

Maryland Policy Report

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2018 STATE PENSION FUND INVESTMENT PERFORMANCE REPORT

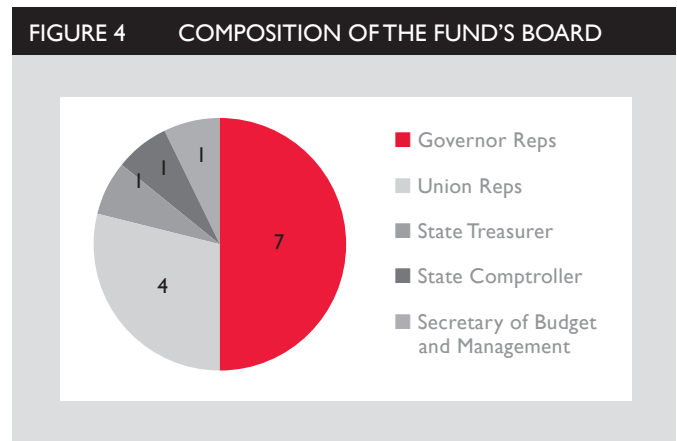
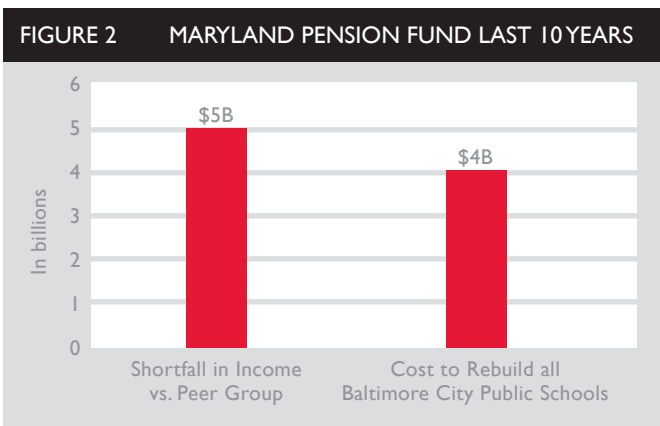
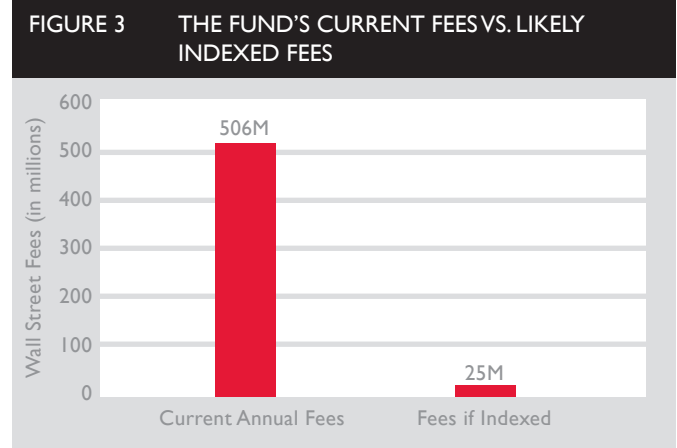
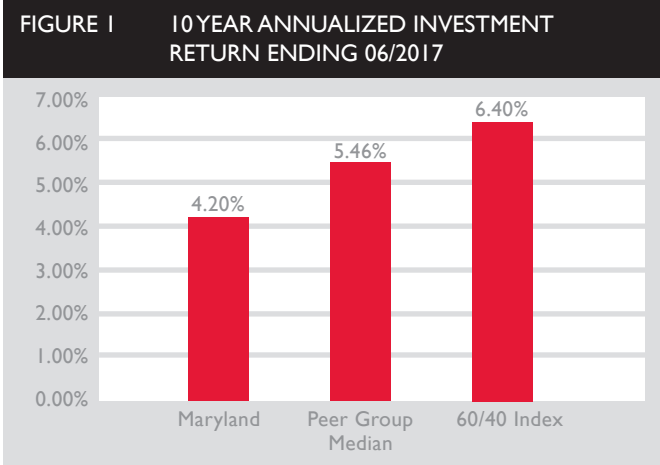
*Despite High Fees, Maryland and Other State Pension Funds
Struggle to Beat 60/40 Benchmark*

BY CAROL PARK AND JEFF HOOKE

OVERVIEW

The Maryland State Retirement and Pension System reported net assets of \$49 billion as of June 30, 2017. To evaluate the Fund's investment performance, the Maryland Public Policy Institute studied the 33 state pension funds with the same fiscal year end. For the 10 years ending June 30, 2017, the Fund investment portfolio underperformed its peer group median by roughly 1.26 percent per year over the last 10 years. Over 10 years, the shortfall in lost income was approximately \$5 billion.¹

Like the peer group median, the Fund underperformed a composite passive index of public stocks and bonds. For example, over the 10 years ended June 30, 2017, a 60 percent stocks/40 percent bonds index returned 6.40 percent on an annualized basis. (See Figure 1.)



As shown in Figure 2, the \$5 billion in lost income is sufficient money either to replace every public school in Baltimore City with a new brand-new facility,² or, as another example, to ensure more security for state employee retirees, and reassurance that the Fund will be equipped to pay pensions in the future.

In the past, the Fund has argued that it adopts a more conservative portfolio allocation than the peer group, and thus, Maryland accrues lower returns. Maryland accomplished this allocation principally by redirecting assets from conventional stocks and bonds to hedge funds. Nonetheless, the Fund's year-to-year return movements closely mirror those of both its peers and the index,³ so whether the portfolio truly has downside protection worth \$5 billion in lost income is an open question, as is the Fund's decision to use an intensified hedge fund allocation in the first place.

In addition, we looked at financial advisory Wall Street fees, both disclosed and undisclosed. Disclosed fees are officially billed to the Fund, so the Fund has an accounting record. Undisclosed fees are non-reported, secret hedge fund and private equity fund "carried interest" fees. Most states do not report such fees to the public, and most states lack data regarding carried interest fees. Many states, including Maryland, have passed laws preventing public access to

such fees under FOIA requests, essentially labeling the fee arrangements top-secret like military codes. Our analysis showed that only six states (out of 33) set forth their carried interest fees. Full disclosure is optional, according to Municipal Accounting standards.

Including both sets of fees, we found that Maryland's 2017 total fee ratio was 1.03 percent, or higher than the 33 state median ratio of 0.56 percent. The statistics are surprising, as both disclosed and undisclosed fees were higher than what average investors might pay for a simple mutual fund. In 2017, the total estimated fees for Maryland was \$506 million.⁴ For all 33 states, the total fee load was \$9.83 billion, despite the median state underperforming a passive composite index. Capitalizing the fee load at 5 percent suggests a reduction in unfunded liability of \$200 billion, assuming the indexes continue to outperform the states' complex constructed portfolios.

The Fund invests more in alternative investments than the median state. The investments are mostly private equity (PE), hedge funds, real estate, and commodities, with some inflation-adjusted bonds and public REITs (real estate investment trusts). Most outside managers offering these investments promise, in exchange for high fees, the following: premium returns, lower risk, and more diversification than an indexed portfolio of public stocks and bonds. This asser-

FIGURE 5 FIVE STATES WITH HIGHEST WALL STREET FEE RATIOS OUT OF 33 STATES (IN MILLIONS, EXCEPT %)

State	a. Estimated Undisclosed Fees ¹	b. Disclosed Fees	(a+b) Undisclosed +Disclosed Fee	Fee ratios	10 Year Return (Ending 06/2017)
Missouri	\$ 0	\$134.9	\$134.9	1.67%	4.50%
Indiana	152.1	204.1	356.2	1.12	2.90
Maine	51.5	93.8	145.3	1.04	4.90
South Carolina	0	314.6	314.6	1.04	4.34
MARYLAND	172.0	333.6	505.6	1.03	4.20
MEDIAN					4.34%

FIGURE 6 FIVE STATES WITH LOWEST WALL STREET FEE RATIOS OUT OF 33 STATES (IN MILLIONS, EXCEPT %)

State	a. Estimated Undisclosed Fees ⁵	b. Disclosed Fees	(a+b) Undisclosed +Disclosed Fee	Fee ratios	10 Year Return (Ending 06/2017)
Nevada	\$35.2	\$45.5	\$80.7	0.21%	5.50%
Minnesota	37.4	29.9	67.4	0.23	6.20
Idaho	16.9	48.8	65.7	0.38	4.80
Iowa	58.5	68.1	126.5	0.41	5.89
California	541.6	871.3	1413.0	0.43	4.40
MEDIAN					5.50%

tion lacks scientific rigor, as it contradicts modern finance theory going back to the 1950s, which stipulates that higher returns coincide with higher volatility of return or risks. We do concede some diversification benefit to alternatives.

To reduce the fee ratio and to improve performance, we recommend that the Fund index the vast bulk of its portfolio with a blend of public stocks and bonds, rather than actively manage its assets. As shown in Figure 3, indexing would cost the state about \$ 25 million per year, or five basis points yearly on invested capital, versus the present \$506 million, or 103 basis points, with no apparent harm to future returns and risks.⁵

About 15 percent of the portfolio, principally U.S. large cap stocks, is now indexed. In the recommended scenario, most of the state's investment staff could remain to implement an orderly liquidation of the alternative assets portfolio, and to redeploy cash into the appropriate public securities.

BACKGROUND

The Maryland Public Policy Institute performed similar studies in 2012⁶ and 2015.⁷ In both studies, the Maryland Public Policy Institute concluded that state pension funds with higher Wall Street fees, as a percent of assets, recorded inferior investment returns, on average, versus those in states with the lower fees. Maryland was one of the states that spent above-average Wall Street fees, perhaps \$3.5 billion over 10 years, but then produced below-average investment returns. The Maryland Public Policy Institute testified to the legislature on these matters on days coinci-

dent with Fund testimony, and reviewed the matter with several legislators and executive branch members. The Fund did not alter its course, given this information, and instead invested in more hedge funds and more PE funds, and requested more staff to invest in such assets.

Legislative overseers have acquiesced to most of these initiatives. In any case, the legislature has little power to change the Fund's course of action. This power resides in the Fund's board.

As set forth in Figure 4, the Fund's board is comprised of politicians, union representatives, and political appointees. The board's investment committee has three public advisors. The Board sets the general direction of the Fund's investment policy, and the staff selects outside money managers.

NATIONWIDE DATA AND COMPARISON

The study compared the pension investment performance across 33 states with fiscal years that ended on June 30, 2017.⁸ The remaining 17 states (17+33=50 states) had different year-ends, or they provided inadequate information.

Our study revealed that the top five Wall Street fee states produced lower investment returns over the last 10 years when compared to the bottom five Wall Street fee states. As shown in Figure 5 and Figure 6, on a 10-year annualized return basis, the top five fee states produced a return of 4.34 percent, while the bottom 5 states returned 5.50 percent. (The ranking excludes states that did not reveal their 10-year returns). The fee ratio is calculated as (total fees / 2017 year-end assets).

FIGURE 7 RELATIONSHIP BETWEEN WALL STREET FEE RATIO VS. 10-YEAR RETURNS ENDING 06/2017

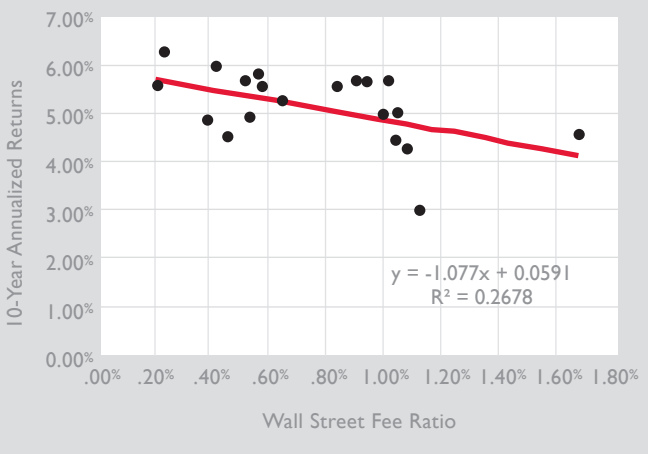


FIGURE 8

	10-Year Annualized Return
MARYLAND	4.20%
Peer Group Median	5.46%
60/40 Index	6.40%

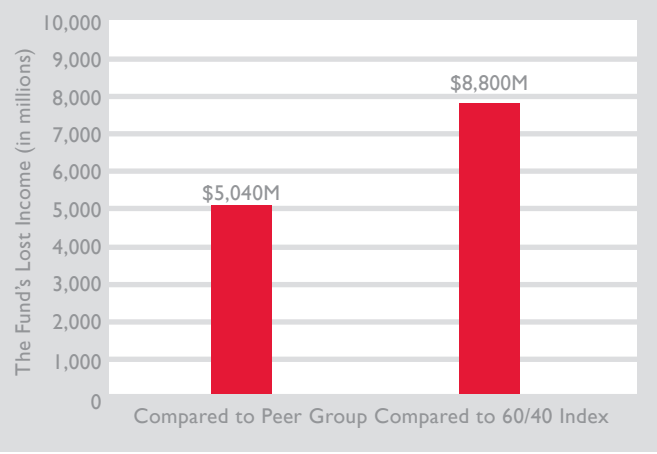
The 2017 study results corroborate our previous studies, which observed that state pension funds with the higher fees, as a percent of assets, recorded inferior investment returns, on average, versus those states with the lower fees. Clearly, this conclusion does not reflect asset allocation differences that also influenced returns.

Figure 7 shows an OLS regression analysis of the disclosed fee ratio versus 10-year annualized return for the 21 states where 10-year returns were available. In the graph, Maryland is shown in red with a fee ratio of 1.03 percent and 10-year annualized return of 4.2 percent. The graph shows a strong negative correlation between the high fees and investment performance. The regression yielded the following statistics: N=21, slope = -1.08; R-squared = 0.27; t statistics = -2.64; p-value = 0.02 and F = 6.95. This means that the variation in fee ratio explains over 27 percent of the variation in investment performance. The fee ratio coefficient is large, and it is statistically significant.

MARYLAND’S PENSION INVESTMENT PERFORMANCE VERSUS PEERS

Most state pension funds, including Maryland’s, pay scant attention to their peer group. Annual fund reports compare a state’s performance to some imaginary benchmark created by the state’s pension fund consultant. The typical comprehensive annual financial report then says that the state has “beaten the benchmark,” even though the reader has no basis for knowing how such a benchmark was created. Since 50 percent of funds would otherwise be below average

FIGURE 9 THE FUND’S LOST INCOME OVER LAST 10 YEARS (06/2008-06/2017)



in their peer group, this approach makes sense for those managers whose funds statistically must fall into the bottom half of the peer group. The process is akin to the situation in Lake Wobegon, where everyone is above average.

The Fund’s performance was below the median of its peer group. Annualized returns for the five- and 10-year periods ending June 30, 2017 were 7.6 percent and 4.2 percent respectively. For fiscal 2017, Maryland ranked the fourth-lowest state and second-lowest state in terms of five- and 10-year annualized returns, respectively.

As noted, Figure 2 compares the 10-year performance of the Fund to the median performance of 21 states and the 10-year annualized return of a 60/40 index ending in June 30, 2017 (The blend consists of 60 percent S&P 500 Index and 40 percent BBG Barc Aggregate Bond Index). The Fund’s

...state pension funds with higher Wall Street fees, as a percent of assets, recorded inferior investment returns, on average, versus those in states with the lower fees.

10-year annualized return of 4.2 percent is lower than the 21 states average 10-year annualized return of 5.5 percent (The 10-year average was calculated for 21 states out of 33 states, because only 21 disclosed their 10-year annualized returns.) The Fund’s 10-year return is also lower than the 10-year return of a 60/40 index, which is 6.4 percent. (See Figure 8.)

We conclude that the Fund’s relative underperformance is a long-term trend, rather than a recent development. As noted earlier, we adjusted those states that reported gross, instead of net, returns.

FIGURE 10 FIVE STATES WITH HIGHEST ALLOCATION IN ALTERNATIVE ASSETS

State	Alternative Asset Allocation	10-Year Return (Ending 06/2017)
Indiana	47.80%	2.90%
Virginia	41.40	4.90
Washington	41.20	5.47
Missouri	39.70	4.50
MARYLAND	39.10	4.20
Median		4.50%

FIGURE 11 FIVE STATES WITH LOWEST ALLOCATION IN ALTERNATIVE ASSETS

State	Alternative Asset Allocation	10-Year Return (Ending 06/2017)
Nevada	9.10%	5.50%
Idaho	9.90	4.80
Minnesota	13.01	6.20
New York	18.50	5.59
Iowa	19.00	5.89
Median		5.59%

As shown in Figure 9, the Fund’s 10-year investment income shortfall relative to the peer group was approximately \$5 billion (average of \$40 billion total assets x 1.26 percent x 10 years). The Fund’s investment income shortfall compared to 60/40 was approximately \$8.8 billion (average \$40 billion in total assets x 2.2 percent x 10 years).

MARYLAND’S ABOVE-AVERAGE INVESTMENT ALLOCATION IN ALTERNATIVE ASSETS

For information purposes, we ranked the states by the percentage of assets they invested in alternative investments in 2017. Figures 10 and 11 show the top-five and bottom-five states in terms of the alternative asset investment allocation. As noted, the returns were reduced by 0.5 percent for states that reported gross returns. As shown in red, Maryland ranked in the top five.

As shown in the charts, we found that the five states with the highest alternative asset allocations recorded a median 10-year annualized return of 4.50 percent, while the five states with the lowest recorded allocation had a median return of 5.59 percent. Although the sample size is small, the states that invested more in alternative assets had lower investment returns on average. Again, overall asset allocation may also be a reason for the different returns.

FIGURE 12 THE FUND’S 2017 ASSET ALLOCATION

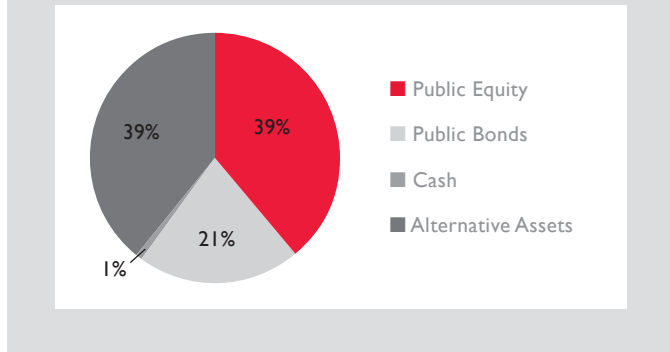
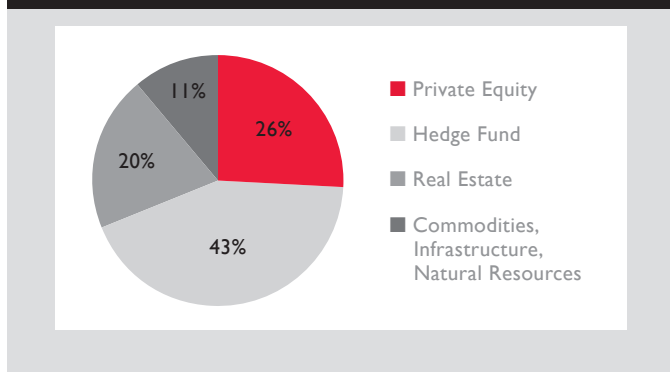


FIGURE 13 FUND’S ALLOCATION OF ALTERNATIVE ASSETS



In 2017, the Fund invested 39.1 percent in alternative assets, which is higher than the 33-state median of 23.5 percent. Figure 12 shows the breakdown of the Fund’s total asset allocation. In FY2011, only 25.0 percent of the Fund’s investment portfolio was in alternative investments, so the Fund’s investments in alternative assets have increased from 25 percent to 39 percent over the six years. This was a sizable bet, and the board and staff should have accountability. The Fund followed many other state pension funds in its goal of increasing exposure to alternative assets. (Figure 13 shows the breakdown of the Fund’s alternative asset allocation.)

Most PE funds are leveraged buyout funds that attempt to place large amounts of debt onto U.S. companies in the hope of gaining alpha returns.

When investing in alternative assets, pension funds pay outside managers a fixed fee and a carried interest fee. A fixed fee, generally 1.0–2.0 percent per year, is calculated on either capital committed or cash invested, and the fee is payable whether or not the manager makes a profit or loss, or beats a preset benchmark.

A carried interest fee, sometimes called a “performance fee,” is paid if the investment value increases, regardless of whether the enhanced value is attributable to the efforts of the manager or a general stock market rise.

FIGURE 14 MARYLAND ALTERNATIVE ASSET VS. NON ALTERNATIVE ASSET ADVISORY FEES

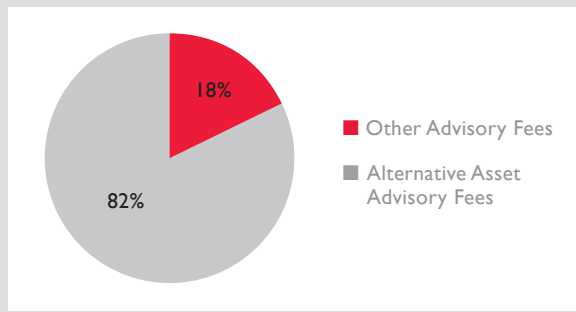


FIGURE 15 ARIZONA STATE PENSION FUND ALTERNATIVE ASSETS FEES 2017 (In millions, except %)

Alternative Assets	\$12,700
ALTERNATIVE ASSET FEES:	
Fixed Fees	\$198
Carried Interest	\$185
AS A PERCENTAGE OF ALTERNATIVE ASSETS:	
Fixed Fees	1.56%
Carried Interest	1.46%

For hedge funds, the carried interest starts, in most cases, when the hedge fund's net returns exceed 0 percent, which is hardly a formidable barrier for getting paid extra money. For private equity, the carried interest starts when cumulative returns exceed 8 percent annually. As a percent of assets under management, the total manager fees for alternative investments are much higher than fees charged by either active, or index managers of conventional investments (like publicly traded stock and bonds).

In Maryland's case, like many other funds, the majority of Wall Street fees are attributable to alternative asset managers. As shown in Figure 14, alternative asset advisory fees in 2017 accounted for 82 percent of total estimated advisory fees for the Fund. (Figure 14 shows both undisclosed fees and disclosed fees as percent of total fees.)

LESS THAN FULL FEE DISCLOSURE BY STATES AND THE 'TRUE' FEES

As noted earlier, the Fund, like other state pension funds, is not obligated to disclose all carried interest fees to the public. The Municipal Accounting Standards Board, which sets standards for state and local government accounting, allows states to ignore most private equity and hedge fund fees for record-keeping purposes. Maryland and most other state funds opted for less than full disclosure for FY 2017.

Six of 33 states provided full disclosure about their fees—Arizona, Kentucky, Missouri, New Jersey, Oregon,

FIGURE 16 MARYLAND ALTERNATIVE ASSETS, CARRIED INTEREST FEE ESTIMATE, FY 2017 (In millions, except %)

Maryland Alternative Assets	\$19,200.0
Apply AZ carried interest fees percent to MD	x 1.00%
Likely alternative asset carried interest fees	\$192.0
Less: Disclosed carried interest fees by the Fund	- 19.6
MD's Undisclosed Fees	\$172.4

FIGURE 17 THE FUND'S ESTIMATED WALL STREET FEES

Disclosed Fee	\$333.6
Undisclosed Fee	+ 172.0
Total Fees	\$505.6

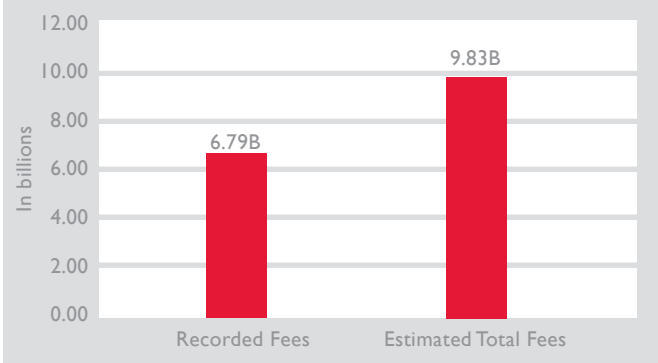
and South Carolina. Nonetheless, it is easy to estimate total fees for the other states, like Maryland, that select less than full disclosure—we just compare them to states that fully disclose fees and use simple algebra.

For example, consider the Arizona pension fund, which has alternative assets that are similar in size and composition to Maryland.

On June 30, 2017, Arizona had \$34.6 billion in total investment assets. As shown in Figure 15, Arizona had \$12.7 billion invested in alternative assets (36.7 percent x \$34.6 billion = \$12.7 billion). Arizona, unlike Maryland, chose full disclosure. Arizona's carried interest fees for FY 2017 were \$185 million. Arizona's performance fee ratio was 1.46 percent (\$185 million in performance fees / \$12.7 in billion alternative assets = 1.46 percent). By way of comparison, New Jersey had performance fees of \$274 million and a performance fee ratio of 1.20 percent.

In Maryland's case, like many other funds, the majority of Wall Street fees are attributable to alternative asset managers.

For conservative estimation, we apply 1.00 percent instead of Arizona's 1.46 percent carried interest fee ratio to Maryland's \$19.2 billion investment in alternative assets. Maryland may include some public REIT stocks and inflation-adjusted public bonds included in alternative assets, so the lower 1.00 percent addition seems appropriate. (This calculation is shown in Figure 16.) Based on the calculation, Maryland's performance fee estimate is \$192 million for 2017 (1.00 percent x \$19.2 billion = \$192 million). Hence, if, Arizona is a guide, Maryland's true carried interest fee of

FIGURE 18 RECORDED VS. ESTIMATED HIGHER FEES
IN FY 2017 - ALL 33 STATES

\$192 million is \$172.4 million greater than Maryland's officially disclosed carried interest fee of \$19.6 million.

For those 27 states that did not disclose total carried interest fees, we multiplied 1.00 percent in extra fees times the amount of their alternative assets. With the methodology, Maryland ranks fifth-highest in fee ratio, with an annual fee ratio and gross fees of 1.03 percent and \$506 million. (See Figure 17.) The 33-state fee ratio median was 0.56 percent with this methodology.

COMPARISON TO PUBLIC COMPOSITE INDEX

The 33-state sample collectively disclosed, in their accounting records, \$6.79 billion spent on Wall Street fees in FY 2017. In our estimation, the 33 states spent \$9.83 billion in both disclosed fees and undisclosed carried interest fees. (See Figure 18.) With little in premium returns to show for this expenditure, states must ask if distributing billions to wealthy Wall Street managers, at the expense of state workers, is proper social and public policy.

We stand by the recommendation from the previous studies that the Fund index the portfolio.

The Fund, like most state funds, argues that a public 60-40 composite index is not comparable to Maryland's active portfolio, so the lower returns are no problem. The Fund argues that its portfolio is scientifically constructed with the help of consultants and well-regarded experts, and that this model 'optimizes' risk and return.⁹

As noted, the Fund has claimed in the past that part of the reason behind its lower returns is a more conservative asset allocation that sacrificed billions in returns for unassured downside protection in the event of another stock market crash. However, many alternatives have an equity-type component that correlates well with stocks.¹⁰

WHY PENSION FUNDS LIKE ACTIVE MANAGEMENT

Many stakeholders have asked us why the Fund, and other state pension funds, insists on active management, when the investment results are inferior to indexing. Our explanations include:

Human Nature: It is human nature to believe that your own fund can do better than others by selecting winning and losing investments, despite scientific evidence to the contrary, such as few mutual funds beating benchmarks for the last 20 years.

Agency Problem: Consciously, or subconsciously, pension fund investment executives do not want to 'index' themselves out of a job.

Investment Consultants: State pension funds hire investment consultants who provide advice to the states and act as gatekeepers to active managers wanting state contracts. These consultants tend to push for alternatives in a portfolio, claiming that alternatives provide better returns and lower risks, despite the apparent contradiction with modern finance theory.

Stockholm Syndrome: Pension fund executives deal with so many Wall Street professionals and hear so many 'active management' marketing pitches, that they become 'industry captives.'

CONCLUSION

Maryland's state pension fund influences the retirement security of public employees and the future tax burden for Maryland residents. According to a voluntary 2017 public survey¹¹ by MPPI, Marylanders are aware that their retirement security is under threat and that the Fund's subpar investment performance hasn't helped. The

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survey showed that 61 percent of liberals and 86 percent of conservatives believe that Maryland "must reduce or eliminate" the Wall Street fees the Fund pays to financial firms to manage the assets.

One reason pension problems are often ignored is the confusion on who pays. Taxpayers might bear the future burden of providing the financial resources to cover the promised benefits of pension plans for the state retirees, or the retirees themselves may be asked to take on lower benefits than promised. Thus, the Fund's performance deserves scrutiny because it is a question of fairness, as well as responsible stewardship.

Based on the conclusion of this study and bipartisan common sense of Maryland residents, reducing Wall Street fees should be a priority for the Fund. To do so, the Fund should index its portfolio to ensure average investment

returns and to cut unnecessary fees. This would be a safer and more responsible way to manage a public employees' retirement fund than to pay Wall Street firms huge sums each year to deliver mediocre results.

The 33-state study evaluated Maryland's relative pension investment performance, but we remind readers that the pension crisis is national in scope. The lessons from this study apply to many other states. According to the 2017 ALEC pension report, state and local governments' unfunded pension liabilities now exceed \$6 trillion nationally. It is time to fix America's broken state and municipal pension system so workers and taxpayers receive a fair shake.

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Maryland Public Policy Institute. Previously, he was an investment banker at Focus Investment Bank and a corporate finance consultant. He held positions at the Committee on Economic Development, the Emerging Markets Partnership, the World Bank, Lehman Brothers, Schroder Wertheim, Metropolitan Life, and the Maryland Tax Education Foundation. He is the author of four financial books and multiple academic papers.

1. 1.26 percent x \$40 billion average assets x 10 years = \$5 billion
2. Assuming \$300 sq. ft. construction costs, 150 sq. ft. per student, and 80,000 students. A new high school for 2,000 students would cost \$90 million.
3. For more information on the standard deviation of state pension fund returns, see an upcoming *Journal of Investing* article (Hooke and Yook), "State and municipal pension diversification into alternative assets."
4. In the past, the Fund has disputed MPPPI's estimates of carried interest fees, but the Fund has yet to provide a thorough accounting of its carried interest fees, as six other states do each year.
5. As a reference point, a savings of \$480 million in fees per year provides each of 60,000 public school teachers an annual \$8,000 raise (\$480 million ÷ 60,000 = \$8,000).
6. Jeff Hooke and Michael Tasselmyer, "Wall Street fees and the Maryland public pension fund," Maryland Policy Report, The Maryland Public Policy Institute," No. 2012-04, July 25, 2012, https://www.mdppolicy.org/library/doclib/2012/08/20120803_MarylandPolicyReport201204.pdf
7. Jeff Hooke and John J. Walters, "Wall Street fees and investment returns for 33 state pension funds," Maryland Policy Report, The Maryland Public Policy Institute," No. 2015-05, July 28, 2015, https://www.mdppolicy.org/library/doclib/2015/08/20150804_MarylandPolicyReport201505.pdf
8. Some states recorded their five and 10-year annualized total fund returns as net of accounting (or disclosed) fees while others recorded them as gross of fees. For states that recorded gross of disclosed fees—Arkansas, Delaware, Idaho, Kansas, Oklahoma, and Nevada—we deducted 0.5 percent from the gross returns to reflect the estimated values if the returns were reported net of disclosed fees. All returns are net of carried interest fees, which are deducted by alternative managers before the states see returns.
9. We estimate undisclosed, carried interest fees at 1 percent of alternative assets.
10. See a summary of the Fund's arguments in "Think tank's research leads to poor conclusions," 2016, on the Fund's website.
11. For more information on PE return volatility, see Hooke and Yook, "The curious year-to-year performance of buyout funds," *Journal of Private Equity*, Winter 2017.
12. "Pension survey results." The Maryland Public Policy Institute, May 24, 2017, https://www.mdppolicy.org/library/doclib/2017/05/20170531_PensionSurvey2017.pdf

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