

## Executive Summary

### EXECUTIVE SUMMARY

#### Market & Geopolitical Update

In the fourth quarter of 2021, risk assets surged, capping off a year of impressive gains. Global equities advanced as US stocks topped developed ex US peers, but emerging markets shares declined again in fourth quarter. Global fixed income benchmarks generally declined as central banks turned more hawkish and inflation expectations rose. Real assets mostly advanced; energy commodities tumbled for the quarter, but still delivered top gains among major asset classes for the year.

In January most global assets experienced broad-based declines. Global equities suffered their worst month since March 2020; emerging markets held up better than developed counterparts but remain a significant laggard over the trailing 12-month period. Fixed income assets declined as nominal interest rates rose and markets continued to price in imminent central bank policy tightening. Energy-related assets were top performers as oil & gas prices spiked.

In February most asset classes declined as Russia's invasion of Ukraine created a tragic humanitarian and geopolitical crisis. Developed markets equities outperformed emerging markets equivalents, which were hampered by a 50%+ decline in Russia. Among domestic fixed income categories, US Treasuries held up better than corporate equivalents, high-yield bonds bested investment-grade peers, and TIPS advanced. Energy-related assets were again top performers as oil & gas prices surged.

#### Operating Fund Performance and Asset Allocation as of February 28, 2022

For fiscal year through 2/28/2022, the Total Operating Fund returned a preliminary -0.4%, directly in line with the Policy Index. The Total Long-Term Pool returned 0.1% for the period, outperforming the Total Long-Term Pool Benchmark by 70bps. Marketable Alternatives led performance on both an absolute and relative basis returning 7.5%, outperforming the HFRI Fund of Funds Diversified Index's return of -1.2%, by 870 bps.

For calendar year 2021, the Operating Fund posted a return of 9.5%, outperforming the Policy Index by 110 bps. The Total Long-Term Pool returned 15.8% for the period, outperforming the Total Long-Term Pool Benchmark by 150bps. U.S. Equity led performance on an absolute basis returning 28.7%, Marketable Alternatives generated the greatest performance on a relative basis returning 12.0% compared to the HFRI Fund of Funds Diversified Index's return of 5.8%.

As of February 28, 2022, the Long-Term Pool had an underweight to Global ex U.S. Equity and Long-Term Bonds, and an overweight to U.S. Equity, Marketable Alternatives, and TIPS.

#### Operating Fund Return Projections

As shown in the following pages, while the Operating Fund Policy 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 Operating Fund has a 50% likelihood of a real return between 0.9% and 6.7%, with a 25% likelihood of returns either above or below this range.

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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 -1.8% real (far below C|A's long-term return assumption of 5.7%), and US Treasuries would return -0.9% real (similarly falling short of C|A's long-term return assumption of 2.8%). Looking across the Operating Fund, this "return to normal" thought exercise suggests a 0.0% 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.

### Action Items

On the following page we include the Operating Fund performance estimate for March (-0.4%). We estimate that the Reserve Account balance has dropped below 5%.

The updated rebalancing table following this Executive Summary reflects the following rebalancing recommendations:

- Rebalancing Global ex U.S. Equity closer to policy target:
  - \$10 million addition to Vanguard Developed Markets Index
- Trim U.S. Equity to rebalance toward policy targets:
  - \$5 million trim from Vanguard Institutional Index
- Trim Long-Term Bonds to support rebalancing of Global ex U.S. Equity:
  - \$2.5 million trim from PIMCO Total Return
  - \$2.5 million trim from Wells Capital Montgomery

## NSHE Operating Fund - Rebalancing Recommendations

## Updated with Supplemental Information

Estimated as of March 16, 2022  
Estimated as of February 28, 2022

Estimated as of March 16, 2022 Estimated as of February 28, 2022		Allocation as of Feb 28, 2022		3/1/2022 - 3/16/2022	Estimated Allocation as of Mar 16, 2022		Recommendations (C A)		Pro Forma Allocation		Targets (%)	Allowable Range
		Assets (\$ mm)	Allocation (%)	Est Perf (%)	Assets (\$ mm)	Allocation (%)	(\$ mm)	(%)	Assets (\$ mm)	Allocation (%)		
U.S. Equity												
Vanguard Institutional Index		182.4	31.6	-0.3%	181.9	31.7	-5.0	-0.9	\$176.9	30.8		
Metis US Equity Index		51.9	9.0%	-0.3%	51.8	9.0%			\$51.8	9.0		
Total U.S. Equity		\$234.3	40.5%	-0.3%	\$233.6	40.7%	-\$5.0	-0.9%	\$228.6	39.9%	40.0%	33%-50%
Global ex U.S. Equity												
Vanguard Developed Markets Index		98.7	17.1	-1.4	97.3	17.0	+10.0	1.7	\$107.3	18.7		
Metis International Equity Index		48.3	8.4	-3.1	46.8	8.2			\$46.8	8.2		
Total Global ex U.S. Equity		\$147.0	25.4%	-1.9%	\$144.1	25.1%	\$10.0	1.7%	\$154.1	26.9%	27.0%	17%-30%
Marketable Alternatives												
Farallon Capital		1.3	0.2	-0.5	1.3	0.2			\$1.3	0.2		
Total Marketable Alternatives		\$1.3	0.2%	-0.5%	\$1.3	0.2%	---	---	\$1.3	0.2%	0.0%	
TOTAL EQUITIES		\$382.6	66.2%	-0.9%	\$379.1	66.1%	\$5.0	0.9%	\$384.1	67.0%	67.0%	50%-80%
TIPS												
Vanguard Inflation-Protected Securities		80.4	13.9	-1.0	79.6	13.9			\$79.6	13.9		
Vanguard Short-Term Inflation-Protected S		41.2	7.1%	-0.2	41.1	7.2%			\$41.1	7.2		
Total TIPS		\$121.6	21.0%	-0.7%	\$120.7	21.0%	---	---	\$120.7	21.0%	20.0%	8%-25%
Long Term Bonds												
PIMCO Total Return		48.8	8.5	-0.0	48.8	8.5	-2.5	-0.4	\$46.3	8.1		
Wells Capital Montgomery		24.9	4.3	-0.0	24.9	4.3	-2.5	-0.3	\$22.4	3.9		
Total Long Term Bonds		\$73.7	12.8%	-0.0%	\$73.7	12.9%	-\$5.0	-0.9%	\$68.7	12.0%	13.0%	8%-25%
TOTAL LONG-TERM POOL		\$577.9	100.0%	-0.8%	\$573.5	100.0%	---		\$573.5	100.0%	100.0%	
Estimated MTD investment gain/(decline)					-\$4.4							
Intermediate Term Bonds							Recommendations (NSHE Staff)					
Access Community Investment Fund SMA		24.3		-0.0	24.3				24.3			
WellsCap Short Duration		114.2		-0.0	114.2				114.2			
Total Intermediate Term Bonds		\$138.5		-0.0%	\$138.5		---		\$138.5			
Estimated MTD investment gain/(decline)					-\$0.0							
Short Term Bonds and Cash												
Short Term Bonds and Cash*		262.8		---	262.8				262.8			
Total Short Term Bonds and Cash		\$262.8		---	\$262.8		---		\$262.8			
TOTAL OPERATING FUND		\$979.2		-0.4%	\$974.8		---		\$974.8			

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. Cash accounts assume a 0% return for the period.

## Updated Performance Data through 2/28/2022

### Investment Performance by Composite

As of 2/28/2022

Returns (%)	INCEPTION DATE	CURRENT MARKET VALUE	MONTH TO DATE	CALENDAR YEAR TO DATE	FISCAL YEAR TO DATE JUN	ANNUALIZED TRAILING 10 YEARS	ANNUALIZED SINCE 03/31/17	ANNUALIZED SINCE INCEPTION
Total Operating Fund*	6/30/1996	\$979,190,860	-1.3	-3.7	-0.4	5.6	6.7	5.2
Policy Index <sup>1</sup>	6/30/1996		-0.9	-3.5	-0.4	5.4	6.2	4.8
<b>Operating Liquidity Pools*</b>	<b>6/30/1996</b>	<b>\$401,295,778</b>	<b>-0.3</b>	<b>-0.6</b>	<b>-0.8</b>	<b>0.7</b>	<b>1.0</b>	<b>2.5</b>
<b>Intermediate-Term Bonds*</b>	<b>6/30/1996</b>	<b>\$138,478,394</b>	<b>-0.7</b>	<b>-1.4</b>	<b>-2.1</b>	<b>1.4</b>	<b>1.3</b>	<b>3.8</b>
BofA ML 1-3 Yr Treasury Bond Index	6/30/1996		-0.4	-1.0	-1.5	1.0	1.4	3.1
Value Add			-0.3	-0.4	-0.6	0.4	-0.1	0.7
<b>Short-Term Bonds and Cash*<sup>3</sup></b>	<b>6/30/1996</b>	<b>\$262,817,384</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.5</b>	<b>0.9</b>	<b>2.1</b>
BofA ML 91-Day Treasury Bills	6/30/1996		0.0	0.0	0.0	0.6	1.1	2.1
Value Add			0.0	0.0	0.0	-0.2	-0.2	0.0
<b>Total Long-Term Pool*</b>	<b>6/30/1996</b>	<b>\$577,895,081</b>	<b>-1.8</b>	<b>-5.5</b>	<b>0.1</b>	<b>8.5</b>	<b>9.6</b>	<b>7.1</b>
Long-Term Pool Benchmark <sup>1</sup>	6/30/1996		-1.4	-5.6	-0.6	8.4	9.4	6.3
Value Add			-0.4	0.1	0.7	0.1	0.2	0.8
<b>U.S. Equity*</b>	<b>6/30/2000</b>	<b>\$234,295,526</b>	<b>-3.0</b>	<b>-8.0</b>	<b>2.7</b>	<b>14.6</b>	<b>15.5</b>	<b>7.5</b>
S&P 500 Index	6/30/2000		-3.0	-8.0	2.7	14.6	15.4	7.3
Value Add			0.0	0.0	0.0	0.0	0.1	0.2
<b>Global ex U.S. Equity*</b>	<b>6/30/2000</b>	<b>\$146,976,009</b>	<b>-2.3</b>	<b>-6.4</b>	<b>-5.5</b>	<b>6.1</b>	<b>7.7</b>	<b>4.1</b>
MSCI EAFE Index (N)	6/30/2000		-1.8	-6.5	-4.4	6.2	6.7	3.8
Value Add			-0.6	0.1	-1.1	0.0	1.0	0.3
<b>Marketable Alternatives*</b>	<b>6/30/2000</b>	<b>\$1,346,661</b>	<b>0.0</b>	<b>-0.1</b>	<b>7.5</b>	<b>1.8</b>	<b>-0.2</b>	<b>5.1</b>
HFRI Fund of Funds Diversified Index	6/30/2000		-0.5	-2.5	-1.2	3.9	4.7	3.5
Value Add			0.5	2.4	8.7	-2.2	-4.9	1.5
<b>TIPS*</b>	<b>6/30/2000</b>	<b>\$121,551,212</b>	<b>0.9</b>	<b>-0.6</b>	<b>2.8</b>	<b>2.7</b>	<b>4.8</b>	<b>5.4</b>
BBG US TIPS Index	6/30/2000		0.9	-1.2	2.9	2.8	4.9	5.5
Value Add			0.0	0.6	-0.1	0.0	-0.2	-0.1
<b>Long-Term Bonds</b>	<b>6/30/1996</b>	<b>\$73,725,673</b>	<b>-1.0</b>	<b>-3.0</b>	<b>-2.8</b>	<b>3.0</b>	<b>3.1</b>	<b>5.7</b>
BBG Aggregate Bond Index	6/30/1996		-1.1	-3.2	-3.2	2.5	2.8	4.9
Value Add			0.1	0.2	0.4	0.5	0.4	0.8