Annual State Retirement and Pension System Investment Overview

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Annual State Retirement and Pension System's Investment Overview

At the request of the Joint Committee on Pensions, the Department of Legislative Services (DLS) annually reviews the investment performance of the State Retirement and Pension System (SRPS) for the preceding fiscal year. This report is intended to provide an overview of SRPS performance, a comparison of this performance to its peers, and an identification of issues meriting further comment by the State Retirement Agency (SRA).

State Retirement and Pension System Investment Performance

Asset Allocation

The SRPS Board of Trustees sets the allocation of assets to each investment class and continuously monitors the appropriateness of the allocation in light of its investment objectives. The SRPS *Investment Policy Manual* sets forth the investment objectives:

> The board desires to balance the goal of higher long-term returns with the goal of minimizing contribution volatility, recognizing that they are often competing goals. This requires taking both assets and liabilities into account when setting investment strategy, as well as an awareness of external factors such as inflation. Therefore, the investment objectives over extended periods of time (generally, 10 to 20 years) are to achieve an annualized investment return that:
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> 1. In nominal terms, equals or exceeds the actuarial investment return assumption of the system adopted by the board. The actuarial investment return assumption is a measure of the long-term rate of growth of the System's assets. In adopting the actuarial return assumption, the board anticipates that the investment portfolio may achieve higher returns in some years and lower returns in other years.
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> 2. In real terms, exceeds the U.S. inflation rate by at least 3.0%. The inflation-related objective compares the investment performance against the rate of inflation as measured by the Consumer Price Index (CPI) plus 3.0%. The inflation measure provides a link to the system's liabilities.
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> 3. Meets or exceeds the system's Investment Policy Benchmark. The Investment Policy Benchmark is calculated by using a weighted average of the board-established benchmarks for each asset class. The Policy Benchmark enables comparison of the system's actual performance to a passively managed proxy and measures the contribution of active investment management and policy implementation.

The assets allocation is structured into five categories:

- ***Growth Equity:*** public equity (domestic, international developed, and international emerging markets) and private equity investments;

- ***Rate Sensitive:*** long-term government bonds, securitized bonds, corporate bonds, and inflation-linked bonds;

- ***Credit:*** high yield bonds and bank loans and emerging market debt;

- ***Real Assets:*** real estate and natural resources and infrastructure investments; and

- ***Absolute Return:*** consists of investments that are expected to exceed U.S. treasuries with low correlation to public stocks.

Included within these asset classes are sub-asset classes. The board approves adjustments to the asset allocations and sets transitional targets. The board also approves target ranges for sub-asset classes as well as constraints on hedge fund exposure, with total hedge fund investments capped across all asset classes. **Exhibit 1** shows system asset allocations in relation to the strategic targets in effect on June 30, 2019.

Exhibit 1

State Retirement and Pension System Asset Allocation

Asset Class	Target Allocation	Actual June 30, 2019
Growth/Equity	50.0%	50.4%
Rate Sensitive	19.0%	18.1%
Credit	9.0%	8.9%
Real Assets	14.0%	13.3%
Absolute Return	8.0%	7.4%
Multi Asset	0.0%	1.3%
Cash and Cash Equitization	0.0%	0.5%
Total Fund	**100.0%**	**100.0%**

Note: Columns may not add to total due to rounding. Target allocation is as of October 1, 2017.

Source: State Retirement Agency of Maryland – Quarterly Investment Update – Period Ending June 30, 2019

The system's asset allocation is reflective of a decision to restructure the portfolio in fiscal 2008 and 2009. As of June 30, 2019, the public equity allocation is 36.4%, with domestic public equity comprising 12.2% of fund assets. The allocation for private equity − one of the system's strongest performing asset classes − was 14.0% as of June 30, 2019. The overall strategy for public equity allocations is part of an approach by the board to decrease risk through diversification in the wake of the 2008 financial crisis, while increased investment in private equity has resulted in positive returns for the system with less experienced volatility than public equity. Lower allocations to public equity investments are expected to result in lower returns when public equities are in growth patterns. However, as public equity can be a highly volatile asset class, a more diverse investment allocation should reduce volatility to provide protection when equity markets perform poorly or decline. While mitigating volatility will result in not taking full advantage of highly performing public equity markets, more stable investment returns will also mitigate swings in employer contribution rates. The board of trustees and the investment committee monitor the allocation of assets and continue to discuss the appropriate allocation (in consultation with the system's investment staff and investment consultants) that will achieve the system's investment return needs. Given the certain nature of defined benefit payment obligations, prudent allocation strategy should consider both achieving positive returns as well as being positioned to avoid losses. While investment division staff have some authority to make tactical, short-term adjustments to asset allocations, the investment policy manual states an objective of long-term investment strategy, acknowledging the system's long-term investment horizon may lead to short-term volatility.

The current asset allocation targets were put in effect on October 1, 2017. The target allocations to the growth equity class were increased to 50%, with increased target allocations to emerging markets and private equity and a decreased international equity target. The rate sensitive class target was set at 19%. Within the credit class, the allocation targets increased the allocation to high yield bonds and bank loans and decreased the target allocation for emerging market debt. Within the real estate class, the allocation target for real estate investment trusts (REIT) is 0 to 30%. In June of fiscal 2019, the system began liquidating its investments in REITs within the real estate asset class. The system will still have some REIT holdings through other asset classes, such as within the system's public equity and hedge fund holdings. The system's *Investment Policy Manual* for the board of trustees for SRPS will reflect actions of the board altering the asset allocation and can be found on SRA's website.

DLS requests SRA to comment on the liquidation of REITs from the system's asset holdings within the real estate asset class.

Investment Performance

The system's investment return for fiscal 2019 was 6.46% net of management fees, failing to exceed the assumed rate of return for the first time in three years. The system failed to exceed its policy benchmarks for the system as a whole, as well as within most individual asset classes. System performance was driven primarily by growth equity returns, which made up 50.4% of the portfolio and returned 6.40% for the fiscal year. As shown in **Exhibit 2**, the system's assets totaled $54.2 billion as of June 30, 2019, which was an increase of $2.4 billion over fiscal 2018.

Exhibit 2
State Retirement and Pension System of Maryland
Fund Investment Performance for Periods Ending June 30, 2019
($ in Millions)

			Time Weighted Total Returns		
	Assets	% Total	1 Year	5 Years	10 Years
Growth Equity					
Public Equity	$19,713.1	36.4%	3.89%	6.30%	10.60%
Private Equity	7,604.2	14.0%	13.65%	14.52%	14.92%
Subtotal	***$27,317.3***	***50.4%***	***6.40%***	***7.98%***	***11.50%***
Rate Sensitive					
Nominal Fixed Income	$7,642.3	14.1%	10.84%	4.11%	5.31%
Inflation Sensitive	2,172.7	4.0%	4.84%	2.36%	4.07%
Subtotal	***$9,814.9***	***18.1%***	***9.42%***	***3.73%***	***5.11%***
Credit	**$4,840.8**	**8.9%**	**6.50%**	**3.98%**	**7.92%**
Real Assets					
Real Estate	$5,071.6	9.4%	5.98%	9.07%	10.66%
Natural Resources and Infrastructure	2,150.4	4.0%	3.52%	0.82%	n/a
Subtotal	***$7,222.0***	***13.3%***	***5.27%***	***2.13%***	***4.50%***
Absolute Return	**$4,021.8**	**7.4%**	**2.97%**	**1.43%**	**3.74%**
Multi Asset	**$725.1**	**1.3%**	**4.39%**	**n/a**	**n/a**
Cash and Cash Equitization	**$263.3**	**0.5%**	**10.11%**	**5.65%**	**4.16%**
Total Fund	**$54,204.6**	**100.0%**	**6.46%**	**5.62%**	**8.61%**

Note: Returns beyond 1 year are annualized. Returns are net of fees.

Source: State Street – State Retirement Agency of Maryland – Rates of Return – Net Mgr – Periods Ending June 30, 2019.

As shown in **Exhibit 3**, the system as a whole performed 0.63% (63 basis points) below the benchmark. Private equity and nominal fixed income were the only assets that had returns above the assumed rate of return of 7.45%, though nominal fixed income performed slightly below its benchmark. Within public equity, the domestic equity return of 8.16% was the only sub-asset class to return above the assumed rate of return, though that return was also below its benchmark.

Exhibit 3

State Retirement and Pension System of Maryland

Benchmark Performance for Year Ending June 30, 2019

	Return	Return Benchmark	Excess
Growth Equity	6.40%	6.55%	-0.15%
Public Equity	3.89%	4.65%	-0.76%
Private Equity	13.65%	10.87%	2.79%
Rate Sensitive	9.42%	9.81%	-0.39%
Nominal Fixed Income	10.84%	11.10%	-0.26%
Inflation Sensitive	4.84%	4.88%	-0.05%
Credit	6.50%	7.34%	-0.84%
Real Assets	5.27%	6.23%	-0.96%
Real Estate	5.98%	7.68%	-1.70%
Natural Resources and Infrastructure	3.52%	2.10%	1.42%
Absolute Return	2.97%	3.09%	-0.12%
Multi Asset	4.39%	7.09%	-2.70%
Cash and Cash Equitization	10.11%	2.30%	7.82%
Total Fund	**6.46%**	**7.09%**	**-0.63%**

Note: Columns may not add to total due to rounding.

Source: State Street – State Retirement Agency of Maryland – Rates of Return – Net Mgr – Periods Ending June 30, 2019

With the exceptions of private equity and nominal fixed income, none of the sub-asset classes had fiscal year benchmarks above the assumed rate of return of 7.45%. The system's cash and cash equitization program (comprising only 0.5% of plan assets) had the best performance relative to its benchmark, returning 10.11% against a benchmark of 2.30%. Real estate and multi asset had the largest underperformance relative to their benchmarks. Absolute return once again returned below its benchmark, though only by 12 basis points.

DLS requests SRA to comment on the fiscal 2019 return performance in relation to the policy benchmarks and for any asset classes and asset sub-classes that underperformed the benchmark, to comment on the factors that led to the underperformance, whether those factors are expected to negatively affect performance in fiscal 2020, and to comment on what actions are being taken to mitigate those factors impacting the fiscal 2020 returns.

Additionally, SRA should comment on any changes to policy benchmarks that impacted the performance of an asset class relative to its policy benchmark.

Performance Relative to Other Systems

One method of evaluating the system's investment performance is to compare the system's investment performance with the performance of other systems. The Wilshire Trust Universe Comparison Service (TUCS) rankings are useful for providing a big-picture, snapshot assessment of the system's performance relative to other large public pension plans. In the TUCS analysis, the one-hundredth percentile represents the lowest investment return, and the first percentile is the highest investment return. According to TUCS, the system's fiscal 2019 total fund investment performance was rated in the 60th percentile among the public pension funds with at least $25 billion in assets, as shown in **Exhibit 4**. As the system has historically had a low allocation to equity investments compared to its peers – and domestic equity in particular – the system's investment policy will have a low TUCS ranking when equity markets are experiencing strong performance, as has been the case for a number of years. The long-term relative performance rankings typically place SRPS' relative total fund performance in the bottom quartile. The TUCS rankings are based on returns gross of fees.

Exhibit 4

TUCS Percentile Rankings for Periods Ending June 30

Fiscal 2016-2019

	2016	2017	2018	2019
1 Year	57	95	75	60
3 Years	95	91	94	92
5 Years	95	87	84	88
10 Years	95	100	94	87

TUCS: Wilshire Trust Universe Comparison Service

Note: Rankings for systems greater than $25 billion.

Source: Wilshire Trust Universe Comparison Service

Total system TUCS rankings will be driven by the asset allocation. TUCS rankings on their own offer limited insight into the manner in which a system's asset allocation drives performance. The total system performance rankings by themselves offer little by way of explaining why Maryland's performance differs from that of other funds and might not reflect a clear picture of the investment volatility risks borne by a system. SRA has noted that in certain asset classes the system does outperform peers but that when the system as a whole is compared, the low allocation to public equity will drive down the system's overall ranking.

The impact of asset allocation on total system TUCS rankings can be seen in the system's TUCS rankings on performance within individual asset classes. While the system as a whole has experienced relative low rankings when compared to peer systems, the system has experienced better relative performance by asset class, as shown in **Exhibit 5**. The difference in relative rankings between the system as a whole and the system by asset class – particularly for the long term rankings – indicates that the asset allocation has impacted the relative ranking of the total system return, with the system having lower allocations to public equity, and domestic public equity in particular. This effect can also be seen in the ranking for total equity. The system does not have a bias to U.S. equity, which had strong performance in fiscal 2019 as well as in recent years. While the system ranks well in its performance in U.S. equity, the lesser amount of assets in U.S. equity will impact the total equity ranking.

Exhibit 5
TUCS Percentile Rankings for Periods Ending June 30, 2019

Asset Class	1 Year	3 Year	5 Year	10 Year
Total Equity	87	76	70	68
U.S. Equity	59	48	51	52
International Developed	47	55	47	80
International Emerging	63	47	n/a	n/a
Fixed Income	8	68	23	44
Private Equity	21	19	16	21
Real Estate	67	47	50	16

TUCS: Wilshire Trust Universe Comparison Service

Note: Rankings for systems greater than $1 billion.

Source: Wilshire Trust Universe Comparison Service

As shown in Exhibits 4 and 5, SRPS' relative returns in individual asset classes generally outperform the system's performance as a whole. All things being equal, a system with a higher allocation to asset classes with the highest levels of returns in a particular time period would be expected to have performed better than SRPS.

Recent historical returns have seen strong returns in public equity, which can be a highly volatile asset class. Allocations that limit exposure to more volatile assets will result in more stable employer contribution rates. An allocation that would result in mitigating volatility of returns (whether excess gains, returns below the assumed rate of return, or investment losses) will also mitigate the impact to employer contributions from contribution rate increases. A system's asset allocation should be impacted by a number of considerations that reflect a system's risk tolerance. A system's maturity (ratio of retirees to active members), funded status, assumed rate of return, benefit structure, regularity of full contributions, and other considerations factor into a system's risk tolerance. The importance of these factors will vary from plan to plan leading to different tolerances for risk, variation in investment allocations, and differences in annual returns.

TUCS provides data on the risk-return profile of its members that shows that the system's level of risk over the three-year period ending June 30, 2019, was below the median for other public funds with assets greater than $25 billion. This is consistent with the system's comparatively lower allocation to public equity that can be a highly volatile asset class. The system's asset allocation strategy is intended to protect against more extreme losses in down markets. Due to the nature of the benefits that the system's investments ultimately fund, there is prudence in setting an asset allocation that achieves the necessary investment returns with the lowest level of risk capable

of achieving those returns.

DLS requests that SRA comment on the relative TUCS performance rankings by asset class and how overall asset allocation impacts the total system's TUCS rankings.

Investment Management Fees

As shown in **Exhibit 6**, SRPS incurred $372.5 million in investment management fees during fiscal 2019, a decrease from $374.2 million in fiscal 2018 fees. Management fees for the plan as a whole have grown substantially since the system adjusted its asset allocation to invest more heavily in alternative asset classes with higher fee structures. The shift of public equity assets to global and emerging market equity managers, which are almost all active managers, has also contributed to the growth in fees over the past few years. As a percent of assets, management fees in fiscal 2019 were lower than in fiscal 2018 by 0.8 basis points. SRA credits its ability to negotiate favorable fee arrangements as a contributing factor in mitigating the impact of management fees on system returns.

While active management of assets results in higher overall fees, the system has benefited from active management by achieving excess returns over performance benchmarks. The system does utilize passive investment strategies where available, and through active management is able to add more diversification to system investments by investing in assets where active management can generate returns in assets where passive investment is not available or efficient. Review of SRPS fees by the system's investment consultant has noted that SRPS has continued to be effective at negotiating more favorable fee arrangements than peer systems.

Exhibit 6
Asset Management Fees Paid by Asset Class
Fiscal 2018-2019
($ in Millions)

	2018				2019			
Asset Class	**Management Fee**	**Incentive Fee**	**Total**	**Fees as % of Asset**	**Management Fee**	**Incentive Fee**	**Total**	**Fees as % of Asset**
Equity	$65.4	$0.6	$66.0	0.35%	$65.5	$0.9	$66.4	0.37%
Rate Sensitive	12.7	4.4	17.1	0.16%	12.5	1.2	13.7	0.14%
Credit	10.5	n/a	10.5	0.35%	5.4	n/a	5.4	0.17%
Private Equity	104.3	n/a	104.3	1.73%	110.1	0.3	110.4	1.64%
Real Estate	29.2	1.5	30.7	0.84%	34.3	1.9	36.2	0.84%
REITs	2.4	n/a	2.4	0.34%	2.5	n/a	2.5	0.36%
Real Return	16.6	2.3	18.9	1.44%	15.7	n/a	15.7	0.80%
Absolute Return	43.2	10.9	54.1	1.64%	51.9	21.0	72.9	1.77%
Multi Asset	1.3	n/a	1.3	0.17%	1.4	n/a	1.4	0.20%
Private Credit/Debt	19.3	3.1	22.4	1.66%	14.9	n/a	14.9	1.32%
Equity Long Short	18.2	18.7	36.9	2.58%	11.0	12.0	23.0	2.69%
Service Providers	9.6	n/a	9.6	n/a	10.1	n/a	10.1	n/a
Total Fund	**$332.8**	**$41.4**	**$374.2**	**0.73%**	**$335.2**	**$37.3**	**$372.5**	**0.72%**

REIT: real estate investment trust

Note: Columns may not sum to total due to rounding. “Fees as % of Asset” column indicates fees as a percentage of the asset under management.

Source: State Retirement Agency

Private Equity Fees

Management fees for private equity comprised nearly 30% of total management fees, despite only constituting 14% of system assets in fiscal 2019. Fees in private equity constituted 1.73% of private equity assets. The reason for the higher amount of fees in private equity involves a substantial degree of active management. Fee structures are similar to those used in hedge funds, with a fixed base management fee, plus a portion of earnings referred to as “carried interest.” The management fees only reflect the base fees, not carried interest. Because of the nature of private equity fee arrangements, carried interest fees are tied to performance. When the system pays higher

carried interest fees, a higher return on investment is earned by the system. SRA indicates that private equity returns are reported net of management fees and carried interest.

While private equity does involve substantial management fees, the system's private equity portfolio was the strongest performing sub-asset class in 2019, with a return of 13.65%. This return was 279 basis points above its benchmark, and was the only sub asset class to both exceed the system's assumed rate of return as well as exceed its benchmark. Investment in private equity has resulted in positive returns for the system with less experienced volatility than public equity. Returns for the one-, three-, and five-year periods ending June 30, 2019, were 13.65%, 16.55%, and 14.52%, respectively. Returns for those same periods also provided significant excess returns over the asset class benchmarks. Additionally, SRA has proposed utilizing co-investments in private equity. Such investments would be companion investments to private equity funds that SRPS is already investing in but would not carry the same associated fee structure. Under this approach, SRPS would effectively be reducing its fees for any private equity investments it co-invests by increasing the invested funds with the co–invested portion of the investment being subject to a lower fee structure. While private equity markets have performed well for the system, opportunities to make profitable investments may decline as private equity markets mature. Management of private equity assets will play a crucial role in the continued success of the asset class.

Legislation passed in the 2019 session (Chapter 202) requires SRA to provide more detailed information on carried interest on investments. In the past five years, calls for greater transparency in the reporting of carried interest have led to changes in the investment management industry. Carried interest is earned by investment managers in private markets (*e.g.*, private equity, private real estate) and is the amount that a general partner (investment manager) retains as an ownership interest in the investment profits generated by the partnership. Carried interest typically represents a percentage of the profits generated, with that proportion negotiated among the parties involved. As carried interest represents shared profits that are retained by the general partner rather than paid by the investor, it is not typically reported as investment management fees.

Recently, several public pension plans have released reports showing carried interest earned by general partners managing investments on their behalf. In addition, the Institutional Limited Partners Association developed a reporting template that includes carried interest that has been endorsed by many investment managers and public pension funds (including SRPS). Chapter 202 requires the board's annual report on investment management services to include the amount of carried interest on any assets of the system. The first report, due December 31, 2019, is required to include information for fiscal years 2015 through 2019.

DLS requests SRA to comment on how private equity returns are calculated, and how performance benchmarks are selected. SRA should also brief the committees on any risks associated with private equity and how other large pension funds' policies are evolving.

Absolute Return Fees

Absolute return comprises 7.4% of SRPS investments. Absolute return was among the lower performing asset classes in fiscal 2019, underperforming its benchmark by 12 basis points with a return of 2.97%. The system's *Investment Policy Manual* describes the absolute return asset class as, "investments whose performance is expected to exceed the three month U.S. Treasury bill by 4-5% over a full market cycle and exhibit low correlation to public stocks." Only four investments within the absolute return class achieved returns above the asset class benchmark, with a number of investments sustaining significant losses. Similar to private equity, absolute return fee structures typically include base fixed management fees and incentive compensation based on performance. Fees paid for absolute return were $72.9 million in fiscal 2019, which represents 1.64% of absolute return assets. This was almost 20% of all management fees. Absolute return has returned below benchmarks for the one-, three-, and five-year periods ending June 30, 2019. The 10-year and since inception returns did exceed benchmarks by 19 and 141 basis points, respectively, but returned only 3.74% and 3.20%, respectively.

Given the low rate of return, underperformance relative to benchmarks, and high management fee structures, DLS requests SRA to comment on the returns of the absolute return asset class, including the market conditions leading to the low level of returns and benchmark underperformance, and what market conditions would result in markedly improved returns for investments in the asset class.

Investment Division Staffing

Chapters 727 and 728 of 2018 granted the board authority to set the compensation of personnel in the SRA Investment Division and to establish positions within the division, subject to certain limitations. Investment division staff are now to be "off-budget" and funded as system expenses. Investment positions are also now outside the State personnel system. The legislation included the creation of the Objective Criteria Committee (OCC) that is charged with making recommendations to the board on the objective criteria to be used for setting compensation and governing the payment of financial incentives to eligible investment division staff. OCC made recommendations to the board, and the board included provisions governing the compensation (including incentive compensation) for division staff.

The stated purpose of the legislation by SRA and the board was twofold. First, SRA's Chief Investment Officer (CIO) noted that the ability to create positions and set compensation would reduce compensation-related turnover in the division and help in recruitment to adequately staff the division to perform its existing functions. Testimony submitted in support of the legislation noted that the authority is expected to enhance system investment performance by maintaining and adding staff. The testimony noted that additional staffing resources will "enable the division to expand the universe of potential managers or investments to pursue, enhance the methodology of evaluating those opportunities, or design tactical strategies to adjust the mix of investments for intermediate-term performance." Additional staffing is also intended to free senior investment staff

of administrative duties, resulting in increased focus on enhancing investments. The testimony noted that providing the board with authority over positions and compensation "will not result in paying the existing staff more money for doing the same job, but instead, will allow these positions to be more focused on the investment process rather than the administrative and reporting functions." The request for staffing authority contemplated SRA's need to expand its staff resources, as both the complexity of the fund assets and the size of the assets under management is expected to grow.

The second purpose was that the authority over positions and compensation would be necessary to expand and begin moving externally managed assets to internal management by division staff. The timeline indicated for internal management contemplated beginning with passively managed assets toward the end of an initial 2-year phase-in. Internal management would be broadened in years 3 through 5 to types of assets directly managed, including co-investment in private assets. By year 10, as much as 50% of assets could be managed internally. One of the arguments for internal management is that it can reduce fees paid for asset management. SRA estimates significant savings opportunity through internal management of assets. SRA noted that fee savings of just 1 basis point would net the system approximately $5 million. However, DLS notes that SRA has been effective at negotiating favorable fee arrangements with external managers, and external management provides SRPS with options to select asset managers and to diversify the management of assets among multiple managers.

Previously, DLS noted that a shift to internal management would require significant operational changes. Performance measures would need to be adopted to monitor and evaluate the effectiveness of internal management of system assets compared to external management. Additionally, guidelines and reporting requirements would need to be implemented to track the internal management of system funds as well as any expansion or reduction of internal management once implemented. Personnel will need to be evaluated more stringently under higher compensation structures and given the higher expectations for internal asset management. At its annual education seminars, the board has received presentations on internal asset management. The presentations highlighted numerous considerations and best practices that should be included in implementation of internal management. The most recent update of the board's Investment Policy Manual incorporated provisions governing compensation for Investment Division staff, including the CIO

Chief Investment Officer

At the September meeting of the board, the committee amended the system's *Investment Policy Manual* with additional provisions regarding the compensation and incentive compensation of the CIO and division staff, effective July 1, 2019. The objective criteria for compensation of the CIO are as follows:

- base salary and total cash compensation market data at the 25th, 50th, and 75th percentile;
- comparisons to external survey data based on job description;

- education and certifications;
- employee salary range placement;
- fund returns relative to policy benchmarks.

The policy manual also states that "Adjustments to the CIO's base salary are to be based on fund returns relative to policy benchmarks. When the CIO's salary is at or above the salary range midpoint, an increase in compensation should only be considered in years when the fund meets or exceeds policy benchmarks. If the CIO's salary is below the salary range midpoint, an increase should be considered."

The board also adopted criteria for financial incentives for the CIO. The objective criteria for financial incentives to the CIO shall include objective benchmarks of investment performance that shall be met or exceeded, and objective criteria used by comparable public pension funds awarding financial incentives to chief investment officers. The amount of financial incentives to the CIO in a fiscal year may not exceed 33% of the CIOs compensation. The financial incentive performance metrics for the CIO are as follows:

- performance versus policy benchmark over a three-year period (50%);
- performance versus actuarial assumed rate of return (50%) over a three-year period (to be eligible for a payout under this metric, the fund must have a positive return relative to the policy benchmark over a three-year period).

The required performance to achieve the maximum incentive award for the 50% weighting to the performance versus policy benchmark is 0.40% (40 basis points). For the 50% weighting to performance versus the actuarial assumed rate of return is 0.20% (20 basis points). The evaluation period is three years (or the CIO's time in the position, if less than three years).

Investment Division Staff

The board also adopted criteria governing the compensation and incentive compensation for division staff. The objective criteria for compensation for division staff positions that involve discretion over investment-related decisions are as follows:

- base salary and total cash compensation market data at the 25th, 50th, and 75th percentile;
- comparison to external survey data based on job descriptions;
- education and certifications;

- employee salary range placement;

- fund return relative to benchmark

The policy manual also states that "When a position's salary is at or above the salary range midpoint, an increase in compensation should only be considered in years when the fund meets or exceeds policy benchmarks." The manual notes that if a position's salary is below the salary range midpoint, an increase to that position's compensation should be considered. For employees responsible for specific asset classes, performance must meet or exceed asset class benchmarks.

The board also adopted objective criteria for awarding incentive compensation to division staff, which was incorporated into the *Investment Policy Manual*. The provisions for financial incentive performance metrics for eligible Investment Division staff positions are as follows:

- performance versus policy benchmark over a three-year period;

- performance versus actuarial assumed rate of return over a three-year period (to be eligible for a payout under this metric, the fund must have a positive return relative to the policy benchmark over a three-year period);

- performance versus asset class over a three year period.

The policy manual identifies the eligible positions for incentive compensation, as only positions that involve discretion over investment-related decisions are eligible for incentive compensation under the law. The policy manual sets the caps on total incentive compensation that can be earned, with lower caps for lower level positions. In contrast to the CIO, who is responsible for the entire investment portfolio, division staff are assigned to work with specific assets. Accordingly, the incentive compensation provisions for division staff incorporate weighting for incentive compensation based on the performance of the assets being managed by individual staff. Additionally, the policy manual establishes asset specific performance thresholds for each asset class which that be met or exceeded to earn incentive compensation. The evaluation period is three years (or the individual's time in the position, if less than three years).

DLS requests SRA to provide an update on the utilization by the Board of Trustees of the authority granted to it under Chapters 727 and 728 to establish the qualifications and compensation of Investment Division staff, including compensation and incentive provisions incorporated into the system's *Investment Policy Manual*.

Additionally, DLS requests SRA to provide an update on any Investment Division implementation of internal management of system assets and the development of necessary compliance and controls on the use of internal asset management. More specifically, SRA should comment on how Investment Division will develop proficiency in internal management of particular asset classes before expanding into internal management of additional asset classes, and evaluate the performance of internal management compared to

available external management services.

Terra Maria Program

The Terra Maria program is the system's emerging manager program. One of the Terra Maria program's stated goals is to achieve returns in excess of benchmarks. The program has demonstrated the ability to achieve excess returns over benchmarks, with instances of significant returns over benchmarks at times. Over the past few years, SRPS underwent reorganizing of the program to better utilize the asset diversification that the program can bring to SRPS. The program transition included eliminating mandates for allocations to large-cap domestic equity and increasing mandates for international small-cap and emerging markets. The program consolidated under five program managers. Program investments in domestic equity in recent years were tracking close to markets, making it more difficult to achieve excess returns in an asset class where it is already difficult to outperform the market, in addition to incurring active management fees. The program has maintained a diverse roster of managers through the transition.

Total assets devoted to the program remained steady at $2.6 billion in fiscal 2018 and 2019. As a proportion of total assets, Terra Maria decreased from 5.1% of total assets in fiscal 2018 to 4.9% in fiscal 2019. **Exhibit 7** provides an overview of the Terra Maria program by program manager and asset class.

Exhibit 7
Terra Maria Program Performance
Investment Performance for Periods Ending June 30, 2019
($ in Millions)

		Performance			
	Total Assets	Fiscal 2019 Actual	Fiscal 2019 Benchmark	Inception Actual	Inception Benchmark
Program Manager					
Acuitas	$95.1	-13.29%	-10.39%	-1.72%	5.58%
Attucks	428.3	-2.99%	1.29%	11.45%	7.79%
Capital Prospects	1,022.5	2.81%	2.82%	13.01%	12.85%
FIS Group	665.1	-1.92%	-2.46%	10.22%	10.00%
Leading Edge	421.6	-0.66%	1.29%	10.50%	7.79%
Asset Class					
U.S. Equity	$482.8	-5.11%	-5.20%	7.61%	7.83%
International Developed Equity	1,148.9	-2.79%	-1.02%	2.77%	1.46%
Emerging Market Equity	366.2	1.73%	1.21%	n/a	n/a
Rate Sensitive	583.4	7.19%	7.31%	3.16%	2.83%
Credit/Debt	51.4	1.77%	1.93%	2.39%	2.64%
Total	**$2,632.7**	**-0.53%**	**0.32%**	**5.27%**	**4.81%**

Note: Actual returns are net of fees; returns beyond one year are annualized. Total assets may not sum to total due to rounding and outstanding payables from closed accounts.

Source: State Street – State Retirement Agency of Maryland – Rates of Return – Net Mgr – Periods Ending June 30, 2019

In fiscal 2019, the program experienced a negative return of -0.53% against a benchmark of 0.32%. Four of the five program managers experienced negative returns, and only one of the five had a return above the benchmark. Two of the program managers had negative benchmarks for fiscal 2019, with FIS Group mitigating losses by outperforming its benchmark of -2.46% with a return of -1.92%. Acuitas had the poorest performance, with a loss of -13.29% against a benchmark of -10.39%. However, despite the poor overall performance in fiscal 2019, returns for the second half of the fiscal year (the first half of calendar 2019) are significantly improved. As shown in **Exhibit 8**, all five managers had significantly improved positive returns, with four of the five managers achieving double-digit returns. Acuitas showed significant improvement in the second half of the fiscal year, with a return of 6.78%; however, it still had significant underperformance against its benchmark of 14.15%. Three of the five managers also outperformed their benchmarks for the first half of calendar 2019. Since inception, the program has achieved positive returns, including outperforming its benchmark by 0.46% (46 basis points).

Exhibit 8
Terra Maria Program Performance
Investment Performance for Six-month Period Ending June 30, 2019
($ in Millions)

		Performance	
	Total Assets	**Actual**	**Benchmark**
Program Manager			
Acuitas	$95.1	6.78%	14.15%
Attucks	428.3	13.20%	14.64%
Capital Prospects	1,022.5	10.01%	9.40%
FIS Group	665.1	13.05%	11.54%
Leading Edge	421.6	16.89%	14.64%
Asset Class			
U.S. Equity	$482.8	15.80%	15.78%
International Developed Equity	1,148.9	14.67%	13.84%
Emerging Market Equity	366.2	13.05%	10.58%
Rate Sensitive	583.4	5.71%	5.44%
Credit/Debt	51.4	n/a	n/a
Total	**$2,632.7**	**12.29%**	**11.62%**

Note: Actual returns are net of fees; returns beyond one year are annualized. Total assets may not sum to total due to rounding and outstanding payables from closed accounts. The current Credit/Debt asset class inception was March 1, 2019.

Source: State Street – State Retirement Agency of Maryland – Rates of Return – Net Mgr – Periods Ending June 30, 2019

Maryland Private Equity/Venture Capital Program

Legislation in 2016 authorized SRPS to engage in investments in Maryland private equity and venture capital. The legislation required the system to select a program investment manager and authorized the Maryland Technology Development Corporation as an option to fill this role. The enacting legislation specified that employer contributions in excess of the statutory required amount could be utilized in this program. In 2018, Chapters 727 and 728 authorized an additional $300 million to be included in the program by authorizing the annual $75 million supplemental contributions to the system to be utilized in the program. The program is subject to the fiduciary obligations and responsibilities of the system.

DLS requests SRA to comment on the status of the program.

Currency Program

Adopted in fiscal 2009, the program is designed to protect against losing value when the dollar appreciates relative to some foreign currencies in countries in which the system holds assets. During periods when the dollar is weak, the currency management program's cost manifests as a slight drag on international equity holdings. However, when the dollar appreciates, the program provides gains that help offset the currency losses generated by the strengthening dollar. As of June 30, 2019, the currency program added total value of $246.8 million since inception. Gains when the dollar is strong should outweigh losses when the dollar is weak, and the system has taken steps to lock in program gains. The primary objective of the program is to lower volatility related to currency fluctuations.

The currency hedging program has limited application and is only applied to a relatively small portion of the system's total assets. In addition, not all foreign currencies are included in the hedging program. Due to liquidity constraints and higher transaction costs in some currencies, the program is currently limited to the euro, Japanese yen, Swedish krona, Swiss franc, Canadian dollar, Australian dollar, and British pound.