Practical Guidance:
the GIPS® Standards for Asset Owners
The popularity and worldwide adoption of the Global Investment Performance Standards (GIPS®) by investment management firms is largely due to demand by asset owners. In order to trust investment performance when hiring an outsourced manager, asset owners increasingly require investment managers to comply with the GIPS standards. Through these interactions, asset owners have come to understand the importance of one global, ethical set of standards for performance measurement calculation and presentation and want to apply the same principles to their own performance reporting. As a result of the increased transparency and due diligence on the part of asset owners, there is growing interest in attaining GIPS compliance among the asset-owner community. In the past, GIPS compliance for asset owners was difficult because there was no interpretive guidance for how the GIPS standards should be applied to their structure. To address this, on September 16, 2014, the GIPS Executive Committee approved the Guidance Statement on the Application of the GIPS Standards to Asset Owners (“Guidance Statement”). The GIPS Executive Committee took further action on August 16, 2017, and released an updated version of the Guidance Statement. With an effective date of January 1, 2018, the Guidance Statement permits asset owners to claim GIPS compliance with only one (1) year of compliant data instead of five (5) years, while still building towards ten (10) years of compliant data.

Now that asset owners are permitted to bring just one year into compliance, we expect to see a greater uptake in the number of asset owners claiming GIPS compliance. Additionally, asset owners increasingly are claiming GIPS compliance for the following reasons:

- The desire to hold themselves to the same standards as their external managers
- The need to provide full and transparent performance information and related disclosures in line with industry best practices to the public and oversight board; and
- An improved compliance framework inclusive of standardized policies and procedures related to performance

The purpose of this whitepaper is to identify key areas of focus for asset owners when seeking to become GIPS compliant, to identify requirements that are different for asset owners as compared to investment managers, to provide a guide for an asset owner to become GIPS compliant, and to provide answers to commonly asked questions.

**WHO ARE ASSET OWNERS?**

The Guidance Statement defines asset owners as public and private pension funds, endowments, foundations, family offices, provident funds, insurers and reinsurers, sovereign wealth funds, and fiduciaries that manage investments, either directly or through the use of external managers, on behalf of participants, beneficiaries or the organization itself. If these entities have discretion over the assets under management, either by managing assets directly or by having the discretion to hire and fire underlying investment managers, they are able to claim compliance with the GIPS standards. Typically, asset owners are accountable to an oversight board, such as a board of trustees that is responsible for establishing investment policies and monitoring performance. Most asset owners do not have prospective clients and do not compete for business; they manage an entity’s assets solely for the purpose of supporting the organization and are accountable only to its oversight board. If an asset owner markets to prospective clients, the Guidance Statement does not apply. It is possible that an organization may act as both an asset owner, where investment authority and ownership are vested with the organization itself, as well as an asset manager, where it is competing for assets whose vesting lies with external clients (e.g., pension plan, sovereign wealth fund, insurance company). In such situations, the part of the organization acting as an asset manager must be defined as a separate firm that initially brings five years of performance history into compliance with the GIPS standards and adheres to the broader GIPS standards.

---

1 GIPS is a registered trademark of CFA Institute.
WHY ADOPT THE GIPS STANDARDS?
The GIPS standards establish best practices for the calculation and presentation of investment performance that is readily comparable among investment firms and organizations on a global basis. Compliance with the GIPS standards demonstrates the following to relevant parties, such as asset owners’ members, legislative bodies, oversight boards and the general public:

- A voluntary commitment to follow global industry standards with respect to performance calculation and presentation that are based on the principles of fair representation and full disclosure
- Adherence to best practices with respect to the valuation of investments
- The establishment of robust investment performance policies and procedures and enhanced internal controls
- A commitment to methods of calculation and presentation of investment performance that are consistent, transparent and comparable; and
- A commitment to adopt the same set of performance standards that are often required of any external investment managers that the asset owner retains

“The GIPS standards are continuing to evolve to ensure practical, investment industry relevance to asset owners and other firms while maintaining their core purpose: delivering performance transparency and comparability for the benefit of investors globally.”

—Paul Smith, CFA, CFA Institute President and CEO

GIPS Standards for Asset Owners

To claim compliance with the GIPS standards, asset owners must abide by this Guidance Statement in addition to all other GIPS guidance that applies to them. This includes the GIPS standards, the GIPS Handbook which includes detailed interpretations of the provisions, GIPS Guidance Statements, Q&As in the GIPS Q&A database, and any updates or clarifications published by the GIPS Executive Committee and CFA Institute. Given the vast amount of information, we have narrowed the scope to eight areas of focus:

1. GIPS Policies and Procedures
2. Definition of the Firm
3. Period of Compliance
4. Definition of Discretion
5. Composite Construction
6. Calculating Performance
7. Prospective Clients and Compliant Presentations
8. Error Correction; and
9. Recordkeeping Practices

GIPS Policies and Procedures
To achieve and maintain GIPS compliance, firms need a comprehensive, well-thought-out GIPS policies and procedures manual (“GIPS Manual”). The GIPS Manual provides the blueprint for instituting, maintaining and demonstrating GIPS compliance. GIPS Manuals vary in form and length, but must address the policies in place for the entire time period for which the firm is claiming compliance. Policies must address both internally-and externally-managed assets. The GIPS Manual must include policies and procedures for all requirements of the GIPS standards that apply to the asset owner, as well as any recommendations the asset owner has chosen to follow. To this end, the GIPS Manual for asset owners will typically focus on the topics discussed below.

Definition of the Firm
Compliance with the GIPS standards must occur on a firm-wide basis. Therefore, the first step is to determine how the firm will be defined for GIPS purposes. The firm must be defined as an investment firm, subsidiary or division held out to clients or prospective clients as a distinct business entity. A distinct business entity is a unit, division, department or office that is organizationally and functionally segregated from other units, divisions, departments or offices, and that retains discretion over the assets it manages. Additionally, it should have autonomy over the investment decision-making process. In most cases for asset owners, the exercise of defining the firm is straightforward.
The asset owner, or firm, is typically defined as the organization or entity that has discretion over the total assets managed by the organization or entity. For a public pension fund, the firm is generally defined by legislation. In the case of foundations, endowments or family offices, the firm is the entity established by the governing body to manage the pool of assets. This often results in a firm definition that includes one fund.

The firm definition also determines which assets are included in total firm assets. Total firm assets equals the sum of all discretionary and non-discretionary assets for which a firm has investment management responsibility. If an asset owner is responsible for only one pool of assets (i.e., one total fund), then the total fund is the same as total firm assets. If an asset owner is responsible for multiple pools of assets (i.e., multiple total funds) and they are included in the firm definition, then total firm assets equals the sum of all total funds.

**Period of Compliance**
The asset owner must determine for which period it will initially claim compliance with the GIPS standards. Beginning January 1, 2018, asset owners must initially claim compliance for at least one year or since the inception of the asset owner if the asset owner has been in existence for less than one year. After initially claiming compliance, the asset owner must then build towards a minimum ten-year period of compliance. For example, assume an asset owner has been in existence since 1979, and in 2018 decides to attain compliance. Assuming the asset owner wishes to report performance on a calendar basis, the asset owner must claim compliance from January 1, 2017 through December 31, 2017. The asset owner could initially choose to bring more than the one-year period into compliance, but this is optional.

**Definition of Discretion**
The definition of discretion is fundamental to satisfying one of the GIPS standards’ main requirements; specifically, that all actual, fee-paying, discretionary accounts must be included in at least one composite. The GIPS standards define discretion as the firm’s ability to implement its intended strategy. For asset owners, assets can be managed internally or the asset owner has control over asset allocation decisions and the ability to hire and fire external investment managers. The fact that external investment managers are often used to manage some or all of their assets is not unique to asset owners, and the same concept for determining discretion applies to asset owners as well as to all other firms. If the asset owner has discretion to assign assets to a sub-advisor, those assets are discretionary and must be included in the asset owner’s total firm assets and considered for composite inclusion.

---

“Asset owners that claim compliance with the GIPS standards voluntarily commit to delivering investment performance transparency and comparability—the same high-performance standards that many of the best require of the external investment managers they hire.”

—Paul Smith, CFA designation, CFA Institute President and CEO

---

**Composite Construction**
A composite is an aggregation of one or more portfolios managed according to a similar investment mandate, objective or strategy. All actual, fee-paying, discretionary portfolios must be included in at least one composite. If the asset owner manages only one total fund, there will be only one required composite and it will contain the total fund. If the asset owner manages multiple, separate total funds with different investment objectives, there must be separate composites to represent each total fund.

---

2 Total fund: A pool of assets managed by an asset owner according to a specific investment mandate, which usually includes multiple asset classes. The total fund is typically composed of underlying portfolios, each representing one of the strategies used to achieve the asset owner’s investment mandate.

3 Portfolio: An individually managed group of investments. A portfolio may be an account or pooled investment vehicle. From the asset owner’s perspective, a portfolio is typically an account representing one of the individual strategies or components of the asset owner’s total fund, and portfolios are considered investments rather than client accounts.
If the asset owner manages more than one total fund, each with the same investment mandate, then all total funds must either be included together in the same composite, or be included in individual composites and presented to the relevant oversight board separately. The second option, which represents a departure from the traditional composite-construction requirements, is to accommodate the focus of most oversight boards, which are charged with establishing investment policies or mandates for the fund, and monitoring the performance of the fund relative to its objectives. A composite with more than one total fund may not be meaningful for an oversight board. If an asset owner utilizes this option, it must present the compliant presentation for each total fund composite to the respective oversight board.

**Composite construction example 1:**
- One total fund
- Underlying portfolios:
  1. Public markets:
     - U.S. equity
     - Global developed-markets equity
     - Global emerging-markets equity
     - U.S. fixed income
     - Global high yield fixed income
  2. Private markets:
     - Real estate
     - Private equity
     - Hedge funds
  3. Cash
- Composite requirement: one composite for the total fund

**Composite construction example 2:**
- Two total funds with the same investment strategy
- Composite options:
  1. One composite that includes both total funds
  2. Two separate composites, each containing one fund

**Composite construction example 3:**
- Two total funds with different investment strategies
- Composite requirement: two separate composites, each containing one fund

**Valuations**
Asset owners that invest in thinly-traded securities, such as real estate, private equity and alternative investments, will have to address how to account for their valuations. If these assets are included in the total fund, they must be valued at the same time as the fund, at least monthly and at the time of large cash flows. It may prove to be difficult to obtain valuations with this frequency, but firms must create valuation policies and procedures that address how to determine fair value. Typically, most asset owners value these assets based on their last quarterly valuation, adjusted for capital activity. This is allowable as long as there is reason to believe the last valuation continues to represent fair value. If there have been any material economic- and/or investment-specific events that would alter the valuation significantly, firms must adjust the valuation accordingly. Additionally, if asset owners choose to use estimated values as fair values, they must consider requirements included in the section Estimated versus Final Values of the Guidance Statement on Alternative Investment Strategies and Structures. Further information can also be found in the GIPS Handbook discussion of provisions 6.A.1 through 6.A.5 and 7.A.1 through 7.A.2 as well as the GIPS Valuation Principles.

“The GIPS standards have been invaluable to STRS Ohio and demonstrate our commitment to calculate and report investment performance using the highest professional industry standards.”

—Lynn Hoover, Controller, State Teachers Retirement System of Ohio

**Calculating Performance**
In the case of asset owners, similar to investment managers, the total return must be calculated using a time-weighted return (“TWR”), which removes the effects of external cash flows. If the private equity asset class is shown as a stand-alone return, it may be appropriate to also include a money-weighted return (“MWR”), which includes the impact of the timing of external cash flows. Asset owners may also present MWRs of the total fund, if they wish to do so.

Asset owners must present the net-of-fees return that is net of all costs associated with the management of the assets including external manager fees and internal investment management costs. This requirement differs from the traditional GIPS standards that allow firms to choose if net-of-fees returns are included in a compliant presentation. Furthermore, this requirement may be a change for some asset owners compared to how net-of-fees returns have been previously calculated. Determining investment management
Costs for internally managed assets can be challenging. In addition to all investment management costs for portfolio management, it may also involve a pro-rata share of overhead and other related costs and fees, including data valuation fees, investment research services, custodian fees, pro-rata share of overhead such as building and utilities, allocation of non-investment department expenses such as human resources, communications, technology, performance measurement and compliance services. These investment management costs must be deducted when calculating net-of-fees returns. The rationale for requiring returns to be net-of-investment management costs is because these are the costs for managing assets internally, and it is important for the oversight board to understand the real return that the fund has earned after all costs to generate the returns are considered.

The challenge for many asset owners will be to ensure that all of the applicable manager fees and internal costs are appropriately applied to the total fund return both historically and prospectively. Ideally, the asset owner will have detailed documentation and accompanying payment information or financials for all relevant fees. Understandably, many asset owners do not capture all of the relevant fees and costs in the total fund performance currently presented to their committees or boards. In light of the Guidance Statement requirements, a basis-point adjustment may be applied to these returns to remedy any shortfalls in the required returns. Asset owners may also consider using accruals or actual fee transactions for ongoing support of appropriate gross-of-fee and net-of-fee calculations. Often a combination of both methods, basis point adjustments and accounting transactions, may be required to fulfill the net-of-fee requirements.

In addition to presenting a net-of-fees return, asset owners may choose to present other return options, including:

- The full gross-of-fees return, which does not deduct externally managed, pooled, fund management fees and may only be presented as supplemental information. In practice, this is a grossed-up return
- The gross-of-fees return, which is the return on investments reduced by management fees for externally managed pooled funds (does not reflect the deduction of management fees charged by external managers for separate accounts)

Example of a return calculation:

<table>
<thead>
<tr>
<th>Return Type</th>
<th>Return Calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Full gross-of-fees return</td>
<td>8.00%</td>
</tr>
<tr>
<td></td>
<td><strong>Included in the Compliant Presentation?</strong></td>
</tr>
<tr>
<td></td>
<td>Supplemental information only*</td>
</tr>
<tr>
<td>2. Gross-of-fees return</td>
<td>8.00% - (0.05%) external fund management fees</td>
</tr>
<tr>
<td></td>
<td>7.95%</td>
</tr>
<tr>
<td></td>
<td>Optional</td>
</tr>
<tr>
<td>3. Net-of-external-fees-only return</td>
<td>7.95% - (0.25%) external separate account management fees</td>
</tr>
<tr>
<td></td>
<td>7.70%</td>
</tr>
<tr>
<td></td>
<td>Optional</td>
</tr>
<tr>
<td>4. Net-of-fees return</td>
<td>7.70% - (0.09%) investment management costs</td>
</tr>
<tr>
<td></td>
<td>7.61%</td>
</tr>
<tr>
<td></td>
<td>Required</td>
</tr>
</tbody>
</table>

* Supplemental information is defined as any performance-related information included as part of a compliant presentation that supplements or enhances the required and/or recommended provisions of the GIPS standards.
Did You Know?

Applying a monthly fee in basis points will result in the same standard deviation for net-of-fees and gross-of-fees returns. For example, a three-month gross-of-fees return series is:

<table>
<thead>
<tr>
<th>JANUARY</th>
<th>FEBRUARY</th>
<th>MARCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.20%</td>
<td>1.60%</td>
<td>3.10%</td>
</tr>
</tbody>
</table>

If the annual fee for externally managed assets is 30 basis points (bps), and the annual internal investment costs are 9 bps, the total annual fees are 39 bps and the monthly fee is 3.25 bps (39 bps divided by 12). Each monthly return is reduced by 0.0326% to arrive at the following net-of-fees return series (rounded to the nearest basis point):

<table>
<thead>
<tr>
<th>JANUARY</th>
<th>FEBRUARY</th>
<th>MARCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.17%</td>
<td>1.57%</td>
<td>3.07%</td>
</tr>
</tbody>
</table>

The standard deviation of each respective return series is 0.62%. This concept applies to the calculation of two statistics in the GIPS compliant presentation: dispersion and three-year annualized ex-post standard deviation. If an asset owner is netting down a return stream using a consistent fee in a percentage form applied monthly, the calculation of dispersion and three-year annualized ex-post standard deviation will be the same if using the pre-fee or post-fee return series.

- The net-of-external-fees-only return, which is reduced by all external management fees
- The money-weighted return for an asset class or the total fund. In some cases, local regulations may require an asset owner to report MWR in financial statements. It is recommended that an asset owner present a MWR if the asset owner believes it would be helpful and important in understanding the performance of the total fund. Any MWR should be net-of-fees

Prospective Clients and Compliant Presentations

Another fundamental of the GIPS standards is provision 0.A.9, which requires that firms must make every reasonable effort to provide a compliant presentation to all prospective clients. A compliant presentation is a composite-specific report that includes all of the information required by the GIPS standards for that composite. Typically a compliant presentation includes a table with numerical information about the composite and benchmark, along with a series of disclosures. The periods of performance presented depend on the period for which the asset owner claims compliance. For example, if the asset owner initially claims compliance for a one-year period, only one year of information would be included in the compliant presentation. The following year, the asset owner would add an additional year so that two years of information are included. This would continue up until a minimum of ten years of compliance are met. While most asset owners considered by the Guidance Statement do not compete for prospective clients, some are actively in competition with other plans to consolidate assets under a single entity for operational and cost efficiencies. Regardless of their status, asset owners must comply with all requirements of the GIPS standards, including preparing and presenting compliant presentations. For asset owners that do not have prospective clients, rather than provide the compliant presentations to prospective clients, they must make every reasonable effort to provide it to those who have direct oversight responsibility for total fund assets. An updated version of the compliant presentation must be provided at least once every 12 months thereafter. If any additional composites have been created, their compliant presentations must also be presented to those who have direct oversight responsibility for total fund assets.

Asset owners that wish to have broader distribution of compliant presentations may include them on their websites, in their annual reports, in their newsletters, or in other distributed materials. Asset owners may make reference to their claim of compliance in accordance with the GIPS Advertising Guidelines, which are a set of optional, abbreviated disclosure and presentation requirements for advertising performance, when mentioning a claim of GIPS compliance. These guidelines only apply to firms that already satisfy all the requirements of the GIPS standards on a firm-wide basis.
Below is an example of a GIPS compliant presentation for an asset owner that chose to attain compliance since January 1, 2008 and has been verified.

### State Retirement Pension Plan—Total Fund Composite
1 January 2008 through 31 December 2017

<table>
<thead>
<tr>
<th>YEAR</th>
<th>TOTAL FUND GROSS OF FEES RETURN %</th>
<th>TOTAL FUND GROSS OF FEES MONEY-WEIGHTED RETURN %</th>
<th>TOTAL FUND NET OF EXTERNAL COSTS ONLY RETURN %</th>
<th>TOTAL FUND NET OF FEES RETURN %</th>
<th>BENCHMARK RETURN %</th>
<th>% of EXTERNALLY MANAGED ASSETS</th>
<th>TOTAL COMPOSITE ASSETS EQUALS TOTAL FIRM ASSETS ($ millions)</th>
<th>TOTAL FUND NET OF FEES %</th>
<th>BENCHMARK %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>12.53</td>
<td>12.59</td>
<td>12.30</td>
<td>12.19</td>
<td>11.92</td>
<td>86%</td>
<td>50,655</td>
<td>4.04</td>
<td>4.38</td>
</tr>
<tr>
<td>2016</td>
<td>7.41</td>
<td>-</td>
<td>7.23</td>
<td>7.11</td>
<td>8.23</td>
<td>87%</td>
<td>49,732</td>
<td>4.24</td>
<td>4.61</td>
</tr>
<tr>
<td>2015</td>
<td>-0.68</td>
<td>-0.56</td>
<td>-0.92</td>
<td>-1.02</td>
<td>-1.38</td>
<td>87%</td>
<td>48,565</td>
<td>4.25</td>
<td>4.30</td>
</tr>
<tr>
<td>2014</td>
<td>5.26</td>
<td>5.69</td>
<td>5.02</td>
<td>4.91</td>
<td>5.66</td>
<td>88%</td>
<td>47,943</td>
<td>3.89</td>
<td>4.12</td>
</tr>
<tr>
<td>2013</td>
<td>8.27</td>
<td>8.24</td>
<td>8.01</td>
<td>7.91</td>
<td>4.02</td>
<td>86%</td>
<td>47,107</td>
<td>4.65</td>
<td>5.27</td>
</tr>
<tr>
<td>2012</td>
<td>11.42</td>
<td>11.46</td>
<td>11.09</td>
<td>10.96</td>
<td>10.41</td>
<td>88%</td>
<td>46,241</td>
<td>6.21</td>
<td>6.78</td>
</tr>
<tr>
<td>2011</td>
<td>2.40</td>
<td>2.44</td>
<td>1.98</td>
<td>1.86</td>
<td>2.25</td>
<td>89%</td>
<td>45,808</td>
<td>8.07</td>
<td>10.97</td>
</tr>
<tr>
<td>2010</td>
<td>15.01</td>
<td>14.91</td>
<td>14.48</td>
<td>14.40</td>
<td>11.62</td>
<td>95%</td>
<td>45,432</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>18.02</td>
<td>17.83</td>
<td>17.41</td>
<td>17.33</td>
<td>22.97</td>
<td>97%</td>
<td>44,837</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All returns and composite asset values are presented in U.S. Dollars.

Footnotes 1,2,3: Total Fund performance is calculated monthly using time-weighted rates of return and reflects the deduction of transaction costs. Returns are net of brokerage commissions, expenses related to trading, and applicable foreign withholding taxes on dividends, interest, and capital gains.

1. Returns calculated “gross of fees” are net of transaction costs and actual external investment management fees for pooled funds. These returns are reported by BNY Mellon as “gross of fees.”

2. Returns calculated “net of external costs only” are net of transaction costs and actual investment management fees, including performance fees, for externally-managed assets. These returns are reported by BNY Mellon as “net of fees.”

3. Returns calculated “net of fees,” as defined by GIPS, are net of transactions costs, actual external investment management fees, including performance fees and actual internal Investment Division and other agency overhead costs. These returns are reported by BNY Mellon as “net of fees and expenses.”

4. Returns calculated “gross of fees money-weighted return” are calculated yearly using money-weighted returns that are net of actual external investment management fees for pooled funds. Returns are net of brokerage commissions, expenses related to trading, and applicable foreign withholding taxes on dividends, interest, and capital gains. These returns are reported by BNY Mellon as “Internal Rate of Return (IRR).”

The 10-year annualized gross of fee money-weighted return is 5.16% as of 31 December 2017. State Retirement Pension Plan ("SRPP") claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. SRPP has been independently verified for the periods from 1 January 2008 through 31 December 2011.

Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm’s policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. The Total Fund Composite has been examined for the periods from 1 January 2008 through 31 December 2017. The verification and performance examination reports are available upon request.

**Accompanying Notes**

1. For the purpose of complying with the GIPS standards, the firm is defined as the State Retirement Pension Plan ("SRPP"), which was established in 1986 by the State and is the manager of the assets of the State Retirement Pension Plan. The Total Fund was created and inceptioned in 1986.

2. The Total Fund Composite includes all discretionary assets managed by SRPP for the benefit of participants in the State Retirement Pension Plan. The Total Fund blended benchmark is calculated monthly using a blend of the asset-class benchmarks based on the Total Fund’s strategic weights for the respective asset classes. Each asset class utilizes a total-return benchmark. The asset-class weights listed below are as of 31 December 2015. Information for benchmark strategic weights and asset-class weights for other periods is available upon request.

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Benchmark*</th>
<th>Benchmark Weight (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Equity</td>
<td>Russell 3000 Index</td>
<td>20</td>
</tr>
<tr>
<td>Non-US Developed Equity</td>
<td>MSCI EAFE Net Index</td>
<td>20</td>
</tr>
<tr>
<td>Emerging Markets Equity</td>
<td>MSCI Emerging Markets Net Index</td>
<td>10</td>
</tr>
<tr>
<td>U.S. Fixed Income</td>
<td>Bloomberg Barclays U.S. Aggregate Index</td>
<td>30</td>
</tr>
<tr>
<td>Global High Yield</td>
<td>ICE BofAML US High Yield Master II Index</td>
<td>10</td>
</tr>
<tr>
<td>Real Estate</td>
<td>NCREIF Property Index</td>
<td>5</td>
</tr>
<tr>
<td>Private Equity</td>
<td>Russell 3000 Index + 5% per year</td>
<td>3</td>
</tr>
<tr>
<td>Cash</td>
<td>ICE BofAML US Corp 3-Month Treasury Bill Index</td>
<td>2</td>
</tr>
</tbody>
</table>

* Benchmark Notes

“Russell” service marks and trademarks and other service marks related to the FTSE or Russell indexes are trademarks of the London-Stock Exchange Group companies. MSCI: Copyright MSCI 2018. All Rights Reserved. Bloomberg: Copyright Bloomberg 2018. All Rights Reserved. IICE Benchmark Administration Limited (IBA): Copyright IICE 2018. All Rights Reserved. NCREIF: All NCREIF Data - Copyright by the National Council of Real Estate Investment Fiduciaries.

3. The assets of SRPP are managed in accordance with the risk budget for the Total Fund and the individual asset-classes. The investment objective for the Total Fund is to earn, over moving twenty-five-year periods, an annualized return that equals or exceeds the actuarial rate of return, approved by the State Retirement Pension Board (“Board”) to value the liabilities of SRPP. As of 31 December 2017, the actuarial rate of return is 7.0%. SRPP hires external managers to actively manage selected portfolios. The percent of externally managed assets for the Total Fund was 87% as of 31 December 2017.

4. Policies for valuing portfolios, calculating performance and preparing compliant presentations are available upon request.

5. The Total Fund Composite includes all individual portfolios that are combined into one aggregate portfolio. The performance of the combined portfolio reflects the overall mandate of the plan. Because the Total Fund Composite is one aggregate portfolio for all periods, no measure of internal dispersion of annual portfolio returns is presented. Because the Total Fund Composite represents 100% of the assets managed by SRPP, this presentation represents SRPP’s list of composite descriptions.

6. The three-year annualized ex-post standard deviation measures the variability of the composite and the benchmark for the 36-month period. This measure is not required for periods ended prior to 31 December 2011.

7. SRPP does not employ the use of leverage, derivatives or shorts at the Total Fund level.
Error Correction

All GIPS compliant firms must devise policies to address errors in performance and performance-related information found in a compliant presentation. Errors are not uncommon and can happen due to many different reasons such as input errors, prior period adjustments, calculation errors, composite construction errors, missed trades, valuation or pricing errors, incorrect benchmark calculations, etc. Because of the potential for many minor adjustments to the contents of a compliant presentation, firms must define a level of materiality whereby certain action will be taken. The size impact, and materiality of the error can vary based on multiple factors such as asset class, length of reporting period, and how recent the time period was impacted, among others. If a material error is discovered, the compliant presentation must be updated with corrected information, the error disclosed and the new information redistributed.

If an asset owner discovers a material error, every reasonable effort must be made to provide the corrected compliant presentation to those who have direct oversight responsibility for total fund assets, and other parties that received the erroneous compliant presentation, including consultants and verifiers. Traditionally, firms with prospective investors have viewed the determination of materiality through the lens of whether or not an error may have affected a prospective client's decision to invest. Because most asset owners do not have prospective clients, materiality should be viewed from the perspective of the stakeholders that receive the compliant presentation. Specifically, materiality levels should be based on the point at which those stakeholders should receive the corrected information. The Guidance Statement on Error Correction contains more detailed information and discussion on how to define materiality.

In practice, many asset owners restate performance for all material and non-material errors, which makes documenting an error correction policy a fairly straightforward exercise. In practice, it is fairly common for asset owners to provide restatements of previously published returns if any errors occur, regardless of materiality. Often, when working with private equity or other illiquid investments, the valuations for year-end or quarter-end are lagged. Common practice among asset owners with significant investments in such asset classes, is to update market values and performance records upon receipt of the lagged prices and/or valuations.

Recordkeeping Practices

The recordkeeping requirements of the GIPS standards are the same regardless of the type of firm or organization that claims compliance. The GIPS standards require firms to capture and maintain the data and information needed to support all items included in their compliant presentations. For performance purposes, this includes records that are sufficient to recalculate the returns such as valuation reports, transactions including external cash flows, management fees, and accrued income details. It is not uncommon for asset owners to receive data, such as returns and valuations, from an external source, and/or utilize a third party to provide outsourced services (e.g., sub-advisor, custodian, performance measurement) who are likely to make available or provide the reports necessary to support performance. As is the case for all firms using external managers and service providers, an asset owner claiming compliance with the GIPS standards is responsible for ensuring that the data received from various external sources is accurate and meets the requirements of the GIPS standards.
For most asset owners, becoming GIPS compliant is essentially getting the “work house” in order and organized. Asset owners generally are in favor of following industry best practices on behalf of their investors, but assets owners must also consider the benefit of compliance relative to the work involved in becoming and maintaining compliance. Although the landscape of asset allocations, investment vehicles and operational environments may vary greatly across asset owners, the process of becoming GIPS compliant follows a well-worn path.

1. Planning Phase

In order to attain compliance with the GIPS standards, asset owners should determine the resources required to see the process through from start to completion, and should also consider any needed ongoing support. Asset owners will need to determine if the expertise is available internally, or if that expertise will need to come from outside sources. In most cases, it will be a mix of internal and external expertise in the GIPS standards, performance measurement and project management. Regardless of the decision to use internal or external resources, determining an overall budget may be difficult without understanding the full scope of work.

GIPS Education Recommendations:

Begin by reviewing and understanding the GIPS standards, the Guidance Statements, and accompanying GIPS terminology.

1. Internally: Assign responsibility to at least one person in the organization to become your GIPS expert.

2. Externally: Evaluate verification firms or service providers that you could partner with if you do decide to outsource some of the expertise. Even if you ultimately decide to manage the process internally, meeting with potential partners will provide some insights into how other asset owners are approaching these challenges.

Determining how an asset owner will define the “firm” and the portfolios that are included is instrumental in determining the complexity of the project. To determine the scope of the project, the asset owner needs to understand the current procedures for calculating performance, including the integrity of the accounting data, the performance measurement methodology used, and the types of gross-of-fees and net-of-fees returns already available. For most asset owners, inclusion of all internal investment management costs in the total net-of-fees returns will require new calculations and may also require additional documentation to support the investment management costs reflected in the net-of-fees returns.

Another consideration for asset owners is the required disclosure for the use and extent to which leverage, derivatives, and short positions may be used, and have been used, within the total fund. Asset owners may use multiple ways to analyze this information, including both performance and exposure reporting. While not required to be disclosed in compliant presentations, asset owners may wish to disclose the percentage of assets that are externally managed. This percentage is typically maintained by creating a tracking mechanism for these accounts and procedurally validated on a monthly basis against any new or terminated external manager accounts.

Finally, asset owners should determine the adequacy of existing policies and procedures for calculating and reporting performance, and if they suffice or need to be enhanced.

Planning Checklist:

- Educate the relevant staff about the GIPS standards.
- Determine the resources and budget based on firm definition and which funds/assets fall within that scope, including any externally-managed assets.
- Begin a GIPS Manual to document procedures and methodology for calculating performance, both current and historical, for the applicable time period.
- Develop a plan for determining internal investment-management costs and the methodology to incorporate into the net-of-fees return.
- Consolidate internally and externally managed assets.
- Investigate how and to what extent each manager uses leverage.
- Determine the period of compliance (one year or longer).

Verification is a process by which an independent verifier assesses whether (1) the firm has complied with all the composite-construction requirements of the GIPS standards on a firm-wide basis and (2) the firm’s policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. A performance examination is a detailed examination of a specific composite’s compliant presentation by an independent verifier. Neither verification nor performance examinations are required in order to achieve GIPS compliance.
2. Documentation Phase
To start creating the GIPS Manual, the asset owner should reach out to software providers, custodians, performance providers and internal business partners to collect their documentation on calculation methodologies, accounting methods, and sources for valuation and pricing hierarchies. All of this is valuable information to include in the GIPS Manual and provides an ideal opportunity to ensure the documentation is adequate for other purposes, such as internal audits.

Next, the asset owner will need to document all of the processes used to calculate or validate the GIPS composite returns. Typically, the process documentation for the close of a month-end and subsequent performance calculations is a great place to start. In the case of most asset owners, this will be a total fund, as noted earlier.

3. Calculation and Reporting Phase
Finally, the asset owner can calculate the composite returns and present the data in the required format. The asset owner must calculate the total fund and benchmark returns and the other performance-related statistics that are required to be presented.

From a practical perspective, the following items should be considered by asset owners:

- How will net-of-fees returns be calculated? Will the data be supported via transactions representing the fees and expenses? Is the transaction activity included in the total-fund records? Will the gross returns receive a basis-point reduction? Will basis points be applied monthly, quarterly or yearly?

- If net-of-fees returns are not available historically, what process will the asset owner use to create historical returns, if applicable? Will the process of calculating historical net-of-fees returns differ from the current or future processes?

- How will the percentage of externally-managed assets be calculated? Are the externally-managed assets all-inclusive in single accounts? From a process perspective, will a consolidation of any externally managed assets be maintained and reviewed on a periodic basis?

- How will the asset owner support the disclosure for the use of derivatives in the plan? What procedural changes are required to support this review?

- What is the process for documenting and updating policy benchmark changes? How does the asset owner maintain and confirm this information?

- What kinds of documents will the asset owners maintain to complete verification? Where will source data be saved for verification purposes? Is the data readily available to query?

---

### Did You Document?

- Total plan policy benchmarks including the underlying benchmarks and weights, both current and historical.
- Method, source and frequency for calculating the required total net-of-fees returns, inclusive of manager fees and investment management costs.
- Timing and inclusion of all appropriate portfolios in the total fund composite for the period of compliance.
- Historical changes to asset allocation, investment policies, calculations and procedures.
- Timing of valuation updates for private investments and other illiquid assets.
- Error correction and restatement policy for your firm.
- Record retention requirements, especially if there has been a change to systems, vendors and/or upgrades that may materially change the amount or frequency of transferred data and/or material changes to capabilities and functionality.
Q. CAN YOU EXPLAIN THE BIGGEST OBSTACLES IN THE PROCESS OF AN ASSET OWNER BECOMING GIPS COMPLIANT?
A. The biggest hurdle is ensuring proper education, buy-in, and the availability of sufficient resources such as internal staff dedicated to the project, external service providers, performance software, availability of records, etc. The upfront effort to establish robust policies and procedures to make the claim of GIPS compliance is a significant undertaking.

Q. CAN ASSET OWNERS ONLY COMPLY WITH THE GUIDANCE STATEMENT ON THE APPLICATION OF THE GIPS STANDARDS TO ASSET OWNERS OR DO THE REST OF THE GIPS STANDARDS APPLY?
A. Asset owners must follow the Guidance Statement as well as all of the other applicable GIPS requirements. The purpose of the Guidance Statement is to help clarify certain requirements and provide interpretation specific to asset owners.

Q. DO ASSET OWNERS HAVE TO PRESENT A COMPLIANT PRESENTATION TO THE PLAN BENEFICIARIES?
A. No, but it must be provided upon request.

Q. INVESTMENT CONSULTANTS HAVE MANY ASSET OWNERS AS CLIENTS. CAN CONSULTANTS, CUSTODIANS, OR SOFTWARE PROVIDERS CLAIM COMPLIANCE WITH THE GIPS STANDARDS?
A. No. In order to claim GIPS compliance, a firm must have discretion over the assets under management.

Q. CAN ASSET OWNERS CLAIM GIPS COMPLIANCE ON THEIR WEBSITE OR IN OTHER MATERIALS?
A. Yes, an asset owner may choose to claim GIPS compliance on their website, in the Comprehensive Annual Financial Report (CAFR) or other materials. Asset owners may include a compliant presentation or may instead follow the GIPS Advertising Guidelines.

Q. IS THERE A RECOMMENDED APPROACH FOR CALCULATING HISTORICAL INVESTMENT MANAGEMENT COSTS AND HOW IT IS APPLIED TO ARRIVE AT A NET-OF-FEES RETURN?
A. For asset owners bringing more than one year into compliance, there is no recommended approach for historical periods where net-of-fees returns may not include all fees incurred by the firm. A deduction of basis points from the gross-of-fees return may be the most appropriate course of action. An asset owner will need to provide yearly documentation of the fee amounts to substantiate the basis-point deduction applied.

Q. CAN YOU CREATE A RETROACTIVE POLICY AND PROCEDURES MANUAL?
A. When firms and organizations first come into compliance with the GIPS standards, it is common that a GIPS policy manual is created for the first time. This manual must cover policies and procedures related to the time period for which the organization plans to claim compliance. It will include historical information if policies and/or procedures have changed over time.

Q. IS THE ASSET OWNER REQUIRED TO RESTATE PERFORMANCE WHEN UPDATED VALUATIONS FOR ALTERNATIVE ASSETS ARE RECEIVED?
A. The GIPS policy manual must include policies for how the asset owner deals with estimated portfolio valuations. This concept is discussed in the Guidance Statement on Alternative Investment Strategies and Structure which allows three options on estimated versus final values:
1. Use the estimated values of the underlying funds to determine fair value.
2. Use the last available historical final values of the underlying funds to determine fair value.
3. Only publish compliant presentations after final valuations have been received.

If a firm chooses Option 1 or 2, it must assess the difference between the value used and the final value on composite assets, firm assets and performance. If the difference is significant enough to require adjustments, then the change must be viewed through the lens of the firm's error correction policy.

Q. DO THE EXTERNAL MANAGERS HIRED BY AN ASSET OWNER NEED TO BE GIPS COMPLIANT IN ORDER FOR THE ASSET OWNER TO BE GIPS COMPLIANT?
A. No. However, it is the responsibility of the asset owner to ensure that data received from external sources is accurate and meets the requirements of the GIPS standards.

Q. CAN A PERFORMANCE PROVIDER/SYSTEM CALCULATE A “GIPS COMPLIANT RETURN” FOR AN ASSET OWNER?
A. Yes, a third party may provide what is effectively a GIPS compliant return that is then used by the asset owner. The third party providing the data may not claim compliance with the GIPS standards.
Helpful Resources

- GIPS website: http://www.gipsstandards.org
- 2010 edition of the GIPS standards
- Proposed Guidance Statement on the Application of the GIPS Standards for Asset Owners, updated August 1, 2016
- Local performance country sponsor organizations:
  - U.S. Investment Performance Council (USIPC)
  - Canadian Investment Performance Council (CIPC)
- GIPS helpdesk: gips@cfainstitute.org

IF YOU HAVE ANY QUESTIONS REGARDING THIS WHITEPAPER, PLEASE CONTACT:

Hope E. Celani, CIPM
Lead Consultant, Global Risk Solutions, BNY Mellon
Tel: 416.775.5451
hope.celani@bnymellon.com

Alicia A. Hyde, CIPM
Partner, ACA Performance Services
Tel: 866.279.0750
ahyde@acacompliancegroup.com

ABOUT BNY MELLON
BNY Mellon is a global investments company dedicated to helping its clients manage and service their financial assets throughout the investment lifecycle. Whether providing financial services for institutions, corporations or individual investors, BNY Mellon delivers informed investment management and investment services in 35 countries and more than 100 markets. As of June 30, 2016, BNY Mellon had $29.5 trillion in assets under custody and/or administration, and $1.7 trillion in assets under management. BNY Mellon can act as a single point-of-contact for clients looking to create, trade, hold, manage, service, distribute or restructure investments. BNY Mellon is the corporate brand of The Bank of New York Mellon Corporation (NYSE: BK). Additional information is available on bnymellon.com. Follow us on Twitter @BNYMellon or visit our newsroom at www.bnymellon.com/newsroom for the latest company news.

Learn more at www.bnymellon.com. Follow us on Twitter @BNYMellon or visit our newsroom at www.bnymellon.com/newsroom for the latest company news.

ABOUT ACA PERFORMANCE SERVICES
ACA Performance Services, a division of ACA Compliance Group, offers GIPS® verification and other investment performance services to investment managers across the globe. In June 2017, ACA Performance Services acquired the investment performance practice of Ashland Partners uniting the top two GIPS verification firms in the world. With over 70 consultants, ACA Performance Services is the largest team of professionals solely dedicated to GIPS verification and investment performance services.

For more information, visit http://www.acacompliancegroup.com/performance.
BNY Mellon is the corporate brand of The Bank of New York Mellon Corporation and may be used as a generic term to reference the corporation as a whole and/or its various subsidiaries generally. This material and any products and services may be issued or provided under various brand names in various countries by duly authorized and regulated subsidiaries, affiliates and joint ventures of BNY Mellon.

The material contained in this white paper, which may be considered advertising, is for general information and reference purposes only and is not intended to provide or be construed as legal, tax, accounting, investment, financial or other professional advice on any matter, and is not to be used as such. This white paper is a financial promotion. This white paper, and the statements contained herein, are not an offer or solicitation to buy or sell any products (including financial products) or services or to participate in any particular strategy mentioned and should not be construed as such. This white paper is not intended for distribution to, or use by, any person or entity in any jurisdiction or country in which such distribution or use would be contrary to local law or regulation. Similarly, this white paper may not be distributed or used for the purpose of offers or solicitations in any jurisdiction or in any circumstances in which such offers or solicitations are unlawful or not authorized, or where there would be, by virtue of such distribution, new or additional registration requirements. Persons into whose possession this white paper comes are required to inform themselves about and to observe any restrictions that apply to the distribution of this document in their jurisdiction. To help us continually improve our service and in the interest of security, we may monitor and/or record telephone calls. The information contained in this white paper is for use by wholesale clients only and is not to be relied upon by retail clients.

Any discussion of tax matters contained in this white paper is not intended to constitute tax advice and is not intended or written to be used, and cannot be used, for the purpose of avoiding tax or penalties imposed under the United States Internal Revenue Code or promoting, marketing or recommending to another party any transaction or matter. For tax advice, you should consult an independent tax advisor for advice based on your particular facts and circumstances.

The contents may not be comprehensive or up-to-date, and BNY Mellon will not be responsible for updating any information contained within this white paper. Some information contained in this white paper has been obtained from third party sources and has not been independently verified. BNY Mellon makes no representation as to the accuracy or completeness of the information provided in this white paper. BNY Mellon recommends that professional consultation should be obtained before using any service offered by BNY Mellon.

The views expressed within this white paper are those of the contributors only and not those of BNY Mellon or any of its subsidiaries or affiliates. BNY Mellon assumes no liability whatsoever (direct or consequential or any other form of liability) for any action taken in reliance on the information contained in this white paper, or for resulting from use of this white paper, its content, or services. Any unauthorized use of material contained in this white paper is at the user’s own risk. Reproduction, distribution, republication and retransmission of material contained in this white paper is prohibited without the prior consent of BNY Mellon.

Trademarks, service marks and logos belong to their respective owners.

©2018 The Bank of New York Mellon Corporation. All rights reserved.