



NEPC, LLC

To: Cash Management Policy Board
From: Jennifer Appel, Kevin Leonard, and John Krimmel
Date: August 24, 2021
Subject: Delaware Budget Stabilization Account Reserve Analysis

Background

NEPC was asked to prepare an analysis for the Delaware Budget Stabilization Reserve Account (the Account) to ensure that an adequate reserve or cushion above the statutorily required amount was maintained. The reserve level set for Fiscal Year 2021 was \$1,000,000. The minimum amount required to be maintained in the Account (before reserve) for Fiscal Year 2022 is \$287,300,000. Our analysis is prepared using a similar framework used for the Budget Reserve Account (Rainy Day Fund). The analysis is based on the probability of short-term interest rate increases by the Federal Reserve and the results of market-related stresses.

Analysis

Our analysis was conducted on the Liquidity Portfolio in total, a multiple manager arrangement, whereby two high quality cash-like portfolios demonstrate a cash plus risk and return profile. The Federal Reserve has indicated that they do not intend to raise short-term interest rates during the remainder of Fiscal Year 2022. Further, the interest rate futures market also has not priced in any rate increases through June 30, 2022.

This analysis considers two separate measures to develop a recommendation. The first measure considers the Liquidity Portfolio's historical return and volatility (standard deviation) results. The second measure utilizes NEPC's current Capital Market Assumptions to determine expected volatility and confidence intervals.

The analysis, presented on the following page, indicates that a reserve cushion would not be needed given the portfolio's historical results and volatility levels. We note that the historical returns, over the trailing 3-year period, are significantly higher than one would expect to earn in the current environment where the portfolio is yielding less than 0.10%. The analysis, using NEPC's capital market assumptions, however, indicates that a reserve level to cover a 2 standard deviation event is between ~\$700,000 (net decline) and ~\$1,300,000 (gross decline).



State of Delaware
Budget Stabilization Account
Data as of July 1, 2021

Required Balance \$287,300,000

	<u>Return</u>	<u>Volatility</u>	Gross Decline with a		
			<u>1 SD Event</u>	<u>2 SD Event</u>	<u>3 SD Event</u>
Liquidity Portfolio (3-Years)	1.87%	0.46%	\$ 4,050,930	\$ 2,729,350	\$ 1,407,770
NEPC Capital Market Assumptions	0.80%	0.62%	\$ 517,140	\$ (1,264,120)	\$ (3,045,380)

	<u>Return</u>	<u>Volatility</u>	Net Decline with a		
			<u>1 SD Event</u>	<u>2 SD Event</u>	<u>3 SD Event</u>
Liquidity Portfolio (3-Years)	1.87%	0.46%	\$ 4,625,530	\$ 3,303,950	\$ 1,982,370
NEPC Capital Market Assumptions	0.80%	0.62%	\$ 1,091,740	\$ (689,520)	\$ (2,470,780)

Net Decline is a 1-year forward looking decline assuming the portfolio earns a 0.05% yield.

Summary & Recommendation

Based on the result of these analyses, and the market's expectations of no material changes in short-term interest rates, NEPC recommends that a \$1,000,000 reserve amount be added to the Delaware Budget Stabilization Account's minimum required level of \$287,300,000.

We look forward to discussing this recommendation with the Board.