Total Plan

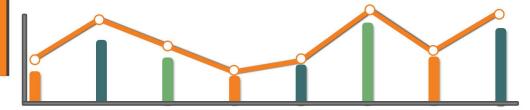
BENCHMARK



PSERS Total Plan
Benchmark is a
weighted combination
of individual asset
class benchmarks,
reflecting the
diversification of
PSERS' asset
allocation.

What is a Total Plan Benchmark?

A Total Plan Benchmark is used to measure the performance, risk, and effectiveness of the implementation of a plan's asset allocation. The Total Plan Benchmark typically consists of a weighted combination of the benchmarks of underlying asset classes. It is a representation of the asset allocation as if it were invested in a passive implementation of the component asset classes.



Why do we use a Total Plan Benchmark?

Without benchmarks, it is very difficult to interpret a portfolio's performance.

Different asset classes (such as stocks and bonds) will respond to the same market forces very differently during the same investment period. Because of these differences, it is important to measure the performance of a reference portfolio for the asset allocation in order to correctly interpret the Total Plan performance.

Good Characteristics of Benchmarks

Benchmarks share several characteristics including*:

- Specified in advance of investing
- Appropriate provides broad market coverage
- Measurable returns readily calculable on a reasonably frequent basis
- **Unambiguous** benchmark construction and weights of securities are clearly defined
- Reflective of investment style employed
- Accountable accepts accountability for performance consistent with the benchmark
- Investable investor can "purchase" or replicate the benchmark portfolio passively

* As per CFA Institute's SAMURAI characteristics. The criteria commonly referenced as industry standard is based on research conducted by Jeffrey Bailey and others. Mr. Bailey published an initial paper titled 'Are Manager Universes Acceptable Performance
**The criteria listed above are more easily fulfilled for publicly traded, morel liquid asset classes. Good benchmarks exist for private markets but they are more challenging to identify. Benchmarks?' in the May-June, 1992, edition of the Financial Analysts Journal.