

**REPORT ON THE  
STATE POOLED INVESTMENT FUND**  
For The Fiscal Year Ended June 30, 2018



PREPARED FOR THE  
STATE FUNDING BOARD

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PREPARED BY  
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CASH MANAGEMENT DIVISION

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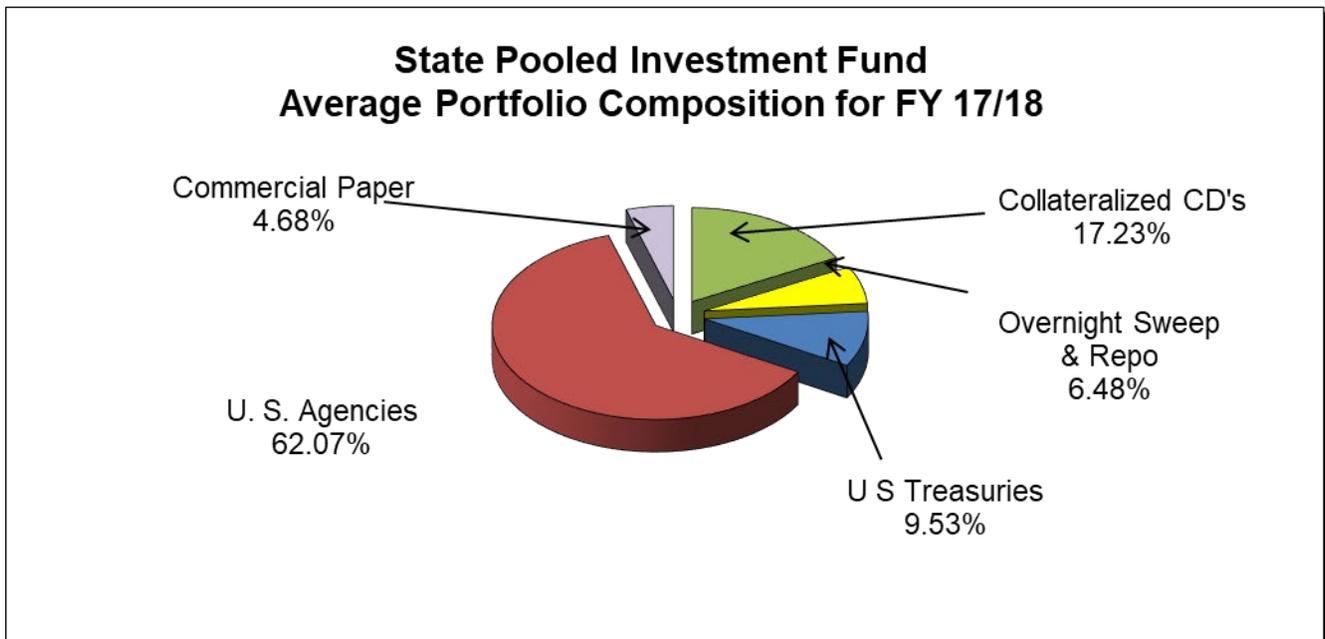
**TENNESSEE TREASURY DEPARTMENT**  
**State Pooled Investment Fund Report**  
For the fiscal year ended June 30, 2018

**I. INVESTMENT POLICY**

The investment policy for the State Pooled Investment Fund is set by the State Funding Board. The board is composed of the Governor, Commissioner of Finance and Administration, Comptroller, Secretary of State, and Treasurer. The investment objective for the state pooled investment fund is to obtain the highest available return on investments consistent with the preservation of principal, while maintaining sufficient liquidity for state expenditures and other withdrawals from the state pooled investment fund. On April 7, 2016, the State Funding Board voted to adopt an Investment Policy that is in compliance with GASB Statement 79 in order to maintain a fund that could operate at a stable dollar.

**II. Portfolio Composition**

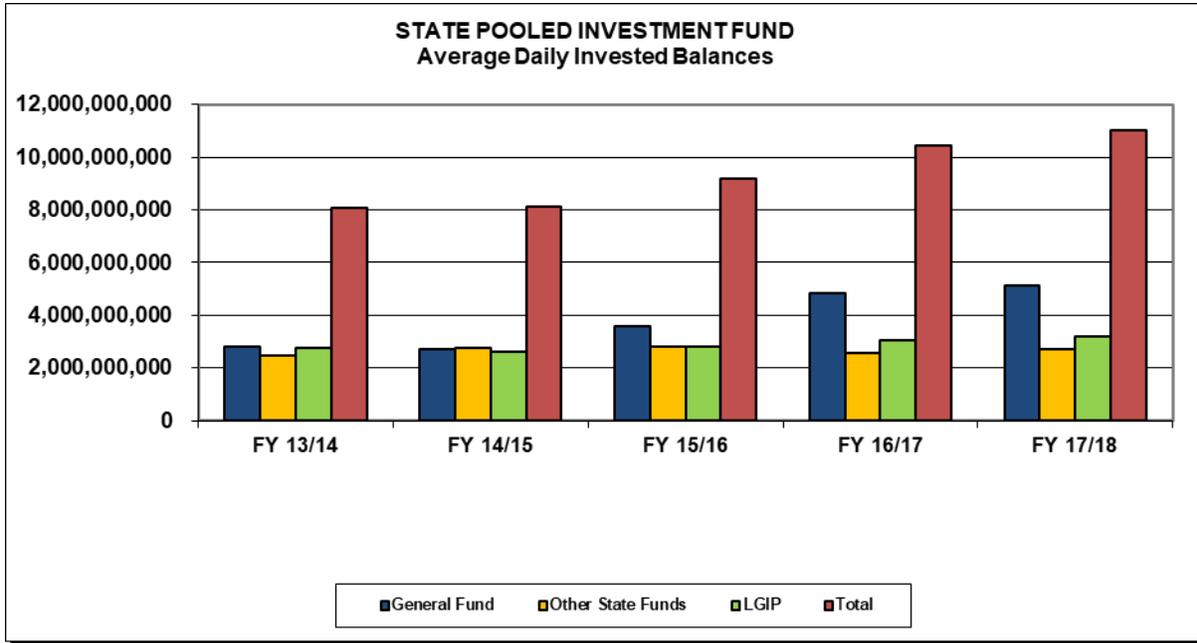
The State Pooled Investment Fund had a monthly average of \$11.03 billion invested for the fiscal year ended June 30, 2018. The following chart shows the composition of the average portfolio.



The reduced availability of commercial paper that meets the strict credit quality requirements of the SPIF is evidenced by the 4.68% average investment during the fiscal year. Bank demand for State funds has increased slightly, but is still down from levels before the financial crisis in 2008. Repurchase agreements were added back to the portfolio last year and has increased overnight liquidity. Agency exposure, including floating rate securities, has increased to improve daily and

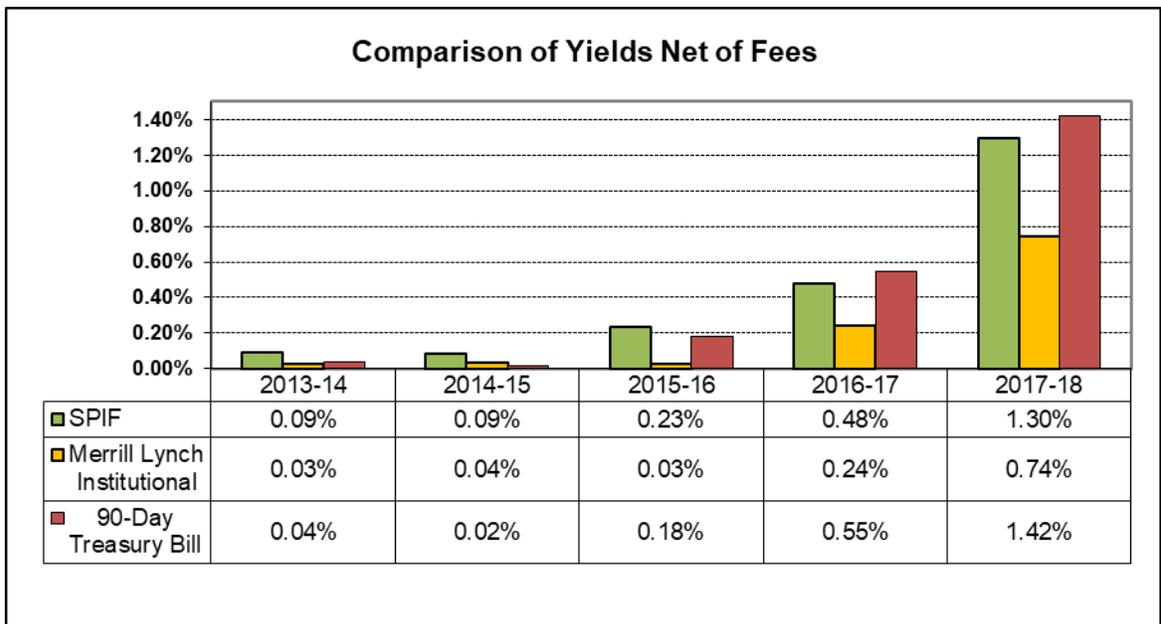
weekly liquidity and to assist the portfolio in meeting the WAM and WAL requirements imposed by GASB 79.

### III. Average Daily Balances



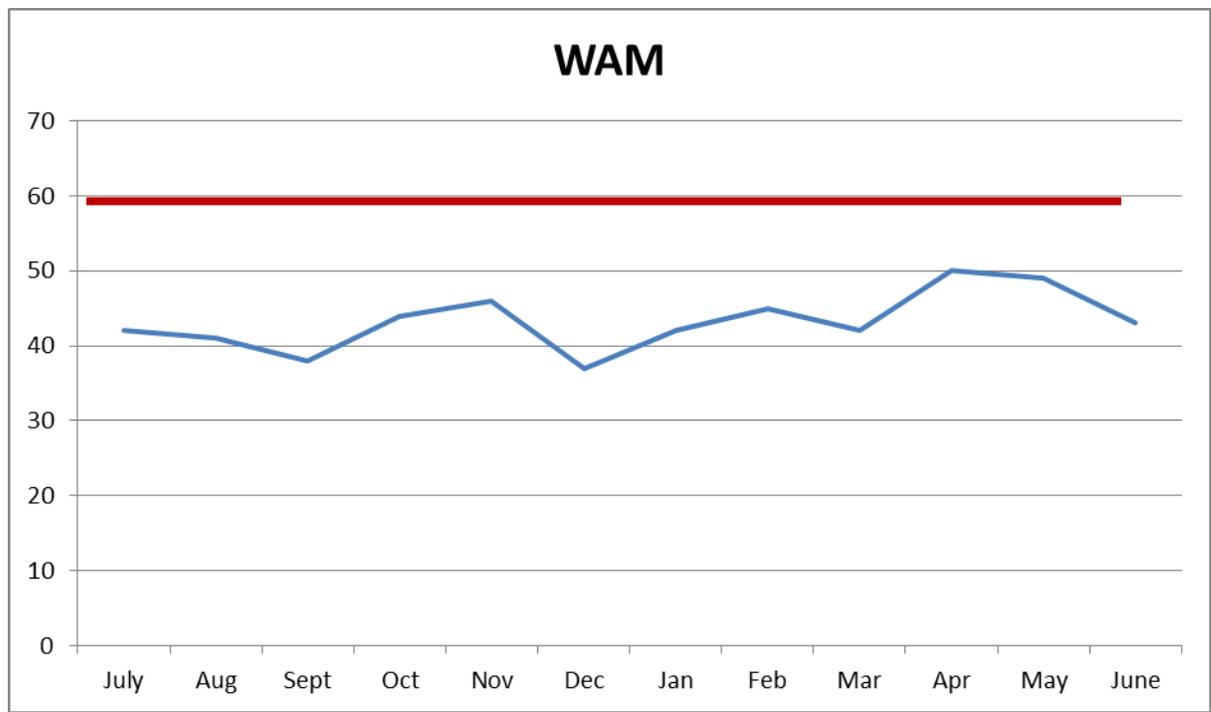
### IV. Performance

The chart below shows how the SPIF has performed over the last 5 years when compared to the 90-day US Treasury Bill and the Blackrock Institutional Investment Fund (ticker symbol MLIXX).



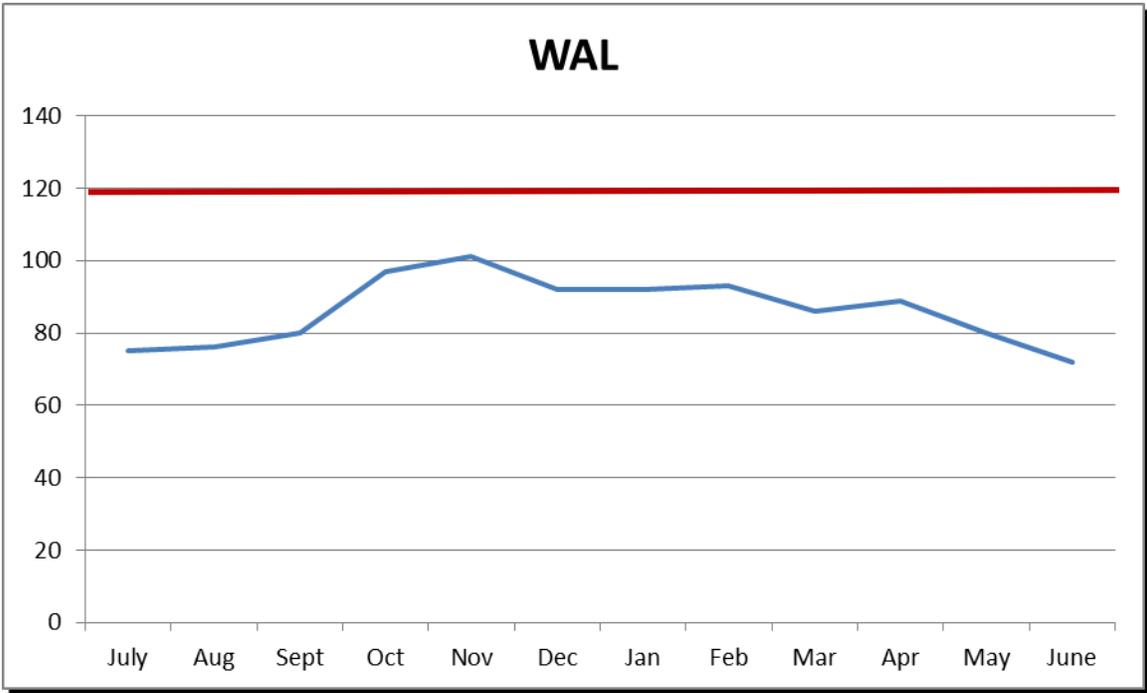
## V. Weighted Average Maturity (WAM)

The weighted average maturity (WAM) measure expresses investment time horizons – the time when investments become due and payable – in the case of the SPIF, days weighted to reflect the dollar size of individual investments. GASB Statement 79 allows the use of certain maturity shortening features to be utilized when measuring the WAM such as interest rate resets. The SPIF holds floating-rate securities issued by various US government agencies that typically have maturities of less than 397 days but have indexed interest rates that reset each month. The use of those securities provides a level of protection against changes in interest rates as well as reduces the WAM of the SPIF portfolio. In order to maintain compliance with GASB Statement 79 requirements, the WAM of a portfolio cannot exceed 60 days. The chart below shows the WAM of the SPIF portfolio during the year. At no point in time did the WAM exceed the 60 day limit.



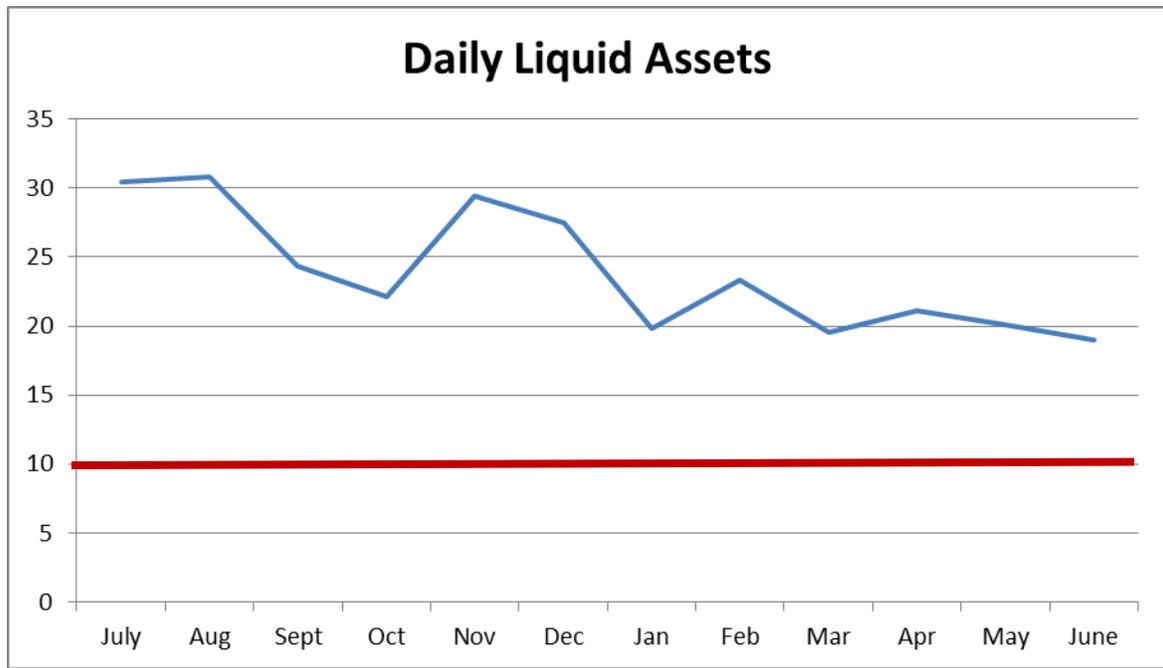
**VI. Weighted Average Life (WAL)**

The weighted average life (WAL) measure expresses the average length of time that each dollar of principal remains unpaid without taking into account the maturity shortening features used in calculating the weighted average maturity. In other words, the WAL is the stated maturity of each security within the portfolio. In order to maintain compliance with GASB Statement 79 requirements, the WAL of a portfolio cannot exceed 120 days. The chart below shows the WAL of the SPIF portfolio during the year. At no point in time did the WAL exceed the 120 day limit.



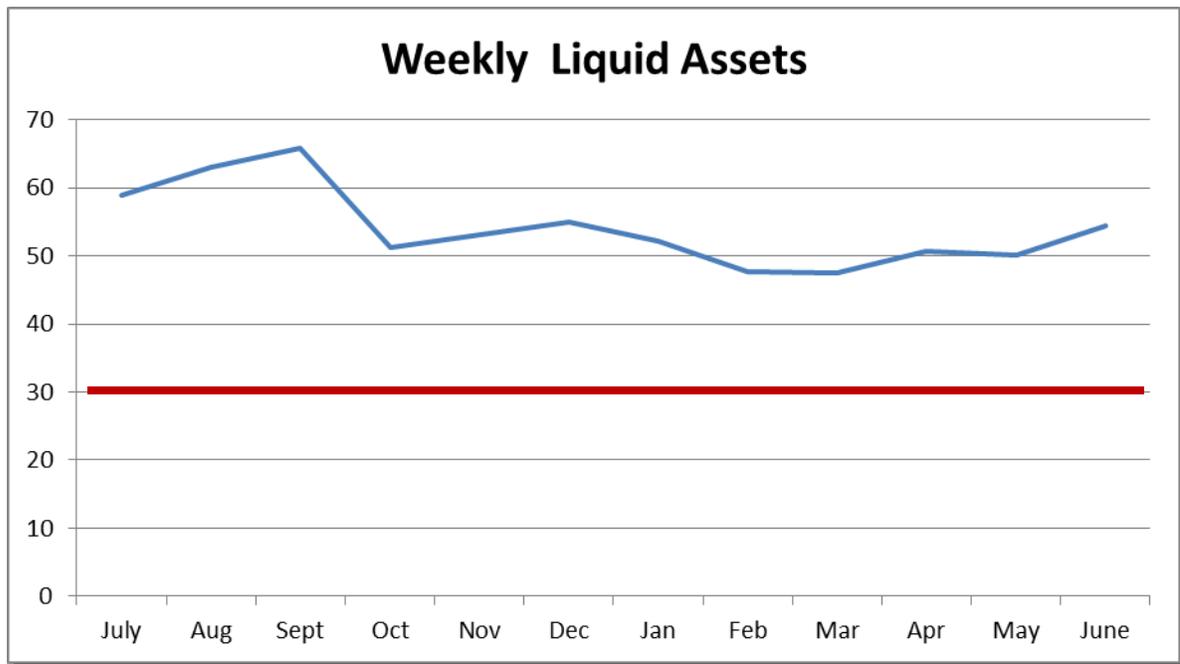
## VII. Daily Liquid Assets

In order to provide for reasonably foreseeable redemptions, or withdrawals, GASB Statement 79 requires that all funds hold no more than 5% of the portfolio in illiquid investments. The SPIF does not hold any illiquid securities. GASB Statement 79 also requires that a portfolio maintain at least 10% of the portfolio in securities that are defined as daily liquid securities. Examples of daily liquid securities that are held in the SPIF include cash, demand deposits at banks, certificates of deposit that are scheduled to mature the next business day, direct obligations of the US government, and any other security that has a stated maturity date of the next business day. Below is a chart showing the daily liquidity of the SPIF during the year.



### VIII. Weekly Liquid Assets

The SPIF must also maintain a portfolio that has at least 30% invested in weekly liquid assets. Examples of weekly liquid assets that might be held in the SPIF are cash, demand deposits or certificates of deposit that mature within 5 business days, direct obligations of the US government, all securities that mature within 5 business days, and securities that are US government securities but not direct obligations of the US government that are issued at a discount and mature within 60 days. Below is a chart that shows the level of weekly liquid assets held during the year by the SPIF.



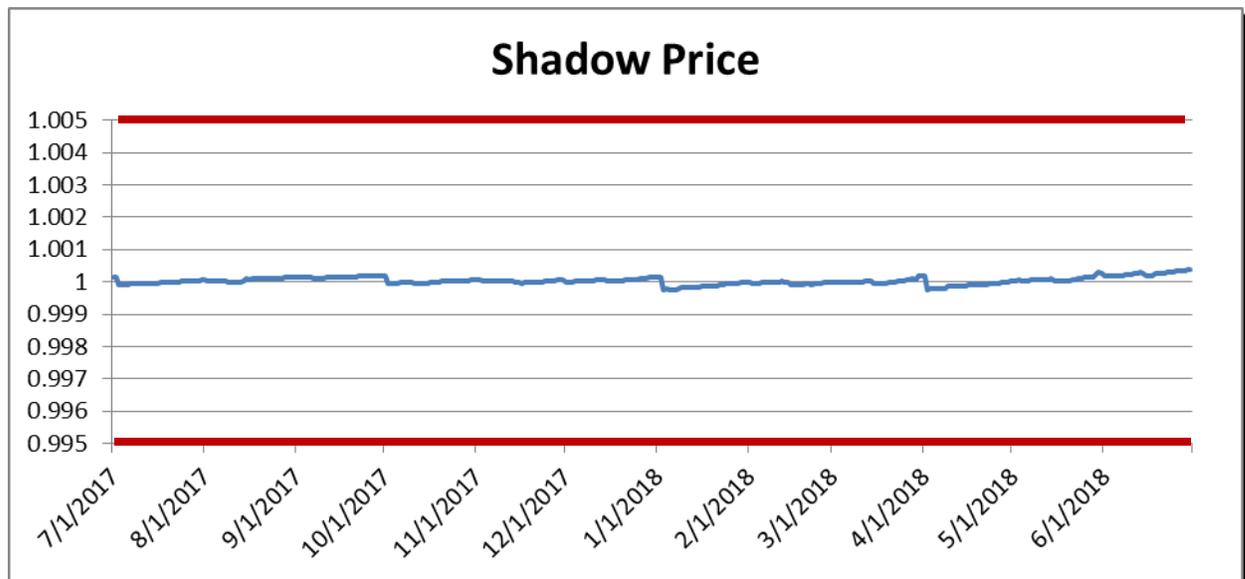
## IX. Credit Quality and Diversification

During FY 17/18, the SPIF held direct and indirect obligations of the US government that were all rated AAA/Aa+. All of the commercial paper held by the SPIF was rated no less than A1/P1. Further, holdings of commercial paper was limited to less than 5% of the total value of the SPIF portfolio or less than 5% of the issuer's total approved limit.

## X. Shadow Pricing

The shadow price is the net asset value per share of the fund calculated using total investments measured at fair value as of the calculation date. GASB Statement 79 requires that a fund calculate the shadow price at least one time each month, no sooner than 5 days before the last day of the month and no later than the last working day of each month. The SPIF calculates the shadow price daily. In order for a fund to be considered a stable dollar fund, the shadow price must be between \$.995 to \$1.005 at all times. If a fund ever has a shadow price outside those parameters, the fund is considered to have "broken the buck".

The chart below shows the daily shadow price of the SPIF throughout the year.



The chart reflects the very close range of the SPIF valuation during FY18. The red lines at the top and bottom of the chart show the upper and lower limits permitted in the valuation. The lowest valuation for the SPIF during the year was \$.999755 per share on April 2, 2018. The highest valuation for the SPIF was \$1.000373 per share on June 30, 2018. During FY18, the SPIF was valued above \$1 per share 210 days during the year.

## **XI. Stress Testing**

At month's end, the SPIF is stress tested utilizing a model developed by S&P. The model considers the balance of the fund, weighted average maturity, weighted average life, shadow price, credit spread, and percent of total credit excluding US government and agencies. Based upon the information entered, the fund then considers the effect on the fund if the 10 largest shareholders were to redeem their shares in one day, considers the impact of a redemption in one day of the largest 5 day historical redemption, and the impact of both events occurring on the same day. The model then measures the impact if on the same day there was a movement in interest rates to determine how much stress the fund can handle before the fund has a variance in value greater than one half of 1%, or "breaking the buck".

During each month of FY18, the SPIF was capable of handling the impact of the above-described events without breaking the buck. In fact, in most cases the SPIF could handle the combined redemption events and a change in interest rates of 250 basis points or greater without breaking the buck. This is due to the conservative credit position and enhanced liquidity of the portfolio. (The actual stress test as of June 30, 2018, is attached to the end of this document.)

## **XII. Investment Policy Review**

Implementation of GASB Statement 79 required an extensive re-write of the Investment Policy for the State Pooled Investment Fund. The Board voted on April 7, 2016 to adapt the necessary changes to ensure that the SPIF was in full compliance with GASB. While the content and the appearance of the SPIF Investment Policy changed, the actual day-to-day operation of the SPIF did not change appreciably. The changes improve transparency and liquidity without having a negative impact on performance. One of the more significant changes is the recognition of the reset date as the maturity date for floating-rate securities. GASB also requires more frequent reporting that includes the shadow price, daily and weekly liquidity, and weighted average maturity and weighted average life of the portfolio. Staff is making no request to modify the investment policy at this time.

## **XIII. Investment Strategy**

Ten years ago, the FOMC lowered the Fed Funds rate to a range of zero to 0.25%. On December 15, 2015, the FOMC raised the rate to a range of 0.25% to 0.50%. Since that time, the FOMC has raised the overnight lending rate to a range of 2.00% to 2.25%. There is a high probability that the FOMC will raise the rate again in December, possibly to a range of 2.25% to 2.50%. While earnings from the SPIF will be below historical levels, the earnings rate will be at the highest rate in a decade. Staff will continue to seek ways to generate as much revenue as possible and remain in compliance with the Investment Policy. Staff will continue to maintain a diversified portfolio of CDs, bank deposits, US Government obligations, and commercial paper. The yield curve, actions taken by the Federal Reserve Bank, regulatory changes, and other market conditions will be considered when managing the asset mix and average maturity of the portfolio. The SPIF remains a safe investment for state funds and monies invested by local government officials. There has been no loss of funds due to credit exposure and no liquidity concerns.

#### **XIV. Cost of Administration**

The SPIF charges 4 basis points to all participants to administer the program. The fee covers the total cost of program management, including:

- Investment of portfolio
- Maintenance of collateral
- Collateral pool administration
- Cash concentration
- Bank reconciliations and resolution of reconciling items
- LGIP program
- Warrant reconciliation
- Accounting and recordkeeping
- Support cost such as internal audit, payroll, personnel, etc.