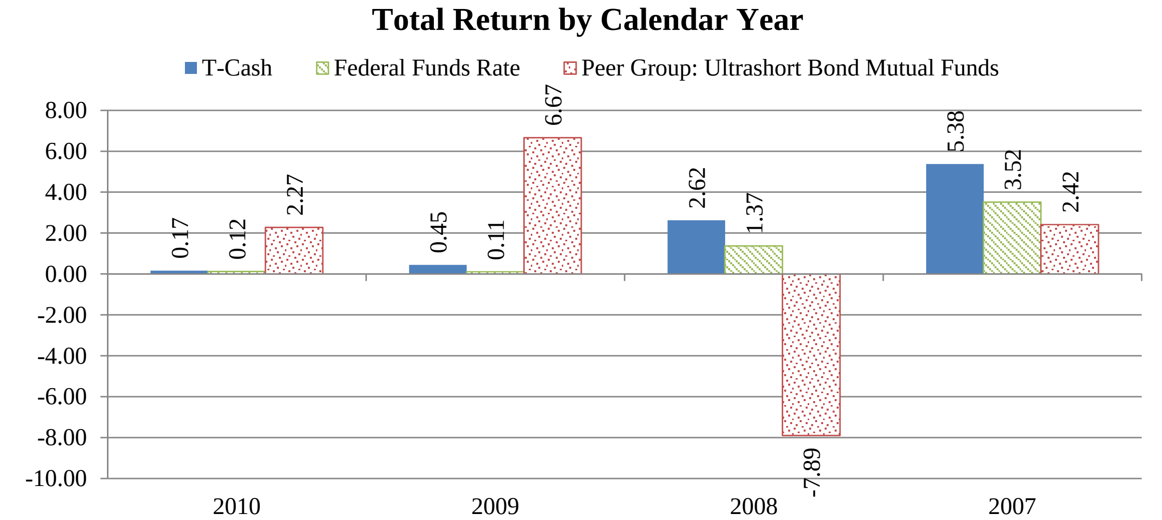
As shown in the table above, only those funds marked in red performed at lower than the prescribed benchmarks for those periods, while in many instances the funds performed higher than (marked green) or within the range of the various benchmarks (marked blue).

In general, the funds provided steady returns each year (as measured by total return), while avoiding the pitfalls experienced by many fixed income managers during 2008. During 2008, many of the fixed income securities like subprime mortgages and structured commercial mortgage backed securities lost substantial value. The Treasury avoided this. Most of the comparable mutual funds that struggled in 2008 had strong returns in 2009 and 2010, but over the entire 4-year period the Treasury Portfolios outperformed both comparable mutual funds and their passive benchmarks when measured by total return. The lone exception to this statement is the T-Pool 1-5 portfolio return of 5.13 percent, which slightly underperformed its total return benchmark return of 5.14 percent over the four-year period. Further, we found that the risk taken by the portfolios, as measured by the three-year standard deviation, was generally lower than the risk taken by the comparable index and mutual funds.

It is also important to note that we calculated the total return indices for the four Treasury funds (excluding the T-Pool Cash Fund) separately from JP Morgan Chase. We found some differences between our calculation of the index and JP Morgan Chase's calculation of the total return index. The most significant differences are noted for Calendar Year 2008 in the Major Medical Insurance Fund and the Unclaimed Property Fund, and also in the three-year standard deviation for the Public School Permanent Fund. For example, as shown in the table above, JP Morgan Chase's calculations show an index return in 2008 for the Major Medical Insurance Fund of 9.44 percent, while the Buck index return was calculated as 9.36 percent. The difference arises from our use of daily rebalancing of the index, and the custodian's use of monthly rebalancing of the index. JP Morgan Chase uses monthly rebalancing because it provides the Treasury with a monthly level of service; however, daily rebalancing is slightly more accurate. The differences are minimal, and the Treasury does not rely on the total return benchmarks or manage the fund with an eye toward daily measurement of total return. In addition, the Treasury does not manage the funds with strict adherence to the policy weights used in the indices, so this discrepancy is minor.

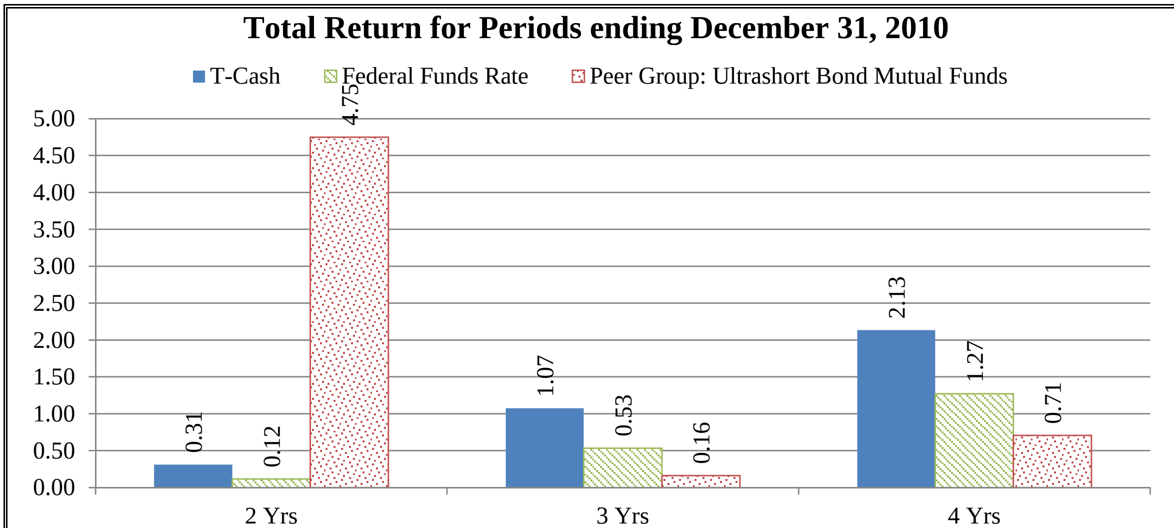
Additional detail on the performance of each of the Treasury funds can be reviewed in tables on the next several pages. This detail includes for each fund both a total return analysis, by calendar year; and the two-, three-, and four-year total return of each fund as compared to the appropriate indices and mutual funds.

T-Pool Cash



Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury Earnings and Yield Statement

T-Pool Cash provided incremental return above the Federal Funds rate and was steadier than similar mutual funds (above). Furthermore, T-Pool Cash outperformed benchmark and peer mutual funds (below).



Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury Earnings and Yield Statement.

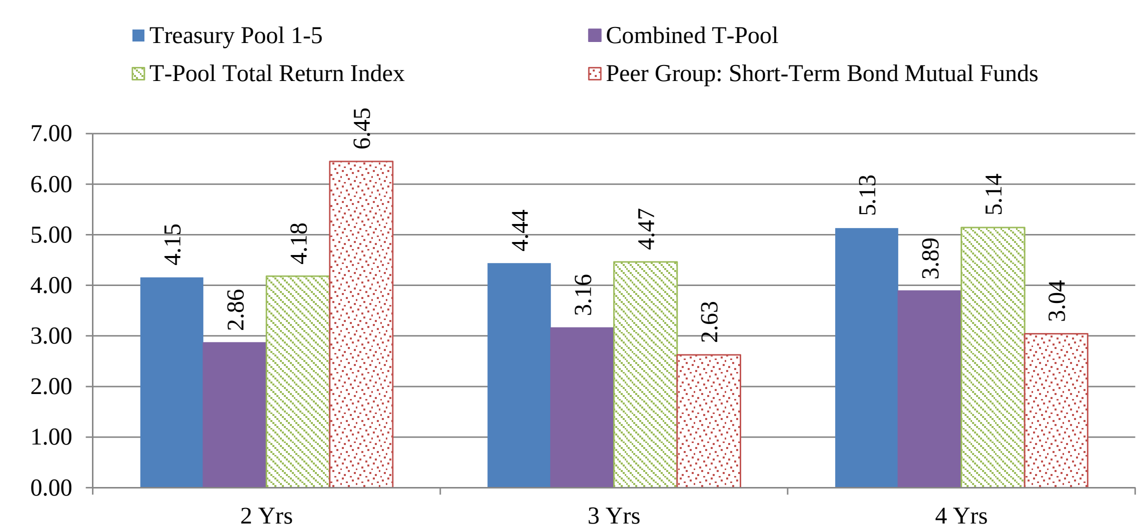
T-Pool 1-5

Total Return by Calendar Years

Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury Earnings and Yield Statement.

T-Pool 1-5 closely followed its index and was steadier than similar mutual funds (above). T-Pool 1-5 matched the benchmark and beat similar mutual funds over the period (below).

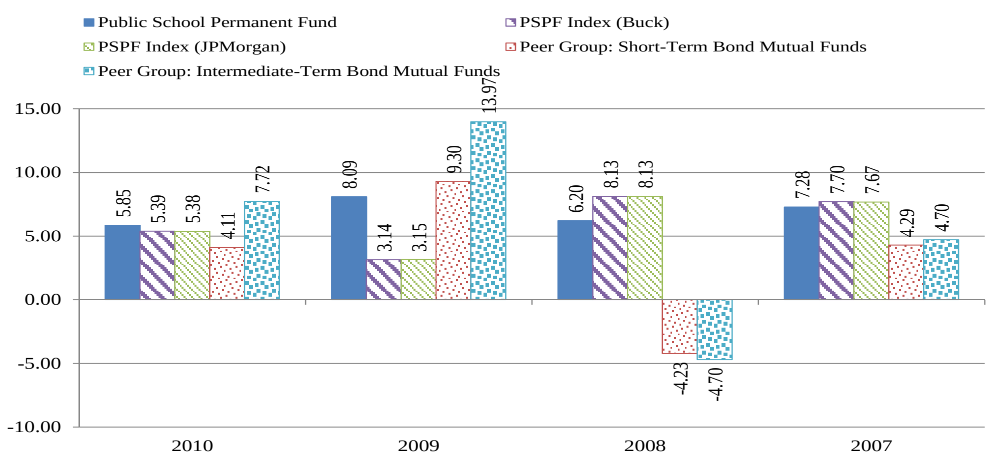
Total Return for Periods ending December 31, 2010



Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury Earnings and Yield Statement.

Public School Permanent Fund

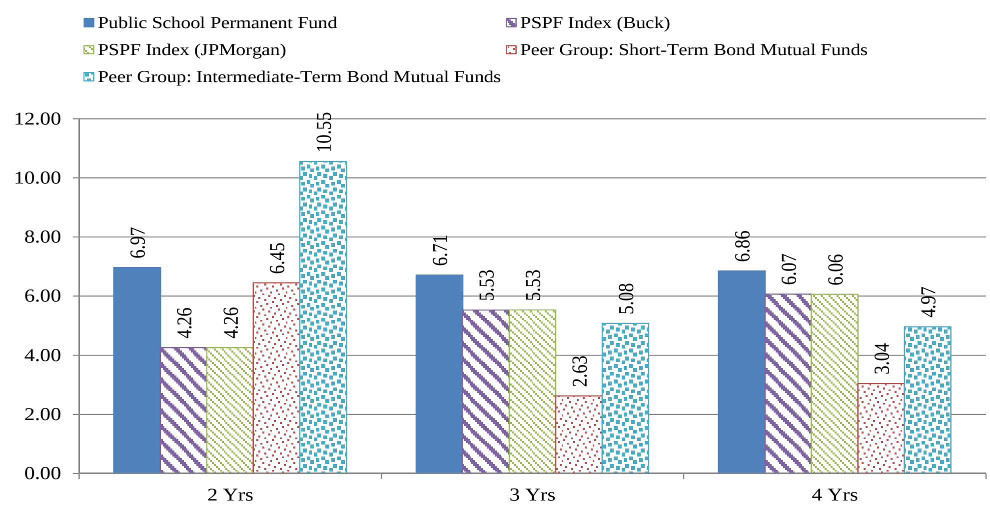
Total Return by Calendar Years



Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury Earnings and Yield Statement

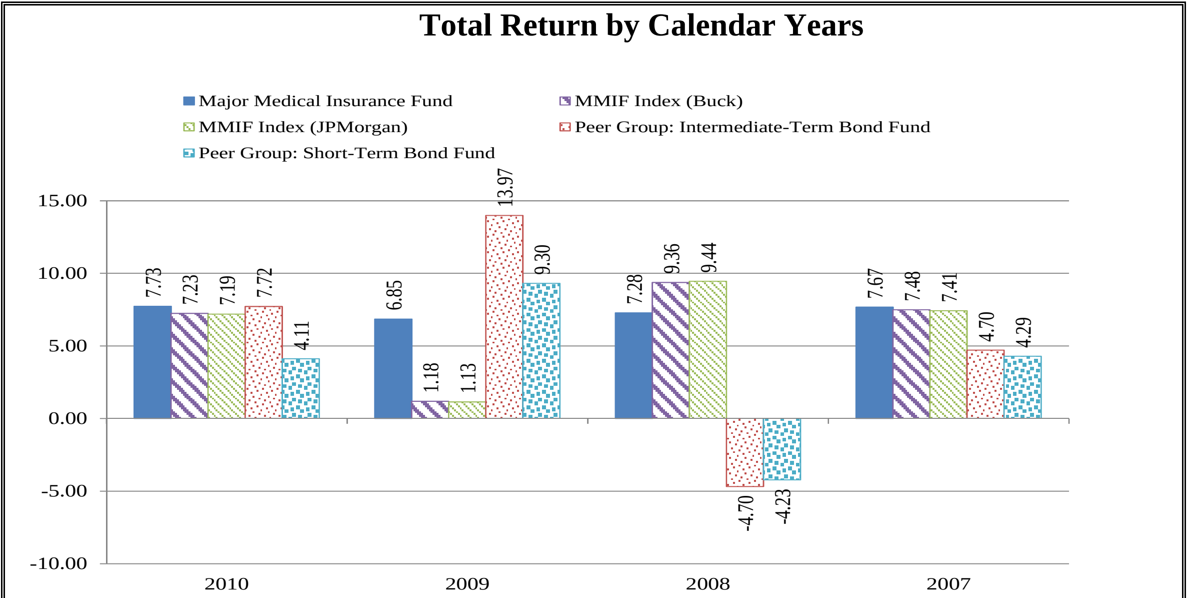
The Public School Permanent Fund was steadier than the index and similar mutual funds (above). In the 2008 "flight to quality," U.S. treasuries performed uncharacteristically well. Because the Public School Permanent Fund index had a 30 percent higher allocation to treasuries than the Public School Permanent Fund portfolio, the index outperformed the portfolio. However, the Public School Permanent Fund beat the index and similar mutual funds over the 4-year period as a whole (below).

Total Return for Periods ending December 31, 2010



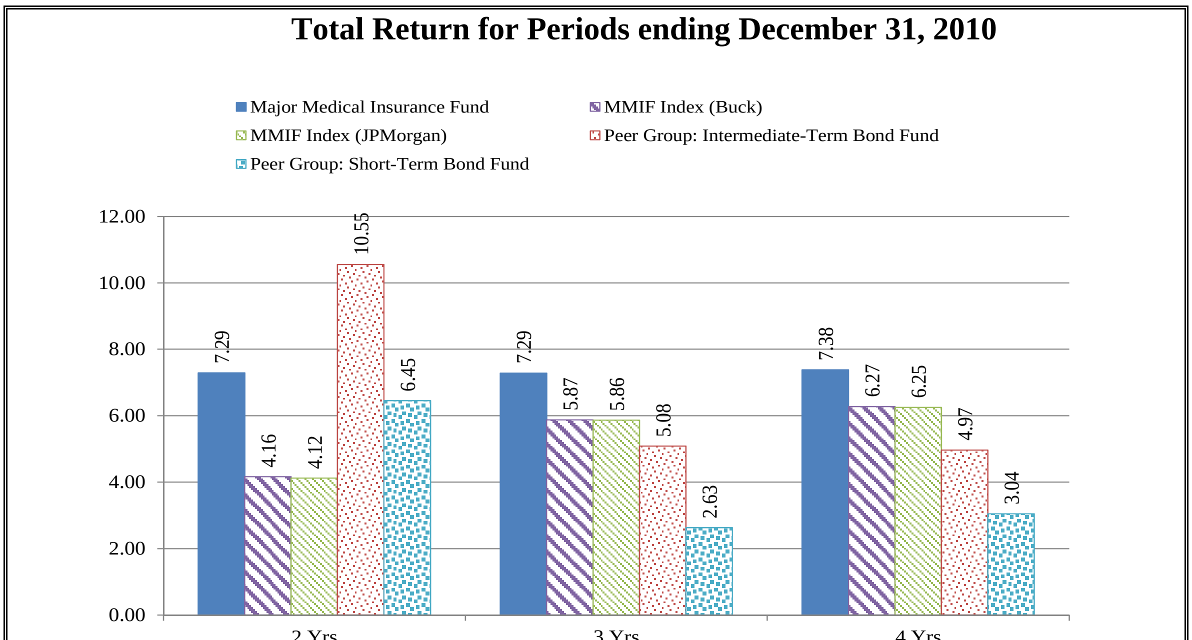
Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury Earnings and Yield Statement

Major Medical Insurance Fund



Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury Earnings and Yield Statement

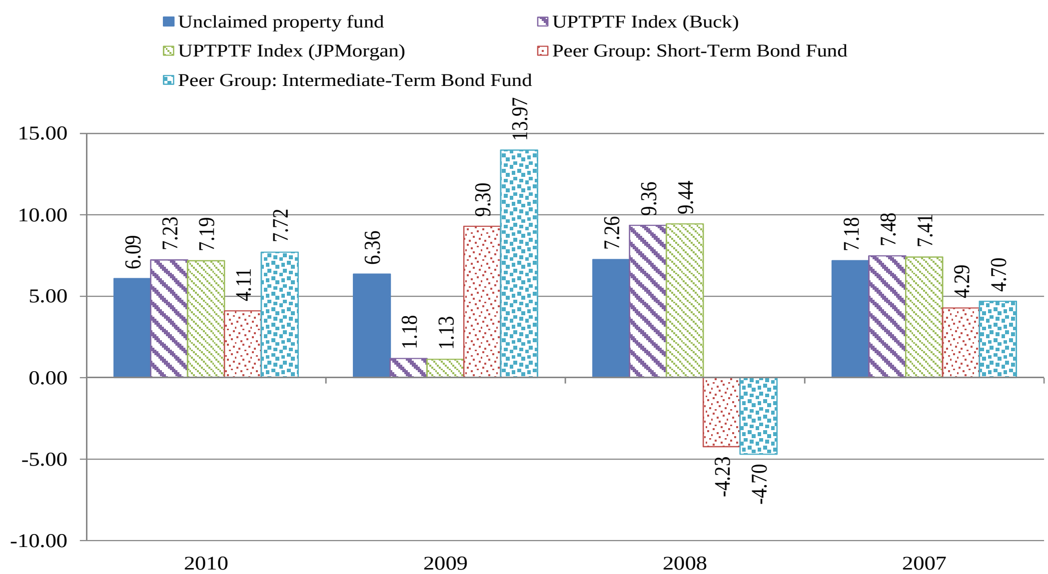
Major Medical Insurance Fund was steadier than the index and similar mutual funds (above). In addition, the Major Medical Insurance Fund beat the benchmark and similar mutual funds over the 4-year period (below).



Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury Earnings and Yield Statement

Unclaimed Property Tourism Promotion Trust Fund

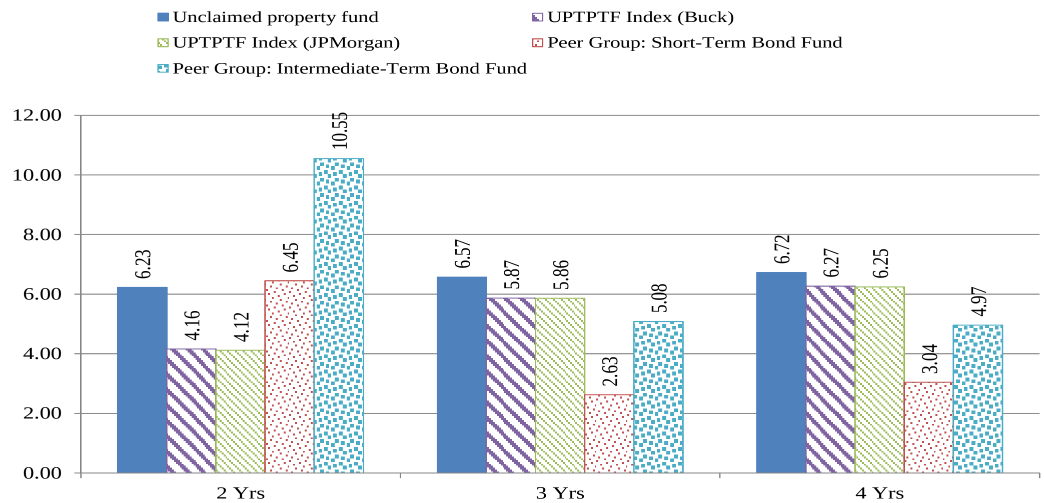
Total Return by Calendar Years and Periods ending December 31, 2010



Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury Earnings and Yield Statement

Unclaimed Property Tourism Promotion Trust Fund was steadier than the index and similar mutual funds (above). In addition, the Unclaimed Property Tourism Promotion Trust Fund beat the benchmark and similar mutual funds over the 4-year period (below).

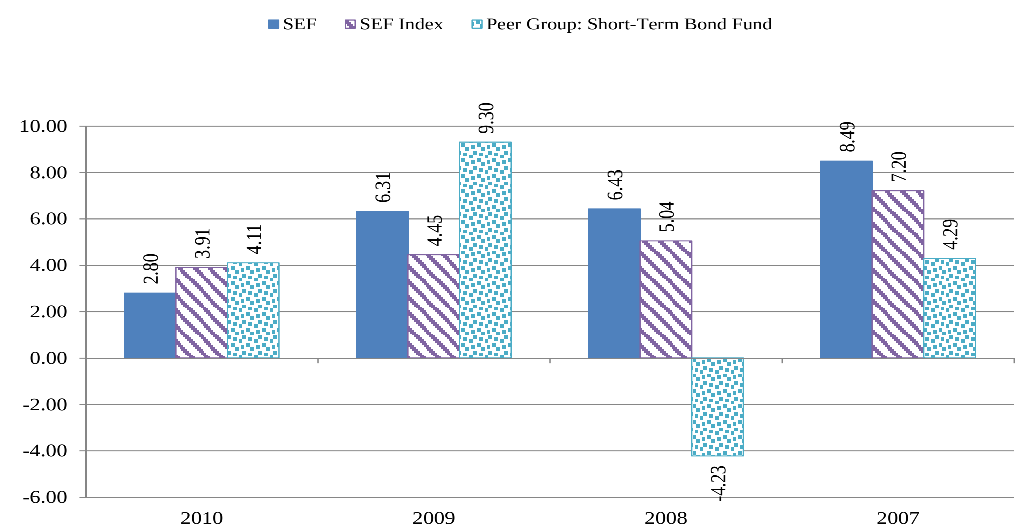
Total Return for Periods ending December 31, 2010



Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury Earnings and Yield Statement

State Education Fund

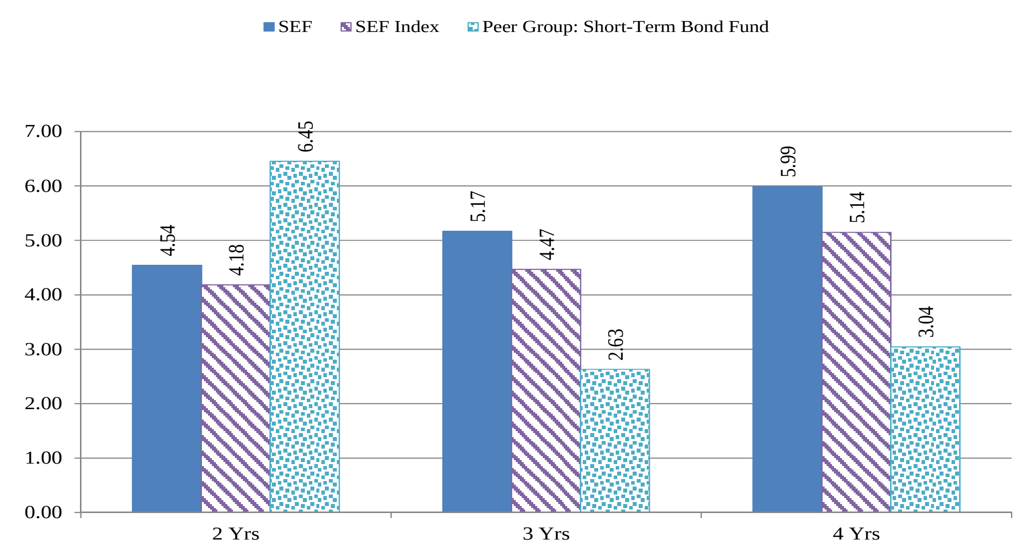
Total Return by Calendar Years



Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury Earnings and Yield Statement.

The State Education Fund beat its index in 3 of 4 years (above). In addition, the State Education Fund outperformed the benchmark and similar mutual funds over the entire 4-year period (below).

Total Return for Periods ending December 31, 2010



Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury Earnings and Yield Statement

Investment Policy and Internal Controls

This section of the report covers our review of the Treasury's investment objectives, policies, and internal controls over investments. The Treasury's investment objectives are outlined in Section 24-36-113, C.R.S. Statute specifically requires that the Treasury's investments meet acceptable standards of legality, safety, liquidity, and yield. The primary method that the State Treasurer uses to ensure that the investments meet these requirements is the Treasurer's Investment Policy Statement. The Investment Policy Statement is a formal document that defines the process used to manage the portfolios of the Treasury Investment Program. The Investment Policy Statement outlines the appropriate mix of investments and asset holdings, and also communicates the roles and responsibilities of the State Treasurer, the Investment Officers, and the Advisory Committee with respect to managing the State's investment portfolios. The State Treasurer is responsible for approving the Investment Policy Statement, and the Investment Officers are required to adhere to the terms of the Investment Policy Statement when carrying out their duties in managing the State's investment program portfolio.

We reviewed the Treasury's Investment Policy Statement and the Treasury's compliance with the Investment Policy Statement with respect to the Treasury's cash management practices, investment asset mix, and role of the Advisory Committee. We found that the Treasury's cash management practices and performance comply with the requirements identified in the Treasury Investment Policy Statement and, therefore, we make no recommendations in this area. However, we did find that the Treasury needs to improve policy and controls governing its investments in three areas: (1) improving review and approval processes for departures from the Investment Policy Statement, (2) eliminating certain statutory limitations on investments, and (3) improving monitoring tools for evaluating the quality of its investments. In the sections below, we provide a brief description of our work related to the Treasury's cash management practices and also discuss our recommendations for improving investment policy and controls.

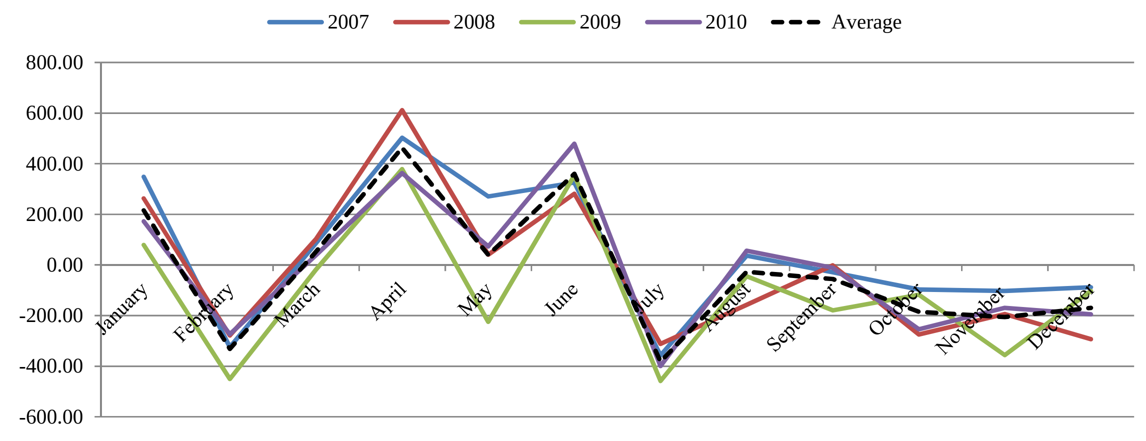
Cash Management

The Treasury's Investment Policy Statement requires that the Treasury maintain sufficient liquidity to fund anticipated state agency spending needs. The investment policy requires a $300 million minimum balance in the cash pool, although in practice the minimum desired cushion is closer to $600 million. The lowest cash balance of the cash pool during the period was $1.5 billion, well above both minimums.

The table below shows the net flow of cash from the Treasury for each month of the four-year period. We found that Treasury's practices adequately ensure proper and effective cash management, and that the flow of funds into and out of the Treasury was predictable—allowing for a stable cash management program.

These cash flows form a predictable pattern from year-to-year, as seen in the chart below. Receipts occur in January, April, and June while other months generally see outflows.

Cash Flow
Calendar Years 2007 -2010 and Average



Source: Buck Global Investment Advisory Group analysis of Treasury cash flow statements, 2007 to 2010.

Adherence to the Investment Policy Statement

As previously discussed, the Treasury's Investment Policy Statement establishes certain parameters on the types of securities the State Treasurer and Investment Officers are allowed to invest in as well as the mix of assets that the Treasury Investment Program should have in each type of security. These parameters are established by the State Treasurer to carry out his or her fiduciary responsibility and ensure that the statutory objectives of legality, safety, liquidity, and yield are met for the Treasury Investment Program. The State Treasurer authorizes the Investment Officers to take all investment action "necessary and desirable" to achieve Treasury objectives, and the Investment Officers understand that they are to conduct their investment of Treasury securities in accordance with the Investment Policy Statement.

The table below shows the limits established by the Investment Policy Statement for each type of security and for each of the five funds in the portfolio. The table also shows the diversification guidelines for Calendar Year 2010. The tables on the subsequent pages describe the maximum or minimum allocation actually experienced during the period of review and indicate if that allocation was a deviation from investment policy. In addition, the asset mix is shown over time throughout the period Calendar Years 2007 through 2010 for each fund.

During the period Calendar Years 2007 through 2010, we found two instances in which the Treasury did not invest funds in accordance with the Investment Policy Statement. First, while the Investment Policy Statement requires a 10 percent investment in Treasury securities, Treasury Department staff invested only 7.2 percent of the Combined Treasury Pool in Treasury securities in 2009. Second, while the Investment Policy Statement requires that the Unclaimed Property Tourism Promotion Trust Fund invest no more than 30 percent of its investments in the Treasury Pool, in 2010, Treasury Department staff invested 59 percent of investments in the Treasury Pool, exceeding the policy limit by nearly double.

Colorado Department of the Treasury
Diversification Limitations

Security Type	**T-Pool Combined**	**Public School Permanent Fund**	**Major Medical Insurance Fund**	**Unclaimed Property Tourism Promotion Trust Fund**	**State Education Fund**
	Percentage Min/ Max	**Percentage Min/ Max**	**Percentage Min/ Max**	**Percentage Min/ Max**	**Percentage Min/ Max**
U.S. Treasury Securities	10% to 100%	N/A	N/A	N/A	N/A
U.S. Agency Securities	Up to 90%	N/A	N/A	N/A	N/A
Treasury/ Agency Combined	N/A	20% to 100%	20% to 100%	20% to 100%	20% to 100%
Misc. Government Guaranteed	Up to 50%	Up to 50%	Up to 50%	Up to 50%	Up to 50%
Mortgage Backed Securities	N/A	Up to 50%	Up to 50%	Up to 50%	Up to 50%
Domestic Corporate Notes/Bonds	N/A	Up to 20%	Up to 35%	Up to 50%	Up to 20%
Asset-Backed Securities	Up to 25%	Up to 30%	Up to 30%	Up to 30%	Up to 30%
Repurchase Agreements	Up to 50%	Up to 50%	Up to 50%	Up to 50%	Up to 50%
Taxable Municipal Bonds	N/A	Up to 15%	N/A	N/A	N/A
T-Pool	N/A	Up to 20%	Up to 30%	Up to 30%	Up to 100%
Bankers Acceptances, Commercial Paper, Bank and Corporate Notes	Up to 65%	Up to 20%	Up to 20%	Up to 20%	Up to 20%
Agency Collateralized Mortgage Obligations (CMOs), with avg. life <3 years	Up to 15%	N/A	N/A	N/A	N/A
Certificates of Deposit	Up to 5%	N/A	N/A	N/A	N/A
Money Market Funds	Up to 35%	N/A	N/A	N/A	N/A

Source: Buck Global Investment Advisors analysis of the Colorado Department of the Treasury's 2010 Investment Policy Statement.

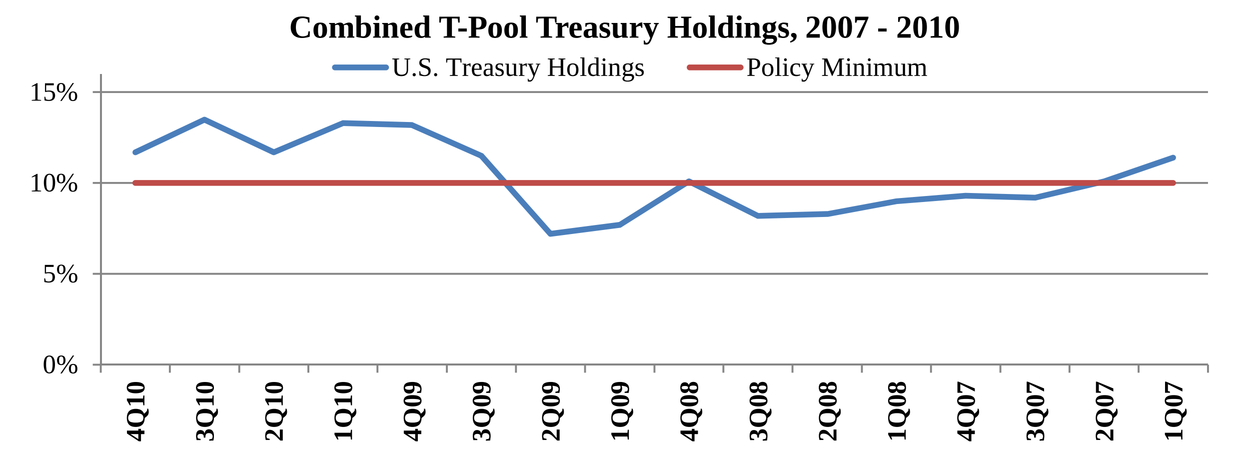
T-Cash and T-Pool Combined

Treasury Pool

Purpose of Rule	Policy Rule	Maximum or Minimum	Policy Deviation?
Liquidity	Minimum of $300m with <1yr maturity	$1,542m	No
Diversification	less than 90% in Agencies	84.50%	No
Diversification	less than 5% in Certificates of Deposit	3.40%	No
Diversification	less than 35% in Money Market	22.80%	No
Diversification	**Treasury within 10-100 percent**	**7.20%**	**Yes**
Diversification	Agency less than 90%	51.80%	No
Diversification	Agency CMO less than 15%	10.40%	No
Diversification	Misc. Gov't less than 50%	not more than 44.8%	No
Diversification	Cerificate of Deposit less than 5%	1.40%	No
Diversification	Asset backed less than 25%	16.50%	No
Diversification	Repurchase less than 50%		No
Diversification	BA, CP, Bank and Corporate Notes less than 65%	not more than 62.8%	No
Diversification	Money Market less than 35%	8.40%	No

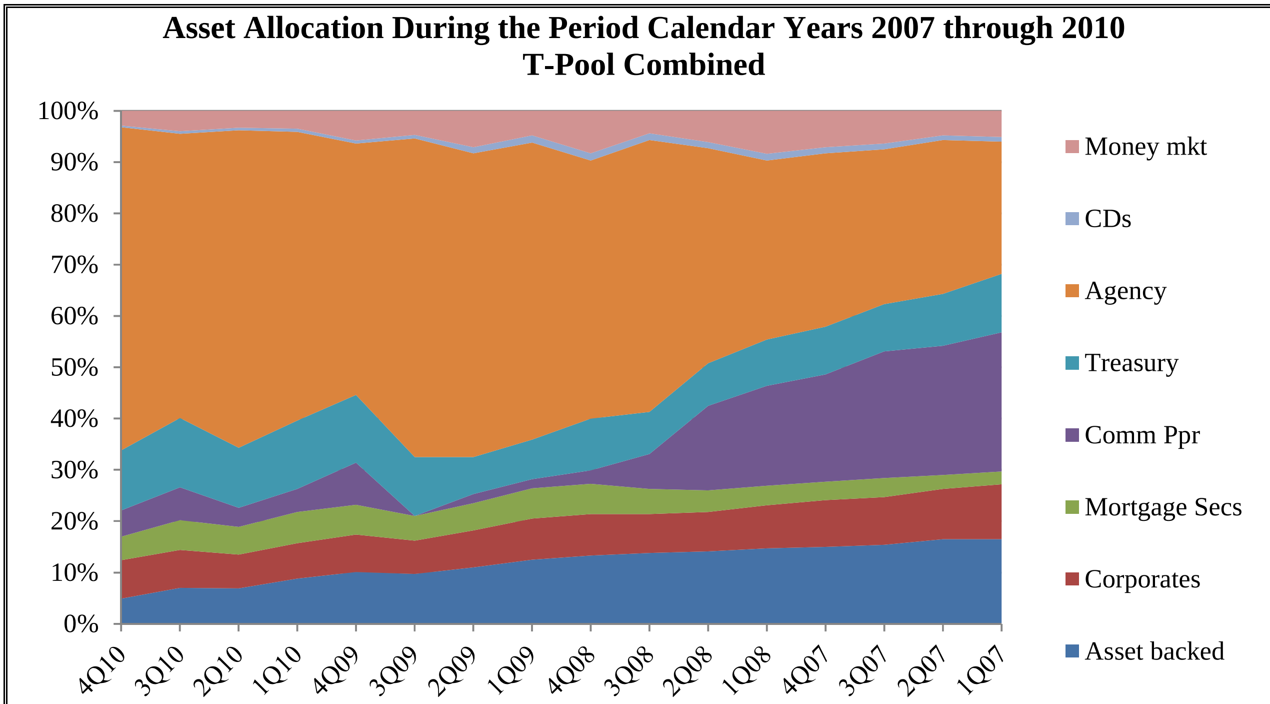
Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury's 2010 Investment Policy.

For the period Calendar Years 2007 to 2009, the allocation of the Treasury Pool to treasury securities fell below the 10 percent limit defined by the Investment Policy Statement.



Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury's quarterly performance reports for Calendar Years 2007 through 2010

The T-Pool Combined asset allocation (shown in the graph below) during the period 2007 through 2010 is marked by a shift from commercial paper and asset-backed securities into government agency securities.



Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury's quarterly performance reports for Calendar Years 2007 through 2010.

Public School Permanent Fund

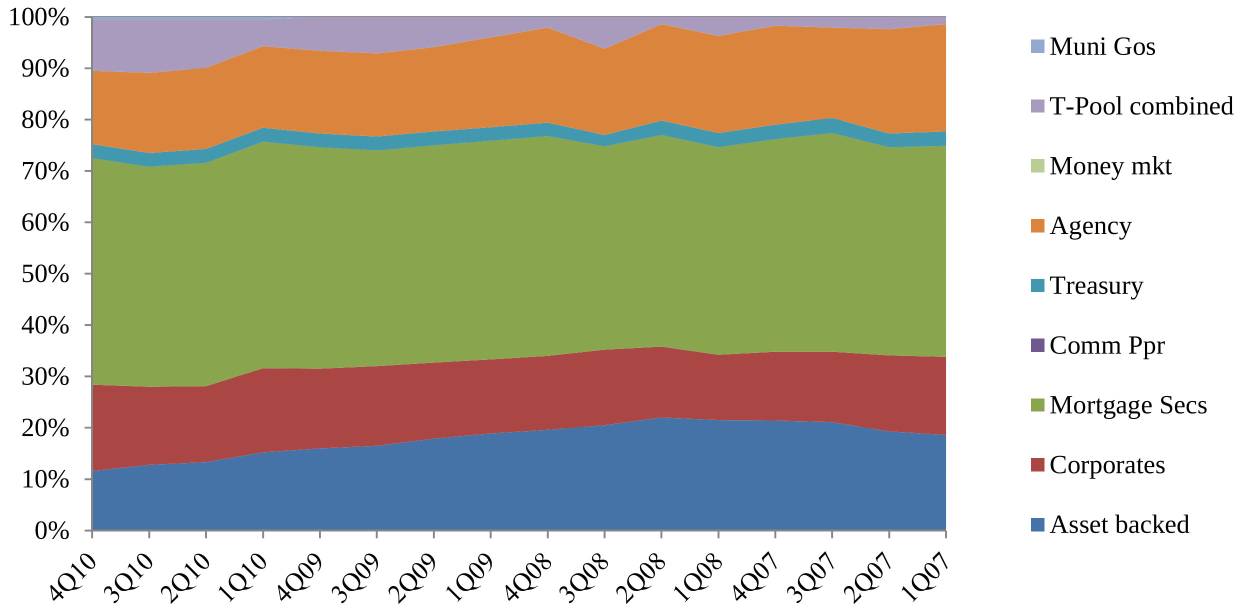
Purpose of Rule	Policy Rule	Maximum or Minimum	Policy Deviation?
Diversification	Treasury/Agency within 20-100 percent	17% (21.3% counting TPool allocation)	No
Diversification	Corporate less than 20%	16.80%	No
Diversification	Mortgage less than 50%	44.10%	No
Diversification	Misc. Gov't less than 50%	not more than 44.8%	No
Diversification	Cerificate of Deposit less than 5%	0.00%	No
Diversification	Asset backed less than 25%	22.00%	No
Diversification	BAs and Bank Notes less than 20%	not more than 3.2%	No
Diversification	Municipal bonds less than 15%	0.50%	No
Diversification	Tpool less than 20%	10.40%	No

Source: Buck Global Investment Advisors analysis of the Colorado Department of the Treasury's 2010 Investment Policy.

Allocations of the Public School Permanent Fund remained within policy limits during the period Calendar Years 2007 through 2010.

The Public School Permanent Fund asset allocation (shown in the table below) during the period 2007 through 2010 was stable and relatively unchanging, except for a slight decline in asset-backed securities, as these types of securities were less available in the market during this period.

Asset Allocation During the Period Calendar Years 2007 through 2010
Public School Permanent Fund



Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury's quarterly performance reports for Calendar Years 2007 through 2010

Major Medical Insurance Fund

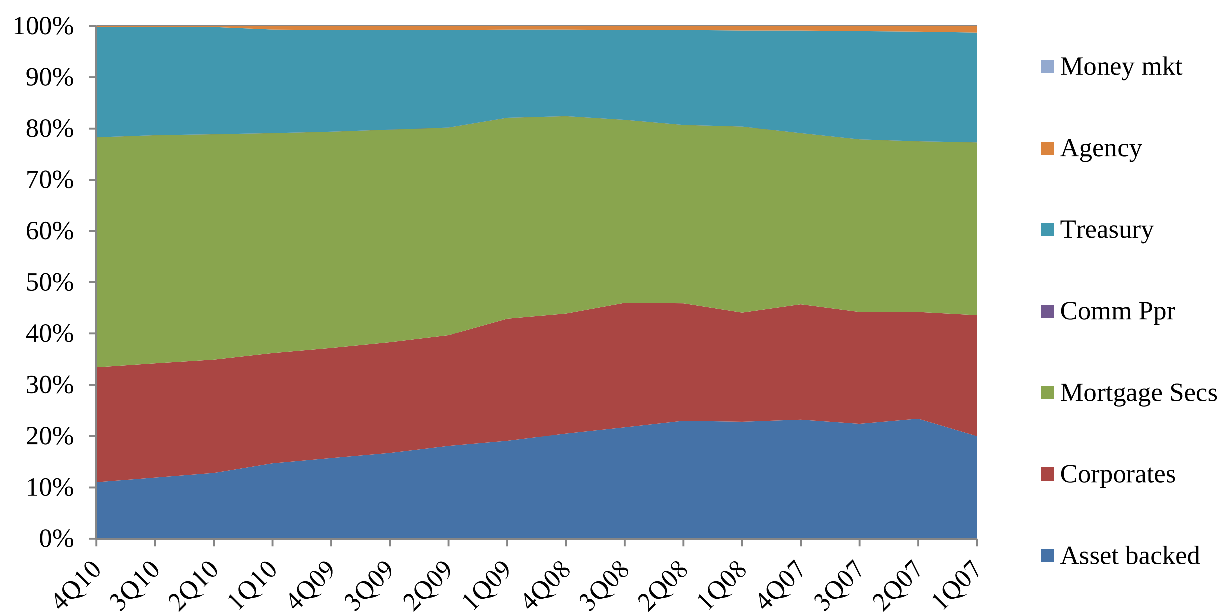
Purpose of Rule	Policy Rule	Maximum or Minimum	Policy Deviation?
Diversification	Treasury/Agency within 20-100 percent	53.20%	No
Diversification	Misc. Gov't less than 50%	less than 50%	No
Diversification	Mortgage less than 50%	44.90%	No
Diversification	Corporate less than 35%	23.80%	No
Diversification	Asset backed less than 30%	23.40%	No
Diversification	Tpool less than 30%	0.00%	No

Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury's 2010 Investment Policy.

Allocations in the Major Medical Insurance Fund remained within policy limits during the period 2007 through 2010.

The Major Medical Insurance Fund asset allocation (shown in the graph below) during the period 2007 through 2010 was basically stable with mortgage securities replacing maturing asset-backed securities.

Asset Allocation During the Period Calendar Years 2007 through 2010
Major Medical Insurance Fund



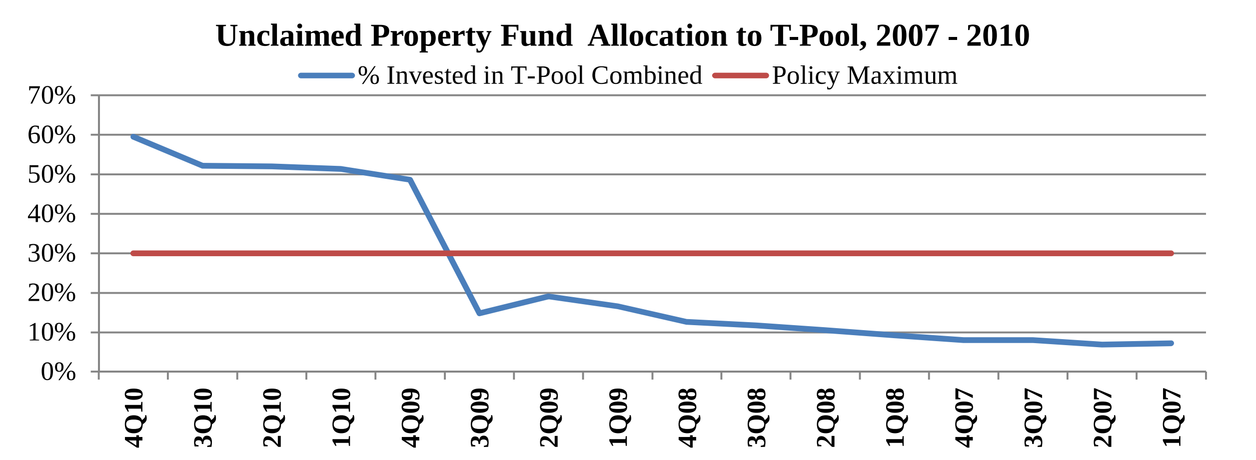
Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury's quarterly performance reports for Calendar Years 2007 through 2010.

Unclaimed Property Tourism Promotion Trust Fund

Purpose of Rule	Policy Rule	Maximum or Minimum	Policy Deviation?
Diversification	Treasury/Agency within 20-100 percent	57.20%	No
Diversification	Misc. Gov't less than 50%	less than 50%	No
Diversification	Mortgage less than 50%	38.70%	No
Diversification	Corporate less than 35%	18.50%	No
Diversification	Asset backed less than 30%	21.90%	No
Diversification	**T-Pool less than 30%**	**59.60%**	**Yes**

Source: Buck Global Investment Advisors analysis of the Colorado Department of the Treasury's 2010 Investment Policy.

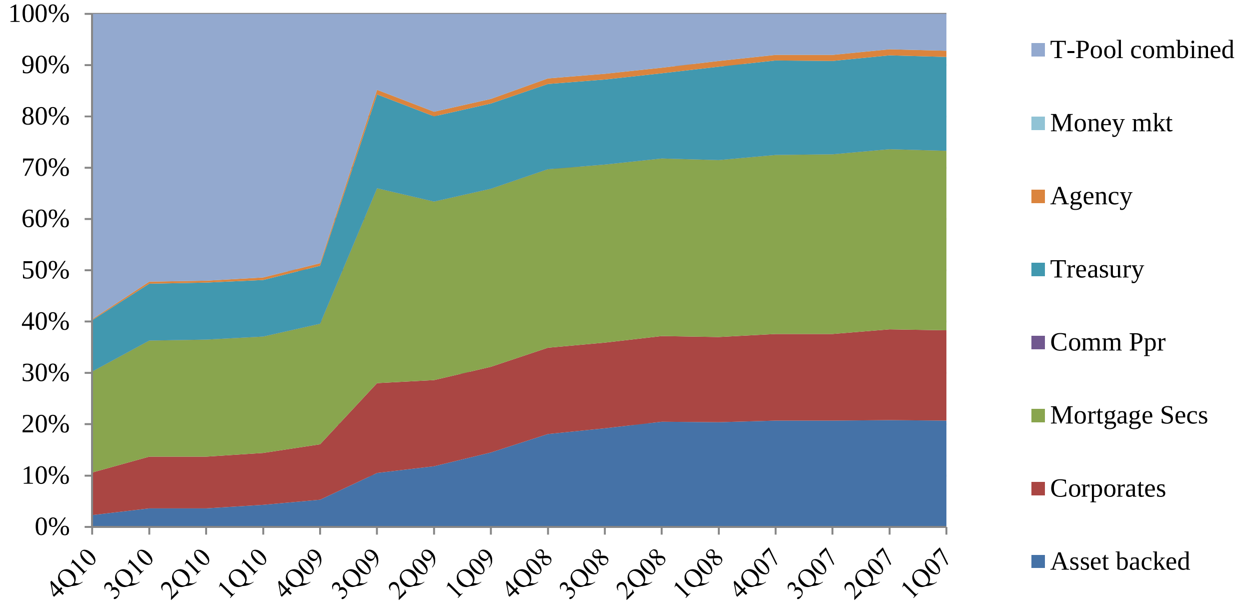
From the end of 2009 through 2010, the allocation of the Unclaimed Property Tourism Promotion Trust Fund to the Treasury Pool exceeded the 30 percent limit defined by the Treasury Investment Policy Statement. The fund balance increased because sales of unclaimed property exceeded the amount the fund paid in claims. The size of the fund doubled over a period of two years, but Treasury Officers perceived inadequate buying opportunities for non-T Pool investments during this period. Instead, they invested these large inflows into the T-Pool Combined fund.



Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury's quarterly performance reports for Calendar Years 2007 through 2010.

The Unclaimed Property and Tourism Promotion Trust Fund asset allocation (see graph below) during the period 2007 through 2010 was stable, with declining asset-backed security exposure, until the fund received significant asset inflows beginning in the third quarter of 2009. The allocation was then dominated by T-Pool combined, as discussed above.

Asset Allocation During the Period 2007 through 2010
Unclaimed Property Tourism Promotion Trust Fund



Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury's quarterly performance reports for Calendar Years 2007 through 2010.

State Education Fund

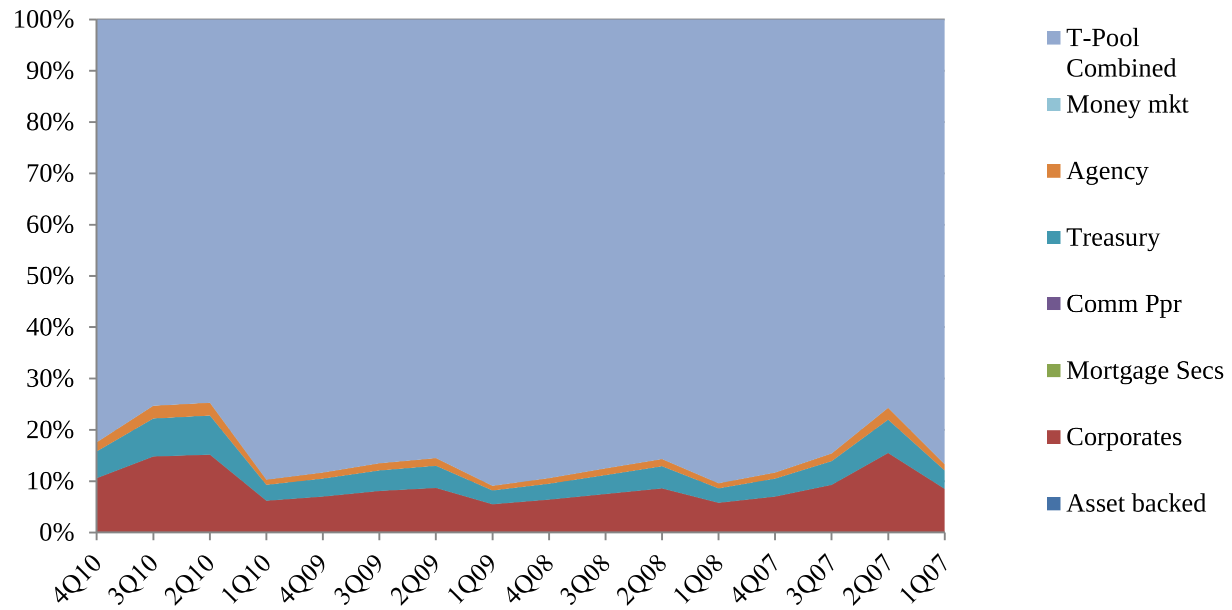
Purpose of Rule	Policy Rule	Maximum or Minimum	Policy Deviation?
Diversification	Treasury/Agency within 20-100 percent	37.10%	No
Diversification	Misc. Gov't less than 50%	not more than 8.8%	No
Diversification	Mortgage less than 50%	2.50%	No
Diversification	Corporate less than 20%	15.50%	No
Diversification	Asset backed less than 25%	0.00%	No
Diversification	Tpool more than 20%	74.70%	No

Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury's 2010 Investment Policy.

Allocations in the State Education Fund remained within policy limits during the period of Calendar Years 2007 through 2010.

The State Education Fund asset allocation (see graph below) during the period 2007 through 2010 was generally stable, marked by periodic declines in T-Pool allocation generally occurring in each of the second quarters.

Asset Allocation during the Period Calendar Years 2007 through 2010
State Education Fund



Source: Buck Global Investment Advisors analysis of Colorado Department of the Treasury's quarterly performance reports for Calendar Years 2007 through 2010.

Treasury staff could not provide any documentation that these deviations from the Investment Policy Statement were reviewed or approved by the State Treasurer. Although neither deviation was a detriment to the portfolios and may have even improved the disposition of the funds, such deviations from the Investment Policy Statement should only occur after prior review and written approval by the State Treasurer.

As previously discussed, the State Treasurer bears ultimate responsibility for the Treasury Investment Program but has delegated the day-to-day investment decisions to specified Investment Officers. To ensure that investment activities comply with state statutes and achieve Investment Program objectives, the State Treasurer established the Investment Policy Statement and requires Investment Officers to operate within the policy's boundaries. For the Investment Policy Statement to be an effective control, Investment Officers should not be allowed to deviate from the boundaries of the Investment Policy Statement unless they obtain prior written approval from the State Treasurer, or his or her designee.

Recommendation No. 1:

The Department of the Treasury should obtain written pre-approval from the State Treasurer, or in his or her absence, the Deputy State Treasurer, for deviations from the Investment Policy Statement lasting longer than a three month period. The process of review and approval should be documented in writing and should occur prior to the occurrence of any investment activities that would result in a deviation from the Investment Policy Statement for a period greater than three months.

Department of the Treasury Response:

Partially Agree. Implementation date: July 2011.

The Department of the Treasury plans to obtain written approval from the State Treasurer, or in his or her absence, the Deputy State Treasurer, for deviations from the Investment Policy Statement lasting longer than a three month period. While the Treasury will strive to seek pre-approval for these deviations, there are instances where pre-approval will not be possible and in those cases, we will request that the State Treasurer or his or her designee ratify those deviations.

Statutory Limitations on Investments

The Treasury Investment Program consists of fixed income securities entirely from the United States. The Treasury's investment in only United States fixed income securities is a requirement of statute. Specifically, the guidelines for permissible investments are found in Sections 24-36-

113 and 24-75-601, C.R.S. The current version of these statutes traces back to 1963, when the only permissible investments were U.S. Treasury and Agency securities. Historically, statutory restrictions on the types of investments permissible for the Colorado Treasury have been periodically amended to keep pace with capital markets. For example, in 1977 statute was changed to allow securities lending, in 1988 it was changed to allow purchases of corporate bonds, and in 2008 it was changed to allow for the purchase of reverse repurchase agreements. In addition, statute has been amended to allow specific investments in securities issued by the World Bank, the Asian Development Bank, and the African Development Bank, as long as these securities meet quality standards defined by Standard & Poor's, Moody's, and Fitch Ratings credit ratings agencies. However, statute does not allow non-domestic investments.

We compared Colorado's statutorily allowable investments with similar investment policies and practices in other states and found that other state treasurers have begun to authorize non-U.S. fixed income investments. New Jersey, Florida, Oregon, and Pennsylvania, for example, all use non-U.S. fixed income investments within their short-term fixed income general funds. These states' investment programs have marginal to modest allocations (two to seven percent) to non-U.S. fixed income securities. Generally, although non-U.S. fixed income securities may be based in a foreign currency, these other states' investments are in U.S. dollars, so there is no risk of loss from currency changes. Furthermore, many of these states impose a credit quality restriction on these types of securities. For example, the security must have a minimum quality rating of Aa3 or AA-. Quality ratings of Aa3 or AA- are the 4th highest quality investment rating possible, and investment grade credit extends to the 10th highest credit tier. Investing in foreign securities has become easier and there are now options for eliminating the foreign currency risks formerly associated with non-domestic securities investments. Specifically, foreign securities are often available in U.S. dollars, or are easily hedged by an overlay that removes the exchange-rate risk of foreign currency.

In the 1960s, when the Colorado statute specifying allowable investments was enacted, capital markets were different. Today, capital markets are more varied, and because of the current U.S. debt position, there are concerns about the quality of U.S. Treasury and Agency debt securities. Other state treasurers have started investing in non-U.S. fixed income securities because some non-U.S. securities are considered to be of higher quality than some domestic securities. In fact, Standard & Poor's has recently begun to publish a quality rating for U.S. debt, which had previously been deemed of such high quality it did not require a credit rating.

It is difficult to tell if these concerns about U.S. Treasury and Agency debt are just a passing concern, or if they are an indication of a more serious long-term problem. Regardless, it is necessary to make accommodations for either contingency. Additionally, the multi-national structure of many companies can make it difficult to determine whether investing in a particular company is in fact investment in a solely a "domestic" security. The current statutory limitation preventing investments in foreign securities is outdated and inappropriately restrictive. A more suitable restriction would be to allow investment in both U.S. and non-U.S. securities, as long as the securities are of high quality with a rating of perhaps AA- and above, and offered in U.S. dollars. We believe that investments in non-U.S. fixed income securities will better serve the State and help the Treasury meet its investment objectives of safety, liquidity, and yield.

Recommendation No. 2:

The Department of the Treasury should research the benefits of eliminating statutory limitations requiring that investments be only in U.S. Securities. Should the Department find it beneficial, the Department should work with the members of the General Assembly to seek statutory change eliminating the requirement that Treasury funds be invested only in U.S. securities and instead allow investments in high-quality foreign securities denominated in U.S. dollars.

Department of the Treasury Response:

Agree. Implementation date: Ongoing.

The Department of the Treasury plans to continue to work internally to determine the extent of statutory changes necessary to address the requirement that Treasury funds be invested only in U.S. securities. After sufficient evaluation, the Treasurer's Office plans to work with the members of the General Assembly to make any statutory changes deemed necessary.

Role of the Advisory Committee

Since 1989, state treasurers in Colorado have appointed an Advisory Committee to help them evaluate investments. Currently, there are 15 members on the Advisory Committee who are experienced in diverse aspects of finance, state government, and investments. Eight members were appointed by the State Treasurer, although the number of appointments is the prerogative of the State Treasurer; there is no policy or statutory rule regarding appointments. Service on the Advisory Committee is voluntary, and members have no voting rights or decision-making authority over the Treasury Investment Program. Members of this Committee are not fiduciaries to the Treasury Investment Program. As non-fiduciaries they have the potential to provide valuable insight, guidance, and direction to the State Treasurer and Investment Officers based on their experience and expertise in finance and investments, however, they have no financial liability for advice or guidance provided to the State Treasurer.

We reviewed the Investment Policy Statement and found that the policy has conflicting language with respect to the role of the Advisory Committee in the investment process. Specifically, the second paragraph of the Investment Policy Statement states the role of the Advisory Committee is to "provide guidance on policies and strategies and monitor results." The prominence and purpose of the Advisory Committee in the Investment policy suggests a prominent role in the investment process.

The problem arises in a subsequent section of the Investment Policy Statement when the investment policy describes prudence in the investment process. The policy states that "all participants in the investment process shall act as fiduciaries." This statement, along with the prominent role of the Advisory Committee, is confusing and not reflective of the actual role played by the Committee. Specifically, these two sections of the Investment Policy Statement, combined, could lead the reader to believe that the Advisory Committee is a fiduciary body with a prominent role in the investment process.

Further, we found that the policy does not clearly describe what the composition of the Advisory Committee should be, or how often the Advisory Committee is required to meet. We found that the Advisory Committee sometimes meets once per year and other times meets twice per year.

The Investment Policy should be a clear document that accurately describes the investment process and the role of each of the participants in the process, and makes the Treasury's operations and investment practices transparent to outside observers and investors.

Recommendation No. 3:

The Department of the Treasury should revise the Investment Policy Statement to remove the implication that the Advisory Committee has a prominent role in the investment process and make it clear that the Advisory Committee is not a fiduciary to the Treasury Investment Program. Additionally, the Investment Policy Statement should be revised to specify the composition and minimum meeting schedule of the Advisory Committee.

Department of the Treasury Response:

Agree. Implementation date: December 2011.

The Department of the Treasury plans to revise the Investment Policy Statement to remove the implication that the Advisory Committee has a prominent role in the investment process and make clear that the Committee is not a fiduciary to the Treasury Investment Program. The Treasury will also consider specifying the composition and minimum meeting schedule of the Committee.

Monitoring Investments

The objectives of the Treasury Investment Program are legality, safety, liquidity, and yield, in that order. To determine if an investment is legal and safe, the Treasury Investment Program relies on the credit ratings provided by the Nationally Recognized Statistical Ratings Organizations (credit rating agencies). In particular, the Department of the Treasury relies on

Standard & Poor's, Moody's, and Fitch Ratings. These agencies provide quality ratings for debt securities. In order to be allowed into the portfolio, a security must meet or exceed minimum credit rating specifications established by the Investment Policy Statement at the time of acquisition.
The performance of the Treasury Investment Program, like most fixed income portfolios, is sensitive to the accuracy of credit rating agencies. The most important objectives of the Investment Program, legality and safety, are strongly linked to the accuracy of the ratings provided by Standard & Poor's, Moody's, and Fitch. In recent years, the credit ratings offered by credit ratings agencies, such as Standard & Poor's, Moody's, and Fitch, have been called into question. Specifically, companies selling securities such as bonds and structured mortgages pay credit ratings agencies to provide a quality rating for those securities. As a result, concerns have been raised about a tendency toward ratings that are intrinsically optimistic and promote repeat business. Observers have long been critical of this inherent conflict of providing ratings for the companies that pay for them. However, it was not until the market crisis that these inherent conflicts harmed investors who relied solely on these ratings.

We reviewed the tools that Treasury staff use to monitor the quality of the Treasury's investments and found that the Treasury uses a blend of credit ratings agency research and various independent sources. Credit ratings from the ratings agencies are free of charge for investors to use; by contrast, independent credit research is not. While at times the Treasury has used independent credit research, it has not consistently used an independent credit rating research agency to monitor the quality of its investments.

Over the past decade, many other public funds have sustained losses in the billions of dollars because of their over reliance on credit ratings agencies. To ensure this does not happen to Colorado's public funds, we believe the Treasury should identify and obtain additional sources of independent investment research.

Recommendation No. 4:

The Department of the Treasury should continue to use internal research and seek additional sources of independent research, including purchasing subscriptions to independent credit ratings research, to determine the quality of investment securities when making investment decisions.

Department of the Treasury Response:

Agree. Implementation date: Ongoing.

The Department of the Treasury plans to continue to use internal research and seek additional sources of independent, third-party research, including purchasing subscriptions to independent credit ratings research. Purchasing subscriptions to independent research will be subject to the Department's budgetary constraints.

Disposition of Prior Recommendations

Recommendation Summary	Agency Response	Status	Buck Verification of Current Status
The Department of the Treasury should continue to seek to maximize investment returns on the T-Pool by reviewing the balances in T-Pool Cash and T-Pool 1-5 on a daily basis, along with projected cash flow needs, to ensure it maintains an appropriate balance in the two portfolios.	Agree	Implemented and ongoing	Buck confirmed that the Treasury has continued to maximize its investment returns by reviewing balances daily and making appropriate adjustments to the T-Pool.
The Department of the Treasury should consider broadening the investment policy of the Public School Permanent Fund to make it consistent with the Prudent Investor Standard. This change would include allowing investments in equities and cash equivalents, if the opinion from the Attorney General indicated that such investments are permissible.	Partially Agree	Not Implemented	The Attorney General indicated that the State Constitution does not permit equity investments in the Public School Permanent Fund.
The Department of the Treasury should evaluate the use of Treasury Inflation-Protected Securities (TIPS), particularly for the Public School Permanent Fund, Major Medical Insurance Fund, and Unclaimed Property and Tourism Promotion Fund.	Agree	Implemented	Investment Officers indicated that TIPS are considered as a possible investment, but they are not currently desirable for the portfolios.

Recommendation Summary	Agency Response	Status	Buck Verification of Current Status
The Department of the Treasury should incorporate market values as well as total return and peer group benchmarks in the management of the funds. If market values are actively utilized to manage the funds, the investment policy guidelines for each fund should be based on market values instead of book values.	Disagree	N/A	N/A
The Department of the Treasury should amend the investment policy for the State Education Fund to include a more comprehensive description of the guidelines and investment strategy.	Agree	Implemented	The investment policy now has explicit guidelines regarding the State Education Fund.
The Department of the Treasury should modify the investment policy to indicate: (1) timing for a regular review of each funds' policy, perhaps annually; (2) who has authority to amend the policy; and (3) when the policy was last amended.	Agree	Partially Implemented	The policy now describes who has authority to modify policy and indicates when it was last amended, but does not describe timing for a regular review.

Recommendation Summary	Agency Response	Status	Buck Verification of Current Status
The Department of the Treasury should appoint a compliance officer who will prepare a quarterly compliance report for each fund, which certifies that the fund complies with the investment policy, or if a violation has occurred, the report would describe the steps to correct it.	Agree	Implemented	The Department of Treasury appointed a compliance officer in July 2008 to carry out these duties. In particular, the PDQ (job description) for this position (Cash Manager) includes a 10 percent duty allocation to the role of Compliance Officer. The tasks associated with this position include: ensure the Treasury Investment Program portfolios are in compliance with statute, detect when out of compliance, and provide notice to the deputy State Treasurer when out of compliance.
The Department of the Treasury should ensure that key historical performance data is maintained electronically, and if custodians are changed in the future, it should seek to load the prior custodian's return data into the new service provider's system.	Agree	Implemented	JP Morgan Chase, the custodian, now has electronic data, as described.
The Department of the Treasury should seek to obtain a portfolio analytical application in order to improve the analytical tools utilized in managing the funds.	Agree	Implemented	The Treasury obtained and uses the BondEdge monitoring software.

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