
Annual State Retirement and Pension System's Investment Overview

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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 the 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:

“C. 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, ten to twenty years) are to achieve an annualized investment return that:

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.
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.

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."

In its annual review of the system's asset allocation in 2015, the board decided to make several changes to the overall strategic asset class targets. The board voted to consolidate its current asset class structure into five categories. The Growth Equity class includes public equity (domestic, global, international, and emerging markets) and private equity investments. The Rate Sensitive class includes fixed income, treasury inflation protected securities, and cash. The Credit class includes high yield bonds and bank loans and emerging market debt. The Real Assets class includes real estate, commodities, and natural resources and infrastructure investments. Absolute Return is the final asset class category and 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 approved adjustments to the asset allocations, and set transitional targets. The board also approved target ranges for sub-asset classes as well as constraints on hedge fund exposure, with total hedge funds capped across all asset classes. **Exhibit 1** shows system asset allocations in relation to the strategic targets.

Exhibit 1 also shows a continuation of a trend that began with significant restructuring of the portfolio in fiscal 2008 and 2009. Most notably, public equity has dropped from 62.8% in fiscal 2008 to 37.4% in fiscal 2016. The overall strategy of diminishing allocations to public equity is part of an approach by the board to decrease risk through diversification in the wake of the 2008 financial crisis. A shift from public equity to alternatives strategies like hedge funds can benefit the fund in turbulent markets. Additionally, increased investment in private equity has resulted in positive returns for the system, with less experienced volatility than public equity. It should be noted that the overall strategy of reducing public equity investments is expected to result in lower returns when public equities are in multi-year growth patterns. However, as public equity has been the most volatile asset class over the past 10 years, a more diverse investment allocation will provide protection when equity markets decline. As of September 30, 2016, the public equity allocation has grown slightly to 38.6%, with domestic public equity increasing from 14.8% to 15.9%. The long-term policy allocation for private equity – one of the system's strongest performing asset classes – increased to 11.0%, with the actual allocation reaching 9.3% as of September 30, 2016.

Exhibit 1
State Retirement and Pension System Asset Allocation

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Actual 6/30/2016</u>	<u>Actual 9/30/2016</u>
Growth/Equity	47.0%	46.6%	47.9%
U.S. Equity	16.0%	14.8%	15.9%
International Equity	12.0%	13.4%	12.8%
Emerging Market Equity	8.0%	9.2%	9.9%
Private Equity	11.0%	9.2%	9.3%
Rate Sensitive	21.0%	22.7%	22.0%
Long-term Government Bonds	10.0%	10.5%	10.5%
Securitized and Corporate Bonds	6.0%	7.0%	7.0%
Inflation-linked Bonds	5.0%	4.1%	4.1%
Cash	0.0%	1.1%	0.5%
Credit	9.0%	9.4%	9.5%
High Yield Bonds & Bank Loans	6.0%	6.6%	6.6%
Emerging Market Debt	3.0%	2.9%	2.9%
Real Assets	15.0%	12.7%	12.6%
Real Estate	10.0%	8.2%	8.3%
Commodities	3.0%	2.8%	2.6%
Natural Resources and Infrastructure	2.0%	1.7%	1.7%
Absolute Return	8.0%	8.6%	8.0%
Total Fund	100.0%	100.0%	100.0%

Source: State Retirement Agency

Investment Performance

The system's investment return for fiscal 2016 was 1.16%, net of management fees, failing to exceed its investment return target for the second consecutive year. The performance was driven primarily by low public equity returns, which made up 37.4% of the portfolio and returned -4.31% for the fiscal year. As shown in **Exhibit 2**, the system's assets totaled \$45.465 billion as of June 30, 2016, a decrease of \$368 million over fiscal 2015 after accounting for benefit payouts and other expenses. This is the third year in a row that the market value of the fund has exceeded \$45.0 billion but is also the first year since 2012 that the market value of the fund decreased when compared to the prior June 30 value. As noted below, the strongest performing asset classes were private equity, real estate, and fixed income.

As shown in **Exhibit 3**, all but two asset classes underperformed their policy benchmarks. Public equity holding returns were 46 basis points under the benchmark. Within public equity, domestic equity returned 0.56%, with international and global equity sustaining losses of -11.11% and -3.96%, respectively. The system's real estate and private equity holdings contributed strong performance, returning 11.16% and 9.94%, respectively, though real estate underperformed its return benchmark.

Exhibit 2
State Retirement and Pension System of Maryland
Fund Investment Performance for Periods Ending June 30, 2016
(\$ in Millions)

	<u>Assets</u>	<u>% Total</u>	<u>Time Weighted Total Returns</u>		
			<u>1 Year</u>	<u>5 Years</u>	<u>10 Years</u>
Growth Equity					
Public Equity	\$17,006	37.4%	-4.31%	6.11%	4.56%
Private Equity	4,169	9.2%	9.94%	12.30%	10.87%
Subtotal	21,175	46.6%	-1.82%	7.05%	5.04%
Rate Sensitive					
Nominal Fixed Income	7,933	17.4%	10.71%	5.70%	6.13%
Inflation-linked Bonds	1,866	4.1%	5.16%	3.41%	n/a
Cash	521	1.1%	2.39%	2.41%	n/a
Subtotal	10,320	22.7%	9.34%	5.00%	6.00%
Credit	4,294	9.4%	2.23%	5.75%	n/a
Real Assets					
Real Estate	3,740	8.2%	11.16%	11.73%	5.90%
Commodities	1,273	2.8%	-13.60%	-8/81%	n/a
Natural Resources and Infrastructure	772	1.7%	-12.61%	5.57%	n/a
Subtotal	5,785	12.7%	-1.66%	0.55%	4.14%
Absolute Return	3,892	8.6%	-3.01%	2.42%	n/a
Total Fund	\$45,465	100.0%	1.16%	5.68%	4.85%

Note: Data presented here includes \$242.1 million invested by the system on behalf of the Maryland Transit Administration. Returns beyond one year are annualized. Returns are net of fees, except for 10-year returns, which are gross of fees. Columns may not add to total due to rounding.

Source: State Street Investment Analytics

Exhibit 3
State Retirement and Pension System of Maryland
Benchmark Performance for Periods Ending June 30, 2016

	<u>Return</u>	<u>Benchmark</u>	<u>Excess</u>
Public Equity	-4.31%	-3.85%	-0.46%
Private Equity	9.94%	4.59%	5.35%
Nominal Fixed Income	10.71%	11.65%	-0.94%
Inflation-linked Bonds	5.16%	5.23%	-0.08%
Cash	2.39%	0.14%	2.25%
Credit	2.23%	2.69%	-0.46%
Real Estate	11.16%	13.23%	-2.06%
Commodities	-13.60%	-13.32%	-0.28%
Natural Resources and Infrastructure	-12.61%	6.05%	-18.66
Absolute Return	-3.01%	-2.56%	-0.45
Total Fund	1.16%	1.69%	-0.54%

Source: State Street Investment Analytics

Appendix 1 presents the fiscal year-end performance by each investment manager for fiscal 2016 and prior periods by asset class and asset sub-class. While overall plan performance and performance in aggregate among the asset classes yielded returns below benchmarks, some asset sub-classes did produce value above benchmarks.

DLS requests SRA to comment on the 2016 return performance in relation to the policy benchmarks and for any asset classes and asset sub-classes that underperformed the benchmark, comment on the factors that led to the underperformance, whether those factors are expected to negatively affect performance in fiscal 2017, and what actions are being taken to mitigate those factors impacting the fiscal 2017 returns.

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 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 2016 investment performance was rated in the fifty-seventh percentile among the public pension funds with at least \$25 billion in assets, as shown in **Exhibit 4**. However, the system's plan policy ranking for the period ending June 30, 2016, was the thirty-second percentile, highlighting the system's underperformance of its benchmarks. As the system has a low allocation to equity investments compared to its peers, the system's investment policy will have a low TUCS ranking when equity markets are experiencing strong performance. Up until this year, the system has consistently experienced returns in excess of its benchmarks, resulting in higher actual TUCS rankings. With the exception of the one-year return for fiscal 2016, long-term performance rankings place SRPS in the bottom quartile for every timeframe examined. The TUCS rankings are based on returns gross of fees.

Exhibit 4
TUCS Percentile Rankings for Periods Ending June 30
Fiscal 2013-2016

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
1 Year	93	94	81	57
3 Years	87	94	88	95
5 Years	68	84	88	95
10 Years	99	99	91	95

TUCS: Trust Universe Comparison Service

Source: Trust Universe Comparison Service

TUCS rankings on their own offer limited insight into the manner in which a system's asset allocation drives performance. The rankings by themselves offer little by way of explaining why Maryland's performance differs from that of other funds and do not reflect a clear picture of the increased investment volatility risks borne by a system with heavier investment in equity, particularly public equity. A more in-depth examination of asset allocation and returns in comparable state pension plans further illustrates the relationship between allocations to equity and fund performance. Over the last few years, high allocations to public equity resulted in higher returns due to the run-up in those markets. Based on data compiled by SRA, DLS identified four other state pension funds with asset allocations to equity at levels similar to Maryland, and four other funds with a higher share of equity allocations; these are shown in **Exhibit 5**. With the exception of Virginia, the plans shown in Exhibit 5 all decreased allocations of public equity allocations from their fiscal 2015 levels. This is consistent with trends to reduce risk and volatility by lowering allocations to public equity, but could also be related investment performance.

Exhibit 5
Performance and Equity Allocation of Public Pension Fund Peers
As of June 30, 2016

	Asset Allocation				
	<u>Total Equity Exposure</u>	<u>Public Equity</u>	<u>Private Equity</u>	<u>Real Estate</u>	<u>Fiscal 2016 Performance</u>
Washington	73.3%	36.5%	21.0%	15.8%	2.65%
Virginia	61.6%	40.8%	7.9%	12.9%	1.90%
California Teachers	77.5%	54.9%	8.7%	13.9%	1.40%
Pennsylvania	49.3%	21.9%	16.0%	11.4%	1.29%
Oregon	70.7%	38.0%	20.1%	12.6%	1.21%
Maryland	54.8%	37.4%	9.2%	8.2%	1.16%
North Carolina	57.0%	42.5%	5.0%	9.5%	0.80%
California Employees	70.1%	51.9%	8.9%	9.3%	0.61%
South Carolina	48.2%	31.7%	9.4%	7.1%	-0.39%

California Employees: California Public Employees' Retirement System
 California Teachers: California State Teachers' Retirement System
 Maryland: Maryland State Retirement and Pension System
 North Carolina: North Carolina Retirement System
 Oregon: Oregon Public Employees' Retirement System
 Pennsylvania: Pennsylvania Public School Employees' Retirement System
 North Carolina: North Carolina Retirement System
 South Carolina: South Carolina Retirement System
 Virginia: Virginia Retirement System
 Washington: Washington State Investment Board

Source: State Retirement Agency

While SRPS returns in public equity were well below the assumed rate of return, private equity and real estate generated significant returns in fiscal 2016. Other systems shown in exhibit 5 highlight the strength of private equity and real estate in fiscal 2016. While Washington had a similar public equity allocation to SRPS, it had significantly more assets in private equity and real estate. The Pennsylvania Public School Employees' Retirement System had a lower overall allocation to equity but higher allocations to private equity and real estate. Both systems returns exceeded SRPS.

Regarding public equity, SRPS does not have a bias to domestic equity. While total public equity returns for SRPS were -4.31%, domestic public equity returned 0.56% on the year, with a benchmark of 2.14%. All things being equal, a system with allocations similar to SRPS but a higher allocation in public equity in domestic equity would be expected to have performed better

than SPRS in fiscal 2016. Since the end of the fiscal year, system asset allocations to domestic equity have increased to 15.9% as of September 30, 2016.

TUCS data for fiscal 2016 quarterly performance provide some insight when examining the effect of heavier allocations to public equity. As shown in **Exhibit 6**, Maryland's TUCS rankings are significantly higher when domestic equity has the lowest performance ranking. For the first quarter ending September 30, 2015, the Standard and Poor's (S&P) 500 had the lowest TUCS performance ranking. Conversely, Maryland ranking is in or near the top quartile during that same period. As expected, due to Maryland's comparatively low allocation to public equity, when the S&P 500 has the highest TUCS performance ranking in the second quarter of fiscal 2016, Maryland's ranking falls back into the bottom quartile. These results are reflective of SRPS' cautious approach to avoid losses in market downturns.

The diversification of the system's asset allocation appears to be providing protection against more severe losses in a market downturn. This protection is, as the rankings indicate, at the expense of additional gains when the markets are performing well. However, while additional gains are always welcome, there is prudence in structuring the investment allocation in a manner that limits the severity of a negative return. Less volatility in investment returns will also result in more stable employer contribution rates.

TUCS also provides data on the risk-return profile of its members. The data show that the system's level of risk over the three-year period ending June 30, 2016, was below the median for other public funds with assets greater than \$25 billion. This is consistent with the system's comparatively low allocation to public equity, which is a highly volatile asset class. The system's asset allocation sets the system up to protect against more extreme losses in down markets, which is reflected in the rankings shown in **Exhibit 6**. For the quarter ending September 30, 2015, the system return is -3.61%. However, for that same period, the S&P 500 return is -6.44%. As expected, with the TUCS ranking for the S&P at 100, Maryland's ranking is considerably higher at 25.

Exhibit 6
SRPS TUCS Performance Rankings – Fiscal 2016 Quarterly Performance

	September <u>2015</u>	December <u>2015</u>	March <u>2016</u>	June <u>2016</u>
SRPS Performance	25	91	28	42
S&P 500	100	1	42	5

S & P: Standard and Poor's
SRPS: State Retirement and Pension System
TUCS: Trust Universe Comparison Service

Source: Trust Universe Comparison Service

Investment Management Fees

As shown in **Exhibit 7**, SRPS incurred \$329.7 million in investment management fees during fiscal 2016, a decrease of \$17.4 million over fiscal 2015 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, contributed significantly to the growth in fees over the past few years.

Exhibit 7
Asset Management Fees Paid by Asset Class
Fiscal 2014-2016
(\$ in Millions)

	<u>2014</u>	<u>2015</u>	<u>2016</u>
Public Equity	\$99.3	\$95.6	\$83.6
Fixed Income	11.8	10.7	10.0
Real Estate	26.4	26.2	32.6
Private Equity	59.1	62.3	81.5
Real Return	26.3	33.8	29.6
Credit and Debt Related	62.9	52.3	36.9
Absolute Return	33.1	58.2	49.2
Currency	6.9	5.0	3.1
Service Providers/Other	3.7	2.8	3.1
Total	\$329.6	\$347.1	\$329.7

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

Source: State Retirement Agency

While active management of assets results in higher overall fees, the system has benefited from active management by achieving excess returns over performance benchmarks. Private equity returned 535 basis points in excess of its fiscal 2016 benchmark. While active management of emerging market public equity returned -6.46%, the return was 559 basis points above its benchmark of -12.05%. Similarly, actively managed international developed equity's return of -9.29% was 106 basis points above its benchmark of -10.35%. Commodity hedge fund investments returned 1044 basis points above its benchmark, though for a return of -2.88%. While negative returns are concerning, the system has at least demonstrated an ability to receive value when paying for active management by mitigating the extent of negative returns.

A report presented to the SRPS board of trustees at the August 16, 2016 meeting of the board by CEM Benchmarking, Inc. found that SRPS investments were lower cost compared to its peer group. The report noted that the system had lower costs than would be expected, and also noted that the system paid less than peer systems for similar services.

Private Equity Fees

Private equity investments comprise 9.2% of total system assets as of June 30, 2016. The total private equity investment has increased from 8.0% as of June 30, 2015. The system's private equity program is relatively young, beginning in 2005. As shown in Exhibit 7, management fees for private equity comprise nearly 25.0% of total management fees, despite only constituting 9.2% of system assets in fiscal 2016. The reason for the high 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 set management fee, plus a portion of earnings referred to as "carried interest." The management fees in Exhibit 7 only reflect the management 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 the result. SRA indicates that private equity returns are reported net of management fees and carried interest. Management fees for private equity shown in Exhibit 7 reflect increased investment commitments in fiscal 2016.

While private equity does involve substantial management fees, the system's private equity portfolio was one of the strongest performing asset class in 2016, with a return of 9.94%. This return was 535 basis points above its benchmark, the second consecutive year in which private equity returns exceeded the benchmark by more than 500 basis points. Returns for the one -three- and five-year periods were 9.94%, 14.16%, and 12.30%, respectively. Returns for those same periods also provided significant excess returns over the asset class benchmarks.

Over the past few years, there has been increasing interest and scrutiny over the transparency of fees for private equity investments. Concerns have been raised over lack of transparency over fees and expenses related to private equity investments not being fully disclosed. This increased scrutiny is expected to result in more transparent disclosures in the private equity industry. A fee reporting template designed by the Institutional Limited Partners Association has been receiving increasing support from public systems as well as general partner entities. SPRS has signed on in support of the fee disclosure template. The template is intended to unify and codify the presentation of fees, expenses, and carried interest disclosures by fund managers to limited partners.

Internal Asset Management

A number of large public defined benefit pension funds report using internal management for at least a portion of their portfolio. The board has been discussing the exploration of internal management of SRPS assets. The SRPS Investment Policy Manual was amended to clarify the ability of the Chief Investment Officer to develop and implement internal management strategies.

DLS notes that moving to internal management could require substantial increase in staffing and flexibility to provide market rate compensation to investment staff but also has the potential to generate substantial net savings in management costs.

As a shift to internal management would be a significant change in the operation of the SRA Investment Division, DLS notes that a shift to internal management could 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.

As part of its requests for legislation in 2017, the board of trustees included a request for legislation that would give independent salary setting authority for SRA Investment Division personnel. Independent salary authority would likely be a necessary component of implementing internal management of assets. The board cites “insufficient resources to develop an internal management function” as one of the reasons for the requested legislation. A move to internal management would require SRA to compete with the private sector to recruit and retain asset managers with the experience needed to directly manage assets.

One of the arguments for internal management is that it can reduce fees paid for asset management. However, internal management does introduce additional risk factors. 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. When particular managers do not perform well, SRPS is able to terminate the management arrangement and place the funds under management elsewhere. If assets under internal management fail to adequately perform, the investment performance would be an SRA personnel issue, rather than a manager selection issue. Flexibility and diversification in managements of assets will need to be balanced with potential cost savings from reduced fees. Additionally, turnover of internal management personnel could affect investment performance continuity.

DLS requests SRA to comment on its plans for internal asset management, including the asset classes and sub-asset classes in which SRA plans to directly manage system assets, the amount of assets that would be internally managed, changes to investment division staffing that would be needed to implement internal management of assets, any additional legal or regulatory compliance required as a result of internal asset management, and potential timelines for implementation.

Terra Maria Program

The Terra Maria program, the system’s emerging manager program, continued to add value to the portfolio, but its performance has weakened compared with its early years. Now in its tenth year, the program performed below its benchmark by 265 basis points in fiscal 2016, though

since inception the program has performed 77 basis points above its benchmark. Domestic public equity under Terra Maria managers had a cumulative return of -5.32%, which was 590 basis points below its benchmark. By comparison, the system returned 1.54% in actively managed domestic public equity, which was 160 basis points below the benchmark.

The program has also continued to experience some retrenchment in size. Total assets devoted to the program decreased slightly, from almost \$2.9 billion in fiscal 2015 to \$2.6 billion in fiscal 2016. As a proportion of total assets, Terra Maria dropped from 6.3% of total assets in fiscal 2015 to 5.7% in fiscal 2016. **Exhibit 8** provides an overview of the Terra Maria program by program manager and asset class.

Exhibit 8
Terra Maria Program Performance
Investment Performance for Periods Ending June 30, 2016
(\$ in Millions)

<u>Program Manager</u>	<u>Total Assets</u>	Performance			
		<u>Fiscal 2016 Actual</u>	<u>Fiscal 2016 Benchmark</u>	<u>Inception Actual</u>	<u>Inception Benchmark</u>
Attucks	\$421.5	-2.46%	-1.23%	12.63%	11.95%
Bivium	279.2	-7.46%	-3.64%	10.97%	11.46%
Capital Prospects	446.1	-2.54%	-0.30%	14.88%	14.75%
FIS Group	346.1	-4.63%	-7.20%	11.32%	10.21%
Leading Edge	351.6	-6.78%	-5.17%	11.21%	11.21%
Northern Trust	440.8	-4.47%	-0.06%	4.47%	4.33%
Progress	325.9	4.39%	4.36%	8.01%	7.85%
<u>Asset Class</u>					
U.S. Equity	\$992.2	-5.32%	0.58%	7.13%	7.03%
International Developed Equity	712.9	-8.39%	-10.48%	0.82%	-1.00%
Emerging Market Equity	146.1	7.07%	6.41%	-0.37%	-0.02%
Global Equity	23.1	2.49%	-3.73%	10.12%	10.02%
Rate Sensitive	636.0	4.21%	4.15%	3.56%	3.60%
Credit/Debt	100.9	-4.34%	-0.63%	6.19%	7.23%
Total	\$2,611.2	-4.03%	-1.68%	4.76%	3.99%

Note: Actual returns are net of fees; returns beyond one year are annualized. Total assets may not sum to total due to rounding.

Source: State Retirement Agency

For fiscal 2016, only two of the seven program managers met or exceeded their performance benchmarks, and on the whole, program performance underperformed its benchmark by 235 basis points. Only international and global equity exceeded their benchmarks, and only two asset managers exceeded their individual benchmarks. Despite the underperformance in fiscal 2016, the program as a whole has outperformed its overall composite benchmark by 77 basis points since inception. However, that is down from returns of 118 basis points over the benchmark since inception through fiscal 2015. Among asset classes, domestic equity, international equity, and global equity have exceeded benchmarks since inception. All but one of the seven program managers are beating or meeting their benchmarks since inception.

Despite the overall underperformance, the program did demonstrate its ability to generate value. While international developed equity had a return of -8.39%, this return was 209 basis points above the benchmark. Non-Terra Maria international developed equity that was actively managed had a fiscal year return of -9.62%, exceeding its benchmark by 65 basis points. While US equity underperformed by 590 basis points, global equity Terra Maria returned 2.49%, which exceeded its benchmark by 622 basis points.

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 year, there has been discussion at SRPS board meetings of refocusing the program asset management to better utilize the asset diversification the program can bring to SRPS, including exploring expansion into additional asset classes.

DLS requests SRA to comment on its plans regarding the structure and utilization of the Terra Maria program moving forward, including how the amount of funds under management and the distribution of funds among asset classes affects program performance.

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. During fiscal 2016 the program reduced returns by \$47.7 million. However, as of June 30, 2016, the currency program added value of \$267.1 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 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.

DLS requests SRA to comment on its process for evaluating utilization of the currency program, and plans for the program moving forward.



SUMMARY OF PERFORMANCE

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
TOTAL PLAN	45,465,359,142	100.0	0.89	1.87	3.57	1.16	1.16	5.91	5.68	4.85	8.00	07/01/86
TOTAL PLAN POLICY INDEX ^[1]			1.20	2.44	4.79	1.69	1.69	5.40	4.96	4.46		07/01/86
<i>Excess</i>			<i>-0.31</i>	<i>-0.57</i>	<i>-1.23</i>	<i>-0.54</i>	<i>-0.54</i>	<i>0.51</i>	<i>0.72</i>	<i>0.39</i>		
TOTAL GROWTH EQUITY	21,174,760,618	46.6	-0.52	0.32	0.72	-1.82	-1.82	7.95	7.05	5.04	5.10	01/01/98
GROWTH EQUITY CUSTOM BENCHMARK ^[2]			-0.06	0.90	1.62							01/01/98
<i>Excess</i>			<i>-0.46</i>	<i>-0.58</i>	<i>-0.90</i>							
TOTAL RATE SENSITIVE	10,319,984,074	22.7	3.58	4.04	9.60	9.34	9.34	5.26	5.00	6.00	7.44	07/01/86
CUSTOM RATE SENSITIVE BENCHMARK ^[3]			3.93	4.26	10.38	10.65	10.65	5.33	4.59	5.36		07/01/86
<i>Excess</i>			<i>-0.35</i>	<i>-0.22</i>	<i>-0.79</i>	<i>-1.31</i>	<i>-1.31</i>	<i>-0.07</i>	<i>0.41</i>	<i>0.63</i>		
TOTAL CREDIT/DEBT STRATEGIES	4,293,631,773	9.4	1.02	2.24	4.81	2.23	2.23	4.19	5.75		10.12	03/01/09
MSRA CUSTOM CREDIT BENCHMARK ^[4]			1.93	4.59	9.39	2.69	2.69	2.68	4.30		8.48	03/01/09
<i>Excess</i>			<i>-0.91</i>	<i>-2.35</i>	<i>-4.58</i>	<i>-0.46</i>	<i>-0.46</i>	<i>1.51</i>	<i>1.45</i>		<i>1.64</i>	
TOTAL REAL ASSETS	5,784,973,087	12.7	1.62	3.54	4.65	-1.66	-1.66	-0.08	0.55	4.14	3.79	02/01/06
CUSTOM REAL ASSETS BENCHMARK ^[5]			1.66	4.57	7.41	0.87	0.87	-0.04	-0.26	2.98	2.68	02/01/06
<i>Excess</i>			<i>-0.04</i>	<i>-1.03</i>	<i>-2.76</i>	<i>-2.54</i>	<i>-2.54</i>	<i>-0.04</i>	<i>0.81</i>	<i>1.16</i>	<i>1.10</i>	
TOTAL ABSOLUTE RETURN	3,892,009,590	8.6	0.32	1.78	0.28	-3.01	-3.01	1.67	2.42		3.21	04/01/08
CUSTOM ABSOLUTE RETURN BENCHMARK ^[6]			-0.29	0.91	-0.94	-2.56	-2.56	2.51	1.99		0.72	04/01/08
<i>Excess</i>			<i>0.60</i>	<i>0.87</i>	<i>1.22</i>	<i>-0.45</i>	<i>-0.45</i>	<i>-0.84</i>	<i>0.43</i>		<i>2.49</i>	



ENDNOTES

- [1] Since 07/01/2008: Calculated monthly using transitional weights and asset class benchmarks. Prior to 07/01/2008: MSRA TOTAL PLAN STATIC POLICY.
- [2] Benchmark is a dynamic blend of the Public Equity Benchmark and the State Street Private Equity Index based off of sub-asset class weights used in the policy benchmark.
- [3] Since 11/01/2015: 50% Barclays Long-Term Government, 15% Barclays Securitized, 15% Barclays Corporate, 20% Barclays U.S. TIPS
From 07/01/2013 to 10/31/2015: 80% BC Aggregate Intermediate, 20% BC Global Aggregate 1-10 Year Hedged
From 07/01/2010 to 06/30/2013: 80% BC Aggregate, 20% BC Global Bond Aggregate Hedged
From 01/01/2010 to 06/30/2010: 80% BC Aggregate, 20% BC Global Bond Aggregate Unhedged
From 07/01/2009 to 12/31/2009: Benchmark is dynamically calculated using Beginning Market Value weights of the underlying portfolios and their benchmarks
Prior to 07/01/2009: Benchmark is BC US Universal.
Formerly named "Custom Fixed Income Benchmark" prior to 11/01/2015.
- [4] Since 01/01/2016: 67% US Credit Benchmark, 33% non-U.S Credit Benchmark.
From 11/01/2015 to 12/31/2015: 75% US Credit Benchmark, 25% non-U.S Credit Benchmark.
From 07/01/2013 to 10/31/2015: 50% BC High Yield / 20% BC Credit / 20% JP Morgan GBI EM Global Diversified/ 10% S&P/LSTA Leveraged Loan Index
From 01/01/2010 to 06/30/2013: 50% BC Credit / 50% BC High Yield
Prior to 01/01/2010: 75% BC Credit / 25% BC High Yield
- [5] Since 11/01/2015: Benchmark is dynamically calculated using the beginning market values of the Real Estate, Commodities and Natural Resource/Infrastructure sub-asset classes and their corresponding benchmarks.
From 12/01/2012 to 10/31/2015: 30% - DJ UBS Commodities Index (Total Return), 10% - CPI + 5%; 8% Max , 60% - 50% BC US TIPS Index/50% BC World Inflat-Linked Bond Index
From 07/01/2011 to 11/30/2012: 30% - DJ UBS Commodities Index (Total Return), 10% - CPI + 5%; 8% Max , 60% - 65% BC US TIPS Index/35% BC Global Inflation Linked (USD Hedged) Index
From 07/01/2009 to 06/30/2011: 20% - DJ UBS Commodities Index (Total Return), 20% - CPI + 5%; 8% Max , 60% - 65% BC US TIPS Index/35% BC Global Inflation Linked (USD Hedged) Index
07/01/2008 to 06/30/2009: Benchmark is dynamically calculated using Beginning Market Value weights of the underlying portfolios and their benchmarks Prior to 07/01/2008: 100% Barclays US TIPS Index
Prior to 07/01/2008: 100% Barclays US TIPS Index
Formerly named "Custom Real Return Benchmark" prior to 11/01/2015.
- [6] Since 11/01/2015: HFRI Fund of Funds Conservative + 100 bps.
From 07/01/2014 to 10/31/2015: HFRI FOF: Conservative Index.
From 07/01/2008 to 06/30/2014 benchmark was HFRI Fund of Funds index.
Prior to 07/01/2008 benchmark was the Citigroup 3-Month T-bill + 500 bps.



SUMMARY OF PERFORMANCE

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
GROWTH EQUITY												
U.S. EQUITY												
RHUMBLINE RUSSELL 1000	1,401,733,904	3.1	0.23	2.53	3.72	3.01	3.01	11.47			13.82	11/01/12
Russell 1000			0.23	2.54	3.74	2.93	2.93	11.48			13.83	11/01/12
<i>Excess</i>			-0.00	-0.01	-0.02	0.07	0.07	-0.01			-0.01	
TOTAL US EQUITY PASSIVE	1,402,218,867	3.1	0.22	2.52	4.14						2.61	11/01/15
D.E. SHAW ALL CAP CORE ENHANCED	535,666,772	1.2	0.01	3.11	3.94	2.65	2.65	11.37			11.49	04/01/13
Russell 3000			0.21	2.63	3.62	2.14	2.14	11.13			11.13	04/01/13
<i>Excess</i>			-0.19	0.48	0.32	0.51	0.51	0.25			0.36	
T. ROWE PRICE ENHANCED	488,844,661	1.1	-0.21	2.40	2.68	3.83	3.83	11.85	12.22	7.97	7.53	05/01/06
S&P 500			0.26	2.46	3.84	3.99	3.99	11.66	12.10	7.42	7.00	05/01/06
<i>Excess</i>			-0.47	-0.06	-1.16	-0.17	-0.17	0.20	0.12	0.54	0.52	
ZEVENBERGEN CAPITAL INV.	87,649,508	0.2	-2.64	-1.28	-11.02	-13.81	-13.81	8.26	7.24		18.17	12/01/08
Custom Zevenbergen Index ^[1]			-0.40	0.80	1.14	1.88	1.88	12.65	11.78		17.63	12/01/08
<i>Excess</i>			-2.24	-2.08	-12.16	-15.69	-15.69	-4.39	-4.54		0.54	
TOTAL U.S. EQUITY ACTIVE	1,113,102,016	2.4	-0.30	2.42	2.14	1.54	1.54	11.10	10.38	5.37		06/01/94
ACTIVE US EQ BM ^[2]			0.18	2.40	3.56	3.14	3.14	11.53	11.84			06/01/94
<i>Excess</i>			-0.48	0.02	-1.42	-1.60	-1.60	-0.43	-1.46			
US EQUITY TERRA MARIA	992,167,429	2.2	-0.72	0.70	-0.65	-5.32	-5.32	7.82	8.77		7.13	04/01/07
TERRA MARIA US EQUITY BENCHMARK ^[3]			0.08	2.98	3.60	0.58	0.58	10.34	10.93		7.03	04/01/07
<i>Excess</i>			-0.80	-2.27	-4.25	-5.90	-5.90	-2.52	-2.16		0.10	



SUMMARY OF PERFORMANCE

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
TOTAL US EQUITY TM + U.S. EQUITY ACTIVE	2,105,269,445	4.6	-0.50	1.89	1.11	-1.39	-1.39	9.67	9.71		7.98	07/01/08
TM US EQ + ACTIVE US EQ BM ^[2]			0.14	2.67	3.58	1.94	1.94	10.98	11.45		8.96	07/01/08
<i>Excess</i>			<i>-0.64</i>	<i>-0.77</i>	<i>-2.47</i>	<i>-3.33</i>	<i>-3.33</i>	<i>-1.31</i>	<i>-1.74</i>		<i>-0.98</i>	
U.S. EQUITY	3,507,488,313	7.7	-0.21	2.14	2.39	0.56	0.56	10.48	10.64	6.82	8.36	04/01/94
MSRA CUSTOM US EQUITY INDEX ^[4]			0.21	2.63	3.62	2.14	2.14	11.13	11.60	7.45		04/01/94
<i>Excess</i>			<i>-0.42</i>	<i>-0.49</i>	<i>-1.23</i>	<i>-1.58</i>	<i>-1.58</i>	<i>-0.65</i>	<i>-0.95</i>	<i>-0.63</i>		
INTERNATIONAL DEVELOPED MARKETS												
SSGA INTERNATIONAL FUND	1,469,804,416	3.2	-2.96	-0.78	-2.61	-9.38	-9.38	2.25	1.55	2.42	7.81	05/01/03
SSGA INTERNATIONAL CUSTOM INDEX ^[5]			-3.04	-1.05	-2.98	-9.84	-9.84	1.88	1.23	2.10	7.54	05/01/03
<i>Excess</i>			<i>0.08</i>	<i>0.27</i>	<i>0.37</i>	<i>0.47</i>	<i>0.47</i>	<i>0.37</i>	<i>0.32</i>	<i>0.32</i>	<i>0.27</i>	
INTERNATIONAL DEVELOPED EQUITY PASSIVE	1,469,804,416	3.2	-2.96	-0.78	-2.61						-5.82	11/01/15
MSCI WORLD EX US NET (DAILY)			-3.04	-1.05	-2.98						-6.24	11/01/15
<i>Excess</i>			<i>0.08</i>	<i>0.27</i>	<i>0.37</i>						<i>0.42</i>	
ARTISAN PARTNERS, L.P.	485,444,982	1.1	-1.95	-0.55	-3.84	-10.32	-10.32	2.58	5.11	4.86	8.15	11/01/03
ARTISAN CUSTOM BENCHMARK ^[6]			-3.04	-1.05	-2.98	-9.84	-9.84	1.88	1.49	2.58	6.40	11/01/03
<i>Excess</i>			<i>1.09</i>	<i>0.50</i>	<i>-0.86</i>	<i>-0.48</i>	<i>-0.48</i>	<i>0.70</i>	<i>3.61</i>	<i>2.28</i>	<i>1.75</i>	
AQR ENHANCED ACWI EX-US	374,847,344	0.8	-4.76	-2.77	-3.73	-10.61	-10.61				-2.93	12/01/13
AQR Enhanced Custom Benchmark ^[7]			-3.04	-1.05	-1.43	-10.61	-10.61				-3.92	12/01/13
<i>Excess</i>			<i>-1.72</i>	<i>-1.72</i>	<i>-2.31</i>	<i>0.01</i>	<i>0.01</i>				<i>0.99</i>	



SUMMARY OF PERFORMANCE

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
BROWN CAPITAL MANAGEMENT INT'L	445,582,664	1.0	-3.28	-3.42	-4.34	-3.89	-3.89	6.86	6.03		12.83	12/01/08
Brown Capital Management International Custom Benchmark ^[8]			-3.24	-2.20	-2.43	-11.00	-11.00	1.13	0.08		7.92	12/01/08
<i>Excess</i>			<i>-0.04</i>	<i>-1.22</i>	<i>-1.91</i>	<i>7.11</i>	<i>7.11</i>	<i>5.73</i>	<i>5.95</i>		<i>4.91</i>	
DFA INTERNATIONAL CORE EQUITY	314,032,159	0.7	-3.97	-1.48	-2.31	-8.23	-8.23	3.62			1.65	05/01/13
MSCI WORLD EX US (NET)			-3.04	-1.05	-2.98	-9.84	-9.84	1.88			-0.16	05/01/13
<i>Excess</i>			<i>-0.93</i>	<i>-0.43</i>	<i>0.67</i>	<i>1.61</i>	<i>1.61</i>	<i>1.74</i>			<i>1.81</i>	
DFA SMALL CAP INTERNATIONAL	179,528,238	0.4	-3.93	-1.13	-0.75	-3.85	-3.85	6.52	3.97	4.26	4.32	03/01/06
DFA Custom Benchmark ^[9]			-4.43	-1.28	-0.69	-3.35	-3.35	6.34	3.85	3.26	3.25	03/01/06
<i>Excess</i>			<i>0.50</i>	<i>0.15</i>	<i>-0.07</i>	<i>-0.51</i>	<i>-0.51</i>	<i>0.17</i>	<i>0.12</i>	<i>1.00</i>	<i>1.07</i>	
INTERNATIONAL DEVELOPED EQUITY ACTIVE ^[10]	1,799,912,812	4.0	-3.42	-1.67	-3.17	-9.62	-9.62	1.92	0.76	1.92		01/01/95
CUSTOM INTL DEV EQ ACTIVE BENCHMARK ^[11]			-3.23	-1.20	-2.25	-10.27	-10.27	1.29	0.08			01/01/95
<i>Excess</i>			<i>-0.19</i>	<i>-0.46</i>	<i>-0.92</i>	<i>0.65</i>	<i>0.65</i>	<i>0.64</i>	<i>0.69</i>			
INTL DEVELOPED EQUITY TERRA MARIA ^[10]	712,942,136	1.6	-3.27	-1.47	-2.01	-8.39	-8.39	2.56	1.60		0.82	11/01/07
TERRA MARIA INTL DEVELOPED EQ BM ^[12]			-2.49	-0.91	-2.09	-10.48	-10.48	1.29	0.19		-1.00	11/01/07
<i>Excess</i>			<i>-0.78</i>	<i>-0.56</i>	<i>0.08</i>	<i>2.09</i>	<i>2.09</i>	<i>1.27</i>	<i>1.41</i>		<i>1.82</i>	
INTL DEVELOPED EQUITY ACTIVE AND TM ^[10]	2,512,854,948	5.5	-3.39	-1.63	-2.86	-9.29	-9.29	2.09	0.95		0.68	07/01/08
TM INTL DEV EQ + ACTIVE INTL DEV EQ BM ^[11]			-3.06	-1.15	-2.24	-10.35	-10.35	1.28	0.12		0.21	07/01/08
<i>Excess</i>			<i>-0.34</i>	<i>-0.47</i>	<i>-0.62</i>	<i>1.06</i>	<i>1.06</i>	<i>0.81</i>	<i>0.83</i>		<i>0.47</i>	
INTL EQUITY TRANSITION ACCOUNT	134,780	0.0										11/01/04



SUMMARY OF PERFORMANCE

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
TOTAL INTL DEVELOPED EQUITY EX OVERLAY ^[10]	3,982,794,145	8.8	-3.20	-1.63	-3.05	-10.34	-10.34	1.46	0.48	2.09		01/01/95
MSRA CUSTOM INTERNATIONAL INDEX ^[13]			-3.04	-1.05	-2.98	-11.52	-11.52	0.68	-0.18	1.82		01/01/95
<i>Excess</i>			<i>-0.16</i>	<i>-0.57</i>	<i>-0.07</i>	<i>1.18</i>	<i>1.18</i>	<i>0.77</i>	<i>0.66</i>	<i>0.27</i>		
RECORD CURRENCY MANAGEMENT	-33,042,833	-0.1										05/01/09
TOTAL INTERNATIONAL DEVELOPED EQUITY ^[10]	3,949,751,312	8.7	-3.63	-2.08	-4.30	-11.11	-11.11	2.19	1.22	2.40	5.86	01/01/95
MSRA CUSTOM INTERNATIONAL INDEX ^[13]			-3.04	-1.05	-2.98	-11.52	-11.52	0.68	-0.18	1.82	4.74	01/01/95
<i>Excess</i>			<i>-0.59</i>	<i>-1.02</i>	<i>-1.32</i>	<i>0.41</i>	<i>0.41</i>	<i>1.51</i>	<i>1.41</i>	<i>0.58</i>	<i>1.12</i>	
EMERGING MARKETS												
SSGA EMERGING MARKETS INDEX FUND	596,175,215	1.3	3.90	0.58	6.22	-12.48	-12.48	-1.87			-0.35	06/01/12
MSCI EMERGING MARKETS			4.00	0.66	6.41	-12.05	-12.05	-1.56			0.46	06/01/12
<i>Excess</i>			<i>-0.10</i>	<i>-0.08</i>	<i>-0.19</i>	<i>-0.42</i>	<i>-0.42</i>	<i>-0.30</i>			<i>-0.81</i>	
EMERGING MARKETS EQUITY PASSIVE	596,175,215	1.3	3.90	0.58	6.22						-0.18	11/01/15
MSCI EMERGING MARKETS			4.00	0.66	6.41						-0.02	11/01/15
<i>Excess</i>			<i>-0.10</i>	<i>-0.08</i>	<i>-0.19</i>						<i>-0.16</i>	
GENESIS ASSET MANAGERS LTD	204,876,763	0.5	3.23	3.23	10.03	-7.36	-7.36	-0.25	-1.35		7.08	07/01/09
MSCI EMERGING MARKETS			4.00	0.66	6.41	-12.05	-12.05	-1.56	-3.78		3.79	07/01/09
<i>Excess</i>			<i>-0.77</i>	<i>2.57</i>	<i>3.62</i>	<i>4.70</i>	<i>4.70</i>	<i>1.32</i>	<i>2.44</i>		<i>3.29</i>	
BAILLIE GIFFORD EMERGING MARKETS	477,649,684	1.1	1.72	-0.69	-2.50						-5.30	11/01/15
MSCI EMERGING MARKETS			4.00	0.66	6.41						-0.02	11/01/15
<i>Excess</i>			<i>-2.28</i>	<i>-1.36</i>	<i>-8.91</i>						<i>-5.28</i>	



SUMMARY OF PERFORMANCE

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
DFA EMERGING MARKETS	598,388,458	1.3	5.54	2.22							14.97	02/01/16
MSCI EMERGING MARKETS			4.00	0.66							13.80	02/01/16
<i>Excess</i>			1.54	1.56							1.17	
ACADIAN EMRG MKTS MANAGED VOLATILITY EQ	203,200,000	0.4	2.98	0.10							0.10	04/01/16
MSCI EMERGING MARKETS			4.00	0.66							0.66	04/01/16
<i>Excess</i>			-1.02	-0.56							-0.56	
POLUNIN CAPITAL PARTNERS	303,819,963	0.7	3.86	2.16							2.16	04/01/16
MSCI EMERGING MARKETS			4.00	0.66							0.66	04/01/16
<i>Excess</i>			-0.14	1.50							1.50	
AXIOM INTERNATIONAL INVESTORS	305,823,975	0.7	4.22								2.19	05/01/16
MSCI EMERGING MARKETS			4.00								0.12	05/01/16
<i>Excess</i>			0.22								2.07	
FISHER INVESTMENTS	525,392,395	1.2	2.45								0.88	05/01/16
MSCI EMERGING MARKETS			4.00								0.12	05/01/16
<i>Excess</i>			-1.55								0.76	
TRANSITION ACCOUNT EMERGING MARKETS	299,315,027	0.7	4.52								0.69	05/01/16
TOTAL EMERGING MARKET ACTIVE	2,918,466,266	6.4	3.58	0.98	7.68	-6.46	-6.46	-0.71	-4.16		0.37	07/01/10
MSCI EMERGING MARKETS			4.00	0.66	6.41	-12.05	-12.05	-1.56	-3.78		0.88	07/01/10
<i>Excess</i>			-0.41	0.32	1.27	5.59	5.59	0.85	-0.37		-0.51	



SUMMARY OF PERFORMANCE

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
EMERGING MARKETS EQUITY TERRA MARIA	146,107,557	0.3	4.15	0.88	7.07						-0.37	11/01/15
MSCI EMERGING MARKETS			4.00	0.66	6.41						-0.02	11/01/15
<i>Excess</i>			<i>0.15</i>	<i>0.22</i>	<i>0.66</i>						<i>-0.35</i>	
EMERGING MARKETS ACTIVE AND TM	3,064,573,823	6.7	3.60	1.01	7.24						2.32	11/01/15
MSCI EMERGING MARKETS			4.00	0.66	6.41						-0.02	11/01/15
<i>Excess</i>			<i>-0.40</i>	<i>0.35</i>	<i>0.83</i>						<i>2.33</i>	
TOTAL EMERGING MARKETS EQUITY	3,660,749,038	8.1	3.65	0.96	6.22						0.48	11/01/15
MSCI EMERGING MARKETS			4.00	0.66	6.41						-0.02	11/01/15
<i>Excess</i>			<i>-0.35</i>	<i>0.30</i>	<i>-0.19</i>						<i>0.50</i>	
GLOBAL EQUITY												
ACADIAN ASSET MGT	483,051,844	1.1	0.86	0.92	2.03	-5.79	-5.79	6.14	6.08	3.66	4.81	10/01/05
MSCI AC WORLD INDEX			-0.61	0.99	1.23	-3.73	-3.73	6.03	5.38	4.26	4.86	10/01/05
<i>Excess</i>			<i>1.46</i>	<i>-0.06</i>	<i>0.80</i>	<i>-2.06</i>	<i>-2.06</i>	<i>0.11</i>	<i>0.70</i>	<i>-0.60</i>	<i>-0.05</i>	
TEMPLETON INVESTMENT MGT	555,953,551	1.2	-3.29	-1.58	-3.99	-10.54	-10.54	4.21	6.14	5.32	5.95	01/01/06
MSCI AC WORLD INDEX			-0.61	0.99	1.23	-3.73	-3.73	6.03	5.38	4.26	4.65	01/01/06
<i>Excess</i>			<i>-2.69</i>	<i>-2.57</i>	<i>-5.22</i>	<i>-6.81</i>	<i>-6.81</i>	<i>-1.82</i>	<i>0.76</i>	<i>1.06</i>	<i>1.30</i>	
BAILLIE GIFFORD	484,129,204	1.1	-1.82	-0.11	-6.16	-2.90	-2.90	14.08	8.86		6.51	02/01/08
MSCI AC WORLD INDEX			-0.61	0.99	1.23	-3.73	-3.73	6.03	5.38		3.16	02/01/08
<i>Excess</i>			<i>-1.22</i>	<i>-1.10</i>	<i>-7.39</i>	<i>0.83</i>	<i>0.83</i>	<i>8.05</i>	<i>3.48</i>		<i>3.35</i>	



SUMMARY OF PERFORMANCE

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
LONGVIEW PRTNRS GLOBAL EQUITY	498,951,541	1.1	-3.47	-0.32	3.22	-1.23	-1.23	11.65	12.19		12.70	10/01/09
MSCI AC WORLD INDEX			-0.61	0.99	1.23	-3.73	-3.73	6.03	5.38		7.25	10/01/09
<i>Excess</i>			<i>-2.86</i>	<i>-1.31</i>	<i>2.00</i>	<i>2.50</i>	<i>2.50</i>	<i>5.62</i>	<i>6.81</i>		<i>5.45</i>	
BROWN CAPITAL GLOBAL EQUITY	738,938	0.0										01/01/10
AQR CAPITAL - GLOBAL EQUITY	730,443,733	1.6	-1.83	-1.14	-2.20	-6.13	-6.13	6.00	6.26		8.89	08/01/10
MSCI AC WORLD INDEX			-0.61	0.99	1.23	-3.73	-3.73	6.03	5.38		7.85	08/01/10
<i>Excess</i>			<i>-1.23</i>	<i>-2.13</i>	<i>-3.42</i>	<i>-2.40</i>	<i>-2.40</i>	<i>-0.04</i>	<i>0.88</i>		<i>1.03</i>	
D.E. SHAW INV - GLOBAL EQUITY	653,407,076	1.4	-1.44	1.85	-0.06	-2.02	-2.02	7.84	7.76		10.28	08/01/10
MSCI WORLD INDEX			-1.12	1.01	0.66	-2.78	-2.78	6.95	6.63		8.99	08/01/10
<i>Excess</i>			<i>-0.32</i>	<i>0.84</i>	<i>-0.71</i>	<i>0.76</i>	<i>0.76</i>	<i>0.89</i>	<i>1.14</i>		<i>1.29</i>	
SSGA MSCI ACWI MINIMUM VOLATILITY	554,095,591	1.2	4.38	4.63	12.38	15.23	15.23	11.96			12.50	01/01/13
SSgA Minimum Volatility Benchmark ^[14]			-1.12	1.01	1.20	-3.75	-3.75	6.02			6.93	01/01/13
<i>Excess</i>			<i>5.50</i>	<i>3.62</i>	<i>11.18</i>	<i>18.98</i>	<i>18.98</i>	<i>5.93</i>			<i>5.57</i>	
GMO GLOBAL ALL COUNTRY EQUITY ALLOCATION	897,982	0.0	0.71	1.24	1.52	-6.44	-6.44				3.22	09/01/13
MSCI AC WORLD INDEX			-0.61	0.99	1.23	-3.73	-3.73				5.45	09/01/13
<i>Excess</i>			<i>1.32</i>	<i>0.25</i>	<i>0.29</i>	<i>-2.71</i>	<i>-2.71</i>				<i>-2.23</i>	
SCHRODER QEP GLOBAL BLEND	441,069,641	1.0	-0.46	1.19	3.09	-3.06	-3.06				4.95	09/01/13
MSCI AC WORLD INDEX			-0.61	0.99	1.23	-3.73	-3.73				5.45	09/01/13
<i>Excess</i>			<i>0.15</i>	<i>0.20</i>	<i>1.86</i>	<i>0.66</i>	<i>0.66</i>				<i>-0.50</i>	



SUMMARY OF PERFORMANCE

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
TOTAL GLOBAL EQUITY ACTIVE	4,402,859,728	9.7	-1.03	0.37	0.37	-2.91	-2.91	7.72	7.00	5.41	5.90	10/01/05
MSCI AC WORLD INDEX			-0.61	0.99	1.23	-3.73	-3.73	6.03	5.38	4.26	4.86	10/01/05
<i>Excess</i>			<i>-0.42</i>	<i>-0.62</i>	<i>-0.86</i>	<i>0.81</i>	<i>0.81</i>	<i>1.69</i>	<i>1.63</i>	<i>1.14</i>	<i>1.05</i>	
GLOBAL EQUITY TERRA MARIA	23,075,454	0.1	0.56	4.39	5.23	2.49	2.49	8.34	5.65		10.12	12/01/08
TERRA MARIA GLOBAL EQ BM ^[15]			-0.61	0.99	1.23	-3.73	-3.73	6.03	5.48		10.02	12/01/08
<i>Excess</i>			<i>1.16</i>	<i>3.40</i>	<i>4.00</i>	<i>6.22</i>	<i>6.22</i>	<i>2.31</i>	<i>0.17</i>		<i>0.10</i>	
MARSHALL WACE EUREKA FUND	363,658,062	0.8	-0.06	2.68	-2.39	1.09	1.09	8.57			11.83	10/01/12
HFRI Equity Hedge (Total) Index			-0.48	1.28	-0.51	-5.11	-5.11	3.01			4.22	10/01/12
<i>Excess</i>			<i>0.42</i>	<i>1.40</i>	<i>-1.88</i>	<i>6.20</i>	<i>6.20</i>	<i>5.56</i>			<i>7.61</i>	
STELLIAM FUND	251,482,000	0.6	-3.14	-1.69	-0.67	-5.66	-5.66	0.57			0.57	07/01/13
HFRI Equity Hedge (Total) Index			-0.48	1.28	-0.51	-5.11	-5.11	3.01			3.01	07/01/13
<i>Excess</i>			<i>-2.65</i>	<i>-2.97</i>	<i>-0.17</i>	<i>-0.55</i>	<i>-0.55</i>	<i>-2.45</i>			<i>-2.45</i>	
CRITERION CAPITAL PARTNERS FD	110,291,400	0.2	-2.65	1.84	-11.08	0.28	0.28				3.52	09/01/13
HFRI Equity Hedge (Total) Index			-0.48	1.28	-0.51	-5.11	-5.11				2.69	09/01/13
<i>Excess</i>			<i>-2.17</i>	<i>0.56</i>	<i>-10.57</i>	<i>5.40</i>	<i>5.40</i>				<i>0.83</i>	
SCOPIA PX LLC	227,344,400	0.5	-4.18	-5.76	-8.46	-10.45	-10.45	1.72			3.26	07/01/12
HFRI Equity Hedge (Total) Index			-0.48	1.28	-0.51	-5.11	-5.11	3.01			4.83	07/01/12
<i>Excess</i>			<i>-3.70</i>	<i>-7.04</i>	<i>-7.95</i>	<i>-5.34</i>	<i>-5.34</i>	<i>-1.29</i>			<i>-1.57</i>	
AMICI QUALIFIED ASSOCIATES LP	27,446,950	0.1	-1.10	-1.51	-12.42	-25.08	-25.08	-6.56			-4.21	09/01/12
HFRI Equity Hedge (Total) Index			-0.48	1.28	-0.51	-5.11	-5.11	3.01			4.65	09/01/12
<i>Excess</i>			<i>-0.61</i>	<i>-2.79</i>	<i>-11.91</i>	<i>-19.96</i>	<i>-19.96</i>	<i>-9.58</i>			<i>-8.87</i>	



SUMMARY OF PERFORMANCE

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
HOPLITE ONSHORE	277,470,750	0.6	-1.20	-0.55	-5.24	-6.65	-6.65	2.15			3.77	02/01/13
HFRI Equity Hedge (Total) Index			-0.48	1.28	-0.51	-5.11	-5.11	3.01			3.09	02/01/13
<i>Excess</i>			<i>-0.72</i>	<i>-1.83</i>	<i>-4.74</i>	<i>-1.53</i>	<i>-1.53</i>	<i>-0.86</i>			<i>0.68</i>	
NEON LIBERTY CAPITAL MANAGEMENT	96,626,400	0.2	0.04	0.02	1.44	-7.82	-7.82	-1.96			-1.05	04/01/13
HFRI Equity Hedge (Total) Index			-0.48	1.28	-0.51	-5.11	-5.11	3.01			2.76	04/01/13
<i>Excess</i>			<i>0.52</i>	<i>-1.27</i>	<i>1.94</i>	<i>-2.70</i>	<i>-2.70</i>	<i>-4.98</i>			<i>-3.81</i>	
INDUS PACIFIC OPPORTUNITIES FUND	125,638,500	0.3	-0.99	1.74	-0.64	-7.42	-7.42	8.32			7.69	06/01/13
HFRI Equity Hedge (Total) Index			-0.48	1.28	-0.51	-5.11	-5.11	3.01			2.38	06/01/13
<i>Excess</i>			<i>-0.50</i>	<i>0.46</i>	<i>-0.14</i>	<i>-2.30</i>	<i>-2.30</i>	<i>5.31</i>			<i>5.30</i>	
TOTAL EQUITY HEDGE FUND	1,479,958,462	3.3	-1.74	-0.43	-4.64	-7.25	-7.25	2.22			4.17	07/01/12
HFRI Equity Hedge (Total) Index			-0.48	1.28	-0.51	-5.11	-5.11	3.01			4.83	07/01/12
<i>Excess</i>			<i>-1.25</i>	<i>-1.71</i>	<i>-4.13</i>	<i>-2.13</i>	<i>-2.13</i>	<i>-0.79</i>			<i>-0.66</i>	
TOTAL GLB EQ TM + GLB EQ ACTIVE + HF	5,905,893,644	13.0	-1.20	0.23	-0.75	-3.87	-3.87	6.48	6.12		4.32	07/01/08
TM GLOBAL + ACTIVE GLOBAL BM + EQ HF ^[2]			-0.68	1.05	0.77	-3.95	-3.95	5.57	5.08		3.51	07/01/08
<i>Excess</i>			<i>-0.53</i>	<i>-0.82</i>	<i>-1.52</i>	<i>0.08</i>	<i>0.08</i>	<i>0.90</i>	<i>1.04</i>		<i>0.81</i>	
GLOBAL EQUITY TRANSITION ACCOUNT	52,643	0.0										06/01/11
TOTAL GLOBAL EQUITY EX OVERLAY	5,905,946,286	13.0	-1.20	0.44	-0.50	-3.71	-3.71	6.54	6.29	5.05	5.57	10/01/05
MSRA CUSTOM GLOBAL INDEX ^[16]			-0.61	0.99	1.23	-3.73	-3.73	6.03	5.38	4.38	4.97	10/01/05
<i>Excess</i>			<i>-0.60</i>	<i>-0.54</i>	<i>-1.73</i>	<i>0.02</i>	<i>0.02</i>	<i>0.50</i>	<i>0.91</i>	<i>0.67</i>	<i>0.61</i>	
RECORD CURRENCY - GLOBAL	-18,201,700	-0.0										05/01/09



SUMMARY OF PERFORMANCE

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
TOTAL GLOBAL EQUITY	5,887,744,587	12.9	-1.33	0.31	-0.89	-3.96	-3.96	6.82	6.60	5.18	5.69	10/01/05
MSRA CUSTOM GLOBAL INDEX ^[16]			-0.61	0.99	1.23	-3.73	-3.73	6.03	5.38	4.38	4.97	10/01/05
<i>Excess</i>			<i>-0.72</i>	<i>-0.68</i>	<i>-2.11</i>	<i>-0.23</i>	<i>-0.23</i>	<i>0.79</i>	<i>1.22</i>	<i>0.79</i>	<i>0.72</i>	
PUBLIC EQUITY												
TOTAL PUBLIC EQUITY	17,005,733,250	37.4	-0.64	0.27	-0.14	-4.31	-4.31	6.60	6.11	4.56		04/01/94
PUBLIC EQ BM 2 ^[17]			-0.11	0.96	1.60	-3.85	-3.85	6.00	5.47			04/01/94
<i>Excess</i>			<i>-0.52</i>	<i>-0.69</i>	<i>-1.74</i>	<i>-0.46</i>	<i>-0.46</i>	<i>0.60</i>	<i>0.64</i>			
PRIVATE EQUITY												
TOTAL PRIVATE EQUITY	4,169,027,369	9.2	-0.00	0.51	4.53	9.94	9.94	14.16	12.30	10.87	7.13	03/01/94
Custom MD/SS PEI Index ^[18]			0.14	0.65	1.77	4.59	4.59	10.10	9.29	9.12		03/01/94
<i>Excess</i>			<i>-0.14</i>	<i>-0.14</i>	<i>2.77</i>	<i>5.35</i>	<i>5.35</i>	<i>4.06</i>	<i>3.01</i>	<i>1.75</i>		
TOTAL GROWTH EQUITY												
TOTAL GROWTH EQUITY	21,174,760,618	46.6	-0.52	0.32	0.72	-1.82	-1.82	7.95	7.05	5.04	5.10	01/01/98
GROWTH EQUITY CUSTOM BENCHMARK ^[19]			-0.06	0.90	1.62							01/01/98
<i>Excess</i>			<i>-0.46</i>	<i>-0.58</i>	<i>-0.90</i>							
RATE SENSITIVE												
NOMINAL FIXED INCOME												
SSGA PASSIVE FIXED INCOME	668,745,706	1.5	4.53	5.06	11.58	11.11	11.11	5.43	4.60	5.56	4.82	05/01/03
SSgA Aggregate Bond Custom Benchmark ^[20]			4.37	4.88	11.35	11.63	11.63	5.58	4.67			05/01/03
<i>Excess</i>			<i>0.16</i>	<i>0.18</i>	<i>0.23</i>	<i>-0.52</i>	<i>-0.52</i>	<i>-0.15</i>	<i>-0.07</i>			
US NOMINAL FIXED INCOME PASSIVE												
US NOMINAL FIXED INCOME PASSIVE	668,745,706	1.5	4.53	5.06	11.58						10.18	11/01/15
CUSTOM RATE SENSITIVE BENCHMARK ^[21]			3.93	4.26	10.38						9.50	11/01/15
<i>Excess</i>			<i>0.60</i>	<i>0.80</i>	<i>1.20</i>						<i>0.68</i>	



SUMMARY OF PERFORMANCE

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
PIMCO	1,345,677,909	3.0	4.18	4.91	11.23	9.86	9.86	4.91	4.49	5.66		06/01/84
PIMCO Custom Blended Index ^[22]			4.37	4.88	11.35	11.63	11.63	5.58	4.67	5.44		06/01/84
<i>Excess</i>			-0.19	0.03	-0.12	-1.77	-1.77	-0.67	-0.18	0.22		
WESTERN ASSET MANAGEMENT	2,730,970,564	6.0	4.54	5.25	12.32	11.41	11.41	6.19	5.67	7.08	6.71	09/01/03
WESTERN ASSET MANAGEMENT CUSTOM BM ^[23]			4.37	4.88	11.35	11.41	11.41	5.51	4.63	5.42	5.05	09/01/03
<i>Excess</i>			0.18	0.37	0.98	-0.01	-0.01	0.68	1.04	1.66	1.66	
FIDELITY INSTITUTIONAL ASSET	473,941,564	1.0	4.40	4.83	11.05	11.01	11.01	5.42	4.82		5.64	02/01/08
Custom BC Agg Int/BC Agg/US Universal BM ^[24]			4.37	4.88	11.35	12.03	12.03	5.71	4.74		4.90	02/01/08
<i>Excess</i>			0.03	-0.05	-0.30	-1.02	-1.02	-0.29	0.08		0.73	
ABERDEEN ASSET MGMT, INC	681,171,573	1.5	4.41	5.11	11.02	11.13	11.13	5.82	5.31		5.49	04/01/08
Custom BC Agg Int/BC Agg/US Universal BM ^[24]			4.37	4.88	11.35	12.03	12.03	5.71	4.74		4.98	04/01/08
<i>Excess</i>			0.04	0.24	-0.33	-0.90	-0.90	0.11	0.56		0.51	
GOLDMAN SACHS FI CORE PLUS	466,417,199	1.0	4.28	5.05	11.23	11.63	11.63	5.72	5.16		6.40	03/01/09
Custom BC Agg Int/BC Agg/US Universal BM ^[24]			4.37	4.88	11.35	12.03	12.03	5.71	4.74		5.67	03/01/09
<i>Excess</i>			-0.09	0.18	-0.12	-0.40	-0.40	0.01	0.41		0.72	
DODGE & COX - FI CORE	477,313,135	1.0	3.78	5.10	11.50	11.36	11.36	6.12	5.35		6.78	03/01/09
CORE BOND CUSTOM BENCHMARK ^[25]			4.37	4.88	11.35	12.03	12.03	5.71	4.74		5.49	03/01/09
<i>Excess</i>			-0.58	0.23	0.15	-0.67	-0.67	0.42	0.61		1.29	
PRINCIPAL CORE BOND	469,440,368	1.0	4.34	4.93	11.32	11.57	11.57	5.73	4.94		5.93	07/01/09
CORE BOND CUSTOM BENCHMARK ^[25]			4.37	4.88	11.35	12.03	12.03	5.71	4.74		5.29	07/01/09
<i>Excess</i>			-0.03	0.06	-0.03	-0.46	-0.46	0.02	0.20		0.64	



SUMMARY OF PERFORMANCE

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
US NOMINAL FIXED INCOME ACTIVE	6,644,932,312	14.6	4.36	5.09	11.67	11.28	11.28	5.75	5.15		5.98	07/01/08
CUSTOM NOMINAL FIXED INCOME BENCHMARK ^[26]			4.37	4.88	11.35	11.65	11.65	5.64	4.77		5.22	07/01/08
<i>Excess</i>			-0.01	0.21	0.32	-0.37	-0.37	0.10	0.37		0.76	
US NOMINAL FIXED INCOME TERRA MARIA ^[27]	597,451,496	1.3	1.20	1.61	3.95	4.15	4.15	3.38	3.66		6.42	11/01/08
TERRA MARIA FI BENCHMARK ^[15]			1.25	1.50	3.88	4.45	4.45	3.27	3.28		7.59	11/01/08
<i>Excess</i>			-0.05	0.10	0.06	-0.30	-0.30	0.11	0.38		-1.17	
TOTAL US NOMINAL FI ACTIVE + TM	7,242,383,808	15.9	4.09	4.79	10.99	10.67	10.67	5.54	5.02		5.88	07/01/08
CUSTOM NOMINAL FIXED INCOME BENCHMARK ^[26]			4.37	4.88	11.35	11.65	11.65	5.64	4.77		5.22	07/01/08
<i>Excess</i>			-0.28	-0.08	-0.36	-0.99	-0.99	-0.10	0.24		0.66	
US NOMINAL FIXED INCOME	7,911,129,514	17.4	4.13	4.81	11.04	10.73	10.73	5.54	4.96		6.02	07/01/08
US NOMINAL FIXED INCOME BENCHMARK ^[28]			4.37	4.88	11.35	11.63	11.63	5.58	4.67		5.34	07/01/08
<i>Excess</i>			-0.24	-0.06	-0.31	-0.90	-0.90	-0.04	0.29		0.68	
WESTERN ASSET - ISRAEL BD	21,763,266	0.0	0.09	-0.01	0.44	0.60	0.60	1.84	1.60	2.85	2.99	06/01/05
WESTERN ASSET ISRAEL BOND INDEX			1.02	1.78	4.14	4.17	4.17	3.38	3.11	1.42	0.98	06/01/05
<i>Excess</i>			-0.93	-1.79	-3.71	-3.57	-3.57	-1.54	-1.51	1.43	2.01	
TOTAL GLOBAL FIXED INCOME	21,775,391	0.0	0.09	-0.08	0.44	2.82	2.82	3.69	4.85		5.09	07/01/08
CUSTOM GLOBAL FIXED INCOME BM ^[29]			1.03	1.34	3.38	4.37	4.37	3.51	3.77			07/01/08
<i>Excess</i>			-0.94	-1.42	-2.93	-1.55	-1.55	0.19	1.08			
NOMINAL FIXED INCOME	7,932,904,905	17.4	4.11	4.80	11.00	10.71	10.71	5.70	5.26	6.13	7.49	07/01/86
CUSTOM NOMINAL FIXED INCOME BENCHMARK ^[26]			4.37	4.88	11.35	11.65	11.65	5.64	4.77	5.46		07/01/86
<i>Excess</i>			-0.25	-0.08	-0.34	-0.94	-0.94	0.06	0.48	0.67		



SUMMARY OF PERFORMANCE

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
INFLATION SENSITIVE												
SSGA PASSIVE US TIPS	1,826,321,163	4.0	2.23	1.87	6.70	4.67	4.67	2.53			-0.45	12/01/12
Barclays US TIPS Index			2.18	1.80	6.55	4.59	4.59	2.50			-0.41	12/01/12
<i>Excess</i>			0.05	0.07	0.14	0.07	0.07	0.03			-0.04	
TOTAL U.S. TIPS	1,826,321,163	4.0	2.23	1.87	6.70	4.67	4.67	2.53	2.58	5.04	4.65	02/01/06
CUSTOM US TIPS MD BM ^[30]			2.18	1.80	6.55	4.59	4.59	2.63	4.75	4.38		02/01/06
<i>Excess</i>			0.05	0.07	0.14	0.07	0.07	0.03	-0.05	0.29	0.27	
NEW CENTURY ADVISORS (NT)	38,562,012	0.1	3.98	4.40	8.47	7.79	7.79	5.53	4.72		6.26	12/01/08
BC World Inflat-Linked Bond Index-Hedged			4.15	4.14	8.44	7.39	7.39	5.03	4.41		6.14	12/01/08
<i>Excess</i>			-0.16	0.26	0.03	0.40	0.40	0.50	0.31		0.12	
TOTAL GILB	39,357,542	0.1	3.79	2.13	5.51	9.44	9.44	5.80	4.90		6.30	12/01/08
BC World Inflat-Linked Bond Index-Hedged			4.15	4.14	8.44	7.39	7.39	5.03	4.41		6.14	12/01/08
<i>Excess</i>			-0.35	-2.02	-2.93	2.05	2.05	0.77	0.49		0.16	
INFLATION SENSITIVE FIXED INCOME												
CUSTOM INFLATION SENSITIVE BENCHMARK ^[31]	1,865,678,705	4.1	2.27	1.88	6.67	5.16	5.16	3.51	3.41		4.43	07/01/08
<i>Excess</i>			0.08	0.07	0.12	-0.08	-0.08	-0.01	-0.05		0.31	
CASH												
MARYLAND CASH ACCOUNT	521,095,948	1.1	0.85	1.41	2.30	2.37	2.37	1.72	2.38			09/01/94
CITIGROUP 3 MONTH T-BILL			0.02	0.06	0.12	0.14	0.14	0.07	0.06			09/01/94
<i>Excess</i>			0.83	1.35	2.18	2.23	2.23	1.65	2.31			



SUMMARY OF PERFORMANCE

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
SELF LIQUIDATING ACCOUNT	304,517	0.0	0.57	2.90	11.32	13.90	13.90	32.22	25.26	26.27		06/01/84
CITIGROUP 3 MONTH T-BILL			0.02	0.06	0.12	0.14	0.14	0.07	0.06	0.96		06/01/84
<i>Excess</i>			0.55	2.83	11.20	13.76	13.76	32.15	25.20	25.30		
TOTAL CASH AGGREGATE	521,400,465	1.1	0.85	1.41	2.30	2.39	2.39	1.76	2.41		2.67	07/01/08
CITIGROUP 3 MONTH T-BILL			0.02	0.06	0.12	0.14	0.14	0.07	0.06		0.17	07/01/08
<i>Excess</i>			0.83	1.35	2.18	2.25	2.25	1.70	2.34		2.50	
TOTAL RATE SENSITIVE	10,319,984,074	22.7	3.58	4.04	9.60	9.34	9.34	5.26	5.00	6.00	7.44	07/01/86
CUSTOM RATE SENSITIVE BENCHMARK ^[21]			3.93	4.26	10.38	10.65	10.65	5.33	4.59	5.36		07/01/86
<i>Excess</i>			-0.35	-0.22	-0.79	-1.31	-1.31	-0.07	0.41	0.63		
CREDIT/DEBT												
US CREDIT												
KKR BANK LOANS	450,509,167	1.0	-0.38	2.13	3.06	0.31	0.31	3.56	5.15		5.70	09/01/10
KKR S&P LSTA Leveraged Loan ^[32]			0.02	2.92	4.51	0.55	0.55	3.22	4.60		5.54	09/01/10
<i>Excess</i>			-0.40	-0.79	-1.45	-0.24	-0.24	0.34	0.55		0.16	
NEUBERGER BERMAN HIGH YIELD	367,005,057	0.8	0.59	3.78	6.83	2.27	2.27	3.84	6.24		5.78	10/01/10
NB 80% BC US Corp HY; 20% S&P LSTA Leveraged ^[33]			0.74	5.00	8.14	3.04	3.04	4.23	5.24		5.42	10/01/10
<i>Excess</i>			-0.15	-1.22	-1.31	-0.77	-0.77	-0.39	0.99		0.36	
MACKAY SHIELDS HIGH YIELD	283,826,151	0.6	0.66	3.36	6.11	0.82	0.82				2.58	09/01/13
MacKay 80% BC US Corp HY; 20% S&P LSTA Leveraged ^[34]			0.74	5.00	8.14	4.71	4.71				4.63	09/01/13
<i>Excess</i>			-0.08	-1.64	-2.03	-3.89	-3.89				-2.06	
CREDIT/DEBT TRANSITION ACCOUNT	0	0.0										02/01/09



SUMMARY OF PERFORMANCE

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
CREDIT/DEBT TERRA MARIA ^[27]	100,931,106	0.2	-0.19	2.44	1.59	-4.34	-4.34	3.02	4.40		6.19	01/01/10
TERRA MARIA CREDIT/DEBT BENCHMARK ^[3]			0.64	4.42	4.89	-0.63	-0.63	4.94	5.54		7.23	01/01/10
<i>Excess</i>			<i>-0.83</i>	<i>-1.98</i>	<i>-3.30</i>	<i>-3.71</i>	<i>-3.71</i>	<i>-1.92</i>	<i>-1.14</i>		<i>-1.04</i>	
HIGH YIELD/BANK LOAN	1,202,271,482	2.6	0.17	2.94	4.71						1.98	11/01/15
HIGH YIELD CUSTOM BENCHMARK ^[35]			0.74	5.00	8.14						3.67	11/01/15
<i>Excess</i>			<i>-0.57</i>	<i>-2.05</i>	<i>-3.43</i>						<i>-1.69</i>	
TOTAL DISTRESSED DEBT	809,972,171	1.8	-0.13	1.34	1.68	2.16	2.16	8.51	7.39		8.39	01/01/10
TOTAL MEZZANINE DEBT	549,799,883	1.2	-0.12	1.25	2.75	6.71	6.71	7.20	8.25		7.46	01/01/10
PERELLA WEINBERG	120,708,355	0.3	0.61	-2.30	-3.57	-4.28	-4.28	6.41	9.02		9.04	07/01/10
HFRI ED: Distressed/Restructuring Index			0.34	5.18	3.49	-5.35	-5.35	0.10	2.16		3.71	07/01/10
<i>Excess</i>			<i>0.27</i>	<i>-7.49</i>	<i>-7.05</i>	<i>1.07</i>	<i>1.07</i>	<i>6.31</i>	<i>6.86</i>		<i>5.33</i>	
ANCHORAGE CAPITAL GROUP	160,083,560	0.4	-0.29	1.57	-1.12	-3.39	-3.39	6.10			9.02	11/01/11
HFRI ED: Distressed/Restructuring Index			0.34	5.18	3.49	-5.35	-5.35	0.10			3.58	11/01/11
<i>Excess</i>			<i>-0.63</i>	<i>-3.62</i>	<i>-4.61</i>	<i>1.96</i>	<i>1.96</i>	<i>6.00</i>			<i>5.44</i>	
KING STREET CAPITAL	142,528,300	0.3	0.46	1.75	1.69	0.24	0.24	3.50			5.72	12/01/11
HFRI ED: Distressed/Restructuring Index			0.34	5.18	3.49	-5.35	-5.35	0.10			3.80	12/01/11
<i>Excess</i>			<i>0.12</i>	<i>-3.43</i>	<i>-1.80</i>	<i>5.59</i>	<i>5.59</i>	<i>3.40</i>			<i>1.92</i>	
TOTAL CREDIT HEDGE FUND	423,320,215	0.9	0.07	0.32	-0.75	-2.42	-2.42	4.99	7.35		7.65	07/01/10
HFRI ED: Distressed/Restructuring Index			0.34	5.18	3.49	-5.35	-5.35	0.10	2.16		3.71	07/01/10
<i>Excess</i>			<i>-0.27</i>	<i>-4.87</i>	<i>-4.24</i>	<i>2.93</i>	<i>2.93</i>	<i>4.89</i>	<i>5.19</i>		<i>3.94</i>	



SUMMARY OF PERFORMANCE

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
US CREDIT	2,985,363,751	6.6	0.01	1.80	2.75	1.54	1.54	5.23	6.63		9.82	03/01/09
U.S. CREDIT CUSTOM BENCHMARK ^[36]			0.74	5.00	8.14	2.29	2.29	4.05	5.14		9.07	03/01/09
<i>Excess</i>			<i>-0.73</i>	<i>-3.20</i>	<i>-5.39</i>	<i>-0.75</i>	<i>-0.75</i>	<i>1.18</i>	<i>1.50</i>		<i>0.74</i>	
NON US CREDIT												
SSGA EMERGING MARKET DEBT	213,695,323	0.5	5.86	2.68	13.95	1.48	1.48	-4.06	-2.48		-1.20	10/01/10
JP Morgan GBI EM Global Diversified			5.89	2.71	14.02	1.99	1.99	-3.57	-2.23		-0.87	10/01/10
<i>Excess</i>			<i>-0.03</i>	<i>-0.02</i>	<i>-0.07</i>	<i>-0.50</i>	<i>-0.50</i>	<i>-0.49</i>	<i>-0.24</i>		<i>-0.33</i>	
SSGA EMERGING MARKET HARD CURRENCY BOND	217,133,744	0.5	2.57	4.31	8.56						8.56	01/01/16
SSgA Emerging Market Blended Benchmark ^[37]			2.71	4.58	9.45						9.45	01/01/16
<i>Excess</i>			<i>-0.13</i>	<i>-0.28</i>	<i>-0.89</i>						<i>-0.89</i>	
STONE HARBOR BLENDED EMD ^[38]	572,338,953	1.3	4.52	3.84	12.69	-0.44	-0.44				-5.67	10/01/13
NON-U.S. CREDIT CUSTOM BENCHMARK ^[39]			4.30	3.69	11.81	1.38	1.38				-3.95	10/01/13
<i>Excess</i>			<i>0.22</i>	<i>0.15</i>	<i>0.88</i>	<i>-1.82</i>	<i>-1.82</i>				<i>-1.73</i>	
LOGAN CIRCLE PARTNERS BLENDED EMD	305,100,000	0.7										06/01/16
NON US CREDIT	1,308,268,021	2.9	3.55	2.94	11.23	-0.69	-0.69	-5.23	-3.20		-1.83	10/01/10
NON-U.S. CREDIT CUSTOM BENCHMARK ^[39]			4.30	3.69	11.81	1.38	1.38	-3.76	-2.35		-0.97	10/01/10
<i>Excess</i>			<i>-0.75</i>	<i>-0.75</i>	<i>-0.58</i>	<i>-2.07</i>	<i>-2.07</i>	<i>-1.47</i>	<i>-0.85</i>		<i>-0.86</i>	
TOTAL CREDIT/DEBT STRATEGIES	4,293,631,773	9.4	1.02	2.24	4.81	2.23	2.23	4.19	5.75		10.12	03/01/09
MSRA CUSTOM CREDIT BENCHMARK ^[40]			1.93	4.59	9.39	2.69	2.69	2.68	4.30		8.48	03/01/09
<i>Excess</i>			<i>-0.91</i>	<i>-2.35</i>	<i>-4.58</i>	<i>-0.46</i>	<i>-0.46</i>	<i>1.51</i>	<i>1.45</i>		<i>1.64</i>	



SUMMARY OF PERFORMANCE

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
REAL ASSETS												
REAL ESTATE												
SSGA GLOBAL REAL ESTATE	210,796,065	0.5	3.66	3.62	9.36	12.46	12.46				7.94	05/01/14
FTSE EPRA/NAREIT Developed Net Index			3.61	3.46	8.87	11.58	11.58				7.15	05/01/14
<i>Excess</i>			0.04	0.16	0.49	0.88	0.88				0.79	
MORGAN STANLEY GLOBAL REIT	447,127,723	1.0	2.40	1.66	6.36	7.95	7.95				6.57	05/01/14
FTSE EPRA/NAREIT Developed Net Index			3.61	3.46	8.87	11.58	11.58				7.15	05/01/14
<i>Excess</i>			-1.21	-1.80	-2.51	-3.63	-3.63				-0.58	
TOTAL REITS EX OVERLAY	657,937,718	1.4	2.80	2.29	7.36	9.50	9.50	7.99	7.68	4.20		04/01/94
CUSTOM MD REIT BM ^[41]			3.61	3.46	8.87	11.58	11.58	8.25	8.09	4.17		04/01/94
<i>Excess</i>			-0.81	-1.18	-1.51	-2.09	-2.09	-0.26	-0.40	0.03		
RECORD CURRENCY MANAGEMENT-REITS	-3,575,250	-0.0										07/01/11
TOTAL REITS	654,362,469	1.4	2.56	1.99	6.74	9.05	9.05	8.31	8.20	4.45		04/01/94
CUSTOM MD REIT BM ^[41]			3.61	3.46	8.87	11.58	11.58	8.25	8.09	4.17		04/01/94
<i>Excess</i>			-1.05	-1.47	-2.13	-2.53	-2.53	0.05	0.11	0.28		
TOTAL PRIVATE REAL ESTATE	3,085,975,868	6.8	1.31	2.99	5.86	11.63	11.63	13.53	12.77	6.48	9.31	03/01/94
CUSTOM MD PRIVATE REAL ESTATE BM ^[42]			0.52	2.18	5.60	13.67	13.67	13.63	12.96	8.10	9.80	03/01/94
<i>Excess</i>			0.80	0.81	0.26	-2.05	-2.05	-0.10	-0.19	-1.62	-0.49	
MSIM Cus FTSE EPRA NAREIT Dev ex US(Net) ^[43]			3.61	3.45	8.87	11.59	11.59	8.07	7.09			11/01/06
WILSHIRE RESI			6.51	5.99	11.60	23.55	23.55	14.07	12.61	7.01		01/01/78



SUMMARY OF PERFORMANCE

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
TOTAL REAL ESTATE	3,740,338,337	8.2	1.52	2.82	6.03	11.16	11.16	12.47	11.73	5.90	6.80	07/01/87
REAL ESTATE CUSTOM INDEX ^[44]			1.03	2.38	6.16	13.23	13.23	12.43	11.84	6.67	8.28	07/01/87
<i>Excess</i>			0.49	0.44	-0.13	-2.06	-2.06	0.04	-0.11	-0.77	-1.48	
COMMODITIES												
GRESHAM INVESTMENT MGMT, LLC	356,278,960	0.8	4.12	12.30	13.00	-12.60	-12.60	-10.40	-10.44		-3.51	09/01/09
Bloomberg Commodity Index TR			4.13	12.78	13.25	-13.32	-13.32	-10.55	-10.82		-4.87	09/01/09
<i>Excess</i>			-0.01	-0.48	-0.25	0.72	0.72	0.15	0.38		1.36	
CCM DIVERSIFIED I	434,218,130	1.0	4.42	13.00	13.44	-13.45	-13.45	-10.51			-10.51	07/01/13
Bloomberg Commodity Index TR			4.13	12.78	13.25	-13.32	-13.32	-10.55			-10.55	07/01/13
<i>Excess</i>			0.29	0.22	0.19	-0.13	-0.13	0.05			0.05	
VERMILLION/CELADON COMMODITIES	116,802,037	0.3	0.17	-18.12	-21.50	-37.31	-37.31	-17.82	-16.81		-10.81	04/01/10
Bloomberg Commodity Index TR			4.13	12.78	13.25	-13.32	-13.32	-10.55	-10.82		-6.07	04/01/10
<i>Excess</i>			-3.96	-30.90	-34.75	-23.99	-23.99	-7.27	-5.99		-4.73	
EDESIA DYNAMIC AGRICULTURE FUND	26,610,115	0.1	3.41	13.68	18.75	4.44	4.44	-4.92			-7.54	01/01/13
Bloomberg Agriculture Sub-Index TR			1.78	12.67	13.47	-3.01	-3.01	-6.95			-8.07	01/01/13
<i>Excess</i>			1.63	1.01	5.28	7.45	7.45	2.03			0.53	
COMMODITY ACTIVE INDEX MANAGER	933,909,242	2.1	3.72	7.13	6.75	-17.05	-17.05	-11.44	-11.71		-5.06	09/01/09
Bloomberg Commodity Index TR			4.13	12.78	13.25	-13.32	-13.32	-10.55	-10.82		-4.87	09/01/09
<i>Excess</i>			-0.41	-5.65	-6.50	-3.73	-3.73	-0.88	-0.89		-0.19	



SUMMARY OF PERFORMANCE

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
ASTENBECK COMMODITIES FUND III	100,130,768	0.2	-2.18	21.12	22.43	-22.61	-22.61	-4.90			-4.60	09/01/12
HFRX Macro: Commodity-Index			1.84	2.35	3.76	2.87	2.87	-1.94			-2.22	09/01/12
<i>Excess</i>			-4.02	18.76	18.67	-25.48	-25.48	-2.96			-2.38	
KOPPENBERG MACRO COMMODITY FUND LP	113,748,306	0.3	1.67	8.77	6.71	1.67	1.67	4.28			4.64	10/01/12
HFRX Macro: Commodity-Index			1.84	2.35	3.76	2.87	2.87	-1.94			-2.00	10/01/12
<i>Excess</i>			-0.17	6.42	2.95	-1.20	-1.20	6.22			6.65	
TAYLOR WOODS PARTNERS L.P.	125,033,800	0.3	-2.94	-5.75	-9.85	12.61	12.61	7.12			8.87	06/01/13
HFRX Macro: Commodity-Index			1.84	2.35	3.76	2.87	2.87	-1.94			-1.67	06/01/13
<i>Excess</i>			-4.78	-8.10	-13.61	9.73	9.73	9.06			10.54	
COMMODITY HEDGE FUND	338,912,874	0.7	-1.21	5.94	3.62	-2.88	-2.88	0.29	0.76		-0.50	12/01/09
Bloomberg Commodity Index TR			4.13	12.78	13.25	-13.32	-13.32	-10.55	-10.82		-6.23	12/01/09
<i>Excess</i>			-5.34	-6.84	-9.63	10.44	10.44	10.84	11.58		5.74	
TOTAL COMMODITIES	1,272,822,116	2.8	2.36	6.80	5.91	-13.60	-13.60	-8.55	-8.81		-3.45	09/01/09
Bloomberg Commodity Index TR			4.13	12.78	13.25	-13.32	-13.32	-10.55	-10.82		-4.87	09/01/09
<i>Excess</i>			-1.77	-5.99	-7.34	-0.28	-0.28	2.00	2.01		1.42	
NATURAL RESOURCE AND INFRASTRUCTURE												
TORTOISE CAPITAL DOMESTIC EQ	76,418,829	0.2	5.21	16.96	9.95	-15.31	-15.31	0.09	8.50		14.33	08/01/09
S&P MLP Total Return Index			5.26	22.44	14.68	-18.93	-18.93	-5.44	3.36		10.47	08/01/09
<i>Excess</i>			-0.05	-5.47	-4.73	3.62	3.62	5.54	5.14		3.86	



SUMMARY OF PERFORMANCE

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
HARVEST FUND ADVISORS	72,945,108	0.2	5.54	20.89	12.61	-17.70	-17.70	0.54	9.60		16.12	11/01/09
S&P MLP Total Return Index			5.26	22.44	14.68	-18.93	-18.93	-5.44	3.36		10.24	11/01/09
<i>Excess</i>			0.27	-1.55	-2.07	1.23	1.23	5.98	6.24		5.88	
TOTAL ENERGY FUNDS	342,557,509	0.8	-0.09	-3.27	-11.83	-20.85	-20.85	-4.62	2.95		4.58	01/01/10
TOTAL INFRASTRUCTURE	57,083,077	0.1	0.00	1.19	2.89	8.75	8.75	11.48	6.97		6.13	10/01/09
TIMBER LP FUNDS	222,808,111	0.5	0.00	0.96	1.13	1.53	1.53	3.01	4.15		8.22	05/01/10
NATURAL RESOURCE AND INFRASTRUCTURE	771,812,634	1.7	0.96	2.01	-3.31	-12.61	-12.61	-0.39	5.57		10.45	08/01/09
CPI + 5%; 10% Max ^[45]			0.74	2.46	4.42	6.05	6.05	6.11	6.38		6.62	08/01/09
<i>Excess</i>			0.22	-0.45	-7.73	-18.66	-18.66	-6.50	-0.82		3.84	
TOTAL REAL ASSETS	5,784,973,087	12.7	1.62	3.54	4.65	-1.66	-1.66	-0.08	0.55	4.14	3.79	02/01/06
CUSTOM REAL ASSETS BENCHMARK ^[46]			1.66	4.57	7.41	0.87	0.87	-0.04	-0.26	2.98	2.68	02/01/06
<i>Excess</i>			-0.04	-1.03	-2.76	-2.54	-2.54	-0.04	0.81	1.16	1.10	
ABSOLUTE RETURN												
BRIDGEWATER PURE ALPHA	557,601,915	1.2	-2.46	-2.84	-7.76	-10.01	-10.01	2.25	2.45		4.51	05/01/08
CUSTOM ABSOLUTE RETURN BENCHMARK ^[47]			-0.29	0.91	-0.94	-2.56	-2.56	2.51	1.99		0.67	05/01/08
<i>Excess</i>			-2.17	-3.75	-6.82	-7.45	-7.45	-0.26	0.46		3.84	
MELLON GLOBAL ALPHA II	214,632,994	0.5	1.79	2.95	0.14	1.97	1.97	2.38	1.35		1.16	07/01/08
CUSTOM ABSOLUTE RETURN BENCHMARK ^[47]			-0.29	0.91	-0.94	-2.56	-2.56	2.51	1.99		0.55	07/01/08
<i>Excess</i>			2.08	2.04	1.08	4.53	4.53	-0.13	-0.64		0.61	



SUMMARY OF PERFORMANCE

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
GRAHAM TACTICAL TREND	247,794,411	0.5	7.03	3.61	0.15	-0.88	-0.88				-0.88	07/01/15
CUSTOM ABSOLUTE RETURN BENCHMARK ^[47]			-0.29	0.91	-0.94	-2.56	-2.56				-2.56	07/01/15
<i>Excess</i>			7.31	2.70	1.09	1.67	1.67				1.67	
GLOBAL MACRO/GTAA STRATEGIES	1,020,029,320	2.2	0.59	-0.15	-4.33	-5.65	-5.65	-0.20	0.24		2.40	04/01/08
CUSTOM ABSOLUTE RETURN BENCHMARK ^[47]			-0.29	0.91	-0.94	-2.56	-2.56	2.51	1.99		0.72	04/01/08
<i>Excess</i>			0.88	-1.05	-3.39	-3.09	-3.09	-2.72	-1.75		1.67	
NEPHILA PALMETTO FUND	218,497,620	0.5	0.30	1.09	1.32	5.65	5.65				5.19	01/01/14
CUSTOM ABSOLUTE RETURN BENCHMARK ^[47]			-0.29	0.91	-0.94	-2.56	-2.56				0.88	01/01/14
<i>Excess</i>			0.59	0.18	2.26	8.21	8.21				4.31	
OPPORTUNISTIC	218,497,620	0.5	0.30	1.09	1.32	5.65	5.65				5.19	01/01/14
CUSTOM ABSOLUTE RETURN BENCHMARK ^[47]			-0.29	0.91	-0.94	-2.56	-2.56				0.88	01/01/14
<i>Excess</i>			0.59	0.18	2.26	8.21	8.21				4.31	
CARLSON DOUBLE BLACK DIAMOND	366,801,400	0.8	-1.58	2.34	-0.25	-1.60	-1.60				2.42	01/01/14
CUSTOM ABSOLUTE RETURN BENCHMARK ^[47]			-0.29	0.91	-0.94	-2.56	-2.56				0.88	01/01/14
<i>Excess</i>			-1.30	1.43	0.69	0.96	0.96				1.54	
PINE RIVER FUND	337,619,100	0.7	-2.13	2.05	-3.29	-9.41	-9.41				-1.51	04/01/14
CUSTOM ABSOLUTE RETURN BENCHMARK ^[47]			-0.29	0.91	-0.94	-2.56	-2.56				0.72	04/01/14
<i>Excess</i>			-1.85	1.14	-2.35	-6.85	-6.85				-2.23	
HUTCHIN HILL DIVERSIFIED ALPHA	344,726,900	0.8	-0.27	0.13	0.82	-4.84	-4.84				-0.20	05/01/14
CUSTOM ABSOLUTE RETURN BENCHMARK ^[47]			-0.29	0.91	-0.94	-2.56	-2.56				1.04	05/01/14
<i>Excess</i>			0.02	-0.77	1.77	-2.28	-2.28				-1.24	



SUMMARY OF PERFORMANCE

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
HUDSON BAY FUND	292,216,200	0.6	0.20	1.02	2.04	-0.04	-0.04				-1.69	10/01/14
CUSTOM ABSOLUTE RETURN BENCHMARK ^[47]			-0.29	0.91	-0.94	-2.56	-2.56				-0.09	10/01/14
<i>Excess</i>			<i>0.49</i>	<i>0.11</i>	<i>2.98</i>	<i>2.52</i>	<i>2.52</i>				<i>-1.60</i>	
ARISTEIA CAPITAL	243,456,000	0.5	1.65	6.00	4.94	-0.57	-0.57				-1.67	12/01/14
CUSTOM ABSOLUTE RETURN BENCHMARK ^[47]			-0.29	0.91	-0.94	-2.56	-2.56				0.00	12/01/14
<i>Excess</i>			<i>1.93</i>	<i>5.09</i>	<i>5.88</i>	<i>1.99</i>	<i>1.99</i>				<i>-1.67</i>	
ARISTEIA CO-INVEST	15,533,610	0.0	1.75	0.69							3.56	03/01/16
CUSTOM ABSOLUTE RETURN BENCHMARK ^[47]			-0.29	0.91							1.15	03/01/16
<i>Excess</i>			<i>2.03</i>	<i>-0.22</i>							<i>2.40</i>	
GARDA FIRVO	200,656,569	0.4	-0.70	0.33							0.33	04/01/16
CUSTOM ABSOLUTE RETURN BENCHMARK ^[47]			-0.29	0.91							0.91	04/01/16
<i>Excess</i>			<i>-0.41</i>	<i>-0.58</i>							<i>-0.58</i>	
INVESTCORP DYNAMIC ALT BETA	200,000,000	0.4										06/01/16
RELATIVE VALUE STRATEGIES	2,001,009,779	4.4	-0.54	1.93	0.30	-3.83	-3.83				0.84	01/01/14
CUSTOM ABSOLUTE RETURN BENCHMARK ^[47]			-0.29	0.91	-0.94	-2.56	-2.56				0.88	01/01/14
<i>Excess</i>			<i>-0.25</i>	<i>1.03</i>	<i>1.25</i>	<i>-1.27</i>	<i>-1.27</i>				<i>-0.03</i>	
BRIDGEWATER ALL WEATHER	526,239,237	1.2	3.66	5.90	8.42	0.56	0.56	4.43	5.70		8.90	07/01/09
CUSTOM BRIDGEWATER BENCHMARK ^[48]			-0.29	0.91	-0.94	-2.56	-2.56	2.16	3.90		5.92	07/01/09
<i>Excess</i>			<i>3.94</i>	<i>4.99</i>	<i>9.36</i>	<i>3.12</i>	<i>3.12</i>	<i>2.26</i>	<i>1.80</i>		<i>2.98</i>	



SUMMARY OF PERFORMANCE

	Market Value	% of Plan	1 MO	3 MO	YTD	FYTD	1 YR	3 YRS	5 YRS	10 YRS	ITD	Inception Date
DGAM DIVERSIFIED STRATEGIES FUND	42,891,575	0.1	0.90	2.44	2.64	1.87	1.87	3.17	3.53		3.52	01/01/11
CUSTOM ABSOLUTE RETURN BENCHMARK ^[47]			-0.29	0.91	-0.94	-2.56	-2.56	2.51	1.99		1.75	01/01/11
<i>Excess</i>			1.19	1.53	3.58	4.42	4.42	0.66	1.54		1.77	
ROCK CREEK POTOMAC FUND LTD	83,342,058	0.2	-2.84	0.24	-5.06	-6.95	-6.95	1.77	2.90		3.44	02/01/10
CUSTOM ABSOLUTE RETURN BENCHMARK ^[47]			-0.29	0.91	-0.94	-2.56	-2.56	2.51	1.99		2.44	02/01/10
<i>Excess</i>			-2.56	-0.66	-4.12	-4.39	-4.39	-0.74	0.91		1.00	
MULTI ASSET	652,472,870	1.4	2.60	4.93	6.55	1.95	1.95	3.64	4.16		4.01	02/01/10
CUSTOM ABSOLUTE RETURN BENCHMARK ^[47]			-0.29	0.91	-0.94	-2.56	-2.56	2.51	1.99		2.44	02/01/10
<i>Excess</i>			2.88	4.02	7.49	4.51	4.51	1.13	2.17		1.57	
TOTAL ABSOLUTE RETURN	3,892,009,590	8.6	0.32	1.78	0.28	-3.01	-3.01	1.67	2.42		3.21	04/01/08
CUSTOM ABSOLUTE RETURN BENCHMARK ^[47]			-0.29	0.91	-0.94	-2.56	-2.56	2.51	1.99		0.72	04/01/08
<i>Excess</i>			0.60	0.87	1.22	-0.45	-0.45	-0.84	0.43		2.49	
TOTAL PLAN	45,465,359,142	100.0	0.89	1.87	3.57	1.16	1.16	5.91	5.68	4.85	8.00	07/01/86
TOTAL PLAN POLICY INDEX ^[49]			1.20	2.44	4.79	1.69	1.69	5.40	4.96	4.46		07/01/86
<i>Excess</i>			-0.31	-0.57	-1.23	-0.54	-0.54	0.51	0.72	0.39		
TOTAL PLAN CUSTOM STATIC INDEX ^[50]			1.15	2.45	4.73	1.87	1.87	5.55	5.27			07/01/08



ENDNOTES

- [1] Since 07/01/2012: 100% Russell 3000 Growth
From 10/01/2010 to 06/30/2012: 100% Russell 3000
Prior to 10/01/2010: 100% Russell 2500 Growth
- [2] Benchmark is dynamically calculated using Beginning Market Value weights of the underlying portfolios and their benchmarks
- [3] Since 11/01/2008: Benchmark is dynamically calculated using Average Balance (BMV+ Weighted Net Cash Flows) weights of the underlying portfolios and their corresponding indices. From 09/01/2008 - 10/31/2008: Benchmark was dynamically calculated based on the beginning weights of the underlying portfolios and their corresponding indices From 05/01/2008 - 08/31/2008: 11.1% S&P 500; 13.3% Russell 1000 Value; 33.3% Russell 1000 Growth; 16.7% Russell Mid Cap Growth; 25.6% Russell 2000 Value 11/01/2007 - 04/30/2008: 10.9% S&P 500; 13.1% Russell 1000 Value; 33.3% Russell 1000 Growth; 17.2% Russell Mid Cap Growth; 25.6 Russell 2000 Value Prior to 11/01/2007: 11% S&P 500; 13.1% Russell 1000 Value; 32% Russell 1000 Growth; 16.5% Russell Mid Cap Growth; 27.4% Russell 2000 Value
- [4] Since 07/01/2008: 100% Russell 3000
From 01/01/2005 to 6/30/2008: 100% Dow Jones Willshire 5000
Prior to 01/01/2005: 100% Russell 3000
- [5] Since 09/01/2009: 100% MSCI EAFE + CANADA (NET)
From 01/01/2005 to 08/31/2009: 100% MSCI AC WORLD ex US (NET)
From 05/01/2003 to 12/31/2004: 100% MSCI EAFE (NET)
- [6] From 11/01/2003: 100% of MSCI AC WORLD ex US (NET)
From 07/01/2012: 100% of MSCI WORLD EX US (NET)
- [7] Since 04/01/2016: 100% MSCI WORLD EX US (NET).
From 01/01/2013 to 03/31/2016: 100% MSCI AC World ex US Net.
- [8] Since 06/01/2016: 100% MSCI World Ex US IMI Net
From 12/01/2008 to 05/31/2016: 100% MSCI All Country World ex US IMI Net
- [9] From 03/01/2006 to 06/30/2012: 100% MSCI EAFE SMALL CAP(G)
Since 07/01/2012: 100% MSCI WORLD EX US SMALL CAP (NET)
- [10] Returns for periods prior to 11/01/2015 also included Emerging Market Equity portfolios.
- [11] Benchmark is dynamically calculated using Beginning Market Value weights of the underlying portfolios and their benchmarks. Returns for periods prior to 11/01/2015 also included Emerging Market Equity portfolios.
- [12] Since 11/01/2008: Benchmark is dynamically calculated using Average Balance (BMV+ Weighted Net Cash Flows) weights. Prior to 11/01/2008: 100% MSCI EAFE (net).
Returns for periods prior to 11/01/2015 also included Emerging Market Equity portfolios.
- [13] Since 11/01/2015: 100% MSCI WORLD EX US (NET)
From 07/01/2010 to 10/31/2015: 100% MSCI All Country World ex. U.S.
From 07/01/2009 to 06/30/2010: 100% MSCI All Country World ex. U.S. IMI Net
From 01/01/2003 to 06/30/2009: 100% MSCI All Country World ex. U.S.
Prior to 01/01/2003: 100% MSCI EAFE
- [14] Since 03/23/2016: 100% MSCI WORLD NET.
From 01/01/2013 to 03/22/2016: 100% MSCI AC WORLD (NET).
- [15] Benchmark is dynamically calculated based on the Average Balance (BMV + Weighted Net Cash Flows) weights of the underlying portfolios and their corresponding indices



ENDNOTES

- [16] Since 07/1/2010: 100% MSCI AC WORLD NET
From 07/01/2009 to 06/30/2010: 100% MSCI ACWI IMI NET
Prior to 07/01/2009: 100% MSCI AC WORLD NET
- [17] Since 01/01/2016: Weighted off Transitional Targets: 45.946% Russell 3000, 37.838% MSCI World ex. U.S. (Net), 16.216% MSCI EM
Since 11/01/2015: Weighted off Transitional Targets: 47.369% Russell 3000, 42.105% MSCI World ex. U.S. (Net), 10.526% MSCI EM
Prior to 11/01/2015: Benchmark is dynamically calculated using the weights of the US Equity, International Equity, and Global Equity aggregates and the corresponding asset class benchmarks
- [18] The Private Equity benchmark is the State Street Private Equity Index (1 quarter lag). However, in non-quarter end months, the actual Private Equity return will be applied. In the third month of the quarter, the return will be calculated so that when geometrically linked with months 1 and 2, the three month return equals the published SS PEI (1 quarter lag).
- [19] Benchmark is a dynamic blend of the Public Equity Benchmark and the State Street Private Equity Index based off of sub-asset class weights used in the policy benchmark.
- [20] Since 11/01/2015: 62.50% Barclays US Government Long Bond Index, 18.75% Barclays US Investment Grade Corporate Index, 18.75% Barclays US Securitized Index
From 07/01/2013 to 10/31/2015: 100% Barclays US Intermediate Aggregate Index
Prior 07/01/2013: 100% Barclays Aggregate Bond
- [21] Since 11/01/2015: 50% Barclays Long-Term Government, 15% Barclays Securitized, 15% Barclays Corporate, 20% Barclays U.S. TIPS
From 07/01/2013 to 10/31/2015: 80% BC Aggregate Intermediate, 20% BC Global Aggregate 1-10 Year Hedged
From 07/01/2010 to 06/30/2013: 80% BC Aggregate, 20% BC Global Bond Aggregate Hedged
From 01/01/2010 to 06/30/2010: 80% BC Aggregate, 20% BC Global Bond Aggregate Unhedged
From 07/01/2009 to 12/31/2009: Benchmark is dynamically calculated using Beginning Market Value weights of the underlying portfolios and their benchmarks
Prior to 07/01/2009: Benchmark is BC US Universal.
Formerly named "Custom Fixed Income Benchmark" prior to 11/01/2015.
- [22] Since 11/01/2015: 62.50% Barclays US Government Long Bond Index, 18.75% Barclays US Investment Grade Corporate Index, 18.75% Barclays US Securitized Index
From 07/01/2013 to 10/31/2015: 100% Barclays US Intermediate Aggregate Index
07/01/2009 to 06/30/2013: 100% Barclays Aggregate Bond
11/01/2003 to 06/30/2009: 100% Barclays US Universal Index
Prior to 11/01/2003: 100% Citigroup BIG
- [23] Since 10/01/2015: 62.50% Barclays US Government Long Bond Index, 18.75% Barclays US Investment Grade Corporate Index, 18.75% Barclays US Securitized Index
07/01/2013 to 09/30/2015: 100% Barclays US Intermediate Aggregate Index
07/01/2009 to 06/30/2013: 100% Barclays Aggregate Bond Index
Prior to 07/01/2009: 100% Barclays US Universal Index
- [24] Since 12/01/2015: 62.50% Barclays US Government Long Bond Index, 18.75% Barclays US Investment Grade Corporate Index, 18.75% Barclays US Securitized Index
From 07/01/2013 to 11/30/2015: 100% Barclays US Intermediate Aggregate Index
From 07/01/2009 to 06/30/2013: 100% BC Aggregate Prior to 07/01/2009: 100% BC U.S. Universal Index
- [25] Since 12/01/2015: 62.50% Barclays US Government Long Bond Index, 18.75% Barclays US Investment Grade Corporate Index, 18.75% Barclays US Securitized Index
From 07/01/2013 to 11/31/2015: 100% Barclays US Intermediate Aggregate Index
Prior 07/01/2013: 100% Barclays Aggregate Bond
- [26] Since 11/01/2015: 62.50% Barclays US Government Long Bond Index, 18.75% Barclays US Investment Grade Corporate Index, 18.75% Barclays US Securitized Index
From 07/01/2013 to 10/31/2015: 80% BC Aggregate Intermediate, 20% BC Global Aggregate 1-10 Year Hedged
From 07/01/2010 to 06/30/2013: 80% BC Aggregate, 20% BC Global Bond Aggregate Hedged
From 01/01/2010 to 06/30/2010: 80% BC Aggregate, 20% BC Global Bond Aggregate Unhedged
From 07/01/2009 to 12/31/2009: Benchmark is dynamically calculated using Beginning Market Value weights of the underlying portfolios and their benchmarks
Prior to 07/01/2009: Benchmark is BC US Universal



ENDNOTES

- [27] As of 01/01/2010 all high yield and convertible managers were moved out of the Fixed Income asset class and into the Credit/Debt asset class. Historical returns for high yield and convertible managers remain in Fixed Income composite.
- [28] Since 11/01/2015: 62.50% Barclays US Government Long Bond Index, 18.75% Barclays US Investment Grade Corporate Index, 18.75% Barclays US Securitized Index
From 07/01/2013 to 10/31/2015: 100% Barclays US Intermediate Aggregate Index
Prior 07/01/2013: 100% Barclays Aggregate Bond
- [29] Since 07/01/2013: 100% BC Global Aggregate 1-10 Year Hedged Index
From 07/01/2010 to 06/30/2013: 100% BC Global Aggregate Hedged
Prior to 07/01/2010: 100% BC Global Aggregate Unhedged
- [30] As of 12/01/2012: 100% of Barclays US TIPS Index, B Series
From 02/01/2006 to 11/30/2012: 100% of Barclays Global Inflation Linked:US TIPS, L Series
- [31] Since 11/01/2015: 100% Barclays US TIPS Index
From 12/01/2012 to 10/31/2015: 50% Barclays Global Inflation Linked:US TIPS; 50% Barclays World Inflat-Linked Bond Index
Prior to 11/30/2012: 65% Barclays Global Inflation Linked:US TIPS; 35% Barclays World Inflat-Linked Bond Index
- [32] Since 11/01/2015: 100% S&P/LSTA Leveraged Loan Index
From 09/01/2010 to 10/31/2015: 50% S&P/LSTA & 50% B of A ML High Yield Master II
- [33] Since 11/01/2015: 80% BC US Corp HY, 20% S&P LSTA Leveraged
From 10/01/2010 to 10/31/2015: 50% BC CREDIT & 50% BC HIGH YIELD
- [34] Since 11/01/2015: 80% BC US Corp HY, 20% S&P LSTA Leveraged
From 09/01/2013 to 10/31/2015: Barclays Credit
- [35] 80% Barclays US High Yield, 20% S&P/LSTA Leveraged Loan
- [36] Since 11/01/2015: 80% Barclays US High Yield, 20% S&P/LSTA Leveraged Loan.
From 07/01/2013 to 10/31/2015: 62.5% Barclays US High Yield, 25% Barclays Credit, 12.5% S&P/LSTA Leveraged Loan.
From 01/01/2010 to 06/30/2013: 50% Barclays Credit, 50% Barclays Corp High Yield.
From 03/01/2009 to 12/31/2009: 75% Barclays Credit, 25% Barclays Corp High Yield.
- [37] 50% JPM EMBI GLOBAL DIVERSIFIED INDEX / 50% JPM CEMBI BROAD
- [38] Historical data prior to 02/01/2016 is M4ID Stone Harbor Emerging Market Debt.
- [39] Since 11/01/2015: 50% JP Morgan GBI EM Global Diversified, 25% JP Morgan EMBI Global Diversified, 25% JPMorgan CEMBI Broad.
Prior to 11/01/2015: 100% JP Morgan GBI EM Global Diversified.
- [40] Since 01/01/2016: 67% US Credit Benchmark, 33% non-U.S Credit Benchmark.
From 11/01/2015 to 12/31/2015: 75% US Credit Benchmark, 25% non-U.S Credit Benchmark.
From 07/01/2013 to 10/31/2015: 50% BC High Yield / 20% BC Credit / 20% JP Morgan GBI EM Global Diversified/ 10% S&P/LSTA Leveraged Loan Index
From 01/01/2010 to 06/30/2013: 50% BC Credit / 50% BC High Yield
Prior to 01/01/2010: 75% BC Credit / 25% BC High Yield



ENDNOTES

- [41] From 11/01/2006: Benchmark is dynamically calculated using BMV weights of the underlying portfolios and their benchmarks.
From 04/01/1994: 100% of LaSalle REIT Benchmark
- [42] The Private Real Estate benchmark is the NCREIF ODCE (1 quarter lag) since 07/01/2013. However, in non-quarter end months, the actual Maryland Private Real Estate return will be applied. In the third month of the quarter, the return will be calculated so that when geometrically linked with months 1 and 2, the three month return equals the published NCREIF ODCE (1 quarter lag).
Prior 07/01/2013, the Private Real Estate benchmark is the NCREIF PROPERTY INDEX QTR LAG.
- [43] Since 11/2007 benchmark is 100% FTSE EPRA NAREIT Developed Ex US (Net) index. Prior to 11/2007, the net version of the index was calculated by and provided to State Street by MSIM
- [44] Since 05/01/2014, a dynamic blend of the NCREIF ODCE (one qtr lag), and the FTSE EPRA/NAREIT Developed Net Index.
Prior to 05/01/2014, a dynamic blend of the Wilshire RESI, NCREIF ODCE (one qtr lag), and the MSIM Custom EPRA/NAREIT Global ex US
Prior 07/01/2013, a dynamic blend of the Wilshire RESI, NCREIF Property (one qtr lag), and the MSIM Custom EPRA/NAREIT Global ex US
Prior to 07/01/2008: 50% Wilshire RESI & 50% NCREIF Property (one qtr lag)
- [45] Since 11/01/2015: CPI-U + 500 bp (capped at 10%).
Prior 11/01/2015: CPI-U + 500 bp (capped at 8%).
Formerly named "CPI + 5%; 8% Max" prior to 11/01/2015.
- [46] Since 11/01/2015: Benchmark is dynamically calculated using the beginning market values of the Real Estate, Commodities and Natural Resource/Infrastructure sub-asset classes and their corresponding benchmarks.
From 12/01/2012 to 10/31/2015: 30% - DJ UBS Commodities Index (Total Return), 10% - CPI + 5%; 8% Max , 60% - 50% BC US TIPS Index/50% BC World Inflat-Linked Bond Index
From 07/01/2011 to 11/30/2012: 30% - DJ UBS Commodities Index (Total Return), 10% - CPI + 5%; 8% Max , 60% - 65% BC US TIPS Index/35% BC Global Inflation Linked (USD Hedged) Index
From 07/01/2009 to 06/30/2011: 20% - DJ UBS Commodities Index (Total Return), 20% - CPI + 5%; 8% Max , 60% - 65% BC US TIPS Index/35% BC Global Inflation Linked (USD Hedged) Index
07/01/2008 to 06/30/2009: Benchmark is dynamically calculated using Beginning Market Value weights of the underlying portfolios and their benchmarks Prior to 07/01/2008: 100% Barclays US TIPS Index
Prior to 07/01/2008: 100% Barclays US TIPS Index
Formerly named "Custom Real Return Benchmark" prior to 11/01/2015.
- [47] Since 11/01/2015: HFRI Fund of Funds Conservative + 100 bps.
From 07/01/2014 to 10/31/2015: HFRI FOF: Conservative Index.
From 07/01/2008 to 06/30/2014 benchmark was HFRI Fund of Funds index.
Prior to 07/01/2008 benchmark was the Citigroup 3-Month T-bill + 500 bps.
- [48] Since 07/01/2014 Benchmark is 100% of Custom Absolute Return Benchmark.
From 07/01/2011 to 06/30/2014 Benchmark is composed of 100% 3 month T-Bill + 6.5%
From 07/01/2009 to 06/30/2011 Benchmark is composed of 75% Barclays Capital US TIPS , 10% DJ-AIG Commodities Total Return Index and 15% MSCI ACWI.
- [49] Since 07/01/2008: Calculated monthly using transitional weights and asset class benchmarks. Prior to 07/01/2008: MSRA TOTAL PLAN STATIC POLICY.
- [50] Calculated monthly using the strategic target weights and asset class benchmarks.