Memorandum

To	Wyoming State Treasurer's Office
From	RVK, Inc. ("RVK")
Subject	Selected Investment Policy Benchmarks
Date	March 2025

Summary

At the request of the State Treasurer's Office ("STO"), and in relation to the October 30, 2024 report on benchmarks to the Wyoming Select Committee on Capital Finance and Investments by Meketa, we are providing this memo to specifically outline our recommendations and rationale with regard to certain performance benchmarks stated in the Master Investment Policy and Sub-Policies of the State of Wyoming State Loan and Investment Board ("SLIB"). We will also provide perspective on what we see commonly used across other client investment policies and performance reports. The specific benchmarks under review include Private Credit, Non-Core Real Estate, Infrastructure, and Opportunistic.

We would echo the notes from Meketa's report that "there is no single "right" benchmark for any asset class," and that further, their review found "that the benchmarks utilized in both reporting, and the incentive compensation process, are all within the bounds of reasonability."

Our recommendation is as follows, with additional discussion provided in the body of this memo:

1) Private Credit – No Change Recommended
2) Non-Core Real Estate – NCREIF ODCE + 150 bps
3) Infrastructure – No Change Recommended
4) Opportunistic – No Change Recommended

Private Credit

Current Benchmark	Bloomberg US Aggregate plus an expected annualized liquidity premium of 400 basis points
Most Common RVK Client Benchmark	S&P UBS Leveraged Loan Index + 2%
Second Most Common RVK Client Benchmark	S&P UBS Leveraged Loan Index + 1.5%
Alternative Recommendation (Meketa Report)	None specifically given, other than there may be opportunities in the future to consider peer benchmarks as more robust data sets are developed.

As private credit is still a nascent asset class for institutional allocators we don't believe there is yet an appropriate peer group benchmark, and would also caution against the use of peer group benchmarks for debt oriented asset classes. We believe peer based benchmarks can lead to a "moral hazard" horse race as competitors increasingly take on more risk to remain competitive. As we value the return of capital plus the agreed upon rate of interest as a primary driver in an asset class with binary outcomes (you do or do not get paid) we prefer the establishment of an appropriate liquidity premium that reflects the intended risk profile of the program.

Our original recommendation was to utilize a bank loan index + 2% premium, consistent with our most common client benchmark. The STO investment staff expressed some concern that utilizing a base public markets index with no duration and a high degree of credit risk could be challenging to keep pace with in markets characterized by rising rates and/or tightening credit spreads as the STO portfolio is structured with modest duration and higher credit quality. Through discussion with the STO, we were able to arrive at a base benchmark that has modest duration and higher credit quality, but with an expected illiquidity premium that would bring the total benchmark long-term return expectations in line with our original recommendation.

Non-Core Real Estate

Current Benchmark	NCREIF – Open-End Diversified Core Equity Index ("ODCE")
Most Common RVK Client Benchmark	NCREIF – Open-End Diversified Core Equity Index ("ODCE")
Second Most Common RVK Client Benchmark	NCREIF – Open-End Diversified Core Equity Index ("ODCE") + 2%
Recommendation (Meketa Report)	Consider adding a value-add component to benchmarking for the non-core portion of real estate portfolio.

We would agree that the NRCEIF-ODCE index, which is a peer group of core real estate funds, is not an accurate reflection of the return levels that should be expected by taking on incremental degrees of risk in non-core funds. Aksia, the STO's real estate advisor, noted at the most recent IFC meeting that they typically see clients utilize a premium of 2% for opportunistic strategies (significant use of leverage and development risk) and a premium of 1% for value added strategies (moderately higher use of leverage and development risk than core). In RVK's capital market assumptions, utilized for the asset allocation modeling presented at the most recent IFC meeting, we assume a well-diversified non-core real estate portfolio with an expected arithmetic return premium of approximately 2% above core real estate returns. We believe that 1.5% is an appropriate return premium expectation for Wyoming's non-core real estate portfolio as it is representative of reasonable expectations for a well-diversified non-core real estate portfolio. We do not believe that anything lower than this level of expected premium would be worth the incremental degrees of risk, illiquidity, and fees associated with non-core real estate relative to core.

Infrastructure

Current Benchmark	10 Year US Treasury Yield + an expected annualized premium of 350 basis points
Most Common RVK Client Benchmark	Consumer Price Index + 4%
Second Most Common RVK Client Benchmark	Consumer Price Index + 3%
Recommendation (Meketa Report)	No recommendation noted

The most common infrastructure benchmark options considered are inflation plus a premium or a public infrastructure equity benchmark. Public equity benchmarks will have significant tracking error to private portfolios, and although they may offer a reasonable long-term performance objective our experience is that the near-term tracking error can be so extreme as to be a significant distraction. As core infrastructure is intended to provide durable income from long-lived, critical to society assets, often with contractual inflation escalators, it is most common to utilize inflation plus a risk premium. This was our first recommendation and the most common approach we see. STO investment staff expressed concerns however with a benchmark tied to CPI due to its lack of investability and the potential for short-term spikes such as was witnessed in 2022. Investment staff also noted the IFC's desire for core infrastructure to play more of a bond-like role in the portfolio. Although we were not comfortable utilizing a bond index plus a premium (as the bond index would often be running counter to inflation trends due to changes in bond process), we were able to settle on a reasonable compromise that utilizes the yield on 10-year US treasuries plus an appropriate premium. We would note the future likelihood that a reasonable peer group benchmark of core, open ended global infrastructure funds, similar to the NCREIF-ODCE for Real Estate, is created. Such an index is not currently available, but we are aware of efforts to develop one and will continue to monitor progress.

Opportunistic

Current Benchmark	Total Fund Performance Excluding Opportunistic Returns and Non-Permanent Funds
Most Common RVK Client Benchmark	Total Fund Excluding Opportunistic
Second Most Common RVK Client Benchmark	Various Custom Indices
Alternative Recommendation (Meketa Report)	Total Fund Policy Benchmark

As there is no policy target allocation to opportunistic investments (only an upper limit), we believe that opportunistic investments should only be made when an opportunity presents itself that STO investment staff believes is materially better than what they are likely to achieve in the rest of the portfolio. This is a simple concept and ties directly to the purpose for making any opportunistic investments. The total fund policy benchmark would also be a reasonable and similar option, but we do not believe it ties as cleanly to the objectives for opportunistic investments.