

# NEVADA SYSTEM OF HIGHER EDUCATION

## DISCUSSION MATERIALS – OPERATING FUND



---

# NEVADA SYSTEM OF HIGHER EDUCATION

## DISCUSSION MATERIALS – OPERATING FUND

SEPTEMBER 29, 2023

Wendy Walker, CFA  
Ijeh Ogbechie  
Lindsay Van Voorhis, CFA  
David Breiner  
Deron Parcell  
Alfonso Diaz  
Amanda Soto  
Gregory Lewis



Copyright © 2023 by Cambridge Associates LLC. All rights reserved.

The information and material published in this report is nontransferable. Therefore, recipients may not disclose any information or material derived from this report to third parties or use information or material from this report without prior written authorization unless such use is in accordance with an agreement with Cambridge Associates ("CA"). Nothing contained in this document should be construed as the provision of tax, accounting, or legal advice. PAST PERFORMANCE IS NOT INDICATIVE OF FUTURE PERFORMANCE. Broad-based securities indexes are unmanaged and are not subject to fees and expenses typically associated with managed accounts or investment funds. Investments cannot be made directly in an index. Any information provided in this document is as of the date of the document, and CA is under no obligation to update the information or communicate that any updates have been made.

The information contained herein represents CA's estimates of investment performance, portfolio positioning and manager information including but not limited to fees, liquidity, attribution and strategy and are prepared using information available at the time of production. Though CA makes reasonable efforts to discover inaccuracies in the data used in this report, CA cannot guarantee the accuracy and is ultimately not liable for inaccurate information provided by external sources. CA is under no obligation to update the information or communicate that any updates have been made. Clients should compare the investment values with the statements sent directly from their custodians, administrators or investment managers, and similarly, are ultimately responsible for ensuring that manager information and details are correct. Historical results can and likely will adjust over time as updated information is received. Estimated, preliminary, and/or proxy information may be displayed and can change with finalized information over time, and CA disclaims any obligation to update a previously provided report when such changes occur. Some of the data contained herein or on which the research is based is current public information that CA considers reliable, but CA does not represent it as accurate or complete, and it should not be relied on as such. This report is not intended as a Book of Record nor is it intended for valuation, reconciliation, accounting, auditing, or staff compensation purposes, and CA assumes no responsibility if the report is used in any of these ways.

The primary data source for information is the investment manager and/or fund administrator, therefore data may not match custodial or other client records due to differences in data sourcing, methodology, valuation practices, etc. Estimated values may include prior quarter end data adjusted by a proxy benchmark or by subsequent cash flows. In some instances, data may be sourced directly from a client and/or prior advisors or service providers. CA makes no representations that data reported by unaffiliated parties is accurate, and the information contained herein is not reconciled with manager, custodian, and/or client records. There are multiple methodologies available for use in the calculation of portfolio performance, and each may yield different results. Differences in both data inputs and calculation methodologies can lead to different calculation results. Expected return, efficient frontier analysis and methodology may include equilibrium asset class assumptions derived from CA's Capital Markets Group, and such assumptions are available upon request.

The terms "CA" or "Cambridge Associates" may refer to any one or more CA entity including: Cambridge Associates, LLC (a registered investment adviser with the US Securities and Exchange Commission, a Commodity Trading Adviser registered with the US Commodity Futures Trading Commission and National Futures Association, and a Massachusetts limited liability company with offices in Arlington, VA; Boston, MA; Dallas, TX; Menlo Park, CA, New York, NY; and San Francisco, CA), Cambridge Associates Limited (a registered limited company in England and Wales, No. 06135829, that is authorized and regulated by the UK Financial Conduct Authority in the conduct of Investment Business, reference number: 474331); Cambridge Associates GmbH (authorized and regulated by the Bundesanstalt für Finanzdienstleistungsaufsicht ('BaFin'), Identification Number: 155510), Cambridge Associates Asia Pte Ltd (a Singapore corporation, registration No. 200101063G, which holds a Capital Market Services License to conduct Fund Management for Accredited and/or Institutional Investors only by the Monetary Authority of Singapore), Cambridge Associates Limited, LLC (a registered investment adviser with the US Securities and Exchange Commission, an Exempt Market Dealer and Portfolio Manager in the Canadian provinces of Alberta, British Columbia, Manitoba, Newfoundland and Labrador, Nova Scotia, Ontario, Québec, and Saskatchewan, and a Massachusetts limited liability company with a branch office in Sydney, Australia, ARBN 109 366 654), Cambridge Associates Investment Consultancy (Beijing) Ltd (a wholly owned subsidiary of Cambridge Associates, LLC which is registered with the Beijing Administration for Industry and Commerce, registration No. 110000450174972), and Cambridge Associates (Hong Kong) Private Limited (a Hong Kong Private Limited Company licensed by the Securities and Futures Commission of Hong Kong to conduct the regulated activity of advising on securities to professional investors).

---

## Table of Contents

---

1.	Operating Fund	
A.	Executive Summary & Action Items	05
B.	Market Update	12
C.	Performance & Risk/Return Characteristics	20
D.	Operating Fund Status	28

# A. EXECUTIVE SUMMARY & ACTION ITEMS





## Executive Summary Updated with Supplemental Information

### ACTION ITEMS

In the table following this summary, we set forth Operating Fund estimated positioning as of [September 21](#), along with the following rebalancing recommendations:

- *Recommendations from NSHE Staff:* Fully redeem the remaining balance in Allspring Short Duration (~\$6.4 million) and reallocate from the Intermediate-Term Pool to the Long-Term Pool.
  - As context, a total of \$105 million was withdrawn from this account in May-June to support large Operating Fund withdrawals by UNR and UNLV. While Allspring's separate account minimum is typically \$100M, the manager was understanding of the campus liquidity needs and was willing to maintain the account temporarily below that standard minimum. System staff has advised that they view the current combined balances in the Short-Term and Intermediate-Term Pools as more than sufficient to meet liquidity needs.
  - Further, Cambridge concurs with System staff that in the current environment, money market funds in the Short-Term Pool (which maintain stable \$1 NAV) have been generating higher yields and stronger total returns than the fixed income strategies in the Intermediate-Term Pool (which are subject to market value fluctuations). Accordingly, Cambridge is comfortable with the plan to fully exit the Allspring Short Duration position rather than replenishing to the manager's \$100M account minimum.
- *Recommendations from Cambridge Associates* - redeploy the Allspring Short Duration proceeds as follows to bring the Long-Term Pool asset allocation closer to targets:
  - \$2.5 million addition to Vanguard Institutional Index
  - Balance (~\$3.9 million) addition to Vanguard Developed Markets Index

### INFORMATION ITEM

At the request of Board Vice Chair Arrascada, we present a review of the liquidity management practices adopted in March 2019 and an analysis of the Total Operating Fund Dynamic Index adopted thereafter.

In March 2019 the Committee approved changes to the Statement of Investment Objectives and Policies for the Operating Funds, whereby the recommended sizing of the Short-Term Pool and Intermediate-Term Pool would be based on determinations by the NSHE Chief Financial Officer of the System's liquidity needs (in contrast to the prior practice of maintaining policy targets for the liquidity pools as a static percentage of the total Operating Fund). At the March 2023 Investment Committee meeting, System staff prepared its most recent Annual Review of the Operating Fund Allocations per BOR policy, Title 4 Chapter 10, Section 6(B)(8) to determine the appropriate size of each pool. Cambridge Associates remains comfortable continuing to defer to System staff under the current approach to sizing the liquidity pools within the Operating Fund.

Following the March 2019 policy update, we reapportioned prior asset allocation targets *pro rata* across the Long-Term Pool on a standalone basis (after excluding the Intermediate-Term Pool and Short-Term Pool), as follows:

## Executive Summary

	Prior Targets: Total Op. Fund	Current Targets: Long-Term Pool <sup>1</sup>	Ranges: Long-Term Pool <sup>1</sup>
	(%)	(%)	(%)
<b>Equities (incl. Opportunistic)</b>	<b>40%</b>	<b>67%</b>	<b>50% - 80%</b>
U.S. Equity	24%	40%	33% - 50%
Global ex U.S. Equity	16%	27%	17% - 33%
Marketable Alternatives	0%	0%	
Opportunistic	0%	0%	0% - 10%
<b>TIPS</b>	<b>12%</b>	<b>20%</b>	<b>8% - 25%</b>
<b>Long Term Bonds</b>	<b>8%</b>	<b>13%</b>	<b>8% - 25%</b>
<b>Cash for Investments</b>	<b>0%</b>	<b>0%</b>	
<b>Long-Term Pool</b>	<b>60%</b>	<b>100%</b>	
<b>OPERATING LIQUIDITY POOLS</b>			
Intermediate-Term Bonds	10%	N/A <sup>2</sup>	
Short-Term Bonds & Cash	30%	N/A <sup>2</sup>	
<b>TOTAL ASSETS</b>	<b>100%</b>	<b>N/A</b>	

<sup>1</sup> Current targets & ranges re-scaled pro rata after excluding Intermediate-Term Pool and Short-Term Pool.

<sup>2</sup> Per the Statement of Investment Objectives and Policies for the Operating Funds approved on 3/19/19, the recommended sizing of the Short-Term Pool and Intermediate-Term Pool shall be determined by the NSHE Chief Financial Officer to meet the System's cash needs on a daily basis and for known/contingent liabilities with a payout horizon of one to several years, respectively.

Both before and after the 2019 policy update, the Long-Term Pool Benchmark remained consistent as a blend of market index returns, weighted by their asset allocation targets, as shown below. This implies that any deviations from asset allocation targets would be measured by the Long-Term Pool value-add relative to the Long-Term Pool Benchmark.

### Long-Term Pool Benchmark

	Wilshire 5000 Total Market Index	MSCI EAFE Index (N)	HFRI FOF Diversified Index	Bloomberg US TIPS Index	Bloomberg Aggregate Bond Index
Inception to 06/30/00:	X	X	X	X	100%
07/01/00 to 03/31/11:	23.8%	14.3%	33.3%	17.5%	11.1%
04/01/11 to Present:	40.0%	26.7%	X	20.0%	13.3%

**Executive Summary**Updated with  
Supplemental  
Information

At the Total Operating Fund level, since the Intermediate-Term & Short-Term Pools no longer have static policy weights (but rather are sized in accordance with the System & campus liquidity needs), the new Dynamic Index is reweighted on a monthly basis based on the actual size of the three underlying pools:

**Total Operating Fund Dynamic Index**

	Long-Term Pool Benchmark	BBG 1-3Yr Treasury Bond Index	91-day T-bills
Inception to Present:	ACB <sup>(1)</sup>	ACB <sup>(1)</sup>	ACB <sup>(1)</sup>

<sup>(1)</sup> Benchmark is dynamically adjusted on a monthly basis to reflect the Average Capital Base weightings of the Long-Term Pool, Intermediate-Term Pool & Short-Term Pool.

Cambridge Associates continues to believe that the Dynamic Index approach represents best practice in assessing Total Operating Fund performance, given the liquidity management practices and sizing of the liquidity pools adopted in March 2019.

**OPERATING FUND UPDATE****Market Update**

Performance was mixed in the second quarter as several crosscurrents painted an uncertain outlook. Global equities (MSCI ACWI) were up 6.2% during the quarter, with Japanese and US equities as top performers. Growth and large-cap equities outperformed value and small-cap counterparts, but this lead narrowed in June. Large-cap technology explained much of this outperformance as investors grew optimistic on artificial intelligence (AI). Chinese equities were the bottom performer due to disappointing progress on reopening, which reversed the optimism from first quarter. Commensurately, real assets suffered on fears of slowing demand. US fixed income (Bloomberg Agg) returned -0.8% during the quarter.

Following a continued global equity rally of 3.7% in July, markets turned choppy. For the months of July-August, global equities returned 0.8%, while US fixed income returned -0.7%. [Ensuingly, for the first half of September, global equities returned -0.2%, while US fixed income returned -1.1%. US headline inflation had its highest monthly increase since mid-2022 in August, rising 0.6% largely due to rising energy prices. US inflation readings combined with the European Central Bank's tenth consecutive rate hike have caused bond yields to rise. The ten-year US Treasury note rose 6bps ending at 4.33% as of mid-September.](#)

## Operating Fund Performance and Asset Allocation as of August 31, 2023

For the fiscal year ended June 30, 2023, the Total Operating Fund returned 7.5%, slightly below the Policy return of 8.0%. The Total Long-Term Pool returned 12.1% for the period, in line with the Long-Term Pool Benchmark. US Equity led performance on an absolute basis, returning 19.5%, while TIPS led performance on a relative basis, besting the BBG US TIPS Index by 30bps.

For the calendar year to date through August 31, the Total Long-Term Pool returned 10.7%, outperforming the Total Long-Term Pool Benchmark by 20bps. US Equity continued to lead performance on an absolute basis, returning 18.5%, while Long-Term Bonds outperformed the BBG Aggregate Bond Index by 60 bps. The Total Operating Fund posted a return of 7.7% for the CYTD period, lagging the Total Operating Fund Dynamic Index by 20bps. We estimate that the Reserve Account balance (which stood at \$45.1M/6.1% of the Operating Fund Market value as of 7/31/2023) declined by roughly \$23M from July 31 to September 21, but remains positive.

As of August 31, 2023, adjusted for estimated performance through September 21, the Long-Term Pool had a slight underweight to Total Equities, offset by slight overweight to TIPS and Long-Term Bonds, which we recommend moderating in our rebalancing recommendations on the next page.

## Operating Fund Return Projections

As shown in the following sections, the 10-Year Average Asset Allocation (AA) has a 3.8% expected real compound return over the long term (i.e., 25+ years), there is a wide range of potential outcomes, particularly over shorter time periods. For example, over any given 3-year period, the 10-Year Average AA has a 50% likelihood of a real return between 0.9% and 6.8%, with a 25% likelihood of returns either above or below this range.

In addition to the general unpredictability of short-term returns, current market valuations pose additional headwinds to investors today: Strong performance over recent years have brought assets to levels that we view as unsustainable, implying that intermediate-term returns will likely fall short of long-term expectations. In a hypothetical scenario in which all asset class valuations reverted to their historical averages over the next 10 years, we project that US Equities would return -0.5% real (far below CA's long-term return assumption of 5.7%), and US Treasuries would return 1.0% real (similarly falling short of CA's long-term return assumption of 2.8%). Looking across the Operating Fund, this "return to normal" thought exercise suggests a 1.9% real return over the intermediate term – which would fail to support a 2.75% payout. We also present an analysis of returns in historical market downturns, showing that the Operating Fund could experience double-digit declines in environments like the Oil Shock of the early 1970s, the Tech Bubble Burst of the early 2000s or the Global Financial Crisis of 2007-2009.

	Allocation as of Aug 31, 2023		9/1/2023 - 9/21/2023	Estimated Allocation as of Sep 21, 2023		9/29/23 IC Meeting Recommendations (C A)		Pro Forma Allocation		Targets	Allowable Range
	Assets (\$ mm)	Allocation (%)	Est Perf (%)	Assets (\$ mm)	Allocation (%)	(\$ mm)	(%)	Assets (\$ mm)	Allocation (%)	(%)	(%)
<b>U.S. Equity</b>											
Vanguard Institutional Index	144.1	28.9	-3.9%	138.5	28.6	+2.5	0.5	\$141.0	28.7		
Metis US Equity Index	54.8	11.0	-3.9%	52.7	10.9			\$52.7	10.7		
<b>Total U.S. Equity</b>	<b>\$198.9</b>	<b>40.0%</b>	<b>-3.9%</b>	<b>\$191.2</b>	<b>39.5%</b>	<b>\$2.5</b>	<b>0.5%</b>	<b>\$193.7</b>	<b>39.5%</b>	<b>40.0%</b>	<b>33%-50%</b>
<b>Global ex U.S. Equity</b>											
Vanguard Developed Markets Index	82.9	16.7	-2.9	80.6	16.6	+3.9	0.8	\$84.4	17.2		
Metis International Equity Index	48.9	9.8	-1.7	48.1	9.9			\$48.1	9.8		
<b>Total Global ex U.S. Equity</b>	<b>\$131.9</b>	<b>26.5%</b>	<b>-2.4%</b>	<b>\$128.7</b>	<b>26.6%</b>	<b>\$3.9</b>	<b>0.8%</b>	<b>\$132.6</b>	<b>27.0%</b>	<b>27.0%</b>	<b>17%-30%</b>
<b>Marketable Alternatives</b>											
Farallon Capital	1.3	0.3	0.1	1.3	0.3			\$1.3	0.3		
<b>Total Marketable Alternatives</b>	<b>\$1.3</b>	<b>0.3%</b>	<b>0.1%</b>	<b>\$1.3</b>	<b>0.3%</b>	<b>---</b>	<b>---</b>	<b>\$1.3</b>	<b>0.3%</b>	<b>0.0%</b>	
<b>TOTAL EQUITIES</b>	<b>\$332.1</b>	<b>66.7%</b>	<b>-3.3%</b>	<b>\$321.2</b>	<b>66.3%</b>	<b>\$6.4</b>	<b>1.3%</b>	<b>\$327.6</b>	<b>66.7%</b>	<b>67.0%</b>	<b>50%-80%</b>
<b>TIPS</b>											
Vanguard Inflation-Protected Securities	70.3	14.1	-1.3	69.4	14.3			\$69.4	14.1		
Vanguard Short-Term Inflation-Protected Securities	28.6	5.7	-0.2	28.5	5.9			\$28.5	5.8		
<b>Total TIPS</b>	<b>\$98.9</b>	<b>19.9%</b>	<b>-1.0%</b>	<b>\$98.0</b>	<b>20.2%</b>	<b>---</b>	<b>---</b>	<b>\$98.0</b>	<b>20.0%</b>	<b>20.0%</b>	<b>8%-25%</b>
<b>Long Term Bonds</b>											
PIMCO Total Return	41.6	8.4	-2.0	40.8	8.4			\$40.8	8.3		
Allspring Core Fixed Income	25.3	5.1	-2.3	24.7	5.1			\$24.7	5.0		
<b>Total Long Term Bonds</b>	<b>\$66.9</b>	<b>13.4%</b>	<b>-2.1%</b>	<b>\$65.4</b>	<b>13.5%</b>	<b>---</b>	<b>---</b>	<b>\$65.4</b>	<b>13.3%</b>	<b>13.0%</b>	<b>8%-25%</b>
<b>TOTAL LONG-TERM POOL</b>	<b>\$497.9</b>	<b>100.0%</b>	<b>-2.7%</b>	<b>\$484.6</b>	<b>100.0%</b>	<b>\$6.4</b>		<b>\$491.0</b>	<b>100.0%</b>	<b>100.0%</b>	
<b>Estimated MTD investment gain/(decline)</b>				<b>-\$13.3</b>							
<b>Intermediate Term Bonds</b>						<b>9/29/23 IC Mtg Recs (NSHE Staff)</b>					
Access Community Investment Fund	21.9		-2.4	21.4				21.4			
Allspring Short Duration	6.4		-0.6	6.4		<b>-\$6.4</b>		---			
<b>Total Intermediate Term Bonds</b>	<b>\$28.4</b>		<b>-2.0%</b>	<b>\$27.8</b>		<b>-\$6.4</b>		<b>\$21.4</b>			
<b>Estimated MTD investment gain/(decline)</b>				<b>-\$0.6</b>							
<b>Short Term Bonds and Cash</b>											
Short Term Bonds and Cash	256.3		0.3	257.1				257.1			
<b>Total Short Term Bonds and Cash</b>	<b>\$256.3</b>		<b>0.3%</b>	<b>\$257.1</b>		<b>---</b>		<b>\$257.1</b>			
<b>TOTAL OPERATING FUND</b>	<b>\$782.5</b>		<b>-1.7%</b>	<b>\$769.5</b>		<b>---</b>		<b>\$769.5</b>			

Note: Market values are estimated using manager preliminary or mutual fund returns or (if highlighted in peach) index proxies.  
Actual client-specific returns may ultimately differ from managers' fund-level preliminary estimates.

## Cambridge Associates Events

For more information, please visit [cambridgeassociates.com/events](https://cambridgeassociates.com/events) or contact [events@cambridgeassociates.com](mailto:events@cambridgeassociates.com)

### Upcoming events

#### CA WEBINAR: IS NOW A GOOD TIME TO INVEST IN THE ENERGY TRANSITION

Virtual  
**September 6, 2023**  
11am–12pm EDT/4–5pm BST

Join us for a discussion as Cambridge Associates thought leaders share their perspectives on risks and opportunities the energy transition brings to the investment landscape.

[Click here to register.](#)

#### IMPACT INVESTING FORUM—NORTH AMERICA

Toronto, Canada  
**October 17–18, 2023**

Please join us for our 9th annual forum, where over a day and a half we'll explore themes related to sustainable and impact investing in a series of keynote presentations, interactive thematic spotlight sessions, and educational panels with industry thought leaders and investors.

Visit the [event website](#) to register, meet our speakers, and view the agenda.

#### SAVE THE DATE

#### INVESTMENT LEADERS EXCHANGE

Washington, DC  
**April 29–30, 2024**

With recession fears rising, central bank liquidity evaporating, and geopolitical tensions front and center, the risks seem stacked against investors like never before. Save the date as we convene our global network of asset allocators, fund managers, and industry leaders to discuss how best to navigate the global investment landscape across all public and private asset classes to maximize the chances of portfolio outperformance.

Registration information will be available this fall.

### In case you missed it

#### MUNICH NETWORKING EVENT

**July 6, 2023**

Our first networking event in Munich featured **Joe Marendia, Head of Digital Assets at Cambridge Associates**. Joe shared insights on the remarkable increase in digital developments and venture capital involvement in Europe, the implications, and how to position an investment portfolio accordingly. Joe also explained the risks and opportunities of digital assets and the role blockchain plays in a private investment portfolio. Afterward, attendees exchanged ideas with peers over drinks and finger food in the relaxed atmosphere of the Mandarin Oriental roof terrace.

#### CA WEBINAR: ALLOCATING AROUND SECULAR AND CYCLICAL RISKS

**May 23, 2023**

Cambridge Associates thought leaders addressed challenging risks related to concerns about the banking sector, the broader global economy, threats of deglobalization, and climate change in a recent webinar.

[Click here to watch the recording from May 23, 2023.](#)

#### PRIVATE INVESTMENTS SUMMITS

Boston, Singapore, Hong Kong, London

Throughout the second quarter, Cambridge Associates hosted Private Investments Summits around the world, featuring local industry thought leaders in sessions and panels that provided investors with strategies and steps for successfully positioning private portfolios in the current climate.

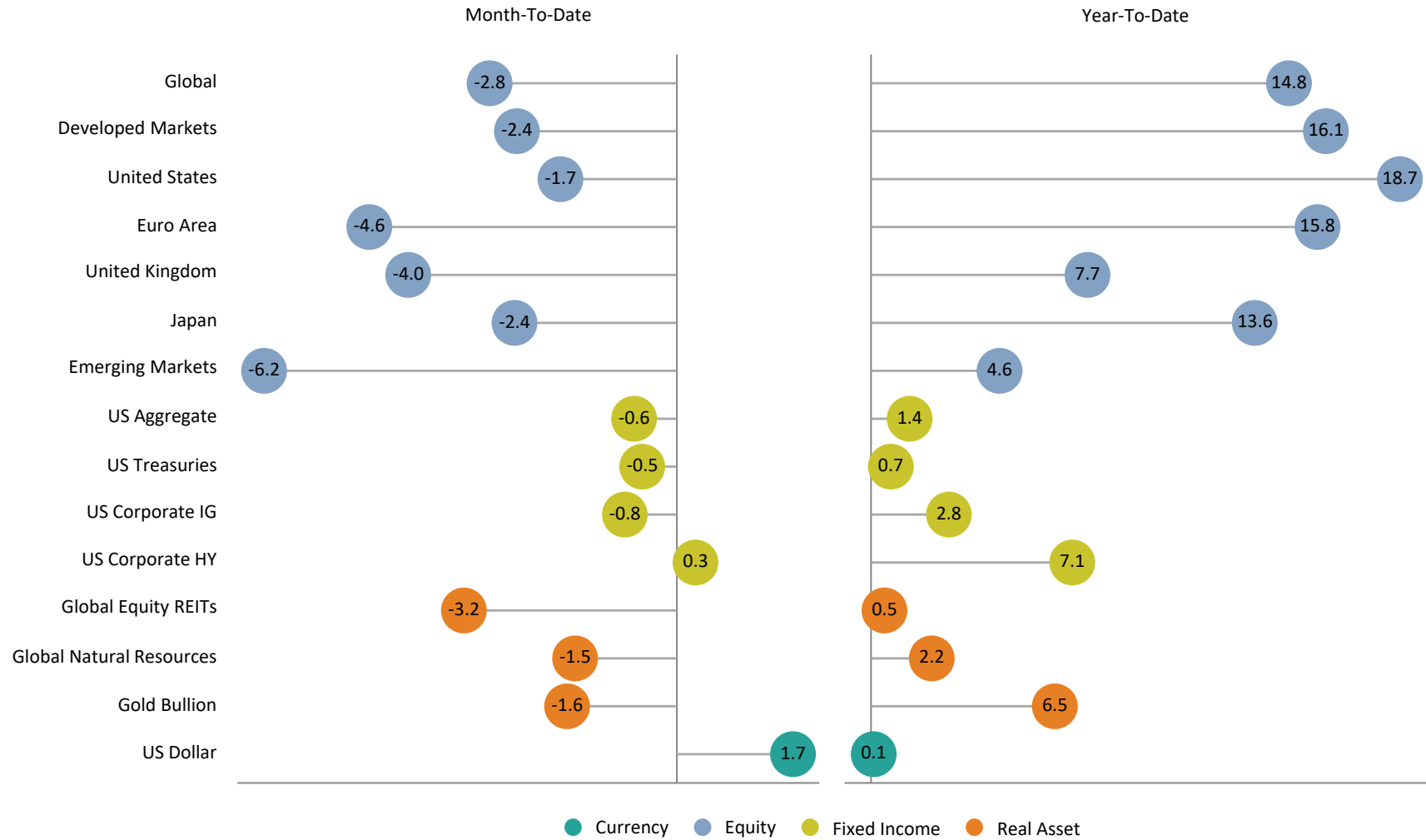
[Click here for key takeaways from the April 2023 Private Investments Summit in Boston.](#)

## B. MARKET UPDATE



## The 3Ds (debt, downgrades, and data) pushed interest rates higher and asset prices lower in August

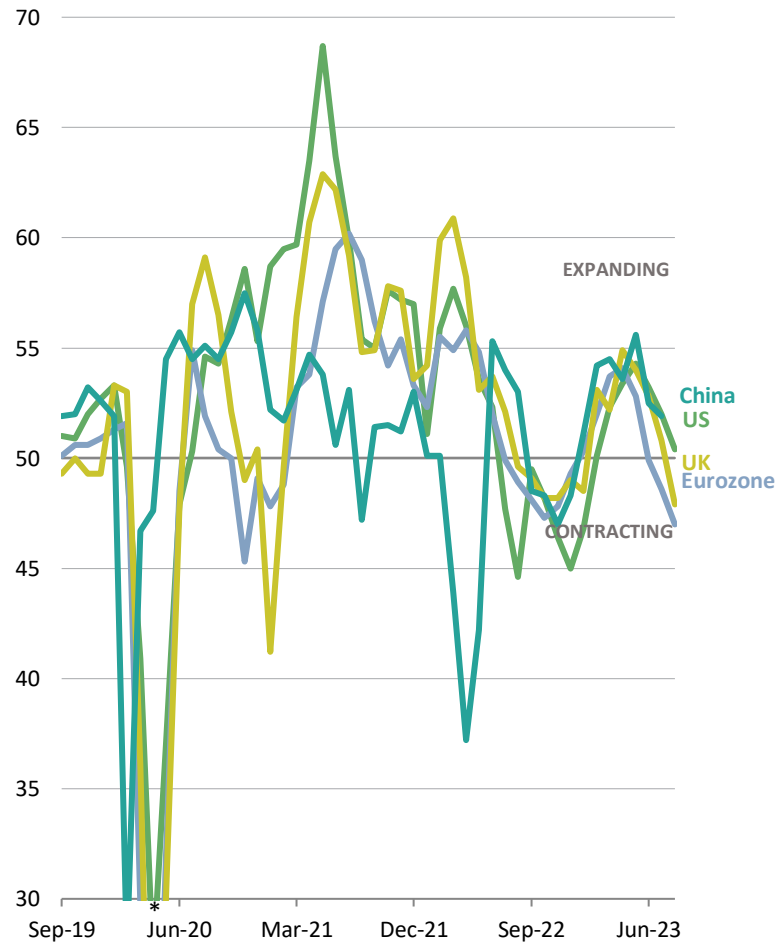
### GLOBAL ASSET CLASS PERFORMANCE As of August 31, 2023 • US Dollar • Percent (%)



## Some indicators of economic activity have rolled over in recent months

### COMPOSITE PMIs

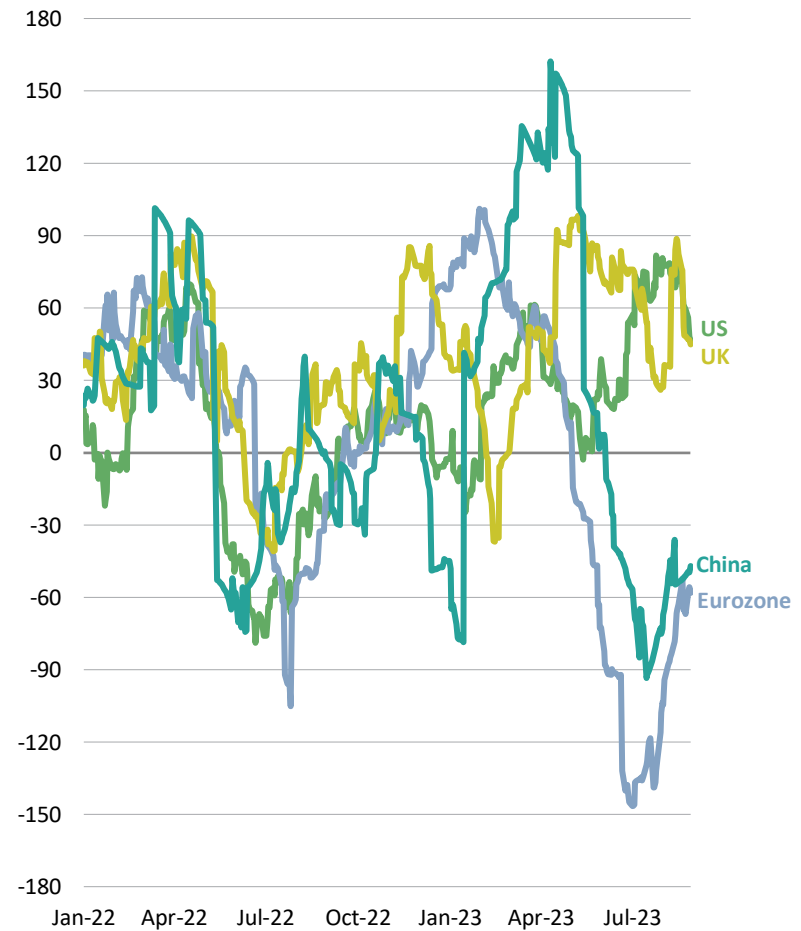
September 30, 2019 – August 31, 2023



\* Chart is capped for scaling purposes.

### CITI ECONOMIC SURPRISE INDEX FOR VARIOUS REGIONS

January 1, 2022 – August 30, 2023



## High rates have weighed on housing activity, but high savings have cushioned other consumption

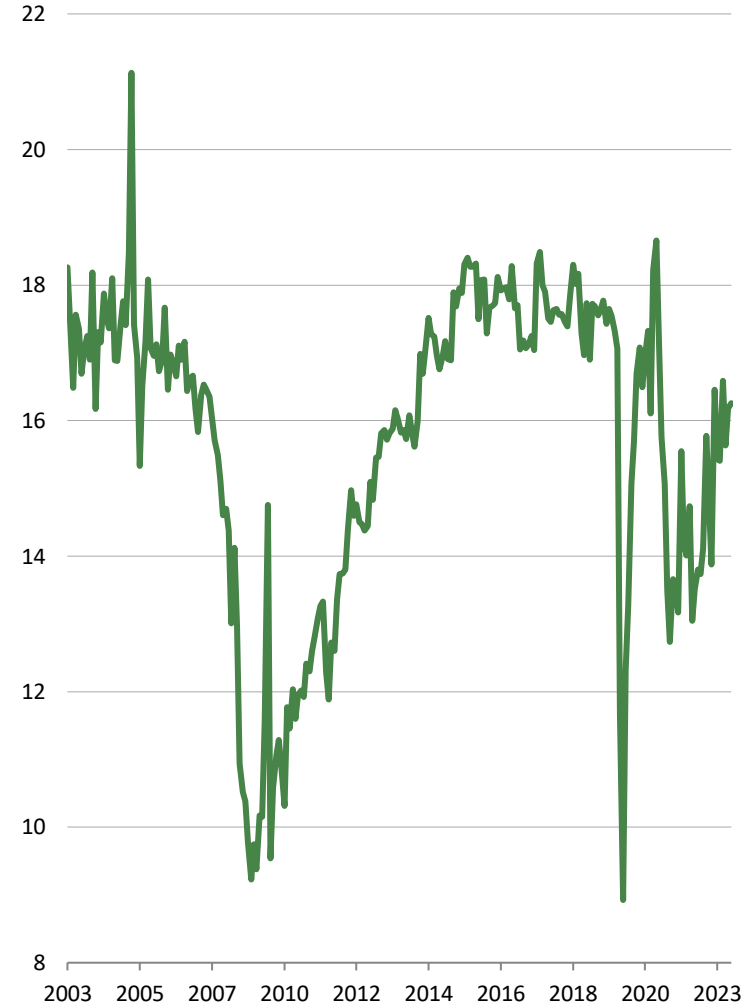
### US EXISTING HOME SALES

August 31, 2003 – July 31, 2023 • Thousands



### US NEW AUTO SALES

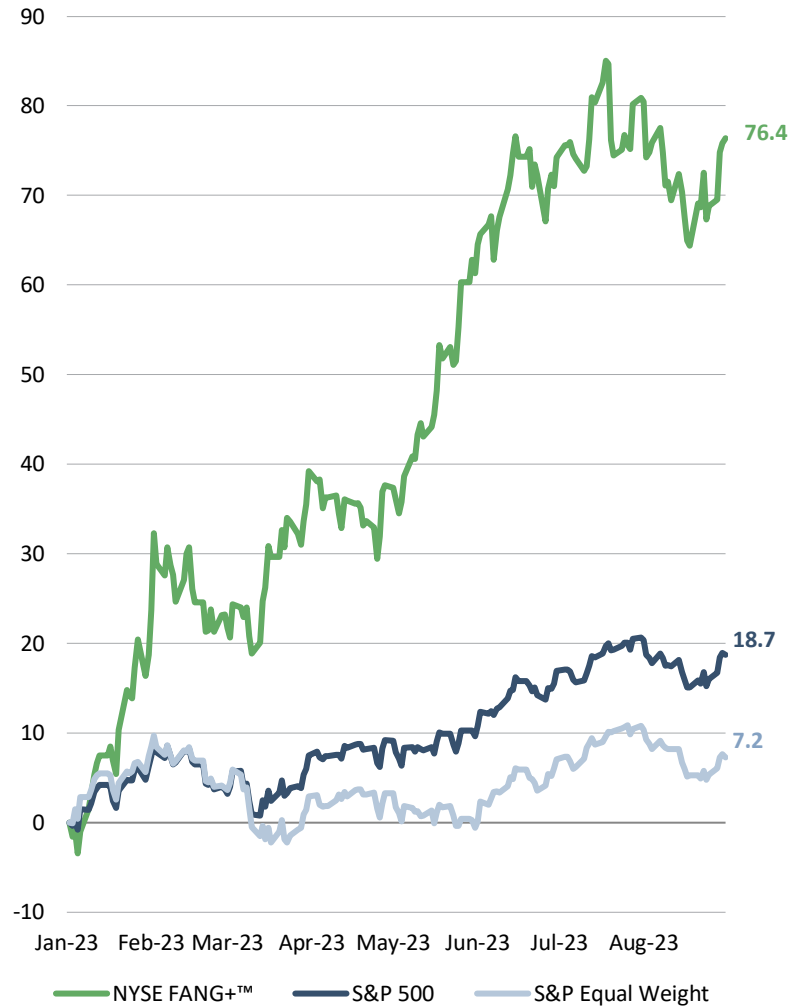
August 31, 2003 – July 31, 2023 • Millions



## Spectacular FAANG+ gains mask solid albeit unremarkable gains for the average stock

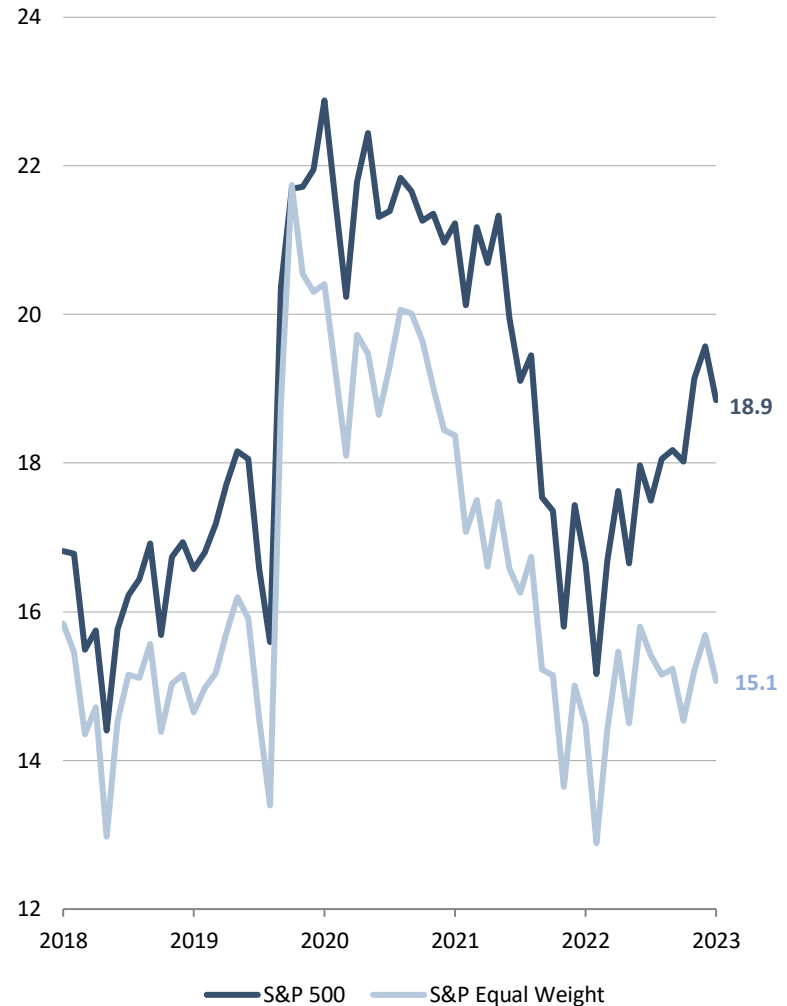
### YTD CUMULATIVE RETURN FOR SELECT INDEXES

December 31, 2022 – August 31, 2023 • US Dollar • Percent (%)



### FORWARD P/E RATIOS FOR SELECT INDEXES

August 31, 2018 – August 31, 2023 • Percent (%)



Sources: FactSet Research Systems, New York Stock Exchange, Standard & Poor's, and Thomson Reuters Datastream.

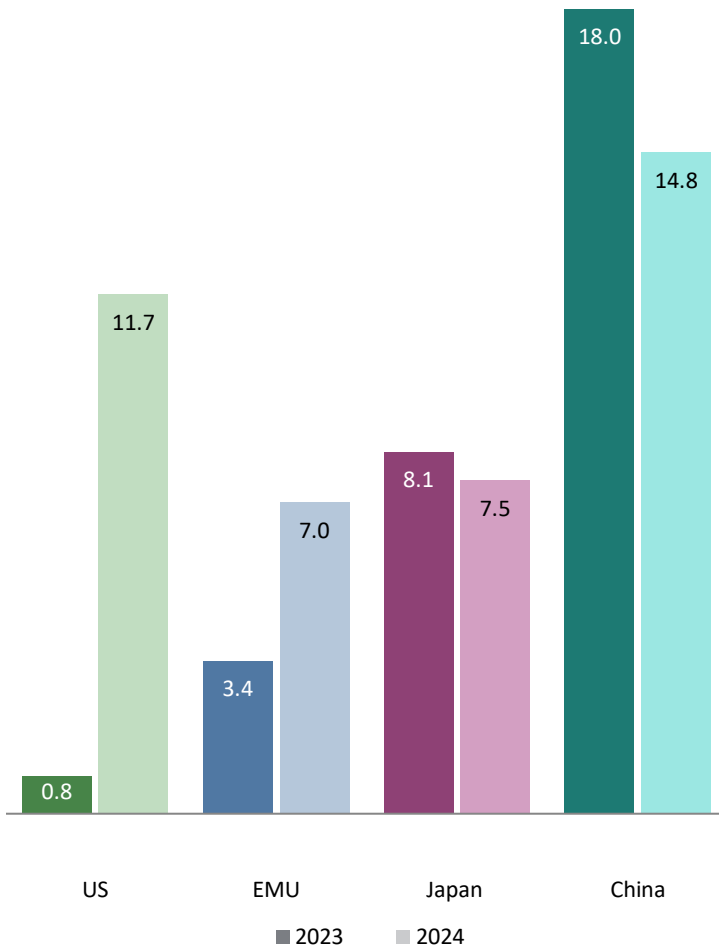
Notes: Cumulative return data are daily total returns gross of dividend taxes. NYSE FANG+™ is an equal-weighted index that provides exposure to a select group of highly traded growth stocks of next generation technology and tech-enabled companies that include Advanced Micro Devices, Amazon, Apple, Google, Meta, Microsoft, Netflix, NVIDIA, Snowflake, and Tesla. Forward P/E ratios are calculated using 12-month forward earnings mean estimates.

MMHC

## Earnings growth in the US trails that in other markets; lower commodity prices mean lower profits for energy and mining firms

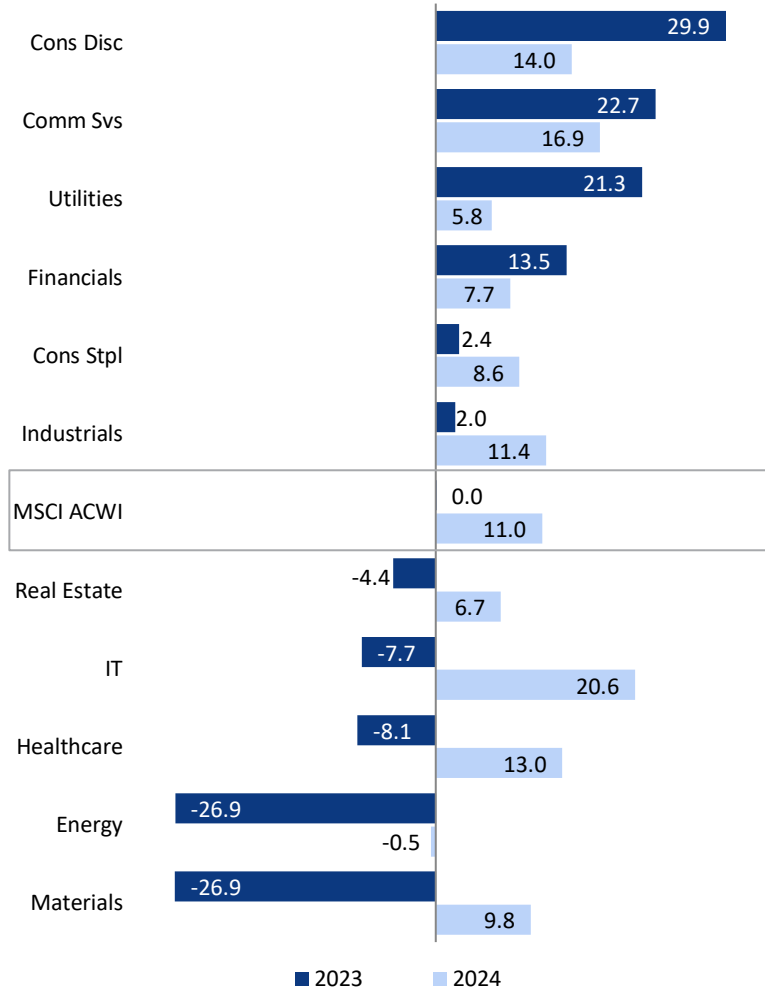
### EPS GROWTH ESTIMATES BY REGION

As of August 31, 2023 • Percent (%)



### MSCI ACWI GROWTH ESTIMATES BY SECTOR

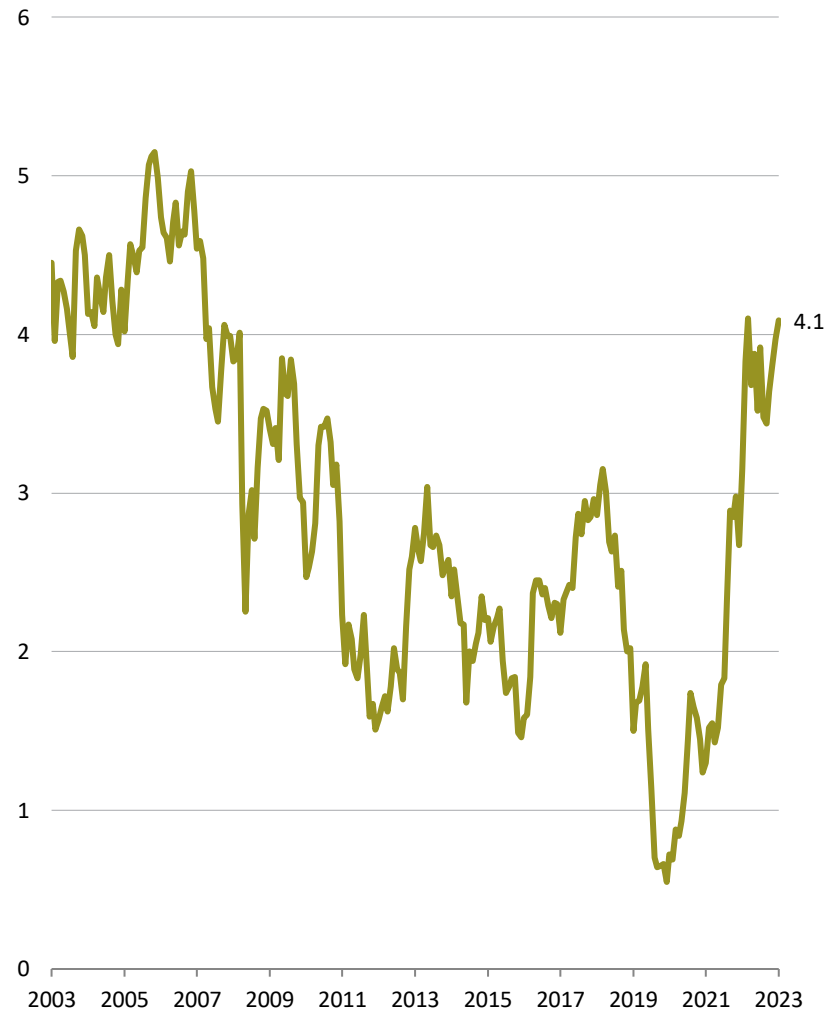
As of August 31, 2023 • Percent (%)



## Treasury yields revisited their highs from last year in the face of large bond issuance

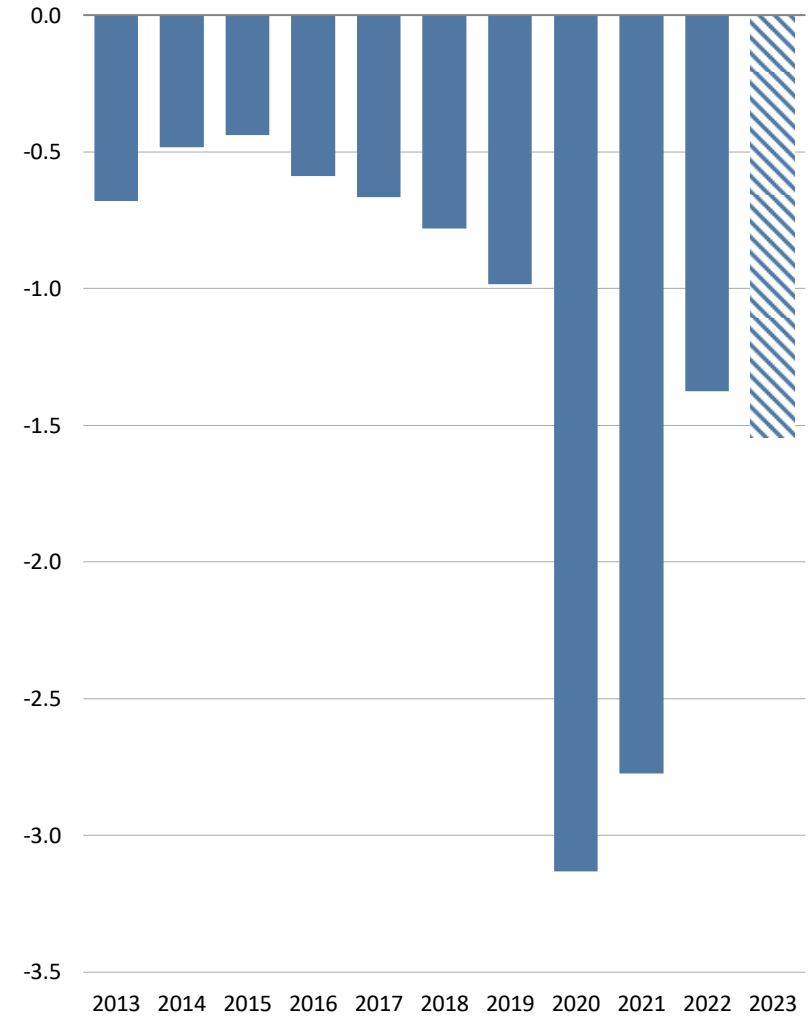
### US TREASURY 10-YR YIELD

August 31, 2003 – August 31, 2023 • Percent (%)



### FISCAL YEAR US FEDERAL BUDGET SURPLUS/DEFICIT

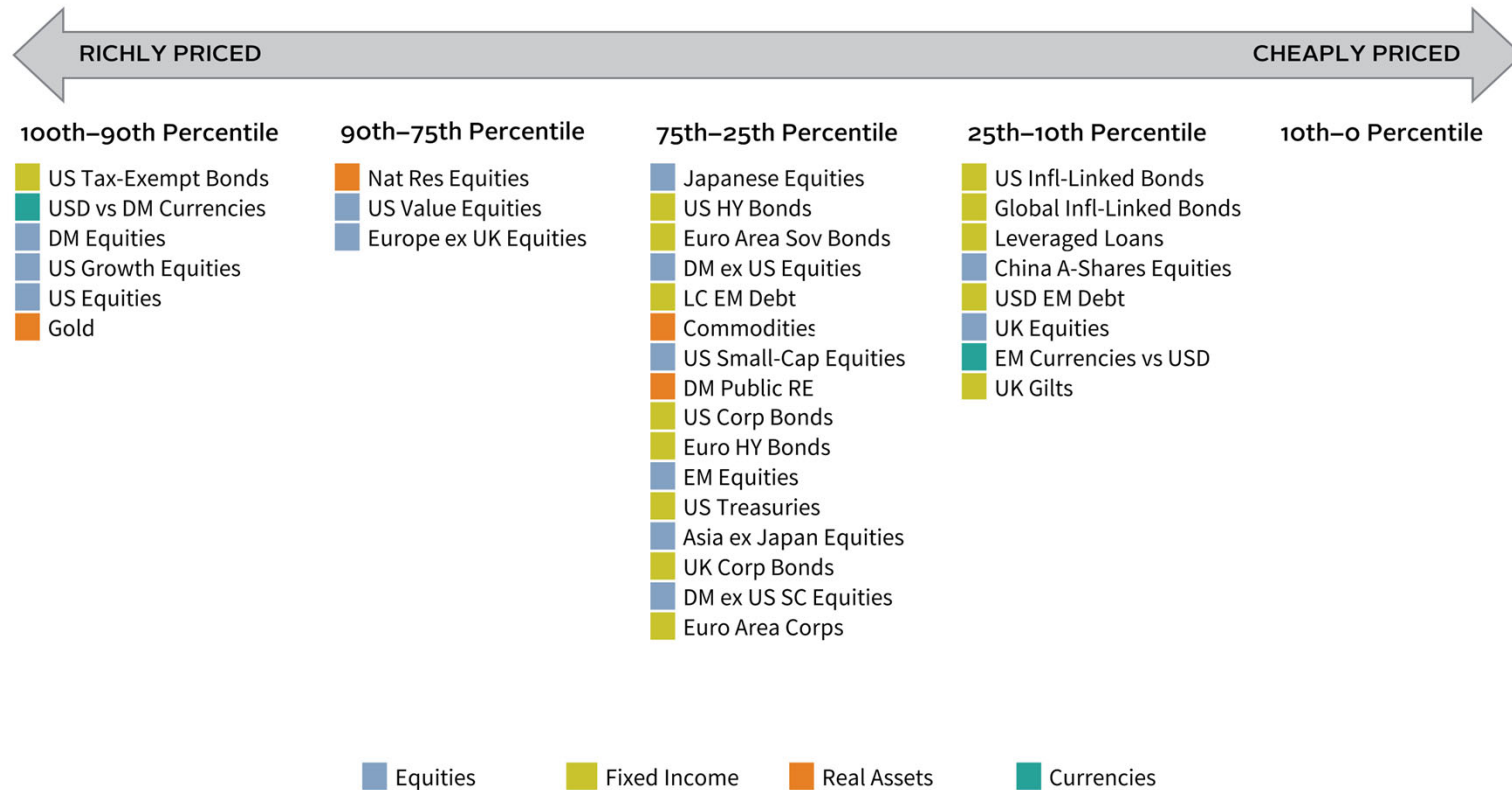
2013–23 • US Dollar (Trillions)



## Asset Class Valuations

As of July 31, 2023

Limited actionable, inexpensive areas to overweight, but in general modest valuations argue to be near policy target weights and have ample liquidity for future cash needs.



# C. PERFORMANCE & RISK/RETURN CHARACTERISTICS



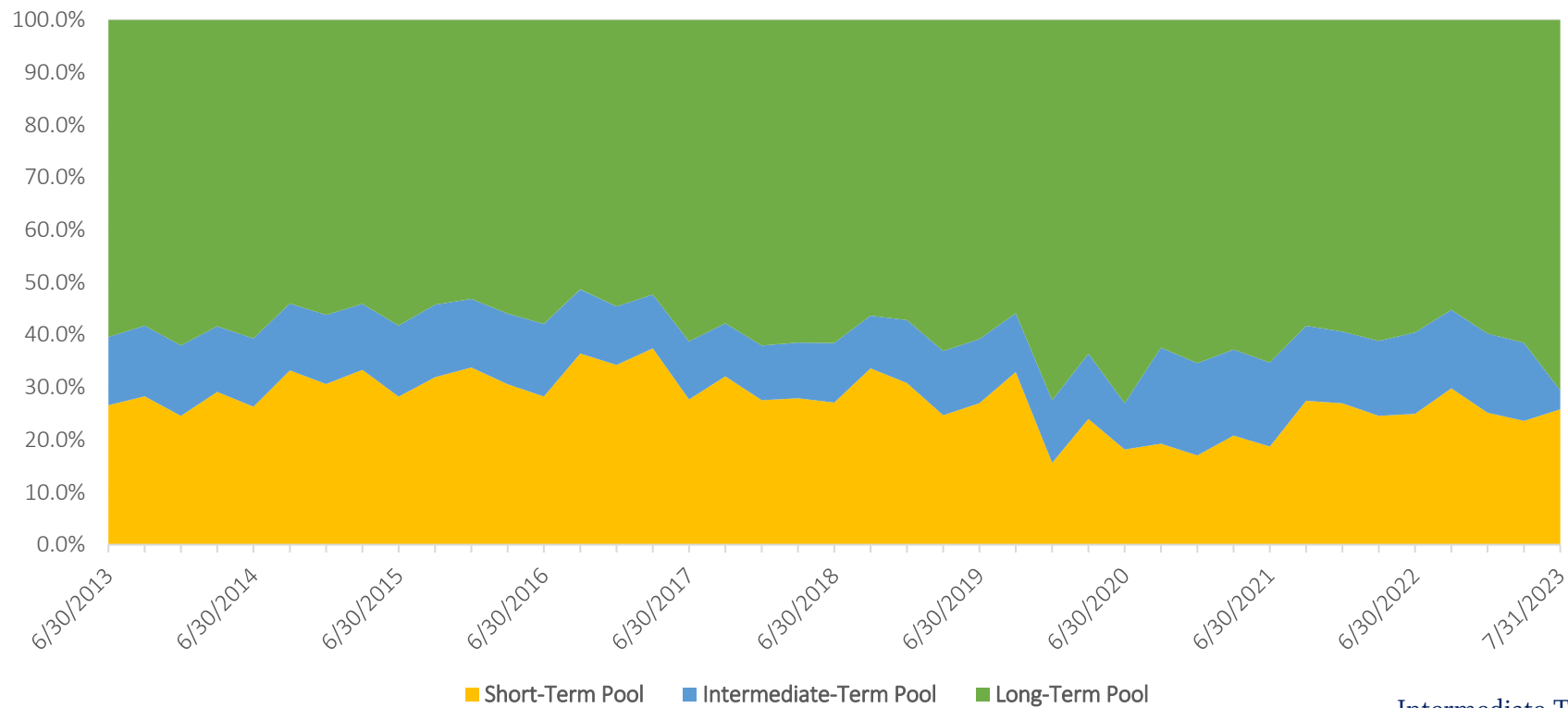
## Investment Performance by Composite

As of 8/31/2023 [Updated with Supplemental Information](#)

Returns (%)	INCEPTION DATE	CURRENT MARKET VALUE	MONTH TO DATE	FISCAL YEAR TO DATE JUN	CALENDAR YEAR TO DATE	ANNUALIZED TRAILING 5 YEARS	ANNUALIZED TRAILING 10 YEARS	ANNUALIZED SINCE INCEPTION
<b>Total Operating Fund*</b>	6/30/1996	\$782,486,265	-1.2	0.4	7.7	4.6	4.7	4.9
<i>Total Operating Fund Dynamic Index</i>	6/30/1996		-1.3	0.5	7.9	4.6	4.8	4.4
<b>Operating Liquidity Pools*</b>	6/30/1996	\$284,626,973	0.2	0.4	1.5	0.8	0.7	2.4
<b>Intermediate-Term Bonds*</b>	6/30/1996	\$28,351,308	0.1	0.1	0.5	0.3	0.7	3.4
<i>BofA ML 1-3 Yr Treasury Bond Index</i>	6/30/1996		0.4	0.8	1.7	1.0	0.8	2.8
<i>Value Add</i>			-0.3	-0.6	-1.2	-0.8	-0.2	0.5
<b>Short-Term Bonds and Cash<sup>3</sup></b>	6/30/1996	\$256,275,664	0.2	0.5	1.8	1.2	0.8	2.1
<i>BofA ML 91-Day Treasury Bills</i>	6/30/1996		0.5	0.9	3.1	1.7	1.1	2.2
<i>Value Add</i>			-0.2	-0.4	-1.3	-0.5	-0.3	0.0
<b>Total Long-Term Pool*</b>	6/30/1996	\$497,859,293	-1.9	0.3	10.7	6.4	7.1	6.7
<i>Long-Term Pool Benchmark<sup>1</sup></i>	6/30/1996		-2.1	0.2	10.5	6.1	7.1	5.9
<i>Value Add</i>			0.2	0.1	0.2	0.3	0.0	0.8
<b>U.S. Equity</b>	6/30/2000	\$198,908,272	-1.6	1.5	18.5	11.1	12.8	7.2
<i>S&amp;P 500 Index</i>	6/30/2000		-1.6	1.6	18.7	11.1	12.8	7.0
<i>Value Add</i>			0.0	-0.1	-0.2	0.0	0.0	0.2
<b>Global ex U.S. Equity</b>	6/30/2000	\$131,889,105	-3.8	-0.9	10.1	4.3	4.9	3.8
<i>MSCI EAFE Index (N)</i>	6/30/2000		-3.8	-0.7	10.9	4.1	4.9	3.6
<i>Value Add</i>			0.0	-0.2	-0.7	0.1	-0.1	0.2
<b>Marketable Alternatives*</b>	6/30/2000	\$1,282,089	0.0	0.0	9.0	2.6	3.3	5.4
<i>HFRI Fund of Funds Diversified Index</i>	6/30/2000		0.1	0.9	2.9	3.8	3.6	3.4
<i>Value Add</i>			-0.1	-0.9	6.1	-1.2	-0.3	2.0
<b>TIPS*</b>	6/30/2000	\$98,910,174	-0.6	-0.3	1.4	2.8	2.4	4.7
<i>BBG US TIPS Index</i>	6/30/2000		-0.9	-0.8	1.1	2.3	2.1	4.7
<i>Value Add</i>			0.3	0.4	0.3	0.6	0.3	0.1
<b>Long-Term Bonds</b>	6/30/1996	\$66,869,652	-0.5	-0.4	2.0	0.7	1.7	5.0
<i>BBG Aggregate Bond Index</i>	6/30/1996		-0.6	-0.7	1.4	0.5	1.5	4.2
<i>Value Add</i>			0.1	0.3	0.6	0.2	0.2	0.7

## Total Operating Fund Breakout

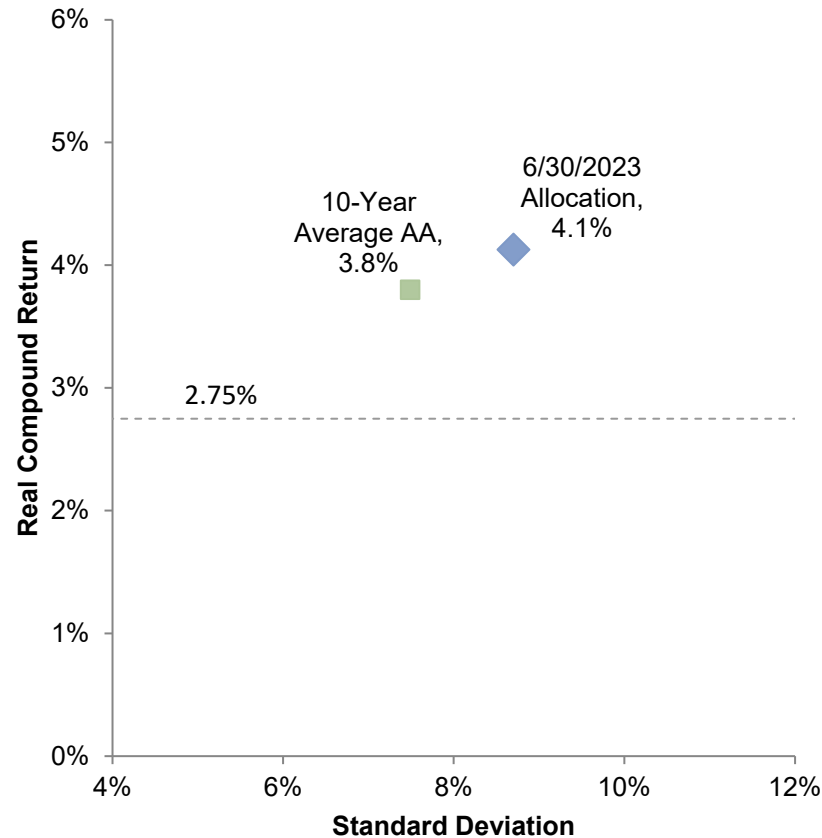
Trailing 10-Years as of 7/31/2023



Intermediate-Term Pool was drawn down by \$105M in May/June to meet Short-Term needs, leaving a \$28M balance

## Operating Fund – Long-Term Risk/Return Expectations

### Long-Term Real Risk/Return Projections

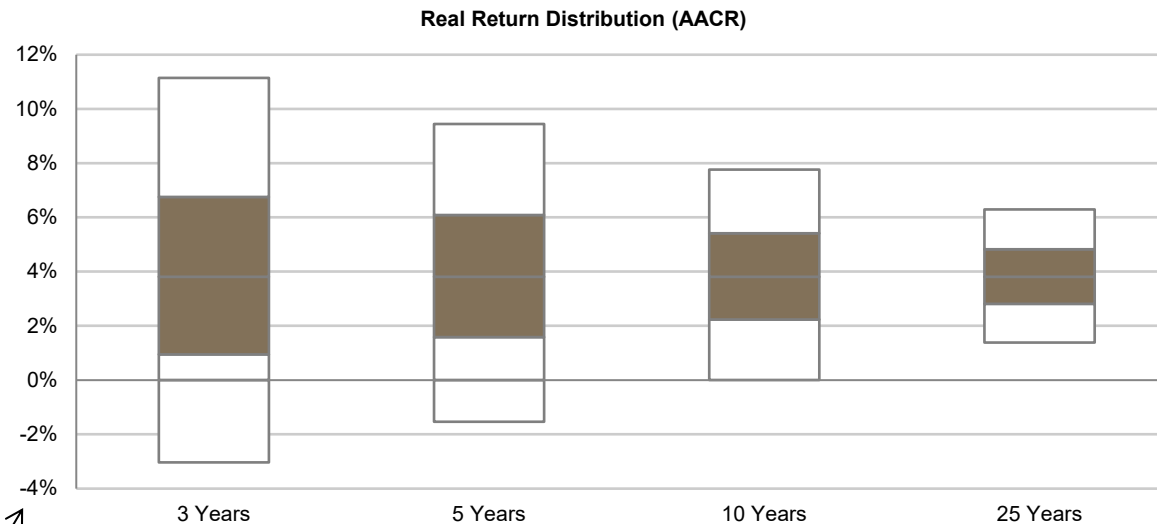


### Summary Statistics – Real Returns

	6/30/2023 Allocation	10-Year Average AA
Estimated Long-Term Real Compound Return	4.1%	3.8%
Estimated Range of Returns (25th-75th %ile)	3.0% - 5.3%	2.8 - 4.8%
Estimated Volatility (Standard Deviation)	8.7%	7.5%
Estimated Beta to Global Equity	0.47	0.39
<b>Long-Term Risk:</b> Estimated Probability of Not Achieving 2.75% Real Compound Return Over 25 Years	21%	24%
<b>Short-Term Risk:</b> Estimated Cumulative Decline, 2008 Financial Crisis	-26.4%	-21.0%

## Over Short-Term Periods the Operating Fund Has Meaningful Likelihood of Negative Returns

- While the 10-Year Average AA has a 3.8% expected real compound return over the long term (i.e. 25+ years), there is a wide range of potential outcomes, particularly over shorter time periods.



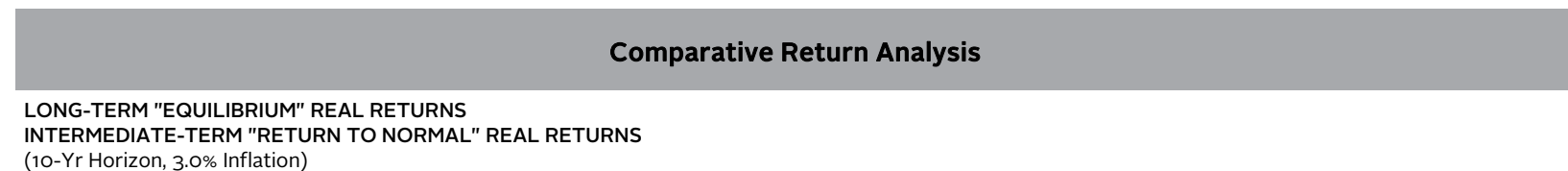
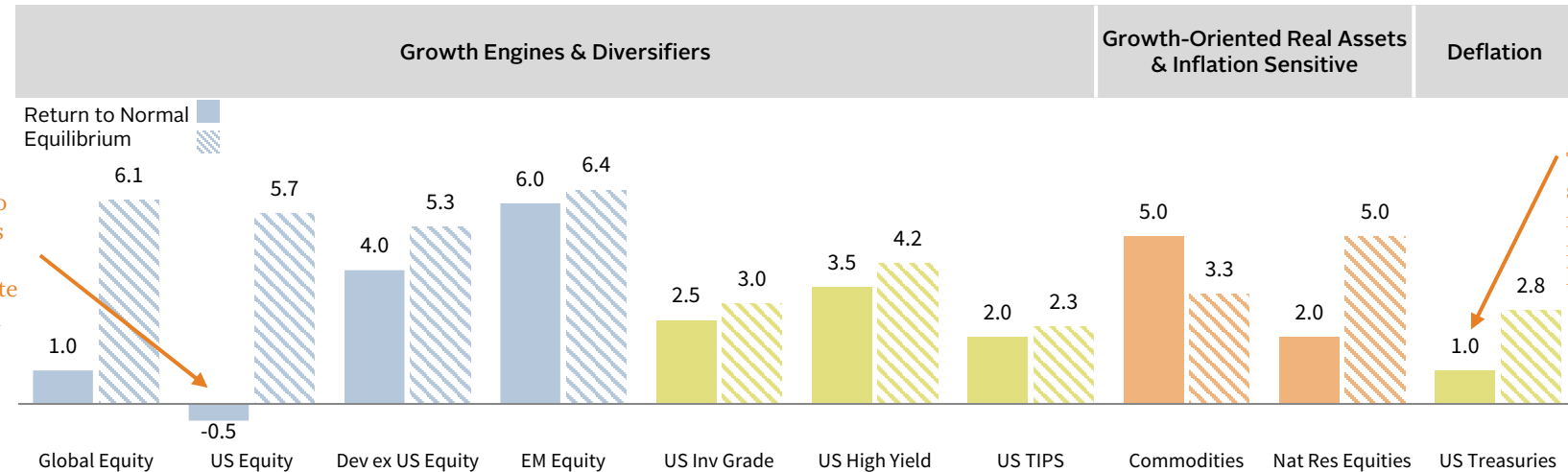
Over any given 3-year period the 10-Year Average AA has a 50% likelihood of a return between 0.9% and 6.8%

Over any given 25-year period the 10-Year Average AA has a 50% likelihood of a return between 2.8% and 4.8%

The trailing 3-year/5-year returns of 5.2% & 4.9% fall in the 2<sup>nd</sup> quartile of expected returns.

## After market rebound in 2023, valuations look likely to challenge intermediate-term market returns

INTERMEDIATE-TERM (10-YEAR) "RETURN TO NORMAL" SCENARIO, ASSUMING VALUATIONS NORMALIZE OVER NEXT 10 YEARS  
LONG-TERM (25-PLUS YEAR) STEADY STATE "EQUILIBRIUM" ASSUMPTIONS: REAL RETURNS (ADJUSTED FOR INFLATION)  
Based on Current Market Valuations as of July 31, 2023 (3.0% Inflation)



**Key Assumptions:** Inflation: 3%; Real EPS Growth: 2% for US and Dev ex US, 3% for EMs; Ending 10-Yr US Treasury Yield: 5.0%, Ending 10-Yr US TIPS yield: 2.0%

## Historical Stress Scenarios

<u>Stress Name</u>	<u>Dates</u>	<u>Length of Period (Months)</u>	<u>Stress Period Estimates Cumulative Returns - Real</u>	
			<i>6/30/23 Allocation</i>	<i>10-Year Average AA</i>
Oil Shock	January 1, 1973 - September 30, 1974	21	-27.9	-25.0
Energy Crisis/Stagflation	September 1, 1979 - March 31, 1980	7	-9.2	-9.5
Energy Crisis/Stagflation	March 1, 1980 - March 31, 1980	1	-6.2	-5.2
Interest Rate Hikes	July 1, 1980 - September 30, 1981	15	-6.6	-6.9
Interest Rate Hikes	August 1, 1981 - July 31, 1982	12	-6.3	-3.1
Stock Market Crash	September 1, 1987 - November 30, 1987	3	-11.8	-9.6
Japan Market Collapse	January 1, 1990 - September 30, 1990	9	-11.3	-9.4
Mexican Peso Crisis	February 1, 1994 - January 31, 1995	12	-2.6	-2.6
Russian Debt Default	August 1, 1998 - September 30, 1998	2	-4.6	-3.3
Tech Bubble Burst	April 1, 2000 - September 30, 2002	30	-16.7	-11.5
Credit Crisis/Great Recession	November 1, 2007 - February 28, 2009	16	-26.4	-21.0

## Operating Fund Benchmark Composition

### Total Operating Fund Dynamic Index

	Long-Term Pool Benchmark	BBG 1-3Yr Treasury Bond Index	91-day T-bills
Inception to Present:	ACB <sup>(1)</sup>	ACB <sup>(1)</sup>	ACB <sup>(1)</sup>

### Long-Term Pool Benchmark

	Wilshire 5000 Total Market Index	MSCI EAFE Index (N)	HFRI FOF Diversified Index	Bloomberg US TIPS Index	Bloomberg Aggregate Bond Index
Inception to 06/30/00:	X	X	X	X	100%
07/01/00 to 03/31/11:	23.8%	14.3%	33.3%	17.5%	11.1%
04/01/11 to Present:	40.0%	26.7%	X	20.0%	13.3%

### Opportunistic Custom Benchmark

	MSCI World Index (N)	Bloomberg Aggregate Bond Index	91-day T-bills
Inception to 07/31/20:	40%	30%	30%

<sup>(1)</sup> Benchmark is dynamically adjusted on a monthly basis to reflect the Average Capital Base weightings of the Long-Term Pool, Intermediate-Term Pool & Short-Term Pool.

# D. OPERATING FUND STATUS



**NEVADA SYSTEM OF HIGHER EDUCATION  
RESERVE ACCOUNT ANALYSIS  
April 2000 - July 2023**

	<b>Operating Fund Market Value*</b>	<b>Investment Income Earned</b>	<b>Investment Income Distributed</b>	<b>Reserve Account Ending Balance</b>	<b>Reserve/(Deficit) as % of Total Operating Fund</b>
Apr-2000 <sup>[1]</sup>	190,603,064	131,861	- 3,012,039	- 2,880,266	-1.51
May-2000	211,846,354	163,167	- 1,162,937	- 3,880,036	-1.83
Jun-2000	205,824,654	2,542,870	- 939,750	- 2,276,916	-1.11
Jul-2000	221,886,621	282,084	- 873,438	- 2,868,270	-1.29
Aug-2000	224,788,824	4,493,952	- 904,024	721,658	0.32
Sep-2000	210,004,756	- 1,229,654	- 1,231,755	- 1,739,751	-0.83
Oct-2000 <sup>[2]</sup>	207,797,786	1,506,098	- 1,164,746	- 1,398,399	-0.67
Nov-2000	200,269,779	- 1,984,486	- 1,141,711	- 4,524,596	-2.26
Dec-2000	208,182,114	2,418,755	- 1,049,935	- 3,155,776	-1.52
Jan-2001	217,937,307	3,123,733	- 1,167,002	- 1,199,045	-0.55
Feb-2001	206,043,730	- 1,074,401	- 1,194,381	- 3,467,826	-1.68
Mar-2001	194,803,547	- 1,391,260	- 1,114,499	- 5,973,585	-3.07
Apr-2001	187,311,217	3,000,904	- 1,100,876	- 4,073,557	-2.17
May-2001 <sup>[3]</sup>	195,326,437	1,255,172	- 1,106,330	- 3,924,715	-2.01
Jun-2001	181,680,689	- 742,900	- 1,102,094	- 5,769,709	-3.18
Jul-2001	202,347,577	1,445,927	- 847,180	- 4,282,488	-2.12
Aug-2001	209,448,723	- 1,130,375	- 859,295	- 6,299,894	-3.01
Sep-2001	222,633,859	- 2,329,410	- 902,965	- 9,566,420	-4.30
Oct-2001	221,768,653	1,000,136	- 829,611	- 9,427,304	-4.25
Nov-2001	172,568,948	2,019,519	- 813,644	- 8,221,748	-4.76
Dec-2001	167,605,959	329,048	- 781,211	- 8,673,911	-5.18
Jan-2002 <sup>[4]</sup>	202,807,058	529,077	- 740,482	- 8,885,317	-4.38
Feb-2002	198,414,963	574,482	- 745,550	- 9,056,385	-4.56
Mar-2002	187,854,679	1,267,945	- 715,383	- 8,503,822	-4.53
Apr-2002	194,483,372	1,031,063	- 730,349	- 8,203,110	-4.22
May-2002	199,428,572	1,470,532	- 739,859	- 7,472,437	-3.75
Jun-2002	190,274,431	- 2,383,454	- 729,181	- 10,585,072	-5.56
Jul-2002 <sup>[5]</sup>	164,908,334	- 3,330,103	- 585,121	- 14,500,296	-8.79
Aug-2002	200,314,802	- 25,511	- 591,599	- 15,117,406	-7.55
Sep-2002	186,307,147	- 2,456,156	- 638,849	- 18,212,411	-9.78
Oct-2002 <sup>[6]</sup>	187,872,082	1,902,625	- 610,407	- 16,920,193	-9.01
Nov-2002	199,286,311	2,082,786	- 581,252	- 15,132,310	-7.59
Dec-2002	197,101,437	1,301,796	- 574,879	- 14,405,394	-7.31
Jan-2003	216,042,889	373,621	- 630,125	- 14,661,898	-6.79
Feb-2003	223,873,793	913,271	- 652,965	- 14,401,592	-6.43
Mar-2003	227,320,382	- 504,203	- 663,018	- 15,568,813	-6.85
Apr-2003	225,055,464	3,621,910	- 656,412	- 12,603,315	-5.60
May-2003	218,291,356	6,046,346	- 636,683	- 7,193,530	-3.30
Jun-2003	235,523,055	1,647,556	- 686,942	- 6,232,829	-2.65
Jul-2003	225,061,174	- 1,305,304	- 674,445	- 8,212,420	-3.65
Aug-2003	241,526,531	2,223,696	- 719,494	- 6,707,917	-2.78
Sep-2003	284,905,882	3,067,753	- 835,773	- 4,475,866	-1.57
Oct-2003	284,905,882	3,463,060	- 815,074	- 1,827,815	-0.64
Nov-2003	267,256,457	2,085,338	- 785,343	- 527,777	-0.20
Dec-2003	270,053,685	3,621,731	- 792,490	2,301,522	0.85
Jan-2004	304,898,705	3,239,296	- 899,911	4,641,067	1.52
Feb-2004	306,353,392	2,786,761	- 925,891	6,501,985	2.12
Mar-2004	334,140,321	880,979	- 959,699	6,423,321	1.92
Apr-2004	323,733,799	- 3,271,914	- 935,653	2,215,804	0.68
May-2004	310,820,065	2,978,607	- 884,508	4,308,156	1.39
Jun-2004	319,089,113	1,756,998	- 924,163	5,141,050	1.61
Jul-2004	276,525,679	- 3,003,616	- 853,527	1,284,158	0.46
Aug-2004	300,350,870	1,787,372	- 878,380	2,193,830	0.73
Sep-2004	329,175,987	3,970,031	- 946,862	5,217,350	1.58

\* Ending Market Value. (Prior to Feb. 2023, was average Market Value for the month)  
See endnotes at the end of this exhibit

**NEVADA SYSTEM OF HIGHER EDUCATION  
RESERVE ACCOUNT ANALYSIS  
April 2000 - July 2023**

	<u>Operating Fund Market Value*</u>	<u>Investment Income Earned</u>	<u>Investment Income Distributed</u>	<u>Reserve Account Ending Balance</u>	<u>Reserve/(Deficit) as % of Total Operating Fund</u>
Oct-2004	325,280,731	2,674,159	- 906,294	6,985,541	2.15
Nov-2004	325,501,494	4,944,533	- 927,189	11,003,523	3.38
Dec-2004	317,086,382	6,159,801	- 863,703	16,300,918	5.14
Jan-2005	358,775,910	- 1,537,890	- 1,012,932	13,752,561	3.83
Feb-2005	368,348,060	4,214,824	- 1,034,309	16,933,741	4.60
Mar-2005	368,184,915	- 1,390,602	- 998,491	14,545,251	3.95
Apr-2005	322,747,036	- 373,270	- 997,321	13,175,791	4.08
May-2005	351,522,927	3,172,862	- 986,250	15,968,809	4.54
Jun-2005	350,676,848	1,881,696	- 980,355	16,872,276	4.81
Jul-2005	324,372,566	2,325,199	- 894,849	18,303,775	5.64
Aug-2005	336,278,510	2,577,885	- 935,037	19,950,951	5.93
Sep-2005	380,767,534	2,845,247	- 1,022,572	21,774,810	5.72
Oct-2005	382,463,815	- 2,503,281	- 1,031,408	18,241,926	4.77
Nov-2005	370,575,423	2,876,089	- 1,026,612	20,092,768	5.42
Dec-2005	362,198,735	3,886,306	- 996,500	22,984,930	6.35
Jan-2006	400,119,473	6,214,511	- 1,101,206	28,104,444	7.02
Feb-2006 <sup>[7]</sup>	363,661,874	2,407,655	- 1,158,882	14,359,096	3.95
Mar-2006	421,741,479	1,870,205	- 1,104,085	14,862,142	3.52
Apr-2006	412,409,442	4,126,708	- 1,189,962	17,807,634	4.32
May-2006	428,050,405	- 2,712,303	- 1,229,022	13,874,468	3.24
Jun-2006	397,038,132	759,423	- 1,472,632	13,168,597	3.32
Jul-2006	426,778,295	3,170,187	- 1,232,828	15,016,412	3.52
Aug-2006	446,949,399	4,809,494	- 1,280,842	18,545,951	4.15
Sep-2006	485,309,106	3,886,176	- 1,339,432	21,098,900	4.35
Oct-2006	491,077,464	5,745,522	- 1,336,522	25,515,258	5.20
Nov-2006	479,641,782	5,384,183	- 1,357,014	29,564,126	6.16
Dec-2006	469,227,138	3,423,923	- 1,349,797	31,627,934	6.74
Jan-2007	476,690,202	3,514,501	- 1,309,708	33,761,919	7.08
Feb-2007	463,957,730	1,793,443	- 1,376,674	34,183,412	7.37
Mar-2007	456,916,695	4,250,674	- 1,339,581	37,099,388	8.12
Apr-2007	447,774,841	6,834,702	- 1,300,756	42,652,711	9.53
May-2007	443,169,778	4,304,247	- 1,283,507	45,557,251	10.28
Jun-2007	429,014,210	1,318,682	- 1,276,064	45,562,802	10.62
Jul-2007	422,800,379	978,076	- 1,294,859	45,256,506	10.70
Aug-2007 <sup>[8]</sup>	463,287,774	1,141,142	- 1,327,393	33,468,232	7.22
Sep-2007	503,693,516	6,725,006	- 1,471,903	38,732,523	7.69
Oct-2007 <sup>[9]</sup>	532,953,405	8,939,371	- 1,484,274	36,196,965	6.79
Nov-2007	524,833,392	- 474,987	- 1,455,000	34,269,215	6.53
Dec-2007	488,058,329	- 163,714	- 1,438,155	32,669,497	6.69
Jan-2008	498,662,871	- 7,274,704	- 1,525,533	23,871,592	4.79
Feb-2008	522,429,681	1,770,738	- 1,538,431	24,110,273	4.62
Mar-2008 <sup>[10]</sup>	508,017,279	- 3,288,747	- 1,483,288	14,100,201	2.78
Apr-2008	480,885,277	3,415,203	- 1,461,259	16,054,657	3.34
May-2008	461,741,980	3,456,286	- 1,382,621	18,150,032	3.93
Jun-2008	429,413,850	- 8,450,547	- 1,386,824	8,313,390	1.94
Jul-2008	410,663,405	- 4,628,107	- 1,344,792	2,340,375	0.57
Aug-2008	475,058,191	- 725,811	- 1,301,470	313,725	0.07
Sep-2008	528,357,492	- 24,682,230	0	- 24,368,505	-4.61
Oct-2008	499,948,331	- 22,338,217	0	- 46,706,721	-9.34
Nov-2008 <sup>[10.5]</sup>	384,017,951	- 10,810,207	0	- 62,831,615	-16.36
Dec-2008	365,149,131	7,289,401	0	- 55,562,986	-15.22
Jan-2009	395,078,444	- 8,312,962	0	- 63,898,394	-16.17
Feb-2009	412,489,609	- 11,778,961	0	- 75,700,296	-18.35
Mar-2009	394,110,706	9,195,194	0	- 66,527,948	-16.88
Apr-2009	385,281,546	9,210,151	0	- 57,339,861	-14.88

\* Ending Market Value. (Prior to Feb. 2023, was average Market Value for the month)  
See endnotes at the end of this exhibit

**NEVADA SYSTEM OF HIGHER EDUCATION  
RESERVE ACCOUNT ANALYSIS  
April 2000 - July 2023**

	<u>Operating Fund Market Value*</u>	<u>Investment Income Earned</u>	<u>Investment Income Distributed</u>	<u>Reserve Account Ending Balance</u>	<u>Reserve/(Deficit) as % of Total Operating Fund</u>
May-2009	386,438,273	10,367,154	0	- 46,963,715	-12.15
Jun-2009	388,504,496	8,396,302	0	- 38,691,756	-9.96
Jul-2009	379,884,652	8,920,793	0	- 29,791,574	-7.84
Aug-2009	417,718,890	7,745,266	0	- 22,211,230	-5.32
Sep-2009	476,920,474	11,390,789	0	- 10,848,845	-2.27
Oct-2009	478,206,217	- 1,260,470	0	- 12,134,968	-2.54
Nov-2009	467,981,428	7,816,435	0	- 4,339,904	-0.93
Dec-2009	460,887,939	978,601	0	- 3,386,044	-0.73
Jan-2010	494,113,754	- 536,799	0	- 3,954,220	-0.80
Feb-2010	536,415,257	2,629,875	0	- 1,350,564	-0.25
Mar-2010	529,962,831	7,950,695	0	6,592,916	1.24
Apr-2010	505,028,620	3,769,231	0	10,366,971	2.05
May-2010	495,723,958	- 8,178,556	0	2,164,107	0.44
Jun-2010	483,015,094	- 3,741,998	0	- 1,715,881	-0.36
Jul-2010	454,152,490	8,216,789	0	6,477,955	1.43
Aug-2010	478,983,837	- 954,095	0	5,493,768	1.15
Sep-2010	531,289,764	11,065,950	0	16,376,944	3.08
Oct-2010	545,098,997	8,352,517	0	24,701,594	4.53
Nov-2010 <sup>[11]</sup>	537,632,325	- 1,485,861	0	3,191,638	0.59
Dec-2010	526,037,834	7,596,878	0	10,761,836	2.05
Jan-2011	543,100,034	4,427,520	0	15,156,209	2.79
Feb-2011	584,582,290	7,036,994	0	22,226,373	3.80
Mar-2011	602,634,879	168,183	0	22,316,281	3.70
Apr-2011	602,899,146	8,660,352	0	30,976,656	5.14
May-2011	600,527,414	- 1,003,816	0	30,000,368	5.00
Jun-2011	584,153,071	- 2,244,871	0	27,687,521	4.74
Jul-2011	553,620,075	383,544	- 909,098	27,161,999	4.91
Aug-2011	550,357,944	- 11,607,805	- 902,641	14,651,568	2.66
Sep-2011	580,320,257	- 16,972,235	- 1,011,187	- 3,331,839	-0.57
Oct-2011	616,014,627	19,660,977	- 1,022,377	15,306,775	2.48
Nov-2011	614,641,484	- 2,138,517	- 1,051,805	12,116,473	1.97
Dec-2011	570,282,703	1,812,147	- 1,017,403	12,758,773	2.24
Jan-2012	588,887,714	12,029,128	- 1,001,701	23,759,216	4.03
Feb-2012	640,696,614	10,597,480	- 1,075,899	33,258,187	5.19
Mar-2012 <sup>[12]</sup>	665,476,106	6,211,504	- 1,076,596	8,322,216	1.25
Apr-2012	675,583,556	- 46,605	- 1,088,493	7,168,811	1.06
May-2012	650,891,109	- 14,138,289	- 1,072,313	- 8,061,857	-1.24
Jun-2012	651,130,437	10,716,945	- 1,037,938	1,471,157	0.23
Jul-2012	646,978,870	5,879,922	- 998,094	6,258,602	0.97
Aug-2012	649,388,408	7,839,154	- 970,634	13,104,020	2.02
Sep-2012	696,232,882	8,049,795	- 1,050,089	21,081,049	3.03
Oct-2012	710,358,991	- 1,197,576	- 1,067,091	18,810,096	2.65
Nov-2012	691,059,345	5,398,282	- 1,042,304	23,118,256	3.35
Dec-2012	676,084,453	5,351,934	- 1,023,111	27,408,223	4.05
Jan-2013	698,562,775	12,404,710	- 1,017,830	38,765,511	5.55
Feb-2013	734,583,537	2,136,815	- 1,110,373	39,781,379	5.42
Mar-2013	741,356,785	7,909,680	- 1,118,897	46,560,042	6.28
Apr-2013 <sup>[13]</sup>	746,499,564	8,176,059	- 1,098,001	33,597,353	4.50
May-2013	749,121,650	- 232,068	- 1,086,419	32,122,561	4.29
Jun-2013	730,655,804	- 11,399,623	- 1,070,174	18,372,158	2.51
Jul-2013	699,864,927	17,517,869	- 995,266	35,972,372	5.14
Aug-2013	722,698,696	- 10,850,330	- 1,017,100	24,104,402	3.34
Sep-2013 <sup>[14]</sup>	757,589,559	16,932,055	- 1,113,457	24,944,753	3.29
Oct-2013	773,300,230	13,389,288	- 1,110,570	37,198,388	4.81
Nov-2013	782,311,772	7,133,796	- 1,126,357	43,114,980	5.51

\* Ending Market Value. (Prior to Feb. 2023, was average Market Value for the month)  
See endnotes at the end of this exhibit

**NEVADA SYSTEM OF HIGHER EDUCATION  
RESERVE ACCOUNT ANALYSIS  
April 2000 - July 2023**

	<u>Operating Fund Market Value*</u>	<u>Investment Income Earned</u>	<u>Investment Income Distributed</u>	<u>Reserve Account Ending Balance</u>	<u>Reserve/(Deficit) as % of Total Operating Fund</u>
Dec-2013	766,348,636	3,839,932	- 1,096,572	45,808,074	5.98
Jan-2014	794,356,651	- 10,323,902	- 1,103,315	34,364,198	4.33
Feb-2014	832,429,376	17,369,351	- 1,199,782	50,609,052	6.08
Mar-2014 <sup>[15]</sup>	827,743,406	658,708	- 1,232,998	29,973,696	3.62
Apr-2014	811,778,308	5,011,098	- 1,192,620	33,733,052	4.16
May-2014	802,766,371	9,865,028	- 1,167,436	42,329,115	5.27
Jun-2014	796,867,536	5,137,303	- 1,132,848	44,988,631	5.65
Jul-2014	769,443,193	- 7,085,988	- 1,088,507	37,893,670	4.92
Aug-2014	768,458,918	9,717,438	- 1,074,041	46,500,161	6.05
Sep-2014	799,195,918	- 12,343,439	- 1,174,737	32,956,777	4.12
Oct-2014	809,138,417	3,728,437	- 1,179,110	35,489,183	4.39
Nov-2014	803,360,295	7,715,321	- 1,179,110	42,007,603	5.23
Dec-2014	787,894,117	- 8,447,678	- 1,162,452	32,373,324	4.11
Jan-2015	817,081,803	- 76,950	- 1,146,238	31,126,582	3.81
Feb-2015	861,706,208	14,825,760	- 1,173,599	44,758,231	5.19
Mar-2015	846,665,997	- 6,106,183	- 1,266,477	37,276,172	4.40
Apr-2015	816,988,387	8,550,962	- 1,236,365	44,571,763	5.46
May-2015	800,253,288	878,840	- 1,180,152	44,251,472	5.53
Jun-2015	775,206,818	- 8,971,779	- 2,277,378	32,851,768	4.24
Jul-2015	741,262,295	3,882,734	0	36,716,269	4.95
Aug-2015	730,652,584	- 21,602,156	- 1,044,825	14,046,895	1.92
Sep-2015	743,692,218	- 9,918,574	- 1,053,121	2,945,392	0.40
Oct-2015	763,715,634	22,165,405	- 1,145,809	23,945,040	3.14
Nov-2015	773,032,685	- 1,931,303	- 1,153,337	20,734,926	2.68
Dec-2015	757,261,248	- 6,511,571	- 1,159,535	12,989,860	1.72
Jan-2016	753,972,401	- 11,441,815	- 1,155,539	370,580	0.05
Feb-2016	790,998,777	- 681,126	- 1,124,930	- 1,455,417	-0.18
Mar-2016	797,575,047	21,771,860	- 1,224,413	18,964,772	2.38
Apr-2016	766,518,822	3,441,429	- 1,170,933	21,216,478	2.77
May-2016	757,996,550	701,573	- 1,125,582	20,774,029	2.74
Jun-2016	755,484,888	3,775,103	- 1,098,587	23,146,343	3.06
Jul-2016	733,302,986	11,461,092	- 1,059,136	33,491,949	4.57
Aug-2016 <sup>[16]</sup>	766,724,276	- 2,118,513	- 1,045,608	25,041,315	3.27
Sep-2016	842,005,030	5,780,022	- 1,194,237	29,752,500	3.53
Oct-2016	862,418,660	- 6,852,761	- 1,202,643	21,682,310	2.51
Nov-2016	845,771,679	- 741,201	- 1,181,669	19,718,479	2.33
Dec-2016	817,936,437	6,570,718	- 1,128,775	25,086,318	3.07
Jan-2017	830,799,148	9,054,706	- 1,084,201	32,985,285	3.97
Feb-2017	880,425,266	10,058,347	- 1,242,283	41,938,224	4.76
Mar-2017	893,424,246	3,300,433	- 1,232,302	43,973,971	4.92
Apr-2017	887,806,037	7,463,148	- 1,217,247	50,184,988	5.65
May-2017	887,269,645	8,464,067	- 1,198,145	57,369,255	6.47
Jun-2017	847,739,260	675,163	- 1,143,788	55,459,088	6.54
Jul-2017	813,856,671	10,359,659	- 1,076,066	65,797,343	8.08
Aug-2017	839,204,422	2,535,845	- 1,066,881	67,230,046	8.01
Sep-2017	881,692,900	5,616,527	- 1,202,797	71,754,200	8.14
Oct-2017	901,627,087	6,727,263	- 1,229,105	77,279,939	8.57
Nov-2017	897,702,172	7,822,907	- 1,153,420	83,851,878	9.34
Dec-2017	855,516,473	5,905,871	- 1,073,414	88,582,274	10.35
Jan-2018 <sup>[17]</sup>	870,092,454	18,446,268	- 1,084,399	80,652,619	9.27
Feb-2018	895,531,308	- 16,708,736	- 1,163,952	62,862,530	7.02
Mar-2018	866,802,937	- 5,188,184	- 1,208,065	56,484,006	6.52
Apr-2018	869,750,629	1,383,567	- 1,207,801	56,632,529	6.51
May-2018	868,282,529	4,480,231	- 1,010,580	59,885,226	6.90
Jun-2018	828,275,019	504,749	- 1,105,523	58,061,099	7.01

\* Ending Market Value. (Prior to Feb. 2023, was average Market Value for the month)  
See endnotes at the end of this exhibit

**NEVADA SYSTEM OF HIGHER EDUCATION  
RESERVE ACCOUNT ANALYSIS  
April 2000 - July 2023**

	<u>Operating Fund Market Value*</u>	<u>Investment Income Earned</u>	<u>Investment Income Distributed</u>	<u>Reserve Account Ending Balance</u>	<u>Reserve/(Deficit) as % of Total Operating Fund</u>
Jul-2018 <sup>[18]</sup>	781,211,535	11,568,283	- 1,004,059	44,605,676	5.71
Aug-2018	810,642,123	4,837,891	- 1,076,126	48,410,834	5.97
Sep-2018	879,381,343	- 14,451	- 1,137,144	47,294,965	5.38
Oct-2018	843,212,368	- 27,059,717	- 1,137,144	18,072,015	2.14
Nov-2018	762,699,933	6,136,519	- 1,136,756	23,111,191	3.03
Dec-2018	752,705,668	- 20,825,049	- 1,078,367	1,167,391	0.16
Jan-2019 <sup>[19]</sup>	753,528,570	23,632,965	- 1,096,327	23,296,550	3.09
Feb-2019	754,807,467	9,824,828	- 1,452,664	31,564,140	4.18
Mar-2019	761,309,536	9,279,311	- 1,515,302	38,857,044	5.10
Apr-2019	764,955,436	11,312,489	- 1,614,169	48,487,968	6.34
May-2019	774,616,352	- 13,890,657	- 1,571,635	32,952,377	4.25
Jun-2019	746,443,912	21,045,778	- 1,567,035	52,205,793	6.99
Jul-2019	720,007,773	381,944	- 1,395,492	51,172,462	7.11
Aug-2019	785,158,884	- 779,722	- 1,450,754	48,914,638	6.23
Sep-2019	846,535,697	6,233,348	- 1,617,017	53,507,273	6.32
Oct-2019	856,744,736	8,834,730	- 1,693,946	60,625,110	7.08
Nov-2019	850,439,695	10,005,189	- 1,662,312	68,946,980	8.11
Dec-2019	806,757,327	12,830,074	- 1,577,866	80,177,860	9.94
Jan-2020	891,688,604	- 67,519	- 1,500,526	78,625,336	8.82
Feb-2020	922,289,270	- 26,731,149	- 1,768,312	50,103,331	5.43
Mar-2020	811,327,908	- 52,289,889	- 1,670,447	- 3,927,762	-0.48
Apr-2020	775,956,294	37,779,458	- 1,594,553	32,236,898	4.15
May-2020	762,669,298	18,944,864	- 1,504,025	49,410,102	6.48
Jun-2020	739,239,986	11,363,713	- 1,436,870	59,317,547	8.02
Jul-2020	715,432,013	13,526,497	- 1,367,936	71,458,484	9.99
Aug-2020	750,071,933	24,059,497	- 1,362,878	94,131,414	12.55
Sep-2020 <sup>[20]</sup>	783,127,870	- 4,553,776	- 1,506,452	16,589,199	2.12
Oct-2020	752,504,883	- 10,598,354	- 1,648,426	4,321,690	0.57
Nov-2020	770,414,379	40,817,346	- 1,674,331	43,446,992	5.64
Dec-2020	800,821,461	17,596,818	- 1,661,247	59,314,129	7.41
Jan-2021	801,989,497	- 3,592,874	- 1,620,479	54,077,946	6.74
Feb-2021	811,299,798	6,713,929	- 1,713,862	59,057,334	7.28
Mar-2021	839,464,763	13,248,129	- 1,778,902	70,506,600	8.40
Apr-2021	867,572,029	18,665,949	- 1,764,575	87,388,466	10.07
May-2021	867,559,211	8,709,068	- 1,748,219	94,327,700	10.87
Jun-2021	850,146,946	4,366,402	- 1,744,947	96,682,304	11.37
Jul-2021	846,055,682	9,850,417	- 1,696,940	104,816,309	12.39
Aug-2021	901,931,433	9,401,085	- 1,730,758	112,458,814	12.47
Sep-2021	968,136,826	- 18,290,298	- 1,812,661	79,271,334	8.19
Oct-2021	984,247,430	19,911,506	- 1,996,177	78,208,255	7.95
Nov-2021	944,077,590	- 5,851,187	- 1,961,147	70,375,029	7.45
Dec-2021	959,607,403	17,310,812	- 1,908,942	85,755,161	8.94
Jan-2022	1,011,622,318	- 24,280,980	- 1,903,980	59,545,381	5.89
Feb-2022	974,461,174	- 11,541,309	- 1,992,047	45,938,564	4.71
Mar-2022	922,855,315	2,729,592	- 2,048,720	46,603,144	5.05
Apr-2022	876,338,530	- 40,563,162	- 2,066,983	3,962,090	0.45
May-2022	801,574,962	6,736,026	- 2,038,768	8,448,237	1.05
Jun-2022	748,819,988	- 37,445,974	0	- 28,941,893	-3.87
Jul-2022	741,544,311	32,094,620	0	3,238,566	0.44
Aug-2022	714,610,109	- 22,563,024	0	- 19,246,567	-2.69
Sep-2022	696,296,970	- 44,163,254	0	- 63,220,462	-9.08
Oct-2022	730,359,216	22,587,745	0	- 40,351,965	-5.52
Nov-2022	769,940,214	34,674,251	0	- 5,345,907	-0.69
Dec-2022	747,040,548	- 15,973,584	0	- 21,013,709	-2.81
Jan-2023	724,091,333	31,375,155	0	10,751,942	1.48

\* Ending Market Value. (Prior to Feb. 2023, was average Market Value for the month)  
See endnotes at the end of this exhibit

**NEVADA SYSTEM OF HIGHER EDUCATION  
RESERVE ACCOUNT ANALYSIS  
April 2000 - July 2023**

	<u>Operating Fund Market Value*</u>	<u>Investment Income Earned</u>	<u>Investment Income Distributed</u>	<u>Reserve Account Ending Balance</u>	<u>Reserve/(Deficit) as % of Total Operating Fund</u>
Feb-2023	885,523,459	- 14,154,935	0	- 3,157,792	-0.36
Mar-2023	898,282,674	17,786,032	0	14,873,488	1.66
Apr-2023	901,696,797	8,984,906	- 1,995,815	22,241,902	2.47
May-2023	749,788,500	- 6,926,197	0	15,617,966	2.08
Jun-2023	746,145,145	19,941,847	- 1,612,591	34,294,470	4.60
Jul-2023	737,421,020	11,862,275	- 1,489,178	45,067,919	6.11

**ENDNOTES**

[1] New Board policy to distribute 5.0% of the average cash balance was approved at the March 2000 Investment Committee meeting, and made retroactive to January 2000. A special cash distribution was made in April to adjust the year to date campus investment income allocation.

[2] Annual distribution rate increased to 6.2%.

[3] Annual distribution rate cut to 5.0%, effective July 2001.

[4] Annual distribution rate cut to 4.0%, effective January 1, 2002.

[5] Annual distribution rate cut to 3.5%, effective July 1, 2002.

[6] At the Oct 2002 mtg, the Committee established a "trigger" point for the Operating Fund. The distribution rate would be automatically reduced to 1.8% should the reserve account deficit exceed \$20M.

[7] Includes a \$15.0 mm distribution to the iNtegrate project.

[8] Includes a distribution of \$10.0 mm to the campuses, \$1.5 mm to Health Science, and \$107,000 to WNC for Athletic Fee Waiver.

[9] Includes a distribution of \$10.0 mm to the campuses.

[10] Includes a distribution of \$5.2 mm to integrate.

[10.5] Includes a distribution of \$5.0 mm to the campuses.

[11] Includes a distribution of \$20.0 mm to the iNtegrate project, as approved by the Investment Committee at the December 2010 meeting.

[12] At the March 2012 meeting, the committee approved to decrease the Reserve Account by \$30.0 mm for reallocation into the Market Fluctuation account.

[13] Includes a further decrease of the Reserve Account of \$20.0 mm for reallocation into the Market Fluctuation account.

[14] Includes a distribution of \$15.0 mm to address formula implementation and budgetary items otherwise foregone or delayed without this funding.

[15] Includes a distribution of \$20.0 mm to the iNtegrate project.

[16] Includes a distribution of \$5.0 mm for campus initiatives such as the medical education transition in Las Vegas, program start-up and other budgetary opportunities.

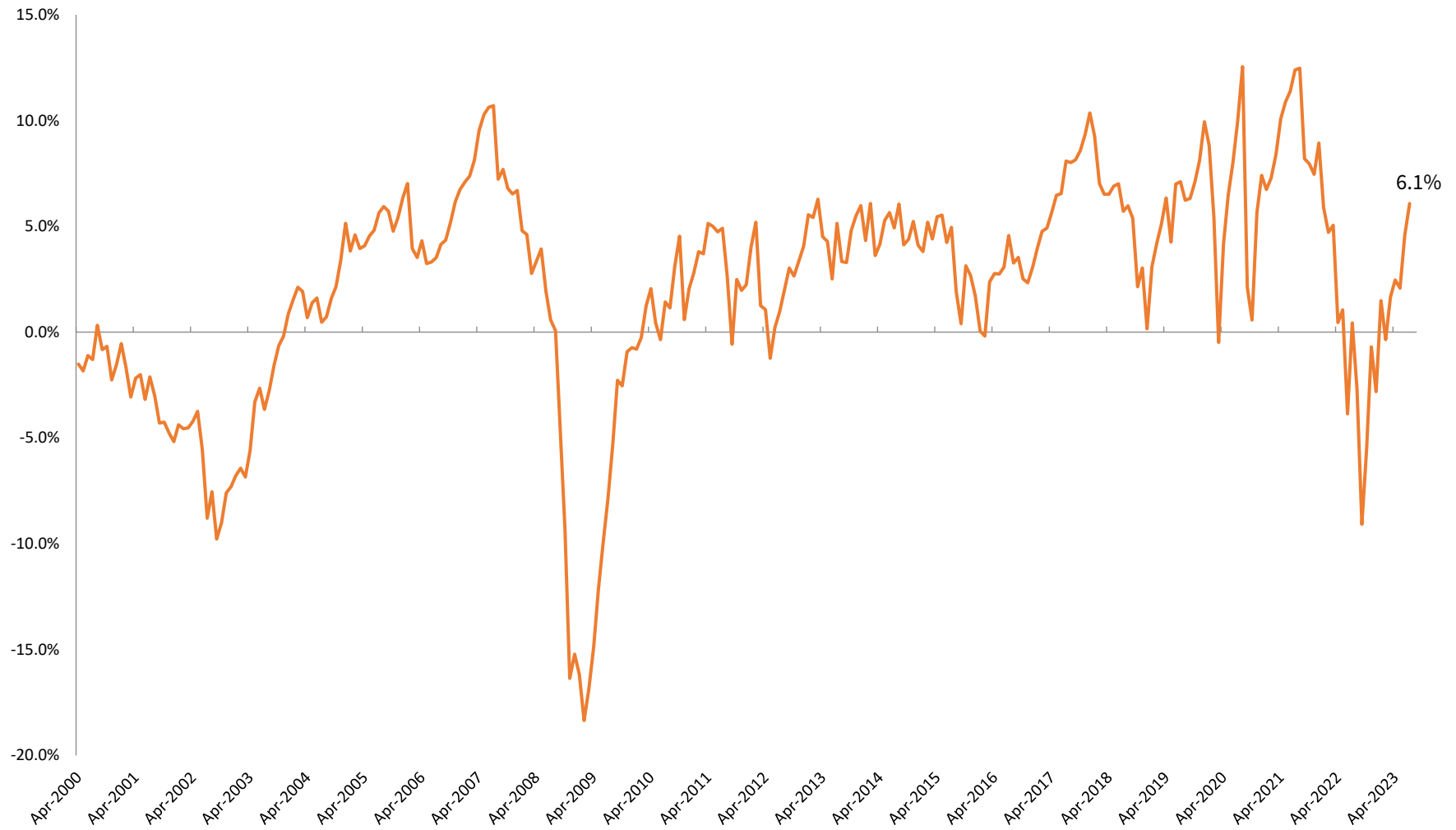
[17] Includes a special distribution of \$25.0 mm to the campuses.

[18] Includes a special distribution of \$25.0 mm to the campuses.

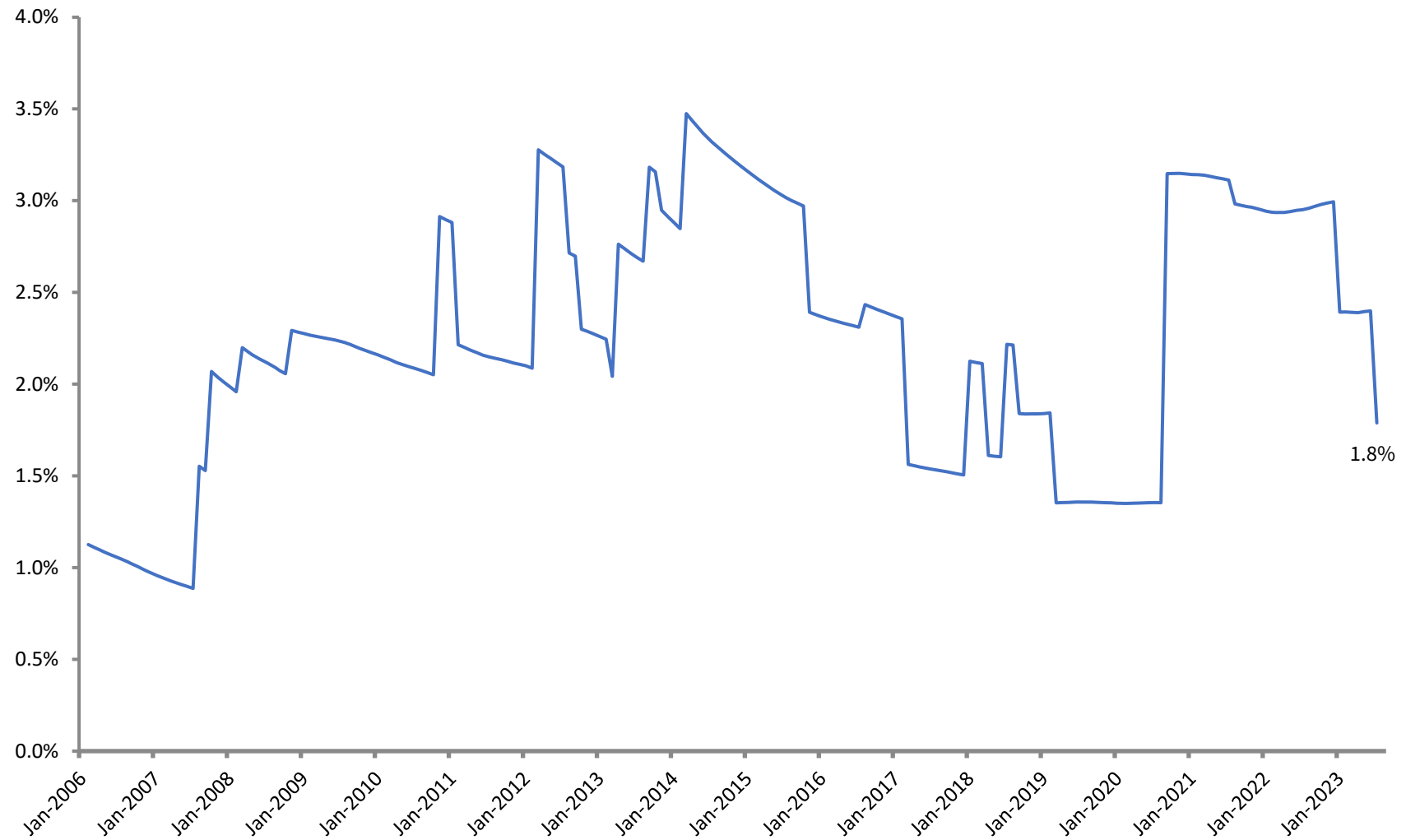
[19] At the November 2018 meeting, the Committee increased the annual distribution rate from 2.0% to 2.75%.

[20] At a special meeting on 8/21/20 the BOR approved a special distribution of \$73.0 mm to the campuses.

## Reserve/(Deficit) as % of Total Operating Pool

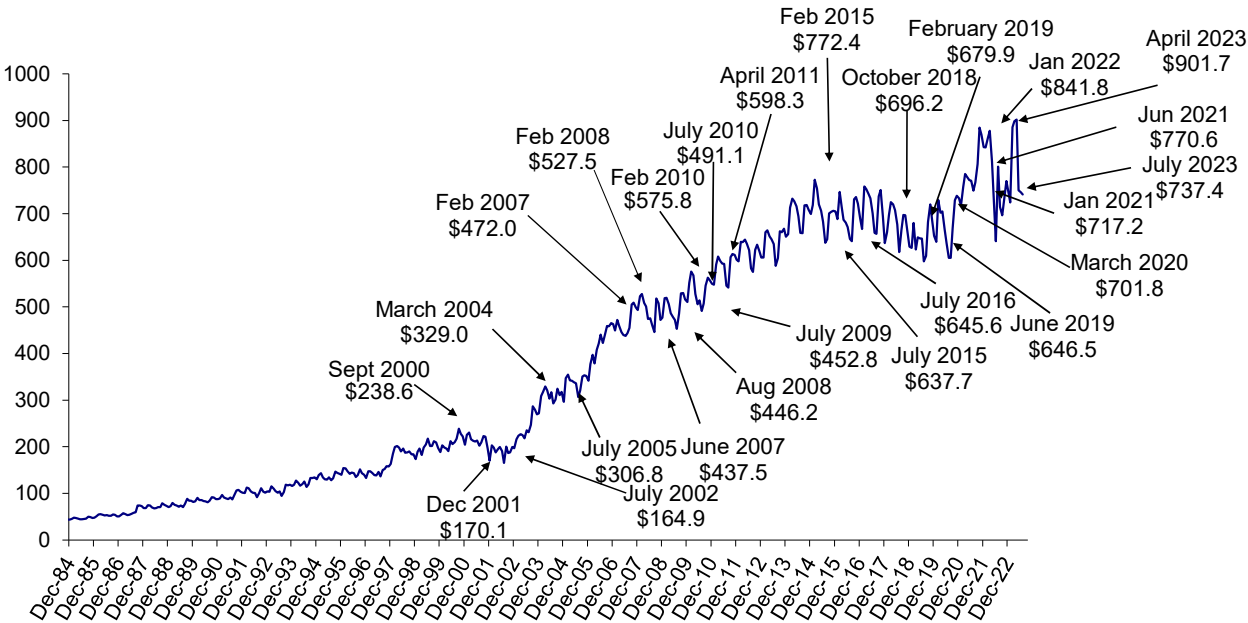


## 5-Yr Special Distribution as % of 5-Yr Average Market Value



NEVADA SYSTEM OF HIGHER EDUCATION  
OPERATING FUND MONTHLY BALANCES

Operating Fund Monthly Balances  
January 1985 through July 2023



	<u>\$ (mm)</u>	<u>Date</u>
Largest Monthly Decline	-151.9	June 2023
Largest Quarterly Decline	-236.9	Second Quarter 2022
Largest Peak to Valley	-134.7	February 2015 - July 2015