



# 100 Campus Center ~~~ Seaside, CA ~~~ 93955-8001

# Memorandum

**To:** Investment Committee

VIA: Gifford Lehman, Chair

FROM: Nancy Ayala

**DATE:** January 31, 2024

**SUBJECT:** Agenda and Read-Ahead Materials

Enclosed are the agenda and read-ahead materials for the Investment Committee meeting on Wednesday, February 7, 2024. The meeting will be held in the board room at the Alumni and Visitors Center on the CSUMB campus starting at 10:00 a.m.

If you have any questions or concerns before the meeting, please feel free to contact me at nayala@csumb.edu.





# UNIVERSITY CORPORATION AT MONTEREY BAY

100 Campus Center ~~~ Seaside, CA ~~~ 93955-8001

# **Auxiliary Investment Committee Meeting**

Wednesday, February 7, 2024 ~~ 10:00 a.m. – 12:00 p.m. Alumni and Visitors Center – Board Room

Light refreshments will be served.

# **Revised AGENDA**

I.	Call to Order	G. Lehman
II. 2 min.	Approval of Minutes Approval of November 5, 2023 meeting minutes	G. Lehman
III.	Public Comment	G. Lehman
<b>IV.</b> 45 min.	Business Asset Allocation Review	Verus
<b>V.</b> 10 min.	Reports A. Quarterly Research Report	Verus
10 min.	B. Performance Monitoring Report	Verus
<b>VI.</b> 60 min.	Closed Session in accordance with Education Code 89923 Request for Proposal: Investment Adivsory Services	G. Lehman
VII.	Adjournment	G. Lehman





# UNIVERSITY CORPORATION AT MONTEREY BAY

100 Campus Center ~~~ Seaside, CA ~~~ 93955-8001

# **Investment Committee Meeting**

Tuesday, September 5, 2023 ~~~ 2:00 p.m. − 3: 04 p.m. Virtual Meeting via Zoom

# **Draft Minutes**

Committee 1	Members Present:	Members Absent:
Gifford Lehman, Chair	Brian Corley, CIMA & AIF	
Michal-Anne Miller	Barbara Zappas	
<u>Staf</u>	f Present:	<u>Guests</u> :
Glen Nelson, Corporation Executive Director		Robert Behl, Foundation Board Director
Alan Fisher Associate Executive Director		Jason Taylor, Verus Investments (Verus)
Sherry Baggett, Corporation Controller		John Crosbie, Verus Investments (Verus)
Nancy Ayala, Gov. & Compliance Mgr.		John Wasnock, Verus Investments (Verus)

- **I.** Call to Order: A quorum being established, Chair Gifford Lehman called the meeting to order at 2:00 p.m.
- II. Approval of Minutes: Moved by Member Brian Corley and seconded to approve the August 16, 2023 meeting minutes with a correction to the minutes. §IVB. should read, "excess return of 2-4%" not "a total return of 2-4%". With no further discussion, the motion carried as amended.

Chair Lehman welcomed Foundation Board Director Robert Behl.

- III. Public Comment: The Committee did not receive a request for public comment.
- IV. Closed Session in accordance with Education Code 89923. The Committee entered into closed session at 2:07 p.m.

Cerebus Capital Management, opportunistic real estate fund recommendation:

Member Michal-Anne Miller arrived at 2:08 p.m.

Verus presented opportunistic real estate recommendation Cerberus Institutional Real Estate Partners VI and provided a satisfactory due diligence report to the Committee. Moved by Member Barbara Zappas and seconded to approve the \$2M commitment in Cerebus Capital Management as presented. With no further discussion the motion carried. To ensure timely processing of the subscription agreement by the manager's deadline of November 30, 2023, the meeting was scheduled for September instead of November.

Verus also provided an update on ASB Realty, indicating that the manager has approximately 12% of the fund in the redemption queue. If the Committee decides to enter the redemptions queue, it may take several quarters for the manager to pay. Further information regarding this matter is expected to be available next year.

V.	<b>Adjournment:</b> With no further business to discuss, the	meeting adjourned at 3:04 p.m.
	Gifford Lehman, Committee Chair	ate







**FEBRUARY 2024** 

**Asset Allocation Review** 

**California State University at Monterey Bay** 

# Executive summary

# **OBJECTIVE**

- —To review the expected return of the current target allocations for the Foundation and Operating portfolios, updated to reflect Verus annual revisions to Capital Market Assumptions (CMAs) in 2024.
- —The exercise of reviewing target allocation expectations to ensure that they are still aligned with the portfolio's goals and risk tolerance, is an important and insightful task for investment committees, staff, and stakeholders. It is prudent to perform this type of review every few years, as small changes in the assumptions are made annually.
- —To compare the expectations for the portfolios to other relevant & commonly discussed allocations and models.

# **KEY OBSERVATIONS**

- —As shown on page 6, expected return for the Foundation portfolio is 7.4% and 6.2% for the Operating portfolio utilizing Verus' 2024 10-year CMA's. This is a stable forecast when compared to last year's model.
- —Change in expected returns vary broadly in the 2024 forecasts (See page 5). This results in minimal changes to expected returns while providing more optimistic outcomes from diversification.
- —After the market wide sell off in 2022, equity markets rallied in 2023 and valuations climbed higher. With higher valuations across most equity markets, we'd expect less room for appreciation moving forward. Fixed income instruments are now providing attractive returns and our expectation is that remains true in the short and intermediate term.

returns for asset classes varied across security type.

Overall expected

Verus is recommending raising the total real estate target to 10%. This will keep risk similar while providing more upside.

# RECOMMENDATIONS

- —Based on conversations over the last year we are recommending raising the allocation to private real estate to 10%. Opportunities in the real estate market for fresh capital are very attractive at the moment and are likely to remain that way for some time.
- —While it will take at least a year to reach the 10% target through private real estate vehicles, we will invest the unfunded amount in the current equity funds that will serve as the funding source.

# Market summary & forecast impacts

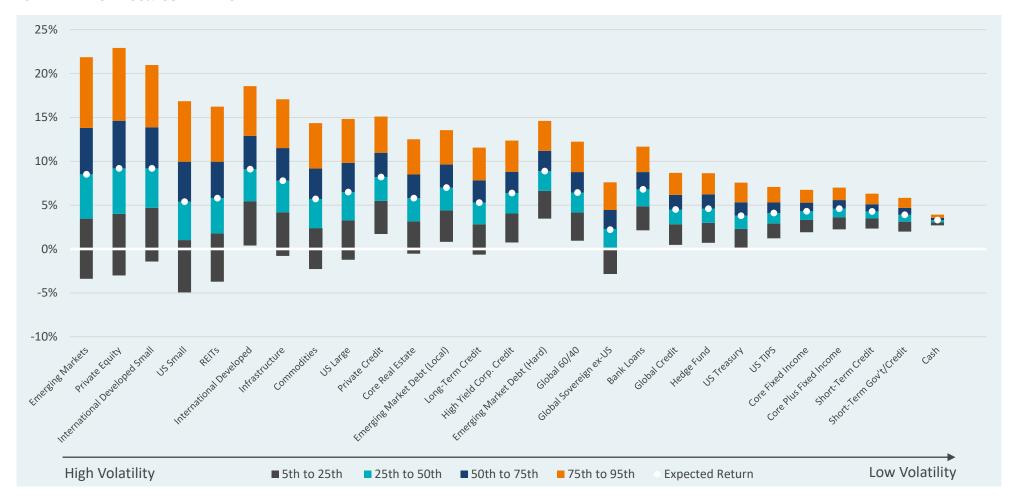
- The trend of rising interest rates continued throughout 2023, and this is a key theme in the 2024 Verus Capital Market Assumptions. Readers will observe gains in the expected return of fixed income assets. The U.S. yield curve has been inverted for some time, and markets are pricing in a higher for longer interest rate environment for years to come, along with a relatively flat yield curve shape. Historically, higher interest rates have negatively impacted the price of equity. Domestic equities have however not materially repriced, with U.S. valuations remaining above-average. Higher bond yields and expensive equity markets have resulted in forecasts for fixed income markets being more competitive with U.S. equity.
- Long term inflation expectations were mixed throughout the year. Household inflation expectations (University of Michigan) increased slightly from 2.7% to 2.8%, the Survey of Professional Forecasters suggested moderately lower long-run inflation, declining from 2.8% to 2.4%, while market-priced inflation expectations (U.S. TIPS Breakeven Rate) increased slightly from 2.2% to 2.3%. Despite elevated inflation in the current environment, these indicators suggest more normal inflation of 2-3% for the next ten years.
- Credit spreads contracted slightly, despite a volatile bond environment. Credit default activity has picked up from very low levels, and is now fairly average based on a twelve-month lookback period. Although credit spreads are tight, broadly rising interest rates have resulted in bond markets offering more attractive long-term returns. Our forecast for high yield bonds and bank loans increased to 6.6% and 8.0%, respectively.
- The long end of the yield curve increased markedly, as the 10-year U.S. Treasury yield moved from 3.83% to 4.57%. The curve has remained flat for most of the year, and is priced to remain flat for years into the future.
- Emerging market hard and local currency debt forecasts were the only fixed income forecasts to move lower. Hard currency-denominated debt spreads to U.S. Treasury yields contracted from 523 bps to 437 bps, offsetting higher return expectations somewhat. The yield of local-denominated debt fell from 7.3% to 6.8%.

All data cited above is as of 9/30/23



# Range of likely 10-year outcomes

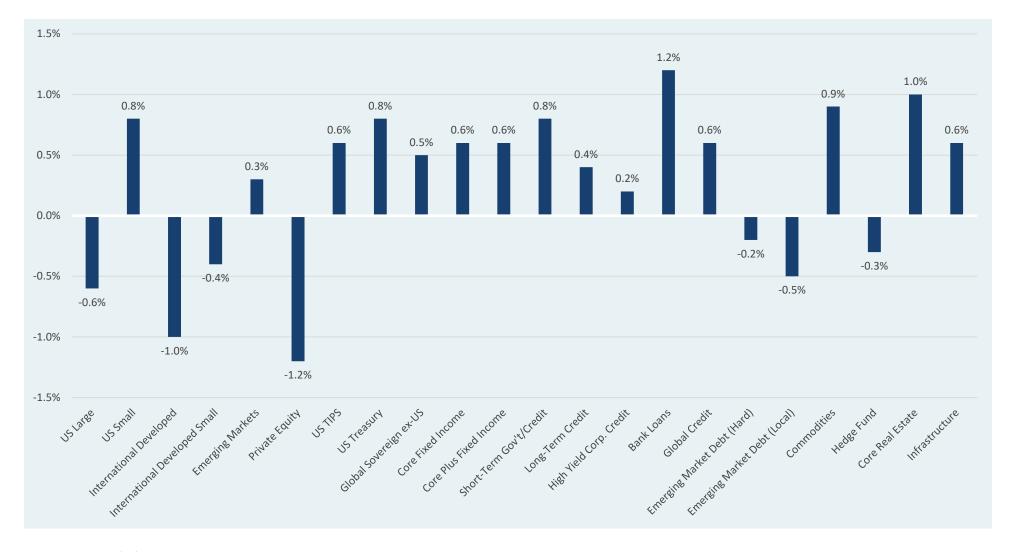
### 10-YEAR RETURN 90% CONFIDENCE INTERVAL



Source: Verus, MPI



# 2024 vs. 2023 return forecast



Source: Verus, as of 9/30/23



# Asset allocation review

				>.			c	MA's (10 Y	'r)
	Í	Recommended	Higher Risk	Highest Risk					_
	Endowmen: Policy		Endowment Policy	Endowment Policy	NACUBO \$25- \$50MM	Operating Policy	Return (a)	Standard Deviation	•
US Laura		•	li '	<i>'</i>		•			
US Large US Small	25 <b>I</b>	25	27 4	29 4	39 0	30 0	7.0 8.2	15.5 21.4	0.19 0.19
OS SMall	0		l <mark>l</mark> 4	4	ı		8.2	21.4	0.19
Total Domestic Equity	31		31	33	39	30			
International Developed	13	12	14	16	10	20	9.5	17.6	0.31
Emerging Markets	11	9	10	11	3	0	11.4	24.6	0.30
Total Int'l Equity	24		24	27	14	20			
Global Equity	0		0	0	5	0	8.2	16.7	0.17
		-	1				0.2	20.7	0.17
Total Equity	55	50	55	60	58	50			
Core Fixed Income	0	-	0	0	21	0	5.0	4.8	0.19
Core Plus Fixed Income	22		17	12	0	25	5.3	4.5	0.24
Short-Term Gov't/Credit	0		0	0	U	15	4.8	3.6	0.19
High Yield Corp. Credit	0	-	0	0	_	0	7.2	11.0	0.28
Emerging Market Debt (Hard)	3		3	3	0	0	9.2	10.6	0.48
US TIPS	0	-	0	0	0	10	4.8	5.5	0.13
Total Fixed Income	25	25	20	15	22	50			
Commodities	0	0	0	0	1	0	7.8	16.1	0.23
Core Real Estate	5	5	5	5	2	0	7.5	12.5	0.27
Opportunistic Real Estate	0	5	5	5	0	0	11.7	21.1	0.36
REITs	0	0	0	0	2	0	8.5	19.2	0.23
Total Real Assets	<sub>5</sub>	10	10	10	6	0			
Hedge Fund	0.0		0.0	0.0	5.5	0	4.6	7.5	0.07
Private Equity	0.0		0.0	0.0	4.4	0	10.9	25.6	0.27
Private Credit	15.0		15.0	15.0	1.2	0	9.8	11.9	0.48
Total Non-Public Investments	15	15	15	15	11	0			
Cash	0.0		0.0	0.0	3.0	0	4.1	1.1	
	100		100	100	100	100			
Total Allocation	100	100	100	100	100	100			
/			m — — —						
Mean Variance Analysis	1		l <mark>l</mark>			- }			
Forecast 10 Year Return	7.4	7.5	7.6	7.7	6.5	6.2			
Standard Deviation	11.7	114	12.1	12.8	11.5	9.0			
Return/Std. Deviation	0.6	0.7	0.6	0.6	0.6	0.7			
st percentile ret. 1 year	-16.4	-15.8	-17.0	-18.1	-16.9	-12.7			
Sharpe Ratio	0.33	0.35	0.34	0.34	0.26	0.27			

The current target allocation is forecasted to return 7.4% over the next ten year.

We recommend raising the total real estate allocation to 10% by adding a target to opportunistic real estate.

Funding would come from equities as capital is called over time.

If a cash reserve is implemented for the foundation, risk could be increased and marginally raise potential return outcomes. These allocations would proportionally increase equity targets while decreasing core fixed income





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# Inflation



# Inflation

We use a weighted average of market expectations (50%), consumer expectations (25%), and professional forecasts (25%) to create a 10-year inflation forecast. The market's expectations for 10-year inflation can be inferred by taking the difference between the U.S. 10-year Treasury yield and the 10-year Treasury Inflation-Protected (TIPS) yield (referred to as the breakeven inflation rate).

Long term inflation expectations have been mixed throughout the year. Household inflation expectations (University of Michigan) increased slightly from 2.7% to 2.8%, the Survey of Professional

Forecasters suggested moderately lower long-run inflation, declining from 2.8% to 2.4%, while market-priced inflation expectations (U.S. TIPS Breakeven Rate) increased slightly from 2.2% to 2.3%. Despite elevated inflation in the current environment, these indicators suggest more normal inflation of 2-3% for the next ten years.

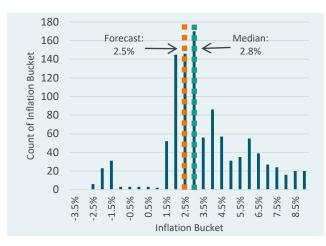
Our inflation forecast was unchanged at 2.5%.

### INFLATION EXPECTATIONS



Source: U. of Michigan, Philly Fed, as of 9/30/23

### U.S. 10-YR ROLLING AVERAGE INFLATION



Source: Bloomberg, as of 9/30/23 – since 1923

### **FORECAST**

	10-Year Forecast
University of Michigan Survey (25% weight)	+2.8%
Survey of Professional Forecasters (25% weight)	+2.4%
US 10-Year TIPS Breakeven Rate (50% weight)	+2.3%
Inflation Forecast	2.5%

Source: Verus, as of 9/30/23



# Fixed income



# Cash

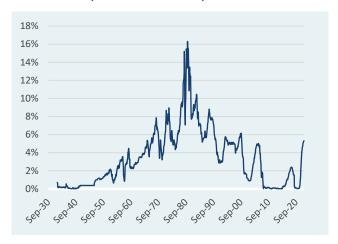
The U.S. Treasury yield continued to ramp up since late 2022 as the Federal Reserve became increasingly aggressive in its tightening efforts. The Federal Funds Rate range was lifted from 3.00-3.25% to 5.25-5.50% during this time.

In 2023 the yield of cash rose above the 10-year U.S. Treasury yield, creating an inverted yield curve—a movement that historically has coincided with near-term recession. However, the economy has remained fairly strong, and investors expect a relatively flat curve for years into the future. Short-term interest rates are now at a level not seen in more than two decades.

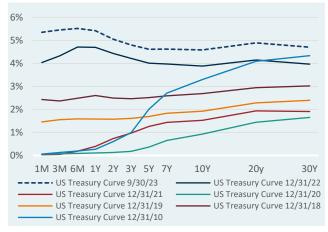
We believe that the current federal funds rate, as well as the steepness of the U.S. Treasury yield curve, may provide guidance regarding the future longer-term cash return. As a third component of our forecast, we assume that the rate of cash over the long-term will drift towards the Federal Reserve's long-term interest rate expectation of 2.5%. We place a one-third forecasting weight to each of these three components.

Applying these relationships results in a 10-year cash forecast of 4.1%.

# CASH YIELD (3-MONTH T-BILL)



# U.S. TREASURY YIELD CURVE



### **FORECAST**

	10-Year Forecast
Cash	4.1%
Inflation Forecast	-2.5%
Real Return	1.6%

Source: Bloomberg, as of 9/30/23 Source: Verus, as of 9/30/23

Source: FRED, as of 9/30/23

# Rates

We forecast the return of 10-year U.S. Treasuries and 30-year U.S. Treasuries based on the current yield of 10- and 30-year U.S. Treasuries, assuming all cash flows are reinvested at the current yield. While the current yield of 10-year Treasuries has historically been a strong predictor of next ten-year performance, it is important to note that 30-year Treasury return is highly dependent on the future path of interest rates, given the very high bond duration of this exposure. In other words, a ten-year forecast of 30-year U.S. Treasuries is accompanied by more forecasting uncertainty.

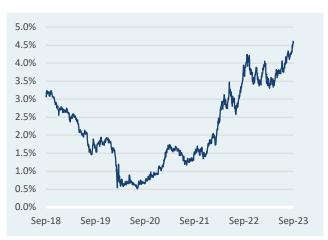
U.S. Treasury yields are no longer materially higher than other developed

nations as central banks work to stamp out inflation in their local economies.

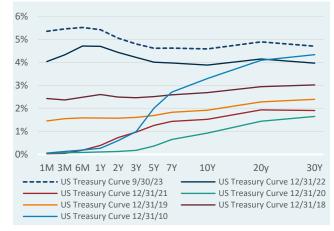
Developed world central banks have pivoted away from extremely loose policies that were enacted to fight the pandemic-induced recession to tighter policies. For the first time in a long time, central banks are removing liquidity from the global financial system and in many cases are unwinding their very large balance sheets.

Our 10-year U.S. Treasury expectations are for a 4.6% return over the next ten years, in line with the current bond yield.

U.S. 10-YR TREASURY YIELD



U.S. TREASURY YIELD CURVE



Source: Bloomberg, as of 9/30/23

**FORECAST** 

	10-Year Forecast		10-Year Forecast
U.S. 10-Year Treasury	+4.6%	U.S. 30-Year Treasury	+4.7%
Inflation Forecast	-2.5%	Inflation Forecast	-2.5%
Real Return	+2.1%	Real Return	+2.2%

Source: Verus, as of 9/30/23

Source: Bloomberg, as of 9/30/23

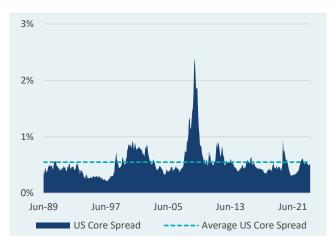
# Core fixed

Credit fixed income return is composed of a bond term premium (duration) and credit spread. The bond term premium is represented by the 10-year U.S. Treasury yield.

We use default rates and credit spreads for each respective fixed income category to provide our 10-year return forecast. Our default rate assumption is derived from a variety of sources, including historical data and academic research. The effective default that is subtracted from the return forecast is based on our assumed default and recovery rates.

Core fixed income spreads remain near the 30-year average of 0.55%, despite elevated volatility in bond markets. Higher interest rates continued to boost fixed income expectations. Our core fixed income forecast is now 4.9%.

### U.S. CORE FIXED INCOME CREDIT SPREAD



# **ROLLING EXCESS RETURN (10-YR)**



Source: Bloomberg, as of 9/30/23

### **FORECAST**

	10-Year Forecast
Bloomberg U.S. Option- Adjusted Spread	+0.5%
Effective Default	-0.1%
U.S. 10-Year Treasury	+4.6%
Nominal Return	4.9%
Inflation Forecast	-2.5%
Real Return	2.5%

Source: Verus, as of 9/30/23

Source: Bloomberg, as of 9/30/23

# Equities



# **Equities**

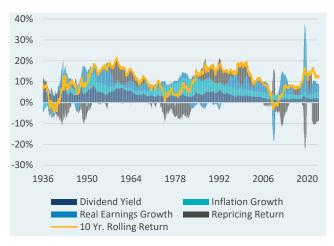
Investment returns in the equity space can be broken down into earnings growth, dividend yield, inflation, and repricing. Over the very long-term, repricing represents a small portion of return to equity investors, but over shorter time frames, the impacts on return can vary considerably.

If investors are willing to pay more for earnings, it could signal that investors are more confident in positive earnings growth going forward, while the opposite is true if investors pay less for earnings. It is somewhat surprising that investor confidence varies so much given that the long-term earnings growth is relatively stable.

Investor confidence in earnings growth can be measured using both the Shiller P/E ratio and the trailing 12-month P/E ratio. We take an average of these two valuations metrics when determining our repricing assumption. In short, if the P/E ratio is too high (low) relative to history, we expect future returns to be lower (higher) than the long-term average. Implicit in this analysis is the assumption that P/E multiples will exhibit mild mean reversion over 10 years.

We make a conservative repricing estimate given how widely repricing can vary over time. We then skew the repricing adjustment because the percentage change in index price is larger with each incremental rise in valuations when P/E multiples are low, compared to when they are high.

### TRAILING 10-YR S&P 500 RETURN COMPOSITION



U.S. LARGE SHILLER P/E



Source: Shiller, S&P 500, as of 9/30/23

P/E REPRICING ASSUMPTION

Average P/E			
Percentile Bucket	Lower P/E	Upper P/E	Repricing Assumption
Lower 10%	-	10	2.00%
10% - 20%	10	13	1.50%
20% - 30%	13	15	0.75%
30% - 45%	15	18	0.50%
45% - 55%	18	19	0.0%
55% - 70%	19	21	-0.25%
70% - 80%	21	22	-0.50%
80% - 90%	22	24	-0.75%
Top 10%	24	-	-1.00%

Source: Verus



Source: Shiller, Standard & Poor's, as of 6/30/23

# Real assets / alternatives



# Private core real estate/REITS

Performance of the NCREIF property index can be decomposed into an income return (cap rate) and capital return. The return coming from income has historically been more stable than the return derived from capital changes.

The cap rate is the ratio of earnings less expenses to price and does not include extraordinary expenses. A more accurate measure of the yield investors receive should include non-recurring capital expenditures; we assume a 2.0% capex expenditure. We also assume income growth will roughly equal the rate of broad economic growth, and we use GDP forecasts as an estimate for future income growth.

Private real estate and REITs have provided very similar returns over the long-term. Investors should be careful when comparing riskadjusted returns of publicly traded assets to returns of appraisal priced assets, due to data problems and smoothing effects. While private real estate appears to be less volatile than REITs, the true risks to investors are likely very similar.

We assume the effects of leverage and liquidity offset each other. Therefore, our return forecast is the same for private real estate and REITs.

### TRAILING 10-YR NCREIF RETURN COMPOSITION



Source: NCREIF, as of 6/30/23

### **PRIVATE REAL ESTATE**

	Private Real Estate 10- Year Forecast
Current Cap Rate	+4.3%
Real Income Growth	+2.1%
Capex Assumption	-2.0%
Inflation	+2.5%
Nominal Return	6.8%
Inflation Forecast	-2.5%
Real Return	4.3%

Source: Verus, as of 9/30/23

### REITS

	10-Year Forecast
Nominal Return Forecast	6.8%
Inflation Forecast	-2.5%
Real Return	4.3%

Source: Verus, as of 9/30/23

# Value-add & opportunistic real estate

Value-add real estate includes properties which are in need of renovation, repositioning, and/or lease-up. Properties may also be classified as value-add due to their lower quality and/or location. Opportunistic real estate can also include development and distressed or very complex transactions. Greater amounts of leverage are usually employed within these strategies. Leverage increases beta (risk) by expanding the purchasing power of property managers via a greater debt load, which magnifies gains or losses. Increased debt also results in greater interest rate sensitivity. An increase/decrease in interest rates may result in a write-up/write-down of fixed rate debt, since debt holdings are typically marked-to-market.

Performance of value-add real estate is composed of the underlying private

real estate market returns, plus a premium for additional associated risk, which is modeled here as 200 bps above our core real estate return forecast. Performance of opportunistic real estate strategies rests further out on the risk spectrum, and is modeled as 300 bps above the core real estate return forecast.

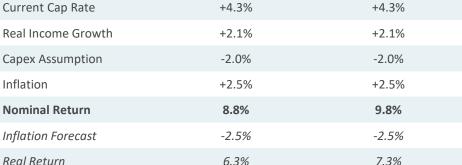
Additional expected returns above core real estate are justified by the higher inherent risk of properties which need improvement (operational or physical), price discounts built into properties located in non-core markets, illiquidity, and the ability of real estate managers to potentially source attractive deals in this less-than-efficient marketplace.

### **CAP RATE SPREADS**



Source: NCREIF, Bloomberg, as of 6/30/23

# Premium above core Value-Add 10-Year Forecast Premium above core +2.0% Opportunistic 10-Year Forecast +3.0%



Source: Verus, as of 9/30/23



# Notices & disclosures

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Verus – also known as Verus Advisory™.









PERIOD ENDING: DECEMBER 31, 2023

Investment Performance Review for

**University Corporation at Monterey Bay** 

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Investment Landscape	TAB I
Endowment Fund	TAB II
Operating Fund	TAB III



# Verus business update

# Since our last Investment Landscape webinar:

- Verus hired Adam Babson, Director of Portfolio Management (Seattle)
- JC Faubion, CFA, Senior Consulting Associate, obtained the CAIA charter
- James Wadner, Performance Analyst, recently passed his CFA level I exam
- We celebrated our 38th anniversary. Wurts Johnson & Company (founding name) was established in January 1986.
- Recent research, found at <u>verusinvestments.com/research</u>:
  - Is now the time to de-risk?
  - Liquidity needs during market drawdowns
  - 2024 Annual Capital Market Assumptions

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# Recent Verus research

# Visit: <u>verusinvestments.com/research</u>

# **Topics of interest**

# LIQUIDITY NEEDS DURING MARKET DRAWDOWNS

What is the fundamental reason why investors should care about liquidity? In short, investors want to avoid being forced to sell high-returning assets that have fallen in value in order to pay for benefits, philanthropic spending, expenses, and cover capital calls for their private asset programs. We first touch on the different definitions of liquidity and illustrate how these relate to institutional portfolios. Second, we examine those liquidity characteristics in times of market stress, the way in which illiquid assets often behave, and how that impacts investors. Lastly, we outline a tool that we have created and discuss how this can be used to assist clients with gauging the appropriate level of liquidity in their own portfolios. Overall, we believe investors should put much thought and care into portfolio liquidity decisions.

### IS NOW THE TIME TO DE-RISK?

Is now a good time to engage in derisking strategies? The combination of rising interest rates and relatively strong risk asset performance since 2020 seem to suggest so. We aim to give plan sponsors a better appreciation of the potential benefits of de-risking strategies and examine when it would be most prudent to adopt these strategies. ERISA plan sponsors that have frozen benefits or report actuarial obligations with a market-based interest rate will find this paper most applicable to them.

# Annual research

### 2024 CAPITAL MARKET ASSUMPTIONS

Capital Market Assumptions guide our advice and recommendations. They reflect the best judgments of our research and investment teams regarding the expected long-term behavior of capital markets.

**Investment Landscape** 

1st Quarter 2024

# 4<sup>th</sup> quarter summary

### THE ECONOMIC CLIMATE

- Real GDP increased at a 2.9% pace from a year ago in Q3 (4.9% quarter-over-quarter annualized rate). The economy has remained relatively strong while inflation now appears likely to fall closer to the Fed's 2% target in 2024. These expectations contributed to a dovish pivot from the Fed, a sharp drop in interest rates, and a notable market rally as the possibility of a soft landing has risen. p. 8
- Unemployment fell slightly from 3.8% to 3.7%, though the labor participation rate dropped sharply towards the end of the year. The labor market remains surprisingly resilient after roughly a full year of higher interest rates. p. 13

### **PORTFOLIO IMPACTS**

- Consumer sentiment has been incredibly poor, and one of the greatest concerns for Americans is inflation. Although inflation has fallen considerably, prices of goods and services remain high, placing strain on budgets. Because inflation measures the rate of change of prices, rather than the level of prices, lower inflation has failed to ease the financial pressure that many households face. p. 15
- The Cboe VIX implied volatility index moved even lower during Q4, from 17.5 to 12.5. At the same time, bond market volatility was very high, as indicated by the "MOVE" Index. Uncertainty around inflation, the Federal Reserve's possible interest rate path and the extent of rate cuts, potential recession, and fears around the U.S. fiscal situation are likely contributing to market shakiness. p. 31

### THE INVESTMENT CLIMATE

- An abrupt change in Federal Reserve communication regarding interest rate cuts during the quarter coincided with sharply lower bond yields, higher equity valuations, and further tightening of credit spreads. p. 9
- U.S. headline inflation fell during the quarter, from 3.7% to 3.3% year-over-year. Core CPI (ex-food & energy) declined from 4.1% to 3.9%. Low inflation numbers in October and November (0.0% and 0.1% month-over-month) were counterbalanced by a surprisingly high inflation number in December (0.3% month-over-month). p. 10

### **ASSET ALLOCATION ISSUES**

- U.S. equities (S&P 500 +11.7%) led international developed equities (MSCI EAFE +10.4%) and emerging market equities (MSCI EM +7.9%) during the quarter. Domestic equities also led non-U.S. equities over the full year while emerging markets lagged. Wide sector performance differences contributed to U.S. leadership given a much heavier tech focus of the domestic market. p. 26
- Style factor performance was mixed during Q4. Small cap outperformed large cap by +2.0%. Value underperformed Growth by -3.2%. Over the full year, small caps underperformed large caps by -9.6% while value stocks underperformed growth by a whopping -31.2%. Besides an extreme period of value underperformance during 2020, calendar year 2023 was the worst 1-year rolling period in more than two decades. p. 27

Risk assets
rallied in Q4
following a
dovish pivot
from the
Federal
Reserve and
recent
economic data
suggesting a
greater chance
of a soft
landing



# What drove the market in Q4?

# "A Soft Landing is in View as Inflation Drops"

HEADLINE CPI MONTH-OVER-MONTH CHANGES					
July	Aug	Sept	Oct	Nov	Dec
0.2%	0.6%	0.4%	0.0%	0.1%	0.3%

Article Source: WSJ, November 14th, 2023

# "U.S. Labor Market Resilience Keeps Economy Afloat as Year Ends"

U-3 UNEMPLOYMENT RATE						
	July	Aug	Sept	Oct	Nov	Dec
	3.5%	3.8%	3.8%	3.8%	3.7%	3.7%

Article Source: Reuters, December 21st, 2023

# "U.S. Consumer Spending, Inflation Slow in Sign of Cooling Economy"

U.S. NOMINAL RETAIL SALES (YEAR-OVER-YEAR)					
July	Aug	Sept	Oct	Nov	Dec
2.8%	2.8%	4.0%	2.2%	4.0%	5.6%

Article Source: Bloomberg, November 30th, 2023

# "Fed Holds Rates Steady, Indicating Three Cuts Coming in 2024"

FOMC PROJECTED END OF 2023 FED FUNDS RATE					
Sep 22 SEP	Dec 22 SEP	Mar 23 SEP	June 23 SEP	Sept 23 SEP	Dec 23 SEP
4.60%	5.10%	5.10%	5.60%	5.60%	5.40%

Article Source: CNBC, December 13th, 2023

# **HEADLINE & CORE CPI (YEAR-OVER-YEAR)**



Source: BLS, as of 12/31/23

### **CHANGE IN NONFARM PAYROLLS**



Source: BLS, as of 12/31/23

# TREASURY YIELD MOVEMENTS (FOURTH QUARTER)



Source: Bloomberg, as of 12/31/23



**Investment Landscape** 

1st Quarter 2024

# Economic environment



# U.S. economics summary

- Real GDP increased at a 2.9% pace year-over-year in Q3 (4.9% quarter-over-quarter annualized rate). The economy has remained relatively strong while inflation appears more likely to fall closer to the Fed's target in 2024. These expectations contributed to a dovish pivot from the Federal Reserve in December, a sharp drop in interest rates, and a notable market rally as the possibility of a soft landing has risen.
- U.S. headline inflation fell during the quarter, from 3.7% to 3.3% year-overyear. Core CPI (ex-food & energy) declined further from 4.1% to 3.9%. Low inflation numbers in October and November (0.0% and 0.1% month-overmonth) were counterbalanced by a surprisingly high inflation number in December (0.3% month-over-month).
- Consumer spending has been stable, with real personal consumption expenditures up +2.7% year-over-year in November, the strongest growth figure since early 2022. However, strong spending appears to be at the expense

- of a low household savings rate (4.1% in November) and may be partly driven by necessity (higher prices of goods & services) rather than by a positive financial or economic outlook.
- The job market has shown mixed signals, increasing in total size during 2023 but arguably with some weakness around the edges. Unemployment rose during the year but fell slightly in Q4 from 3.8% to 3.7%. This historic mismatch between jobs available and workers available has been slowly closing.
- Consumer sentiment improved slightly but remains incredibly poor. Inflation is a central concern for Americans.
   Although inflation has fallen considerably, prices of goods and services remain high, placing strain on budgets. Because inflation measures the rate of change of prices, rather than the level of prices, lower inflation has failed to ease the financial pressure that many households face.

	Most Recent	12 Months Prior
Real GDP (YoY)	2.9% 9/30/23	1.7% 9/30/22
Inflation (CPI YoY, Core)	3.9% 12/31/23	6.4% 12/31/22
Expected Inflation (5yr-5yr forward)	2.2% 12/31/23	2.3% 12/31/22
Fed Funds Target Range	5.25–5.50% 12/31/23	4.25–4.50% 12/31/22
10-Year Rate	3.88% 12/31/23	3.88% 12/31/22
U-3 Unemployment	3.7% 12/31/23	3.5% 12/31/22
U-6 Unemployment	7.1% 12/31/23	6.5% 12/31/22

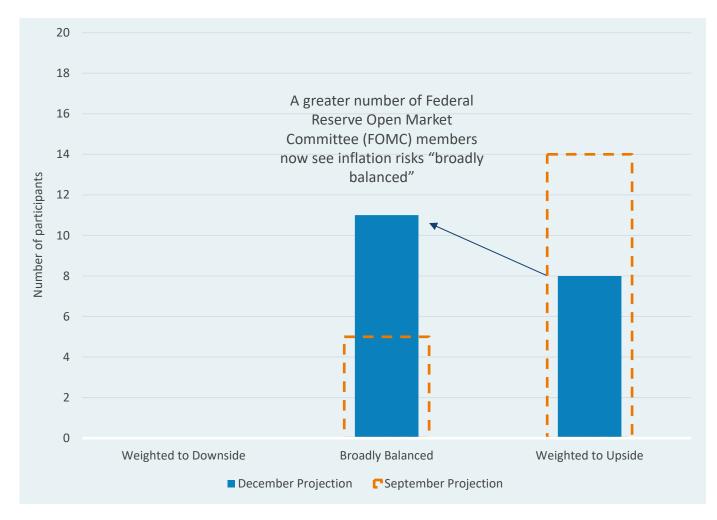


# Shifting signaling from the Federal Reserve

# December 2023 risks to core inflation: FOMC participants

On December 13<sup>th</sup>, the Fed's tone shifted. Powell spoke to a much rosier inflation picture and described a greater focus on both sides of its dual mandate—price stability and full employment.

Although optimistic, Powell's comments emphasized a cautious view of the restrictive policy's impact, "Our actions have moved our policy rate well into restrictive territory, meaning that tight policy is putting downward pressure on economic activity and inflation, and the full effects of our tightening likely have not yet been felt... Given how far we have come, along with the uncertainties and risks that we face, the Committee is proceeding carefully."



Source: Federal Reserve December 2023 Summary of Economic Projections



# Inflation

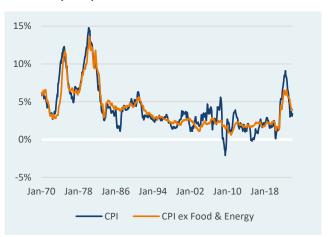
U.S. headline inflation fell during the quarter, from 3.7% to 3.3% year-over-year in December. Core CPI (ex-food & energy) declined further from 4.1% to 3.9%. It is not yet clear how long it will take for inflation to return to the Federal Reserve's 2% target, or how bumpy that ride might be. Low inflation numbers in October and November (0.0% and 0.1% month-over-month) were counterbalanced by a surprisingly high inflation release in December (0.3% month-over-month).

Most of the largest initial drivers of U.S. inflation, such as food, energy, and used autos, are now moderating in price and helping to bring inflation down towards the Fed's 2%

target. Additionally, the largest component of the inflation "basket" of goods and services is shelter prices (the cost of rents or renter's equivalent). The calculation of shelter for official government data purposes tends to reflect market rent movements with a lag. Market-based rent indexes reflect much lower rent inflation. For example, the series published by Zillow indicates 3.3% year-over-year inflation as of December. This suggests that as government shelter data catches up with true market rent prices, the greatest support to current inflation levels (shelter costs) will drop materially, potentially bringing inflation officially back to around a 2% level.

Inflation & other economic data released in Q4 suggests a path for inflation to fall towards 2% in 2024

# U.S. CPI (YOY)



# ZILLOW OBSERVED RENT VS. SHELTER CPI (YOY)



### Source: Zillow Observed Rent Index, as of 12/31/23

# MONTHLY PRICE MOVEMENT (CPI)



Source: BLS, as of 12/31/23



Source: BLS, as of 12/31/23

**Investment Landscape** 

1st Quarter 2024

# GDP growth

Real GDP increased at a 2.9% pace from a year ago in the third quarter (4.9% quarter-over-quarter annualized rate). The large uptick was driven by consumption, which continues to show resiliency. While many investors have expected high inflation and weaker wage growth to impact spending, a combination of pandemic related excess savings and a strong decade of household wealth expansion is likely providing a cushion against an economic slowdown. Outside of consumption, all major categories, besides net exports, positively contributed to GDP growth.

The economy has remained relatively strong while inflation

now appears likely to fall closer to the Fed target in 2024. These expectations contributed to a sharp drop in interest rates towards the end of 2023, and a notable market rally, as the possibility of a soft landing has risen.

A string of positive economic news occurred throughout the fourth quarter. The economic outlook has improved along with this new information, though we continue to believe economic bumpiness is on the horizon—perhaps in mid-2024. However, U.S. markets appear to be fully pricing in the softlanding narrative, which likely limits the upside if that were to come to fruition.

The U.S. economy continues to show resilience despite aggressive monetary tightening & low consumer confidence

### U.S. REAL GROSS DOMESTIC PRODUCT



U.S. REAL GDP COMPONENTS (QOQ)



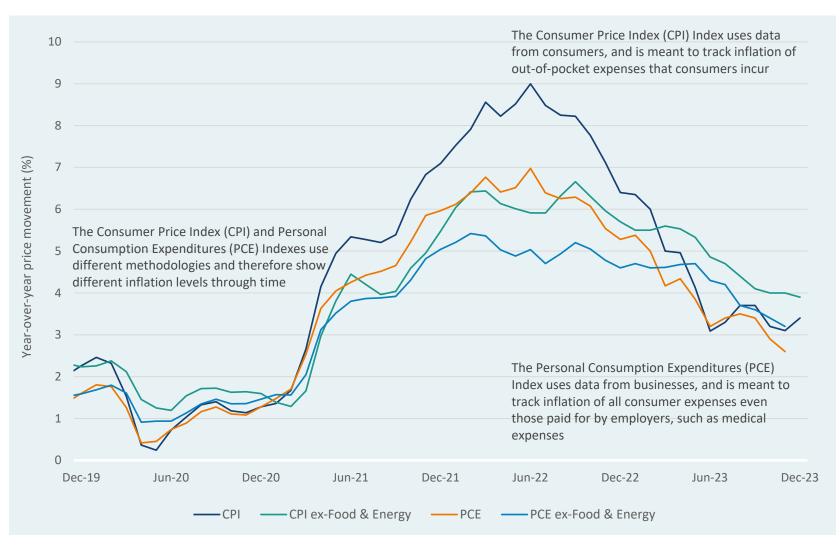
Source: FRED, as of 9/30/23

Source: FRED, as of 9/30/23



Investment Landscape
1st Quarter 2024

# How are inflation conditions evolving?



Recent price trends suggest inflation may move closer to the Fed's 2% target in 2024

A moderation of shelter prices, which tend to be lagged in official statistics, could be the most notable driver of lower inflation in future quarters

Source: FRED, Verus, PCE data as of 11/30/23, CPI data as of 12/31/23



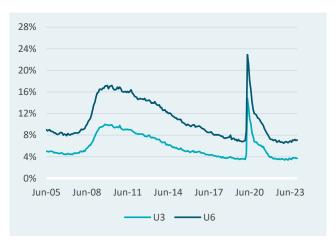
# Labor market

Unemployment fell slightly in Q4 from 3.8% to 3.7%, though the labor participation rate dropped sharply towards the end of the year from 62.8% to 62.5%. According to most available metrics, the labor market remains surprisingly resilient. While throughout history higher interest rates, and yield curve inversion in particular, have typically been followed by recession, the economy has been strong in the face of higher interest rates for roughly a full year. These dynamics have fueled hope that the economy may achieve a soft landing.

Some mixed signals have appeared in recent months. The labor participation rate has fallen for both younger and older

workers, potentially a sign of stalling of strong postpandemic job growth. Rebalancing within the labor market continued, as the mismatch between the number of *workers available* and the number of *available jobs* closes. This gap was 5.5 million at the beginning of the year and fell to 2.5 million in November. This rebalancing appears to be due to positive factors (a growing workforce) rather than negative factors (fewer jobs available), as more Americans are seeking employment and finding jobs that had previously gone unfilled. The gap between available jobs and available workers was cut in half during 2023, as the labor market moves into balance

### U.S. UNEMPLOYMENT



### LABOR FORCE PARTICIPATION RATE BY AGE



### Source: FRED, as of 12/31/23

### WORKERS AVAILABLE VS. AVAILABLE JOBS



Source: BLS, Verus, as of 11/30/23



Source: FRED, as of 12/31/23

**Investment Landscape** 

1st Quarter 2024

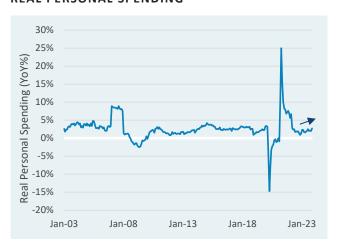
# The consumer

We believe there are two important sides to the U.S. consumer picture. First, spending has been stable, as real (inflation-adjusted) personal consumption expenditures continued at a moderate pace, at 2.7% year-over-year in November—the strongest growth figure since early 2022. But second, strong spending appears to be coming at the expense of household savings (very low at 4.1% in November) and may be partly driven by necessity (higher prices of goods and services) rather than driven by a positive financial or economic outlook. This latter point is supported by incredibly poor consumer sentiment.

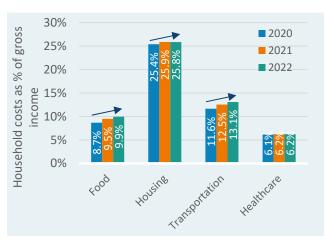
As discussed in last quarter's report, wealth for the majority of

Americans has greatly expanded over the past decade, fueled by higher home prices, a bull market for stocks, and broad economic strength. However, this stands in stark contrast to reports of widespread financial difficulties of Americans. For example, a Lending Club survey conducted in November 2023 indicated that 62% of consumers are living paycheck to paycheck. In this unique environment, it is difficult to gauge the extent to which greater wealth, though often illiquid, might help extend strong spending into future quarters, or whether spending is set to slow as households reset their spending to lower levels to try and return to more conservative budgets with an appropriate savings rate.

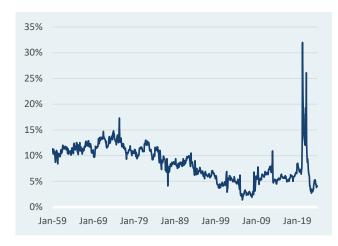
### **REAL PERSONAL SPENDING**



### HIGHER COSTS EATING INTO BUDGETS



### PERSONAL SAVINGS RATE



Source: BLS, Verus, as of 9/8/23 – household costs as % of gross income Source: FRED, as of 11/30/23



Source: FRED, as of 11/30/23

# Sentiment

Sentiment readings were up slightly during Q4 but remain pessimistic. The University of Michigan Consumer Sentiment survey improved from 67.9 to 69.7 on reports that households believe inflation is on a better trajectory.

A confusing aspect of the consumer picture is the large disconnect between economic data (good in many respects) and sentiment readings (very poor overall). For example, inflation has mostly normalized but many Americans continue to express deep concerns about high inflation and difficulties in making ends meet. A major driver of this disconnect is what we might call the "lower inflation conundrum". As displayed below, prices surged substantially in recent years, meaning inflation was high, but then prices plateaued, which led inflation to come down. Why hasn't

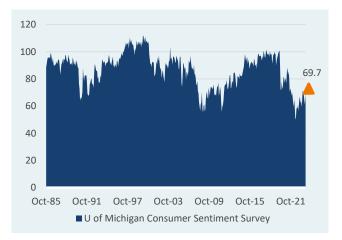
lower inflation led Americans to feel better about the economy? This is because inflation measures the *rate of change* in the price of goods and services, not the overall level. Prices are currently very high while the rate of inflation is fairly low.

The NFIB Small Business Optimism index improved slightly during Q4, with the gains occurring in December. The index has now been below the 50-year average level for two years. According to the report, 23% of business owners reported inflation as the most important issue for business operations—now a greater concern than the labor shortage. Small businesses remain very pessimistic about conditions and do not expect these conditions to improve in 2024.

Sentiment improved slightly during the quarter

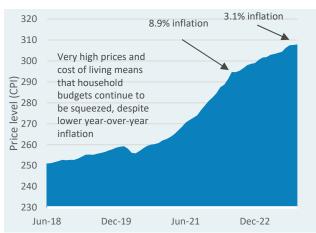
Inflation remains very poor

### **CONSUMER SENTIMENT**



Source: University of Michigan, as of 12/31/23

### THE "LOWER INFLATION" CONUNDRUM



Source: FRED, as of 11/30/23

### NFIB SMALL BUSINESS SENTIMENT



Source: NFIB, as of 12/31/23



# Housing

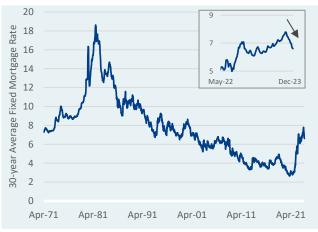
Home prices increased 3.0% in the third quarter, with ongoing support from very low housing inventory levels. It is possible that low inventories, high costs of new construction, a lack of forced sales (home sales due to financial stress), and an unwillingness of current homeowners to sell and sacrifice their existing low mortgage rate, could act as an ongoing support to high home prices despite extreme unaffordability.

On a brighter note, housing affordability on the margin may be moving in a better direction. Despite mild gains in home prices, the 30-year average fixed mortgage rate has fallen from a 23-year high of 7.3% to 6.6% at the

end of December. A moderation in mortgage rates, with expectations for a handful of Federal Reserve rate cuts in 2023, could help affordability and provide a support to home demand in the near-term.

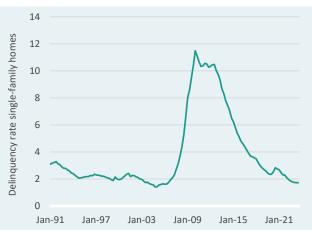
Mortgage delinquency levels of single-family homeowners continue to be muted, at 1.7% as of Q3. Surprisingly, mortgage delinquency rates have consistently declined since the pandemic. This may be a reflection of significant home equity built up for the average homeowner, the ability of homeowners to draw on that equity to help make financial ends meet, and a hesitance to default on a loan if the loan is not underwater.

### **30-YEAR MORTGAGE RATE (%)**



### Source: FRED, as of 12/31/23

### SINGLE-FAMILY HOME DELINQUENCY RATE (%)



Source: FRED, as of 9/30/23

### HOUSING AFFORDABILITY



Source: FRED, as of 9/30/23 – Housing affordability is calculated as the cost of a median priced single-family home at the current mortgage rate, as a percentage of the median family income



# International economics summary

- The ongoing threat of inflation, and central banks' tightrope act of working to battle that inflation without tipping economies into recession, was expected to be a key risk of 2024. However, in the fourth quarter inflation has fallen more quickly than expected, while economic growth has generally been more resilient. The global growth picture seems to have improved, all else equal, although growth is still expected to slow materially in the coming quarters.
- Conflicts within the Middle East have led to heightened geopolitical tensions, and broader escalation is a notable risk. While military action has been relatively confined, further conflict could have a material impact on global supply chains and energy markets. The war in Ukraine, which played a large part in initially driving inflation across developed economies, is still fresh in many investors' minds.
- Inflation fell significantly in the Eurozone and U.K., helping to take

- some pressure off the ECB and BOE (headline inflation receded to 3.4% and 4.0% across the Eurozone and U.K., respectively). Despite the easing of price pressures, interest rates sit at multi-decade highs at both central banks which does little to change expectations for stagnant and potentially even negative economic growth.
- China reported GDP growth of 5.2% in 2023, exceeding the 5% growth target set by the CCP. While the reported figure is slightly above the CCP's target, growth has disappointed investors and economists alike, especially following a nearly threeyear COVID-19 lockdown. The country continues to face a variety of challenges including incredibly dire demographic trends, geopolitical tension with the U.S., slowing growth, financial distress amongst the property sector and local government financing vehicles, a heavy national debt burden, and deflation.

Area	GDP (Real, YoY)	Inflation (CPI, YoY)	Unemployment
United States	2.9% 9/30/23	3.4% 12/31/23	3.7% 12/31/23
Eurozone	<b>0.0%</b> 9/30/23	2.9% 12/31/23	<b>6.4%</b> 11/30/23
Japan	1.5% 9/30/23	2.4% 12/31/23	2.4% 11/30/23
BRICS Nations	5.0% 9/30/23	1.5% 12/31/23	<b>4.8%</b> 12/31/22
Brazil	2.0% 9/30/23	4.6% 12/31/23	7.5% 11/30/23
Russia	5.5% 9/30/23	<b>7.4%</b> 12/31/23	2.9% 11/30/23
India	7.6% 9/30/23	5.7% 12/31/23	8.7% 12/31/23
China	5.2% 12/31/23	-0.3% 12/31/23	<b>5.1%</b> 12/31/23

NOTE: India lacks reliable government unemployment data. Unemployment rate shown above is estimated from the Centre for Monitoring Indian Economy. The Chinese unemployment rate represents the monthly surveyed urban unemployment rate in China.



# International economics

The ongoing threat of inflation, and central banks' tightrope act of working to battle that inflation without tipping economies into recession, was expected to be a key risk of 2024. However, in the fourth quarter inflation has fallen more quickly than expected, while economic growth has generally been more resilient. The global growth picture seems to have improved, all else equal, although growth is still expected to slow materially in the coming quarters.

Although broad macroeconomic conditions improved, additional risks surfaced throughout the quarter, as conflicts within the Middle East escalated. Tensions remain high and concerns around global supply chains

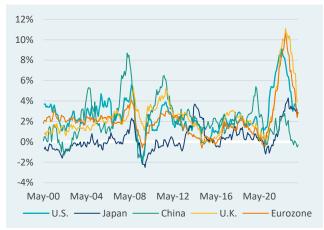
and energy markets have been at the forefront—though impacts across commodity markets have been muted so far.

The outlook remains uncertain. Geopolitical tension is still high, especially as the U.S. and China compete for dominance in the technology sector. Developed economies in the Eurozone and Japan are projected by the World Bank to grow less than 1% in 2024, far below historical long-term averages. On the flip side, emerging and developing economies still boast strong growth targets. India is a highlight, as growth expectations for both 2024 and 2025 sit above six-percent.

### REAL GDP GROWTH (YEAR-OVER-YEAR)



### INFLATION (CPI YEAR-OVER-YEAR)



### Source: Bloomberg, as of 12/31/23- or most recent release

### **WORLD BANK REAL GDP FORECASTS**



Source: World Bank Global Economic Prospects, as of 1/9/24



Source: Bloomberg, as of 9/30/23

# Fixed income rates & credit



# Fixed income environment

- The 10-year U.S. Treasury yield reversed its gains from the prior quarter, falling from 4.58% to 3.88% in Q4, as the market reassessed inflation conditions and the Federal Reserve's likely path. Further signs that inflation is moderating toward target, along with surprisingly upbeat economic news, likely contributed to the Federal Reserve's "dovish pivot" as it has been referred to. The 10year yield ended 2023 unchanged.
- During Q4, credit markets delivered strong results, led by lower-quality bonds such as high yield and bank loans. High yield gained +7.2% (Bbg U.S. Corporate High Yield), while bank loans rose +2.8% (S&P/LSTA Leveraged Loan). Longer duration investment grade corporate bonds (Bloomberg U.S. Long Corporate Credit) rose 14.0% during the quarter as both falling interest rates and narrower credit spreads acted as a tailwind.
- The U.S. yield curve has remained inverted for 1.5 years, which is

- among the most extended periods in modern history. This is indicated by the 10-year minus 2-year Treasury yield—ending the year at -35bps, up from -44bps in Q3. Unique attributes of the current economic environment suggest that this curve inversion may not coincide with a near-term recession.
- US interest rates remained steady during the quarter as inflation continued to moderate towards the Federal Reserve Bank's 2.0% target. Importantly, expectations for future rate cuts increased following the statement made by Chairman Powell that future rate hikes may not be required.
- With inflation and economic growth continuing to moderate during the quarter, market expectations for future rate cuts by the Federal Reserve increased. As a result, interest rates across the US Treasury curve declined meaningfully, with shorter-term rates declining more than longer-term rates.

	QTD Total Return	1 Year Total Return
Core Fixed Income (Bloomberg U.S. Aggregate)	6.8%	5.5%
Core Plus Fixed Income (Bloomberg U.S. Universal)	6.8%	6.2%
U.S. Treasuries (Bloomberg U.S. Treasury)	5.7%	4.1%
U.S. Treasuries: Long (Bloomberg U.S. Treasury 20+)	13.4%	2.7%
U.S. High Yield (Bloomberg U.S. Corporate HY)	7.2%	13.4%
Bank Loans (S&P/LSTA Leveraged Loan)	2.8%	13.3%
Emerging Market Debt Local (JPM GBI-EM Global Diversified)	8.1%	12.7%
Emerging Market Debt Hard (JPM EMBI Global Diversified)	9.2%	11.1%
Mortgage-Backed Securities (Bloomberg MBS)	7.5%	5.0%

Source: Bloomberg, as of 12/31/23

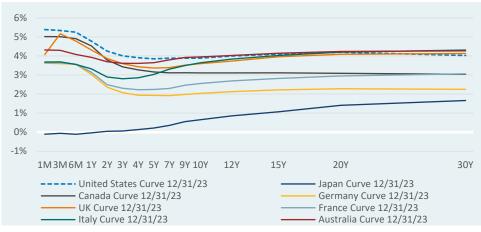


# Yield environment

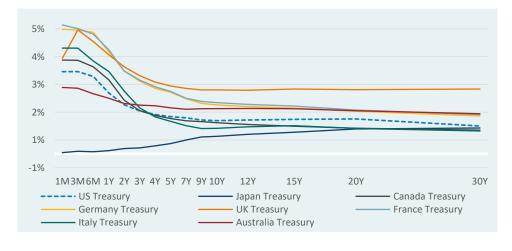
### **U.S. YIELD CURVE**



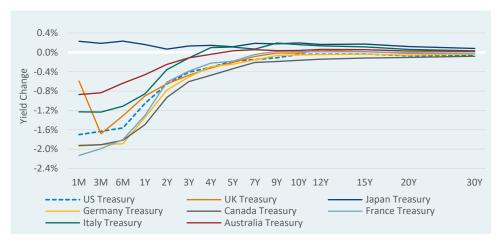
### GLOBAL GOVERNMENT YIELD CURVES



### YIELD CURVE CHANGES OVER LAST FIVE YEARS



### **IMPLIED CHANGES OVER NEXT YEAR**



Source: Bloomberg, as of 12/31/23



**Investment Landscape** 

1st Quarter 2024

# Credit environment

During the fourth quarter, credit markets delivered strong positive results, led by lower-quality credits such as high yield bonds and bank loans. High yield bonds delivered strong results gaining 7.2% (Bbg U.S. Corporate High Yield), while bank loans rose 2.8% (CS Leveraged Loans). Longer duration investment grade corporate bonds (Bloomberg U.S. Long Corporate Credit) rose 14.0% during the quarter as both falling interest rates and narrower credit spreads acted as a tailwind.

Higher-quality BB-rated bonds outperformed lower quality credits during the period returning 7.3% compared to 6.8% and 6.6% for B-rated and CCC-rated bonds, respectively. While absolute returns were positive, bank loans delivered a less-than-impressive 2.8%, primarily due to the

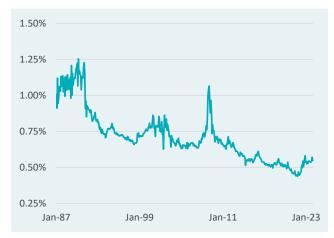
combination of falling interest rates and expectations that the Federal Reserve Bank would begin cutting rates in the future.

Credit spreads narrowed during the quarter despite concerns related to an economic slowdown, weakening corporate fundamentals, and rising geopolitical tensions. Lower-quality, high yield bond spreads fell by 0.6% to roughly 3.2%, while investment grade spreads decreased by roughly 0.2% to 1.0%. Broadly, spreads remain below their long-term historical averages, which suggests that investors remain confident about the ability of those companies to service their debt. That said, slower U.S. economic growth could lead to wider credit spreads as investors seek safety in higher quality assets.

### **SPREADS**



### HIGH YIELD BONDS MONTHLY INCOME RETURN



### Source: Bloomberg, as of 12/31/23

### **CREDIT SPREAD (OAS)**

Market	12/31/23	12/31/22
Long U.S. Corp	1.2%	1.6%
U.S. Inv Grade Corp	1.0%	1.3%
U.S. High Yield	3.2%	4.7%
U.S. Bank Loans*	5.0%	5.9%

Source: Barclays, Credit Suisse, Bloomberg, as of 12/31/23 \*Discount margin (4-year life)



Source: Barclays, Bloomberg, as of 12/31/23

# Default & issuance

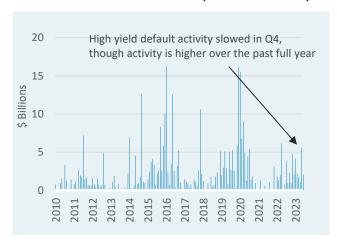
Default activity increased during Q4 as increased borrowing costs acted as a headwind. Eighteen companies defaulted, which were concentrated in the retail, telecommunications, and financial sectors. A total of \$15.8 billion of bank loan and high yield bonds were affected by default or distressed exchanges, up from \$11.5 billion in the prior quarter. Notable company defaults included Rite Aid (Retail), Ligado Networks (Telecommunications), and WeWork (Financial).

For 2023, both the number of defaults and volume increased meaningfully year-over-year. During the period, 88 companies defaulted on \$83.7 billion in high-yield bonds and bank loans compared to 35 companies and \$47.8 billion in 2022. High yield bond default rates have

increased to roughly 2.8%, up from 1.7% a year earlier, but are still below the long-term annual average of roughly 3.2%. High-yield default recovery rates ended the year at 32.8%, down sharply from 55.3% a year ago at the same time.

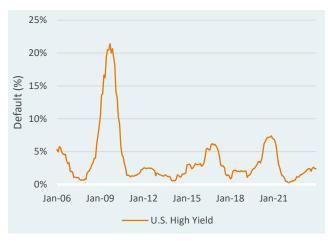
The issuance of investment grade credit slowed from the prior quarter, down to \$204 billion from \$275 billion. With borrowing costs falling as interest rates declined, high-yield bond issuance climbed slightly to \$42 billion, up from \$40 billion in Q3. On a year-over-year basis, the volume of both investment-grade and high yield issuance increased, up \$69.1 billion and \$5.3 billion, respectively.

### U.S. HY MONTHLY DEFAULTS (PAR WEIGHTED)



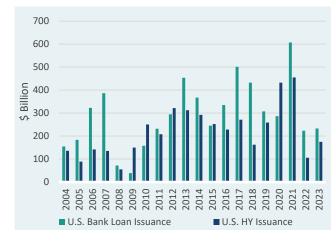
Source: BofA Merrill Lynch, as of 12/31/23

### U.S. HY SECTOR DEFAULTS (LAST 12 MONTHS)



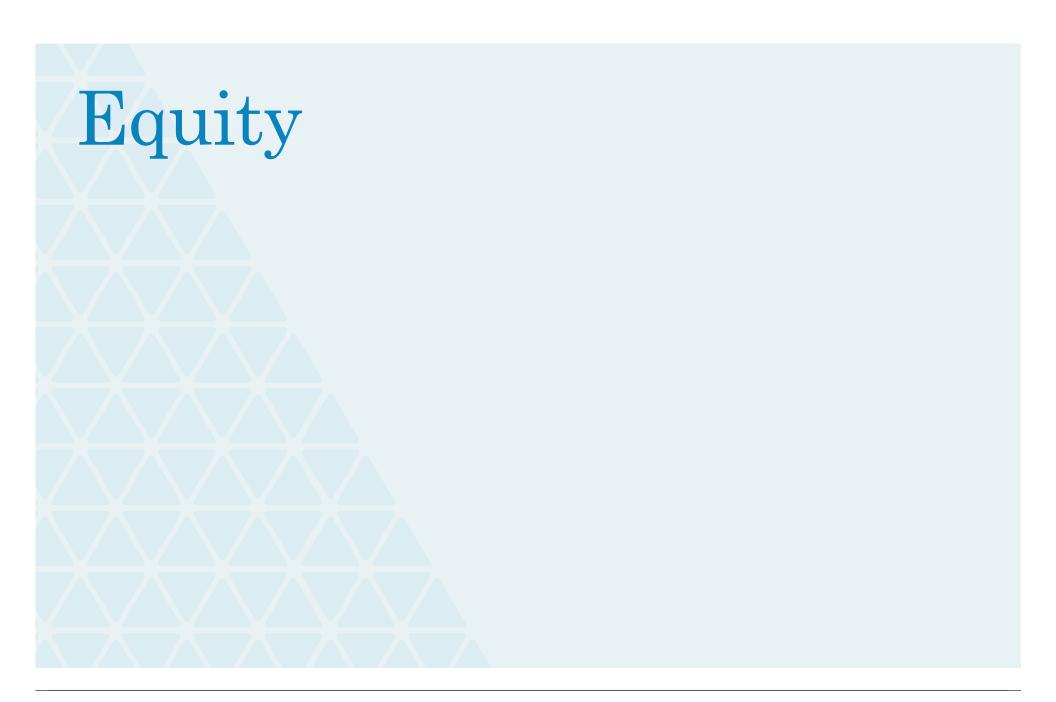
Source: BofA Merrill Lynch, as of 12/31/23 – par weighted

### **DEVELOPED MARKET ISSUANCE (\$ BILLIONS)**



Source: BofA Merrill Lynch, all developed markets, as of 12/31/23







# Equity environment

- Domestic equities delivered a strong rally to finish Q4, driven by a combination of better-thanexpected Q3 earnings and signals of easing from the Federal Reserve. The S&P 500 Index gained +26.3% during 2023.
- U.S. equities (S&P 500 +11.7%) led international developed equities (MSCI EAFE +10.4%) and emerging market equities (MSCI EM +7.9%) during the quarter. Domestic equities also led non-U.S. equities over the full year, while emerging markets were laggards. Wide sector performance differences contributed to U.S. leadership, given the much heavier tech focus of the domestic market.
- The U.S. dollar fell sharply, as investors reassessed Federal Reserve policy and interest rates retraced lower. This move created a tailwind for investors with unhedged exposure to foreign currencies. On a trade-weighted

- basis, the value of the U.S. dollar fell -4.3%. However, over the full calendar year investors with unhedged currency exposure saw moderate losses, due to wide fluctuations of the dollar.
- Style factor investing delivered mixed performance for investors in Q4. Over the full year, style investing suffered substantially.
   Small cap underperformed by -9.6% while value stocks underperformed growth by a whopping -31.2%. Besides an extreme period during 2020, calendar year 2023 was the worst 1-year rolling period in more than two decades.
- The Cboe VIX implied volatility index moved even lower during the fourth quarter, from 17.5 to 12.5 in December. Priced volatility is incredibly low—at a level that has historically tended to coincide with very strong economic and market conditions.

	QTD TOTA (unhedged)	L RETURN (hedged)	1 YEAR TOT	AL RETURN (hedged)
U.S. Large Cap (S&P 500)	11.	7%	26.	3%
U.S. Small Cap (Russell 2000)	14.	0%	16.	9%
U.S. Equity (Russell 3000)	12.	1%	26.	0%
U.S. Large Value (Russell 1000 Value)	9.5	5%	11.	5%
US Large Growth (Russell 1000 Growth)	14.	2%	42.	7%
Global Equity (MSCI ACWI)	11.0%	9.7%	22.2%	22.7%
International Large (MSCI EAFE)	10.4%	6.0%	18.2%	19.9%
Eurozone (EURO STOXX 50)	13.3%	9.3%	26.5%	25.6%
U.K. (FTSE 100)	6.9%	2.5%	14.3%	8.8%
Japan (TOPIX)	8.2%	3.6%	19.3%	35.7%
Emerging Markets (MSCI Emerging Markets)	7.9%	5.7%	9.8%	10.1%

Source: Russell Investments, MSCI, STOXX, FTSE, JPX, as of 12/31/23



# Domestic equity

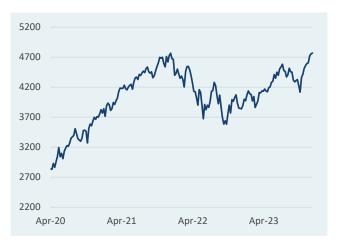
Domestic equities finished the fourth quarter with a strong rally, driven by a combination of better-than-expected Q3 earnings and signals of easing from the Federal Reserve. The S&P 500 Index delivered a gain of +26.3% over 2023, boosted by a +11.7% rise over the final quarter of the year. Shares in the U.S. outperformed international developed and emerging markets over the calendar year.

Third-quarter earnings surprised to the upside, driven by large earnings beats in the communication services and consumer discretionary sectors. Per FactSet, in Q3 earnings grew by 4.9% year-over-year, in contrast to initial expectations of a -0.3% decline at the beginning of the quarter.

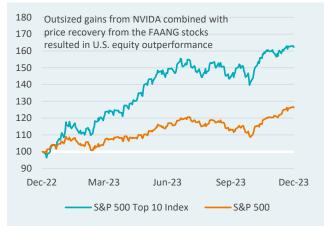
From a sector perspective gains were broad, outside of energy. Real estate and information technology outperformed—driven by easing rates on the long-end of the curve and strong demand within the accelerated computing and artificial intelligence space.

Going forward, domestic equities likely face a challenging environment to build off of the large gains seen in 2023. Valuations remain elevated as the S&P 500 Index approaches a new all-time high. At the same time, earnings growth has been modest, with Q4 earnings expected to come in at +1.3% per FactSet. Although the outlook remains challenged, growth catalysts such as stable inflation, monetary easing, and greater chance of a soft-landing present investors with upside opportunity.

### **S&P 500 PRICE INDEX**

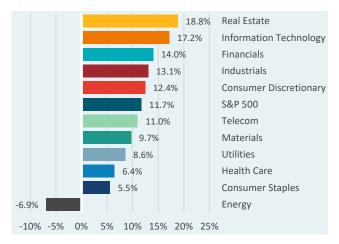


### 2023 PERFORMANCE (INDEX 100)



Source: Bloomberg, S&P, as of 12/31/23

Q4 2023 SECTOR PERFORMANCE



Source: Morningstar, as of 12/31/23



Source: Bloomberg, as of 12/31/23

# Domestic equity size & style

Style factor investing delivered mixed performance for investors in the fourth quarter. Small cap outperformed large cap by +2.0% during Q4 (Russell 2000 vs. Russell 1000). Value underperformed Growth by -3.2% (Russell 1000 Value vs. Russell 1000 Growth). Over the full year, style investing suffered substantially. Small cap underperformed by -9.6% while value stocks underperformed growth by a whopping -31.2%. Besides an extreme period during 2020, calendar year 2023 was the worst 1-year rolling period in more than two decades.

The wide variability of style investing continues to be fueled by extreme sector volatility. For example, the information technology sector, which tends to be more concentrated in growth stocks, performed +57.8% in

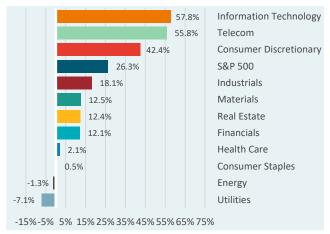
2023. Meanwhile, utilities and energy sectors, which tend to be more concentrated in value stocks, performed -7.1% and -1.3%, respectively. Mega cap growth stocks have propelled the U.S. market higher in 2023—a reversal from significant losses in 2022. Many market-leading stocks are concentrated in technology and telecom sectors, which have outperformed the overall index (+57.8% and +55.8%, respectively).

We believe sector variability and the way this has contributed to style factor volatility is further evidence that style investing should be a long-term decision. Short-term factor timing decisions should typically be pursued only in the rare occasion of obvious market mispricing and a foreseen catalyst for price correction.

VALUE VS. GROWTH 1-YR ROLLING



VALUE VS GROWTH (YOY)



Source: Morningstar, as of 12/31/23

1-YEAR SIZE & STYLE PERFORMANCE

	Value	Core	Growth
Large Cap	11.5%	26.5%	42.7%
Mid Cap	12.7%	17.2%	25.9%
Small Cap	14.6%	16.9%	18.7%

Source: FTSE, as of 12/31/23



Source: FTSE, as of 12/31/23

# International developed equity

International developed equities also benefited from shifting expectations around Federal Reserve policy in the fourth quarter, with the MSCI EAFE Index delivering a +10.4% gain in unhedged currency terms. Fading dollar strength provided a large boost, as expectations for potential easing from the Federal Reserve contrasted against shifting policy from the ECB and BOE.

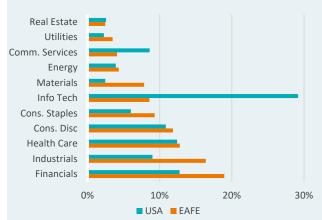
In terms of relative performance, international developed shares trailed the U.S., but outperformed emerging market equities. Sector weightings played the largest role, as gains from mega-cap technology names drove domestic performance, contrasting against the heavier financials and industrial sector composition of the MSCI EAFE index.

Despite macroeconomic challenges, international developed equities saw strong performance in 2023, up +18.2% in unhedged dollar terms. Japanese shares continued to benefit from zero-interest rate policy and shifting investment away from China and into Japan. European shares were lifted by better-than-expected global growth and the ability for companies to pass off higher prices – resulting in strong earnings.

### INTERNATIONAL DEVELOPED EQUITY



### MSCI EAFE VS. USA SECTOR WEIGHTING



### Source: MSCI, as of 12/31/23

### JAPAN TOPIX PRICE INDEX



Source: Tokyo Stock Exchange, as of 12/31/23



Source: MSCI, as of 12/31/23

# Emerging market equity

Emerging markets saw a positive end to 2023, rising +7.9% in the fourth quarter – helping to notch a +9.8% gain for the index over the 2023 calendar year. While rebounding from losses seen last year (-20.1% decline in 2022), emerging market equities underperformed both domestic and international developed equities for the second straight year.

Most countries within the index saw positive returns in the last quarter of the year, fueled by the broader rally in risk assets as U.S. monetary policy expectations eased. China was the outlier, declining -4.2%.

Chinese shares remain the elephant in the room within emerging markets. The MSCI EM ex China Index outperformed the flagship index by more than 10% in 2023, which highlights the large drag that China has caused, given its nearly 30% country weight in the index. The country continues to face a variety of challenges including incredibly dire demographic trends, geopolitical tension with the U.S., slowing growth, financial distress amongst the property sector and local government financing vehicles, a heavy national debt burden, and deflation. Combined with further consolidation of power within the CCP, the cheap pricing of Chinese equities may be justified.

### **EMERGING MARKET EQUITY**



### Q4 2023 MSCI EM COUNTRY RETURNS (USD)



Source: Bloomberg, MSCI, as of 12/31/23

### MSCI EM VS. EM EX CHINA (GROWTH \$100K)



Source: Bloomberg, MSCI, as of 12/31/23



Source: MSCI, as of 12/31/23

# Equity valuations

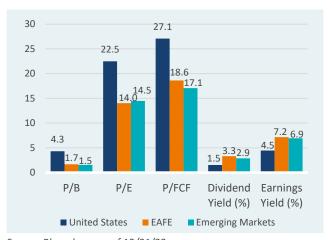
U.S. equity valuation drifted further above those of non-U.S. equities during the quarter. The domestic market is priced at a historic 71% premium over emerging market equities, up from a 59% premium in the third quarter. A portion of the U.S. pricing premium is due to a larger U.S. technology sector, which tends to demand higher valuations, though the valuation gap remains wide even after adjusting for sector composition.

The lower valuations of international developed equities may be at least partly justified due to weaker growth potential and unique challenges in those markets, though rising valuations create a high bar for future profit growth. In order for U.S. equities to justify high valuations over the

longer-term, business will need to generate supernormal earnings growth, and/or stock multiples will need to move upward even further.

U.S. equity market valuations seem to have defied rising interest rates. Theoretically (and historically) speaking, equities should be fairly sensitive to sharply higher interest rates—the present value of stocks is less when rates are high due to the discounting effect, higher interest rates damage profits as financing is more expensive, and the overall economy tends to slow as borrowing costs rise which bodes poorly for profits. At least for now, the U.S. market remains richly valued and median bank forecasts are for a healthy 2024 S&P 500 return.

### MSCI VALUATION METRICS (3-MONTH AVG)



### Source: Bloomberg, as of 12/31/23

### FORWARD PRICE/EARNINGS RATIO



Source: MSCI, Bloomberg, as of 12/31/23

### 2024 S&P 500 MEDIAN FORECAST



Source: Bloomberg, as of 1/10/24. Banks included in forecast include J.P. Morgan, Goldman Sachs, Bank of America, Citibank, Morgan Stanley, Deutsche Bank, and UBS.



# Market volatility

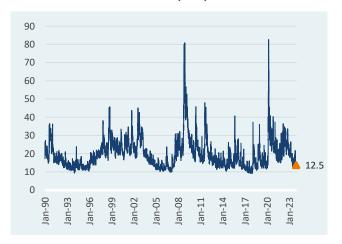
The Cboe VIX implied volatility index moved even lower during the fourth quarter, from 17.5 to 12.5 in December. Priced volatility is incredibly low—at a level that has historically tended to coincide with very strong economic and market conditions.

Realized volatility of global equity markets over the past year has also moderated. The relative volatility of markets has moved back in line with historical behavior—U.S. equities showing the lowest volatility, followed closely by international developed equities, and with emerging market

equities delivering greater risk. This behavior is a reversal of recent years when emerging market volatility was lower than that of developed markets—an uncommon occurrence historically speaking.

Bond markets remain shaky, as indicated by the "MOVE" Index—which calculates the implied volatility of U.S. Treasury securities. Uncertainty around inflation, the Federal Reserve's interest rate path and the extent of rate cuts, potential recession, and fears around the U.S. fiscal situation, are likely to act as an ongoing support to volatility.

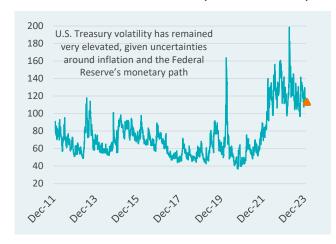
### U.S. IMPLIED VOLATILITY (VIX)



### REALIZED VOLATILITY



### U.S. TREASURY IMPLIED VOL ("MOVE" INDEX)



Source: S&P, MSCI, as of 12/31/23

Source: Bloomberg, as of 12/31/23



*Source: Choe, as of 12/31/23* 

# Long-term equity performance



Source: MPI, as of 12/31/23



# Other assets



# Currency

The U.S. dollar fell sharply in the fourth quarter, as investors reassessed Federal Reserve policy and interest rates retraced lower. This move created a tailwind for investors with unhedged exposure to foreign currencies. On a trade-weighted basis, the value of the U.S. dollar fell - 4.3%. However, following wide fluctuations of the dollar during 2023, and the performance volatility that resulted, investors with unhedged foreign currency exposure saw moderate losses. For investors with unhedged international developed equity exposure, this delivered a loss of -1.7%. Unhedged exposure to emerging market currencies resulted in a loss of -0.2%.

As investors evaluate market movements and performance of 2023, it may be worth reflecting on the benefits which a more thoughtful

currency approach might deliver. A better approach may reduce the uncompensated risk of unhedged foreign currency exposure. Additionally, the MSCI Currency Factor Mix Index—a representation of a passive investment in the currency market, by investing in currencies with higher interest rates, currencies that are undervalued, and currencies that are showing positive price momentum—has shown a positive one-year rolling return over most periods with low volatility. This is what was delivered in 2023. During the year, an unhedged exposure to currency markets (assuming MSCI EAFE equity implementation) resulted in a loss of -1.7% and volatility of 7.5%. Meanwhile, an implementation to Currency Factor Mix delivered a gain of +1.4% and volatility of 2.5%.

### EFFECT OF CURRENCY (1-YEAR ROLLING)

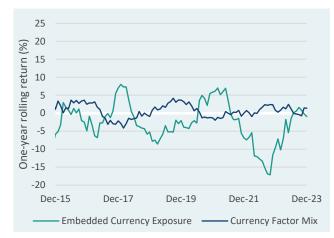


### **U.S. DOLLAR MAJOR CURRENCY INDEX**



Source: Bloomberg, as of 12/31/23

### **EMBEDDED CURRENCY VS CURRENCY FACTORS**



Source: Bloomberg, MSCI, as of 12/31/23



Source: MSCI, as of 12/31/23

**Investment Landscape** 

1st Quarter 2024

# Event strategies lead in equity, credit

Stock and credit markets rallied in the fourth quarter, and directionally biased strategies within those markets outperformed non-directional peers. Within the equity focused strategy group:

- Activist strategies, which benefited from their smaller cap exposure, continued their run of strong performance with favorable up capture relative to L/S peers.
- Interestingly, value managers outperformed growth counterparts despite growth indexes outperforming value, likely due to a smaller cap bias.

Within the fixed income / credit focused strategy group:

- Event Driven credit strategies such as Distressed and Credit Arbitrage outperformed Relative Value credit strategies such as Structured Credit and Long/Short Credit, as market directionality paid off and economic optimism benefited special situation, catalyst-oriented positioning.
- Event Driven strategies have outperformed both stocks and high yield over the last few years after struggling to keep up in the decade following the Global Financial Crisis.

### **4Q RETURNS (%) FOR EQUITY STRATEGIES**



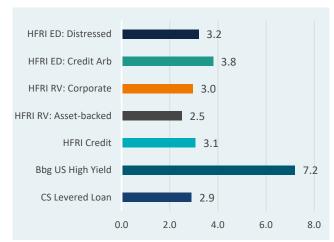
Source: HFR, MPI. Data as of 12/31/23 EH = Equity Hedge ED = Event Driven

### HFRI EVENT DRIVEN RETURNS VS STOCKS/HY



Source: HFR, MPI.. Data as of 12/31/23 HFRI Event Driven (Total) vs Bloomberg US Corp HY & MSCI World Index

### **4Q RETURNS (%) FOR CREDIT STRATEGIES**



Source: HFR, MPI. Data as of 12/31/23 ED = Event Driven RV = Relative Value







# Periodic table of returns

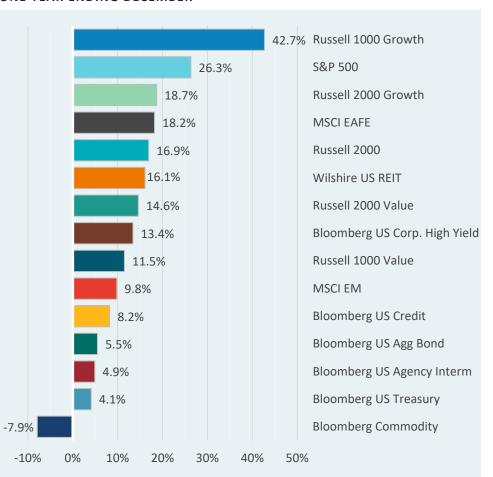
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	YTD	5-Year	10-Year
Large Cap Growth	56.3	26.0	34.5	32.6	39.8	5.2	79.0	29.1	14.3	18.6	43.3	13.5	13.3	31.7	37.3	6.7	36.4	38.5	28.3	16.1	42.7	19.5	14.9
Large Cap Equity	48.5	22.2	21.4	26.9	16.2	1.4	37.2	26.9	7.8	18.1	38.8	13.2	5.7	21.3	30.2	1.9	31.4	34.6	27.6	9.4	26.5	15.5	11.8
Small Cap Growth	47.3	20.7	20.1	23.5	15.8	-6.5	34.5	24.5	2.6	17.9	34.5	13.0	0.9	17.3	25.0	0.0	28.5	21.0	27.1	1.5	18.7	10.9	8.4
International Equity	46.0	18.3	14.0	22.2	11.8	-21.4	32.5	19.2	1.5	17.5	33.5	11.8	0.6	12.1	22.2	-1.5	26.5	20.0	26.5	-4.7	18.2	10.0	7.4
Small Cap Equity	39.2	16.5	7.5	18.4	11.6	-25.9	28.4	16.8	0.4	16.4	33.1	6.0	0.0	11.8	21.7	-3.5	25.5	18.3	25.2	-7.5	16.9	10.0	7.2
60/40 Global Portfolio	30.0	14.5	7.1	16.6	10.9	-28.9	27.2	16.7	0.1	16.3	32.5	5.6	-0.4	11.3	17.1	-4.8	22.4	14.0	17.7	-13.0	15.4	9.2	7.2
Small Cap Value	29.9	14.3	6.3	15.5	10.3	-33.8	23.3	16.1	-2.1	15.3	23.3	4.9	-0.8	11.2	14.6	-6.0	22.0	10.3	14.8	-14.5	14.6	8.2	6.8
Large Cap Value	29.7	12.9	5.3	15.1	7.0	-35.6	20.6	15.5	-2.9	14.6	12.1	4.2	-1.4	8.0	13.7	-8.3	18.6	7.8	11.3	-14.5	11.5	7.2	5.1
Emerging Markets Equity	25.2	11.4	4.7	13.3	7.0	-36.8	19.7	13.1	-4.2	11.5	11.0	3.4	-2.5	7.1	7.8	-9.3	18.4	7.5	8.9	-17.3	9.8	7.0	4.3
Hedge Funds of Funds	23.9	9.1	4.6	10.4	5.8	-37.6	18.9	10.2	-5.5	10.5	9.0	2.8	-3.8	5.7	7.7	-11.0	8.7	4.6	6.5	-19.1	6.3	5.3	3.3
US Bonds	11.6	6.9	4.6	9.1	4.4	-38.4	11.5	8.2	-5.7	4.8	0.1	0.0	-4.4	2.6	7.0	-11.2	7.8	2.8	2.8	-20.1	5.5	5.1	2.7
Cash	9.0	6.3	4.2	4.8	-0.2	-38.5	5.9	6.5	-11.7	4.2	-2.0	-1.8	-7.5	1.0	3.5	-12.9	7.7	0.5	0.0	-20.4	5.0	3.7	1.8
Real Estate	4.1	4.3	3.2	4.3	-1.6	-43.1	0.2	5.7	-13.3	0.1	-2.3	-4.5	-14.9	0.5	1.7	-13.8	6.4	0.5	-1.5	-26.4	-5.1	1.8	1.2
Commodities	1.0	1.4	2.4	2.1	-9.8	-53.2	-16.9	0.1	-18.2	-1.1	-9.5	-17.0	-24.7	0.3	0.9	-14.6	2.1	-3.1	-2.5	-29.1	-7.9	1.1	-1.1
	Lar	ge Cap	Equity	у				Small (	Cap Gro	owth				Con	nmodit	ies							
	Lar	ge Cap	Value					Interna	ationa	l Equity	У			Rea	l Estat	е							
	Lar	ge Cap	Grow	th				Emergi	ng Ma	rkets E	quity			Hed	lge Fur	ds of F	unds						
	Sm	all Cap	Equity	У				US Bon	ds					60%	MSCI /	ACWI/	40% BI	oombe	rg Glob	al Bond	ı		
	Sm	all Cap	Value					Cash															

Source Data: Morningstar, Inc., Hedge Fund Research, Inc. (HFR), National Council of Real Estate Investment Fiduciaries (NCREIF). Indices used: Russell 1000, Russell 1000 Value, Russell 1000 Growth, Russell 2000, Russell 2000 Value, Russell 2000 Growth, MSCI EAFE, MSCI EM, Bloomberg US Aggregate, T-Bill 90 Day, Bloomberg Commodity, NCREIF Property, HFRI FOF, MSCI ACWI, Bloomberg Global Bond. NCREIF Property Index performance data as of 9/30/23.

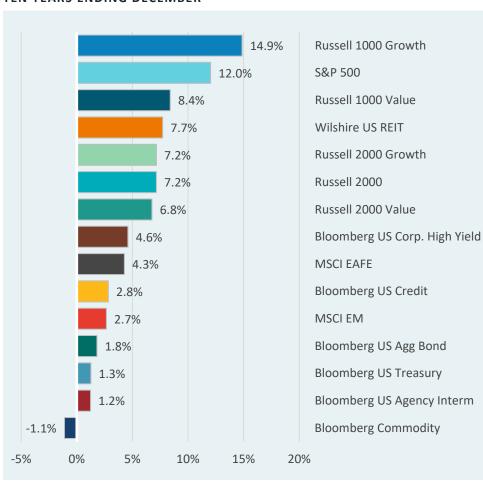


# Major asset class returns

### ONE YEAR ENDING DECEMBER



### TEN YEARS ENDING DECEMBER



\*Only publicly traded asset performance is shown here. Performance of private assets is typically released with a 3- to 6-month delay.

Source: Morningstar, as of 12/31/23

Source: Morningstar, as of 12/31/23

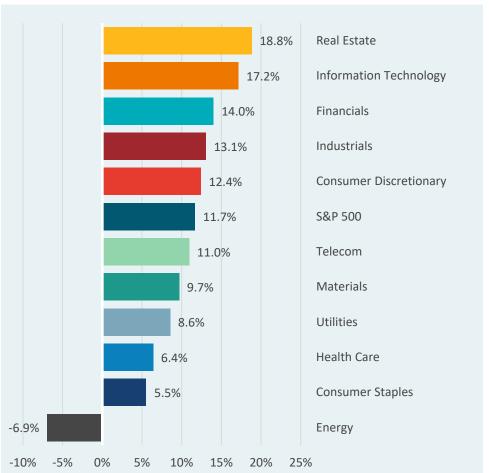


**Investment Landscape** 

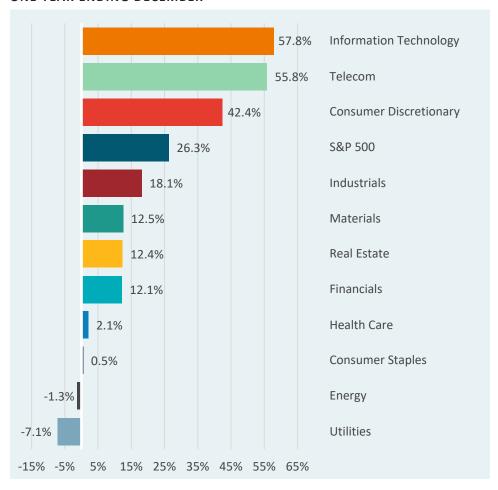
1st Quarter 2024

# S&P 500 sector returns

### QTD



### ONE YEAR ENDING DECEMBER



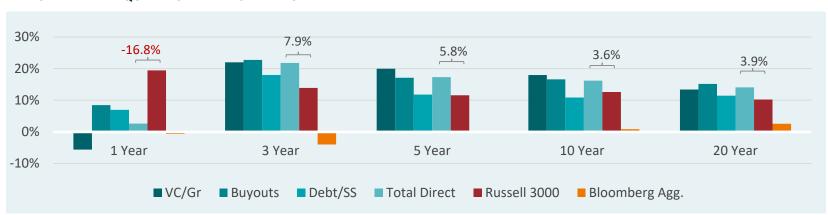
Source: Morningstar, as of 12/31/23

Source: Morningstar, as of 12/31/23



# Private equity vs. traditional assets performance

### **DIRECT PRIVATE EQUITY FUND INVESTMENTS**



Direct P.E Fund Investments outperformed comparable public equites across all time periods, aside from the 1-year.

### "PASSIVE" STRATEGIES



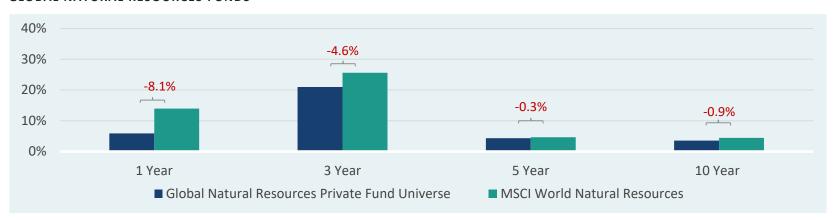
"Passive" strategies outperformed comparable public equities across all time periods, aside from the 1-year.

Sources: Refinitiv PME: U.S. Private Equity Funds sub asset classes as of June 30, 2023. Public Market Equivalent returns resulted from "Total Passive" and Total Direct's identical cash flows invested into and distributed from respective traditional asset comparable.



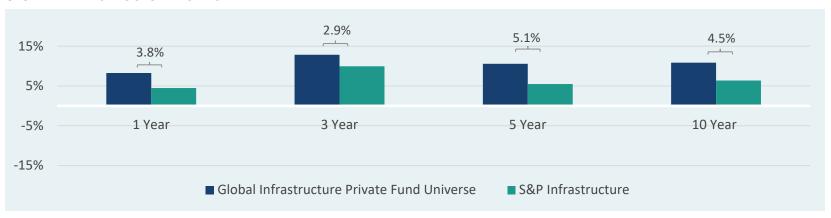
# Private vs. liquid real assets performance

### **GLOBAL NATURAL RESOURCES FUNDS**



N.R. funds underperformed the MSCI World Natural Resources benchmark across all periods.

### GLOBAL INFRASTRUCTURE FUNDS



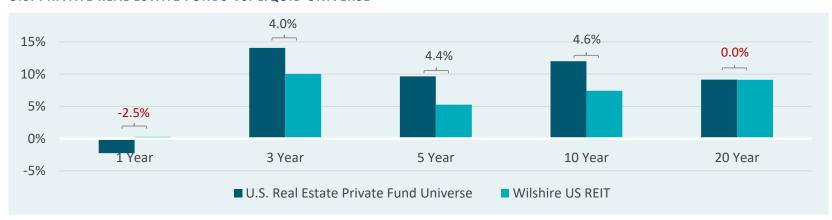
Infra. funds outperformed the S&P Infra. across all periods.

Sources: Refinitiv PME: Global Natural Resources (vintage 1999 and later, inception of MSCI World Natural Resources benchmark) and Global Infrastructure (vintage 2002 and later, inception of S&P Infrastructure benchmark) universes as of June 30, 2023. Public Market Equivalent returns resulted from identical cash flows invested into and distributed from respective liquid real assets universes.



# Private vs. liquid and core real estate performance

### U.S. PRIVATE REAL ESTATE FUNDS VS. LIQUID UNIVERSE



U.S. Private
R.E. fund
performance
relative to the
Wilshire U.S.
REIT Index has
been mixed.

### U.S. PRIVATE REAL ESTATE FUNDS VS. CORE FUNDS



U.S. Private R.E. Funds outperformed the NCREIF Property Index across all time periods.

Sources: Refinitiv PME: U.S. Real Estate universes as of June 30, 2023. Public Market Equivalent returns resulted from identical cash flows invested into and distributed from respective liquid real estate universes.



# Detailed index returns

DOMESTIC EQUITY							
	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Core Index							
S&P 500	4.5	11.7	26.3	26.3	10.0	15.7	12.0
S&P 500 Equal Weighted	6.9	11.9	13.9	13.9	9.3	13.8	10.4
DJ Industrial Average	4.9	13.1	16.2	16.2	9.4	12.5	11.1
Russell Top 200	4.1	11.7	29.9	29.9	10.0	16.5	12.7
Russell 1000	4.9	12.0	26.5	26.5	9.0	15.5	11.8
Russell 2000	12.2	14.0	16.9	16.9	2.2	10.0	7.2
Russell 3000	5.3	12.1	26.0	26.0	8.5	15.2	11.5
Russell Mid Cap	7.7	12.8	17.2	17.2	5.9	12.7	9.4
Style Index							
Russell 1000 Growth	4.4	14.2	42.7	42.7	8.9	19.5	14.9
Russell 1000 Value	5.5	9.5	11.5	11.5	8.9	10.9	8.4

Russell 2000 Value	12.4	15.3	14.6	14.6	7.9	10.0	6.8
INTERNATIONAL EQUITY							
Broad Index							
MSCI ACWI	4.8	11.0	22.2	22.2	5.7	11.7	7.9
MSCI ACWI ex US	5.0	9.8	15.6	15.6	1.5	7.1	3.8
MSCI EAFE	5.3	10.4	18.2	18.2	4.0	8.2	4.3
MSCI EM	3.9	7.9	9.8	9.8	(5.1)	3.7	2.7
MSCI EAFE Small Cap	7.3	11.1	13.2	13.2	(0.7)	6.6	4.8
Style Index							
MSCI EAFE Growth	5.7	12.7	17.6	17.6	0.3	8.8	5.1
MSCI EAFE Value	4.9	8.2	19.0	19.0	7.6	7.1	3.2
Regional Index							
MSCI UK	4.5	6.9	14.1	14.1	8.8	6.9	2.5
MSCI Japan	4.4	8.2	20.3	20.3	0.7	6.9	5.0
MSCI Euro	4.4	12.9	25.2	25.2	6.0	9.3	4.1
MSCI EM Asia	3.3	6.7	7.8	7.8	(6.9)	4.3	4.1
MSCI EM Latin American	8.3	17.6	32.7	32.7	9.9	6.1	2.1

### **FIXED INCOME**

7.2

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
Bloomberg US TIPS	2.7	4.7	3.9	3.9	(1.0)	3.2	2.4
Bloomberg US Treasury Bills	0.5	1.4	5.1	5.1	2.1	1.9	1.3
Bloomberg US Agg Bond	3.8	6.8	5.5	5.5	(3.3)	1.1	1.8
Bloomberg US Universal	3.8	6.8	6.2	6.2	(3.0)	1.4	2.1
Duration							
Bloomberg US Treasury 1-3 Yr	1.2	2.6	4.3	4.3	(0.1)	1.3	1.0
Bloomberg US Treasury Long	8.6	12.7	3.1	3.1	(11.4)	(1.2)	2.3
Bloomberg US Treasury	3.4	5.7	4.1	4.1	(3.8)	0.5	1.3
Issuer							
Bloomberg US MBS	4.3	7.5	5.0	5.0	(2.9)	0.3	1.4
Bloomberg US Corp. High Yield	3.7	7.2	13.4	13.4	2.0	5.4	4.6
Bloomberg US Agency Interm	1.6	3.2	4.9	4.9	(1.1)	1.1	1.2
Bloomberg US Credit	4.2	8.2	8.2	8.2	(3.2)	2.4	2.8

OTHER							
Index							
Bloomberg Commodity	(2.7)	(4.6)	(7.9)	(7.9)	10.8	7.2	(1.1)
Wilshire US REIT	10.2	16.3	16.1	16.1	7.5	7.6	7.7
CS Leveraged Loans	1.6	2.9	13.0	13.0	5.6	5.6	4.4
S&P Global Infrastructure	4.2	10.9	6.8	6.8	6.0	7.4	5.7
Alerian MLP	(3.4)	3.0	23.8	23.8	31.8	10.9	1.6
Regional Index							
JPM EMBI Global Div	4.7	9.2	11.1	11.1	(3.6)	1.7	3.2
JPM GBI-EM Global Div	3.2	8.1	12.7	12.7	(3.2)	1.1	0.1
Hedge Funds							
HFRI Composite	2.6	3.6	7.5	7.5	4.3	7.0	4.5
HFRI FOF Composite	2.3	3.4	6.3	6.3	2.3	5.1	3.3
Currency (Spot)							
Euro	1.2	4.3	3.5	3.5	(3.4)	(0.7)	(2.2)
Pound Sterling	0.7	4.4	6.0	6.0	(2.3)	0.0	(2.6)
Yen	4.9	5.9	(6.4)	(6.4)	(9.9)	(4.9)	(2.9)

Source: Morningstar, HFRI, as of 12/31/23



Russell 2000 Growth

**Investment Landscape** 

1st Quarter 2024

# **Definitions**

Bloomberg US Weekly Consumer Comfort Index - tracks the public's economic attitudes each week, providing a high-frequency read on consumer sentiment. The index, based on cell and landline telephone interviews with a random, representative national sample of U.S. adults, tracks Americans' ratings of the national economy, their personal finances and the buying climate on a weekly basis, with views of the economy's direction measured separately each month. (www.langerresearch.com)

**University of Michigan Consumer Sentiment Index** - A survey of consumer attitudes concerning both the present situation as well as expectations regarding economic conducted by the University of Michigan. For the preliminary release approximately three hundred consumers are surveyed while five hundred are interviewed for the final figure. The level of consumer sentiment is related to the strength of consumer spending. (www.Bloomberg.com)

NFIB Small Business Outlook - Small Business Economic Trends (SBET) is a monthly assessment of the U.S. small-business economy and its near-term prospects. Its data are collected through mail surveys to random samples of the National Federal of Independent Business (NFIB) membership. The survey contains three broad question types: recent performance, near-term forecasts, and demographics. The topics addressed include: outlook, sales, earnings, employment, employee compensation, investment, inventories, credit conditions, and single most important problem. (<a href="https://www.nfib-sbet.org/about/">https://www.nfib-sbet.org/about/</a>)

NAHB Housing Market Index – the housing market index is a weighted average of separate diffusion induces for three key single-family indices: market conditions for the sale of new homes at the present time, market conditions for the sale of new homes in the next six months, and the traffic of prospective buyers of new homes. The first two series are rated on a scale of Good, Fair, and Poor and the last is rated on a scale of High/Very High, Average, and Low/Very Low. A diffusion index is calculated for each series by applying the formula "(Good-Poor + 100)/2" to the present and future sales series and "(High/Very High-Low/Very Low + 100)/2" to the traffic series. Each resulting index is then seasonally adjusted and weighted to produce the HMI. Based on this calculation, the HMI can range between 0 and 100.

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## **Foundation of CSUMB Endowment**

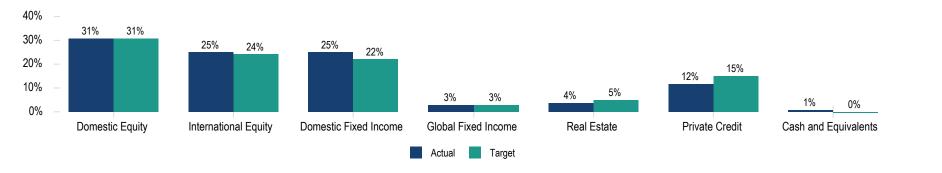
**Investment Performance Review Period Ending: December 31, 2023** 



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	Market Value	% of Portfolio	3 Mo	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	Inception	Inception Date
Endowment Total Fund	42,114,474	100.0	8.0	14.3	14.3	5.3	8.3	7.1	6.3	Apr-07
Endowment Policy Index			8.1	14.2	14.2	3.4	8.0	7.1	6.0	
InvMetrics All Endowment < \$50mm Net Rank			41	15	15	1	31	72		
Total Domestic Equity	13,046,417	31.0	12.7	24.6	24.6	12.6	15.8	12.7	9.3	Apr-07
Blended US Equity Benchmark			12.2	24.6	24.6	8.6	14.7	12.3	9.3	
InvMetrics All E&F US Equity Net Rank			7	34	34	1	5	25		
Total Int'l Equity	10,466,519	24.9	9.4	17.5	17.5	2.9	5.8	5.2	2.9	Apr-07
Blended International Equity Benchmark			9.2	14.4	14.4	-0.1	6.2	6.1	3.2	
InvMetrics All E&F Global ex-US Equity Net Rank			67	16	16	9	91	85		
Total Domestic Fixed Income	10,487,649	24.9	7.4	6.9	6.9	-2.7	1.9	1.9	4.5	Apr-07
Blmbg. U.S. Aggregate Index			6.8	5.5	5.5	-3.3	1.1	1.3	3.0	
InvMetrics All E&F US Fixed Income Net Rank			3	28	28	61	46	43		
Total Global Fixed Income	1,276,080	3.0	9.7	10.6	10.6	-4.2	1.4	1.6	2.4	Jan-15
JPM EMBI Global (USD)			9.3	10.5	10.5	-3.1	1.9	2.0	2.8	
Total Real Estate	1,629,628	3.9	-5.7	-20.3	-20.3	-0.3	0.6	1.8	3.7	Apr-07
NCREIF ODCE Net			-5.0	-12.7	-12.7	4.0	3.3	4.4	4.5	
InvMetrics All E&F Real Estate Public+ Private Rank			97	100	100	100	100	97		
Private Credit/Alternatives	4,898,625	11.6	0.0	8.4	8.4	8.6	8.3	7.4	4.4	Apr-07
S&P/LSTA Leveraged Loan Index+2%			3.4	15.6	15.6	7.9	7.9	6.9	6.7	
InvMetrics All E&F Alternatives Net Rank			95	36	36	9	9	7		
Total Cash	309,557	0.7	0.1	0.4	0.4	0.2	0.4	0.5	0.5	Apr-07
90 Day U.S. Treasury Bill			1.4	5.0	5.0	2.2	1.9	1.7	1.1	



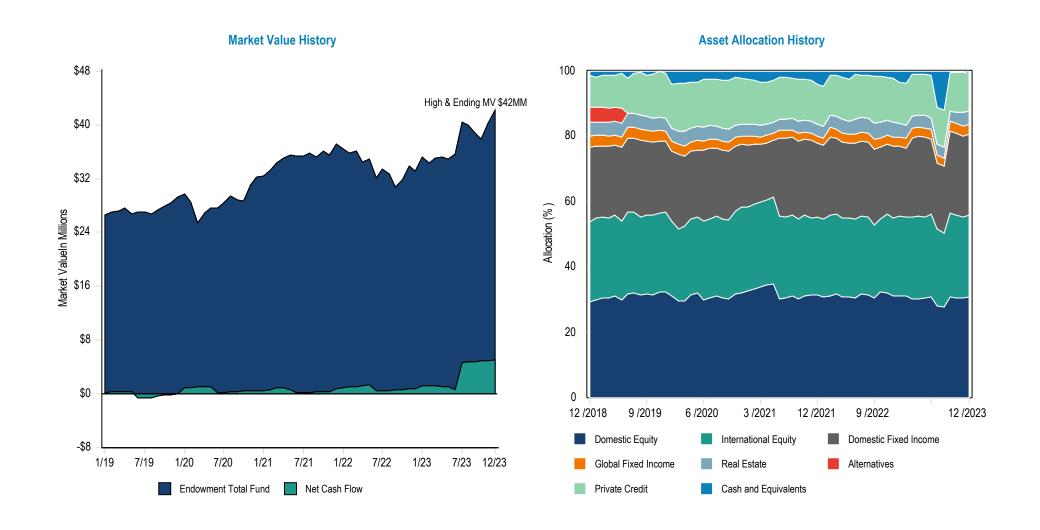
Composition of blended benchmarks are shown on data sources and methodology page.



	Market Value	% of Portfolio	3 Mo	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2022	2021	2020	2019	2018	Inception	Inception Date
Endowment Total Fund	42,114,474	100.0	8.0	14.3	14.3	5.3	8.3	7.1	6.0	-10.4	13.8	9.1	16.9	-5.8	6.3	Apr-07
Endowment Policy Index			8.1	14.2	14.2	3.4	8.0	7.1	6.2	-12.5	10.7	12.2	18.4	-5.3	6.0	
InvMetrics All Endowment < \$50mm			41	15	15	1	31	72	100	23	26	84	77	46		
Total Domestic Equity	13,046,417	31.0	12.7	24.6	24.6	12.6	15.8	12.7	11.2	-12.6	31.0	13.6	28.5	-6.9	9.3	Apr-07
Blended US Equity Benchmark			12.2	24.6	24.6	8.6	14.7	12.3	11.2	-18.5	26.0	18.9	30.4	-5.6	9.3	
InvMetrics All E&F US Equity			7	34	34	1	5	25	23	2	1	99	91	80		
Schwab Fundamental US Large Company Index	2,761,468	6.6	11.2	18.1	18.1	13.1	15.3	12.0	10.8	-6.9	31.6	9.2	28.9	-7.3	12.6	Mar-10
S&P 500 Index			11.7	26.3	26.3	10.0	15.7	13.4	12.0	-18.1	28.7	18.4	31.5	-4.4	13.3	
Large Cap			60	65	65	4	35	53	47	20	7	71	60	69		
Vanguard 500 Index Adm	2,618,043	6.2	11.7	26.2	26.2	10.0	15.7	13.4	12.0	-18.1	28.7	18.4	31.5	-4.4	9.6	Mar-07
S&P 500 Index			11.7	26.3	26.3	10.0	15.7	13.4	12.0	-18.1	28.7	18.4	31.5	-4.4	9.7	
Large Cap			50	37	37	24	26	32	23	50	18	45	30	37		
Vanguard FTSE Social Index I	5,449,378	12.9	13.2	32.6	32.6	8.7	16.1	14.2	12.6	-24.2	27.8	22.7	34.0	-3.4	25.9	Mar-23
S&P 500 Index			11.7	26.3	26.3	10.0	15.7	13.4	12.0	-18.1	28.7	18.4	31.5	-4.4	21.8	
Large Blend			8	3	3	61	12	6	2	97	41	10	6	18		
DFA US Micro Cap Ins	2,217,528	5.3	14.4	17.9	17.9	11.3	12.1	8.2	8.1	-12.5	33.5	6.6	20.7	-11.6	8.6	Mar-17
Russell 2000 Value Index			15.3	14.6	14.6	7.9	10.0	6.1	6.8	-14.5	28.3	4.6	22.4	-12.9	6.3	
Small Value			29	31	31	35	33	22	21	58	35	28	64	14		
Total Int'l Equity	10,466,519	24.9	9.4	17.5	17.5	2.9	5.8	5.2	3.0	-15.7	10.1	3.6	17.3	-14.8	2.9	Apr-07
Blended International Equity Benchmark			9.2	14.4	14.4	-0.1	6.2	6.1	3.7	-16.9	4.9	12.8	20.4	-14.1	3.2	
InvMetrics All E&F Global ex-US Equity Net Rank			67	16	16	9	91	85	81	18	14	100	99	30		
Schwab Fundamental Intl Large Company Index	1,429,279	3.4	9.2	19.9	19.9	8.1	9.3	7.5	4.8	-7.9	14.4	4.4	18.1	-13.9	4.9	Jun-11
MSCI EAFE			10.4	18.2	18.2	4.0	8.2	6.9	4.3	-14.5	11.3	7.8	22.0	-13.8	4.8	
MSCI EAFE Value Index			8.2	19.0	19.0	7.6	7.1	5.5	3.2	-5.6	10.9	-2.6	16.1	-14.8	3.9	
Foreign Large Value			36	22	22	22	15	7	5	40	27	30	52	34		
Dodge & Cox Intl Stock	829,984	2.0	6.8	16.7	16.7	6.5	8.6	6.4	4.0	-6.8	11.0	2.1	22.8	-18.0	3.8	Mar-07
MSCI AC World ex USA			9.8	15.6	15.6	1.5	7.1	6.3	3.8	-16.0	7.8	10.7	21.5	-14.2	3.0	
MSCI AC World ex Value			8.4	17.3	17.3	5.8	6.3	5.3	2.9	-8.6	10.5	-0.8	15.7	-14.0	2.2	
Foreign Large Value			87	61	61	38	26	30	27	26	59	54	12	79		

	Market Value	% of Portfolio	3 Mo	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2022	2021	2020	2019	2018	Inception	Inception Date
WCM Focused Int Growth Ins	1,647,100	3.9	11.8	16.6	16.6	-1.0	11.7	11.3	8.4	-28.9	17.0	32.8	35.2	-7.3	7.9	Jun-20
MSCI AC World ex USA			9.8	15.6	15.6	1.5	7.1	6.3	3.8	-16.0	7.8	10.7	21.5	-14.2	9.0	
MSCI AC World ex USA Growth			11.1	14.0	14.0	-2.7	7.5	7.1	4.5	-23.1	5.1	22.2	27.3	-14.4	5.6	
Foreign Growth			51	40	40	36	5	4	1	73	7	15	7	5		
DFA Emerging Markets Value I	2,120,907	5.0	7.2	16.5	16.5	5.3	5.7	6.5	3.9	-10.7	12.4	2.7	9.6	-11.9	4.5	Mar-14
MSCI Emerging Markets			7.9	9.8	9.8	-5.1	3.7	5.0	2.7	-20.1	-2.5	18.3	18.4	-14.6	3.3	
MSCI Emerging Markets Value Net			8.1	14.2	14.2	0.0	3.4	4.4	1.9	-15.8	4.0	5.5	12.0	-10.7	2.6	
eV Emg Mkts Large Cap Value Equity Net Rank			63	60	60	34	75	53	68	52	2	73	100	29		
Baillie Gifford Emerging Markets I	2,091,891	5.0	7.7	14.2	14.2	-8.7	4.8	7.3	4.5	-26.5	-9.2	29.4	27.9	-15.0	-12.3	Jul-21
MSCI Emerging Markets			7.9	9.8	9.8	-5.1	3.7	5.0	2.7	-20.1	-2.5	18.3	18.4	-14.6	-8.7	
MSCI Emerging Markets Growth Net			7.7	5.8	5.8	-9.7	3.9	5.5	3.3	-24.0	-8.4	31.3	25.1	-18.3	-13.2	
eV Emg Mkts Large Cap Value Equity Net Rank			55	71	71	100	79	28	33	100	100	1	1	66		
DFA International Sustainability Core 1	2,347,358	5.6	12.4	18.3	18.3	3.0	8.7	7.2	4.6	-17.7	12.1	11.6	24.2	-15.5	7.5	Sep-23
MSCI EAFE (Net)			10.4	18.2	18.2	4.0	8.2	6.9	4.3	-14.5	11.3	7.8	22.0	-13.8	6.7	
eV Emg Mkts Large Cap Value Equity			5	42	42	62	7	24	1	92	1	18	7	61		
Total Domestic Fixed Income	10,487,649	24.9	7.4	6.9	6.9	-2.7	1.9	1.9	2.2	-12.8	-1.0	8.9	9.4	-0.1	4.5	Apr-07
Bloomberg U.S. Aggregate Index			6.8	5.5	5.5	-3.3	1.1	1.3	1.8	-13.0	-1.5	7.5	8.7	0.0	3.0	
InvMetrics All E&F US Fixed Income			3	28	28	61	46	43	21	61	68	31	21	50		
Met West Total Return Bond I	5,214,472	12.4	7.5	6.0	6.0	-3.7	1.2	1.4	1.9	-14.8	-1.1	9.1	9.1	0.2	1.4	Dec-14
Blmbg. U.S. Aggregate Index			6.8	5.5	5.5	-3.3	1.1	1.3	1.8	-13.0	-1.5	7.5	8.7	0.0	1.4	
Intermediate Core Bond			7	27	27	74	39	34	32	91	27	21	24	19		
Dodge & Cox Income	5,273,177	12.5	7.3	7.7	7.7	-1.7	2.7	2.5	2.8	-10.9	-0.9	9.5	9.7	-0.3	2.5	Dec-14
Blmbg. U.S. Aggregate Index			6.8	5.5	5.5	-3.3	1.1	1.3	1.8	-13.0	-1.5	7.5	8.7	0.0	1.4	
Intermediate Core Bond			10	1	1	4	1	1	3	8	19	15	8	46		
Total Global Fixed Income	1,276,080	3.0	9.7	10.6	10.6	-4.2	1.4	1.6		-18.6	-2.2	5.4	15.5	-5.5	2.4	Jan-15
JP Morgan EMBI Global			9.3	10.5	10.5	-3.1	1.9	2.0	3.1	-16.5	-1.5	5.9	14.4	-4.6	2.8	
JP Morgan Emerging ETF	1,276,080	3.0	9.7	10.6	10.6	-4.2	1.4	1.6	2.7	-18.6	-2.2	5.4	15.5	-5.5	2.0	Dec-14
JP Morgan EMBI Global			9.3	10.5	10.5	-3.1	1.9	2.0	3.1	-16.5	-1.5	5.9	14.4	-4.6	2.5	
Global Bond			14	3	3	40	13	17	1	82	22	81	1	89		

	Market Value	% of Portfolio	3 Mo	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2022	2021	2020	2019	2018	Inception	Inception Date
Total Real Estate	1,629,628	3.9	-5.7	-20.3	-20.3	-0.3	0.6	1.8	5.1	9.6	13.5	1.2	2.9	6.3	3.7	Apr-07
NCREIF ODCE Net			-5.0	-12.7	-12.7	4.0	3.3	4.4	6.3	6.5	21.0	0.3	4.4	7.4	4.5	
InvMetrics All E&F Real Estate Public+ Private			97	100	100	100	100	97	87	7	91	13	83	25		
ASB Real Estate	1,129,628	2.7	-8.0	-22.3	-22.3	-1.1	0.1	1.5	-	9.6	13.5	1.2	2.9	6.3	1.7	Jul-16
NCREIF ODCE Net			-5.0	-12.7	-12.7	4.0	3.3	4.4	6.3	6.5	21.0	0.3	4.4	7.4	4.6	
eV Alt All Real Estate Rank			100	100	100	84	89	84	-	13	1	89	94	56		
TA Realty Fund XIII	500,000	1.2	-	-	-	-	-	-	-	-	-	-	-	-	0.0	Nov-23
NCREIF ODCE			-5.0	-12.7	-12.7	4.0	3.3	4.4	6.3	6.5	21.0	0.3	4.4	7.4	-5.0	
eV Alt All Real Estate			-	-	-	-	-	-	-	-	-	-	-	-		
Private Credit/Alternatives	4,898,625	11.6	0.0	8.4	8.4	8.6	8.3	7.4	5.1	6.0	11.4	5.5	10.2	-0.6	4.4	Mar-07
S&P/LSTA Leveraged Loan Index+2%			3.4	15.6	15.6	7.9	7.9	6.9	6.5	1.2	7.3	5.2	10.8	2.5	6.7	
InvMetrics All E&F Alternatives			95	36	36	9	9	7	21	6	35	32	54	16		
Golub Capital Partners Intl 11, L.P.	2,084,240	4.9	0.0	9.7	9.7	10.0	9.0	-	-	7.4	13.0	5.3	9.9	13.2	9.4	Oct-17
Blmbg. U.S. Corp: High Yield Index			7.2	13.4	13.4	2.0	5.4	4.6	4.6	-11.2	5.3	7.1	14.3	-2.1	4.0	
eV Alt All Credit Rank			94	50	50	11	13	-	-	12	23	55	25	4		
TCP Direct Lending Fund VIII-L	546,714	1.3	0.0	5.8	5.8	5.7	6.4	-	-	5.0	6.2	7.8	7.4	7.1	6.5	Dec-17
Blmbg. U.S. Corp: High Yield Index			7.2	13.4	13.4	2.0	5.4	4.6	4.6	-11.2	5.3	7.1	14.3	-2.1	4.1	
eV Alt All Credit Rank			94	76	76	39	38	-	-	18	54	41	48	18		
Owl Rock First Lien Fund, L.P.	1,918,974	4.6	0.0	9.8	9.8	8.8	-	-	-	4.6	12.1	4.5	-	-	7.1	Jul-19
S&P/LSTA Leveraged Loan Index+2%			3.4	15.6	15.6	7.9	7.9	6.9	6.5	1.2	7.3	5.2	10.8	2.5	7.1	
eV Alt All Credit Rank			94	48	48	16	-	-	-	20	28	60	-	-		
Davidson Kempner Opportunities Fund VI	348,697	8.0	0.0	-	-	-	-	-	-	-	-	-	-	-	-31.2	Jun-23
S&P/LSTA Leveraged Loan Index+2%			3.4	15.6	15.6	7.9	7.9	6.9	6.5	1.2	7.3	5.2	10.8	2.5	10.1	
eV Alt All Credit			94	-	-	-	-	-	-	-	-	-	-	-		
Total Cash	309,557	0.7	0.1	0.4	0.4	0.2	0.4	0.5	0.4	0.1	0.0	0.0	1.5	1.2	0.5	Apr-07
90 Day U.S. Treasury Bill			1.4	5.0	5.0	2.2	1.9	1.7	1.2	1.5	0.0	0.7	2.3	1.9	1.1	
Schwab Cash	309,557	0.7	0.1	0.4	0.4	0.2	0.4	0.5	-	0.1	0.0	0.0	1.5	1.2	0.5	Jun-16
90 Day U.S. Treasury Bill			1.4	5.0	5.0	2.2	1.9	1.7	1.2	1.5	0.0	0.7	2.3	1.9	1.6	





### Endowment Total Fund Risk Analysis by Manager - 5 Years (Net of Fees)

	Anlzd Return	Anlzd Standard Deviation	Anlzd Alpha	Beta	R-Squared	Up Mkt Capture Ratio	Down Mkt Capture Ratio	Information Ratio	Tracking Error	Sharpe Ratio	Sortino Ratio
Endowment Total Fund	8.26	11.61	0.31	0.99	0.98	100.70	99.26	0.14	1.70	0.58	0.88
Endowment Policy Index	8.01	11.58	0.00	1.00	1.00	100.00	100.00	-	0.00	0.56	0.84
Total Domestic Equity	15.80	19.15	1.09	0.99	0.98	101.65	97.94	0.37	2.72	0.77	1.20
Blended US Equity Benchmark	14.68	19.05	0.00	1.00	1.00	100.00	100.00	-	0.00	0.72	1.12
Total Int'l Equity	5.78	19.81	-0.77	1.10	0.96	108.74	111.98	0.00	4.31	0.29	0.42
Blended International Equity Benchmark	6.24	17.64	0.00	1.00	1.00	100.00	100.00	-	0.00	0.33	0.49
Total Domestic Fixed Income	1.90	6.50	0.76	1.04	0.96	109.24	99.79	0.58	1.39	0.04	0.05
Blmbg. U.S. Aggregate Index	1.10	6.11	0.00	1.00	1.00	100.00	100.00	-	0.00	-0.10	-0.13
Total Global Fixed Income	1.38	12.86	-0.74	1.17	0.97	115.36	121.14	-0.11	2.77	0.03	0.04
JP Morgan EMBI Global (USD)	1.94	10.86	0.00	1.00	1.00	100.00	100.00	-	0.00	0.06	0.08
Total Real Estate	0.63	7.47	-2.36	0.93	0.83	83.29	133.86	-0.84	3.16	-0.12	-0.17
NCREIF ODCE Net	3.34	7.33	0.00	1.00	1.00	100.00	100.00	-	0.00	0.22	0.41
Private Credit/Alternatives	8.28	6.24	5.03	0.41	0.23	75.25	21.64	0.04	6.93	1.00	1.87
S&P/LSTA Leveraged Loan Index+2%	7.91	7.19	0.00	1.00	1.00	100.00	100.00	-	0.00	0.83	1.03



### Endowment Total Fund Risk Analysis by Manager - 10 Years (Net of Fees)

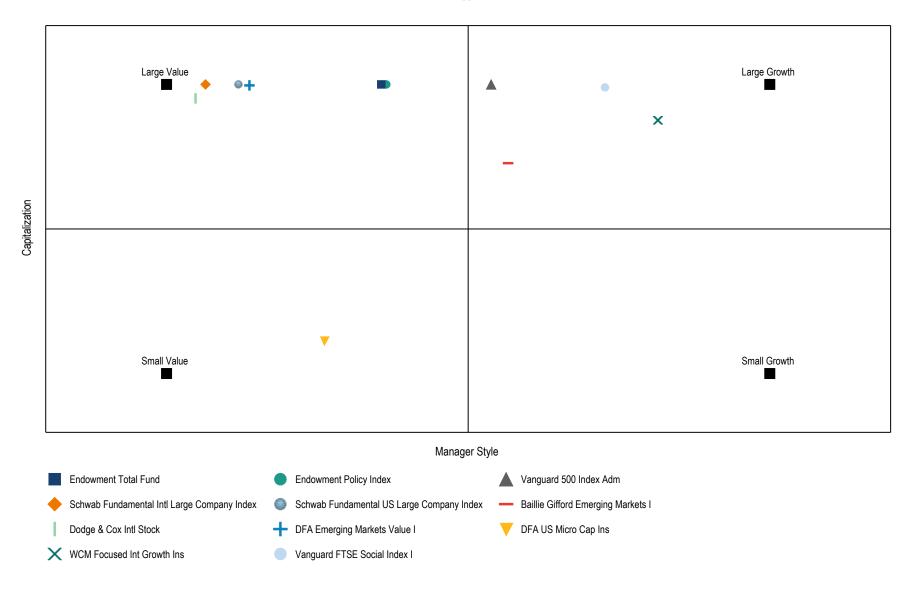
	Anlzd Return	Anlzd Standard Deviation	Anlzd Alpha	Beta	R-Squared	Up Mkt Capture Ratio	Down Mkt Capture Ratio	Information Ratio	Tracking Error	Sharpe Ratio	Sortino Ratio
Endowment Total Fund	5.99	9.71	-0.20	1.01	0.97	100.77	102.87	-0.09	1.59	0.52	0.79
Endowment Policy Index	6.17	9.51	0.00	1.00	1.00	100.00	100.00	-	0.00	0.55	0.82
Total Domestic Equity	11.21	15.64	0.19	0.99	0.98	98.66	97.42	0.02	2.15	0.68	1.05
Blended US Equity Benchmark	11.17	15.70	0.00	1.00	1.00	100.00	100.00	-	0.00	0.68	1.04
Total Int'l Equity	2.98	17.01	-0.79	1.09	0.95	107.45	111.48	-0.10	3.86	0.19	0.27
Blended International Equity Benchmark	3.66	15.30	0.00	1.00	1.00	100.00	100.00	-	0.00	0.23	0.34
Total Domestic Fixed Income	2.22	4.91	0.41	1.00	0.94	102.85	95.58	0.33	1.24	0.22	0.33
Blmbg. U.S. Aggregate Index	1.81	4.74	0.00	1.00	1.00	100.00	100.00	-	0.00	0.14	0.21
Total Global Fixed Income	-	-	-	-	-	-	-	-	-	-	-
JP Morgan EMBI Global (USD)	3.06	8.67	0.00	1.00	1.00	100.00	100.00	-	0.00	0.25	0.34
Total Real Estate	5.14	9.14	0.75	0.74	0.23	97.55	133.86	-0.11	8.15	0.45	0.76
NCREIF ODCE Net	6.33	5.95	0.00	1.00	1.00	100.00	100.00	-	0.00	0.83	1.76
Private Credit/Alternatives	5.09	6.22	1.79	0.53	0.21	76.31	68.38	-0.21	6.10	0.63	1.05
S&P/LSTA Leveraged Loan Index+2%	6.50	5.44	0.00	1.00	1.00	100.00	100.00	-	0.00	0.96	1.23



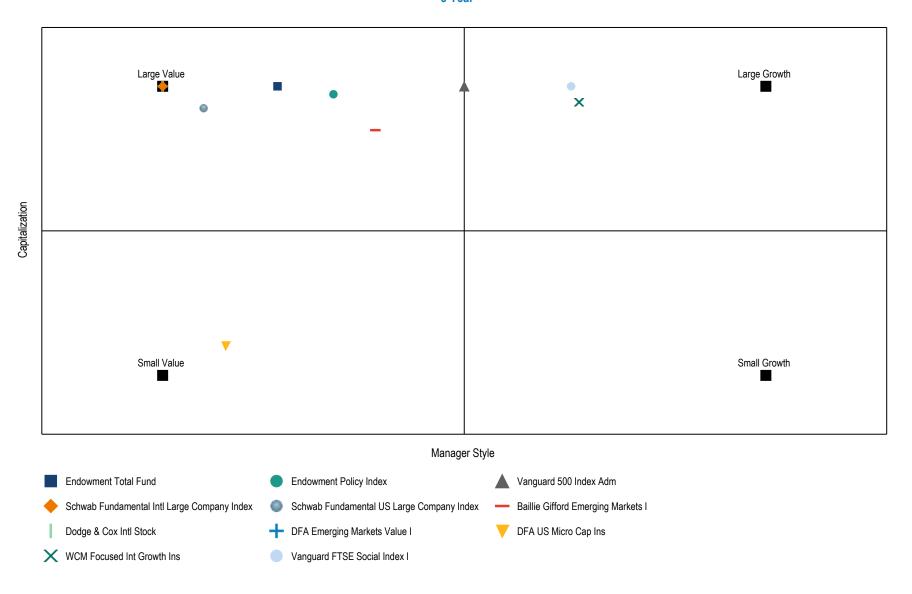




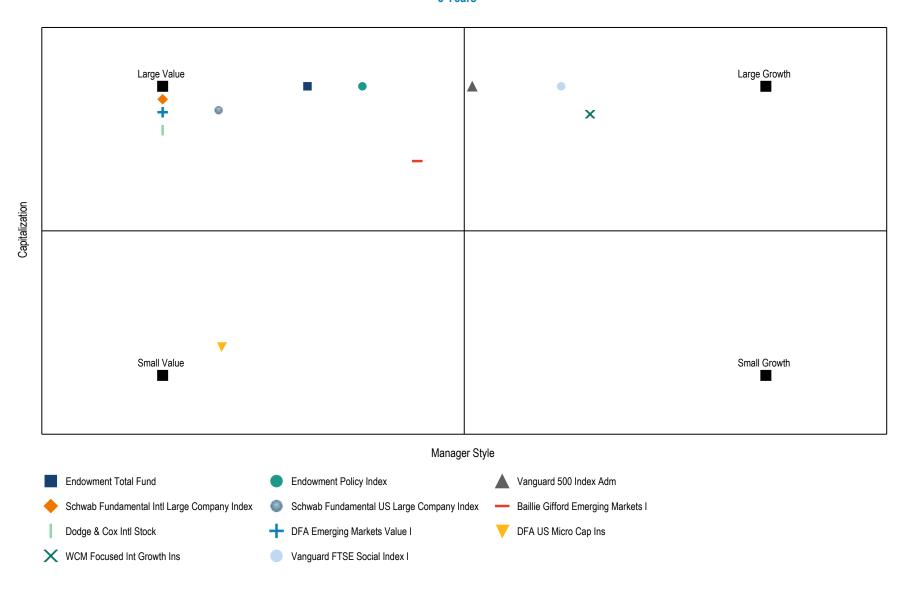
#### U.S Effective Style Map 1 Year



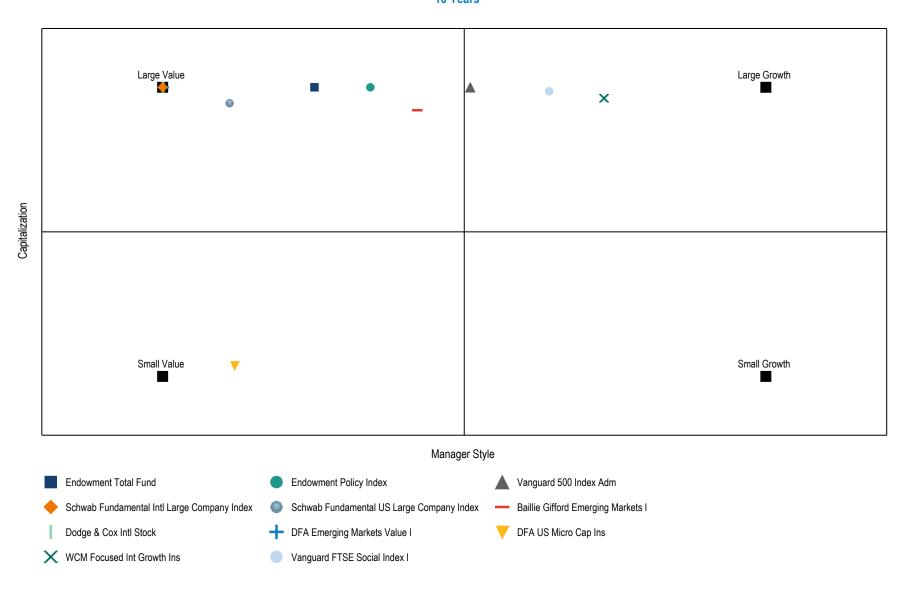
#### U.S Effective Style Map 3 Year



U.S Effective Style Map 5 Years



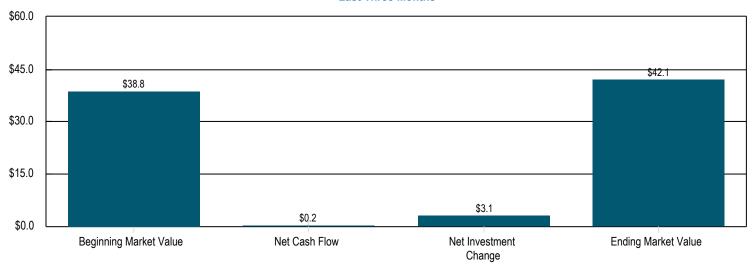
#### U.S Effective Style Map 10 Years



Portfolio Reconciliatio	

				• • • • • • • • • • • • • • • • • • • •			
	Last Three Months	Fiscal Year- To-Date	2022	2021	2020	2019	2018
Beginning Market Value	38,763,492	32,154,872	37,064,363	32,226,209	29,223,035	25,059,317	24,749,520
Net Cash Flow	244,041	790,153	-97,434	378,219	471,599	-43,393	1,887,494
Net Investment Change	3,109,773	2,121,548	-3,852,375	4,493,461	2,626,751	4,314,122	-1,874,422
Ending Market Value	42,114,474	35,048,183	33,087,088	37,064,363	32,226,209	29,223,035	25,059,317

#### Change in Market Value Last Three Months



Contributions and withdrawals may include intra-account transfers between managers/funds. Net Investment Change includes fees and expenses.



#### Endowment Total Fund Cash Flow by Manager- YTD

Manager Name	Beginning Market Value	Contributions	Distributions	Net Investment Change	Ending Market Value
ASB Real Estate	\$1,453,354	\$0	\$0	-\$311,174	\$1,129,628
Baillie Gifford Emerging Markets I	\$1,351,152	\$520,000	\$0	\$220,739	\$2,091,891
Davidson Kempner Opportunities Fund VI	\$0	\$379,371	\$0	-\$30,674	\$348,697
DFA Emerging Markets Value I	\$1,730,190	\$100,000	\$0	\$290,717	\$2,120,907
DFA US Micro Cap Ins	\$1,699,085	\$200,000	\$0	\$318,443	\$2,217,528
DFA International Sustainability Core 1	\$0	\$2,200,000	-\$20,000	\$167,358	\$2,347,358
Dodge & Cox Income	\$3,752,995	\$1,165,000	\$0	\$355,181	\$5,273,177
Dodge & Cox Intl Stock	\$1,353,337	\$0	-\$719,559	\$196,206	\$829,984
Golub Capital Partners Intl 11, L.P.	\$2,060,180	\$0	-\$164,959	\$189,019	\$2,084,240
JP Morgan Emerging ETF	\$961,074	\$199,942	\$0	\$115,064	\$1,276,080
Met West Total Return Bond I	\$3,523,989	\$1,700,000	-\$300,000	\$290,483	\$5,214,472
Owl Rock First Lien Fund, L.P.	\$1,755,872	\$100,000	-\$111,062	\$174,164	\$1,918,974
Schwab Govt Money Fund	\$728,997	\$8,023,398	-\$8,446,359	\$3,521	\$309,557
Schwab Fundamental Intl Large Company Index	\$2,283,990	\$0	-\$1,225,000	\$370,288	\$1,429,279
Schwab Fundamental US Large Company Index	\$4,457,126	\$300,000	-\$2,450,000	\$454,342	\$2,761,468
TA Realty Fund XIII	\$0	\$500,000	\$0	\$0	\$500,000
TCP Direct Lending Fund VIII-L	\$646,391	\$0	-\$131,607	\$31,930	\$546,714
Vanguard 500 Index Adm	\$4,134,606	\$400,000	-\$2,510,000	\$593,437	\$2,618,043
Vanguard FTSE Social Index I	\$0	\$4,800,000	-\$450,000	\$1,099,378	\$5,449,378
WCM Focused Int Growth Ins	\$1,194,750	\$500,000	-\$250,000	\$202,350	\$1,647,100
Total	\$33,087,088	\$21,087,711	-\$16,778,546	\$4,730,775	\$42,114,474



	Current Balance (\$)	Current Allocation (%)	Policy Allocation (%)	Excess Allocation (\$)	Policy Range (%)	Within IPS Range?
■ Domestic Equity	13,046,417	31.0	31.0	-9,070	0.0 - 100.0	Yes
International Equity	10,466,519	24.9	24.0	359,045	0.0 - 100.0	Yes
■ Domestic Fixed Income	10,487,649	24.9	22.0	1,222,464	0.0 - 100.0	Yes
■ Global Fixed Income	1,276,080	3.0	3.0	12,646	0.0 - 100.0	Yes
■ Real Estate	1,629,628	3.9	5.0	-476,096	0.0 - 100.0	Yes
■ Private Credit	4,898,625	11.6	15.0	-1,418,546	0.0 - 100.0	Yes
■ Cash and Equivalents	309,557	0.7	0.0	309,557	0.0 - 0.0	No
Total	42.114.474	100.0	100.0			



### Foundation of CSUMB Endowment Period Ending: December 31, 2023

#### Illiquid Alternative Investments

				١	/erus Internal A	nalysis			М	anager Repo	rted
Vintage Year	Estimated Market Value as of 12/31/2023	Total Commitment	Capital Called	% Called	Remaining Commitment	Capital Returned	Distrib./ Paid-In (DPI) <sup>1</sup>	Tot. Value/ Paid-In (TVPI) <sup>2</sup>	Market Value as of IRR date	Net IRR Since Inception <sup>5</sup>	IRR Date
Private Debt											
2017 Golub Capital Partners Intl 11, L.P.	\$2,084,240	\$2,300,000	\$2,012,500	87.5%	\$287,500	\$826,745	41%	144.6%	\$2,084,240	8.3%	12/31/2023
2017 TCP Direct Lending Fund VIII-L	\$546,714	\$1,100,000	\$1,053,626	95.8%	\$46,374	\$781,781	74%	126.1%	\$546,714	6.8%	12/31/2023
2019 Owl Rock First Lien Fund, L.P.	\$1,918,974	\$2,000,000	\$1,750,000	87.5%	\$250,000	\$450,802	26%	135.4%	\$1,918,974	8.2%	12/31/2023
2023 Davidson Kempner Opportunities Fund V	\$348,697	\$2,000,000	\$356,667	17.8%	\$1,643,333	\$0	0%	97.8%	\$348,697	-20.2%	12/31/2023
Total Private Equity Investment - Illiquid	\$4,898,625	\$7,400,000	\$5,172,792	69.9%	\$2,227,207	\$2,059,328	39.8%	134.5%	\$4,898,625		
Percent of Total Plan Assets	11.6%										

<sup>&</sup>lt;sup>1</sup>(DPI) is equal to (capital returned / capital called)



<sup>&</sup>lt;sup>2</sup>(TVPI) is equal to (market value + capital returned) / capital called

<sup>&</sup>lt;sup>3</sup>Last known market value + capital calls - distributions

<sup>&</sup>lt;sup>4</sup>IRR currently unavailable for this fund

<sup>&</sup>lt;sup>5</sup>Net IRR is calculated on the cash flows of the underlying investments of the fund and is net of the underlying fund fees and carried interest

<sup>&</sup>lt;sup>6</sup>Estimated market value is based on 9/30/2023 reported evaluation.

Fund Name	Allocation Group	Performance Start Date	Overall Status	Outperformed Median Rank (1yrs)	Outperformed Median Rank (3yrs)	Outperformed Median Rank (5yrs)	Outperformed Index (5yr)	Standard Deviation Less Than 25% Above Index (5yrs)	Concern	Index Fund Tracking Error over 0.25% (1yr)
Schwab Fundamental US Large Company Index	Domestic Equity	Feb-10		-	-	-	-	-	-	B
Vanguard 500 Index Adm	Domestic Equity	Mar-07		-	-	-	-	-	-	<b>✓</b>
DFA US Micro Cap Ins	Domestic Equity	Mar-17		<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	-	-
Vanguard FTSE Social Index I	Domestic Equity	Mar-23		<b>✓</b>	B	<b>✓</b>	<b>✓</b>	<b>✓</b>	-	-
Schwab Fundamental Intl Large Company Index	International Equity	Sep-07		-	-	-	-	-	-	B
Dodge & Cox Intl Stock	International Equity	Mar-07	•	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	Р	-
WCM Focused Int Growth Ins	International Equity	Jun-20		<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	-	-
DFA Emerging Markets Value I	International Equity	Mar-14	•	<b>V</b>	<b>✓</b>	B	<b>✓</b>	<b>✓</b>	-	-
Baillie Gifford Emerging Markets I	International Equity	May-21		<b>✓</b>	B	B	<b>✓</b>	<b>✓</b>	-	-
Met West Total Return Bond I	Domestic Fixed Income	Dec-14	•	<b>V</b>	B	<b>✓</b>	<b>✓</b>	<b>✓</b>	Р	-
Dodge & Cox Income	Domestic Fixed Income	Dec-14		<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	Р	-
JP Morgan Emerging ETF	Global Fixed Income	Dec-14	•	<b>V</b>	<b>✓</b>	<b>✓</b>	R	<b>✓</b>	-	-
ASB Real Estate	Real Estate	Jun-16		B	B	B	B	<b>✓</b>	-	-
Golub Capital Partners Intl 11, L.P.	Private Credit	Oct-17	•	<b>V</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	-	-
TCP Direct Lending Fund VIII-L	Private Credit	Dec-17		B	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	-	-
Owl Rock First Lien Fund, L.P.	Private Credit	Jun-19	•	<b>V</b>	<b>✓</b>	-	-	-	-	-





# Total Fund Investment Fund Fee Analysis

Name	Asset Class	Identifier	Expense Ratio (%)	Market Value	Estimated Expense \$
Schwab Fundamental US Large Company Index	Domestic Equity	SFLNX	0.25	\$2,761,468	\$6,904
Vanguard 500 Index Adm	Domestic Equity	VFIAX	0.04	\$2,618,043	\$1,047
DFA US Micro Cap Ins	Domestic Equity	DFSCX	0.40	\$2,217,528	\$8,870
Vanguard FTSE Social Index I	Domestic Equity	VFTAX	0.12	\$5,449,378	\$6,539
Schwab Fundamental Intl Large Company Index	International Equity	SFNNX	0.25	\$1,429,279	\$3,573
Dodge & Cox Intl Stock	International Equity	DODFX	0.62	\$829,984	\$5,146
WCM Focused Int Growth Ins	International Equity	WCMIX	1.04	\$1,647,100	\$17,130
DFA Emerging Markets Value I	International Equity	DFEVX	0.44	\$2,120,907	\$9,332
Baillie Gifford Emerging Markets I	International Equity	BGEGX	0.91	\$2,091,891	\$19,036
DFA International Sustainability Core 1	International Equity	DFSPX	0.25	\$2,347,358	\$5,868
Met West Total Return Bond I	Domestic Fixed Income	MWTIX	0.45	\$5,214,472	\$23,465
Dodge & Cox Income	Domestic Fixed Income	DODIX	0.41	\$5,273,177	\$21,620
JP Morgan Emerging ETF	Global Fixed Income	EMB	0.39	\$1,276,080	\$4,977
ASB Real Estate	Real Estate		1.25	\$1,129,628	\$14,120
TA Realty Fund XIII	Real Estate		-	\$500,000	
Golub Capital Partners Intl 11, L.P.	Private Credit		1.25	\$2,084,240	\$26,053
TCP Direct Lending Fund VIII-L	Private Credit		1.25	\$546,714	\$6,834
Owl Rock First Lien Fund, L.P.	Private Credit		1.00	\$1,918,974	\$19,190
Davidson Kempner Opportunities Fund VI	Private Credit		-	\$348,697	
Schwab Govt Money Fund	Cash and Equivalents	SWGXX	0.45	\$309,557	\$1,393
Total			0.48	\$42,114,474	\$201,098



### Endowment Total Fund Risk Analysis - 5 Years (Net of Fees)

	Anlzd Return	Anlzd Standard Deviation	Anlzd Alpha	Beta	R-Squared	Up Mkt Capture Ratio	Down Mkt Capture Ratio	Information Ratio	Tracking Error	Sortino Ratio
Schwab Fundamental US Large Company Index	15.29	20.52	-0.05	1.00	0.88	98.24	95.49	0.00	7.11	1.10
Vanguard 500 Index Adm	15.65	19.23	-0.03	1.00	1.00	99.92	100.11	-3.07	0.01	1.21
DFA US Micro Cap Ins	12.12	26.97	2.19	0.97	0.99	103.20	92.95	0.57	3.09	0.78
Vanguard FTSE Social Index I	16.12	20.99	-0.66	1.08	0.99	106.97	111.39	0.24	3.02	1.19
Schwab Fundamental Intl Large Company Index	9.26	21.37	0.93	1.05	0.94	104.10	95.64	0.27	5.14	0.65
Dodge & Cox Intl Stock	8.65	22.63	1.33	1.09	0.92	107.01	94.42	0.32	6.66	0.59
WCM Focused Int Growth Ins	11.73	23.46	4.35	1.09	0.85	131.66	113.30	0.54	9.32	0.82
DFA Emerging Markets Value I	5.66	22.28	2.35	1.01	0.90	103.49	87.84	0.33	7.17	0.39
Baillie Gifford Emerging Markets I	4.76	26.02	0.88	1.23	0.98	128.94	125.02	0.36	6.32	0.36
Met West Total Return Bond I	1.23	6.99	0.05	1.08	0.98	109.95	109.23	0.15	1.05	-0.07
Dodge & Cox Income	2.69	6.56	1.65	0.95	0.86	114.19	83.67	0.64	2.47	0.23
JP Morgan Emerging ETF	1.38	14.38	-0.71	1.16	0.99	112.79	119.90	-0.12	2.35	0.05

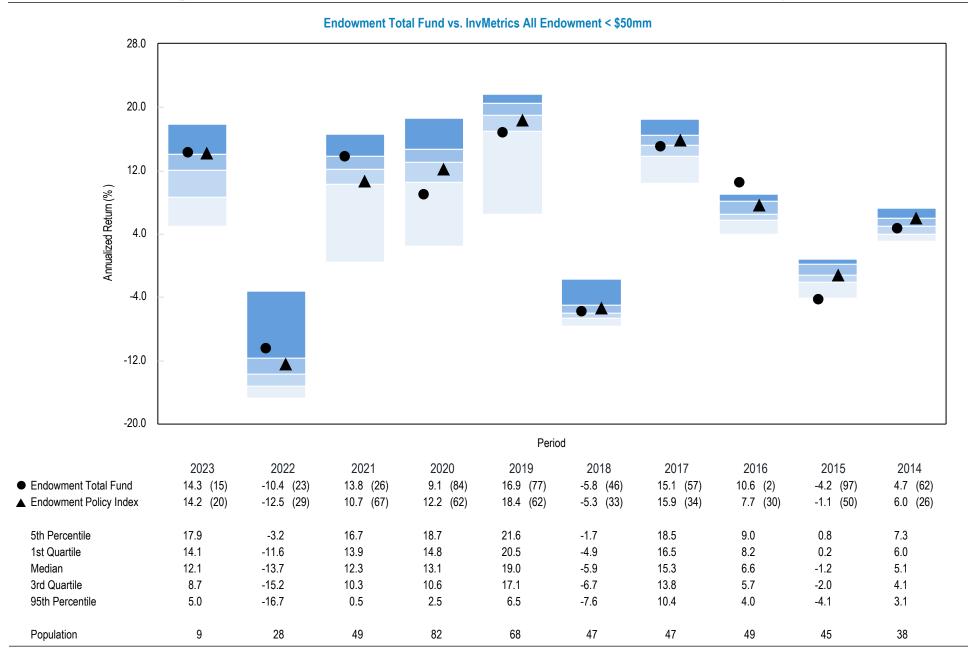


Total Plan Allocation vs. InvMetrics All Endowment < \$50mm 95.0 80.0 65.0 50.0 Allocation (%) 35.0 20.0 5.0 -10.0 Global Equity Global ex-US Equity Global Fixed Income **US** Fixed Total Real Estate Cash & Equivalents **US** Equity Alternatives ■ Endowment Total Fund 31.0 (70) 24.9 (25) 3.0 (71) 24.9 (49) 11.6 (48) 3.9 (44) 0.7 (54) 5th Percentile 47.8 51.8 28.0 25.8 88.4 71.6 12.1 80.6 1st Quartile 44.9 46.1 24.5 6.4 33.2 21.2 5.7 5.0 Median 24.3 38.1 19.8 5.5 24.4 10.3 3.2 1.1 15.8 29.8 2.8 2.8 3rd Quartile 16.0 18.6 5.3 0.1 95th Percentile 9.4 12.8 6.4 2.0 7.3 2.2 1.1 0.0 Population 13 75 77 17 82 47 25 77



Endowment Total Fund vs. InvMetrics All Endowment < \$50mm 20.0 17.0 14.0 Annualized Return (%) 11.0 8.0 5.0 2.0 -1.0 Period 7 Yrs 3 Quarters 3 Mo 2 Quarters 1 Yr 3 Yrs 5 Yrs 10 Yrs 8.0 (41) 5.9 (12) 9.5 (12) 14.3 (15) 5.3 (1) 8.3 (31) 7.1 (72) 6.0 (100) Endowment Total Fund 5.6 (18) 14.2 (20) 3.4 (37) 8.0 (52) 7.1 (74) 6.2 (68) ▲ Endowment Policy Index 8.1 (40) 9.1 (18) 5th Percentile 9.9 6.7 11.3 17.9 4.4 10.4 9.4 7.9 1st Quartile 8.3 5.5 8.9 14.1 4.2 8.6 7.8 6.9 Median 7.3 4.9 8.7 12.1 3.2 8.1 7.2 6.3 5.9 3rd Quartile 3.5 5.6 8.7 1.8 4.8 7.1 6.1 95th Percentile 2.2 3.2 3.5 8.0 1.8 2.9 6.1 5.0 Population 9 9 9 9 9 7 6 4







#### Data Sources and Methodology

#### **Performance Return Calculations**

Performance is calculated using Modified Dietz and for time periods with large cash flow (generally greater than 10% of portfolio value), Time Weighted Rates of Return (TWRR) methodologies. Monthly returns are geometrically linked and annualized for periods longer than one year.

#### Data Source

Verus is an independent third party consulting firm and calculates returns from best source book of record data. Returns calculated by Verus may deviate from those shown by the manager in part, but not limited to, differences in prices and market values reported by the custodian and manager, as well as significant cash flows into or out of an account. It is the responsibility of the manager and custodian to provide insight into the pricing methodologies and any difference in valuation.

#### Illiquid Alternatives

Due to the inability to receive final valuation prior to report production, closed end funds (including but are not limited to Real Estate, Hedge Funds, Private Equity, and Private Credit) performance is typically reported at a one-quarter lag. Valuation is reported at a one-quarter lag, adjusted for current quarter flow (cash flows are captured real time). Closed end fund performance is calculated using a time-weighted return methodology consistent with all portfolio and total fund performance calculations. For Private Markets, performance reports also include Verus-calculated multiples based on flows and valuations (e.g. DPI and TVPI) and manager-

Current Managers					
Manager	Fund Incepted	Data Source	Manager	Fund Incepted	Data Source
Schwab Fundamental US Large Company Index	2/25/2010	Charles Schwab	Dodge & Cox Income	12/5/2014	Charles Schwab
Vanguard 500 Index Adm	3/29/2007	Charles Schwab	JP Morgan Emerging ETF	12/5/2014	Charles Schwab
DFA US Micro Cap Ins	3/16/2017	Charles Schwab	Schwab Govt Money Fund	6/14/2016	Charles Schwab
Vanguard FTSE Social Index I	3/1/2023	Charles Schwab	ASB Real Estate	6/30/2016	Charles Schwab
Schwab Fundamental Intl Large Company Index	5/31/2011	Charles Schwab	Golub Capital Partners International 11, L.P.	10/2/2017	ASB
Dodge & Cox Intl Stock	3/29/2007	Charles Schwab	Owl Rock First Lien Fund, L.P.	7/31/2019	Golub
WCM Focused Int Growth Ins	6/1/2020	Charles Schwab	Tennenbaum Capital Partners International 11, L.P.	10/2/2017	Owl Rock
Baillie Gifford Emerging Markets I	6/30/2021	Charles Schwab	Davidson Kempner Opportunities Fund VI	5/31/2023	Citco 1
DFA Emerging Markets Value I	3/18/2014	Charles Schwab	DFA Intl. Sustainability Core 1	9/1/2023	Charles Schwab
Met West Total Return Bond I	12/4/2014	Charles Schwab	TA Realty Fund XIII	11/17/2023	TA
Terminated Managers (since January, 2014)					
<u>Manager</u>	Fund Incepted	Fund Terminated	Comments		
Vanguard Emerging Markets Stock ETF	3/29/2007	2/28/2014	DFA Emerging Markets Value and Brandes Emerging	Markets replaced Vangua	rd Emerging Markets Stock ETF.
Vanguard Inflation Protected Securities	5/29/2007	8/31/2014	PIMCO Inflation Response Multi-Asset replaced Vang	uard Inflation Protected Se	curities.
Credit Suisse Commodity Return Strategy	8/23/2011	8/31/2014	GMO WF Advantage Absolute Return replaced Credit	Suisse Commodity Return	n Strategy.
PIMCO Total Return Ins	3/29/2007	12/4/2014	Met West Total Return Bond replaced PIMCO Total R	eturn.	
JP Morgan High Yield Sel	5/22/2009	12/4/2014	Dodge & Cox Income replaced JP Morgan High Yield.		
Cohen & Steers Realty Shares	5/22/2009	6/9/2016	ASB Real Estate replaced Cohen & Steers Realty Sha	ires.	
Schwab Advance Cash Reserve Premier		6/14/2016	Schwab Govt Money Fund replaced Schwab Advance	Cash Reserve Premier.	
Ironbridge Frontegra Small/Mid Cap Ins	3/29/2007	3/15/2017	DFA US Micro Cap replaced Ironbridge Frontegra Sm	all/Mid Cap.	
GMO WF Advantage Absolute Return Ins	9/17/2014	12/13/2018	Fund was liquidated from plan.		
PIMCO All Asset Ins	3/29/2007	6/24/2019	Fund was liquidated from plan.		
PIMCO Inflation Response Muilti-Asset Ins	9/17/2014	3/17/2020	Fund was liquidated from plan.		
Brandes Emerging Markets I	3/18/2014	6/30/2022	Baillie Gifford Emerging Markets replaced Brandes Er	nerging Markets.	
Policy & Custom Index Composition					
Policy Index			AFE, 11% MSCI Emerging Markets, 22% Bloomberg US		
(07/01/2019-Present)			%. PIMCO Custom Benchmark is 45% Bloomberg US TIF	PS, 20% Bloomberg Comm	nodity, 15% JPM ELMI + (Unhedged),
	10% DJ U.S. Select RE				
Policy Index			AFE, 11% MSCI Emerging Markets, 22% Bloomberg US		
(07/01/2016-6/30/2019)	,		n Benchmark is 45% Bloomberg US TIPS, 20% Bloomber	g Commodity, 15% JPM E	:LMI + (Unhedged), 10% DJ U.S.
Policy Index	Select REIT, 10% Bloo		AFE, 11% MSCI Emerging Markets, 22% Bloomberg US	Aggregate 5% ETSE NAS	PEIT All 3% IP Morgan EMBI Global
(12/01/2014-6/30/2016)			n Benchmark is 45% Bloomberg US TIPS, 20% Bloomber		
(12/01/2014-0/30/2010)	Select REIT, 10% Bloo		T Deficilitiank is 45% bloomberg 05 Till 5, 20% bloomber	g Commodity, 15 % of W L	Livii (Officeugeu), 10 % D3 0.5.
Policy Index			AFE, 11% MSCI Emerging Markets, 22% Bloomberg US	Aggregate 5% FTSF NAF	REIT All 3% Bloomberg US High
(09/01/2014-11/30/2014)			om Benchmark is 45% Bloomberg US TIPS, 20% Bloomb		
(	Select REIT, 10% Bloo			J,, / 01 111	(
Policy Index			AFE, 6% MSCI Emerging Markets, 18% Bloomberg US A	Aggregate, 5% Bloomberg	US TIPS, 5% FTSE NAREIT All, 5%
(09/01/2011-8/31/2014)		,	unds, 5% Bloomberg Commodity	55 5 7 5	,
Other Notes	<u> </u>				



Since inception returns for composites are as of the first full month.

#### Glossary

Allocation Effect: An attribution effect that describes the amount attributable to the managers' asset allocation decisions, relative to the benchmark.

Alpha: The excess return of a portfolio after adjusting for market risk. This excess return is attributable to the selection skill of the portfolio manager. Alpha is calculated as: Portfolio Return - [Risk-free Rate + Portfolio Beta x (Market Return - Risk-free Rate)].

**Beachmark R-squared:** Measures how well the Benchmark return series fits the manager's return series. The higher the Benchmark R-squared, the more appropriate the benchmark is for the manager. **Beta:** A measure of systematic, or market risk; the part of risk in a portfolio or security that is attributable to general market movements. Beta is calculated by dividing the covariance of a security by the variance of the market.

**Book-to-Market:** The ratio of book value per share to market price per share. Growth managers typically have low book-to-market ratios while value managers typically have high book-to-market ratios. Capture Ratio: A statistical measure of an investment manager's overall performance in up or down markets. The capture ratio is used to evaluate how well an investment manager performed relative to an index during periods when that index has risen (up market) or fallen (down market). The capture ratio is calculated by dividing the manager's returns by the returns of the index during the up/down market, and multiplying that factor by 100.

Correlation: A measure of the relative movement of returns of one security or asset class relative to another over time. A correlation of 1 means the returns of two securities move in lock step, a correlation of -1 means the returns of two securities move in the exact opposite direction over time. Correlation is used as a measure to help maximize the benefits of diversification when constructing an investment portfolio.

Excess Return: A measure of the difference in appreciation or depreciation in the price of an investment compared to its benchmark, over a given time period. This is usually expressed as a percentage and may be annualized over a number of years or represent a single period.

Information Ratio: A measure of a manager's ability to earn excess return without incurring additional risk. Information ratio is calculated as: excess return divided by tracking error.

**Interaction Effect:** An attribution effect that describes the portion of active management that is contributable to the cross interaction between the allocation and selection effect. This can also be explained as an effect that cannot be easily traced to a source.

**Portfolio Turnover:** The percentage of a portfolio that is sold and replaced (turned over) during a given time period. Low portfolio turnover is indicative of a buy and hold strategy while high portfolio turnover implies a more active form of management.

**Price-to-Earnings Ratio (P/E):** Also called the earnings multiplier, it is calculated by dividing the price of a company's stock into earnings per share. Growth managers typically hold stocks with high price-to-earnings ratios whereas value managers hold stocks with low price-to-earnings ratios.

**R-Squared:** Also called the coefficient of determination, it measures the amount of variation in one variable explained by variations in another, i.e., the goodness of fit to a benchmark. In the case of investments, the term is used to explain the amount of variation in a security or portfolio explained by movements in the market or the portfolio's benchmark.

Selection Effect: An attribution effect that describes the amount attributable to the managers' stock selection decisions, relative to the benchmark.

**Sharpe Ratio:** A measure of portfolio efficiency. The Sharpe Ratio indicates excess portfolio return for each unit of risk associated with achieving the excess return. The higher the Sharpe Ratio, the more efficient the portfolio. Sharpe ratio is calculated as: Portfolio Excess Return / Portfolio Standard Deviation.

**Sortino Ratio:** Measures the risk-adjusted return of an investment, portfolio, or strategy. It is a modification of the Sharpe Ratio, but penalizes only those returns falling below a specified benchmark. The Sortino Ratio uses downside deviation in the denominator rather than standard deviation, like the Sharpe Ratio.

**Standard Deviation:** A measure of volatility, or risk, inherent in a security or portfolio. The standard deviation of a series is a measure of the extent to which observations in the series differ from the arithmetic mean of the series. For example, if a security has an average annual rate of return of 10% and a standard deviation of 5%, then two-thirds of the time, one would expect to receive an annual rate of return between 5% and 15%.

Style Analysis: A return based analysis designed to identify combinations of passive investments to closely replicate the performance of funds

**Style Map:** A specialized form or scatter plot chart typically used to show where a Manager lies in relation to a set of style indices on a two-dimensional plane. This is simply a way of viewing the asset loadings in a different context. The coordinates are calculated by rescaling the asset loadings to range from -1 to 1 on each axis and are dependent on the Style Indices comprising the Map.



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# **University Corporation at Monterey Bay - Operating**

**Investment Performance Review Period Ending: December 31, 2023** 

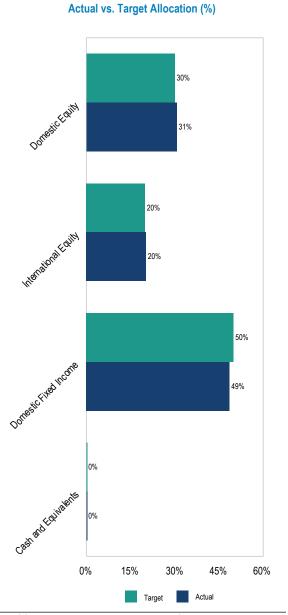


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#### Operating Total Fund Executive Summary (Net of Fees)

	Market Value	% of Portfolio	3 Mo	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	Inception	Inception Date
Operating Total Fund	51,448,732	100.0	8.7	14.3	14.3	4.3	7.2	5.9	5.4	Apr-07
Operating Policy Index			8.2	13.8	13.8	3.0	6.9	5.8	4.7	
InvMetrics All Endowment < \$50mm Net Rank			12	17	17	22	67	85		
Total Domestic Equity	15,895,975	30.9	12.3	26.0	26.0	12.7	16.3	13.3	9.5	Apr-07
S&P 500 Index			11.7	26.3	26.3	10.0	15.7	13.4	9.7	
InvMetrics All E&F US Equity Net Rank			20	18	18	1	1	9		
Total Int'l Equity	10,504,279	20.4	10.7	19.0	19.0	5.6	9.1	7.0	3.4	Apr-07
MSCI EAFE (Net)			10.4	18.2	18.2	4.0	8.2	6.9	3.0	
InvMetrics All E&F Global ex-US Equity Net Rank			18	8	8	1	5	21		
Total Domestic Fixed Income	25,046,499	48.7	5.7	5.5	5.5	-1.8	1.8	1.7	3.3	Apr-07
Blended Fixed Income Benchmark			5.1	4.9	4.9	-1.8	1.4	1.4	2.7	
InvMetrics All E&F US Fixed Income Net Rank			71	82	82	30	53	62		
Total Cash	1,980	0.0	0.1	0.4	0.4	0.2	0.2	0.4	0.5	Apr-07
90 Day U.S. Treasury Bill			1.4	5.0	5.0	2.2	1.9	1.7	1.1	



Composition of blended benchmarks are shown on data sources and methodology page. Vanguard Short Term Investment Grade Adm and PIMCO All Asset Ins liquidated on 6/1/20. WCM Focused Intl Growth Ins funded on 6/1/20. Fiscal year end: 6/30.

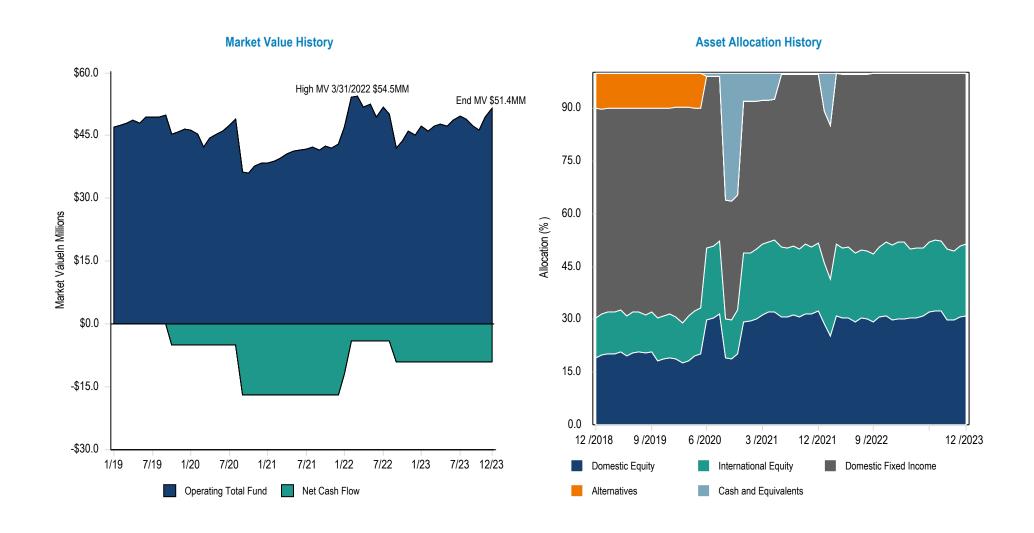


#### Operating Total Fund Executive Summary (Net of Fees)

	Market Value	% of Portfolio	3 Mo	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2022	2021	2020	2019	2018	Inception	Inception Date
Operating Total Fund	51,448,732	100.0	8.7	14.3	14.3	4.3	7.2	5.9	4.9	-11.3	11.9	10.2	13.3	-3.6	5.4	Apr-07
Operating Policy Index			8.2	13.8	13.8	3.0	6.9	5.8	4.9	-13.0	10.5	12.9	13.0	-2.5	4.7	
InvMetrics All Endowment < \$50mm Rank			12	17	17	22	67	85	100	25	54	80	92	11		
Total Domestic Equity	15,895,975	30.9	12.3	26.0	26.0	12.7	16.3	13.3	11.8	-12.7	30.2	14.3	30.2	-5.8	9.5	Apr-07
S&P 500 Index			11.7	26.3	26.3	10.0	15.7	13.4	12.0	-18.1	28.7	18.4	31.5	-4.4	9.7	
InvMetrics All E&F US Equity Rank			20	18	18	1	1	9	7	2	2	99	58	55		
Schwab Fundamental US Large Company Index	3,962,834	7.7	11.2	18.1	18.1	13.1	15.3	12.0	10.8	-6.9	31.6	9.2	28.9	-7.3	12.6	Mar-10
S&P 500 Index			11.7	26.3	26.3	10.0	15.7	13.4	12.0	-18.1	28.7	18.4	31.5	-4.4	13.3	
Large Cap Rank			60	64	64	3	32	51	44	21	5	68	55	66		
Vanguard 500 Index Adm	3,936,869	7.7	11.7	26.2	26.2	10.0	15.6	13.4	12.0	-18.1	28.7	18.4	31.5	-4.4	9.7	Mar-07
S&P 500 Index			11.7	26.3	26.3	10.0	15.7	13.4	12.0	-18.1	28.7	18.4	31.5	-4.4	9.7	
Large Cap Rank			50	37	37	24	26	32	23	50	19	45	30	37		
Vanguard FTSE Social Index I	7,996,271	15.5	13.2	32.7	32.7	8.7	16.1	14.2	12.6	-24.2	27.8	22.7	34.0	-3.4	25.9	Mar-23
S&P 500 Index			11.7	26.3	26.3	10.0	15.7	13.4	12.0	-18.1	28.7	18.4	31.5	-4.4	21.8	
Large Blend Rank			8	3	3	60	12	6	2	97	41	10	6	18		
Total Int'l Equity	10,504,279	20.4	10.7	19.0	19.0	5.6	9.1	7.0	4.4	-13.3	14.2	8.9	20.4	-15.9	3.4	Apr-07
MSCI EAFE Net			10.4	18.2	18.2	4.0	8.2	6.9	4.3	-14.5	11.3	7.8	22.0	-13.8	3.0	
Schwab Fundamental Intl Large Company Index	2,689,684	5.2	9.2	19.9	19.9	8.1	9.3	7.5	4.8	-7.9	14.4	4.4	18.1	-13.9	5.1	Jul-11
MSCI EAFE Net			10.4	18.2	18.2	4.0	8.2	6.9	4.3	-14.5	11.3	7.8	22.0	-13.8	5.0	
MSCI EAFE Value Index Net			8.2	19.0	19.0	7.6	7.1	5.5	3.2	-5.6	10.9	-2.6	16.1	-14.8	4.1	
Foreign Rank			71	13	13	5	18	22	24	8	14	80	84	31		
Dodge & Cox Int'l Stock	1,307,936	2.5	6.8	16.7	16.7	6.5	8.6	6.4	4.0	-6.8	11.0	2.1	22.8	-18.0	3.5	Mar-07
MSCI AC World ex USA Net			9.8	15.6	15.6	1.5	7.1	6.3	3.8	-16.0	7.8	10.7	21.5	-14.2	3.2	
MSCI AC World ex USA Value Net			8.4	17.3	17.3	5.8	6.3	5.3	2.9	-8.6	10.5	-0.8	15.7	-14.0	2.2	
Foreign Rank			95	46	46	11	28	56	53	6	45	87	50	76		
WCM Focused Intl Growth Ins	2,612,563	5.1	11.8	16.6	16.6	-1.0	11.7	11.3	8.4	-28.9	17.0	32.8	35.2	-7.3	7.9	Jun-20
MSCI AC World ex USA Net			9.8	15.6	15.6	1.5	7.1	6.3	3.8	-16.0	7.8	10.7	21.5	-14.2	9.0	
MSCI AC World ex USA Growth Net			11.1	14.0	14.0	-2.7	7.5	7.1	4.5	-23.1	5.1	22.2	27.3	-14.4	5.6	
Foreign Growth Rank			51	40	40	36	5	4	1	73	7	15	7	5		
DFA Intl Sustainability Core 1	3,894,096	7.6	12.4	18.3	18.3	3.0	8.7	7.2	4.6	-17.7	12.1	11.6	24.2	-15.5	7.5	Sep-23
MSCI EAFE (Net)			10.4	18.2	18.2	4.0	8.2	6.9	4.3	-14.5	11.3	7.8	22.0	-13.8	6.7	
Foreign Large Blend Rank			5	23	23	48	24	25	21	77	27	29	25	70		

#### Operating Total Fund Executive Summary (Net of Fees)

	Market Value	% of Portfolio	3 Mo	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	2022	2021	2020	2019	2018	Inception	Inception Date
Total Domestic Fixed Income	25,046,499	48.7	5.7	5.5	5.5	-1.8	1.8	1.7	1.8	-11.1	0.9	8.0	7.1	0.2	3.3	Apr-07
Blended Fixed Income Benchmark			5.1	4.9	4.9	-1.8	1.4	1.4	1.6	-10.0	0.2	6.2	6.8	0.4	2.7	
InvMetrics All E&F US Fixed Income Rank			71	82	82	30	53	62	72	36	10	54	84	28		
Met West Total Return Bond I	6,315,946	12.3	7.5	6.0	6.0	-3.7	1.2	1.4	1.8	-14.8	-1.1	9.1	9.1	0.2	1.4	Dec-14
Blmbg. U.S. Aggregate Index			6.8	5.5	5.5	-3.3	1.1	1.3	1.8	-13.0	-1.5	7.5	8.7	0.0	1.4	
Intermediate Core Bond Rank			7	27	27	74	39	34	35	91	26	21	24	19		
Dodge & Cox Income	6,315,448	12.3	7.3	7.7	7.7	-1.7	2.7	2.5	2.8	-10.9	-0.9	9.5	9.7	-0.3	2.4	Dec-14
Blmbg. U.S. Aggregate Index			6.8	5.5	5.5	-3.3	1.1	1.3	1.8	-13.0	-1.5	7.5	8.7	0.0	1.4	
Intermediate Core Bond Rank			10	1	1	4	1	1	3	8	18	15	8	44		
Vanguard Inflation-Protected Securities Adm	7,414,597	14.4	4.6	3.8	3.8	-1.1	3.0	2.4	2.3	-11.9	5.7	11.0	8.2	-1.4	3.4	Mar-07
Bloomberg U.S. TIPS			4.7	3.9	3.9	-1.0	3.2	2.5	2.4	-11.8	6.0	11.0	8.4	-1.3	3.5	
Inflation-Protected Bond Rank			37	50	50	50	47	40	20	55	32	30	35	45		
Vanguard Short-Term Bond Adm	5,000,507	9.7	3.4	4.9	4.9	-0.7	1.5	1.4	1.4	-5.5	-1.1	4.7	4.9	1.3	1.3	Dec-14
ICE BofA 1-3 Years U.S. Treasury Index			2.5	4.3	4.3	0.0	1.3	1.2	1.1	-3.6	-0.6	3.1	3.6	1.6	1.1	
Short-Term Bond Rank			34	76	76	80	69	65	64	65	86	30	40	20		
Total Cash	1,980	0.0	0.1	0.4	0.4	0.2	0.2	0.4	0.3	0.1	0.0	0.0	0.6	1.2	0.5	Apr-07
90 Day U.S. Treasury Bill			1.4	5.0	5.0	2.2	1.9	1.7	1.2	1.5	0.0	0.7	2.3	1.9	1.1	
Schwab Cash	1,980	0.0	0.1	0.4	0.4	0.2	0.2	0.4	0.3	0.1	0.0	0.0	0.6	1.2	0.4	Jun-16
90 Day U.S. Treasury Bill			1.4	5.0	5.0	2.2	1.9	1.7	1.2	1.5	0.0	0.7	2.3	1.9	1.6	





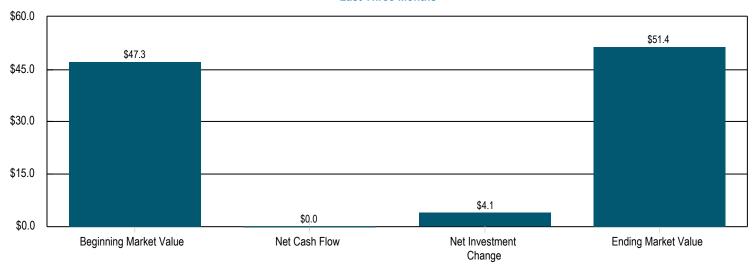
# Operating Total Fund Risk Analysis by Manager - 5 Years (Net of Fees)

	Anlzd Return	Anlzd Standard Deviation	Anlzd Alpha	Beta	R-Squared	Up Mkt Capture Ratio	Down Mkt Capture Ratio	Information Ratio	Tracking Error	Sharpe Ratio	Sortino Ratio
Operating Total Fund	7.21	9.98	0.20	1.02	0.97	103.23	102.26	0.18	1.80	0.56	0.83
Operating Policy Index	6.89	9.64	0.00	1.00	1.00	100.00	100.00	-	0.00	0.55	0.83
Total Domestic Equity	16.34	18.57	0.61	1.00	0.98	100.69	98.13	0.23	2.67	0.81	1.28
S&P 500 Index	15.69	18.37	0.00	1.00	1.00	100.00	100.00	-	0.00	0.79	1.23
Total Int'l Equity	9.09	19.38	0.54	1.06	0.97	106.55	104.10	0.30	3.76	0.45	0.69
MSCI EAFE (Net)	8.16	17.93	0.00	1.00	1.00	100.00	100.00	-	0.00	0.42	0.64
Total Domestic Fixed Income	1.82	5.30	0.20	1.15	0.98	116.47	113.03	0.43	0.99	0.01	0.02
Blended Fixed Income Benchmark	1.42	4.56	0.00	1.00	1.00	100.00	100.00	-	0.00	-0.08	-0.11

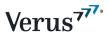


Portfolio Reconciliation												
	Last Three Months	Fiscal Year- To-Date	2022	2021	2020	2019	2018					
Beginning Market Value	47,330,857	48,746,561	43,038,109	38,451,184	46,441,541	45,533,130	47,224,063					
Net Cash Flow	-	-120	7,999,975	13	-12,000,176	-5,000,126	-					
Net Investment Change	4,117,875	2,702,291	-6,043,509	4,328,729	4,088,545	5,991,959	-1,601,023					
Ending Market Value	51.448.732	51.448.732	45.014.699	43.038.109	38.451.184	46.441.541	45.533.130					

#### Change in Market Value Last Three Months



Contributions and withdrawals may include intra-account transfers between managers/funds. Net Investment Change includes fees and expenses.

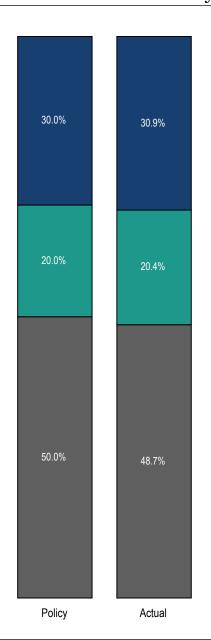






#### Operating Total Fund Cash Flow by Manager- YTD

Manager Name	Beginning Market Value	Contributions	Distributions	Net Investment Change	Ending Market Value
Schwab Fundamental US Large Company Index	\$6,866,856	\$0	-\$3,600,000	\$695,978	\$3,962,834
Vanguard 500 Index Adm	\$6,602,395	\$0	-\$3,624,980	\$959,454	\$3,936,869
Vanguard FTSE Social Index I	\$0	\$7,000,000	-\$760,000	\$1,756,271	\$7,996,271
Schwab Fundamental Intl Large Company Index	\$4,806,179	\$0	-\$2,855,000	\$738,505	\$2,689,684
Dodge & Cox Int'l Stock	\$2,410,252	\$0	-\$1,434,980	\$332,664	\$1,307,936
WCM Focused Intl Growth Ins	\$2,291,434	\$100,000	-\$149,980	\$371,109	\$2,612,563
DFA Intl Sustainability Core 1	\$0	\$3,615,000	\$0	\$279,096	\$3,894,096
Met West Total Return Bond I	\$5,491,003	\$470,000	\$0	\$354,944	\$6,315,946
Dodge & Cox Income	\$5,578,815	\$290,000	\$0	\$446,633	\$6,315,448
Vanguard Inflation-Protected Securities Adm	\$6,493,838	\$650,000	\$0	\$270,759	\$7,414,597
Vanguard Short-Term Bond Adm	\$4,471,776	\$300,000	\$0	\$228,731	\$5,000,507
Schwab Cash	\$2,150	\$0	-\$180	\$9	\$1,980
Total	\$45,014,699	\$12,425,000	-\$12,425,120	\$6,434,154	\$51,448,732



	Current Balance (\$)	Current Allocation (%)	Policy Allocation (%)	Excess Allocation (\$)	Policy Range (%)	Within IPS Range?
■ Domestic Equity	15,895,975	30.9	30.0	461,355	0.0 - 100.0	Yes
International Equity	10,504,279	20.4	20.0	214,533	0.0 - 100.0	Yes
■ Domestic Fixed Income	25,046,499	48.7	50.0	-677,868	0.0 - 100.0	Yes
Cash and Equivalents	1,980	0.0	0.0	1,980	0.0 - 100.0	Yes
Total	51.448.732	100.0	100.0			



Fund Name	Allocation Group	Overall Status	Outperformed Median Rank (1yrs)	Outperformed Median Rank (3yrs)	Outperformed Median Rank (5yrs)	Outperformed Index (5yr)	Standard Deviation Less Than 25% Above Index (5yrs)	Concern	Index Fund Tracking Error over 0.25% (1yr)
Schwab Fundamental US Large Company Index	Domestic Equity		-	-	-	-	-	-	B
Vanguard 500 Index Adm	Domestic Equity		-	-	-	-	-	-	<b>V</b>
Vanguard FTSE Social Index I	Domestic Equity		<b>V</b>	B	<b>✓</b>	<b>V</b>	<b>✓</b>	-	-
Schwab Fundamental Intl Large Company Index	International Equity		-	-	-	-	-	-	B
Dodge & Cox Int'l Stock	International Equity	•	<b>V</b>	<b>✓</b>	<b>✓</b>	<b>V</b>	<b>✓</b>	Р	-
WCM Focused Intl Growth Ins	International Equity		<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	-	-
Met West Total Return Bond I	Domestic Fixed Income	•	<b>V</b>	B	<b>✓</b>	<b>✓</b>	<b>✓</b>	Р	-
Dodge & Cox Income	Domestic Fixed Income		<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	Р	-
Vanguard Inflation-Protected Securities Adm	Domestic Fixed Income		V	B	B	B	<b>✓</b>	-	-
Vanguard Short-Term Bond Adm	Domestic Fixed Income		-	-	-	-	-	-	B
Schwab Cash	Cash and Equivalents	•	-	-	-	R	V	-	-





# Total Fund Investment Fund Fee Analysis

Name	Asset Class	Identifier	Expense Ratio (%)	Market Value	Estimated Expense \$
Schwab Fundamental US Large Company Index	Domestic Equity	SFLNX	0.25	\$3,962,834	\$9,907
Vanguard 500 Index Adm	Domestic Equity	VFIAX	0.04	\$3,936,869	\$1,575
Vanguard FTSE Social Index I	Domestic Equity	VFTNX	0.12	\$7,996,271	\$9,596
Schwab Fundamental Intl Large Company Index	International Equity	SFNNX	0.25	\$2,689,684	\$6,724
Dodge & Cox Int'l Stock	International Equity	DODFX	0.62	\$1,307,936	\$8,109
WCM Focused Intl Growth Ins	International Equity	WCMIX	1.04	\$2,612,563	\$27,171
DFA Intl Sustainability Core 1	International Equity	DFSPX	0.25	\$3,894,096	\$9,735
Met West Total Return Bond I	Domestic Fixed Income	MWTIX	0.45	\$6,315,946	\$28,422
Dodge & Cox Income	Domestic Fixed Income	DODIX	0.41	\$6,315,448	\$25,893
Vanguard Inflation-Protected Securities Adm	Domestic Fixed Income	VAIPX	0.10	\$7,414,597	\$7,415
Vanguard Short-Term Bond Adm	Domestic Fixed Income	VBIRX	0.07	\$5,000,507	\$3,500
Schwab Cash	Cash and Equivalents	SWGXX	0.34	\$1,980	\$7
Total			0.27	\$51,448,732	\$138,053

# Operating Total Fund Risk Analysis - 5 Years (Net of Fees)

	Anlzd Return	Anlzd Standard Deviation	Anizd Alpha	Beta	R-Squared	Up Mkt Capture Ratio	Down Mkt Capture Ratio	Information Ratio	Tracking Error	Sharpe Ratio	Sortino Ratio
Schwab Fundamental US Large Company Index	15.29	19.33	-0.19	1.00	0.91	97.65	96.47	-0.03	5.90	0.74	1.15
Vanguard 500 Index Adm	15.65	18.37	-0.04	1.00	1.00	99.94	100.06	-3.61	0.01	0.78	1.23
Vanguard FTSE Social Index I	16.12	19.40	-0.23	1.05	0.99	105.05	106.32	0.25	2.33	0.78	1.21
Schwab Fundamental Intl Large Company Index	9.26	19.59	0.81	1.06	0.93	104.25	99.75	0.26	5.11	0.46	0.69
Dodge & Cox Int'l Stock	8.65	21.27	0.96	1.14	0.90	116.69	112.95	0.30	7.15	0.41	0.62
WCM Focused Intl Growth Ins	11.73	19.73	4.83	0.99	0.79	113.58	96.40	0.52	9.05	0.57	0.87
Met West Total Return Bond I	1.23	6.82	0.03	1.11	0.99	110.21	109.64	0.18	0.97	-0.06	-0.08
Dodge & Cox Income	2.70	6.24	1.63	0.97	0.90	108.32	88.17	0.80	1.98	0.16	0.24
Vanguard Inflation-Protected Securities Adm	3.02	6.06	-0.07	0.98	0.99	97.38	98.14	-0.29	0.47	0.21	0.29
Vanguard Short-Term Bond Adm	1.47	2.67	-0.24	1.33	0.83	140.59	161.38	0.15	1.24	-0.14	-0.19



Total Plan Allocation vs. InvMetrics All Endowment < \$50mm 95.0 80.0 65.0 50.0 Allocation (%) 35.0 20.0 5.0 -10.0 Global Equity **US** Equity Global ex-US Equity Global Fixed Income **US Fixed** Total Real Estate Cash & Equivalents Alternatives ■ Operating Total Fund 30.9 (70) 20.4 (41) 48.7 (10) 0.0 (100) 5th Percentile 47.8 51.8 28.0 25.8 88.4 71.6 12.1 80.6 1st Quartile 44.9 46.1 24.5 6.4 33.2 21.2 5.7 5.0 24.4 3.2 Median 24.3 38.1 19.8 5.5 10.3 1.1 2.8 2.8 3rd Quartile 15.8 29.8 16.0 18.6 5.3 0.1 95th Percentile 9.4 12.8 6.4 2.0 7.3 2.2 1.1 0.0 82 47 Population 13 75 77 17 25 77



Peer Universe Comparison: Cumulative Perf (Net of Fees)

Operating Total Fund vs. InvMetrics All Endowment < \$50mm 20.0 17.0 14.0 Annualized Return (%) 11.0 8.0 5.0 2.0 -1.0 Period 3 Mo 2 Quarters 3 Yrs 7 Yrs 1 Yr 3 Quarters 5 Yrs 10 Yrs Operating Total Fund 8.7 (12) 5.5 (23) 8.6 (52) 14.3 (17) 4.3 (22) 7.2 (67) 5.9 (85) 4.9 (100) 8.2 (39) 5.2 (34) 8.1 (61) 13.8 (28) 3.0 (64) 6.9 (69) 5.8 (85) 4.9 (100) ▲ Operating Policy Index 5th Percentile 9.9 6.7 11.3 17.9 4.4 10.4 9.4 7.9 1st Quartile 8.3 5.5 8.9 14.1 4.2 8.6 7.8 6.9 7.3 3.2 Median 4.9 8.7 12.1 8.1 7.2 6.3 5.9 3rd Quartile 3.5 5.6 8.7 1.8 4.8 7.1 6.1 95th Percentile 2.2 3.2 3.5 5.0 8.0 1.8 2.9 6.1 Population 9 9 9 9 9 7 6 4



Period Ending: December 31, 2023

#### Operating Total Fund vs. InvMetrics All Endowment < \$50mm 28.0 20.0 12.0 Annualized Return (%) 4.0 -4.0 -12.0 -20.0 Period 2023 2022 2020 2019 2021 2018 2017 2016 2015 2014 Operating Total Fund 14.3 (17) -11.3 (25) 11.9 (54) 10.2 (80) 13.3 (92) -3.6 (11) 9.1 (97) 6.5 (53) -2.1 (78) 3.9 (79) 13.8 (28) -13.0 (36) 13.0 (92) -2.5 (6) 4.0 (77) ▲ Operating Policy Index 10.5 (72) 12.9 (57) 8.8 (97) 4.0 (95) 0.4 (14) 5th Percentile 17.9 -3.2 16.7 18.7 21.6 -1.7 18.5 9.0 8.0 7.3 14.1 -11.6 13.9 14.8 20.5 -4.9 16.5 8.2 0.2 6.0 1st Quartile Median 12.1 -13.7 12.3 13.1 19.0 -5.9 15.3 6.6 -1.2 5.1 3rd Quartile 8.7 -15.2 10.3 10.6 17.1 -6.7 13.8 5.7 -2.0 4.1 95th Percentile -16.7 0.5 2.5 -7.6 10.4 4.0 -4.1 3.1 5.0 6.5 47 Population 9 28 49 82 68 47 49 45 38



#### Performance Return Calculations

Performance is calculated using Modified Dietz and for time periods with large cash flow (generally greater than 10% of portfolio value), Time Weighted Rates of Return (TWRR) methodologies. Monthly returns are geometrically linked and annualized for periods longer than one year.

#### Data Source

Verus is an independent third party consulting firm and calculates returns from best source book of record data. Returns calculated by Verus may deviate from those shown by the manager in part, but not limited to, differences in prices and market values reported by the custodian and manager, as well as significant cash flows into or out of an account. It is the responsibility of the manager and custodian to provide insight into the pricing methodologies and any difference in valuation.

#### Illiquid Alternatives

Due to the inability to receive final valuation prior to report production, closed end funds (including but are not limited to Real Estate, Hedge Funds, Private Equity, and Private Credit) performance is typically reported at a one-quarter lag. Valuation is reported at a one-quarter lag, adjusted for current quarter flow (cash flows are captured real time). Closed end fund performance is calculated using a time-weighted return methodology consistent with all portfolio and total fund performance calculations. For Private Markets, performance reports also include Verus-calculated multiples based on flows and valuations (e.g. DPI and TVPI) and manager-provided IRRs.

Current Managers					
<u>Manager</u>	Fund Incepted	Data Source	Manager	Fund Incepted	Data Source
Vanguard Inflation-Protected Securities Adm	3/7/2007	Charles Schwab	Vanguard Short-Term Bond Adm	12/5/2014	Charles Schwab
Vanguard 500 Index Adm	3/7/2007	Charles Schwab	Dodge & Cox Income	12/5/2014	Charles Schwab
Dodge & Cox Int'l Stock	3/9/2007	Charles Schwab	Schwab Govt Money Fund	6/14/2016	Charles Schwab
Schwab Fundamental US Large Company Index	2/25/2010	Charles Schwab	WCM Focused Intl Growth Ins	6/1/2020	Charles Schwab
Schwab Fundamental Intl Large Company Index	7/11/2011	Charles Schwab	Vanguard FTSE Social Index	3/1/2023	Charles Schwab
Met West Total Return Bond I	12/4/2014	Charles Schwab	DFA Intl. Sustainability Core 1	9/1/2023	Charles Schwab
Terminated Managers (since January, 2014)					
<u>Manager</u>	Fund Incepted	Fund Terminated	Comments		
PIMCO Total Return Ins	3/26/2007	12/4/2014	Met West Total Return Bond I replaced PIMCO To	tal Return Ins	
PIMCO Low Duration Ins	3/26/2007	12/4/2014	Vanguard Short-Term Bond Adm replaced PIMCO	Low Duration Ins	
Schwab Advance Cash Reserve Premier		6/4/2016	Schwab Govt Money Fund replaced Schwab Adva	nce Cash Reserve Prem	nier
PIMCO All Asset Ins	3/29/2007	6/1/2020			
Vanguard Short Term Investment Grade Adm	8/23/2011	6/1/2020			
Policy & Custom Index Composition					
Policy Index		0% MSCI EAFE Index, 2	25% Bloomberg US Aggregate Index, 15% BofAML 1	-3 YR Treasury Index, 10	0% Bloomberg US
(06/01/2020-Present)	TIPS Index.				
Policy Index			15% Bloomberg US Aggregate Index, 15% BofAML 1	-3 YR Treasury Index, 15	5% Bloomberg US
(07/01/2011-05/31/2020)	TIPS Index, 10% HFRI	Fund of Funds Index, 1	5% Bloomberg US 1-5 YR Credit Index.		
			,		
Policy Index			15% Bloomberg US Aggregate Index, 15% BofAML 1	-3 YR Treasury Index, 1	5% Bloomberg US
(04/01/2009-07/01/2011)	HPS Index, 10% HFRI	Fund of Funds Index, 1	5% 90-Day T-Bills Index		



**Other Notes** 

#### Glossary

Allocation Effect: An attribution effect that describes the amount attributable to the managers' asset allocation decisions, relative to the benchmark.

Alpha: The excess return of a portfolio after adjusting for market risk. This excess return is attributable to the selection skill of the portfolio manager. Alpha is calculated as: Portfolio Return - [Risk-free Rate + Portfolio Beta x (Market Return - Risk-free Rate)].

**Benchmark R-squared:** Measures how well the Benchmark return series fits the manager's return series. The higher the Benchmark R-squared, the more appropriate the benchmark is for the manager. **Beta:** A measure of systematic, or market risk; the part of risk in a portfolio or security that is attributable to general market movements. Beta is calculated by dividing the covariance of a security by the variance of the market.

**Book-to-Market:** The ratio of book value per share to market price per share. Growth managers typically have low book-to-market ratios while value managers typically have high book-to-market ratios. Capture Ratio: A statistical measure of an investment manager's overall performance in up or down markets. The capture ratio is used to evaluate how well an investment manager performed relative to an index during periods when that index has risen (up market) or fallen (down market). The capture ratio is calculated by dividing the manager's returns by the returns of the index during the up/down market, and multiplying that factor by 100.

Correlation: A measure of the relative movement of returns of one security or asset class relative to another over time. A correlation of 1 means the returns of two securities move in lock step, a correlation of -1 means the returns of two securities move in the exact opposite direction over time. Correlation is used as a measure to help maximize the benefits of diversification when constructing an investment portfolio.

Excess Return: A measure of the difference in appreciation or depreciation in the price of an investment compared to its benchmark, over a given time period. This is usually expressed as a percentage and may be annualized over a number of years or represent a single period.

Information Ratio: A measure of a manager's ability to earn excess return without incurring additional risk. Information ratio is calculated as: excess return divided by tracking error.

**Interaction Effect:** An attribution effect that describes the portion of active management that is contributable to the cross interaction between the allocation and selection effect. This can also be explained as an effect that cannot be easily traced to a source.

**Portfolio Turnover:** The percentage of a portfolio that is sold and replaced (turned over) during a given time period. Low portfolio turnover is indicative of a buy and hold strategy while high portfolio turnover implies a more active form of management.

**Price-to-Earnings Ratio (P/E):** Also called the earnings multiplier, it is calculated by dividing the price of a company's stock into earnings per share. Growth managers typically hold stocks with high price-to-earnings ratios whereas value managers hold stocks with low price-to-earnings ratios.

**R-Squared:** Also called the coefficient of determination, it measures the amount of variation in one variable explained by variations in another, i.e., the goodness of fit to a benchmark. In the case of investments, the term is used to explain the amount of variation in a security or portfolio explained by movements in the market or the portfolio's benchmark.

Selection Effect: An attribution effect that describes the amount attributable to the managers' stock selection decisions, relative to the benchmark.

**Sharpe Ratio:** A measure of portfolio efficiency. The Sharpe Ratio indicates excess portfolio return for each unit of risk associated with achieving the excess return. The higher the Sharpe Ratio, the more efficient the portfolio. Sharpe ratio is calculated as: Portfolio Excess Return / Portfolio Standard Deviation.

**Sortino Ratio:** Measures the risk-adjusted return of an investment, portfolio, or strategy. It is a modification of the Sharpe Ratio, but penalizes only those returns falling below a specified benchmark. The Sortino Ratio uses downside deviation in the denominator rather than standard deviation, like the Sharpe Ratio.

**Standard Deviation:** A measure of volatility, or risk, inherent in a security or portfolio. The standard deviation of a series is a measure of the extent to which observations in the series differ from the arithmetic mean of the series. For example, if a security has an average annual rate of return of 10% and a standard deviation of 5%, then two-thirds of the time, one would expect to receive an annual rate of return between 5% and 15%.

Style Analysis: A return based analysis designed to identify combinations of passive investments to closely replicate the performance of funds

**Style Map:** A specialized form or scatter plot chart typically used to show where a Manager lies in relation to a set of style indices on a two-dimensional plane. This is simply a way of viewing the asset loadings in a different context. The coordinates are calculated by rescaling the asset loadings to range from -1 to 1 on each axis and are dependent on the Style Indices comprising the Map.



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Verus receives universe data from InvMetrics, eVestment Alliance, and Morningstar. We believe this data to be robust and appropriate for peer comparison. Nevertheless, these universes may not be comprehensive of all peer investors/managers but rather of the investors/managers that comprise that database. The resulting universe composition is not static and will change over time. Returns are annualized when they cover more than one year. Investment managers may revise their data after report distribution. Verus will make the appropriate correction to the client account but may or may not disclose the change to the client based on the materiality of the change.





# 2024 CSUMB Investment Committee Plan Investment-Related Work Plan

February 2024

Frequency	Tasks
Annual Tasks	<ul> <li>Asset Allocation Review</li> <li>IPS Review</li> <li>Annual audit assistance</li> </ul>
Quarterly Tasks	<ul> <li>Review Portfolio Performance (2 Portfolios)</li> <li>Review Quarterly Investment Landscape</li> </ul>
As-Needed Tasks	<ul> <li>Manager searches &amp; replacements</li> <li>Rebalances for donor in/outflows</li> </ul>
Topical Research	<ul> <li>Verus annual Capital Market Assumptions (est. release January 2024)</li> <li>Verus annual Active Management Environment (est. release February 2024)</li> <li>Verus annual Real Assets Outlook (est. release May 2024)</li> <li>Verus annual Private Equity Outlook (est. release October 2024)</li> </ul>

Meeting Date	Draft Agendas
February	<ul> <li>Quarterly Performance Review</li> <li>Verus Annual Capital Market Assumptions</li> <li>Asset Allocation Review</li> <li>Review 2024 Work Plan</li> <li>2024 Meeting Dates</li> <li>Review Quarterly Investment Landscape</li> </ul>
May	<ul> <li>Quarterly Performance Review</li> <li>Private Credit Manager Recommendation</li> <li>NACUBO 2023 update</li> <li>Review Quarterly Investment Landscape</li> </ul>
August (If needed)	<ul> <li>Quarterly Performance Review</li> <li>IPS Review</li> <li>Annual audit assistance (August)</li> <li>Review Quarterly Investment Landscape</li> </ul>
November	<ul> <li>Quarterly Performance Review</li> <li>Fossil Fuel Exposure &amp; Sustainability Review</li> <li>Verus annual Private Credit Outlook</li> <li>Review Quarterly Investment Landscape</li> </ul>





#### 100 Campus Center ~~~ Seaside, CA ~~~ 93955-8001

#### Memorandum

**To:** Auxiliary Investment Committee

VIA: Gifford Lehman, Chair

FROM: Nancy Ayala

**DATE:** January 31, 2024

**SUBJECT:** 2024 Meeting Dates

Below is a list of potential dates for the 2024 calendar year.

May 1, 2024 1 – 3 pm or May 31, 2024 11 – 1pm

August 16, 20249 - 11 am

November 13, 2024 9 - 11 am

At the February 7, 2024 meeting the Committee will finalize the 2024 meeting dates. If you have any questions or concerns before the meeting, please feel free to contact me at nayala@csumb.edu.