



Investment Performance Attribution

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San Bernardino County Employees'
Retirement Association

Agenda

- What is Investment Performance Attribution?
- How does it work?
- What it does and doesn't tell us.



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Summary

Attribution analysis shows which **active** investment decisions contributed to the excess return relative to a portfolio benchmark.

Attribution Analysis

Positives

- Easy to interpret
- Connected to active investment decisions
- Mathematically robust

Limits

- Focuses only on active return (excess vs policy)
- Changing the benchmark changes the attribution
- Not risk adjusted

Attribution Analysis Defined

Investment Attribution

Describes the excess return of a portfolio.

Excess Return

The difference between the portfolio return and the policy return.

Allocation Effect

The difference between the policy allocation and actual allocation.

Structure Effect

The difference between the policy benchmark and the manager benchmark.

Selection Effect

The difference between the portfolio return and the manager weighted benchmarks.

Bottom line

Attribution only measures excess return.

Attribution Categories: Total Plan Excess Return

$(\text{Total Plan} + \text{Overlay}) - (\text{Total Plan Index}) = \text{Total Plan Excess Return}$

Allocation Effect

$(\text{Asset Class Weighted Index}) - (\text{Total Plan Index}) = \text{Allocation Effect}$

- This effect measures any excess return the plan made relative to over/under weighting particular asset classes

Structure Effect

$(\text{Manager Weighted Index}) - (\text{Asset Class Weighted Index}) = \text{Structure Effect.}$

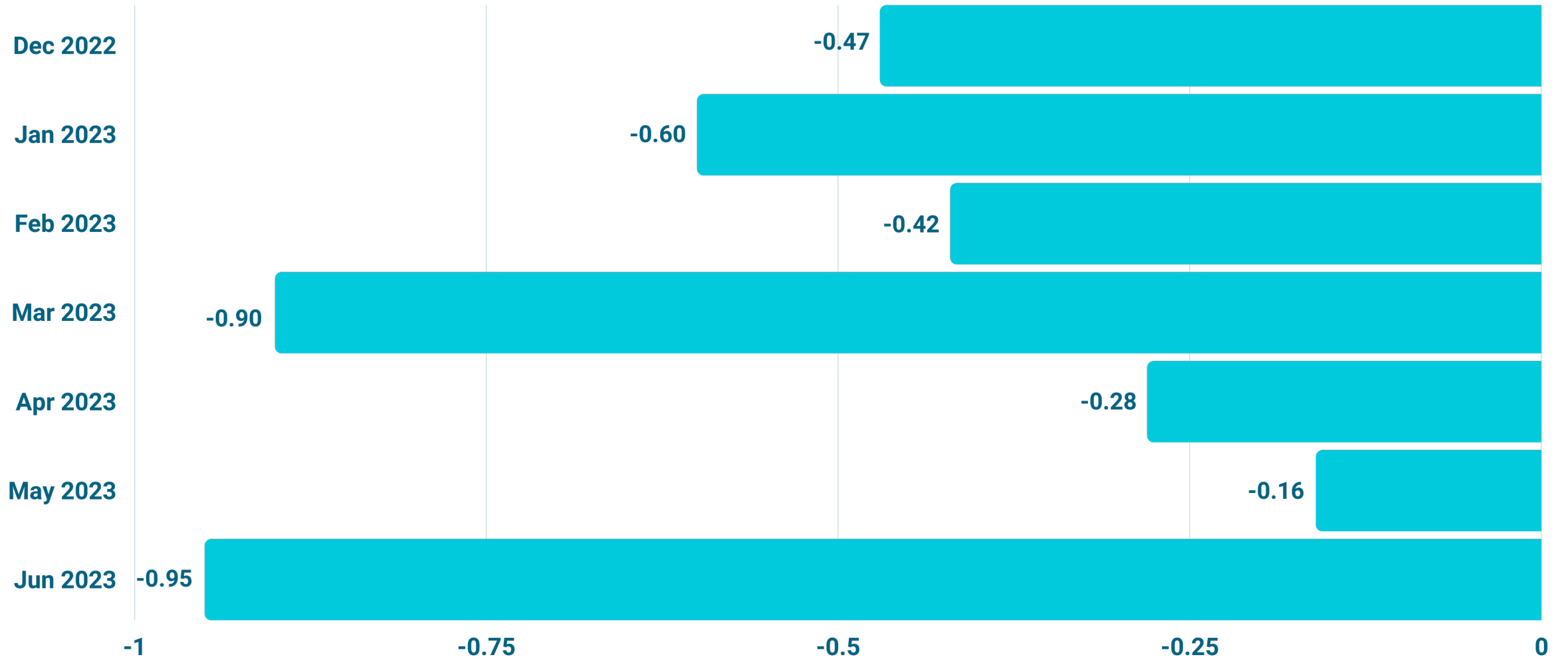
- This effect measures any excess return the plan made relative to manager benchmarks versus asset class benchmarks

Selection Effect

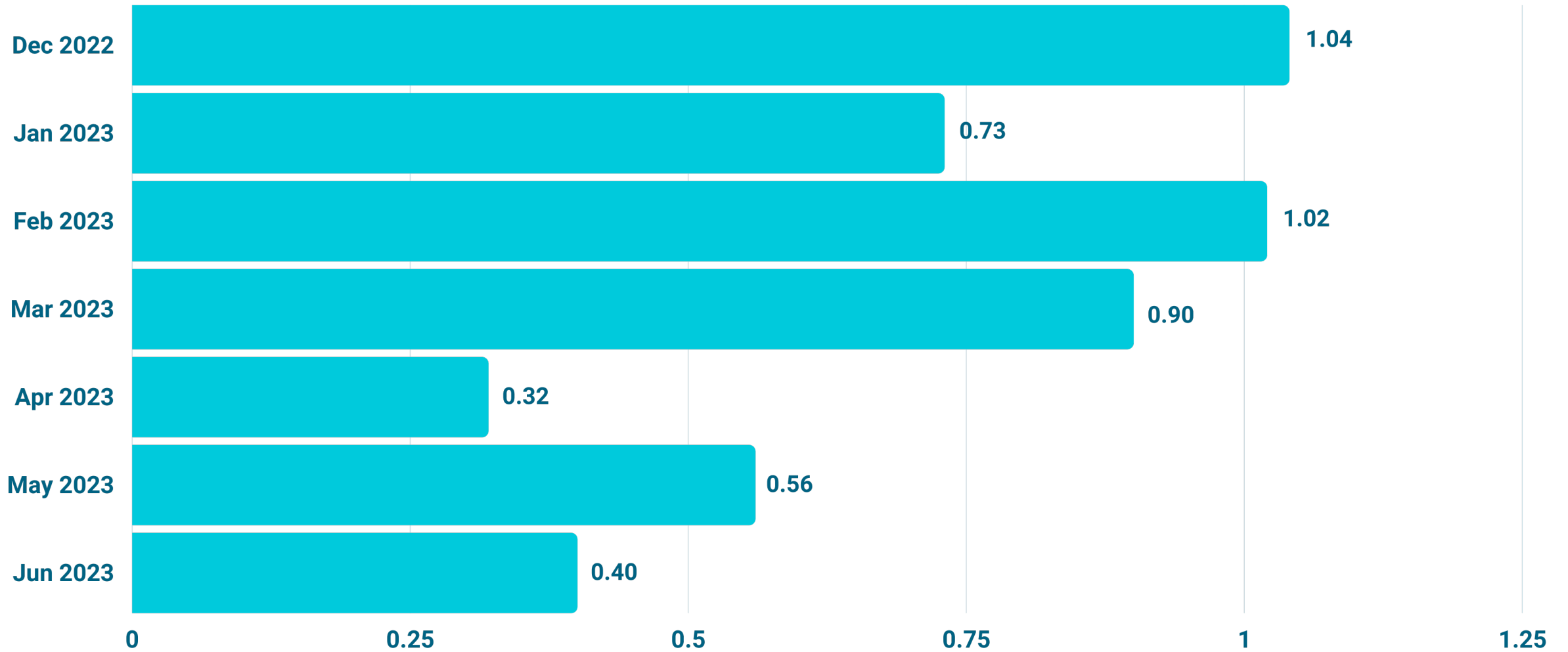
$(\text{Total Plan} + \text{Overlay}) - (\text{Manager Weighted Index}) = \text{Selection Effect}$

- This effect measures any excess return the plan made relative to manager benchmarks versus asset class benchmarks

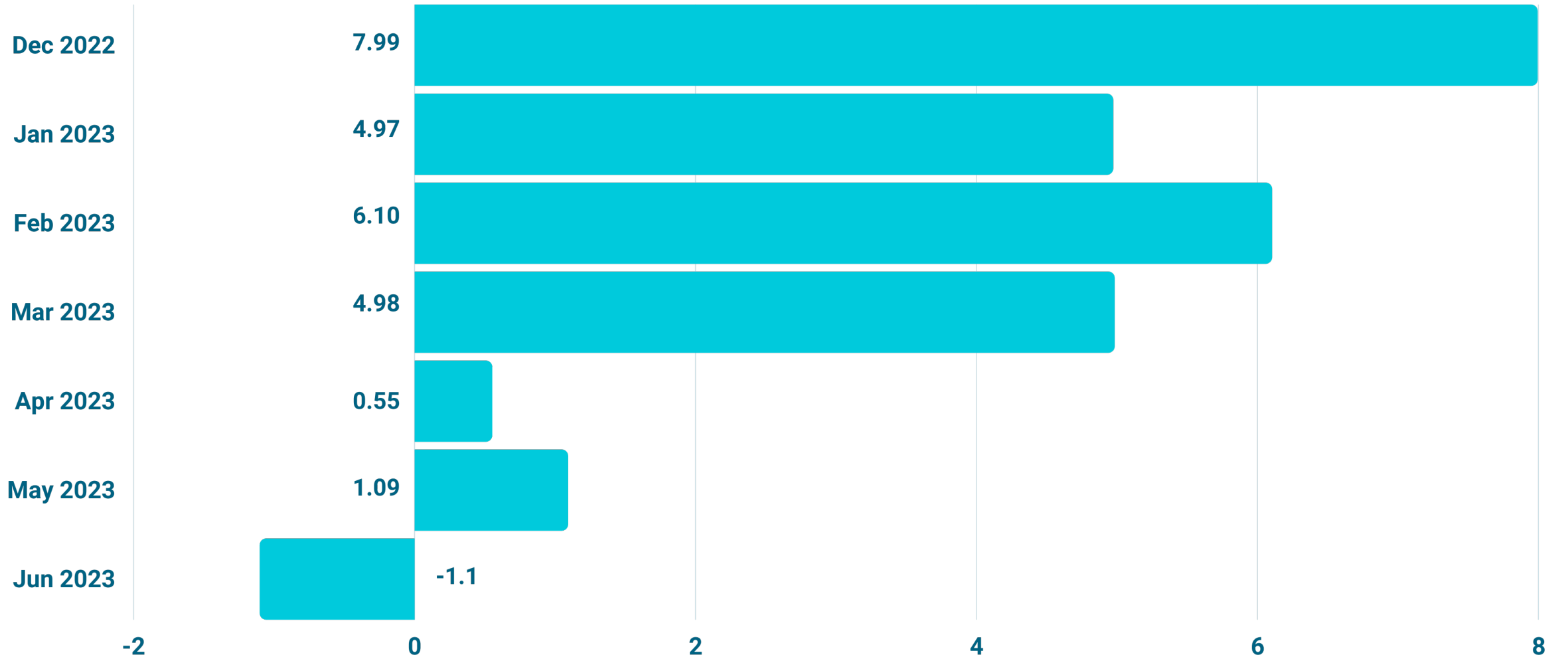
Allocation Effect



Structure Effect



Selection Effect



THANK YOU!