MarquetteAssociates

To: Cincinnati Southern Railway
From: Brett Christenson, Marquette Associates, Inc., CFA, CFP®
Date: June 26, 2023
Re: Portfolio Return and Risk Scenarios

Recap:

In December 16th, 2021 and May 2nd, 2022 memos, Marquette utilized its asset allocation assumptions to construct three model portfolios to assist the Cincinnati Southern Railway in making some reasonable projections of likelihood of return. In this memo we attempt the same exercise while updating Marquette's asset allocation assumptions from 9/30/21 to 3/31/23.

Please note that our return assumptions slightly change each quarter because we input economic data points into the modeling that may change return and risk assumptions slightly over time. One of the most impactful economic inputs into to our software is the current fed funds rate. Since our last model run for Cincinnati Southern Railway, the fed funds rate has increased from 0% to 5%. With this and other economic changes, our return assumptions for core fixed income the next 10 years has jumped from 1.9% to 4.55%. Current inflation has also changed over this time, from less than 2% to over 6% today. The Federal Reserve is committed to getting inflation back to their long-term target of 2%, so the original portfolios can still be used as reasonable long-term models for decision making.

In this memo we re-run the original 3 investment portfolios using the risk and return assumptions and run 2 new portfolios with a 4% inflation assumption. This inflation assumption is probably high but provides a conservative comparison to the original assumptions that hopefully helps the Board make informed decisions.

Asset Class Return and Risk Projections then and now:

	Sep-21		Mar-23	
	Average 10 Year		Average 10 Year	
Asset Class	Annualized Return	Annualized Volatility	Annualized Return	Annualized Volatility
Core Fixed Income	1.90%	2.90%	4.55%	4.80%
Core Plus Fixed	2.50%	3.10%	5.46%	5.70%
Broad U.S. Equity	7.20%	17.80%	7.00%	16.60%
Broad Non-U.S. Equity	7.40%	24.00%	7.40%	22.40%

Hedge Fund of Funds	5.10%	7.40%	5.27%	7.70%
Core Real Estate	6.50%	5.20%	6.60%	5.40%
Core Infrastructure	7.00%	8.70%	6.81%	8.50%
Private Debt	9.60%	8.20%	10.03%	8.20%
Private Equity Fund of Funds	11.00%	12.70%	11.32%	12.20%

Original Assumptions:

- $1.6 billion valuation of asset
- 2.0% annual inflation
- Portfolio option A assumes $32M per year plus inflation (2.0% plus 2.0% infl. or 4.0% total return)
- Portfolio option B assumes $56M per year plus inflation (3.5% plus 2.0% infl. or 5.5% total return)
- Portfolio option C assumes $80M per year plus inflation (5.0% plus 2.0% infl. or 7.0% total return)
- Investment portfolio targets:

Asset Classes	Portfolio A	Portfolio B	Portfolio C
Core Fixed Income	35.00%	20.00%	0.00%
Core Plus Fixed Income	30.00%	17.50%	17.00%
Broad U.S. Equity	20.00%	32.50%	35.00%
Broad Non-U.S. Equity	0.00%	0.00%	10.00%
Hedge Fund of Funds	0.00%	5.00%	5.00%
Core Real Estate	5.00%	10.00%	10.00%
Core Infrastructure	5.00%	7.50%	8.00%
Private Debt	5.00%	7.50%	7.50%
Private Equity Fund of Funds	0.00%	0.00%	7.50%

Return and risk assumptions from May 2022 versus June 2023:

	May 2022		June 2023	
	Average 10 Year		Average 10 Year	
Portfolios	Annualized Return	Annualized Volatility	Annualized Return	Annualized Volatility
A ($32M per year plus inflation)	4.06%	4.31%	6.02%	5.00%
B ($56M per year plus inflation)	5.46%	6.38%	6.68%	6.26%
C ($80M per year plus inflation)	7.04%	9.30%	7.59%	8.90%

From the above numbers you can see that Portfolio A achieves a 2% better return than it did in May of last year with slightly higher risk. As a result, Portfolio A will achieve the same long-term results for Cincinnati Southern Railway in both a 2% and 4% inflation environment.

Portfolio B and C also achieve better returns and with less risk, but do not provide real return margins of 3.5% and 5.0% in a 4% inflationary environment. We will showcase new Portfolio D and E investment portfolios in the next section.

New Assumptions:

- $1.6 billion valuation of asset
- 4.0% annual inflation
- Portfolio option A assumes $32M per year plus inflation (2.0% plus 4.0% infl. or 6.0% total return)
- Portfolio option B assumes $56M per year plus inflation (3.5% plus 4.0% infl. or 7.5% total return)
- Portfolio option C assumes $80M per year plus inflation (5.0% plus 4.0% infl. or 9.0% total return)
- Investment portfolio targets:

Asset Classes	Portfolio A	Portfolio D	Portfolio E
Core Fixed Income	35.00%	0.00%	4.00%
Core Plus Fixed Income	30.00%	30.00%	3.00%
Broad U.S. Equity	20.00%	29.00%	30.00%
Broad Non-U.S. Equity	0.00%	9.00%	12.00%
Core Real Estate	5.00%	8.00%	5.00%
Core Infrastructure	5.00%	8.00%	8.00%
Private Debt	5.00%	8.00%	10.00%
Private Equity Fund of Funds	0.00%	8.00%	28.00%

Results:

	Average 10 Year	
Portfolios	Annualized Return	Annualized Volatility
A ($32M per year plus inflation)	6.02%	5.00%
D ($56M per year plus inflation)	7.52%	8.09%
E ($80M per year plus inflation)	8.77%	10.42%

As already mentioned, Portfolio A has not changed and achieves a 2%+ return after either a 2% or 4% inflation estimate. Portfolio D achieves a 3.5% return after 4% inflation but with more risk than the original Portfolio B. Portfolio D has reasonable institutional risk and targets, so we maintain it is still reasonable for the Railway to achieve 7.5% long-term in both a 4% and 2% inflationary environment.

With Portfolio E, Marquette stretched the investment targets slightly above reasonable portfolio construction and was not able to achieve a total return of 9%. As a result, in a long-term economic environment of 4% inflation it is not likely the Railway can reasonable assume to achieve a real return of 5% aka total return of 9%.

Hopefully the data provides some confidence that an excess return of 2-5% above long-term inflations expectations of 2% is achievable with relatively low risk diversified portfolio options and 2-3.5% above long-term inflations expectations of 4% is reasonable.

Please let us know if we can be of any further assistance.

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