



PERSPECTIVES THAT DRIVE ENTERPRISE SUCCESS



PERIOD ENDING: MARCH 31, 2025

Investment Performance Review for

Contra Costa County Employees' Retirement Association

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Investment Landscape

TAB I

Investment Performance
Review

TAB II

A large, semi-transparent geometric pattern of interconnected triangles in shades of blue and green covers the left side of the image. A small white triangle is positioned to the left of the main title text.

PERSPECTIVES THAT DRIVE ENTERPRISE SUCCESS

**2ND QUARTER 2025
Investment Landscape**

Verus business update

Since our last Investment Landscape webinar:

- Verus hired Jenny Herring as RFP Manager and Dimitri Natsis as Portfolio Manager.
- In March, **Evan Benedict** and **JC Faubion** were promoted to Consultants, **Lukas Seeley** was promoted to Senior Consulting Associate, **Colleen Flannery** was promoted to Senior Associate Director | Public Markets, **Kyle Jangard** was promoted to Associate Director | Public Markets, **Sneha Pendyala** was promoted to Senior Markets Research Analyst, **Matt Foppiano** was promoted to Senior Private Markets Research Analyst, **Phillip Thomas** was promoted to Associate Director | Investment Analytics, **Lamine Kaba** and **Cholo Villanueva** were promoted to Senior Investment Analysts, and **Nico Caballero** is being promoted to Private Markets Research Analyst.
- The 2025 Active Management Environment was released.
- Recent research, found at verusinvestments.com/research:
 - *LDI for Public Sponsors*
 - *So, What Now?*
 - *This Matters, and This Doesn't*
 - *Driving OCIO Governance Through Risk*

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Recent Verus research

Visit: verusinvestments.com/research

Thought leadership

LDI FOR PUBLIC SPONSORS

We explore the dichotomy in LDI adoption between sponsor types. We discuss the characteristics of pension plans that make LDI strategies beneficial. We assess the current environment, to illustrate why LDI may appear relatively attractive today.

THIS MATTERS, AND THIS DOESN'T

We offer a few perspectives regarding what we watch out for to acknowledge or even avoid biases where possible. Deciding what matters most to the portfolio by ensuring a balanced set of information sources, keeping a watchful eye for biases and carefully thinking about incentives, and also determining what doesn't matter.

SO, WHAT NOW?

Our CIO examines the current market environment after global tariffs are released by the U.S. government.

DRIVING OCIO GOVERNANCE THROUGH RISK

We examine active risk, which plays a large role in determining portfolio outcomes and success relative to that policy, and the elements that make up active risk.

1st quarter summary

THE ECONOMY

- The threat and implementation of tariffs by the U.S. administration has been more aggressive than expected. A string of weak economic data, along with these policy decisions, have triggered a greater likelihood of recession. So far, the core aspects of the economy—employment, consumption, wage gains—remain fairly solid, while household and business sentiment has dropped substantially. It is not yet clear how souring sentiment will translate to the real economy.
- U.S. inflation drifted lower towards the Federal Reserve 2% target. Inflation was 2.4% YoY in March, and core inflation rose 2.8%. But tariffs implemented by the Trump administration and an escalating trade war with China may push inflation upward. Given recent moves by the U.S. administration, most investors appear to expect weaker economic growth in 2025 and moderately higher inflation. This puts the Fed in a difficult position.

EQUITY

- A change in tariff policy near the end of Q1 shocked markets and led to severe selloffs across global markets, with U.S. equities taking the worst of the losses. Growth stocks, notably the Magnificent 7, have led the market downward. Small capitalization stocks underperformed large caps. Businesses that have fully embraced globalization and outsourced supply chains may find themselves in a particularly difficult position due to the drastic shift in U.S. trade policy.

FIXED INCOME

- The 10-year U.S. Treasury yield fell from 4.55% to 4.23% during the quarter, reflecting somewhat of a reversal of the economic optimism of Q4.
- Credit spreads widened during the quarter, and lower quality spreads saw larger shifts. High yield bond spreads rose by 41bps to 3.53%, while investment grade spreads rose to 1.0%. Despite recent widening events, credit spreads across all ratings remain below long-term historical averages.

ASSET ALLOCATION ISSUES

- Sentiment quickly shifted in a negative direction in March as investors witnessed weaker-than-expected economic data in a variety of places and tariff standoffs between the U.S. and our largest trading partners flooded headlines. Many S&P 500 price targets have been adjusted lower due to fears of trade policy drag on the economy.
- Implied bond market volatility showed an extreme jump towards the end of Q1. Competing theories exist as to the cause, with some market participants attributing the move to fluctuations in foreign demand for U.S. dollars due to radical shifts in U.S. trade policy. Other investors believe these moves have been more driven by hedge fund trading and an unwinding of ‘basis trades’—a levered trading strategy that tries to take advantage of differences between current Treasury price and the price reflected in futures contracts.

Tariff negotiations & weakness in certain economic data have led to fears of imminent recession

For now, core economic data—employment, spending, wages—are fairly solid

What drove the market in Q1?

“Rising fears of tariffs pummel U.S. consumer confidence to four-year low”

University of Michigan Consumer Sentiment

Oct '24	Nov '24	Dec '24	Jan '25	Feb '25	Mar '25
70.5	71.8	74.0	71.7	64.7	57.0

Article Source: Reuters, March 25th, 2025

“European stocks rise on defense spending pledge...”

EuroStoxx 50 outperformance over S&P 500 by month

Oct '24	Nov '24	Dec '24	Jan '25	Feb '25	Mar '25
-4.8%	-8.1%	0.0%	+4.7%	+4.9%	+5.2%

Article Source: World Economic Forum, March 6th, 2025

“Will Tariffs Drive the U.S. Into Recession?”

S&P 500 Price Level

Oct 31 st	Nov 30 th	Dec 31 st	Jan 31 st	Feb 28 th	Mar 31 st
5705	6032	5881	6040	5954	5611

Article Source: Bloomberg, March 31st, 2025

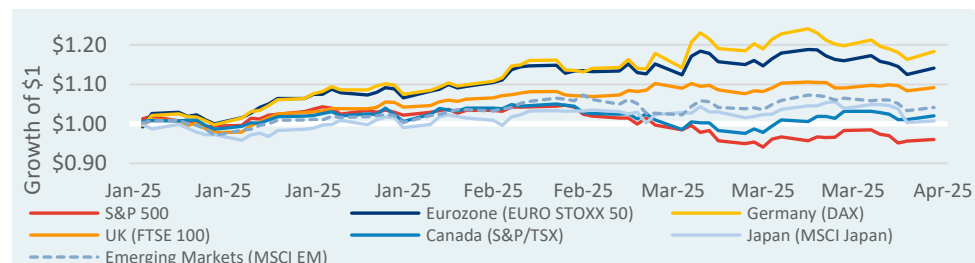
“Could Trump’s New Tariffs Push More Countries to Ditch the Dollar?”

ICE U.S. Dollar Index

Oct 24	Nov 24	Dec 24	Jan 25	Feb 25	March 25
104.0	105.7	108.5	108.5	107.6	104.2

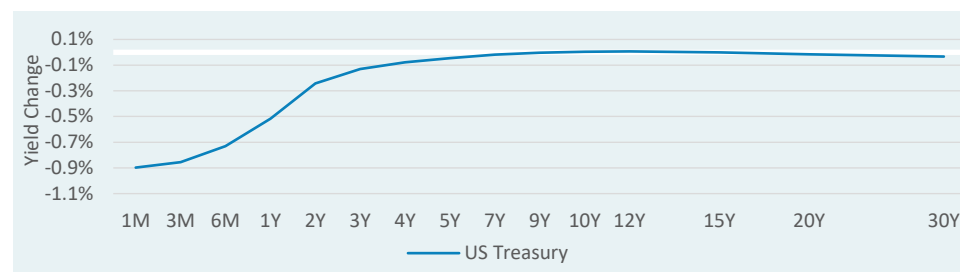
Article Source: Newsweek, April 9th, 2025

RELATIVE EQUITY PERFORMANCE



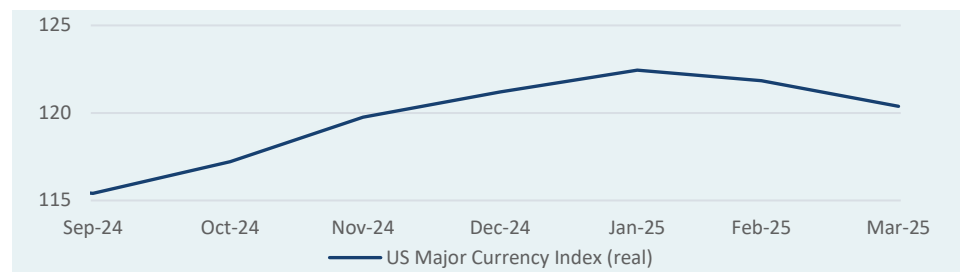
Source: Bloomberg, as of 3/31/25

EXPECTED YIELD CURVE MOVEMENT OVER NEXT 1 YEAR



Source: Bloomberg, as of 3/31/25

U.S. DOLLAR VALUE



Source: Bloomberg, as of 3/31/25

Economic environment

U.S. economics summary

- Real GDP growth was negative during Q1, falling from 2.4% to -0.3% quarter-over-quarter annualized. The slowdown was driven by a substantial increase in imports relative to exports. Less government spending contributed to the weak figure, a notable change from past years where higher spending was an ongoing support. Consumer spending also slowed down.
 - Investors witnessed broadly weaker economic data. This, along with the multifront U.S. trade tariff war, casts a shadow over sentiment and may be affecting business behavior due to heightened uncertainty. While fear is high, the core fundamentals of the economy remain relatively good—solid employment, decent spending, and low household debt levels. Investors will be watching closely for the way in which souring sentiment impacts the economy.
 - The Federal Reserve kept rates steady, but communicated that weaker economic growth and moderately higher inflation is likely in store, due to U.S. administration tariff and trade policy.
- Lower growth and rising inflation places the Fed in a very difficult position regarding rate policy.
- U.S. inflation fell during Q1 towards the Federal Reserve 2% target. Inflation came in at 2.4% year-over-year in March, and core inflation rose 2.8%. Shelter prices (housing) has been the largest contributor to inflation, but in March showed a lower price rise of 2.5% annualized.
 - Labor market conditions were strong in Q1. Unemployment remained low at 4.2%. The reductions in government workforce will likely have an impact on labor data for many months into the future, but the size of planned cuts relative to the total U.S. workforce is not enough to change the overall picture.
 - Sentiment reversed abruptly in Q1 as households and businesses expressed substantial fears around tariffs. The University of Michigan Sentiment Index is now -30% below November 2024 levels, while NFIB Small Business Sentiment is nearly back to pre-election levels.

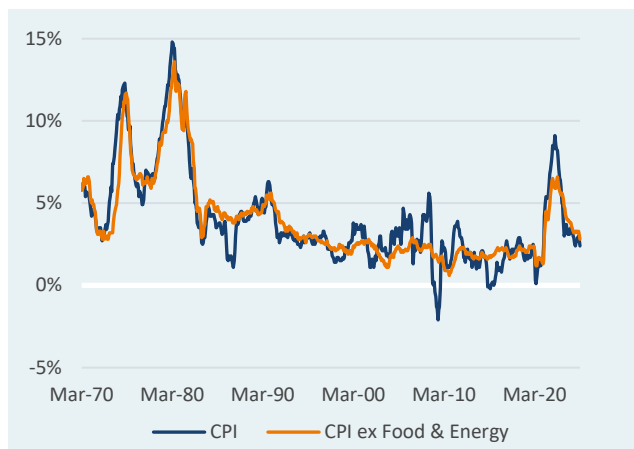
	Most Recent	12 Months Prior
Real GDP (YoY)	2.0% 3/31/25	2.9% 3/31/24
Inflation (CPI YoY, Core)	2.8% 3/31/25	3.8% 3/31/24
Expected Inflation (5yr-5yr forward)	2.6% 3/31/25	2.4% 3/31/24
Fed Funds Target Range	4.25–4.50% 3/31/25	5.25–5.50% 3/31/24
10-Year Rate	4.2% 3/31/25	4.3% 3/31/24
U-3 Unemployment	4.2% 3/31/25	3.9% 3/31/24
U-6 Unemployment	7.9% 3/31/25	7.3% 3/31/24

Inflation

U.S. inflation (CPI) drifted lower during the quarter towards the Federal Reserve 2% target. Inflation was 2.4% year-over-year in March, and core inflation (excluding food & energy) rose 2.8%. Shelter prices (housing) has been the largest contributor to inflation, but in March showed only a 2.5% annualized rise. If this marks a trend towards lower shelter price rises, it could help provide some downward relief. However, tariffs implemented by the Trump administration and an escalating trade war with China will most likely push inflation higher, perhaps materially so.

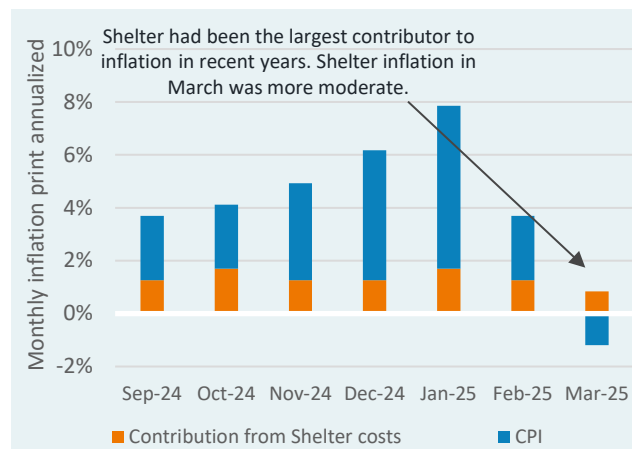
Given the change in environment and recent moves by the U.S. administration, most investors appear to expect weaker economic growth in 2025 and moderately higher inflation. It is difficult to estimate the direction of inflation in the near-term—a slowdown in the economy generally has a dampening effect on inflation, and the recent drop in energy prices and moderation of housing costs also helps, but substantially higher tariffs will likely push prices higher in a variety of areas. This puts the Federal Reserve in a particularly difficult position regarding rate policy choices.

U.S. CPI (YOY)



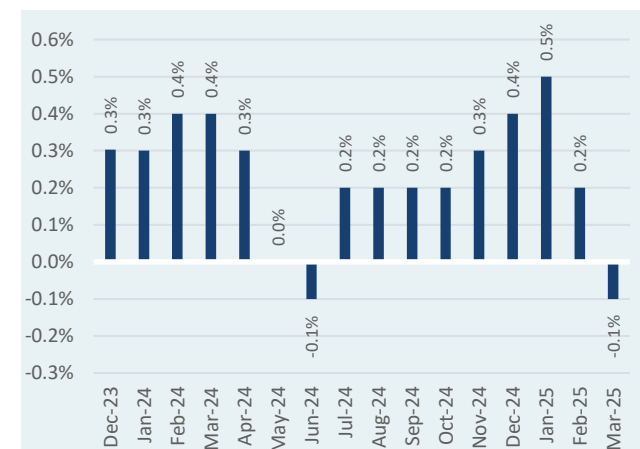
Source: BLS, as of 3/31/25

ANNUALIZED MONTHLY INFLATION



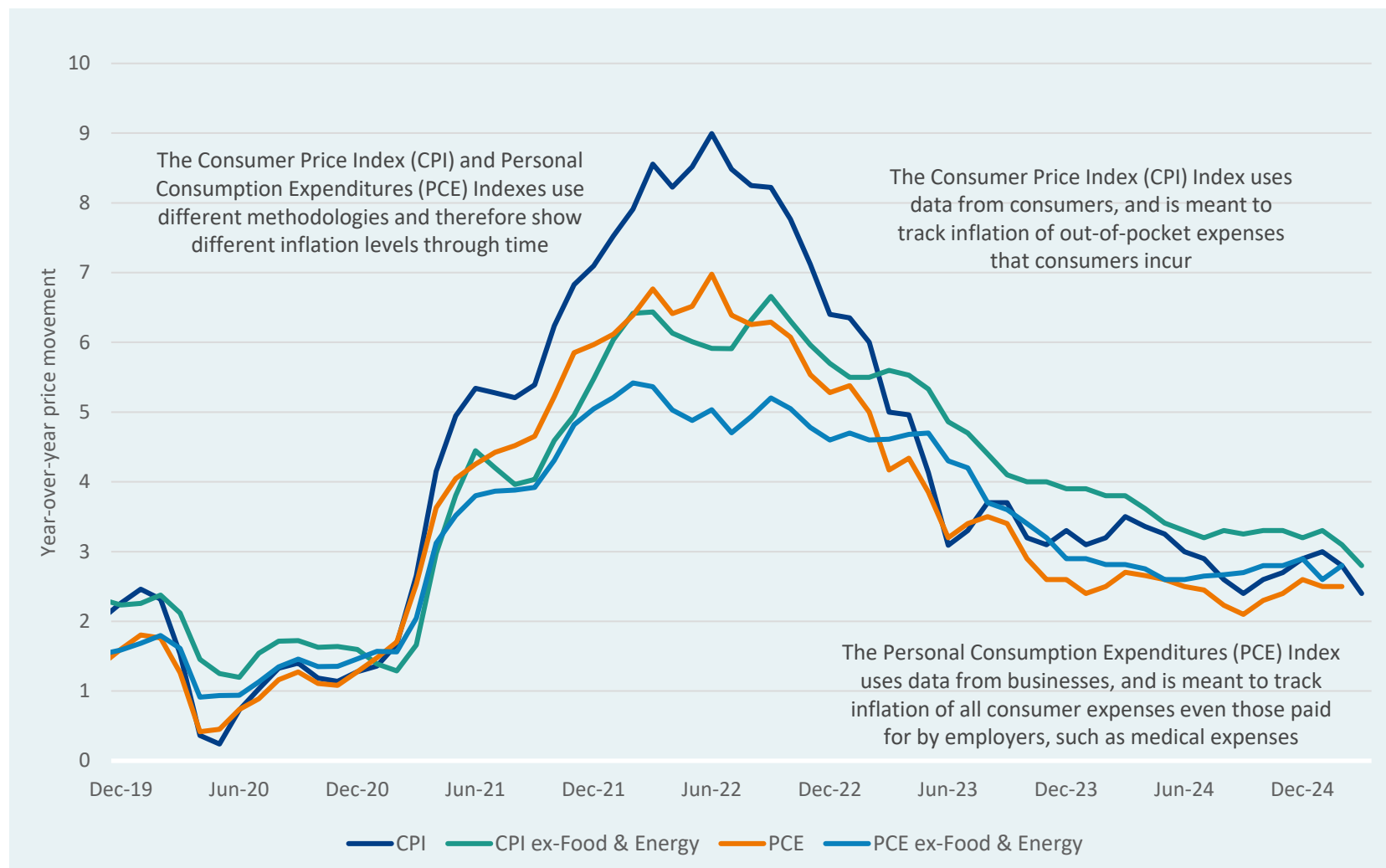
Source: BLS, Verus, of 3/31/25

MONTHLY PRICE MOVEMENT (CPI)



Source: BLS, as of 3/31/25

An (even more) uncertain inflation path



Tariffs pose an upside risk to inflation, but lower economic growth and falling commodity prices could provide dampening effects

Source: FRED, Verus, as of 3/31/25 – or most recent release

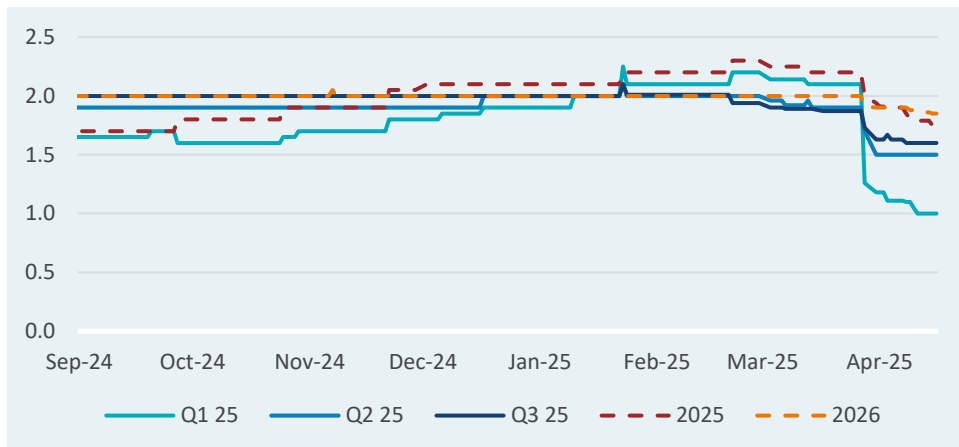
GDP growth

Real GDP growth was negative during Q1, falling from 2.4% to -0.3% quarter-over-quarter annualized (2.0% year-over-year). The slowdown was driven by a substantial increase in imports relative to exports, which means more foreign products were purchased to the detriment of American products. Lower government spending also contributed to the weak figure, a notable change from past years where higher government spending had been an ongoing support. Consumer spending slowed from prior quarters which is a concern. Investment activity jumped, providing a partial offset to negative growth, although this appears to have been affected by a surge in purchases as consumers and businesses rushed spending to avoid future tariffs.

In 2024 investors had already broadly expected the U.S. economy to slow in 2025. However, trade negotiations and tariff fears have led to concerns of a much steeper slowing than initially assumed, possibly recession. But it is important to note that economic conditions remain generally good. Employment is high, wages are rising faster than inflation, household debt service costs are relatively muted, and many households continue to sit on considerable gains in wealth due to the rally in markets and appreciation of residential homes. We believe this helps mitigate the chances of a deeper recession. But policy uncertainty will likely have a larger and larger effect if it persists on an ongoing basis.

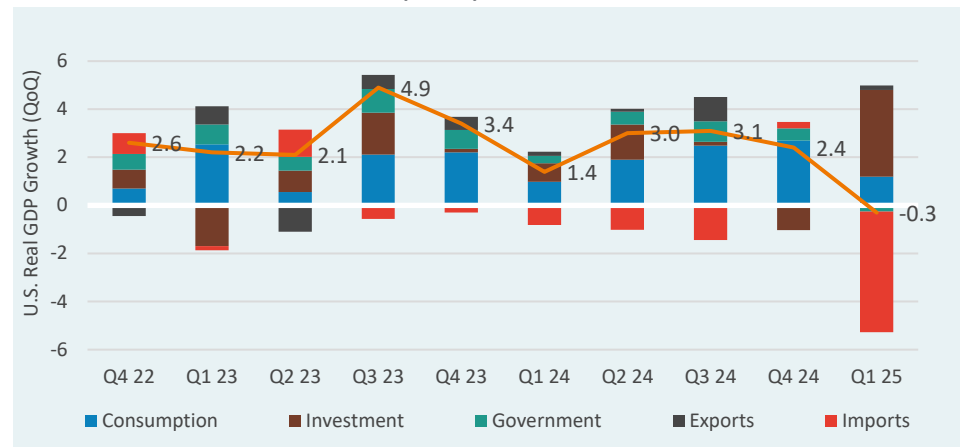
U.S. real GDP growth was negative during Q1 due to rising imports, less gov't spending, and slower consumer spending

U.S. GDP EXPECTATIONS



Source: Bloomberg, median value of economist estimates

U.S. REAL GDP COMPONENTS (QOQ)

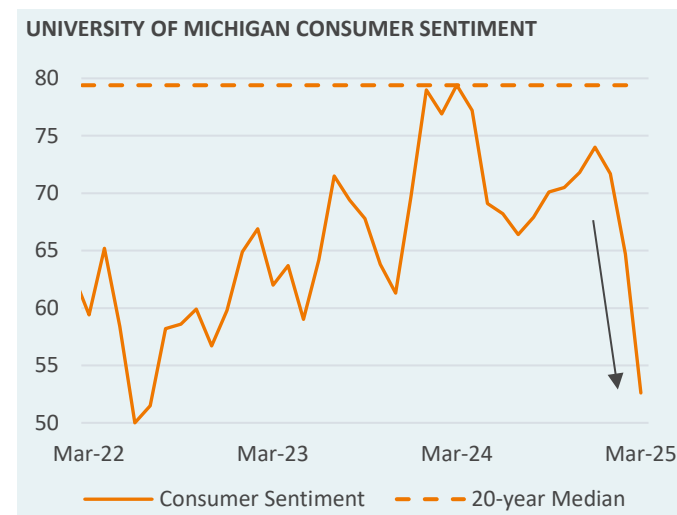
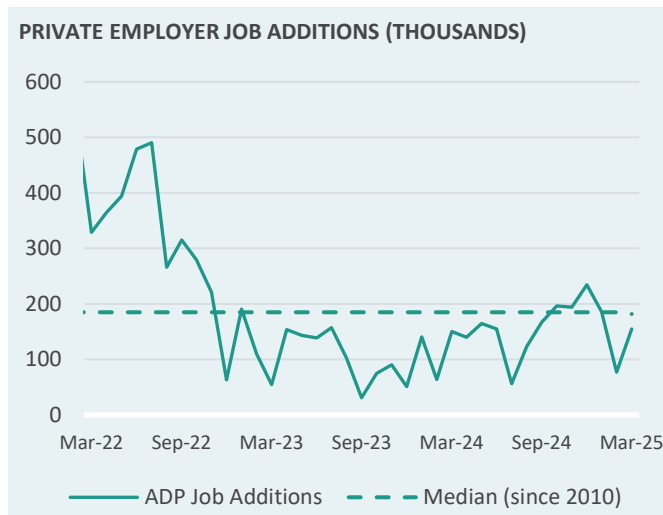
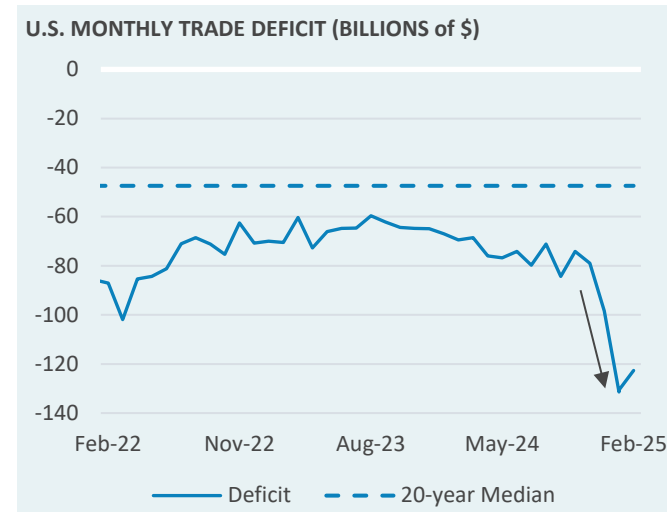
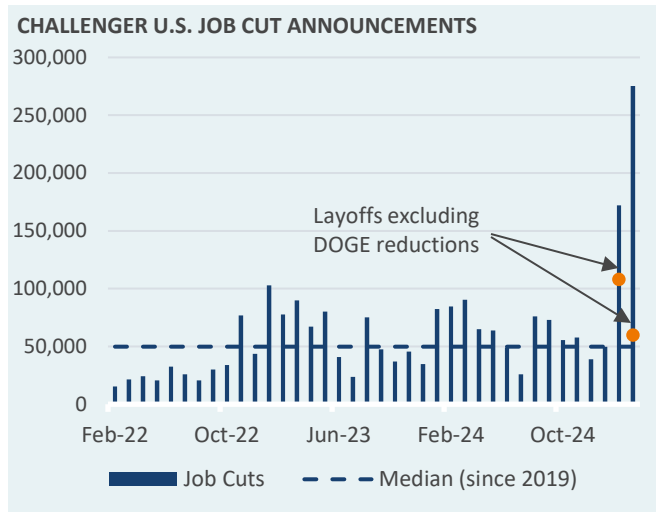


Source: FRED, as of 3/31/25

Signs of economic weakness

In February and March, economic data in a variety of places was weaker-than-expected. Household spending was strong in November and December but then fell suddenly in January—likely impacted by a cold winter season and California wildfires. Job gains showed a similar slowdown in the first two months of the year. The trade standoff between the U.S. and our largest trading partners, and fear of tariffs, appears to be casting a heavy shadow over consumer sentiment. These concerns may also be impacting business behavior due to uncertainty about future prices and conditions, and general pessimism. The longer that trade uncertainty persists, the larger the negative impact will likely be.

While weakness in the first quarter is concerning and notable, we continue to see the core fundamentals of the economy as relatively good—high levels of employment, decent consumer spending, manageable household debt levels, and the wealth effects from rising equity markets and home prices over the past decade could be supportive of positive economic growth in 2025.



Source: Challenger, ADP, University of Michigan as of 3/31/25, BEA as of 2/28/25

Labor market

Labor market conditions have remained broadly strong. Unemployment was low at 4.2% in March.

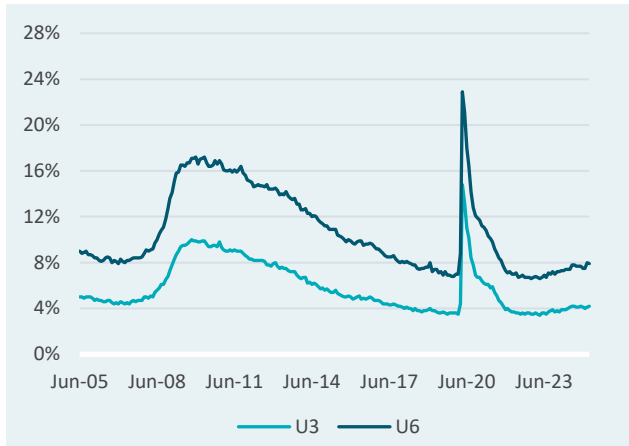
The reductions in government workforce will likely have an impact on labor data for future quarters, but the size of planned cuts relative to the total U.S. workforce is not enough to change the overall picture. We believe a larger risk to the economy would be a shift in business hiring/employment actions if the recent deterioration in business sentiment was to be sustained, though there do not seem to be signs of this so far.

The change in a country's population is a large determinant of the rate of economic growth. This means that a dramatic slowing in unlawful immigration over recent months will impact the labor market and total consumer spending, as well as other aspects of the economy. In specific industries, this shift will likely also affect wages, since undocumented immigrants are paid on average materially less than U.S. citizens. Tighter job markets in specific regions and across specific job types, with less supply of cheap labor, could lift wages for existing workers. Regardless of one's political leanings, we believe these impacts could be notable and will be important to watch and understand.

The job market remains relatively strong

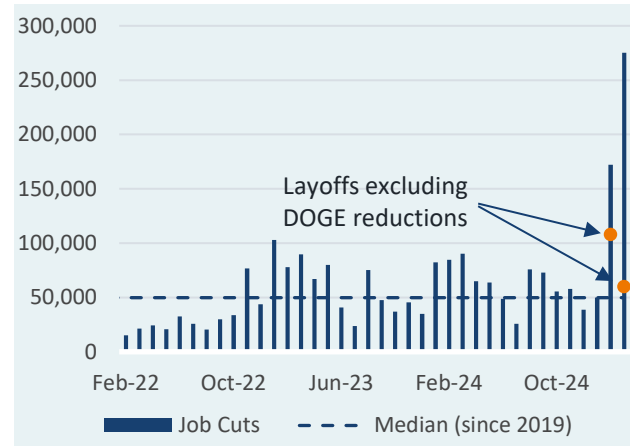
A reduced supply of cheap immigrant labor could lift wages in certain regions

U.S. UNEMPLOYMENT



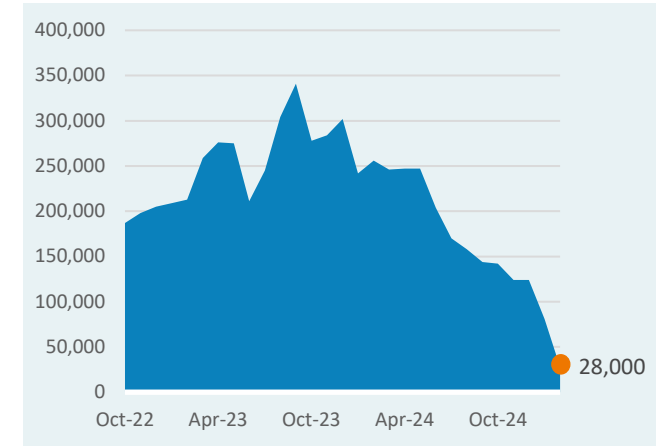
Source: FRED, as of 3/31/25

U.S. JOB CUT ANNOUNCEMENTS



Source: Challenger, Gray & Christmas, as of 3/31/25

U.S. BORDER ENCOUNTERS (MONTHLY)



Source: U.S. Customs & Border Protection, as of February 2025

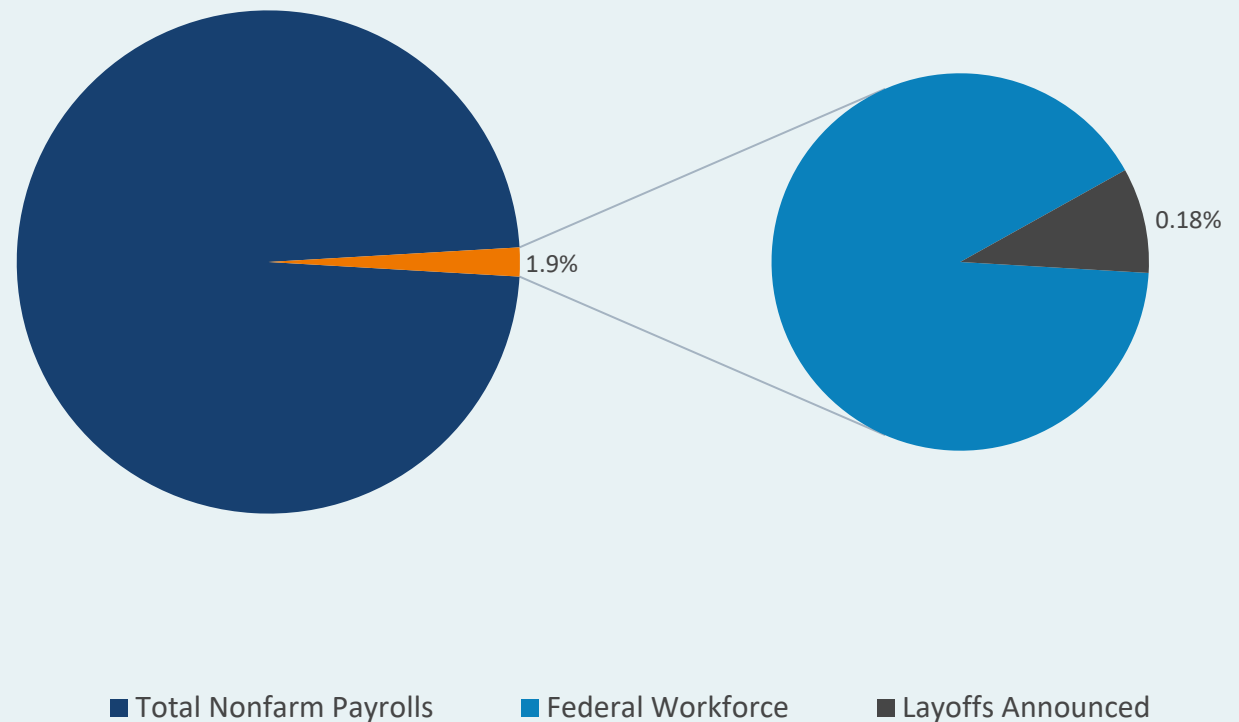
Impacts of DOGE job reductions

How might federal workforce reductions impact the labor market?

President Donald Trump and Elon Musk's Department of Government Efficiency (DOGE) has moved quickly to take an aggressive approach to cutting both spending and jobs. Unsurprisingly, given the speed of action and unique tactics, many initiatives are being challenged in court. It appears very likely that the Trump Administration will be at least somewhat successful in eliminating what it sees as wasteful spending, effectively reducing the size and scope of the Federal government.

With federal workers making up less than 2% of the overall labor force, a portion of layoffs within this group is unlikely to make big waves in the labor market and a spike in unemployment, although certain regions will see a bigger impact. DOGE actions led to a total of 280,000 layoffs in February and March (0.18% of the total workforce). While job losses are always unfortunate, the total impact may not be enough to change the direction of the economy.

SHARE OF FEDERAL WORKERS SUBJECT TO LAYOFFS



Source: Verus, BLS, Challenger Survey, as of 3/31/25

The consumer

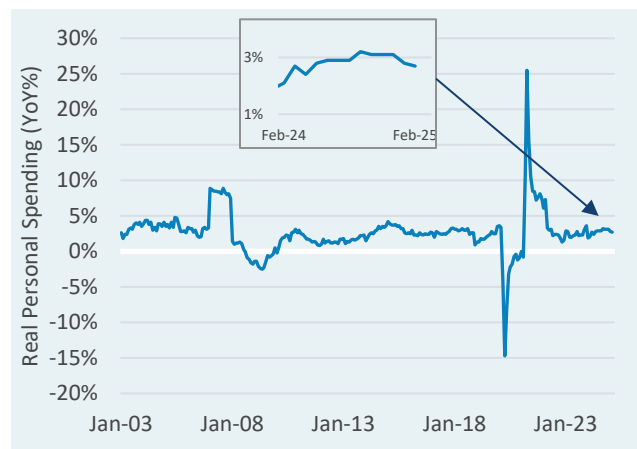
Inflation-adjusted personal spending growth was 2.7% year-over-year in February, slower than the latter-half of 2024 but still at a moderately strong level that implies an average rate of overall economic growth. Spending in January was the weakest in nearly four years, although an exceptionally cold winter (which tends to dampen purchases) and California wildfires may have contributed to this effect.

It will be important to monitor whether slow winter spending turns into a sustained downturn, further fueled by a sharp downturn in sentiment and tariff fears. Automobile and

apparel sales often see the greatest drop during an economic downturn, which suggests these sectors may provide a helpful barometer for the overall economy in 2025.

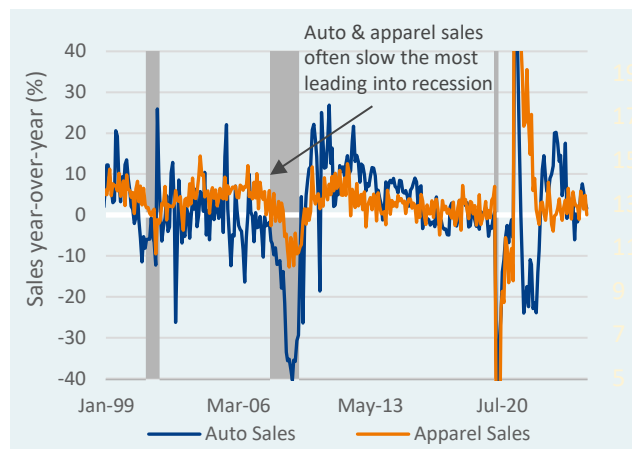
The average household savings rate improved from 3.3% to 4.6% during the quarter. Although weather effects also likely had an impact on these figures, we would assume that broad deterioration in consumer sentiment is contributing to greater savings due to economic uncertainty.

REAL PERSONAL SPENDING



Source: FRED, as of 2/28/25

AUTO & APPAREL SALES



Source: FRED, as of 2/28/25

PERSONAL SAVINGS RATE



Source: FRED, as of 2/28/25

Sentiment

Sentiment reversed abruptly in Q1, as households and businesses expressed fears around tariff uncertainty. Changes in consumer sentiment became visible in multiple surveys, while imports jumped dramatically because businesses rushed to purchase foreign products to avoid possible future tariffs. Household forecasts of U.S. inflation over the next year rose to 6.7% (interestingly, republican voters expect 2% inflation while democratic voters expect nearly 10% inflation).

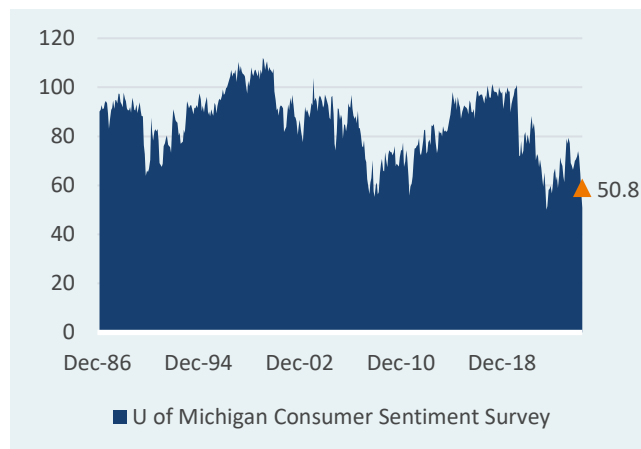
The University of Michigan Consumer Sentiment survey fell for four consecutive months. The partisan divide regarding expectations for the economy have reached extreme levels. While those survey respondents who identify as Republican feel

fairly good about economic prospects, those who identify with the Democratic Party feel that conditions are worse than the 2008-2009 Global Financial Crisis. In such a hyperpartisan environment it may be useful to watch for political biases that exist in surveys. The Conference Board Consumer Confidence Index in March reflected a similar downward trend, reaching the poorest sentiment since 2021.

Small business sentiment deteriorated to 97.4 in March, nearly erasing the post-election enthusiasm for Republican pro-business policies. The net percent of business owners expecting better business conditions fell to 21%, the largest monthly decline since late-2020.

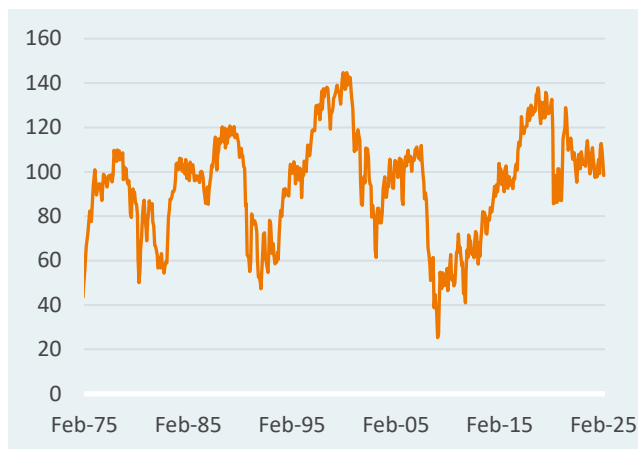
Sentiment dropped sharply during Q1 on tariff & inflation fears, as well as a greater chance of recession

CONSUMER SENTIMENT (UNIV. OF MICHIGAN)



Source: University of Michigan, as of 3/31/25

CONSUMER CONFIDENCE (CONFERENCE BOARD)



Source: Conference Board, as of 2/28/25

NFIB SMALL BUSINESS SENTIMENT



Source: NFIB, as of 3/31/25

Housing

The average 30-year mortgage rate fell from 6.9% to 6.7% during the quarter, as Treasury yields broadly trended lower. Home prices have increased 3.3% year-over-year as of January, according to CoreLogic.

The U.S. residential housing market seems to be rebalancing slightly in terms of supply and demand: rising inventories but very low sales activity. However, there are few indications that home affordability, which is at a record poor level, is set to improve in the near-term. One path to better affordability could result from further increases in inventory coming to market which pressures sellers to reduce prices in order to incentivize buyers who have more inventory to choose from. Another path to

affordability would, of course, be lower mortgage interest rates, although a drop in interest rates historically has tended to result in a jump in home prices, which could counteract affordability gains.

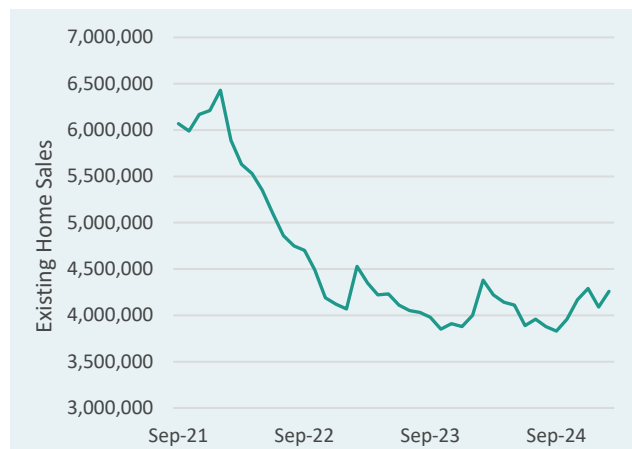
The nationwide average cost to rent continues to be generally flat (+0.3% in February YoY according to Redfin). As average hourly wages are growing at a 4% annual rate, a persistent trend of flat rent costs will help improve rental affordability for those who do not own a home. Substantial increases in multifamily supply have reportedly contributed to downward rent pressure, with the median asking rent price falling to \$1.78 per square foot—the lowest level in nearly 4 years.

30-YEAR MORTGAGE RATE (%)



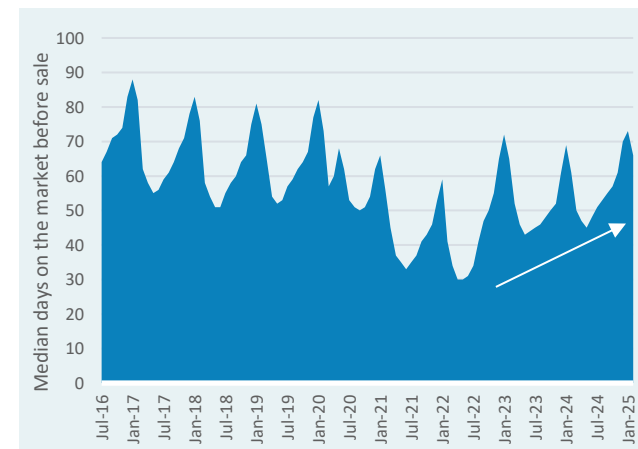
Source: Freddie Mac, as of 3/31/25

EXISTING HOME SALES



Source: National Association of Realtors, as of 2/28/25

AVERAGE DAYS ON THE MARKET



Source: FRED, as of 2/28/24

International economics summary

- Major economies around the world face acute risks of economic slowdown due to the imposed tariffs of the U.S. administration (this includes the U.S. economy, of course). That risk comes at a time when many countries already struggle with lower growth and structural headwinds. Outcomes of trade negotiations, and the time it takes for conclusions to be reached, will likely have a notable impact on near-term growth. In short, tariff outcomes will be hugely important.
- Eurozone economies grew only 1.2% YoY in Q4. Expectations are for continued very weak growth of 0.9% in 2025, according to ECB staff, as of March. This forecast aligns with the consensus economists forecast. Trade and geopolitical uncertainty may create an additional drag on the region since these forecasts assume U.S./China tariffs but no U.S./EU tariffs. A prolonged trade war between the U.S. and the Eurozone could mean even greater economic drag.
- German elections concluded with a win for the conservative Christian Democratic Union (CDU) and its alliance the Christian Social Union (CSU) with 28.6% of the vote. A two-way coalition with the runner-up Alternative for Germany (AFD) is unlikely to form despite its impressive rise in popularity.
- On February 5th, the Bank of England (BOE) decided with a seven-two vote to cut interest rates by 25bps to 4.5%. This marked the third consecutive cut over the past six months. The BOE cited cooler-than-expected December inflation as a main contributing factor.
- As the U.S. administration appears to be focusing maximum pressure on China regarding trade and business practices, the intense market volatility experienced in early April could be setting the stage for the remainder of 2025. Some estimates put China's economic growth rate this year at perhaps 4% or even 3%, below the 5% stated goal of the Chinese Communist Party.

Area	GDP (Real, YoY)	Inflation (CPI, YoY)	Unemployment
United States	2.0% 3/31/25	2.4% 3/31/25	4.2% 3/31/25
Eurozone	1.2% 12/31/24	2.2% 3/31/25	6.1% 2/28/25
Japan	2.8% 12/31/24	3.7% 2/28/25	2.4% 2/28/25
Canada	1.5% 12/31/24	2.6% 2/28/25	6.7% 3/31/25
BRICS Nations	5.2% 12/31/24	1.7% 3/31/25	5.4% 3/31/25
Brazil	3.4% 3/31/25	5.5% 3/31/25	6.8% 2/28/25
Russia	3.1% 9/30/24	10.3% 3/31/25	2.4% 2/28/25
India	6.2% 12/31/24	3.3% 3/31/25	7.1% 12/31/24
China	5.4% 12/31/24	(0.1%) 3/31/25	5.4% 2/28/25

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 Eurozone grew only 1.2% YoY Q4. Expectations are for continued weak growth of 0.9% in 2025. The ECB cut rates for the sixth consecutive time in Q1, citing the weak economic outlook and continued moderation of inflation as the main factors, with additional rate cuts expected in 2025. A prolonged trade war could lead to even greater economic drag and renewed inflationary pressures.

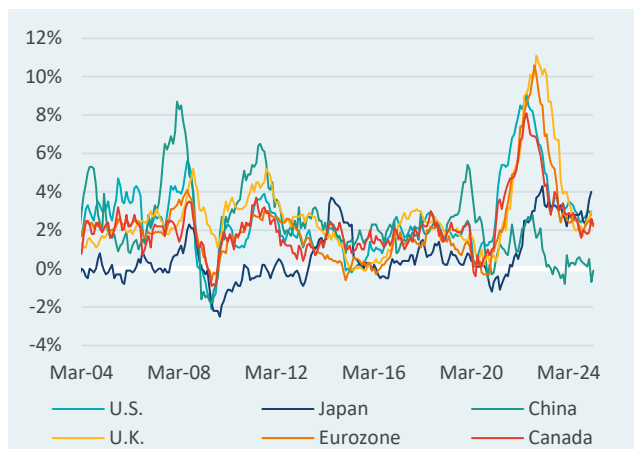
The U.S. announced a series of tariffs in 2025, initially including a 20% tariff on all Chinese imports and a 25% tariffs on certain imports from the EU, Canada, and Mexico. The U.S. followed up with expanded tariffs on “Liberation Day”, including a 10% baseline rate and rates of 54% on China, 20% on the EU, and 25% on Canada and Mexico. The U.S. has generally cited goals of business operation onshoring, national defense, improving

the trade deficit / foreign terms of trade, and immigration and drug control as intended outcomes of recent tariff policy.

The EU, Canada, and Mexico initially responded to “Liberation Day” with counter-tariffs on certain U.S. goods. Counter-measures were suspended after the U.S. announced a 90-day pause on tariff increases, bringing the EU, Mexico, and Canada to the baseline rate of 10%. We believe it is likely that the 10% baseline tariff stays in place for the long-term.

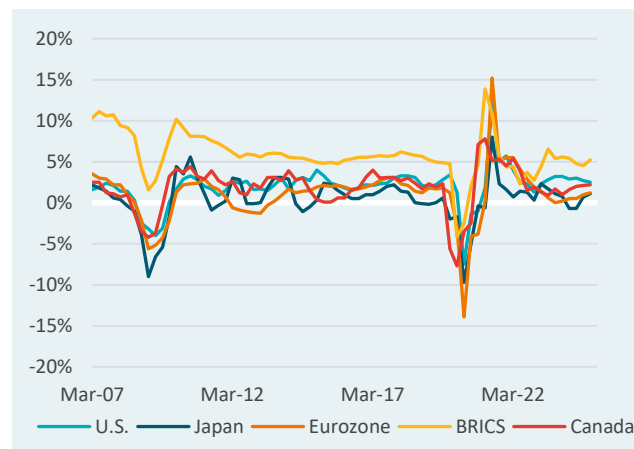
The U.S. China trade war continued to escalate following “Liberation Day”, with tariff rates ultimately reaching 145% on Chinese goods and 125% on U.S. goods, halting many aspects of trade between the nations, as of mid-April. The tariff rate on Chinese goods was exempt from the U.S. 90-day pause.

INFLATION (CPI YEAR-OVER-YEAR)



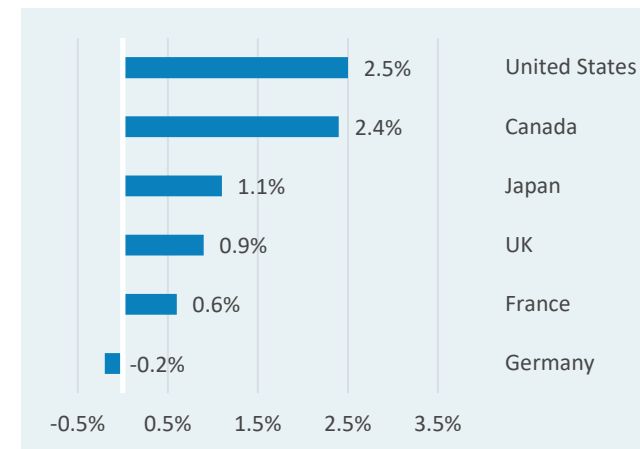
Source: BLS, Verus, as of 3/31/25 or most recent date

REAL GDP GROWTH (YEAR-OVER-YEAR)



Source: BLS, Verus, as of 3/31/25 or most recent date

Q3 REAL GDP GROWTH (YOY)



Source: BLS, Verus, as of Q4 2024

Fixed income rates & credit

Fixed income environment

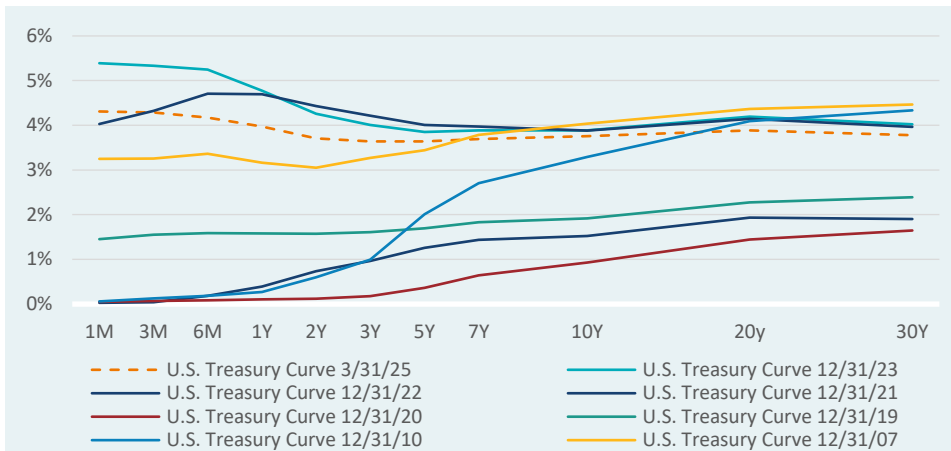
- The 10-year U.S. Treasury yield fell slightly from 4.55% to 4.23% during the quarter, reflecting a reversal in the economic optimism of Q4.
- The Federal Reserve kept rates steady but has communicated an expectation of weaker economic growth and moderately higher inflation in 2025, due to U.S. administration tariffs and trade policy. Falling growth but rising inflation would put the Fed in a very difficult position regarding policy decisions. At the beginning of Q1 investors were expecting two rate cuts in 2025. This has since jumped to 4.
- The yield premium of U.S. Treasuries over that of European debt—German bunds in particular—shrunk materially during the quarter. The dual narratives of weaker-than-expected U.S. growth in 2025, and debt limit easing in Germany which could boost growth, has sent yields of those countries closer to parity.
- Longer duration credit slightly outperformed shorter duration. This behavior likely reflected a shift in market sentiment from year end, during which uncertainty in fiscal and monetary policy contributed to a bear steepening of the yield curve. Long duration corporate bonds gained +2.38% while Bank loans added +0.6% and high yield returned +1.0%.
- Credit spreads widened due to risk off movements, and lower quality spreads experienced the largest shifts. High yield bond spreads rose by 41bps to 3.53%, while investment grade spreads rose to 1.0%. Despite recent widening events, credit spreads across all ratings remain below long-term historical averages.
- U.S. Treasury yields showed extreme jumps. Some investors attributed the move to fluctuations in foreign demand for U.S. dollars due to shifts in U.S. trade policy. Others believe these moves have been driven by hedge fund trading and an unwinding of 'basis trades'—a levered trading strategy that tries to take advantage of differences between current Treasury price and prices of futures contracts.

	QTD Total Return	1 Year Total Return
Core Fixed Income (Bloomberg U.S. Aggregate)	2.8%	4.9%
Core Plus Fixed Income (Bloomberg U.S. Universal)	2.7%	5.2%
U.S. Treasuries (Bloomberg U.S. Treasury)	2.9%	4.5%
U.S. Treasuries: Long (Bloomberg U.S. Treasury 20+)	4.7%	1.3%
U.S. High Yield (Bloomberg U.S. Corporate HY)	1.0%	7.7%
Bank Loans (S&P/LSTA Leveraged Loan)	0.6%	7.0%
Emerging Market Debt Local (JPM GBI-EM Global Diversified)	4.3%	4.0%
Emerging Market Debt Hard (JPM EMBI Global Diversified)	2.2%	6.8%
Mortgage-Backed Securities (Bloomberg MBS)	3.1%	5.4%

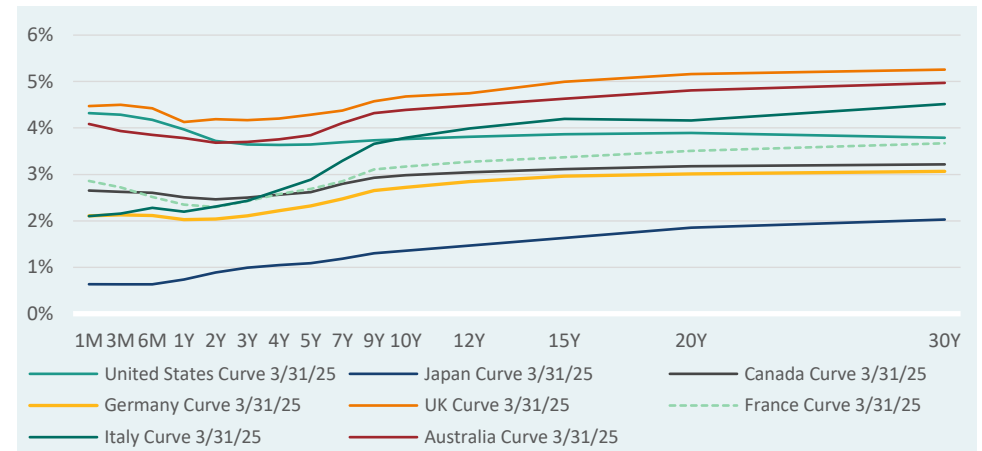
Source: Standard & Poor's, J.P. Morgan, Bloomberg, as of 3/31/25

Yield environment

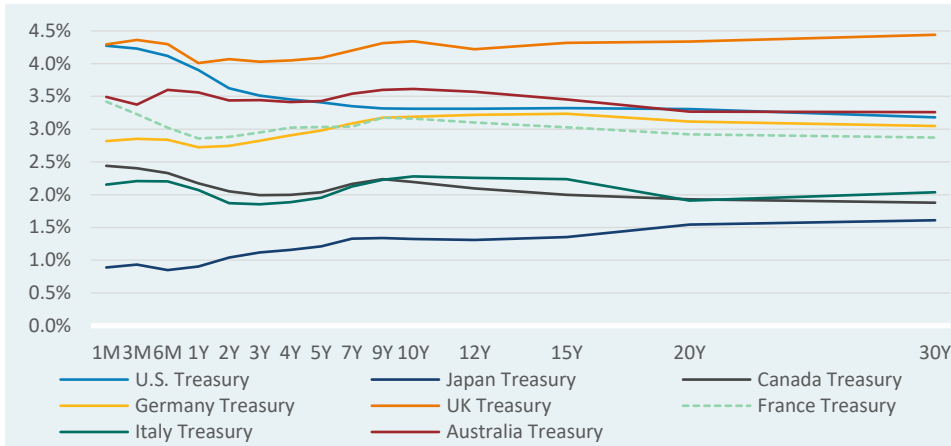
U.S. YIELD CURVE



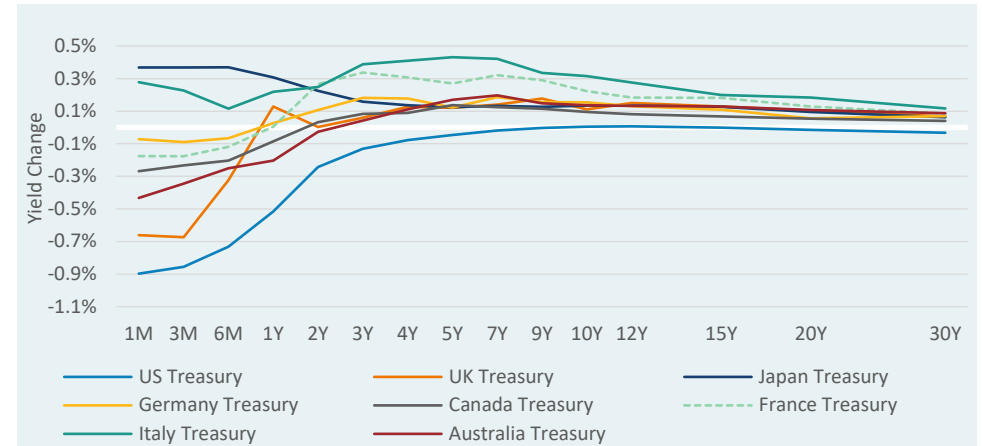
GLOBAL GOVERNMENT YIELD CURVES



YIELD CURVE CHANGES OVER LAST FIVE YEARS



IMPLIED CHANGES OVER NEXT YEAR



Source: Bloomberg, as of 3/31/25

Credit environment

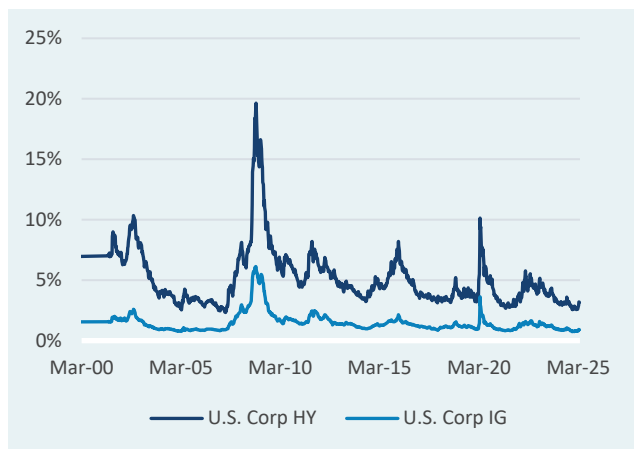
During the quarter, longer duration credit slightly outperformed shorter duration despite the Federal Reserve holding rates at previous levels. This behavior likely reflected a shift in market sentiment from year end, during which uncertainty in fiscal and monetary policy had contributed to a sharp bear steepening of the yield curve. During Q1 investors observed a trend towards higher quality credit, as long duration investment grade corporate bonds (Bloomberg U.S. Long Corporate Credit) gained 2.38% while Bank loans added +0.6% (S&P/LSTA Leveraged Loans) and high yield returned +1.0% (Bloomberg U.S. Corporate High Yield).

Returns within the high yield bond market reflected similar slight risk-off movement, with lower quality credits experiencing the worst performance. Bonds rated CCC, including distressed credit, lost -2.31%, compared to

bonds rated B, which returned -1.36% and BB, which returned -0.57%. Similarly, lower quality bank loans underperformed higher quality. CCC-rated loans returned -2.14%, compared to -0.33% and +.02% for B- and BB-rated loans, respectively.

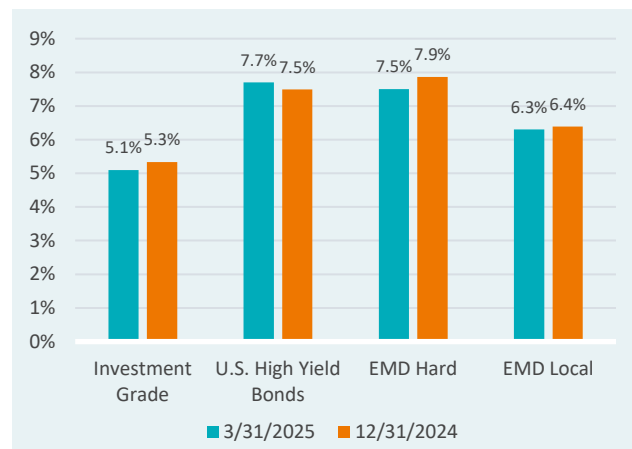
Credit spreads widened due to initial risk off movements, and lower quality spreads experienced largest shifts. High yield bond spreads rose by 41bps to 3.53%, while investment grade spreads rose to 1.0%. Despite recent widening events, credit spreads across all ratings remain below long-term historical averages, suggesting investors are still somewhat confident in the ability of businesses to service debt.

SPREADS



Source: Barclays, Bloomberg, as of 3/31/25

YIELD TO MATURITY



Source: Bloomberg, J.P. Morgan as of 3/31/25

CREDIT SPREAD (OAS)

Market	3/31/25	3/31/24
Long U.S. Corp	1.2%	1.1%
U.S. Inv Grade Corp	0.9%	0.9%
U.S. High Yield	3.5%	3.0%
U.S. Bank Loans*	4.7%	4.9%

Source: Barclays, Credit Suisse, Bloomberg, as of 3/31/25

*Discount margin (4-year life)

Default & issuance

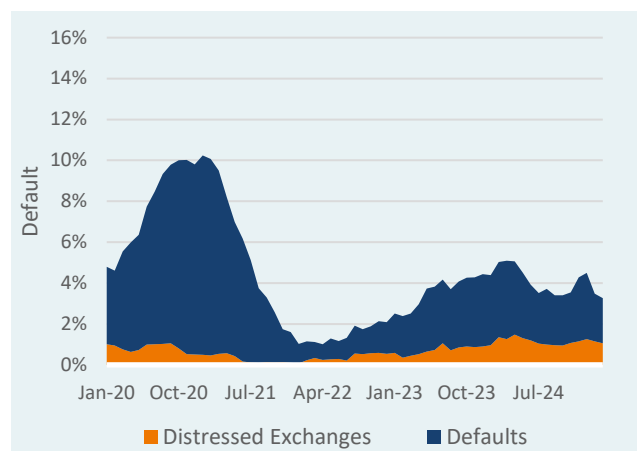
Total default activity remained below the two-year average during Q1, as the economy continued to demonstrate strength and recession forecasts prior to April were relatively muted. During the quarter, seven companies defaulted, totaling more than \$1.2 billion in bonds and \$4.8 billion in loans. Monthly default activity consistently came in at less than half of the monthly average default volume of 2023 and 2024 (\$7.1 billion).

While defaults and distressed activity was subdued across credit, loans surpassed bonds in default and distressed exchange activity. During the quarter, eight companies completed a distressed exchange totaling \$580 million in bonds and \$4.4 billion in loans. This total of less than \$5 billion in total distressed credit volume was significantly lower than the \$19.4 billion seen in Q4 and was the lightest quarterly default/LME volume since Q4 2022.

High yield bond default rates rose slightly to 1.2% but were less than half of the default rate of one year prior. Current figures remain well below the long-term annual average of 3.4%. Loan default rates rose slightly to 3.9%, up 0.3% from one year prior. Notably, this gap in default rates between leveraged loan and high yield (2.7%) is a reduction from the 3% gap five months ago that represented the high-water mark since 2000.

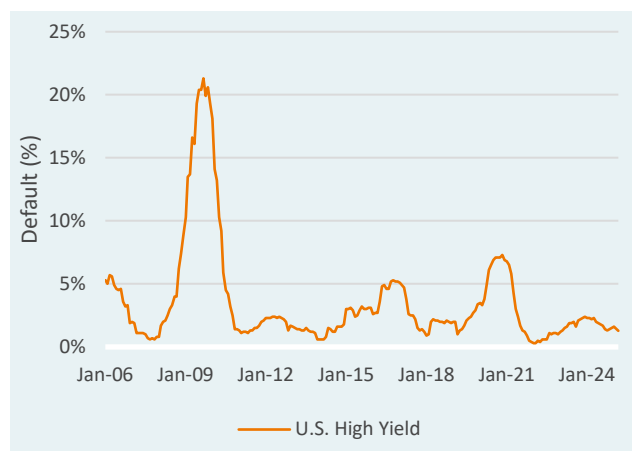
Quarterly issuance volume for high yield bonds was lower, totaling \$68.3 billion, down 22% year over year, which compares to \$87.6 billion in Q1 2024. Bank loans saw significantly higher levels of issuance, totaling \$337 billion, which was 6% greater than one year prior. However, this represented a reduction from the previous record levels of issuance seen in Q4 (\$505 billion). It is possible that changing higher interest rate expectations due to actions of the Trump administration could be affecting issuance decisions.

U.S. BANK LOAN DEFAULTS (LAST 12 MONTHS)



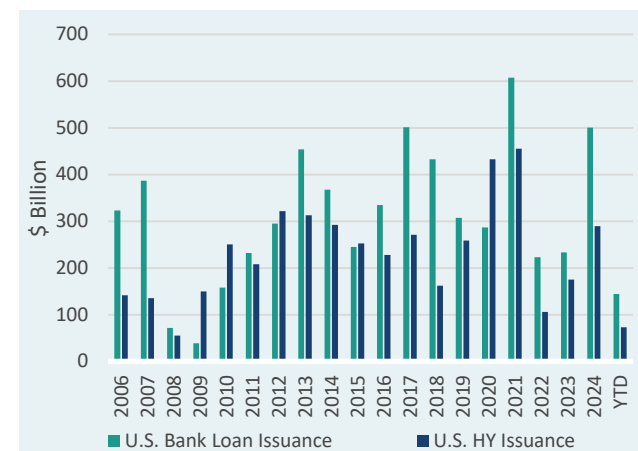
Source: BofA Merrill Lynch, Verus, as of 3/31/25 – par weighted

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



Source: BofA Merrill Lynch, as of 3/31/25 – par weighted

U.S. ISSUANCE (\$ BILLIONS)



Source: BofA Merrill Lynch, as of 3/31/25

Equity

Equity environment

— Domestic equities delivered substantial underperformance during Q1 (S&P 500 -4.3%) relative to international developed (MSCI EAFE +6.9%) and emerging market equities (MSCI EM +2.9%)—a notable change in trend from recent years. The S&P 500 entered a technical correction mid-March.

— A sentiment shift away from U.S. stocks and towards foreign markets occurred in recent months, as tariff concerns spooked investors and contributed to recession fears. At the same time, certain European governments have indicated a greater willingness to invest in local economies, possibly generating better economic growth. This contributed to a rotation out of U.S. market and into Europe.

— Growth stocks, notably the Magnificent 7, have led the market downward, although small capitalization stocks still underperformed large caps.

Businesses that have fully embraced globalization and outsourced supply chains may find themselves in a particularly difficult position due to the drastic shift in U.S. trade policy.

— Chinese markets climbed in February on the heels of the DeepSeek launch in January, when President Xi Jinping reportedly met with tech leadership. Also, signs that the real estate bear market may be easing, and that consumer spending may be turning upward, generating impressive Q1 returns.

— Market-priced volatility jumped in early March as tariff announcements, trade negotiations, and fears of general economic weakness spooked markets, leading to a broad selloff of U.S. assets. As trade fears intensified in the first week of April, global markets saw one of the most sudden drops in modern history which sent the VIX to 52.

	QTD TOTAL RETURN		1 YEAR TOTAL RETURN	
	(unhedged)	(hedged)	(unhedged)	(hedged)
U.S. Large Cap (S&P 500)	(4.3%)		8.3%	
U.S. Small Cap (Russell 2000)	(9.5%)		(4.0%)	
U.S. Equity (Russell 3000)	(4.7%)		7.2%	
U.S. Large Value (Russell 1000 Value)	2.1%		7.2%	
U.S. Large Growth (Russell 1000 Growth)	(11.1%)		7.8%	
Global Equity (MSCI ACWI)	(1.3%)	(2.2%)	7.2%	14.7%
International Large (MSCI EAFE)	6.9%	3.4%	4.9%	6.8%
Eurozone (EURO STOXX 50)	10.9%	7.8%	5.5%	8.2%
U.K. (FTSE 100)	12.1%	6.0%	6.2%	11.7%
Japan (TOPIX)	1.2%	(2.4%)	(0.6%)	9.2%
Canada (S&P/TSX)	1.5%	2.5%	9.0%	26.7%
Emerging Markets (MSCI Emerging Markets)	2.9%	2.5%	8.1%	11.2%

Source: Standard & Poor's, FTSE, MSCI, STOXX, JPX, as of 3/31/25 – performance quoted from perspective of U.S. dollar investor

Domestic equity

U.S. equities performed poorly in Q1 with the S&P 500 down -4.3% (note: this does not include the dramatic global selloff of early April). In a change of pace from 2024, mega-cap stocks in Q1 acted as a drag on the overall index, as these previously high-flyers struggled on growth and tariff concerns. Domestic equities have notably underperformed both international (MSCI EAFE +6.9%) and emerging markets (MSCI EM +2.9%) year-to-date. Domestic businesses that have fully embraced globalization and outsourced supply chains may find themselves in a particularly difficult position due to the drastic shift in U.S. trade policy.

Year-over-year earnings growth of the S&P 500 is expected to be 7.3%, according to FactSet as of April 11th. During the quarter, analysts lowered EPS estimates slightly more than normal, by -4.2% which compares to the 5-year average adjustment of -3.3%. Materials and consumer discretionary sectors saw the largest adjustments, suggesting signs of expected economic weakness. It is very likely that future corporate earnings guidance will turn negative to reflect the more difficult trade and growth environment.

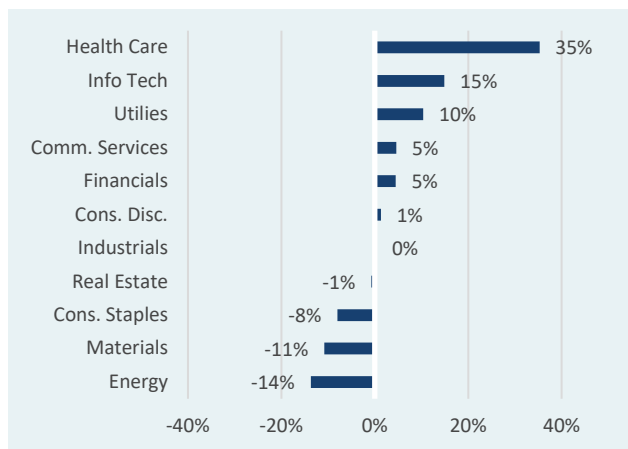
U.S. equities underperformed dramatically during Q1, reversing a multi-year trend

S&P 500 PRICE INDEX



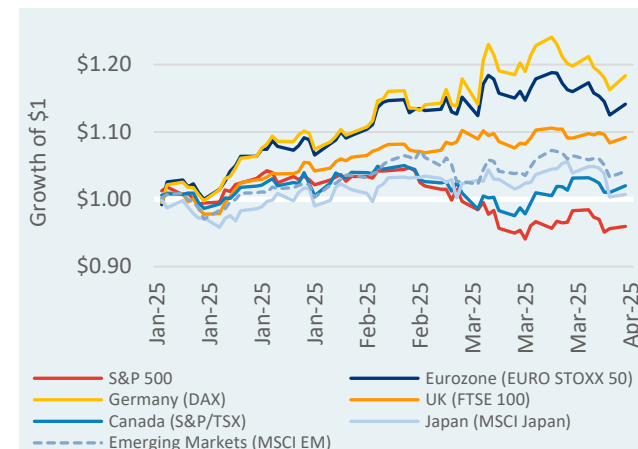
Source: Standard & Poor's, as of 3/31/25

S&P 500 EPS GROWTH (YEAR-OVER-YEAR)



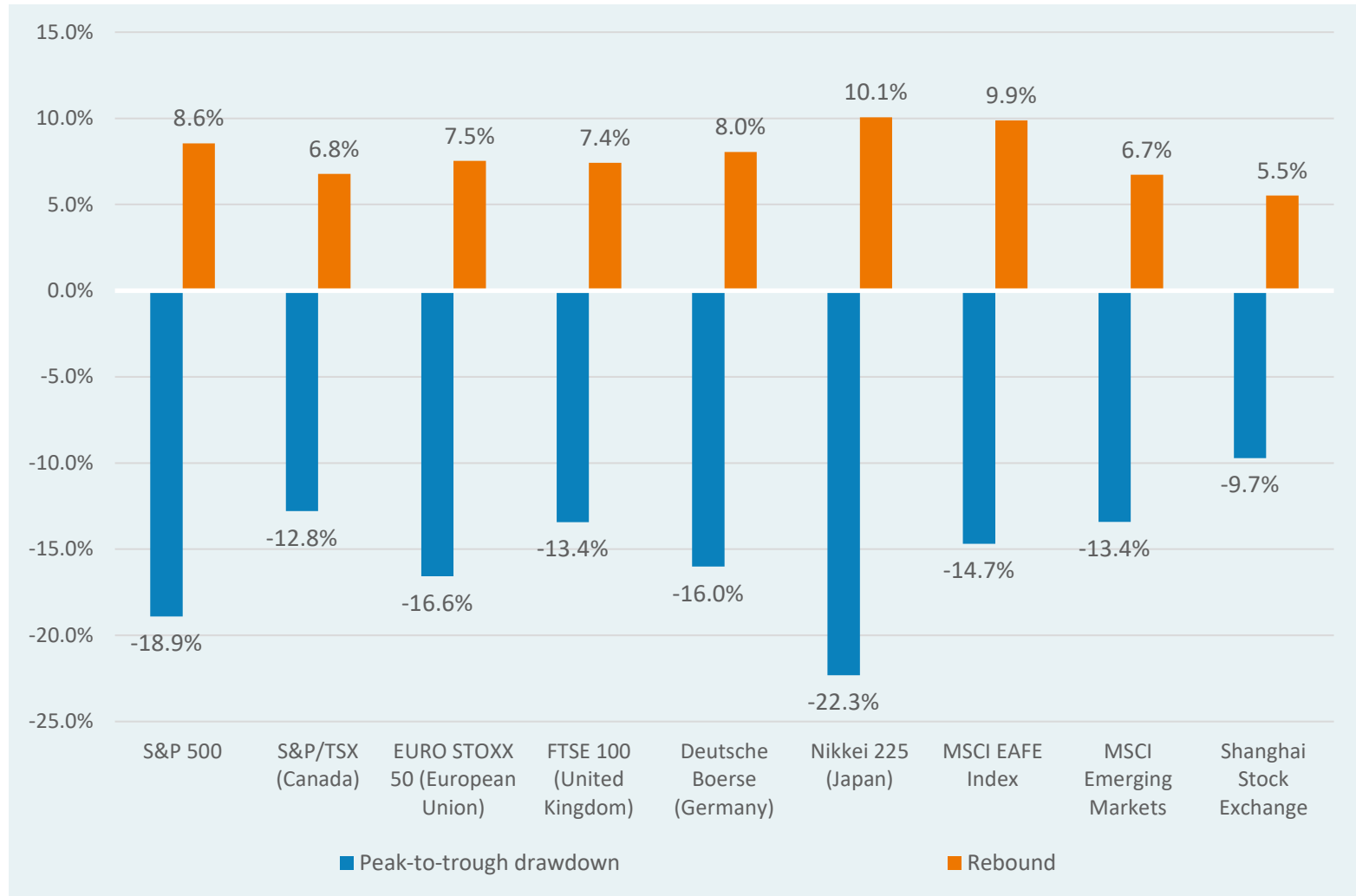
Source: Factset, as of 4/11/25

REGIONAL EQUITY PERFORMANCE (YTD)



Source: Verus, Bloomberg, Verus, as of 3/31/25

Tariff-induced selloff



Source: Verus, as of 4/14/25

On April 2nd, President Trump announced wide-reaching tariffs on most trading partners. The level of tariffs were far higher than investors had expected, resulting in large risk-off market moves.

The domestic market has faced the most pain given that it has chosen trade conflict with many trading partners, while other regions face conflict only with the U.S.

Domestic equity size & style

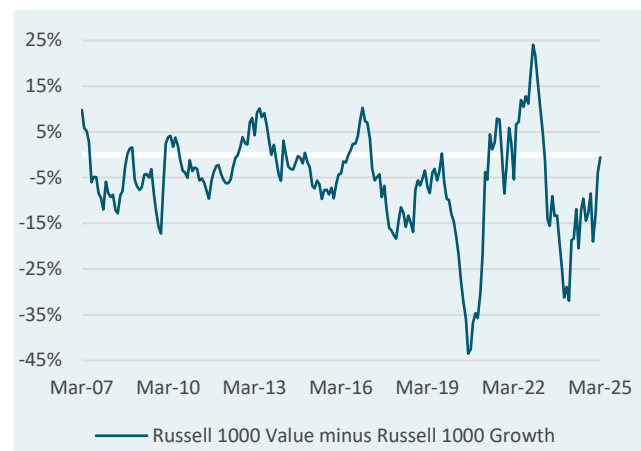
Small cap equities underperformed large caps year-to-date (FTSE Russell 2000 -9.5% vs. FTSE Russell 1000 -4.5%), despite a drawdown across mega cap stocks. Value stocks on the other hand outperformed growth stocks substantially (FTSE Russell 1000 Value +2.1% vs FTSE Russell 1000 Growth -10.0%), as many investors tend to seek safer higher dividend paying stocks during riskier environments and heightened recession risk. These effects could be seen in sector performance disparities during the quarter, with energy, utilities, and financials outperforming materially. Information technology was one of the worst performing sectors.

Ongoing style factor volatility may be a feature of Q2, given the historically sudden global market selloff that occurred in early April, which has hit mega cap growth and tech stocks particularly severely.

On a one-year lookback basis, large cap value stocks have become the leader among U.S. style groups, and small cap growth the laggards.

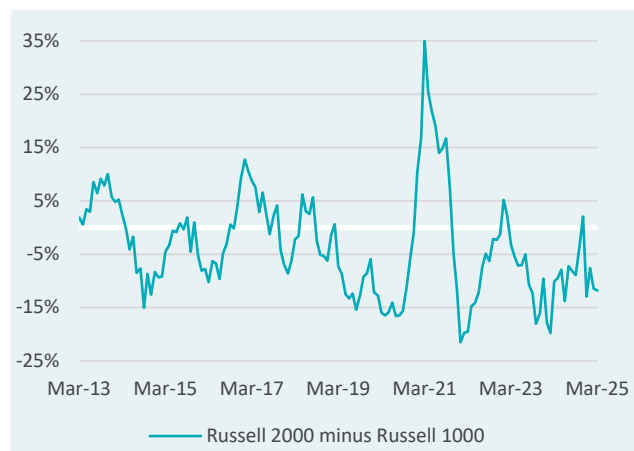
Small cap & value lagged in Q1 while value outperformed growth substantially (+2.1% vs -10.0%)

VALUE VS. GROWTH 1-YR ROLLING RELATIVE PERFORMANCE



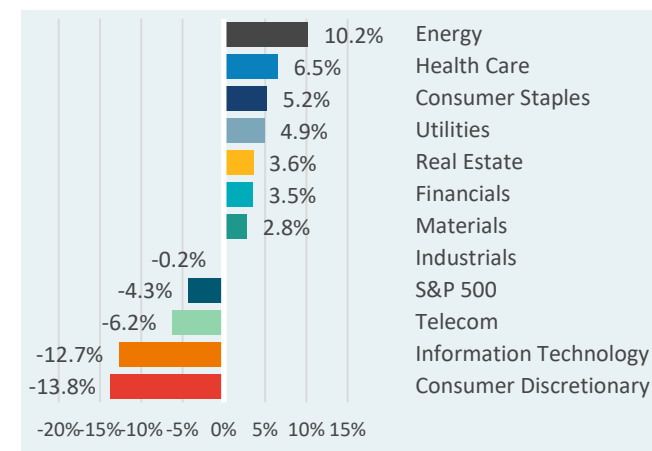
Source: FTSE, as of 3/31/25

SMALL VS. LARGE 1-YR ROLLING RELATIVE PERFORMANCE



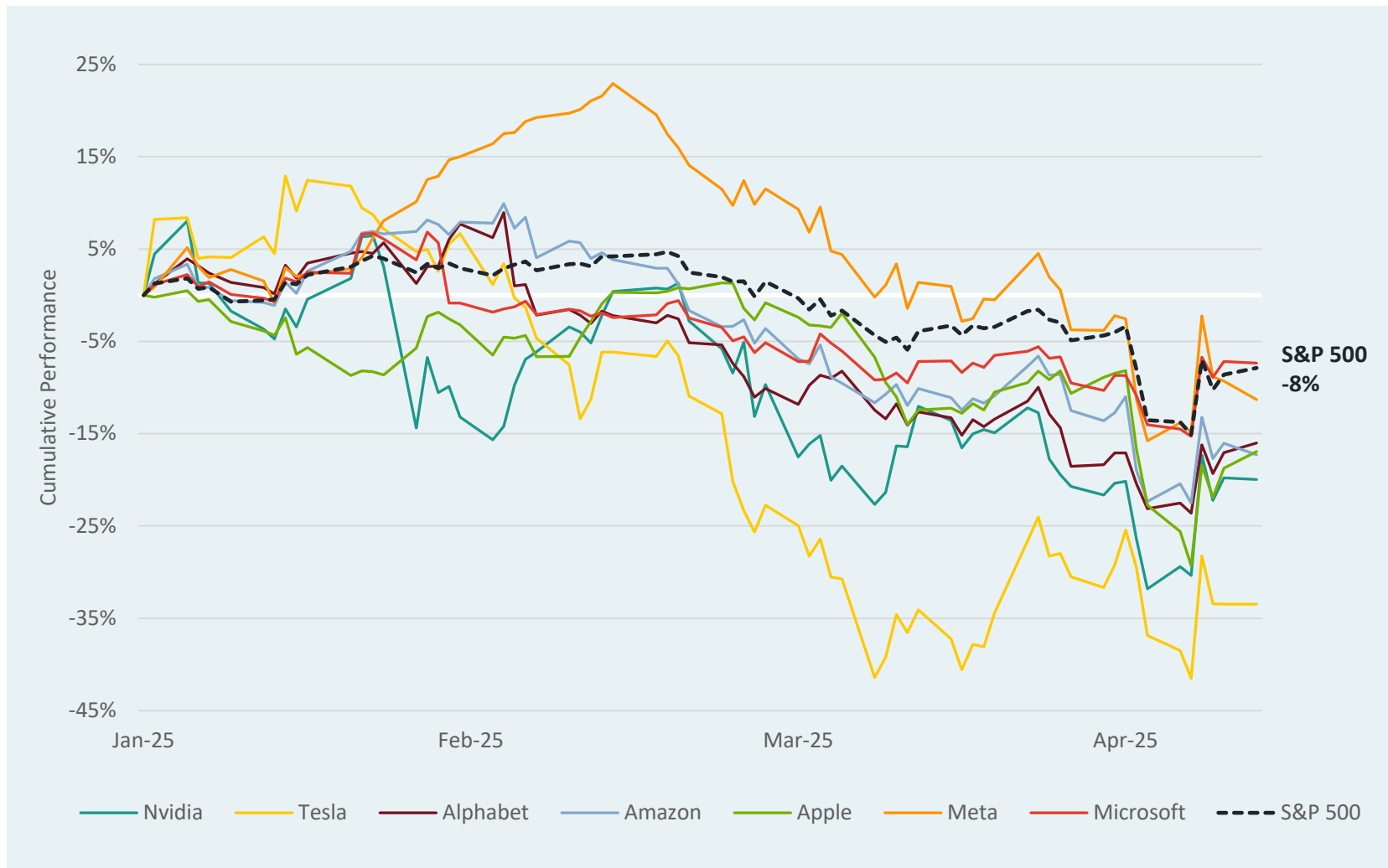
Source: FTSE Russell, as of 3/31/25

Q1 PERFORMANCE



Source: Morningstar, as of 3/31/25

Less Magnificent 7



The Magnificent 7 suffered large losses during the market selloff

Nearly all members of this group are lagging the S&P 500 YTD

Source: Verus, Bloomberg, as of 4/14/25

International developed equity

In a sharp reversal from years of U.S. outperformance, domestic stocks entered technical correction territory in March while non-U.S. stocks—European markets in particular—took the lead. Weakening U.S. conditions and the Trump Administration’s “Liberation Day” tariff contributed to a dramatic fall in domestic stocks later in March and the first week of April. European stocks have rallied on hopes for stimulus, easing of debt ceilings, and perhaps investments in greater European independence. Depreciation of the U.S. dollar further fueled international stock outperformance for U.S. investors. For the first time in quite some time, many investors are seeking opportunities outside of the U.S. market.

International developed shares (MSCI EAFE +6.9%) and emerging market equities (MSCI EM +2.9%) both outperformed domestic stocks (S&P 500 - 4.3%).

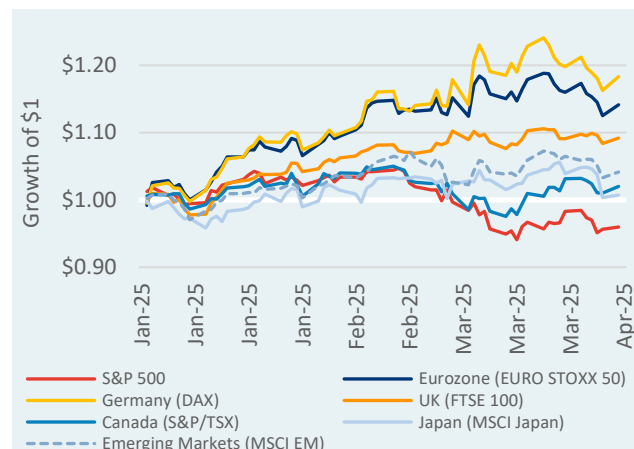
President Trump’s approach of attempting to negotiate with all of America’s trade partners all at once places the U.S. in a uniquely difficult economic position. For example, while China faces a trade war with only a single trading partner (the United States), here at home we face a trade war with multiple trading partners. It could be argued that the negative economic impacts on the U.S. from this trade war could be much larger than the negative economic impacts that many other countries will endure.

INTERNATIONAL DEVELOPED EQUITY



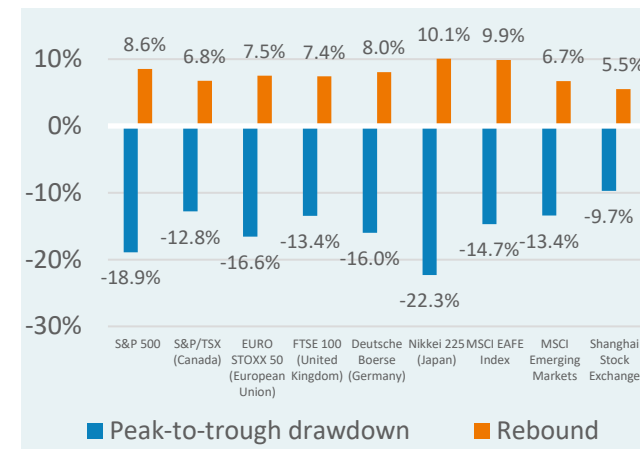
Source: MSCI, as of 3/31/25

REGIONAL STOCK PERFORMANCE YTD



Source: Verus, Bloomberg, as of 3/31/25

REGIONAL RETURNS (PEAK-TO-TRough)



Source: Verus, Bloomberg, as of 4/14/25

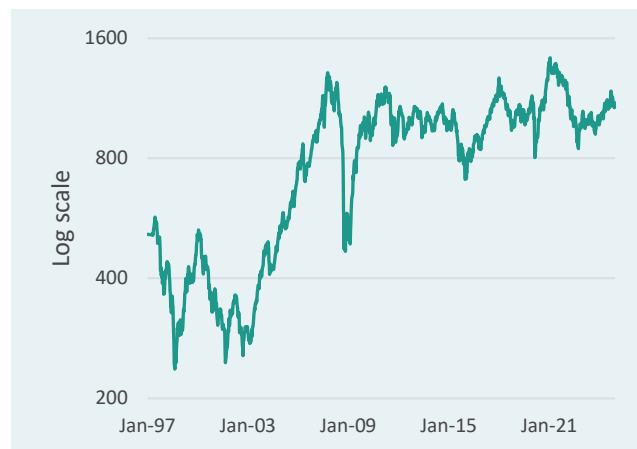
Emerging market equity

Emerging market equities (MSCI EM +2.9%) delivered moderately positive returns in Q1, outperforming U.S. equities, fueled by China's equity rally. Chinese markets climbed notably in February on the heels of the DeepSeek launch in January, when President Xi Jinping reportedly met with tech leaders for the first time in several years. This meeting could help to bolster investor confidence in Chinese tech despite ongoing structural challenges across the local investment landscape. Additionally, signs that the bear market in residential real estate may be easing, and that consumer spending may be turning upward, generated market excitement and an impressive Q1 (MSCI China Index +11.3%).

This movement served as a helpful reminder that larger regional markets can have big performance impacts an overall emerging markets allocation.

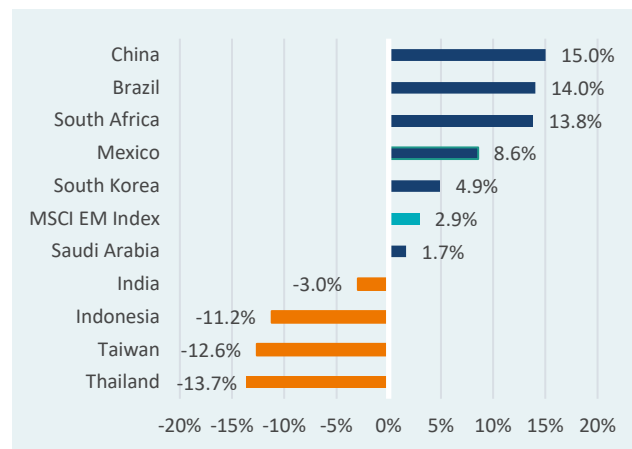
As the U.S. administration appears to be focusing maximum pressure on China regarding trade and business practices, the intense market volatility experienced in early April seems to set the table for the remainder of 2025. Some estimates put China's economic growth rate this year at perhaps 4% or even 3%, below the 5% target publicized by the Chinese Communist Party.

EMERGING MARKET EQUITY



Source: MSCI, as of 3/31/25

MSCI EM 2025 Q1 COUNTRY RETURNS (USD)



Source: Verus, Bloomberg, as of 3/31/25

CHINA'S COMEBACK



Source: MSCI, as of 3/31/25

Equity valuations

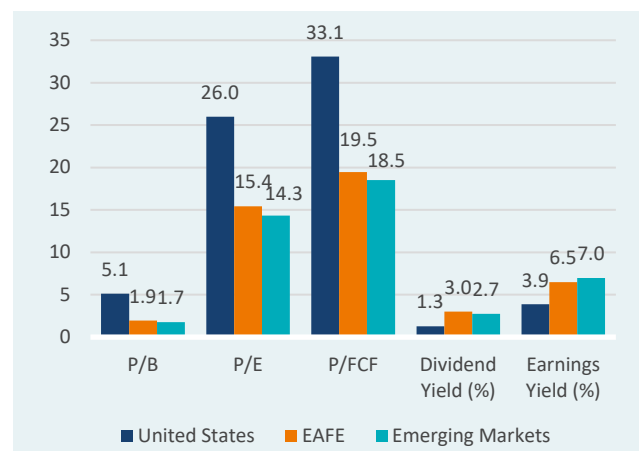
U.S. equity multiples fell materially during the market selloff, while international equities performed moderately well with little valuation movement. This reduced some of the historically wide valuation gap between markets.

Many investors have become more bearish on U.S. stocks due to actions of the U.S. administration. At the same time, certain European governments have indicated a greater willingness to invest in local economies, possibly generating stronger economic growth rates in the future. These trends have fueled some rotation of investment dollars out of the U.S. market and into Europe. As a consequence of the Trump administration foreign policy, conversations have taken place in the investor community

around diversification and the fact that many portfolios have become intensely U.S.-concentrated over time. Additionally, U.S. valuations are historically high relative to other markets.

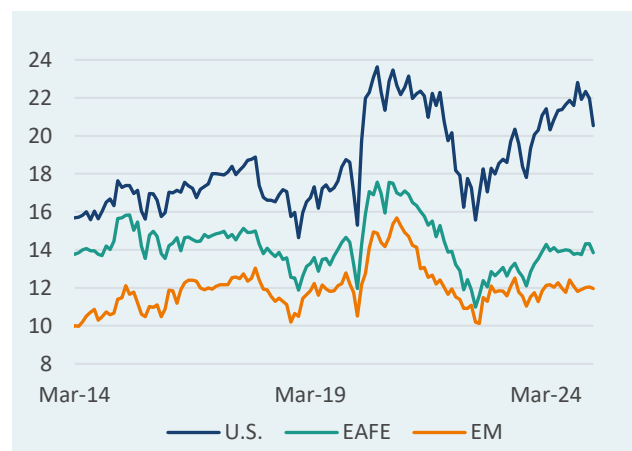
High valuations are a product of fantastic earnings growth forecasts, and rosy expectations that U.S. exceptionalism will continue. If those expectations begin to show cracks, and investors seek opportunities elsewhere due to a less welcoming U.S. investment environment, valuations could change. However, we feel that this story is a bit overdone—the fundamental justifications for a U.S. equity premium will probably remain intact despite tariff pain that might occur in the near- and medium-term.

MSCI VALUATION METRICS (3-MONTH AVG)



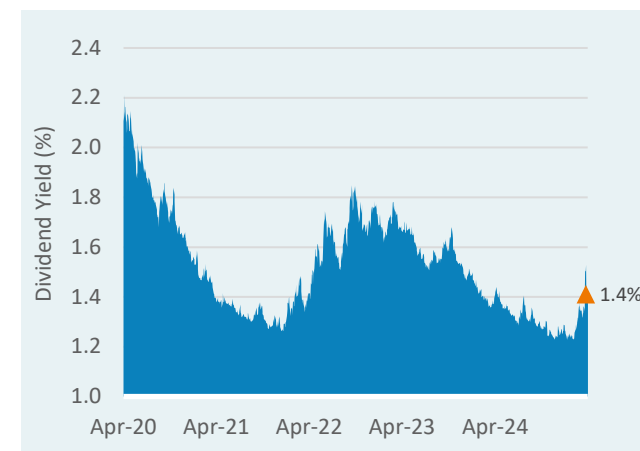
Source: MSCI, Verus, as of 3/31/25 – trailing P/E

FORWARD P/E



Source: MSCI, as of 3/31/25

S&P 500 HISTORICAL DIVIDEND YIELD



Source: Standard & Poor's, Verus, as of 3/31/25

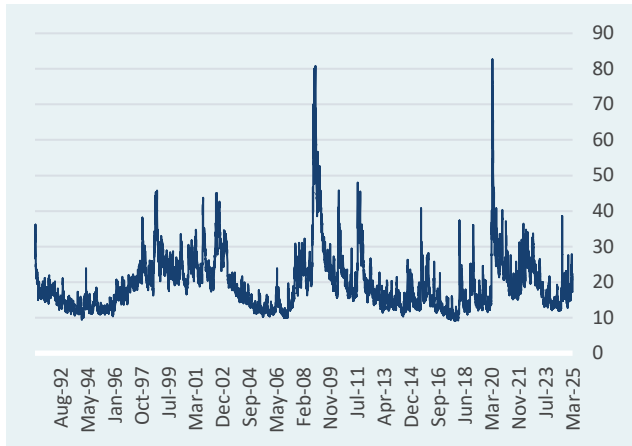
Market volatility

Market-priced volatility (Cboe VIX Index) jumped to nearly 30% in early March as tariff announcements, trade negotiations, and fears of general economic weakness spooked markets, leading to a broad selloff of U.S. assets. The VIX index suggests the ultra-low volatility environment of 2023 and early 2024 ended in August of 2024 with a historically large volatility spike that occurred that month. Ongoing recession fears and trade disruptions could very likely contribute to greater-than-normal market price fluctuations in the near- and medium-term.

Implied bond market volatility showed an extreme jump in

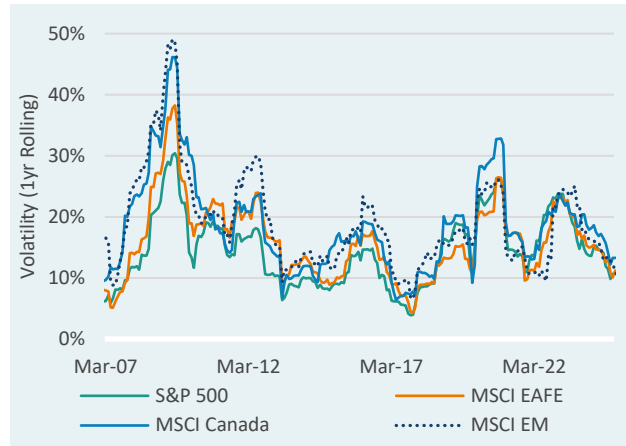
late March and the first week of April. Competing theories exist as to the cause, with some market participants attributing the move to fluctuations in foreign demand for U.S. dollars due to radical shifts in the trade policy of the Trump administration. Other investors believe these moves have been more driven by hedge fund trading and an unwinding of 'basis trades'—a levered trading strategy that tries to take advantage of differences between current Treasury price and the price reflected in futures contracts. Due to the highly levered nature of this strategy, market volatility spikes can lead to trade losses and unwinding of large positions which can move markets. The true cause of these moves remains unclear.

U.S. IMPLIED VOLATILITY (VIX)



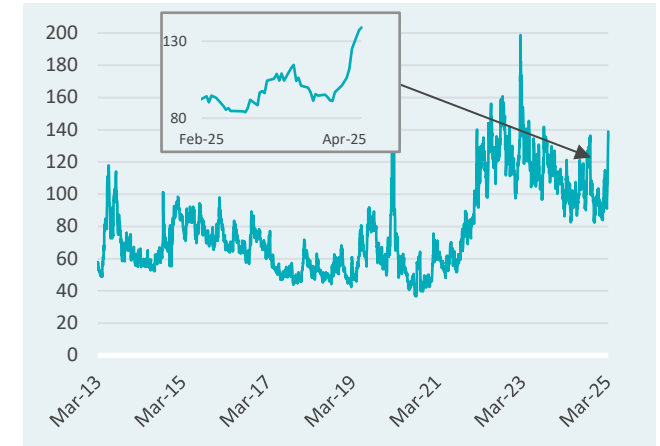
Source: Cboe, as of 3/31/25

REALIZED VOLATILITY



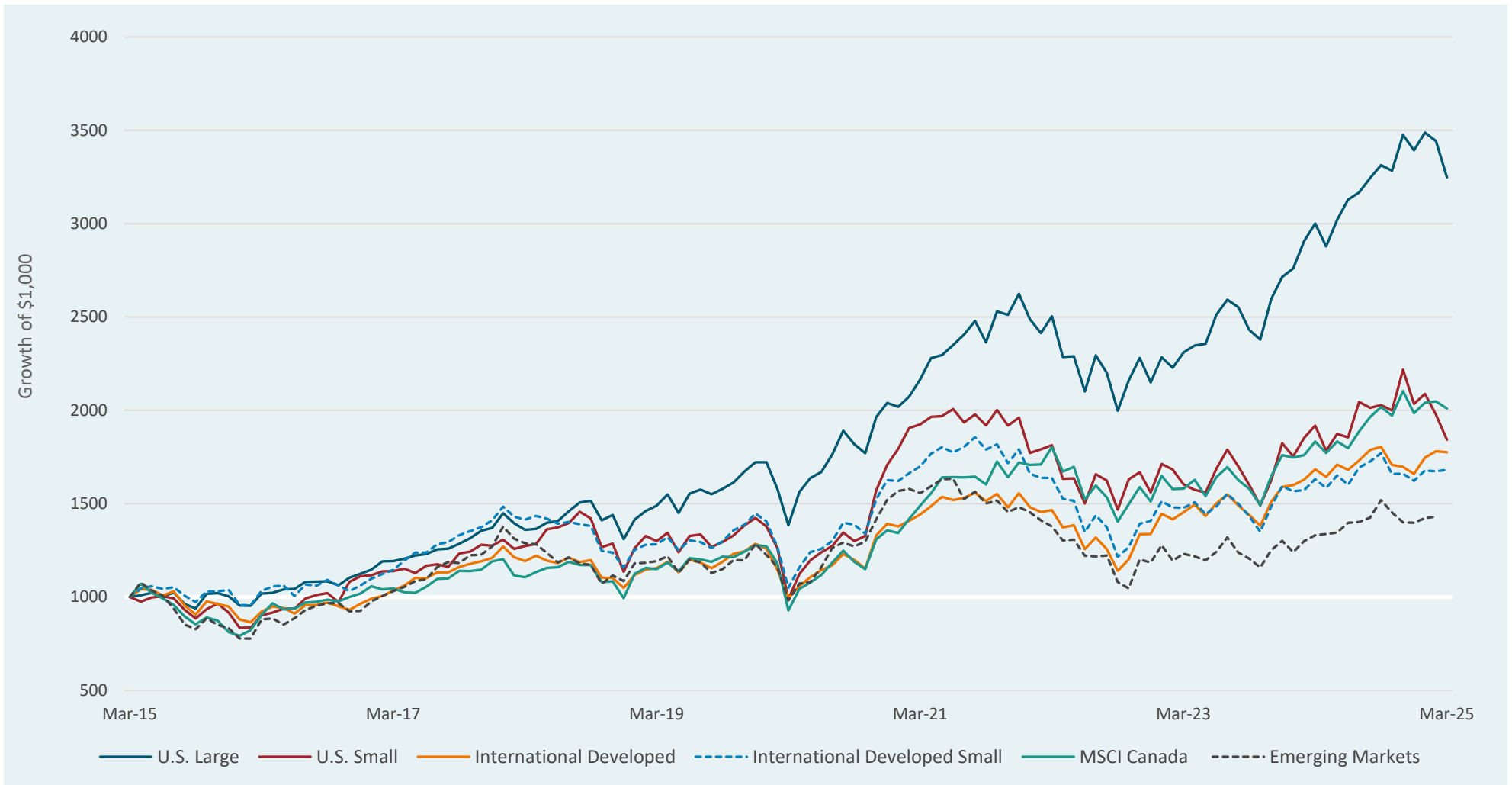
Source: Standard & Poor's, MSCI, Verus, as of 3/31/25

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



Source: BofA, as of 4/8/25

Long-term equity performance



Source: Standard & Poor's, FTSE, MSCI, Verus, as of 3/31/25

Other assets

Currency

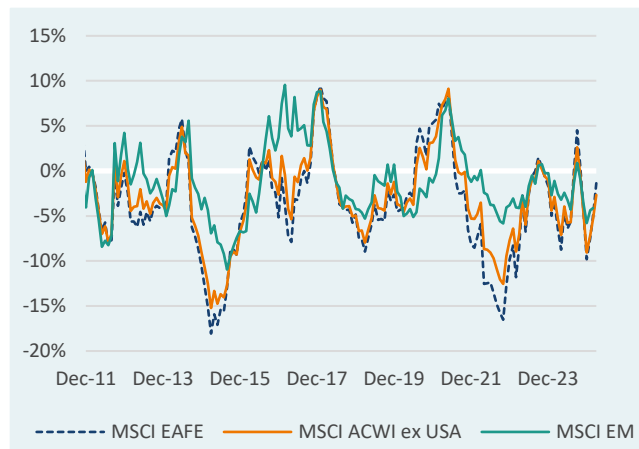
The U.S. dollar fell during Q1 on tariff and trade fears, as well as signs of a weakening economy. This boosted the returns of U.S. investors with unhedged foreign currency exposure. The U.S. Dollar Index was down -8.5%. Dollar movement is particularly difficult to predict—a slowdown in U.S. economic growth throughout the remainder of the year should have a dampening effect on dollar value, but a global market selloff tends to result in a flight to quality (higher U.S. dollar). A big hike in tariffs imposed by the U.S. should generally push the dollar up as trading partners work to buy dollars, but if this causes a negative shock to the economy and leads to rate cuts from the Federal Reserve then that would be negative for the dollar. The overall net effect of these opposing forces is very complex.

Those without a currency hedging program gained +3.5% from currency moves across international equities (MSCI EAFE) during Q1, but lost -1.9%

over the past year. Currency gains were large across the Euro and British pound, while the Japanese yen moved in the opposite direction.

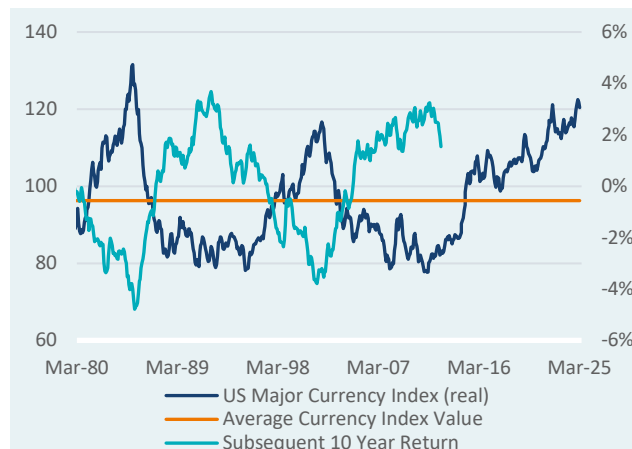
A more thoughtful portfolio approach to currency exposure has provided lower portfolio volatility and higher returns—a rare proposition. This approach involves reducing the uncompensated risk of unhedged foreign currency exposure, and instead of unhedged exposure, making a passive investment in the currency market by investing in currencies with higher interest rates, undervalued currencies, and currencies showing positive price momentum. This approach, represented by the MSCI Currency Factor Mix Index, has offered a positive one-year rolling return over most periods with far lower volatility than an unhedged approach. The past year of intense currency volatility is testament to this approach.

EFFECT OF CURRENCY (1-YEAR ROLLING)



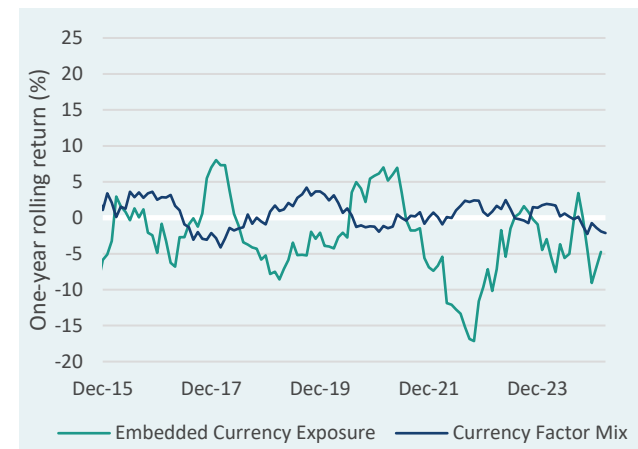
Source: MSCI, Verus, as of 3/31/25

U.S. DOLLAR MAJOR CURRENCY INDEX



Source: FRED, Verus, as of 3/31/25

EMBEDDED CURRENCY VS CURRENCY FACTORS



Source: MSCI, Verus, as of 3/31/25 "Embedded Currency Exposure" is the currency return impact from not hedging currency risk

Appendix

Periodic table of returns

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	YTD	5-Year	10-Year
Large Cap Growth	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	33.4	8.9	20.1	15.1
Large Cap Equity	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	24.5	6.9	18.5	12.2
Large Cap Value	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	15.2	2.9	16.1	8.8
Small Cap Growth	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	14.4	2.8	15.3	6.3
Emerging Markets Equity	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	11.5	2.1	14.5	6.1
Small Cap Equity	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	9.9	1.0	13.3	6.1
60/40 Global Portfolio	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	9.5	0.9	11.8	5.7
Small Cap Value	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	8.1	0.7	10.8	5.4
International Equity	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	7.5	0.3	8.5	5.3
Hedge Funds of Funds	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	5.4	-4.5	7.9	3.7
Cash	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	5.3	-7.7	7.5	3.7
Commodities	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	3.8	-9.5	3.0	2.8
US Bonds	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	-7.9	1.3	-10.0	2.5	1.8
Real Estate	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	0.4	-11.1	-0.4	1.5

Large Cap Equity

Large Cap Value

Large Cap Growth

Small Cap Equity

Small Cap Value

Small Cap Growth

International Equity

Emerging Markets Equity

US Bonds

Cash

Commodities

Real Estate

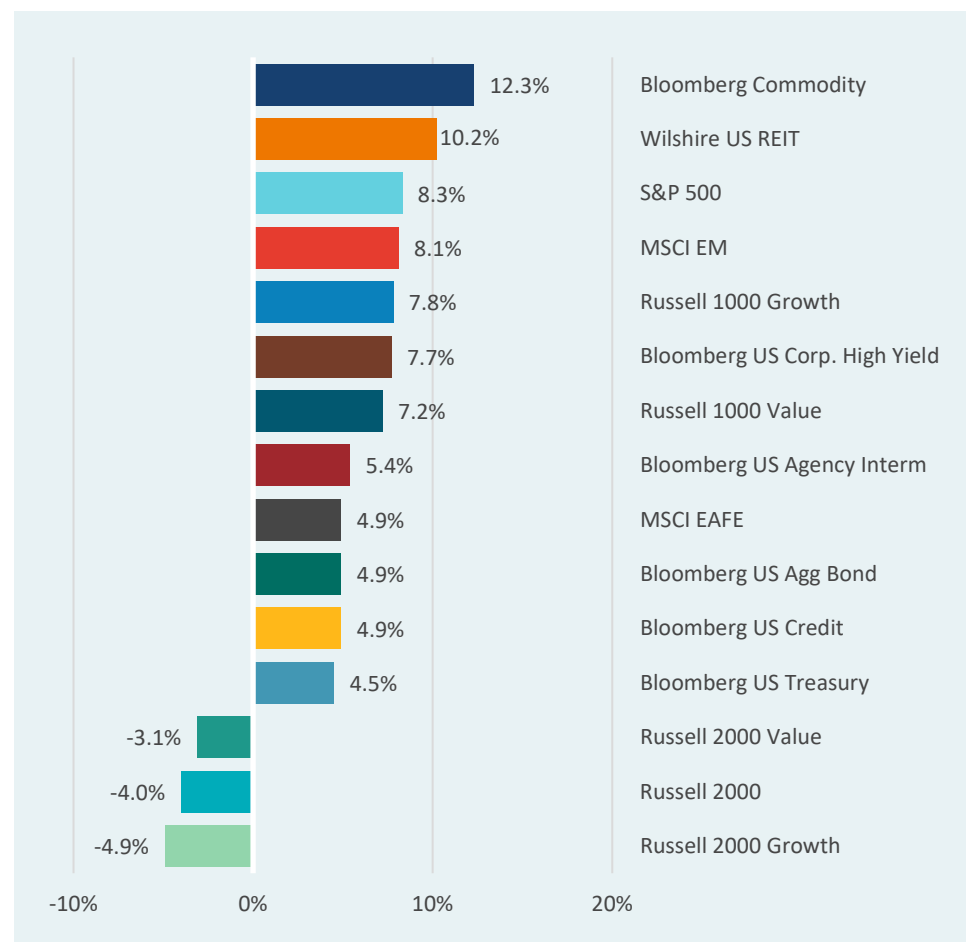
Hedge Funds of Funds

60% MSCI ACWI/40% Bloomberg Global Bond

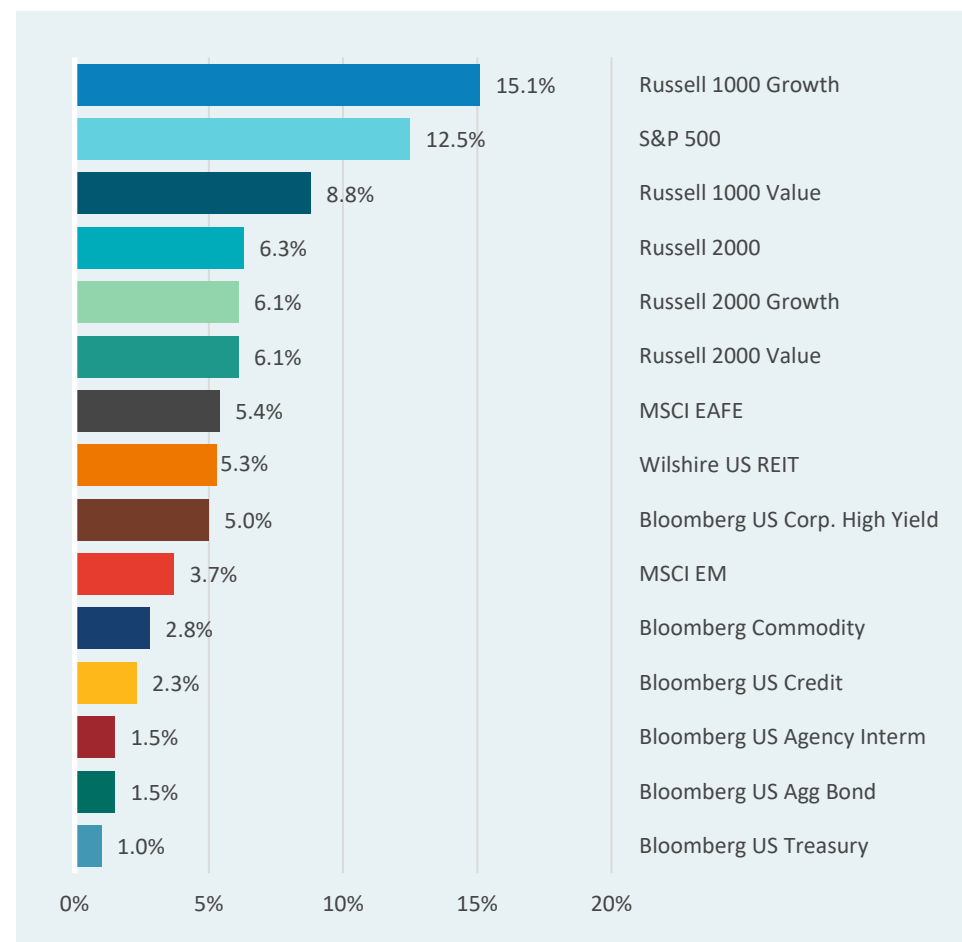
Source Data: Morningstar, Inc., Hedge Fund Research, Inc. (HFR), National Council of Real Estate Investment Fiduciaries (NCREIF). Indices used: Russell 1000, Russell 1000 Value, Russell 1000 Growth, Russell 2000, Russell 2000 Value, Russell 2000 Growth, MSCI EAFE, MSCI EM, Bloomberg U.S. Aggregate, T-Bill 90 Day, Bloomberg Commodity, NCREIF Property, HFRI FOF, MSCI ACWI, Bloomberg Global Bond. NCREIF Property Index performance data as of 12/31/24.

Major asset class returns

ONE YEAR ENDING MARCH



TEN YEARS ENDING MARCH



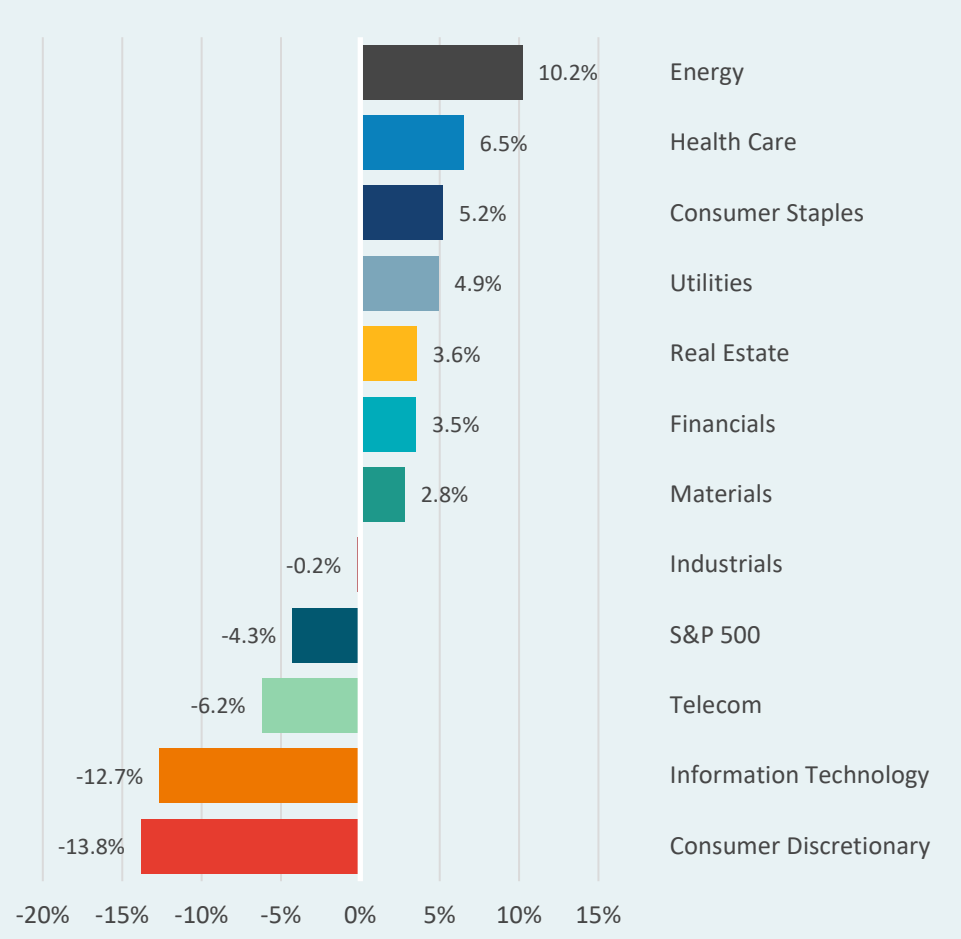
*Only publicly traded asset performance is shown here. Performance of private assets is typically released with a 3- to 6-month delay.

Source: Morningstar, as of 3/31/25

Source: Morningstar, as of 3/31/25

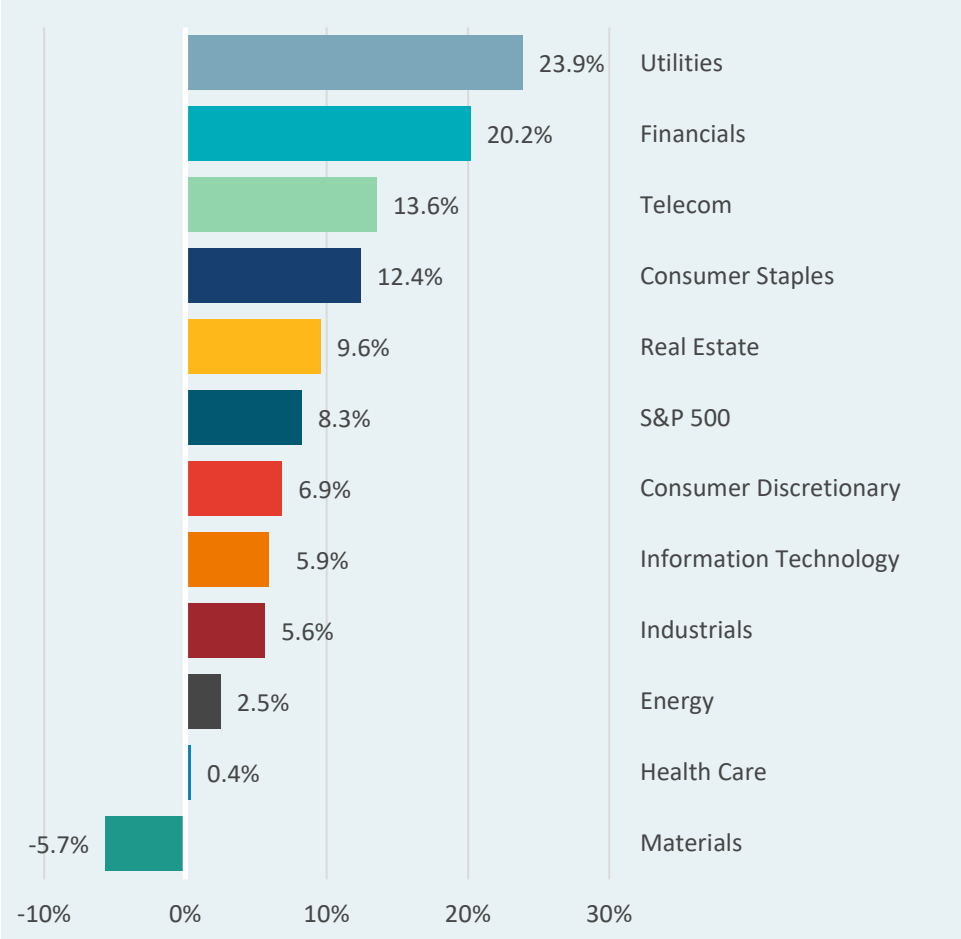
S&P 500 sector returns

QTD



Source: Morningstar, as of 3/31/25

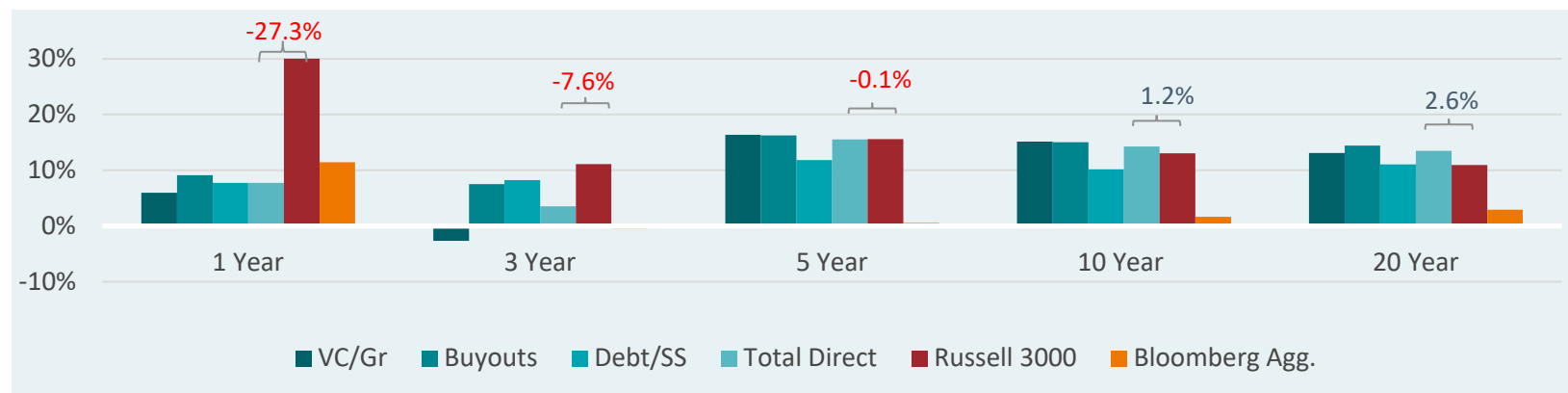
ONE YEAR ENDING MARCH



Source: Morningstar, as of 3/31/25

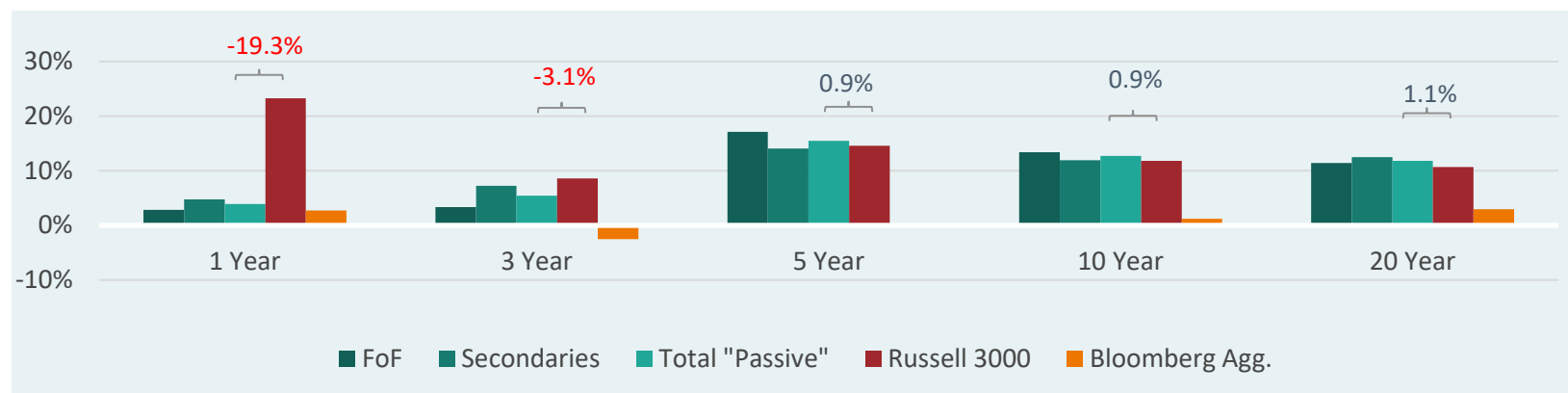
Private equity vs. traditional assets performance

DIRECT PRIVATE EQUITY FUND INVESTMENTS



Direct P.E Fund Investments outperformed public equities over the long-term, but have recently underperformed

"PASSIVE" STRATEGIES

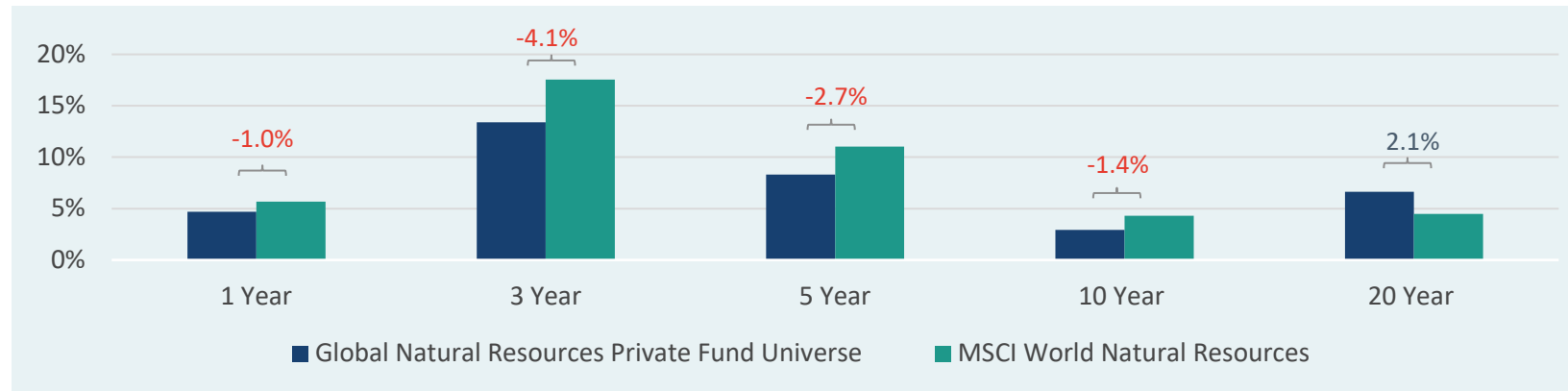


"Passive" strategies have outperformed public markets over the long-term

Sources: FTSE PME: U.S. Direct Private Equity returns are as of September 30, 2024, whereas "Passive" strategies as of June 30, 2024. Public Market Equivalent returns resulted from "Total Passive" and Total Direct's identical cash flows invested into and distributed from respective traditional asset comparable.

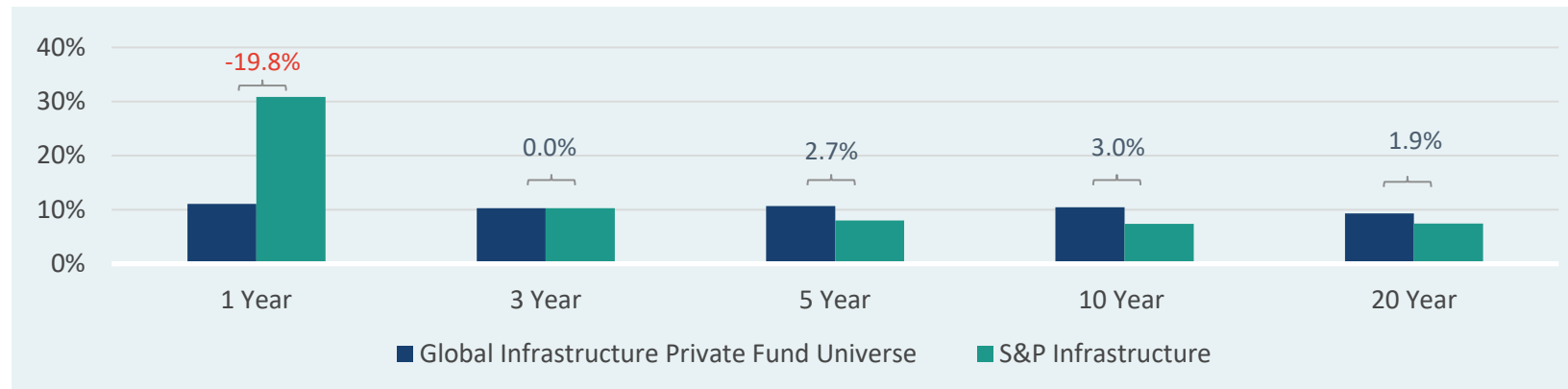
Private vs. liquid real assets performance

GLOBAL NATURAL RESOURCES FUNDS



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

GLOBAL INFRASTRUCTURE FUNDS

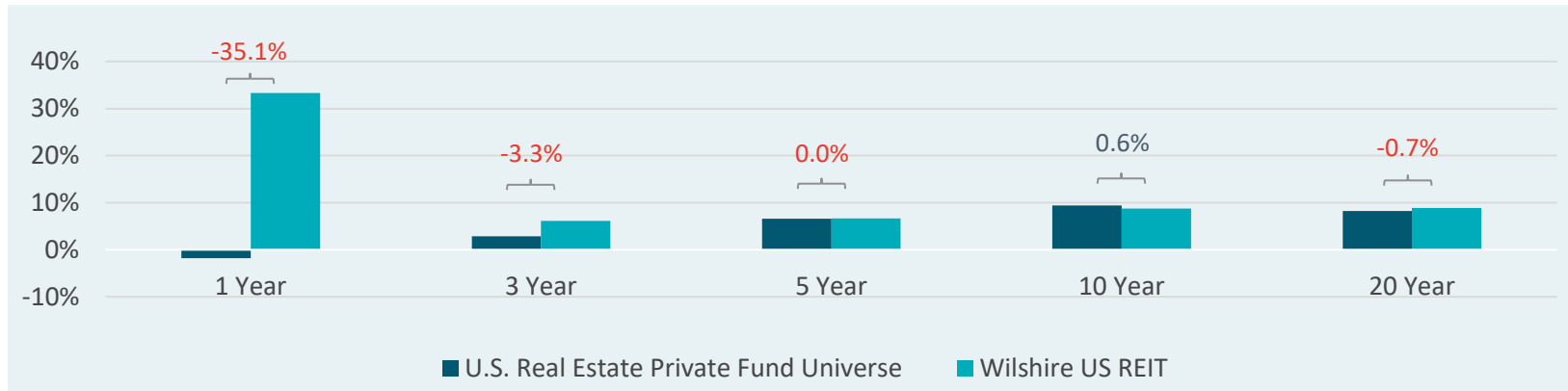


Infra. funds outperformed the S&P Infra. over the long-term

Sources: FTSE 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 September 30, 2024. Public Market Equivalent returns resulted from identical cash flows invested into and distributed from respective liquid real assets universes.

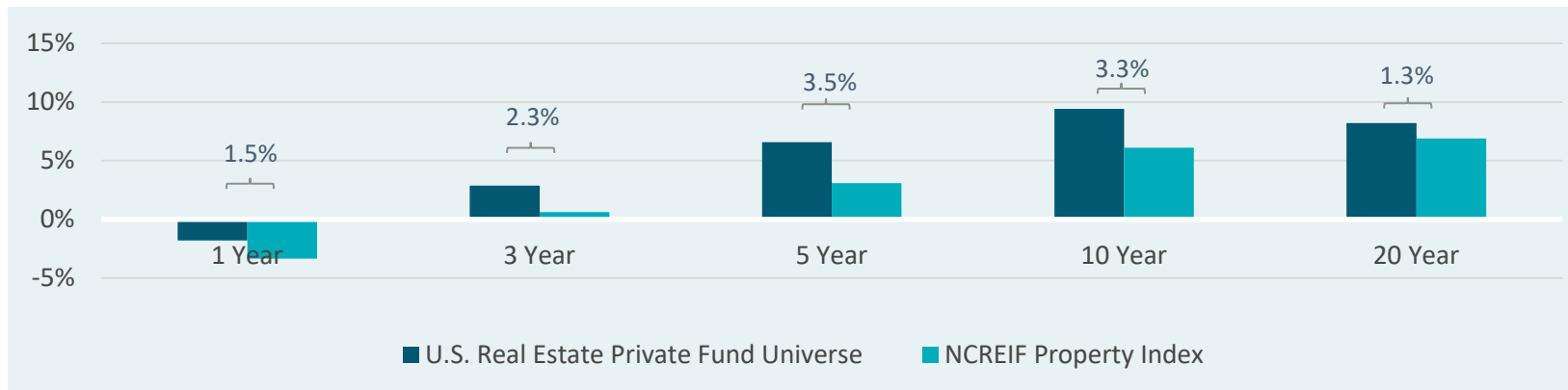
Private vs. liquid and core real estate performance

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



U.S. Private R.E. funds underperformed the Wilshire U.S. REIT Index across most time periods.

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: FTSE PME: U.S. Real Estate universes as of September 30, 2024. 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	(5.6)	(4.3)	(4.3)	8.3	9.1	18.6	12.5
S&P 500 Equal Weighted	(3.4)	(0.6)	(0.6)	4.1	5.2	17.7	10.0
DJ Industrial Average	(4.1)	(0.9)	(0.9)	7.4	8.8	16.2	11.4
Russell Top 200	(6.1)	(4.8)	(4.8)	9.5	10.0	19.2	13.4
Russell 1000	(5.8)	(4.5)	(4.5)	7.8	8.7	18.5	12.2
Russell 2000	(6.8)	(9.5)	(9.5)	(4.0)	0.5	13.3	6.3
Russell 3000	(5.8)	(4.7)	(4.7)	7.2	8.2	18.2	11.8
Russell Mid Cap	(4.6)	(3.4)	(3.4)	2.6	4.6	16.3	8.8
Style Index							
Russell 1000 Growth	(8.4)	(10.0)	(10.0)	7.8	10.1	20.1	15.1
Russell 1000 Value	(2.8)	2.1	2.1	7.2	6.6	16.1	8.8
Russell 2000 Growth	(7.6)	(11.1)	(11.1)	(4.9)	0.8	10.8	6.1
Russell 2000 Value	(6.0)	(7.7)	(7.7)	(3.1)	0.0	15.3	6.1

INTERNATIONAL EQUITY

Broad Index							
MSCI ACWI	(4.0)	(1.3)	(1.3)	7.2	6.9	15.2	8.8
MSCI ACWI ex US	(0.2)	5.2	5.2	6.1	4.5	10.9	5.0
MSCI EAFE	(0.4)	6.9	6.9	4.9	6.1	11.8	5.4
MSCI EM	0.6	2.9	2.9	8.1	1.4	7.9	3.7
MSCI EAFE Small Cap	0.5	3.7	3.7	3.1	0.9	9.9	5.3
Style Index							
MSCI EAFE Growth	(3.2)	2.1	2.1	(2.6)	2.4	8.5	5.5
MSCI EAFE Value	2.3	11.6	11.6	12.8	9.7	14.8	5.1
Regional Index							
MSCI UK	0.7	9.7	9.7	14.4	7.9	13.8	4.9
MSCI Japan	0.1	0.3	0.3	(2.1)	5.3	8.8	5.3
MSCI Euro	0.1	11.9	11.9	5.4	10.1	14.7	5.9
MSCI EM Asia	(0.1)	1.3	1.3	9.8	1.9	7.5	4.4
MSCI EM Latin American	4.8	12.7	12.7	(13.6)	(2.0)	11.8	2.6

FIXED INCOME

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
Bloomberg US TIPS	0.6	4.2	4.2	6.2	0.1	2.4	2.5
Bloomberg US Treasury Bills	0.3	1.0	1.0	5.1	4.3	2.6	1.9
Bloomberg US Agg Bond	0.0	2.8	2.8	4.9	0.5	(0.4)	1.5
Bloomberg US Universal	(0.0)	2.7	2.7	5.2	1.0	0.3	1.8
Duration							
Bloomberg US Treasury 1-3 Yr	0.5	1.6	1.6	5.4	2.8	1.1	1.5
Bloomberg US Treasury Long	(0.9)	4.7	4.7	1.3	(7.2)	(7.9)	(0.6)
Bloomberg US Treasury	0.2	2.9	2.9	4.5	(0.0)	(1.7)	1.0
Issuer							
Bloomberg US MBS	(0.0)	3.1	3.1	5.4	0.6	(0.7)	1.1
Bloomberg US Corp. High Yield	(1.0)	1.0	1.0	7.7	5.0	7.3	5.0
Bloomberg US Agency Interm	0.4	2.0	2.0	5.4	2.5	0.7	1.5
Bloomberg US Credit	(0.2)	2.4	2.4	4.9	1.1	1.3	2.3

OTHER

Index							
Bloomberg Commodity	3.9	8.9	8.9	12.3	(0.8)	14.5	2.8
Wilshire US REIT	(3.6)	1.0	1.0	10.2	(0.8)	11.2	5.3
S&P UBS Leveraged Loan	(0.3)	0.6	0.6	7.0	7.1	8.9	5.0
S&P Global Infrastructure	2.1	4.6	4.6	18.8	6.1	13.8	6.5
Alerian MLP	(0.1)	12.2	12.2	23.9	24.7	39.7	5.0
Regional Index							
JPM EMBI Global Div	(0.8)	2.2	2.2	6.8	3.4	3.5	3.2
JPM GBI-EM Global Div	1.5	4.3	4.3	4.0	2.7	2.3	1.3
Hedge Funds							
HFRI Composite	(1.1)	0.8	0.8	5.1	4.7	9.6	5.0
HFRI FOF Composite	(1.0)	0.7	0.7	6.1	4.5	7.5	3.7
Currency (Spot)							
Euro	3.9	4.3	4.3	1.2	(1.0)	(0.3)	0.1
Pound Sterling	2.5	3.1	3.1	2.2	(0.7)	0.8	(1.4)
Yen	0.8	5.1	5.1	0.0	(6.7)	(6.3)	(2.2)

Source: Morningstar, HFRI, as of 3/31/25

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 conditions 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. (<http://www.nfib-sbet.org/about/>)

NAHB Housing Market Index - the housing market index is a weighted average of separate diffusion indices 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 $(\text{Good-Poor} + 100)/2$ to the present and future sales series and $(\text{High/Very High-Low/Very Low} + 100)/2$ 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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Contra Costa County Employees Retirement Association

Investment Performance Review

Period Ending: March 31, 2025



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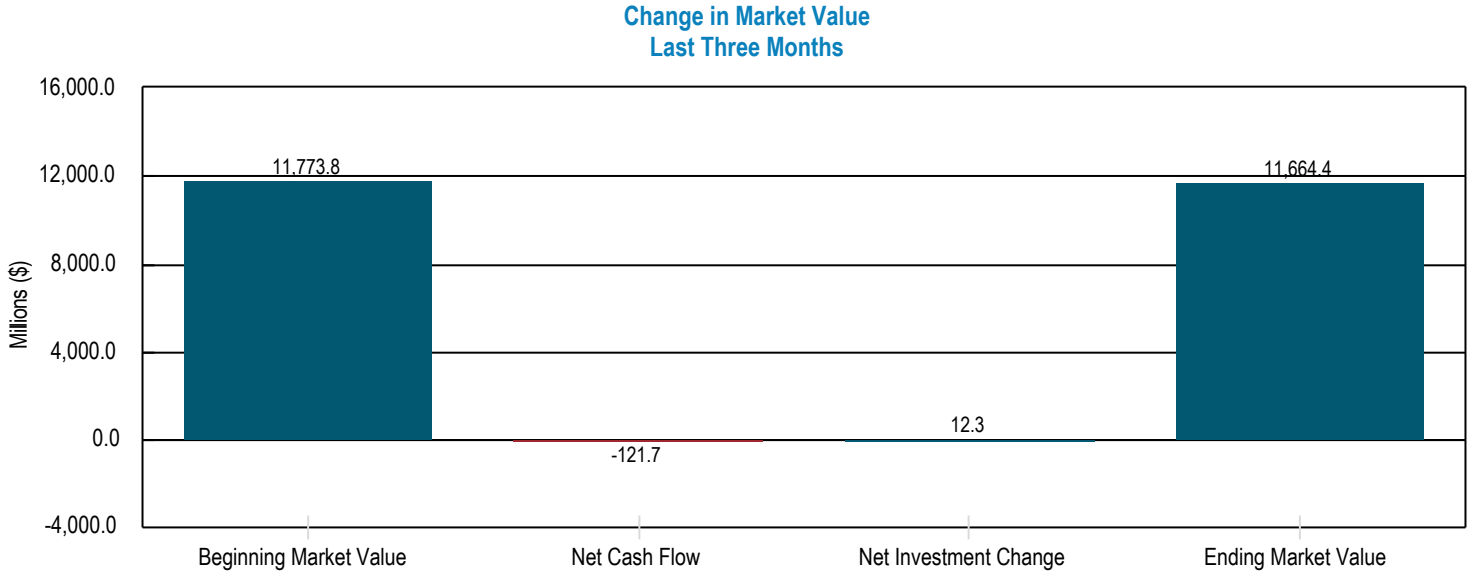
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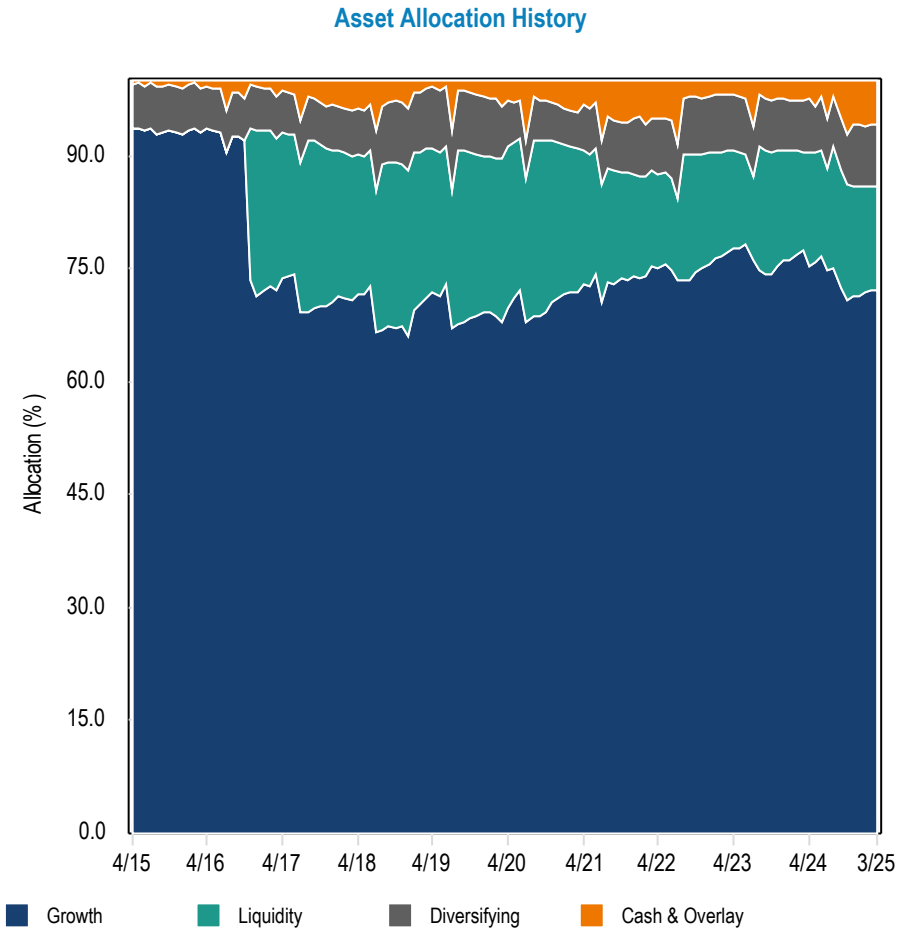
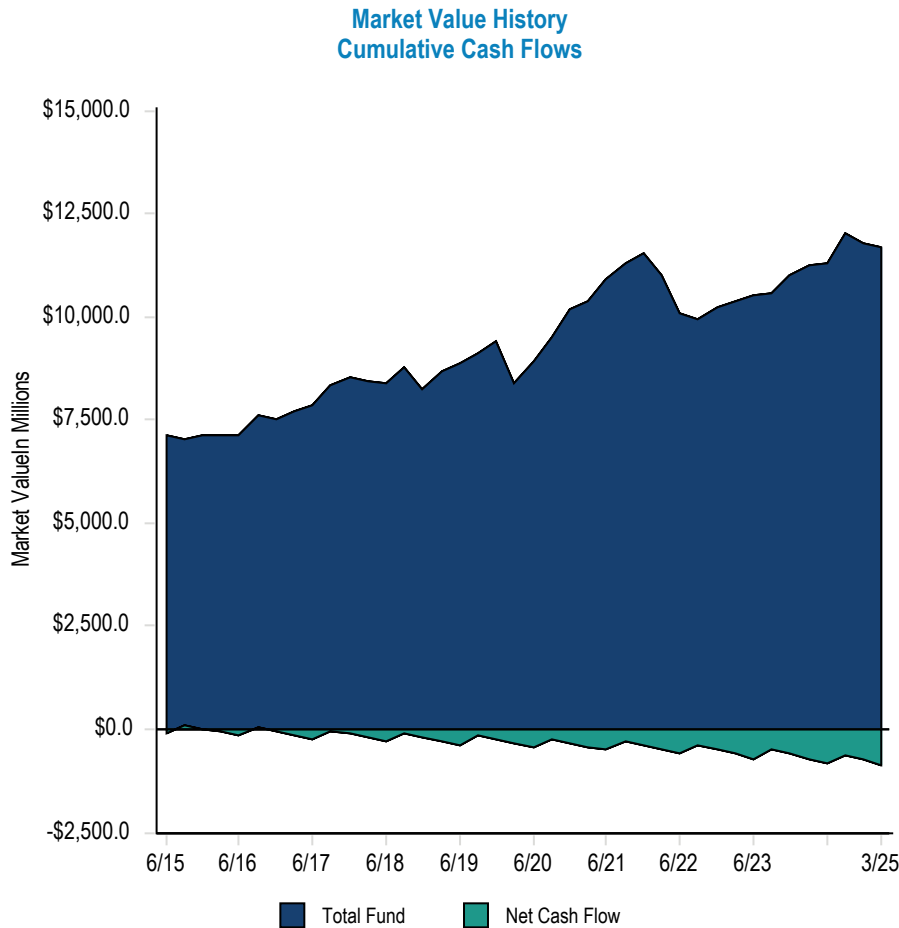
Total Fund
Portfolio Reconciliation

Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025

Portfolio Reconciliation		
	Last Three Months	YTD
Beginning Market Value	\$11,773,818,113	\$11,773,818,113
Net Cash Flow	-\$121,742,689	-\$121,742,689
Net Investment Change	\$12,325,845	\$12,325,845
Ending Market Value	\$11,664,401,269	\$11,664,401,269

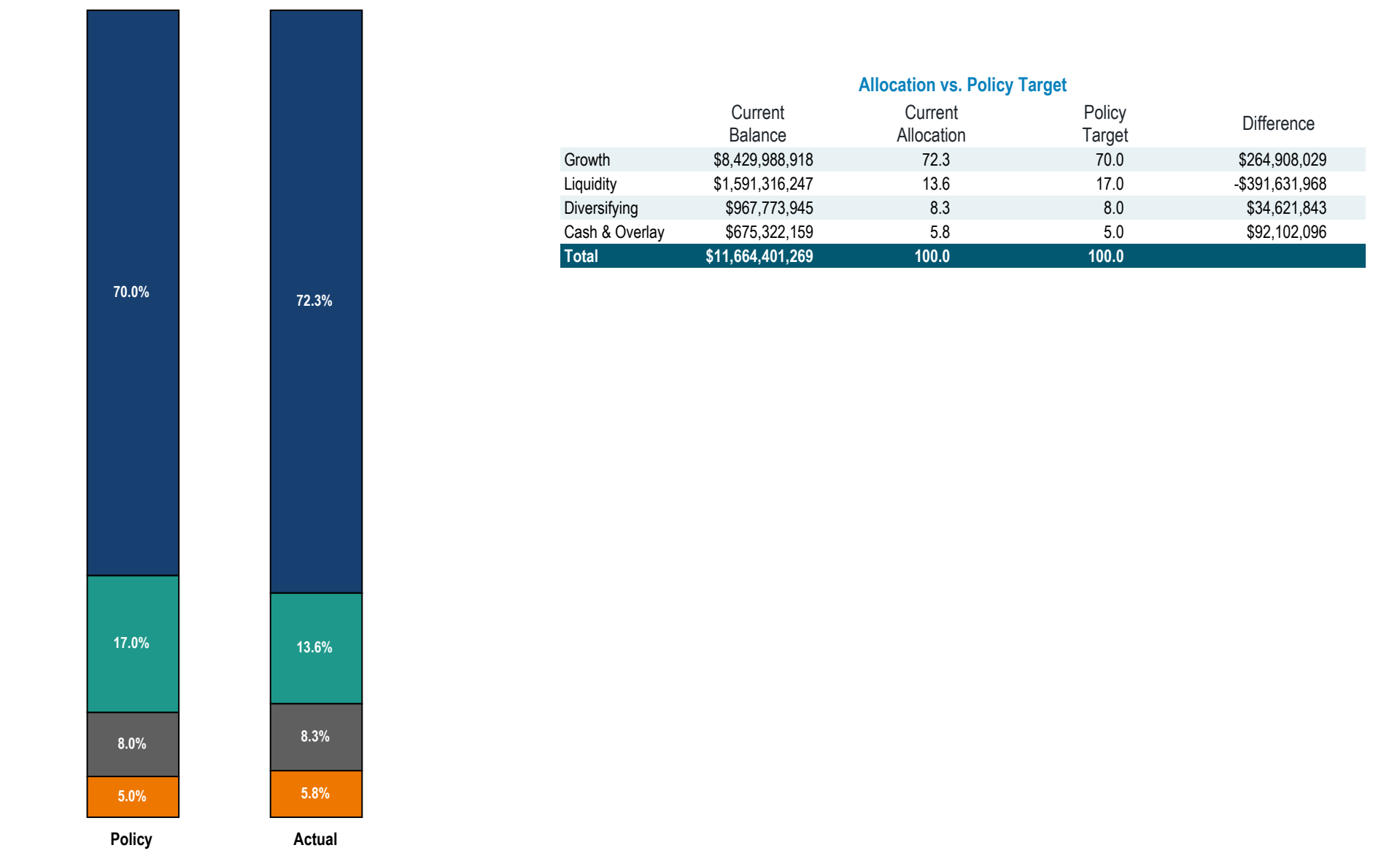


Contributions and withdrawals may include intra-account transfers between managers/funds.



Total Fund

Asset Allocation vs. Policy Target



Policy Targets as of 10/1/2024.

Total Fund
Executive Summary (Net of Fees)

Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025

	% of Portfolio	QTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2024	2023	2022	2021	2020
Total Fund	100.0	0.1	4.9	3.0	7.7	5.8	8.3	9.0	-10.6	13.9	9.2
Policy Index		0.5	5.9	3.6	8.8	6.7	7.8	9.9	-8.4	15.3	10.8
Implementation Benchmark		0.5	5.9	3.3	8.0	6.1	7.8	9.0	-8.7	14.2	8.7
Growth	72.3	-0.3	5.2	3.3	10.2	7.4	9.7	10.1	-11.7	19.2	12.0
Custom Growth Benchmark		0.1	5.8	3.6	11.6	8.5	8.9	11.2	-10.3	21.6	13.8
Diversifying	8.3	1.2	-0.2	0.0	0.4	0.0	-0.3	2.2	-5.7	1.7	-1.7
Custom Diversifying Benchmark		1.6	4.8	3.1	2.4	3.0	3.4	7.4	-5.7	1.6	4.7
Liquidity	13.6	1.8	6.0	3.7	2.3	-	5.0	5.4	-3.5	-0.3	3.4
Custom Liquidity Benchmark		1.7	5.5	3.1	1.5	-	4.2	4.6	-3.7	-0.5	3.3

*Correlation between the Growth and Diversifying composites is .53, .57, and .67 over the previous 1, 3, and 5 year periods respectively.

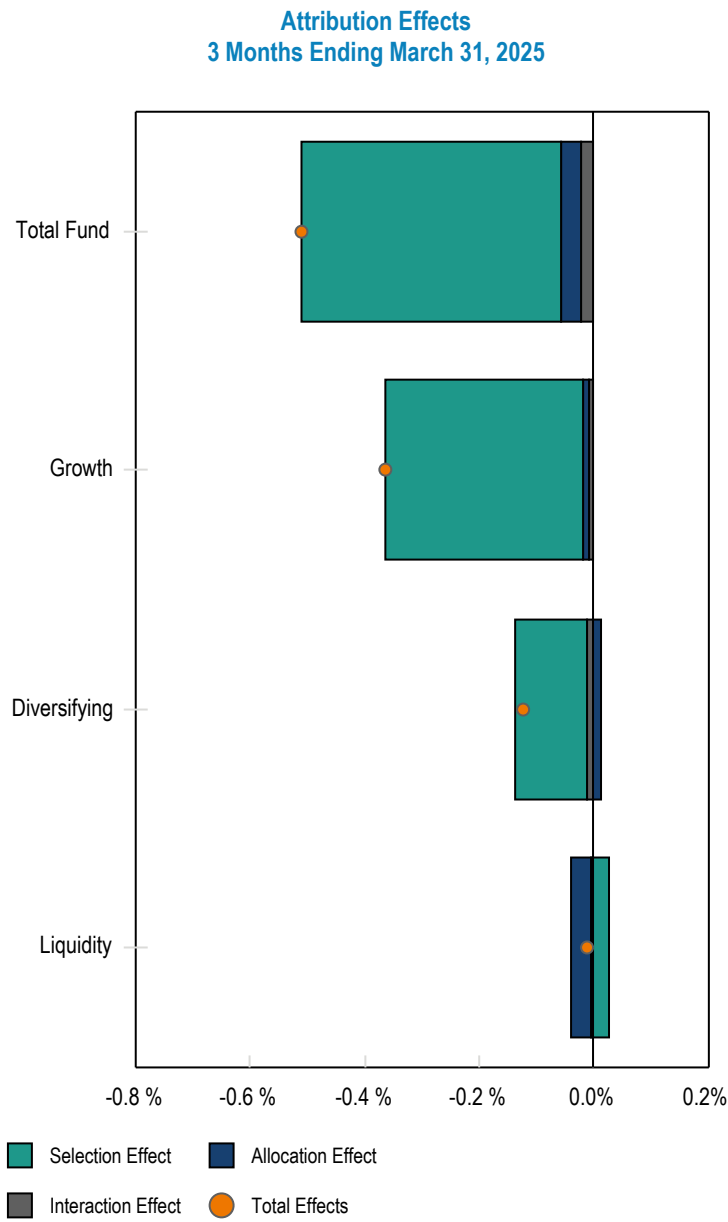
As of 1/1/2024, the Policy Index matched the Implementation Benchmark. The Implementation Benchmark Weights can be found in the Data Sources and Methodology pages.

Total Fund

Attribution Analysis - Asset Class Level (Net of Fees)

Contra Costa County Employees' Retirement Association

Period Ending: March 31, 2025



Performance Attribution		3 Mo
Wtd. Actual Return		0.09
Wtd. Index Return		0.50
Excess Return		-0.41
Selection Effect		-0.41
Allocation Effect		0.00
Interaction Effect		0.00

Attribution Summary Last 3 Months							
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Growth	-0.3	0.1	-0.4	-0.3	0.0	0.0	-0.3
Diversifying	1.2	1.6	-0.4	0.0	0.0	0.0	0.0
Liquidity	1.8	1.7	0.1	0.0	0.0	0.0	0.0
Cash	1.2	1.1	0.1	0.0	0.0	0.0	0.0
Total Fund	0.1	0.5	-0.4	-0.4	0.0	0.0	-0.4

Performance attribution calculated from benchmark returns and weightings of each component.

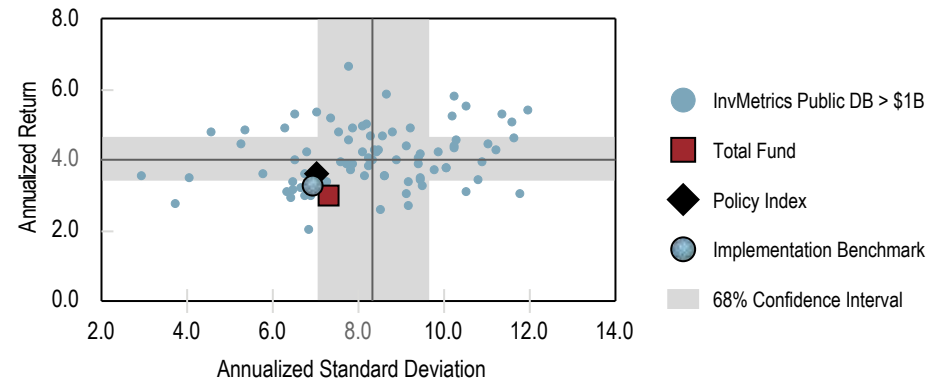
Total Fund Executive Summary (Net of Fees)

Contra Costa County Employees' Retirement Association Period Ending: March 31, 2025

3 Years

	Anlzd Return	Ann Excess Performance	Anlzd Standard Deviation	Anlzd Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Information Ratio	Up Capture	Down Capture
Total Fund	3.02	-0.27	7.29	-0.40	1.05	0.85	0.99	-0.13	-0.28	101.80	108.70

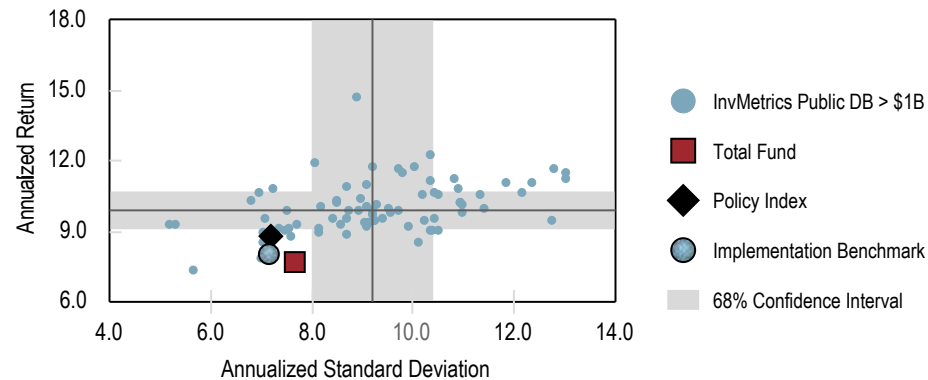
Risk vs. Return



5 Years

	Anlzd Return	Ann Excess Performance	Standard Deviation	Anlzd Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Information Ratio	Up Capture	Down Capture
Total Fund	7.74	-0.26	7.66	-0.73	1.06	1.11	0.98	0.68	-0.19	102.27	115.27

Risk vs. Return



Total Fund
Performance Summary (Gross of Fees)

Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2024	2023	2022	2021	2020	Inception	Inception Date
Total Fund	11,664,401,269	100.0	0.1	5.1	3.2	8.0	6.1	8.5	9.2	-10.4	14.2	9.5		
Policy Index			0.5	5.9	3.6	8.8	6.7	7.8	9.9	-8.4	15.3	10.8		
Implementation Benchmark			0.5	5.9	3.3	8.0	6.1	7.8	9.0	-8.7	14.2	8.7		
InvMetrics Public DB > \$1B Rank			73	71	88	98	88	73	86	53	67	81		
Total Fund ex Overlay & Cash	10,989,079,110	94.2	0.2	5.1	3.4	8.2	6.2	8.5	9.1	-9.9	14.6	9.7		
Policy Index			0.5	5.9	3.6	8.8	6.7	7.8	9.9	-8.4	15.3	10.8		
Implementation Benchmark			0.5	5.9	3.3	8.0	6.1	7.8	9.0	-8.7	14.2	8.7		
InvMetrics Public DB > \$1B Rank			72	70	86	95	85	74	88	46	62	77		
Growth	8,429,988,918	72.3	-0.3	5.4	3.5	10.5	7.7	9.9	10.3	-11.4	19.6	12.4		
Custom Growth Benchmark			0.1	5.8	3.6	11.6	8.5	8.9	11.2	-10.3	21.6	13.8		
Total Domestic Equity	2,099,711,707	18.0	-4.6	5.2	6.9	17.0	10.4	20.7	21.6	-18.3	20.6	22.2		
Russell 3000 Index			-4.7	7.2	8.2	18.2	11.8	23.8	26.0	-19.2	25.7	20.9		
InvMetrics Public DB US Equity Rank			56	58	69	77	69	58	79	61	98	12		
BlackRock Russell 1000 Index	1,235,567,497	10.6	-4.5	7.8	8.7	18.5	-	24.5	26.6	-19.1	26.5	21.0	13.1	May-17
Russell 1000 Index			-4.5	7.8	8.7	18.5	-	24.5	26.5	-19.1	26.5	21.0	13.1	
eV US Large Cap Equity Rank			64	32	45	39	-	33	34	70	56	35		
Boston Partners	450,555,899	3.9	0.3	4.2	8.5	19.5	10.1	16.4	14.7	-3.8	31.3	3.0	10.8	Jun-95
Russell 1000 Value Index			2.1	7.2	6.6	16.1	8.8	14.4	11.5	-7.5	25.2	2.8	9.4	
eV US Large Cap Value Equity Rank			66	75	37	24	45	42	40	36	18	64		
Emerald Advisers	215,061,549	1.8	-11.9	-0.3	2.3	13.2	8.2	19.7	19.2	-23.8	5.5	39.0	11.9	Apr-03
Russell 2000 Growth Index			-11.1	-4.9	0.8	10.8	6.1	15.2	18.7	-26.4	2.8	34.6	9.8	
eV US Small Cap Growth Equity Rank			67	20	31	50	62	28	41	27	76	57		
Ceredex	198,526,762	1.7	-7.2	-1.8	5.0	16.4	7.3	10.2	16.0	-8.5	28.4	2.3	9.6	Nov-11
Russell 2000 Value Index			-7.7	-3.1	0.0	15.3	6.1	8.1	14.6	-14.5	28.3	4.6	8.8	
eV US Small Cap Value Equity Rank			51	51	33	71	63	60	61	28	58	70		

Individual closed end funds are not shown in performance summary table.

Total Fund
Performance Summary (Gross of Fees)

Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2024	2023	2022	2021	2020	Inception	Inception Date
Total International Equity	1,382,432,090	11.9	2.2	4.5	4.1	11.1	5.1	7.0	15.4	-18.2	8.3	15.8		
MSCI AC World ex USA Index			5.4	6.6	5.0	11.5	5.5	6.1	16.2	-15.6	8.3	11.1		
MSCI EAFE Index			7.0	5.4	6.6	12.3	5.9	4.3	18.9	-14.0	11.8	8.3		
InvMetrics Public DB Global ex-US Equity Rank			93	67	68	62	66	25	75	64	51	30		
International Equity	882,851,147	7.6	3.5	3.1	3.7	10.3	5.7	3.7	15.6	-18.1	9.0	19.0		
MSCI AC World ex USA Index			5.4	6.6	5.0	11.5	5.5	6.1	16.2	-15.6	8.3	11.1		
InvMetrics Public DB Global ex-US Equity Rank			82	80	75	80	49	80	69	60	37	14		
Pyrford	462,501,955	4.0	7.1	9.5	6.7	10.7	5.6	4.0	15.2	-7.0	7.6	4.7	5.1	May-14
MSCI AC World ex USA Value			8.6	11.4	7.2	13.6	4.7	6.0	17.3	-8.6	10.5	-0.8	3.8	
eV ACWI ex-US Value Equity Rank			61	49	63	96	72	59	83	25	80	44		
William Blair	420,349,192	3.6	-0.2	-3.3	0.6	9.5	5.6	3.4	16.2	-27.7	10.5	33.3	6.3	Nov-10
MSCI AC World ex USA Growth			2.0	1.2	1.8	8.1	5.1	5.1	14.0	-23.1	5.1	22.2	5.0	
eV ACWI ex-US Growth Equity Rank			75	77	73	64	80	62	60	58	41	34		
Emerging Markets Equity	499,580,944	4.3	0.0	7.1	4.7	12.6	-	13.1	14.4	-18.4	7.6	11.4		
MSCI Emerging Markets			2.9	8.1	1.4	7.9	-	7.5	9.8	-20.1	-2.5	18.3		
InvMetrics Public DB Emerging Markets Equity Rank			79	45	30	23	-	4	50	38	18	83		
PIMCO RAE Emerging Markets	251,640,149	2.2	3.1	6.1	8.5	17.1	-	7.5	23.1	-9.7	17.1	2.1	7.0	Mar-17
MSCI Emerging Markets Value			4.3	7.6	2.8	9.8	-	4.5	14.2	-15.8	4.0	5.5	3.9	
eV Emg Mkts All Cap Value Equity Rank			75	55	10	7	-	41	11	33	8	85		
TT Emerging Markets	247,940,795	2.1	-3.0	8.1	0.8	8.3	-	19.1	5.8	-26.4	-0.2	20.8	2.8	Aug-17
MSCI Emerging Markets			2.9	8.1	1.4	7.9	-	7.5	9.8	-20.1	-2.5	18.3	2.8	
eV Emg Mkts Equity Rank			92	39	79	72	-	2	92	90	59	39		
Total Global Equity	1,298,214,260	11.1	1.1	6.5	6.4	13.7	9.6	14.7	19.0	-18.8	14.1	25.3		
MSCI AC World Index			-1.3	7.2	6.9	15.2	8.8	17.5	22.2	-18.4	18.5	16.3		
InvMetrics Public DB Global Equity Rank			79	26	76	73	1	21	79	82	84	2		
Artisan Partners	621,624,048	5.3	-4.3	0.1	3.9	12.7	11.3	16.3	24.5	-29.6	15.0	41.7	11.9	Oct-12
MSCI ACWI Growth NR USD			-6.8	5.7	6.8	15.4	10.6	24.2	33.2	-28.6	17.1	33.6	11.3	
eV Global Growth Equity Rank			55	50	49	48	19	36	39	60	57	33		
First Eagle	676,590,213	5.8	6.8	13.2	8.7	14.3	8.3	13.0	13.7	-5.6	13.0	8.5	8.7	Jan-11
MSCI ACWI Value NR USD			4.8	8.6	6.6	14.4	6.7	10.8	11.8	-7.5	19.6	-0.3	6.9	
eV Global Value Equity Rank			20	9	18	58	21	18	67	24	87	34		

Individual closed end funds are not shown in performance summary table.

Total Fund
Performance Summary (Gross of Fees)

Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2024	2023	2022	2021	2020	Inception	Inception Date
Private Credit	1,142,430,079	9.8	-0.1	11.6	9.5	9.1	8.9	11.9	9.1	10.5	10.0	4.0		
Total High Yield	169,841,916	1.5	1.0	6.5	4.3	6.2	4.4	7.0	12.4	-10.6	5.3	5.2		
ICE BofA U.S. High Yield Index			0.9	7.6	4.8	7.2	4.9	8.2	13.5	-11.2	5.4	6.2		
eV US High Yield Fixed Inc Rank			57	85	87	87	89	84	63	74	55	74		
Voya Global Investors	169,841,916	1.5	1.0	6.5	4.3	6.2	4.4	7.0	12.4	-10.6	5.3	5.2	6.3	May-00
ICE BofA U.S. High Yield Index			0.9	7.6	4.8	7.2	4.9	8.2	13.5	-11.2	5.4	6.2	6.5	
eV US High Yield Fixed Inc Rank			57	85	87	87	89	84	63	74	55	74		
Total Real Estate	934,445,370	8.0	1.1	-2.1	-9.2	-2.5	2.3	-9.2	-10.6	-5.2	19.2	-5.9		
Real Estate Benchmark			1.1	-3.1	-9.5	-1.3	2.3	-10.6	-11.3	-4.5	19.3	0.6		
NCREIF-ODCE			1.1	2.0	-4.3	2.9	5.6	-1.4	-12.0	7.5	22.2	1.2		
NCREIF Property Index			1.3	2.7	-2.1	3.2	5.4	0.4	-7.9	5.5	17.7	1.6		
Total Core Real Estate	233,247,223	2.0	1.1	9.5	-1.3	11.3	5.8	7.8	12.8	-24.8	48.3	-4.6		
Adelante	108,853,081	0.9	1.1	10.9	-0.2	12.1	6.3	10.6	17.2	-26.7	48.3	-4.6	9.6	Oct-01
Wilshire U.S. REIT Index			1.0	10.2	-0.8	11.2	5.3	9.1	16.2	-26.8	46.2	-7.9	9.1	
Invesco US Fundamental Beta	124,394,142	1.1	1.1	8.2	-2.2	-	-	5.5	9.4	-	-	-	-0.2	Mar-22
Wilshire U.S. REIT Index			1.0	10.2	-0.8	-	-	9.1	16.2	-	-	-	1.4	
Total Private Real Estate	701,198,147	6.0	1.1	-6.5	-12.0	-5.3	1.3	-15.2	-17.6	1.3	15.3	-6.1		
Private Equity	1,316,875,061	11.3	1.7	4.3	0.0	11.9	10.7	2.8	-1.0	-0.5	60.4	8.7		
Private Infrastructure	77,143,615	0.7	1.8	-	-	-	-	-	-	-	-	-		
Risk Parity	8,894,820	0.1	0.0	7.4	-1.4	4.0	-	10.6	4.9	-21.5	9.7	10.0		
60% MSCI ACWI Net/40% Blmbg. Global Aggregate			0.3	5.6	3.5	8.4	-	9.5	15.4	-17.3	8.8	14.0		
PanAgora Risk Parity Multi Asset	8,894,820	0.1	0.0	6.7	-4.1	2.7	-	9.5	2.8	-26.1	8.7	14.0	2.6	Mar-19
HFR Risk Parity Vol 10 Index			1.8	3.5	0.8	4.1	-	5.9	10.5	-18.3	6.8	3.6	3.1	

Individual closed end funds are not shown in performance summary table. AQR Global Risk Premium-EL was liquidated of 11/6/2024.

Total Fund
Performance Summary (Gross of Fees)

Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2024	2023	2022	2021	2020	Inception	Inception Date
Diversifying	967,773,945	8.3	1.3	0.1	0.3	0.8	0.3	-0.1	2.6	-5.4	2.0	-1.3		
Custom Diversifying Benchmark			1.6	4.8	3.1	2.4	3.0	3.4	7.4	-5.7	1.6	4.7		
Diversifying Fixed Income	274,116,772	2.4	2.8	5.6	0.8	-0.2	0.9	2.6	5.5	-13.3	-0.7	1.6		
Blmbg. U.S. Aggregate Index			2.8	4.9	0.5	-0.4	1.5	1.3	5.5	-13.0	-1.5	7.5		
eV US Core Fixed Inc Rank			56	16	75	94	100	20	84	73	32	100		
AFL-CIO	274,069,697	2.3	2.8	5.6	0.8	-0.3	1.7	2.6	5.5	-13.3	-0.7	6.6	5.2	Jul-91
Blmbg. U.S. Aggregate Index			2.8	4.9	0.5	-0.4	1.5	1.3	5.5	-13.0	-1.5	7.5	4.9	
eV US Core Fixed Inc Rank			56	16	75	95	92	20	86	73	33	95		
Diversifying Multi-Asset	693,657,173	5.9	0.7	-2.1	0.2	-	-	-1.1	1.4	-1.9	2.8	-		
Custom Diversifying Multi-Asset Benchmark			2.7	8.2	5.6	-	-	6.5	8.7	-3.1	4.1	-		
Sit LLCAR	476,427,195	4.1	2.9	7.2	4.3	-	-	6.0	6.9	-3.3	-	-	4.2	Apr-21
Blmbg. U.S. Aggregate Index +1%			3.0	5.9	1.5	-	-	2.3	6.6	-12.1	-	-	0.3	
BH-DG Systematic	217,229,978	1.9	-3.7	-	-	-	-	-	-	-	-	-	-16.8	Apr-24
SG Trend Index			-2.5	-10.8	-	-	-	-	-	-	-	-	-11.9	
Liquidity	1,591,316,247	13.6	1.8	6.1	3.8	2.4	-	5.1	5.5	-3.4	-0.2	3.5		
Custom Liquidity Benchmark			1.7	5.5	3.1	1.5	-	4.2	4.6	-3.7	-0.5	3.3		
eV US Short Duration Fixed Inc Rank			33	41	44	56	-	46	45	49	48	74		
DFA Short Credit	362,961,532	3.1	1.3	5.7	3.6	2.0	-	5.8	5.4	-5.3	-0.4	2.9	2.1	Dec-16
ICE BofA 1-5 Year U.S. Corp/Govt Index			2.0	5.8	2.9	1.3	-	3.9	4.9	-5.5	-0.9	4.6	2.0	
eV US Short Duration Fixed Inc Rank			93	83	55	69	-	20	48	91	69	87		
Insight Short Duration	598,544,209	5.1	1.4	5.9	4.2	3.1	-	5.4	5.7	-1.1	0.1	3.2	2.7	Dec-16
Bloomberg U.S. Gov/Credit 1-3 Year Index			1.6	5.6	3.1	1.6	-	4.4	4.6	-3.7	-0.5	3.3	1.9	
eV US Short Duration Fixed Inc Rank			89	63	23	29	-	33	34	7	34	84		
Sit Short Duration	629,810,506	5.4	2.6	6.7	3.5	1.6	-	4.4	5.4	-4.8	-0.3	4.6	2.4	Dec-16
Blmbg. 1-3 Year Govt Index			1.6	5.4	2.9	1.2	-	4.0	4.3	-3.8	-0.6	3.1	1.7	
eV US Short Duration Fixed Inc Rank			2	17	64	87	-	77	52	79	60	31		
Total Cash	550,929,674	4.7	1.2	5.4	4.8	3.1	2.3	5.6	5.5	2.4	0.4	1.3		
90 Day U.S. Treasury Bill			1.0	5.0	4.2	2.6	1.9	5.3	5.0	1.5	0.0	0.7		
Cash	550,929,673	4.7	1.2	5.4	5.0	3.2	2.4	5.6	6.1	2.2	0.4	1.3		
Northern Trust Transition	1	0.0	-1.5	4.7	-80.2	-57.1	-	7.8	-99.2	-4.8	-6.1	104.1		

Individual closed end funds are not shown in performance summary table. Effective 3/1/2019 the custodian of record switched from State Street to Northern Trust. Wellington Real Total Return was liquidated 4/30/2020. BH-DG Systematic funded on 4/19/2024. Acadian Multi-Asset Absolute Return Fund liquidated on 5/15/2024. \$47,075.25 in residual value is reflected in the Diversified Fixed Income composite.

Total Fund
Performance Summary (Net of Fees)

Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2024	2023	2022	2021	2020	Inception	Inception Date
Total Fund	11,664,401,269	100.0	0.1	4.9	3.0	7.7	5.8	8.3	9.0	-10.6	13.9	9.2		
Policy Index			0.5	5.9	3.6	8.8	6.7	7.8	9.9	-8.4	15.3	10.8		
Implementation Benchmark			0.5	5.9	3.3	8.0	6.1	7.8	9.0	-8.7	14.2	8.7		
Total Fund ex Overlay & Cash	10,989,079,110	94.2	0.1	4.9	3.1	7.9	5.9	8.2	8.9	-10.1	14.3	9.4		
Policy Index			0.5	5.9	3.6	8.8	6.7	7.8	9.9	-8.4	15.3	10.8		
Implementation Benchmark			0.5	5.9	3.3	8.0	6.1	7.8	9.0	-8.7	14.2	8.7		
Growth	8,429,988,918	72.3	-0.3	5.2	3.3	10.2	7.4	9.7	10.1	-11.7	19.2	12.0		
Custom Growth Benchmark			0.1	5.8	3.6	11.6	8.5	8.9	11.2	-10.3	21.6	13.8		
Total Domestic Equity	2,099,711,707	18.0	-4.7	5.0	6.7	16.7	10.0	20.5	21.4	-18.5	20.2	21.8		
Russell 3000 Index			-4.7	7.2	8.2	18.2	11.8	23.8	26.0	-19.2	25.7	20.9		
BlackRock Russell 1000 Index	1,235,567,497	10.6	-4.5	7.8	8.6	18.5	-	24.5	26.6	-19.1	26.5	20.9	13.1	May-17
Russell 1000 Index			-4.5	7.8	8.7	18.5	-	24.5	26.5	-19.1	26.5	21.0	13.1	
Boston Partners	450,555,899	3.9	0.2	3.9	8.2	19.2	9.8	16.0	14.3	-4.1	31.0	2.6	10.7	Jun-95
Russell 1000 Value Index			2.1	7.2	6.6	16.1	8.8	14.4	11.5	-7.5	25.2	2.8	9.4	
Emerald Advisers	215,061,549	1.8	-12.0	-0.9	1.7	12.5	7.6	18.9	18.6	-24.2	4.9	38.2	11.5	Apr-03
Russell 2000 Growth Index			-11.1	-4.9	0.8	10.8	6.1	15.2	18.7	-26.4	2.8	34.6	9.6	
Ceredex	198,526,762	1.7	-7.5	-2.4	4.5	15.7	6.7	9.7	15.5	-9.0	27.7	1.7	9.0	Nov-11
Russell 2000 Value Index			-7.7	-3.1	0.0	15.3	6.1	8.1	14.6	-14.5	28.3	4.6	8.8	
Total International Equity	1,382,432,090	11.9	2.1	4.3	3.8	10.7	4.7	6.8	15.1	-18.6	7.8	15.2		
MSCI AC World ex USA Index			5.4	6.6	5.0	11.5	5.5	6.1	16.2	-15.6	8.3	11.1		
MSCI EAFE Index			7.0	5.4	6.6	12.3	5.9	4.3	18.9	-14.0	11.8	8.3		
International Equity	882,851,147	7.6	3.4	2.8	3.3	9.9	5.3	3.4	15.2	-18.4	8.6	18.5		
MSCI AC World ex USA Index			5.4	6.6	5.0	11.5	5.5	6.1	16.2	-15.6	8.3	11.1		
Pyrford	462,501,955	4.0	7.0	9.2	6.3	10.3	5.1	3.7	14.7	-7.4	7.1	4.2	4.7	May-14
MSCI AC World ex USA Value			8.6	11.4	7.2	13.6	4.7	6.0	17.3	-8.6	10.5	-0.8	3.8	
William Blair	420,349,192	3.6	-0.3	-3.7	0.3	9.1	5.2	3.1	15.8	-28.0	10.1	32.8	5.9	Nov-10
MSCI AC World ex USA Growth			2.0	1.2	1.8	8.1	5.1	5.1	14.0	-23.1	5.1	22.2	5.0	
Emerging Markets Equity	499,580,944	4.3	0.0	7.1	4.5	12.2	-	13.1	14.4	-18.9	7.0	10.7		
MSCI Emerging Markets			2.9	8.1	1.4	7.9	-	7.5	9.8	-20.1	-2.5	18.3		
PIMCO RAE Emerging Markets	251,640,149	2.2	3.1	6.1	8.4	16.7	-	7.5	23.0	-10.1	16.5	1.6	6.6	Mar-17
MSCI Emerging Markets Value			4.3	7.6	2.8	9.8	-	4.5	14.2	-15.8	4.0	5.5	3.9	
TT Emerging Markets	247,940,795	2.1	-3.0	8.1	0.6	7.9	-	19.1	5.8	-26.8	-0.9	20.0	2.4	Aug-17
MSCI Emerging Markets			2.9	8.1	1.4	7.9	-	7.5	9.8	-20.1	-2.5	18.3	2.8	

Individual closed end funds are not shown in performance summary table. AQR Global Risk Premium-EL was liquidated of 11/6/2024.

Total Fund
Performance Summary (Net of Fees)

Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2024	2023	2022	2021	2020	Inception	Inception Date
Total Global Equity	1,298,214,260	11.1	0.9	5.7	5.6	12.8	8.8	13.9	18.2	-19.4	13.2	24.4		
MSCI AC World Index			-1.3	7.2	6.9	15.2	8.8	17.5	22.2	-18.4	18.5	16.3		
Artisan Partners	621,624,048	5.3	-4.5	-0.6	3.2	11.9	10.5	15.4	23.6	-30.1	14.1	40.6	11.0	Oct-12
MSCI ACWI Growth NR USD			-6.8	5.7	6.8	15.4	10.6	24.2	33.2	-28.6	17.1	33.6	11.3	
First Eagle	676,590,213	5.8	6.6	12.3	7.9	13.4	7.5	12.2	12.9	-6.3	12.1	7.7	7.9	Jan-11
MSCI ACWI Value NR USD			4.8	8.6	6.6	14.4	6.7	10.8	11.8	-7.5	19.6	-0.3	6.9	
Private Credit	1,142,430,079	9.8	-0.1	11.6	9.5	9.1	8.6	11.9	9.1	10.5	10.0	4.0		
Total High Yield	169,841,916	1.5	0.9	6.1	3.9	5.7	4.0	6.5	11.8	-10.9	4.9	4.7		
ICE BofA US High Yield Master II			0.9	7.6	4.8	7.2	4.9	8.2	13.5	-11.2	5.3	6.1		
Voya Global Investors	169,841,916	1.5	0.9	6.1	3.9	5.7	4.0	6.5	11.8	-10.9	4.9	4.7	6.1	May-00
ICE BofA US High Yield Master II			0.9	7.6	4.8	7.2	4.9	8.2	13.5	-11.2	5.3	6.1	6.6	
Total Real Estate	934,445,370	8.0	1.1	-2.2	-9.4	-2.6	2.1	-9.4	-10.7	-5.3	19.2	-6.0		
Real Estate Benchmark			1.1	-3.1	-9.5	-1.3	2.3	-10.6	-11.3	-4.5	19.3	0.6		
NCREIF-ODCE			1.1	2.0	-4.3	2.9	5.6	-1.4	-12.0	7.5	22.2	1.2		
NCREIF Property Index			1.3	2.7	-2.1	3.2	5.4	0.4	-7.9	5.5	17.7	1.6		
Total Core Real Estate	233,247,223	2.0	1.0	9.1	-1.7	10.8	5.3	7.5	12.4	-25.1	47.5	-5.2		
Adelante	108,853,081	0.9	0.9	10.3	-0.7	11.5	5.7	10.0	16.5	-27.2	47.5	-5.2	9.3	Oct-01
Wilshire U.S. REIT Index			1.0	10.2	-0.8	11.2	5.3	9.1	16.2	-26.8	46.2	-7.9	9.1	
Invesco US Fundamental Beta	124,394,142	1.1	1.0	8.1	-2.4	-	-	5.4	9.2	-	-	-	-0.4	Mar-22
Wilshire U.S. REIT Index			1.0	10.2	-0.8	-	-	9.1	16.2	-	-	-	1.4	
Total Private Real Estate	701,198,147	6.0	1.1	-6.5	-12.0	-5.4	1.1	-15.4	-17.6	1.3	15.3	-6.1		
Private Equity	1,316,875,061	11.3	1.7	4.3	0.0	11.9	10.6	2.8	-1.0	-0.5	60.4	8.7		
Private Infrastructure	77,143,615	0.7	1.8	-	-	-	-	-	-	-	-	-		
Risk Parity	8,894,820	0.1	0.0	7.1	-1.7	3.7	-	10.3	4.7	-21.8	9.3	9.6		
60% MSCI ACWI Net/40% Blmbg. Global Aggregate			0.3	5.6	3.5	8.4	-	9.5	15.4	-17.3	8.8	14.0		
PanAgora Risk Parity Multi Asset	8,894,820	0.1	0.0	6.4	-4.4	2.3	-	9.1	2.4	-26.3	8.3	13.6	2.3	Mar-19
HFR Risk Parity Vol 10 Index			1.8	3.5	0.8	4.1	-	5.9	10.5	-18.3	6.8	3.6	3.1	

Individual closed end funds are not shown in performance summary table.

Total Fund
Performance Summary (Net of Fees)

Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025

	Market Value	% of Portfolio	3 Mo	1 Yr	3 Yrs	5 Yrs	10 Yrs	2024	2023	2022	2021	2020	Inception	Inception Date
Diversifying	967,773,945	8.3	1.2	-0.2	0.0	0.4	0.0	-0.3	2.2	-5.7	1.7	-1.7		
Custom Diversifying Benchmark			1.6	4.8	3.1	2.4	3.0	3.4	7.4	-5.7	1.6	4.7		
Diversifying Fixed Income	274,116,772	2.4	2.7	5.3	0.5	-0.6	0.6	2.3	5.2	-13.5	-1.0	1.2		
Blmbg. U.S. Aggregate Index			2.8	4.9	0.5	-0.4	1.5	1.3	5.5	-13.0	-1.5	7.5		
AFL-CIO	274,069,697	2.3	2.7	5.3	0.5	-0.6	1.3	2.3	5.2	-13.6	-1.0	6.2	4.9	Jul-91
Blmbg. U.S. Aggregate Index			2.8	4.9	0.5	-0.4	1.5	1.3	5.5	-13.0	-1.5	7.5	4.9	
Diversifying Multi-Asset	693,657,173	5.9	0.6	-2.3	-0.2	-	-	-1.3	0.9	-2.3	2.4	-		
Custom Diversifying Multi-Asset Benchmark			2.7	8.2	5.6	-	-	6.5	8.7	-3.1	4.1	-		
Sit LLCAR	476,427,195	4.1	2.7	6.8	3.9	-	-	5.8	6.5	-3.7	-	-	3.8	Apr-21
Blmbg. U.S. Aggregate +1%			3.0	5.9	1.5	-	-	2.3	6.6	-12.1	-	-	0.3	
BH-DG Systematic	217,229,978	1.9	-3.7	-	-	-	-	-	-	-	-	-	-16.8	Apr-24
SG Trend Index			-2.5	-10.8	-	-	-	-	-	-	-	-	-11.9	
Liquidity	1,591,316,247	13.6	1.8	6.0	3.7	2.3	-	5.0	5.4	-3.5	-0.3	3.4		
Custom Liquidity Benchmark			1.7	5.5	3.1	1.5	-	4.2	4.6	-3.7	-0.5	3.3		
DFA Short Credit	362,961,532	3.1	1.3	5.6	3.5	1.9	-	5.7	5.3	-5.4	-0.5	2.8	2.0	Dec-16
ICE BofA 1-5 Year U.S. Corp/Govt			2.0	5.8	2.9	1.3	-	3.9	4.9	-5.5	-0.9	4.6	2.0	
Insight Short Duration	598,544,209	5.1	1.4	5.8	4.1	3.1	-	5.3	5.7	-1.2	0.0	3.1	2.6	Dec-16
Bloomberg U.S. Gov/Credit 1-3 Year Index			1.6	5.6	3.1	1.6	-	4.4	4.6	-3.7	-0.5	3.3	1.9	
Sit Short Duration	629,810,506	5.4	2.5	6.5	3.3	1.5	-	4.3	5.2	-5.0	-0.5	4.4	2.2	Dec-16
Blmbg. 1-3 Year Govt Index			1.6	5.4	2.9	1.2	-	4.0	4.3	-3.8	-0.6	3.1	1.7	
Total Cash	550,929,674	4.7	1.2	5.4	4.8	3.1	2.3	5.6	5.5	2.4	0.4	1.3		
90 Day U.S. Treasury Bill			1.0	5.0	4.2	2.6	1.9	5.3	5.0	1.5	0.0	0.7		
Cash	550,929,673	4.7	1.2	5.4	5.0	3.2	2.4	5.6	6.1	2.2	0.4	1.3		
Northern Trust Transition	1	0.0	-1.5	4.7	-80.2	-57.1	-	7.8	-99.2	-4.8	-6.1	104.1		

Individual closed end funds are not shown in performance summary table. Effective 3/1/2019 the custodian of record switched from State Street to Northern Trust. Wellington Real Total Return was liquidated 4/30/2020. BH-DG Systematic funded on 4/19/2024. Acadian Multi-Asset Absolute Return Fund liquidated on 5/15/2024. \$47,075.25 in residual value is reflected in the Diversified Fixed Income composite.

Total Fund Closed End Funds - Investment Summary

Contra Costa County Employees' Retirement Association Period Ending: March 31, 2025

StepStone Group Analysis (*)												
Closing Date	Manager Name/Fund Name	Estimated Market Value as of 3/31/2025 ¹	Total Commitment	Total % Called	Contributed Capital	Current Qtr. Change in Contributed Capital	Current Qtr. Change in Distributed Capital	Total Distributions	Remaining Commitment	Distrib./ Paid-In (DPI) ²	Tot. Value/ Paid-In (TVPI) ³	Latest Valuation
Private Equity, Venture Capital and Infrastructure												
2/11/2004	Adams Street 2007 Direct Fund	\$280,820	\$4,000,000	97%	\$3,896,000	\$0	\$0	\$9,437,169	\$104,000	2.42	2.49	12/31/2024
2/11/2004	Adams Street 2009 Direct Fund	\$908,038	\$5,000,000	98%	\$4,901,000	\$0	\$187,217	\$8,987,950	\$99,000	1.83	2.02	12/31/2024
2/11/2004	Adams Street 2012 Global Fund	\$26,015,427	\$40,000,000	93%	\$37,155,172	\$0	\$1,253,622	\$51,790,887	\$2,844,828	1.39	2.09	12/31/2024
2/11/2004	Adams Street 2014 Global Fund	\$48,267,775	\$50,000,000	92%	\$46,193,610	\$0	\$1,677,818	\$53,937,767	\$3,806,390	1.17	2.21	12/31/2024
1/15/2009	Adams Street Partners II	\$3,179,205	\$30,000,000	95%	\$28,365,000	\$0	\$0	\$45,661,555	\$1,635,000	1.61	1.72	12/31/2024
9/21/2012	Adams Street Partners - Fund 5	\$8,334,093	\$40,000,000	77%	\$30,845,875	\$0	\$0	\$33,808,389	\$9,154,125	1.10	1.37	12/31/2024
2/11/2004	Adams Street Partnership Fund - 2004 Non-U.S. Fund	\$0	\$3,750,000	95%	\$3,574,125	\$0	\$0	\$4,905,442	\$175,875	1.37	1.37	12/31/2024
2/11/2004	Adams Street Partnership Fund - 2004 U.S. Fund	\$75,276	\$11,250,000	95%	\$10,687,500	\$0	\$0	\$16,786,638	\$562,500	1.57	1.58	12/31/2024
2/11/2004	Adams Street Partnership Fund - 2005 Non-U.S. Fund	\$17,690	\$4,500,000	95%	\$4,277,250	\$0	\$0	\$5,759,701	\$222,750	1.35	1.35	12/31/2024
2/11/2004	Adams Street Partnership Fund - 2005 U.S. Fund	\$139,532	\$10,500,000	95%	\$9,969,750	\$0	\$0	\$15,815,927	\$530,250	1.59	1.60	12/31/2024
2/11/2004	Adams Street Partnership Fund - 2007 Non-U.S. Fund	\$81,490	\$14,000,000	95%	\$13,307,000	\$0	\$0	\$21,643,375	\$693,000	1.63	1.63	12/31/2024
2/11/2004	Adams Street Partnership Fund - 2007 U.S. Fund	\$432,510	\$22,000,000	95%	\$20,977,000	\$0	\$0	\$42,068,438	\$1,023,000	2.01	2.03	12/31/2024
2/11/2004	Adams Street Partnership Fund - 2009 Non-U.S. Developed Markets Fund	\$3,387,708	\$15,000,000	89%	\$13,342,500	\$0	\$0	\$22,467,838	\$1,657,500	1.68	1.94	12/31/2024
2/11/2004	Adams Street Partnership Fund - 2009 Non-U.S. Emerging Markets Fund	\$2,215,269	\$5,000,000	92%	\$4,592,500	\$0	\$108,294	\$6,149,868	\$407,500	1.34	1.82	12/31/2024
2/11/2004	Adams Street Partnership Fund - 2009 U.S. Fund	\$8,879,331	\$25,000,000	92%	\$22,950,000	\$0	\$0	\$45,554,121	\$2,050,000	1.98	2.37	12/31/2024
3/31/2016	Adams Street Venture Innovation	\$144,237,972	\$75,000,000	92%	\$69,280,251	\$0	\$0	\$47,882,482	\$5,719,749	0.89	2.77	12/31/2024
5/18/2018	AE Industrial Partners Fund II, LP	\$43,712,692	\$35,000,000	110%	\$38,562,875	\$0	\$801,708	\$28,798,439	\$5,934,894	0.75	1.88	12/31/2024
11/27/2013	Aether Real Assets III	\$13,298,573	\$25,000,000	108%	\$26,900,459	\$124,006	\$1,278,363	\$10,243,613	\$712,944	0.38	0.36	12/31/2024
11/30/2013	Aether Real Assets III Surplus	\$33,277,862	\$50,000,000	107%	\$53,733,028	\$182,517	\$400,924	\$16,180,833	\$308,464	0.30	0.31	12/31/2024
1/30/2016	Aether Real Assets IV	\$46,125,926	\$50,000,000	103%	\$51,661,818	\$0	\$0	\$14,109,837	\$5,475,801	0.27	1.17	9/30/2024
6/30/2024	Altaris Health Partners VI, L.P.	\$0	\$50,000,000	0%	\$0	\$0	\$0	\$0	\$50,000,000	N/A	N/A	N/A
6/30/2024	Arbor Investments VI, L.P.	\$0	\$50,000,000	0%	\$0	\$0	\$0	\$0	\$50,000,000	N/A	N/A	N/A
6/29/2009	Bay Area Equity Fund II4	\$18,672,728	\$10,000,000	100%	\$10,000,000	\$0	\$0	\$5,011,170	\$0	0.50	2.37	12/31/2024
12/17/2024	BlackFin Financial Services Fund IV	\$4,769,024	\$53,933,343	10%	\$5,252,802	\$0	\$0	\$0	\$48,680,541	N/A	N/A	12/31/2024
1/18/1996	Brinson 1998 Primary,Secondary Int	-\$19,608	\$7,269,204	99%	\$7,229,851	\$0	\$19,608	\$11,169,279	\$39,353	1.54	1.54	12/31/2024
1/18/1996	Brinson 1999 Primary	\$0	\$6,665,276	96%	\$6,387,427	\$0	\$53,328	\$8,308,934	\$0	1.30	1.30	3/27/2025
1/18/1996	Brinson 2000 Primary	\$24,604	\$5,304,515	95%	\$5,044,010	\$0	\$0	\$7,787,951	\$260,505	1.54	1.55	12/31/2024
1/18/1996	Brinson 2001 Primary	\$58,688	\$5,946,438	96%	\$5,690,829	\$0	\$0	\$9,112,676	\$255,609	1.60	1.61	12/31/2024
1/18/1996	Brinson 2002 Primary	-\$48,908	\$6,778,776	97%	\$6,565,328	\$0	\$48,908	\$12,142,753	\$213,448	1.85	1.84	12/31/2024
1/18/1996	Brinson 2003 Primary	\$110,736	\$6,808,039	95%	\$6,456,626	\$0	\$0	\$11,045,056	\$351,413	1.71	1.73	12/31/2024
1/18/1996	Brinson Partnership Fund Trust - 2002 Secondary Fund	\$37,608	\$1,204,071	96%	\$1,153,197	\$0	\$0	\$2,176,033	\$50,874	1.89	1.92	12/31/2024
1/18/1996	Brinson Partnership Fund Trust - 2004 Primary Fund	-\$81,204	\$3,785,244	94%	\$3,573,896	\$0	\$81,204	\$6,522,350	\$211,348	1.82	1.80	12/31/2024
6/30/2013	Commonfund	\$29,483,467	\$50,000,000	96%	\$47,949,993	\$0	\$542,411	\$42,566,544	\$2,050,007	0.89	1.50	9/30/2024
12/11/2024	EPIC Fund III, SLP	\$4,441,811	\$53,862,718	10%	\$5,184,551	\$0	\$0	\$0	\$48,678,167	N/A	0.86	12/31/2024
3/31/2023	EQT X, L.P.	\$29,435,456	\$100,000,000	36%	\$35,845,246	\$17,107,458	\$0	\$2,471,665	\$66,483,136	0.07	0.89	12/31/2024
2/21/2019	Genstar Capital Partners IX, L.P.	\$70,710,275	\$50,000,000	101%	\$50,321,932	\$136,807	\$479,653	\$37,857,951	\$6,291,443	0.75	2.16	12/31/2024
4/1/2021	Genstar Capital Partners X, L.P.	\$44,306,453	\$42,500,000	99%	\$41,957,045	\$142,468	\$88,487	\$1,584,805	\$3,427,331	0.04	1.09	12/31/2024
6/30/2023	Genstar Capital Partners XI, L.P.	\$9,387,925	\$75,000,000	13%	\$9,502,993	\$3,285,833	\$591,509	\$867,914	\$66,324,187	0.09	1.08	12/31/2024
6/30/2023	Green Equity Investors IX	\$35,106,763	\$60,000,000	54%	\$32,514,068	\$9,765,719	\$0	\$843,456	\$28,329,388	0.03	1.11	12/31/2024
10/27/2020	GTCR Fund XIII, L.P.	\$47,257,579	\$50,000,000	82%	\$41,179,902	\$0	\$0	\$6,755,774	\$9,642,247	0.16	1.31	12/31/2024
6/30/2023	GTCR Fund XIV	\$12,813,139	\$100,000,000	10%	\$10,480,000	\$0	\$0	\$0	\$89,520,000	N/A	1.22	12/31/2024

* All Data provided by StepStone Group

¹ Latest valuation + capital calls - distributions

² (DPI) is equal to (capital returned / capital called)

³ (TVPI) is equal to (market value + capital returned) / capital called

⁴ Capital has been fully called and fund is in redemption.

Total Fund Closed End Funds - Investment Summary

Contra Costa County Employees' Retirement Association Period Ending: March 31, 2025

StepStone Group Analysis (*)													
Closing Date	Manager Name/Fund Name	Estimated Market Value as of 3/31/2025 ¹	Total Commitment	Total % Called	Contributed Capital	Current Qtr. Change in Contributed Capital	Current Qtr. Change in Distributed Capital	Total Distributions	Remaining Commitment	Distrib./ Paid-In (DPI) ²	Tot. Value/ Paid-In (TVPI) ³	Latest Valuation	
Private Equity, Venture Capital, and Infrastructure													
5/10/2021	Hellman & Friedman Capital Partners X, L.P.	\$65,841,893	\$75,000,000	86%	\$64,194,881	\$0	\$537,003	\$7,943,546	\$15,191,999	0.12	1.15	12/31/2024	
6/30/2024	Hellman & Friedman Capital Partners XI, L.P.	\$0	\$100,000,000	0%	\$0	\$0	\$0	\$0	\$100,000,000	N/A	N/A	N/A	
3/31/2023	Jade Equity Investors II, LP	\$6,117,832	\$15,000,000	37%	\$5,529,510	\$1,774,783	\$0	\$0	\$9,470,490	0.00	1.11	12/31/2024	
11/18/2009	Oaktree PIF 2009	\$291,317	\$40,000,000	87%	\$34,812,560	\$0	\$0	\$47,032,470	\$6,308,961	1.35	1.36	12/31/2024	
5/2/2013	Ocean Avenue Fund II	\$13,801,197	\$30,000,000	90%	\$27,000,000	\$0	\$0	\$50,123,249	\$3,000,000	1.86	2.37	12/31/2024	
4/15/2016	Ocean Avenue Fund III	\$51,675,142	\$50,000,000	93%	\$46,500,000	\$0	\$0	\$59,459,752	\$3,500,000	1.28	2.39	12/31/2024	
11/30/2007	Paladin III	\$4,319,310	\$25,000,000	140%	\$35,078,514	\$0	\$0	\$72,045,990	\$387,482	2.05	2.18	12/31/2024	
8/22/2011	Pathway 6	\$19,081,361	\$40,000,000	100%	\$40,126,267	\$348,013	\$1,571,806	\$63,468,050	\$3,425,343	1.58	2.06	9/30/2024	
7/10/2013	Pathway 7	\$46,672,587	\$70,000,000	100%	\$70,194,761	\$85,225	\$2,749,328	\$103,932,338	\$5,193,793	1.48	2.15	9/30/2024	
11/23/2015	Pathway 8	\$56,677,502	\$50,000,000	100%	\$49,766,105	\$134,027	\$1,991,474	\$54,322,655	\$3,050,496	1.09	2.23	9/30/2024	
1/19/1999	Pathway	\$1,266,177	\$125,000,000	102%	\$126,954,525	\$0	\$0	\$191,180,347	\$10,326,704	1.51	1.52	9/30/2024	
7/31/2009	Pathway 2008	\$8,574,260	\$30,000,000	101%	\$30,427,146	\$4,838	\$199,121	\$54,903,374	\$2,537,062	1.80	2.09	9/30/2024	
6/3/2014	Siguler Guff CCCERA Opportunities	\$66,889,532	\$200,000,000	88%	\$175,483,208	\$400,000	\$3,313,022	\$273,235,250	\$28,197,500	1.56	1.94	12/31/2024	
5/18/2018	Siris Partners IV, L.P.	\$38,542,560	\$35,000,000	113%	\$39,692,158	-\$12,685	\$0	\$13,831,958	\$4,090,498	0.35	1.32	12/31/2024	
6/30/2023	Symphony Technology Group VII	\$4,300,543	\$50,000,000	13%	\$6,622,969	\$554,570	\$0	\$0	\$43,377,031	0.00	0.65	12/31/2024	
5/27/2021	TA XIV-A, L.P.	\$48,861,185	\$50,000,000	100%	\$49,989,130	\$0	\$0	\$2,864,130	\$2,875,000	0.06	1.03	12/31/2024	
6/30/2023	TA XV-A, L.P.	\$9,752,501	\$90,000,000	12%	\$10,800,000	\$10,800,000	\$0	\$0	\$79,200,000	N/A	N/A	12/31/2024	
6/28/2019	TPG Healthcare Partners, L.P.	\$26,272,832	\$24,000,000	99%	\$23,770,861	\$0	\$0	\$6,695,016	\$2,980,876	0.28	1.39	12/31/2024	
3/31/2023	TPG Healthcare Partners II	\$27,642,785	\$60,000,000	42%	\$25,264,576	\$3,914,559	\$0	\$8,201	\$34,759,376	0.00	1.09	12/31/2024	
3/31/2023	TPG Partners IX	\$38,433,102	\$65,000,000	53%	\$34,329,853	\$0	\$0	\$26,805	\$30,671,303	0.00	1.12	12/31/2024	
9/17/2021	Trident IX, L.P.	\$42,729,075	\$50,000,000	76%	\$38,089,410	\$3,700,207	\$759,200	\$4,892,477	\$16,802,984	0.13	1.25	12/31/2024	
5/24/2019	Trident VIII, L.P.	\$49,798,645	\$40,000,000	99%	\$39,644,774	\$109,413	\$4,062,275	\$12,178,377	\$4,425,725	0.31	1.56	12/31/2024	
Total Private Equity and Venture Capital		\$1,316,875,061	\$2,618,057,623	69%	\$1,801,733,616	\$52,557,758	\$22,796,284	\$1,686,358,563	\$923,699,189	0.94	1.67		
% of Portfolio (Market Value)		11.3%											

* All Data provided by StepStone Group

¹Latest valuation + capital calls - distributions

²(DPI) is equal to (capital returned / capital called)

³(TVPI) is equal to (market value + capital returned) / capital called

⁴Capital has been fully called and fund is in redemption.

Total Fund Closed End Funds - Investment Summary

Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025

StepStone Group Analysis (*)													
Closing Date	Manager Name/Fund Name	Estimated Market Value as of 3/31/2025 ¹	Total Commitment	Total % Called	Contributed Capital	Current Qtr. Change in Contributed Capital	Current Qtr. Change in Distributed Capital	Total Distributions	Remaining Commitment	Distrib./ Paid-In (DPI) ²	Tot. Value/ Paid-In (TVPI) ³	Latest Valuation	
Infrastructure													
10/31/2024	Altor ACT I	\$1,381,917	\$70,260,150	2%	\$2,822,190	\$1,256,679	\$0	\$0	\$67,453,117	N/A	N/A	N/A	
7/15/2005	EIF US Power Fund II ⁴	\$47,129	\$50,000,000	130%	\$65,029,556	\$0		\$76,092,655	\$0	1.17	1.17	12/31/2024	
5/31/2007	EIF US Power Fund III ⁴	\$37,629	\$65,000,000	110%	\$71,409,097	\$0	\$3,087,071	\$96,164,958	\$0	1.35	1.35	12/31/2024	
11/28/2011	EIF US Power Fund IV	\$22,301,271	\$50,000,000	130%	\$64,917,547	\$0	\$0	\$50,721,848	\$4	0.78	1.12	12/31/2024	
11/28/2016	EIF US Power Fund V	\$21,053,389	\$50,000,000	143%	\$71,633,870	\$0	\$14,688,872	\$82,901,759	\$3,888,697	1.16	1.45	12/31/2024	
12/31/2023	EQT Infrastructure VI	\$31,749,238	\$125,000,000	29%	\$38,621,369	\$2,259,651	\$48,383	\$1,020,603	\$86,983,780	0.03	0.85	12/31/2024	
12/8/2015	Wastewater Opportunity Fund	\$573,042	\$25,000,000	126%	\$31,579,656	\$0	\$0	\$31,553,869	\$521,541	1.00	1.02	12/31/2024	
Total Infrastructure		\$77,143,615	\$435,260,150	79%	\$346,013,284	\$3,516,329	\$17,824,326	\$338,455,692	\$158,847,139	0.98	1.20		
% of Portfolio (Market Value)		0.7%											

* All Data provided by StepStone Group

¹ Latest valuation + capital calls - distributions

² (DPI) is equal to (capital returned / capital called)

³ (TVPI) is equal to (market value + capital returned) / capital called

⁴ Capital has been fully called and fund is in redemption.

Total Fund
Closed End Funds - IRR Summary

Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025

Private Equity & Venture Capital	Closing Date	Fund Level (G) ²	CCCERA (G)	Fund Level (N) ^{2,3}	CCCERA (N) ³	IRR Date
Adams Street Partners	2/11/2004	-	13.1%	-	11.1%	12/31/2024
Adams Street Partners II	12/31/2008	-	13.0%	-	10.2%	12/31/2024
Adams Street Partners - Fund 5	12/31/2008	-	8.8%	-	6.2%	12/31/2024
Adams Street Partners Venture	1/18/1996	-	25.9%	-	24.2%	12/31/2024
Adams Street Partners - BPF	3/31/2016	-	14.2%	-	11.6%	12/31/2024
AE Industrial Partners Fund II, LP	5/18/2018	24.2%	-	22.2%	-	12/31/2024
Aether Real Assets III ¹	11/27/2013	-0.3%	-	-1.9%	-	9/30/2024
Aether Real Assets III Surplus ¹	11/30/2013	0.7%	-	-0.4%	-	9/30/2024
Aether Real Assets IV ¹	1/30/2016	4.6%	-	3.1%	-	9/30/2024
Bay Area Equity Fund II ⁹	11/26/2003	11.7%	11.9%	8.2%	8.2%	12/31/2024
CommonFund ¹	6/30/2013	-	-	-	6.7%	12/31/2023
Energy Investor Fund II ⁹	7/15/2005	5.6%	5.3%	2.9%	2.6%	9/30/2024
Energy Investor Fund V	11/28/2016	18.8%	16.5%	15.8%	13.4%	9/30/2024
Genstar Capital Partners IX, L.P.	2/21/2019	-	-	30.9%	-	12/31/2024
Oaktree PIF 2009	2/28/2010	6.8%	-	6.5%	-	12/31/2024
Ocean Avenue II ¹	8/15/2013	-	-	17.9%	-	3/31/2024
Ocean Avenue III ¹	4/15/2016	-	-	23.2%	-	3/31/2024
Paladin III	11/30/2007	19.6%	-	-	-	12/31/2024
Pathway 6	8/22/2011	16.2%	16.2%	13.5%	13.5%	12/31/2024
Benchmark ¹		14.2%	-	-	-	3/31/2024
Pathway 7	7/10/2013	17.6%	17.6%	14.9%	14.9%	12/31/2024
Benchmark ¹		14.7%	-	-	-	3/31/2024
Pathway 8	11/23/2015	18.9%	18.9%	17.0%	17.0%	12/31/2024
Benchmark ¹		15.6%	-	-	-	3/31/2024
Pathway Private Equity Fund	1/19/1999	10.8%	10.8%	8.3%	8.3%	12/31/2024
Benchmark ¹		10.3%	-	-	-	3/31/2024
Pathway Private Equity Fund 2008	7/31/2009	16.8%	16.8%	13.7%	13.7%	12/31/2024
Benchmark ¹		13.2%	-	-	-	3/31/2024
Siguler Guff CCCERA Opportunities	6/3/2014	17.1%	17.9%	16.6%	15.4%	12/31/2024
Siguler Guff Secondary Opportunities ⁹	8/31/2013	55.3%	118.4%	49.5%	69.0%	9/30/2020
Siris Partners IV, L.P. ¹	5/18/2018	13.0%	-	9.0%	-	12/31/2024
TPG Healthcare Partners, L.P.	6/28/2019	-	-	-	11.0%	3/31/2025
Trident VIII, L.P. ¹	5/24/2019	14.0%	-	-	12.8%	12/31/2023
Wastewater Opportunity Fund ¹	12/8/2015	-	-	3.7%	-	9/30/2023

¹Manager has yet to report IRR figure.

²Fund level data includes CCCERA and all other fund investors.

³Net IRR calculated after deductions of management fees and carried interest to the General Partner.

⁴Private iQ global all private equity median pooled return for vintage years 2011-2014, as of September 30, 2022.

⁵Private iQ global all private equity median pooled return for vintage years 2012-2016, as of September 30, 2022.

⁶Private iQ global all private equity median pooled return for vintage years 2015-2018, as of September 30, 2022.

⁷Private iQ global all private equity median pooled return for vintage years 1999-2011, as of September 30, 2022.

⁸Private iQ global all private equity median pooled return for vintage years 2008-2014, as of September 30, 2022.

⁹Capital has been fully called and fund is in redemption.

Total Fund Closed End Funds - Investment Summary

Contra Costa County Employees' Retirement Association Period Ending: March 31, 2025

StepStone Group Analysis (*)												
Closing Date	Manager Name/Fund Name	Estimated Market Value as of 3/31/2025 ¹	Total Commitment	% Called	Contributed Capital	Current Qtr. Change in Contributed Capital	Current Qtr. Change in Distributed Capital	Total Distributions	Remaining Commitment	Distrib./ Paid-In (DPI) ²	Tot. Value/ Paid-In (TVPI) ³	Latest Valuation
Private Credit												
8/31/2015	Angelo Gordon Energy Credit Opp. ⁴	\$255,938	\$16,500,000	114%	\$18,750,000	\$0	\$0	\$22,874,616	\$2,319,783	1.22	1.23	12/31/2024
12/18/2017	StepStone CC Opportunities Fund, LLC - Series A	\$251,560,648	\$320,000,000	113%	\$362,809,971	\$13,188,463	\$58,806	\$190,250,940	-\$12,733,833	0.52	1.22	9/30/2024
12/18/2017	StepStone CC Opportunities Fund, LLC - Series B	\$356,844,209	\$350,000,000	60%	\$208,459,858	-\$44,993,328	\$10,538,734	\$30,556,466	\$161,540,142	0.15	1.86	9/30/2024
12/18/2017	StepStone CC Opportunities Fund, LLC - Series C	\$196,070,016	\$200,000,000	91%	\$182,349,797	\$0	\$0	\$92,000,716	\$77,150,203	0.50	1.58	9/30/2024
12/18/2017	StepStone CC Opportunities Fund, LLC - Series D	\$223,429,935	\$200,000,000	74%	\$147,793,242	\$0	\$0	\$5,768	\$52,206,758	0.00	1.51	9/30/2024
12/18/2017	StepStone CC Opportunities Fund, LLC - Series E	\$106,350,204	\$150,000,000	55%	\$82,689,286	\$0	\$0	\$920,000	\$67,310,714	0.01	1.30	9/30/2024
8/1/2012	Torchlight IV	\$716,515	\$60,000,000	141%	\$84,866,971	\$0	\$1,790,769	\$111,380,134	\$0	1.31	1.32	12/31/2024
3/12/2015	Torchlight V	\$7,202,614	\$75,000,000	80%	\$60,000,000	\$0	\$0	\$71,460,214	\$15,000,000	1.19	1.31	12/31/2024
Total Private Credit		\$1,142,430,079	\$1,371,500,000	84%	\$1,147,719,124	-\$31,804,865	\$12,388,309	\$519,448,854	\$362,793,768	0.45	1.45	
% of Portfolio (Market Value)		9.8%										

*All Data provided by StepStone Group

¹Latest valuation + capital calls - distributions

²(DPI) is equal to (capital returned / capital called)

³(TVPI) is equal to (market value + capital returned) / capital called

⁴Capital has been fully called and fund is in redemption.

Total Fund Closed End Funds - Investment Summary

Contra Costa County Employees' Retirement Association Period Ending: March 31, 2025

			Verus Internal Analysis									
Inception Date	Manager Name/Fund Name	Estimated Market Value as of 3/31/2025 ¹	Total Commitment	Total % Called	Capital Called	Current Qtr. Capital Called	Current Qtr. Distributions	Total Distributions ⁸	Remaining Commitment	Distrib./ Paid-In (DPI) ²	Tot. Value/ Paid-In (TVPI) ³	Latest Valuation
Real Estate												
1/23/2012	Angelo Gordon Realty Fund VIII ⁴	\$7,665,539	\$80,000,000	94%	\$75,401,855	\$0	\$0	\$101,711,550	\$12,334,302	1.35	1.45	12/31/2024
12/8/2014	Angelo Gordon Realty Fund IX	\$14,055,050	\$65,000,000	93%	\$60,125,000	\$0	\$0	\$59,312,501	\$7,572,500	0.99	1.22	12/31/2024
10/10/2024	Ares US Real Estate Opportunity Fund IV	\$8,853,854	\$60,000,000	17%	\$9,974,998	\$4,011,684	\$0	\$0	\$50,025,002	N/A	0.89	12/31/2024
3/24/2023	BlackStone Strategic Partners Real Estate VIII	\$33,351,232	\$80,000,000	35%	\$27,959,140	\$2,027,036	\$0	\$0	\$52,040,860	N/A	1.19	12/31/2024
3/24/2023	Blackstone Real Estate Partners X	\$40,297,259	\$100,000,000	39%	\$38,833,726	\$8,714,172	\$704,715	\$2,733,268	\$61,166,274	0.07	1.11	12/31/2024
12/14/2023	Cross Lake RE IV	\$6,600,970	\$60,000,000	11%	\$6,844,614	\$3,585,040	\$0	\$0	\$53,155,386	N/A	0.96	12/31/2024
6/23/2005	DLJ RECP III	\$7,872,567	\$75,000,000	95%	\$70,968,662	\$54,257	\$0	\$77,985,055	\$4,031,338	1.10	1.21	12/31/2024
2/11/2008	DLJ RECP IV	\$29,329,571	\$100,000,000	119%	\$119,160,714	\$167,835	\$0	\$99,841,735	\$1,876,084	0.84	1.08	12/31/2024
7/1/2014	DLJ RECP V	\$6,089,235	\$75,000,000	147%	\$110,516,094	\$1,056,796	\$0	\$100,933,448	\$1,098,711	0.91	0.97	12/31/2024
3/19/2019	DLJ RECP VI	\$16,313,398	\$50,000,000	109%	\$54,564,258	\$7,421,409	\$0	\$11,369,099	\$0	0.21	0.51	12/31/2024
12/14/2023	EQT Exeter Industrial Value Fund VI	\$25,250,324	\$60,000,000	40%	\$24,000,000	\$0	\$0	\$0	\$36,000,000	N/A	1.05	12/31/2024
N/A	EQT Multifamily Value II	\$0	\$40,000,000	0%	\$0	\$0	\$0	\$0	\$40,000,000	N/A	N/A	N/A
6/30/2014	Invesco Real Estate IV ⁴	\$97,762	\$35,000,000	87%	\$30,546,401	\$0	\$0	\$39,986,504	\$4,453,599	1.31	1.31	12/31/2024
2/20/2019	Invesco Real Estate V	\$58,157,036	\$75,000,000	97%	\$73,118,800	\$0	\$0	\$9,319,462	\$6,581,101	0.13	0.92	3/31/2025
9/27/2022	Invesco Real Estate VI	\$53,992,032	\$100,000,000	63%	\$62,762,079	\$1,037,382	\$0	\$2,230,131	\$37,237,921	0.04	0.90	12/31/2024
9/27/2024	Jadian Real Estate II	\$7,106,454	\$60,000,000	12%	\$7,106,454	\$0	\$0	\$0	\$52,893,546	N/A	1.00	12/31/2024
11/10/2023	KSL Capital Partners VI, L.P.	\$14,125,338	\$50,000,000	38%	\$19,193,872	\$642,289	\$0	\$0	\$30,806,128	N/A	0.74	12/31/2024
7/16/2013	LaSalle Income & Growth VI ⁴	\$8,220,685	\$75,000,000	95%	\$71,428,571	\$0	\$0	\$84,541,423	\$0	1.18	1.30	12/31/2024
2/28/2017	LaSalle Income & Growth VII	\$18,802,432	\$75,000,000	114%	\$85,708,742	\$0	\$0	\$62,880,996	\$2,845,685	0.73	0.95	12/31/2024
9/30/2016	Long Wharf Fund V ⁴	\$22,464,695	\$50,000,000	100%	\$50,000,000	\$0	\$0	\$37,701,359	\$0	0.75	1.20	3/31/2025
6/27/2019	Long Wharf Fund VI	\$32,951,932	\$50,000,000	100%	\$49,999,998	\$0	\$0	\$28,543,110	\$2	0.57	1.23	3/31/2025
5/30/2023	Long Wharf Fund VII	\$22,590,751	\$50,000,000	64%	\$32,165,594	\$1,351,510	\$6,195,534	\$8,081,415	\$17,834,406	0.25	0.95	3/31/2025
12/31/2011	Oaktree REOF V ⁴	\$54,372	\$50,000,000	101%	\$50,315,673	\$0	\$0	\$79,059,424	\$5,000,000	1.57	1.57	3/31/2025
9/30/2013	Oaktree REOF VI ⁴	\$13,058,207	\$80,000,000	100%	\$80,000,000	\$0	\$0	\$85,610,175	\$18,400,000	1.07	1.23	3/31/2025
4/1/2015	Oaktree REOF VII	\$36,812,048	\$65,000,000	100%	\$65,000,000	\$0	\$0	\$47,054,688	\$18,915,000	0.72	1.29	3/31/2025
11/10/2013	Paulson Real Estate Fund II ⁴	\$13,916,653	\$20,000,000	97%	\$19,345,623	\$0	\$0	\$26,634,691	\$654,377	1.38	2.10	12/31/2024
4/28/2022	PCCP IX	\$78,330,665	\$75,000,000	92%	\$68,801,564	\$1,875,000	\$0	\$0	\$6,198,436	N/A	1.14	12/31/2024
3/1/2025	Rialto Credit Opportunities Fund	\$74,795,719	\$75,000,000		\$75,000,000	\$75,000,000	\$0	\$0	\$0	N/A	1.00	3/31/2025
1/25/2012	Siguler Guff DREOF	\$8,910,745	\$75,000,000	93%	\$69,375,000	\$0	\$6,208	\$103,777,319	\$5,625,000	1.50	1.62	9/30/2024
8/31/2013	Siguler Guff DREOF II	\$9,286,094	\$70,000,000	89%	\$61,985,000	\$0	\$14,497,240	\$84,686,266	\$8,015,000	1.37	1.52	9/30/2024
1/27/2016	Siguler Guff DREOF II Co-Inv	\$10,663,716	\$25,000,000	85%	\$21,277,862	\$0	\$0	\$14,336,421	\$3,722,138	0.67	1.17	9/30/2024
6/26/2024	Stockbridge Value Fund I	\$21,181,811	\$60,000,000	38%	\$22,992,948	\$8,547,250	\$37,635	\$294,189	\$37,007,052	0.01	0.93	12/31/2024
Total Closed End Real Estate		\$701,198,147	\$2,020,000,000	78%	\$1,567,480,295	\$115,491,660	\$21,441,332	\$1,168,624,230	\$535,489,848	0.75	1.19	
% of Portfolio (Market Value)		6.0%										

¹Latest valuation + capital calls - distributions

²(DPI) is equal to (capital returned / capital called)

³(TVPI) is equal to (market value + capital returned) / capital called

⁴Capital has been fully called and fund is in redemption.

⁵Total distributions may include recallable distributions

⁶Remianing commitment includes recallable distributions

Total Fund
Closed End Funds - IRR Summary

Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025

Private Credit	Inception	Fund Level (G) ²	CCCERA (G)	Fund Level (N) ^{2,3}	CCCERA (N) ³	IRR Date
Angelo Gordon Energy Cred Opp. ⁴	9/24/2015	-	-	-	7.7%	12/31/2024
Stepstone CC Opportunities Fund ¹	2/2/2018	-	9.9%	-	9.3%	12/31/2024
Torchlight IV	8/1/2012	10.8%	11.4%	8.6%	9.6%	12/31/2024
Torchlight V	3/12/2015	13.5%	13.5%	9.8%	9.8%	12/31/2024
Real Estate	Inception	Fund Level (G) ²	CCCERA (G)	Fund Level (N) ^{2,3}	CCCERA (N) ³	IRR Date
Angelo Gordon VIII ⁴	1/23/2012	-	-	-	11.6%	12/31/2024
Angelo Gordon IX	12/8/2014	-	-	-	4.8%	12/31/2024
Ares US RE Opportunities IV ¹	10/10/2024	-	-	-	-	N/A
Blackstone Real Estate Partners X ¹	3/24/2023	-	-	-	-	N/A
BlackStone Strategic Partners Real Estate VIII ¹	3/25/2022	-	-	-	-	N/A
Cross Lake RE IV ¹	12/14/2023	-	-	-	-	N/A
DLJ RECP III	6/23/2005	-1.0%	-1.0%	-3.0%	-3.0%	9/30/2023
DLJ RECP IV	2/11/2008	4.0%	4.0%	1.0%	2.0%	9/30/2023
DLJ RECP V	7/1/2014	11.0%	11.0%	5.0%	5.0%	9/30/2023
DLJ RECP VI	3/19/2019	11.0%	11.0%	2.0%	3.0%	9/30/2023
EQT Exeter Industrial Value Fund VI ¹	12/14/2023	19.2%	-	-	-	12/31/2024
EQT Industrial Value VI ¹	12/31/2023	-	-	-	-	N/A
EQT Multifamily Value II ¹	N/A	-	-	-	-	N/A
Invesco Fund IV ⁴	6/30/2014	12.6%	-	10.1%	-	6/30/2024
Invesco Fund V	2/20/2019	0.8%	-	-2.3%	-	12/31/2024
Invesco Fund VI	9/27/2022	-	-	-	-	N/A
Jadian Real Estate Fund II ¹	9/27/2024	-	-	-	-	N/A
KSL Capital Partners VI ¹	11/10/2023	-	-	-	-	N/A
LaSalle Income & Growth VI ⁴	7/16/2013	9.6%	9.6%	7.5%	7.6%	12/31/2024
LaSalle Income & Growth VII	2/28/2017	0.8%	0.6%	-1.3%	-1.5%	12/31/2024
Long Wharf V ⁴	9/30/2016	7.3%	7.0%	4.5%	4.4%	3/31/2025
Long Wharf VI	6/27/2019	19.1%	18.4%	11.5%	11.2%	3/31/2025
Long Wharf VII	5/1/2023	6.5%	8.0%	-2.6%	-3.2%	3/31/2025
Oaktree REOF V ⁴	12/31/2011	16.6%	-	12.2%	-	3/31/2025
Oaktree REOF VI ⁴	9/30/2013	9.7%	-	5.7%	-	3/31/2025
Oaktree REOF VII	4/1/2015	12.6%	-	8.1%	-	3/31/2025
Paulson ⁴	11/10/2013	-	-	12.0%	-	12/31/2023
PCCP IX	5/27/2021	11.0%	-	8.5%	-	9/30/2024
Rialto Credit Opportunities Fund	3/1/2025	-	-	-	-	N/A
Siguler Guff I	1/25/2012	-	14.8%	-	11.6%	12/31/2024
Siguler Guff II	8/31/2013	-	8.2%	-	6.6%	12/31/2024
Siguler Guff DREOF II Co-Inv	1/27/2016	-	4.6%	-	3.2%	12/31/2024
Stockbridge Value Fund I ¹	6/26/2024	-	-	-	-	N/A

¹Manager has yet to report IRR figure.

²Fund level data includes CCCERA and all other fund investors.

³Net IRR calculated after deductions of management fees and carried interest to the General Partner.

⁴Capital has been fully called and fund is in redemption.

Total Fund
Risk Analysis - 3 Years (Net of Fees)

Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025

3 Years

	Anlzd Return	Anlzd Excess Performance	Anlzd Standard Deviation	Anlzd Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Information Ratio	Up Capture	Down Capture
BlackRock Russell 1000 Index	8.64	-0.01	17.36	-0.01	1.00	0.02	1.00	0.33	-0.58	99.98	100.02
Boston Partners	8.18	1.54	16.61	1.63	0.97	3.12	0.97	0.31	0.45	98.70	91.62
Emerald Advisers	1.73	0.95	22.76	0.95	0.95	4.63	0.96	0.01	0.16	96.52	93.79
Ceredex	4.49	4.45	20.77	4.24	0.85	6.23	0.94	0.11	0.60	93.85	82.26
Pyrford	6.29	-0.95	13.90	0.04	0.86	4.83	0.90	0.21	-0.23	91.65	94.05
William Blair	0.27	-1.49	17.42	-1.33	0.97	4.93	0.92	-0.14	-0.29	97.14	103.11
PIMCO RAE Emerging Markets	8.38	5.61	16.29	5.81	0.94	6.51	0.84	0.32	0.83	108.45	81.99
TT Emerging Markets	0.61	-0.83	18.43	-0.61	0.99	6.54	0.87	-0.10	-0.10	94.11	96.26
Artisan Partners	3.17	-3.66	18.62	-3.02	0.94	5.31	0.92	0.04	-0.67	86.22	96.41
First Eagle	7.93	1.34	12.89	2.32	0.82	4.44	0.92	0.34	0.21	84.08	72.72
Voya Global Investors	3.86	-0.98	8.22	-0.86	0.98	1.19	0.98	0.00	-0.79	93.17	100.24
Adelante	-0.75	0.07	19.81	-0.03	0.96	1.52	1.00	-0.15	-0.06	95.89	96.00
PanAgora Risk Parity Multi Asset	-4.37	-5.17	14.60	-4.97	1.15	5.81	0.86	-0.52	-0.84	93.37	121.44
Sit LLCAR	3.90	3.38	5.38	3.57	0.57	4.52	0.65	-0.03	0.70	74.41	42.17
AFL-CIO	0.50	-0.02	7.24	0.00	0.95	0.91	0.99	-0.48	-0.05	95.54	95.60
DFA Short Credit	3.49	0.64	2.28	1.83	0.57	1.93	0.62	-0.33	0.31	76.30	38.30
Insight Short Duration	4.11	1.02	1.75	2.40	0.55	1.62	0.47	-0.06	0.60	80.44	3.27
Sit Short Duration	3.32	0.47	3.70	-1.01	1.53	1.98	0.81	-0.22	0.25	141.18	173.64

Performance Analysis excludes closed end funds and those funds without 3 years of performance.

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

Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025

5 Years

	Anlzd Return	Anlzd Excess Performance	Standard Deviation	Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Information Ratio	Up Capture	Down Capture
BlackRock Russell 1000 Index	18.45	-0.01	17.12	-0.01	1.00	0.02	1.00	0.93	-0.74	99.97	100.02
Boston Partners	19.18	3.03	16.54	2.73	1.00	3.19	0.96	0.99	0.83	101.78	87.26
Emerald Advisers	12.51	1.74	22.43	2.21	0.94	5.31	0.95	0.53	0.26	99.44	93.83
Ceredex	15.75	0.44	19.06	2.82	0.82	6.84	0.92	0.73	-0.04	87.33	79.67
Pyrford	10.27	-3.35	13.48	-0.75	0.82	5.42	0.88	0.61	-0.61	85.41	94.09
William Blair	9.09	0.98	17.77	0.78	1.04	5.23	0.92	0.44	0.22	107.38	104.67
PIMCO RAE Emerging Markets	16.74	6.93	16.51	6.72	0.98	6.26	0.86	0.87	1.01	113.30	80.95
TT Emerging Markets	7.90	-0.04	19.15	-0.38	1.09	6.66	0.88	0.36	0.06	109.10	111.41
Artisan Partners	11.88	-3.48	18.33	-2.30	0.95	5.38	0.92	0.57	-0.58	89.16	96.33
First Eagle	13.42	-1.00	12.38	1.85	0.79	4.78	0.92	0.88	-0.26	83.38	75.28
Voya Global Investors	5.73	-1.48	7.43	-1.15	0.96	1.33	0.97	0.45	-1.06	89.78	100.18
Adelante	11.50	0.33	18.62	0.63	0.96	1.43	1.00	0.54	0.13	98.08	96.21
PanAgora Risk Parity Multi Asset	2.31	-1.82	12.93	-2.24	1.18	4.91	0.88	0.05	-0.29	105.61	118.76
AFL-CIO	-0.60	-0.21	5.99	-0.24	0.93	1.05	0.97	-0.50	-0.22	89.86	92.72
DFA Short Credit	1.94	0.61	2.33	1.00	0.70	1.54	0.69	-0.26	0.38	85.48	59.75
Insight Short Duration	3.08	1.52	1.79	2.08	0.63	1.47	0.49	0.32	1.01	98.70	19.62
Sit Short Duration	1.48	0.33	3.14	-0.20	1.48	1.61	0.82	-0.34	0.22	148.49	159.37

Performance Analysis excludes closed end funds and those funds without 5 years of performance.

Total Fund Investment Fund Fee Analysis

Contra Costa County Employees' Retirement Association Period Ending: March 31, 2025

Name	Asset Class	Fee Schedule	Market Value	Estimated Fee Value	Expense Fee (%)
BlackRock Russell 1000 Index	Growth	0.03 % of Assets	\$1,235,567,497	\$370,670	0.03
Boston Partners	Growth	0.50 % of First \$25 M 0.30 % Thereafter	\$450,555,899	\$1,401,668	0.31
Emerald Advisers	Growth	0.75 % of First \$10 M 0.60 % Thereafter	\$215,061,549	\$1,305,369	0.61
Ceredex	Growth	0.85 % of First \$10 M 0.68 % of Next \$40 M 0.51 % Thereafter	\$198,526,762	\$1,114,486	0.56
Pyrford	Growth	0.70 % of First \$50 M 0.50 % of Next \$50 M 0.35 % Thereafter	\$462,501,955	\$1,868,757	0.40
William Blair	Growth	0.80 % of First \$20 M 0.60 % of Next \$30 M 0.50 % of Next \$50 M 0.45 % of Next \$50 M 0.40 % of Next \$50 M 0.30 % Thereafter	\$420,349,192	\$1,676,048	0.40
PIMCO RAE Emerging Markets	Growth	0.75 % of First \$50 M 0.68 % of Next \$50 M 0.50 % of Next \$100 M 0.45 % Thereafter	\$251,640,149	\$1,444,881	0.57
TT Emerging Markets	Growth	0.70 % of First \$100 M 0.65 % of Next \$100 M 0.60 % Thereafter	\$247,940,795	\$1,637,645	0.66
Artisan Partners	Growth	0.75 % of Assets	\$621,624,048	\$4,662,180	0.75
First Eagle	Growth	0.75 % of Assets	\$676,590,213	\$5,074,427	0.75
Voya Global Investors	Growth	0.50 % of First \$50 M 0.40 % of Next \$50 M 0.35 % Thereafter	\$169,841,916	\$694,447	0.41
Invesco US Fundamental Beta	Growth	0.15 % of Assets	\$124,394,142	\$186,591	0.15

Mutual fund fees shown are sourced from Morningstar and are as of the most current prospectus.

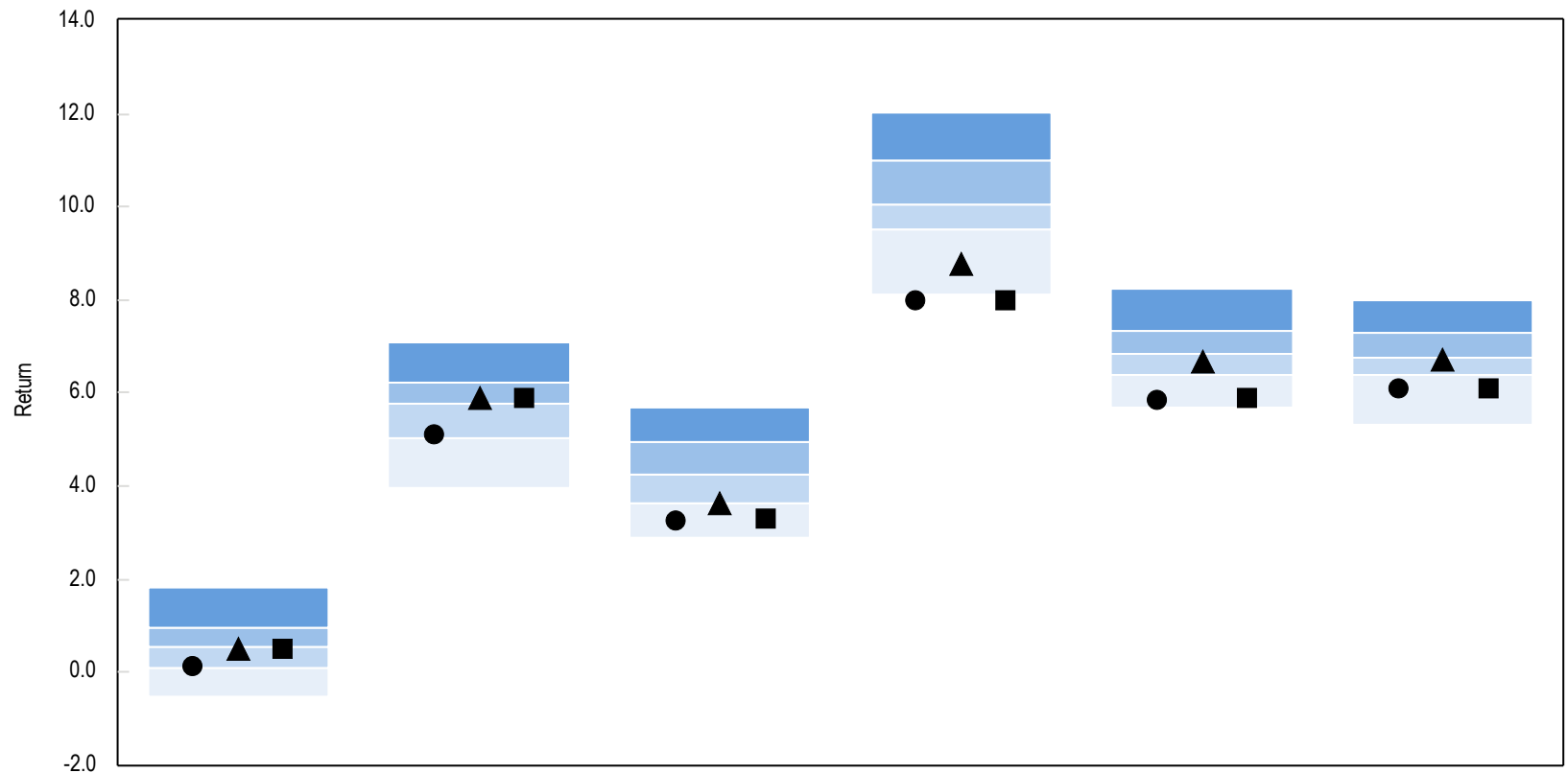
Total Fund Investment Fund Fee Analysis

Contra Costa County Employees' Retirement Association Period Ending: March 31, 2025

Name	Asset Class	Fee Schedule	Market Value	Estimated Fee Value	Expense Fee (%)
PanAgora Risk Parity Multi Asset	Growth	0.35 % of Assets	\$8,894,820	\$31,132	0.35
AFL-CIO	Diversifying	0.32 % of Assets	\$274,069,697	\$877,023	0.32
Sit LLCAR	Diversifying	0.39 % of First \$200 M 0.35 % Thereafter	\$476,427,195	\$1,810,423	0.38
DFA Short Credit	Liquidity	0.20 % of First \$25 M 0.10 % Thereafter	\$362,961,532	\$387,962	0.11
Insight Short Duration	Liquidity	0.06 % of First \$500 M 0.05 % of Next \$500 M 0.04 % Thereafter	\$598,544,209	\$349,272	0.06
Sit Short Duration	Liquidity	0.15 % of Assets	\$629,810,506	\$944,716	0.15

Mutual fund fees shown are sourced from Morningstar and are as of the most current prospectus.

Total Fund Cumulative Performance vs. InvMetrics Public DB >\$1B Gross

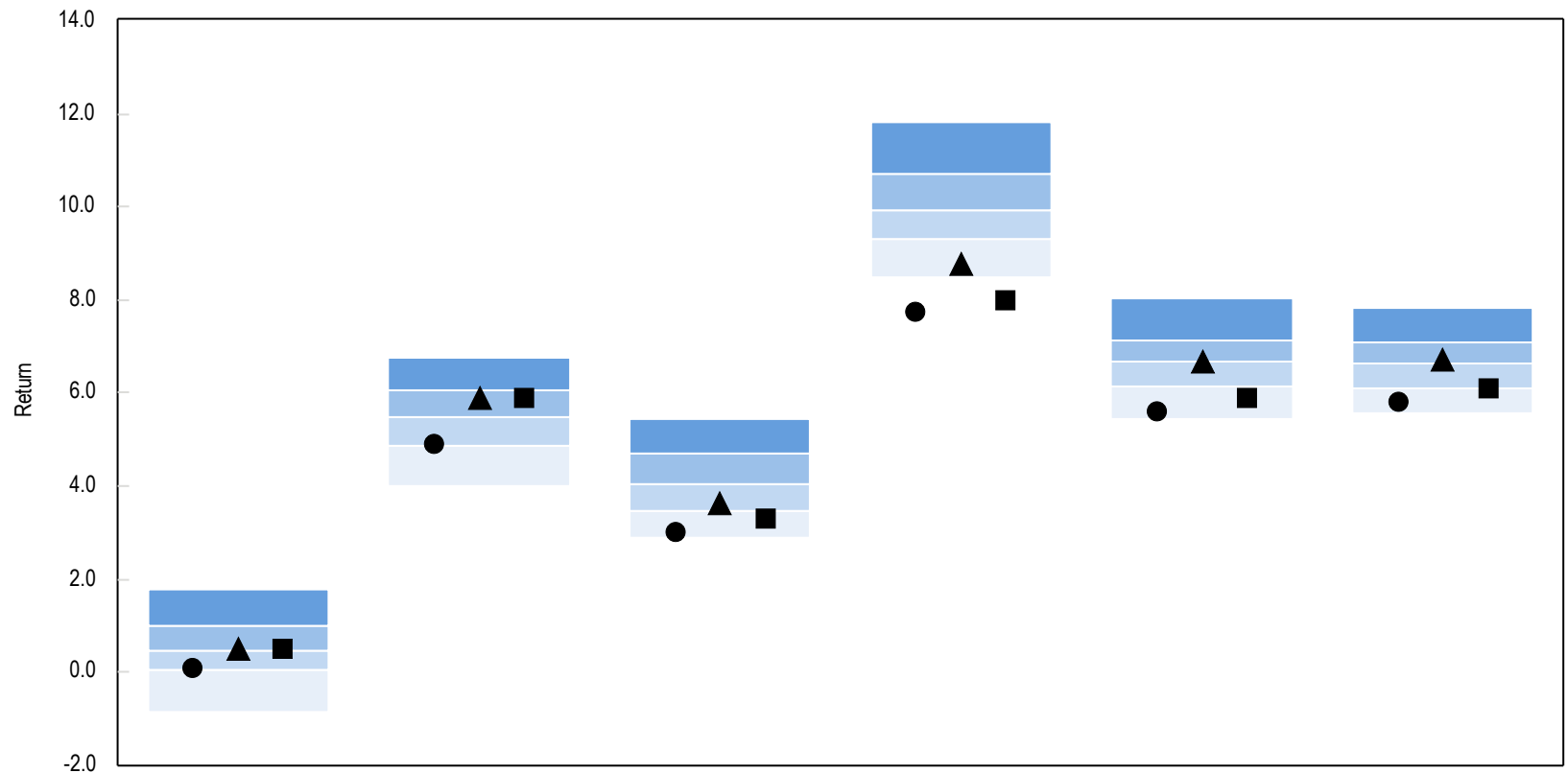


● Total Fund
 ▲ Policy Index
 ■ Implementation Benchmark

	3 Mo	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
Total Fund	0.15 (73)	5.11 (71)	3.25 (88)	7.99 (98)	5.87 (90)	6.12 (88)
Policy Index	0.50 (52)	5.89 (47)	3.63 (76)	8.79 (93)	6.69 (60)	6.74 (51)
Implementation Benchmark	0.50 (52)	5.89 (47)	3.29 (87)	8.00 (98)	5.91 (89)	6.12 (88)
5th Percentile	1.81	7.08	5.67	12.02	8.25	7.99
1st Quartile	0.98	6.21	4.97	10.99	7.35	7.30
Median	0.54	5.76	4.25	10.04	6.86	6.75
3rd Quartile	0.09	5.03	3.64	9.52	6.37	6.41
95th Percentile	-0.52	3.97	2.91	8.14	5.69	5.31
Population	81	81	79	76	74	74

Effective 1/01/2017, only traditional asset class (public equity, public fixed income, REITs) investment management fees will be included in the gross of fee return calculation.

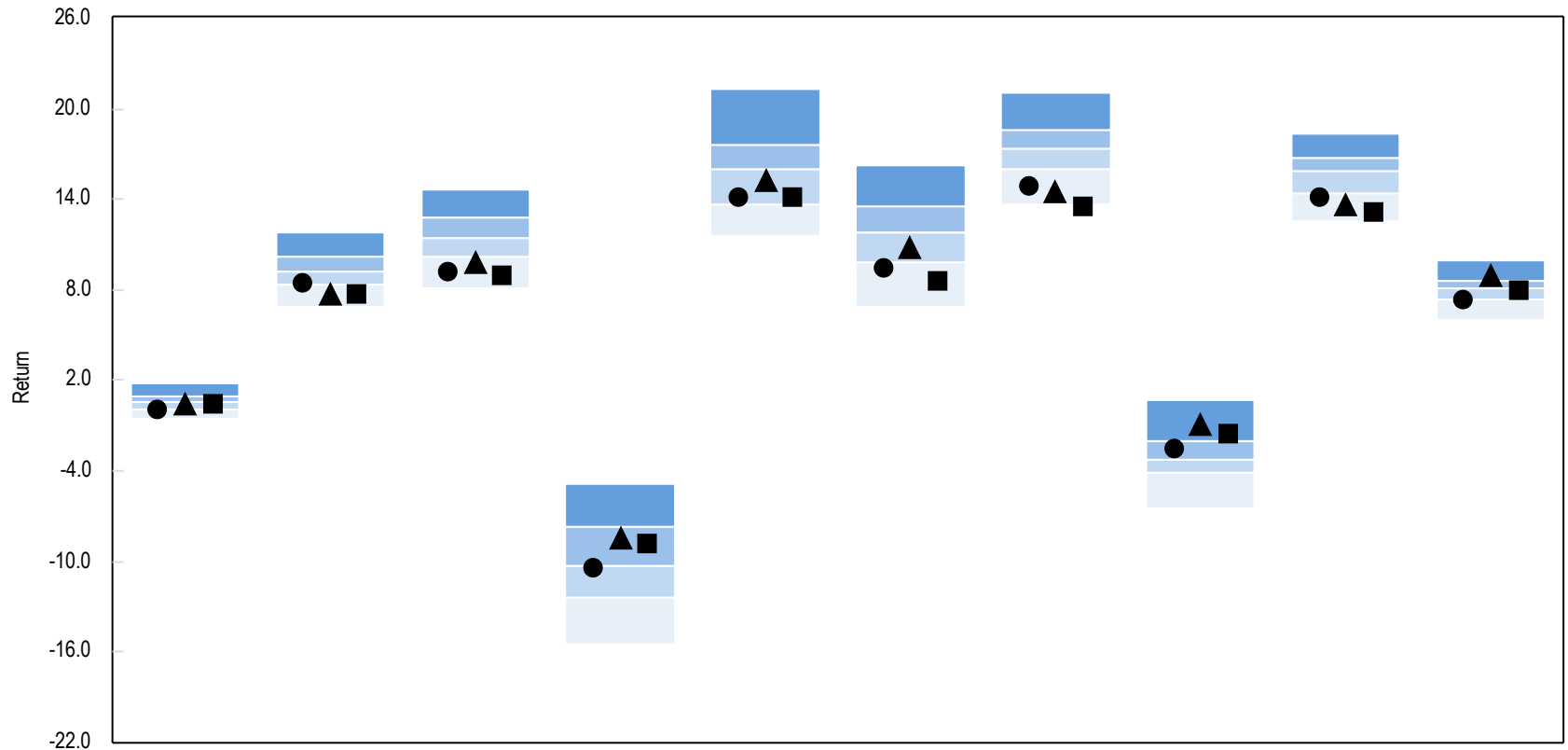
Total Fund Cumulative Performance vs. InvMetrics Public DB >\$1B Net



● Total Fund
 ▲ Policy Index
 ■ Implementation Benchmark

	3 Mo	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
Total Fund	0.09 (73)	4.90 (74)	3.02 (91)	7.74 (99)	5.61 (90)	5.81 (88)
Policy Index	0.50 (48)	5.89 (35)	3.63 (66)	8.79 (93)	6.69 (49)	6.74 (43)
Implementation Benchmark	0.50 (48)	5.89 (35)	3.29 (82)	8.00 (97)	5.91 (80)	6.12 (75)
5th Percentile	1.78	6.75	5.45	11.81	8.05	7.81
1st Quartile	1.00	6.06	4.70	10.70	7.14	7.10
Median	0.46	5.48	4.04	9.92	6.68	6.64
3rd Quartile	0.06	4.86	3.48	9.30	6.16	6.11
95th Percentile	-0.84	4.02	2.91	8.47	5.46	5.55
Population	84	84	82	78	76	75

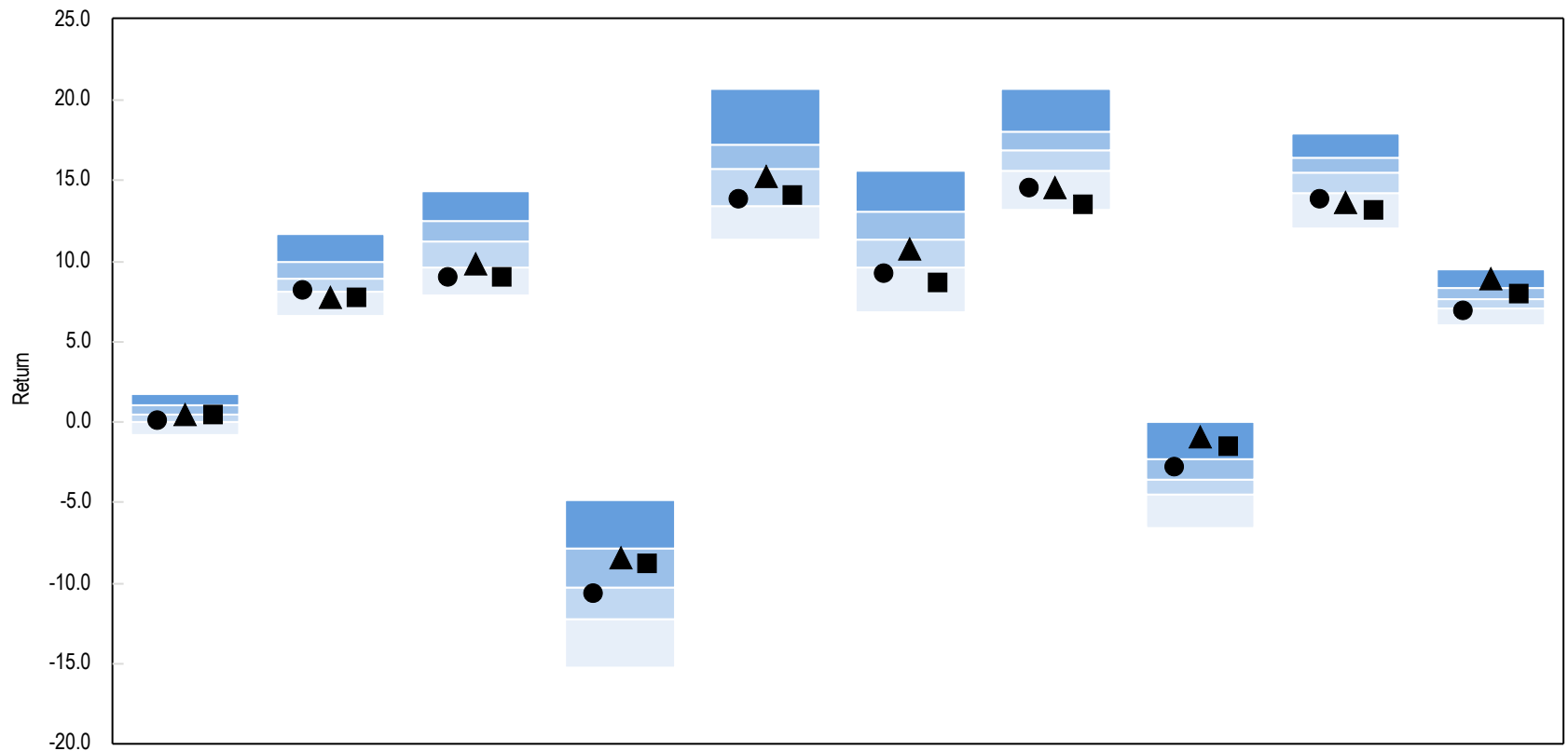
Total Fund Consecutive Periods vs. InvMetrics Public DB >\$1B Gross



	YTD	2024	2023	2022	2021	2020	2019	2018	2017	2016
● Total Fund	0.15 (73)	8.50 (73)	9.23 (86)	-10.39 (53)	14.21 (67)	9.52 (81)	14.92 (88)	-2.46 (33)	14.18 (80)	7.43 (71)
▲ Policy Index	0.50 (52)	7.78 (85)	9.85 (79)	-8.38 (31)	15.29 (57)	10.81 (65)	14.58 (89)	-0.94 (11)	13.69 (88)	8.93 (16)
■ Implementation Benchmark	0.50 (52)	7.78 (85)	8.99 (88)	-8.74 (34)	14.17 (68)	8.66 (90)	13.59 (96)	-1.52 (15)	13.21 (92)	8.00 (54)
5th Percentile	1.81	11.80	14.64	-4.89	21.37	16.27	21.11	0.66	18.35	9.93
1st Quartile	0.98	10.23	12.76	-7.66	17.61	13.53	18.61	-1.97	16.78	8.57
Median	0.54	9.20	11.43	-10.30	15.99	11.86	17.30	-3.21	15.90	8.06
3rd Quartile	0.09	8.30	10.15	-12.40	13.67	9.86	16.01	-4.14	14.39	7.35
95th Percentile	-0.52	6.81	8.11	-15.40	11.56	6.83	13.66	-6.43	12.57	5.96
Population	81	178	192	191	223	233	194	171	182	178

Effective 1/01/2017, only traditional asset class (public equity, fixed income, REITs) investment management fees will be included in the gross of fee return calculation.

Total Fund Consecutive Periods vs. InvMetrics Public DB >\$1B Net

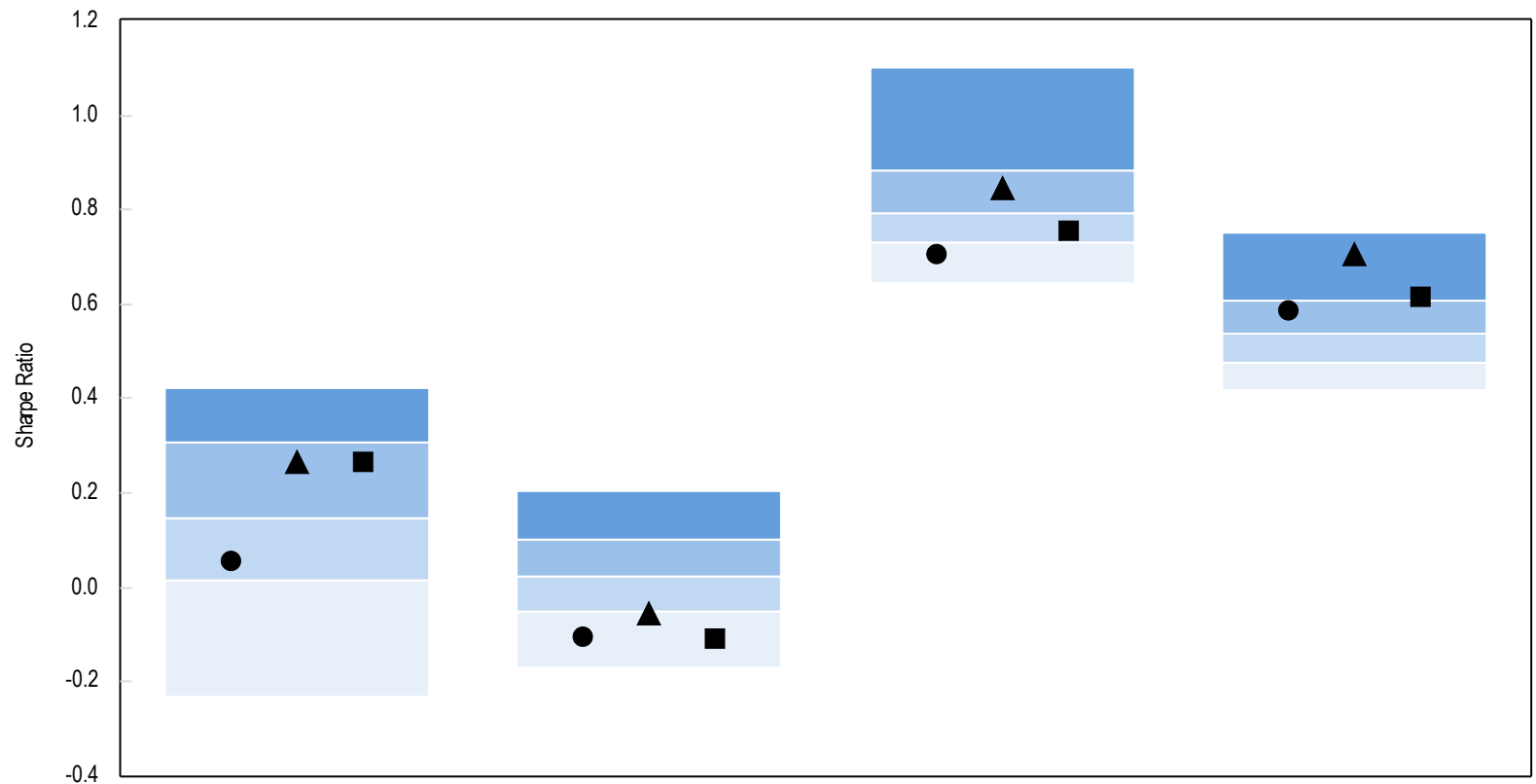


	YTD	2024	2023	2022	2021	2020	2019	2018	2017	2016
● Total Fund	0.09 (73)	8.28 (72)	9.01 (84)	-10.61 (58)	13.90 (68)	9.23 (78)	14.61 (89)	-2.72 (33)	13.86 (82)	6.94 (78)
▲ Policy Index	0.50 (48)	7.78 (83)	9.85 (74)	-8.38 (31)	15.29 (55)	10.81 (61)	14.58 (89)	-0.94 (7)	13.69 (86)	8.93 (11)
■ Implementation Benchmark	0.50 (48)	7.78 (83)	8.99 (84)	-8.74 (32)	14.17 (65)	8.66 (86)	13.59 (93)	-1.52 (13)	13.21 (91)	8.00 (37)
5th Percentile	1.78	11.65	14.36	-4.84	20.70	15.64	20.67	0.05	17.98	9.52
1st Quartile	1.00	9.97	12.52	-7.87	17.22	13.14	18.09	-2.34	16.41	8.29
Median	0.46	8.98	11.26	-10.30	15.74	11.30	16.87	-3.52	15.52	7.63
3rd Quartile	0.06	8.12	9.62	-12.22	13.47	9.58	15.63	-4.47	14.20	7.05
95th Percentile	-0.84	6.65	7.84	-15.28	11.32	6.85	13.26	-6.58	12.04	5.99
Population	84	177	194	186	214	224	202	178	189	183

Total Fund
Sharpe Ratio Ranking (Gross of Fees)

Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025

Sharpe Ratio



● Total Fund
▲ Policy Index
■ Implementation Benchmark

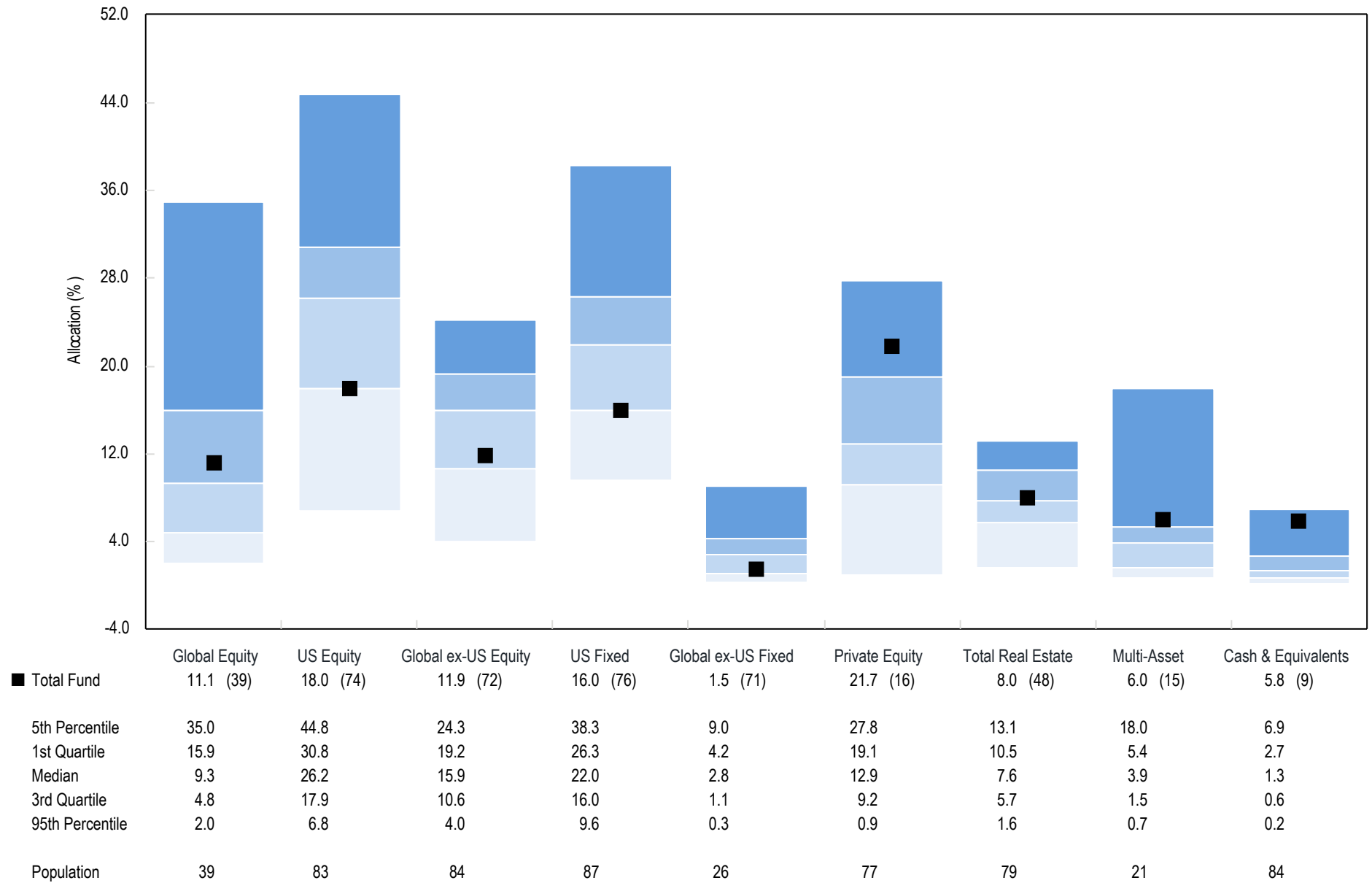
5th Percentile	0.42	0.20	1.10	0.75
1st Quartile	0.31	0.10	0.88	0.61
Median	0.15	0.02	0.79	0.54
3rd Quartile	0.01	-0.05	0.73	0.48
95th Percentile	-0.23	-0.17	0.65	0.42

Population	84	82	78	75
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Total Fund
Peer Universe Comparison: Asset Allocation

Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025

Total Fund vs. InvMetrics Public DB > \$1B



Domestic Equity Managers

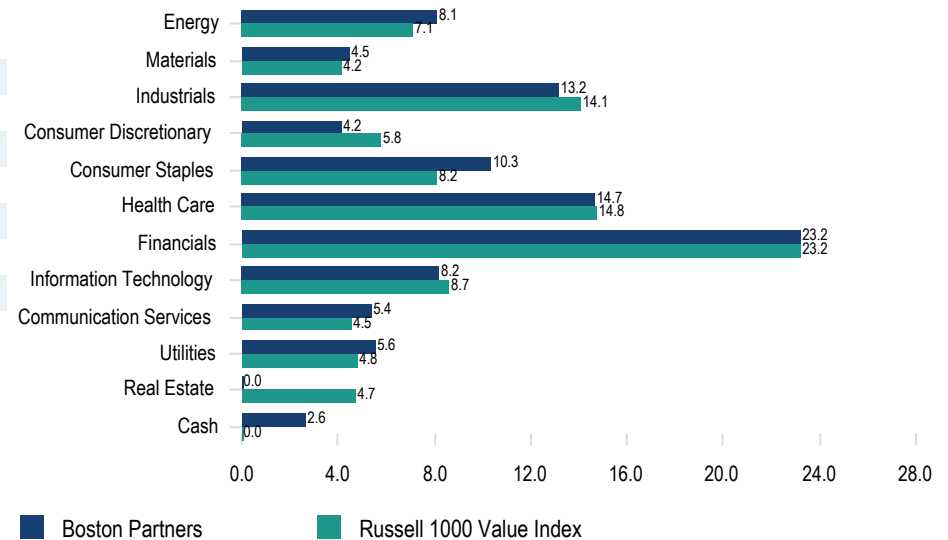
Boston Partners Manager Portfolio Overview

Contra Costa County Employees' Retirement Association Period Ending: March 31, 2025

Characteristics

	Portfolio	Benchmark
Number of Stocks	84	870
Wtd. Avg. Mkt. Cap \$M	171,014.12	190,846.23
Median Mkt. Cap \$M	53,630.89	13,089.31
Price/Earnings ratio	20.03	19.82
Price/Book ratio	3.16	2.77
Return on Equity (%)	8.39	9.88
Current Yield (%)	1.90	2.12
Beta (5 Years, Monthly)	1.00	1.00

Sector Allocation (%) vs. Russell 1000 Value Index



Largest Holdings

	End Weight (%)	Quarterly Return (%)
JPMorgan Chase & Co	3.98	2.86
AbbVie Inc	2.81	19.04
Philip Morris International Inc	2.73	33.06
UnitedHealth Group	2.65	3.99
Alphabet Inc	2.32	-18.21
AMERISOURCEBERGEN	2.08	24.05
Sysco Corporation	1.90	-1.19
McKesson Corp	1.86	18.22
Honeywell International Inc	1.84	-5.76
Coca-Cola Co (The)	1.79	15.88

Top Contributors

	Portfolio Weight (%)	Quarterly Return (%)	Contribution to Return (%)
Philip Morris International Inc	2.27	33.06	0.75
AbbVie Inc	2.19	19.04	0.42
AMERISOURCEBERGEN	1.69	24.05	0.41
McKesson Corp	1.58	18.22	0.29
Kinross Gold Corp	0.79	36.39	0.29
AutoZone Inc	1.39	19.08	0.27
Amgen Inc	1.14	20.51	0.23
Abbott Laboratories	1.28	17.90	0.23
T-Mobile US Inc	1.01	21.23	0.22
Uber Technologies Inc	1.00	20.79	0.21

Top Detractors

	Portfolio Weight (%)	Quarterly Return (%)	Contribution to Return (%)
Alphabet Inc	2.85	-18.21	-0.52
Oracle Corp	2.43	-15.88	-0.39
United Airlines Holdings Inc	0.99	-28.89	-0.29
Delta Air Lines Inc	1.01	-27.75	-0.28
Hewlett Packard Enterprise Co	0.72	-27.14	-0.20
Dell Technologies Inc	0.93	-20.60	-0.19
Flex Ltd	1.37	-13.83	-0.19
Robert Half Inc	0.76	-21.81	-0.17
Blue Owl Capital Inc	1.20	-13.20	-0.16
American Express Co	1.73	-9.14	-0.16

% of Portfolio

14.34

3.30

% of Portfolio

13.99

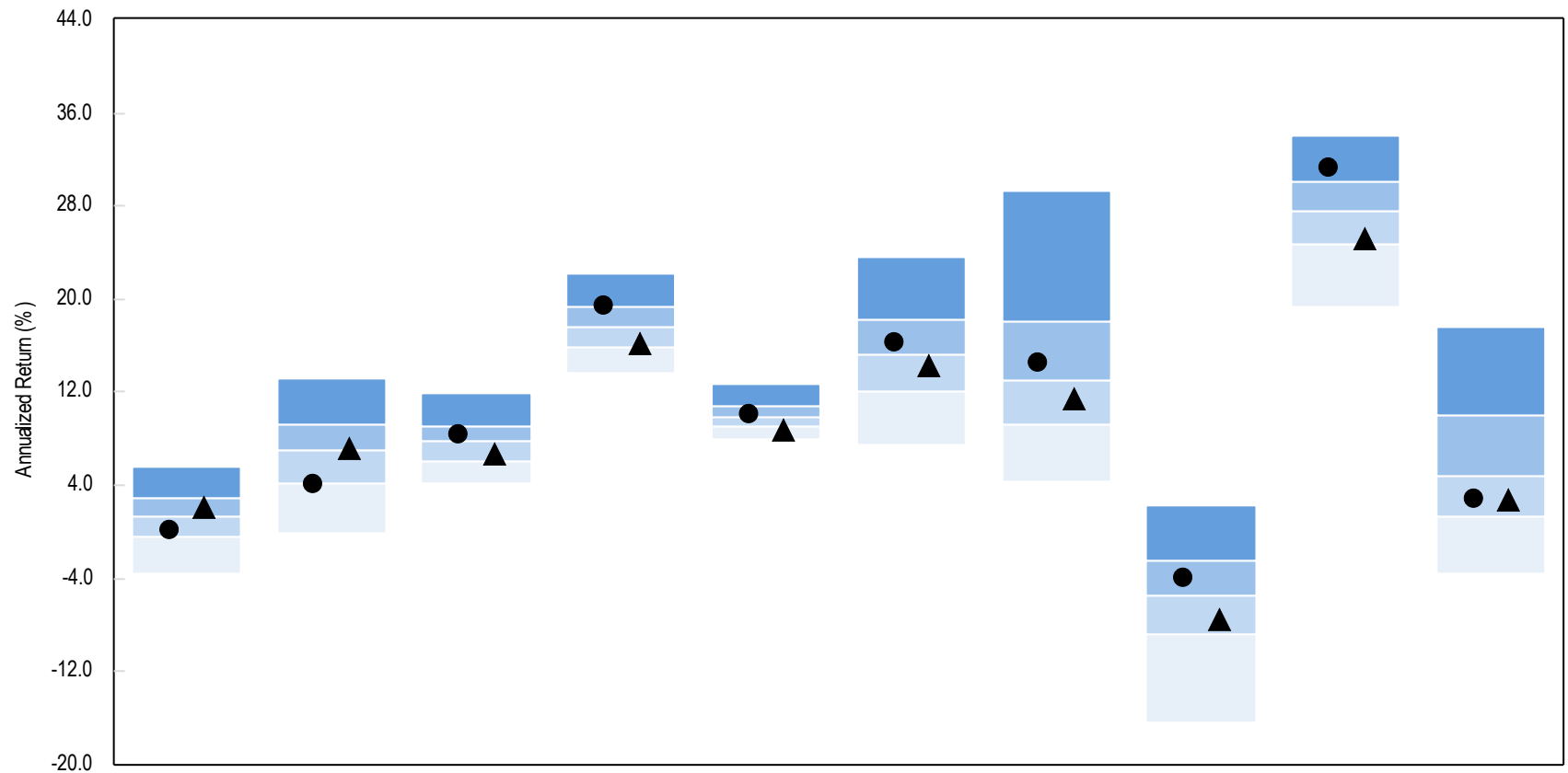
-2.53

Domestic equity large cap value portfolio exhibiting low turnover in companies with low valuations relative to intrinsic value. Primary personnel include Mark Donovan and David Pyle.

Boston Partners
Manager Performance Comparisons (Gross of Fees)

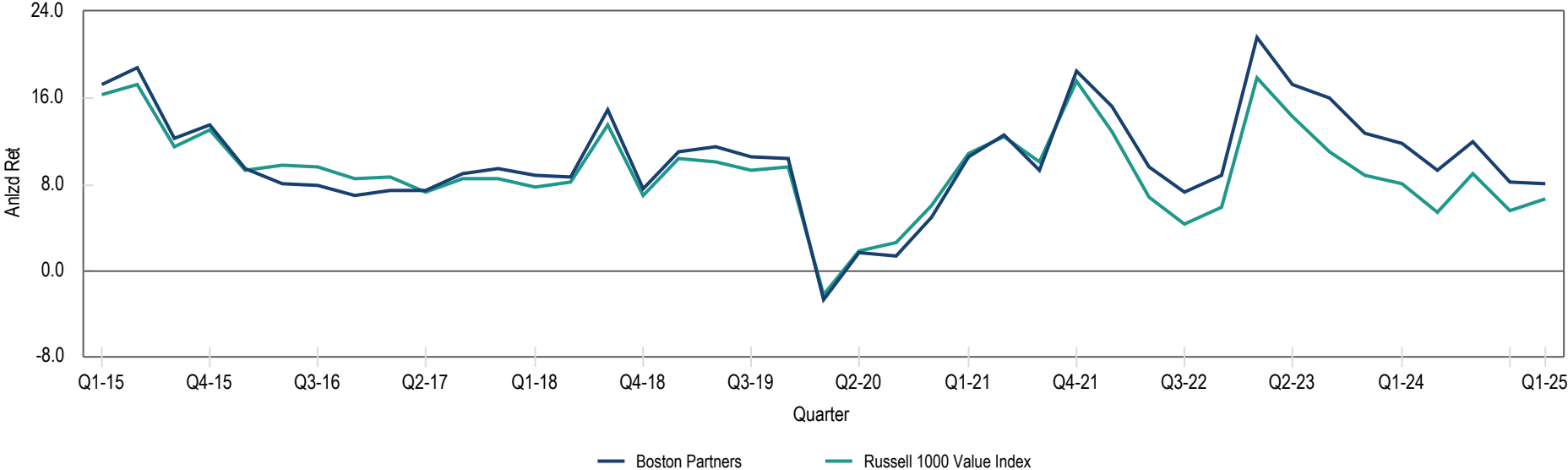
Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025

Boston Partners vs. eV US Large Cap Value Equity Gross Universe

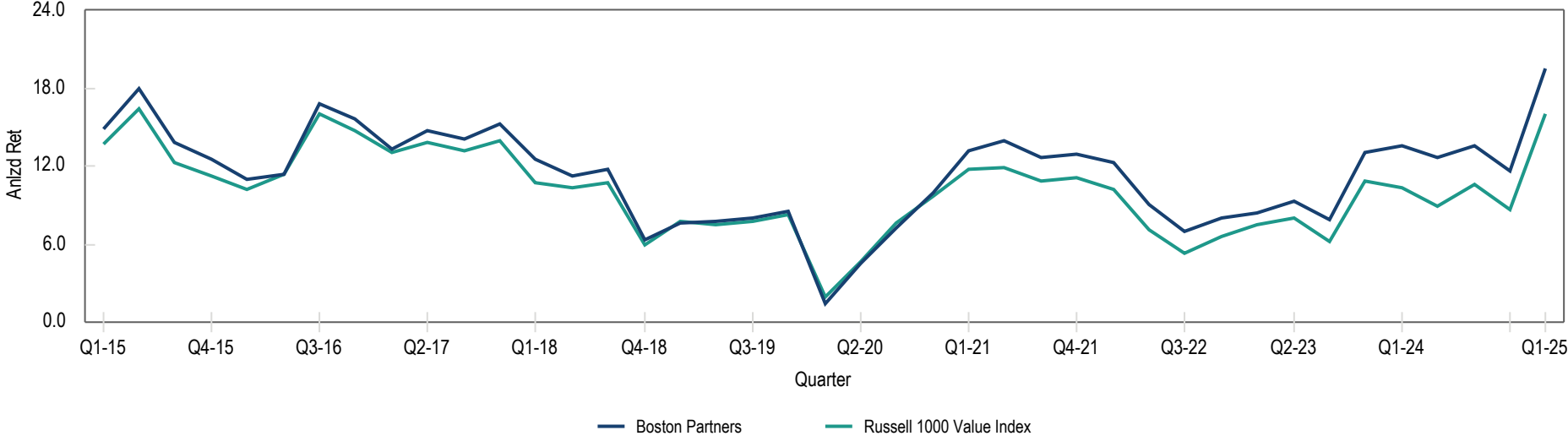


	Quarter	1 Year	3 Years	5 Years	10 Years	2024	2023	2022	2021	2020
● Boston Partners	0.30 (66)	4.20 (75)	8.52 (37)	19.54 (24)	10.11 (45)	16.37 (42)	14.67 (40)	-3.82 (36)	31.34 (18)	2.96 (64)
▲ Russell 1000 Value Index	2.14 (40)	7.18 (47)	6.64 (68)	16.15 (72)	8.79 (83)	14.37 (56)	11.46 (62)	-7.54 (68)	25.16 (72)	2.80 (65)
5th Percentile	5.55	13.26	11.89	22.17	12.64	23.62	29.23	2.33	34.03	17.56
1st Quartile	2.98	9.26	9.11	19.28	10.80	18.24	18.10	-2.41	30.08	10.08
Median	1.37	6.95	7.79	17.63	9.93	15.29	13.05	-5.46	27.59	4.77
3rd Quartile	-0.46	4.15	6.15	15.91	9.08	12.04	9.29	-8.70	24.70	1.33
95th Percentile	-3.54	-0.08	4.21	13.61	7.97	7.46	4.34	-16.38	19.42	-3.50
Population	380	379	372	356	320	383	415	424	429	436

Rolling 3 Year Annualized Return (%)

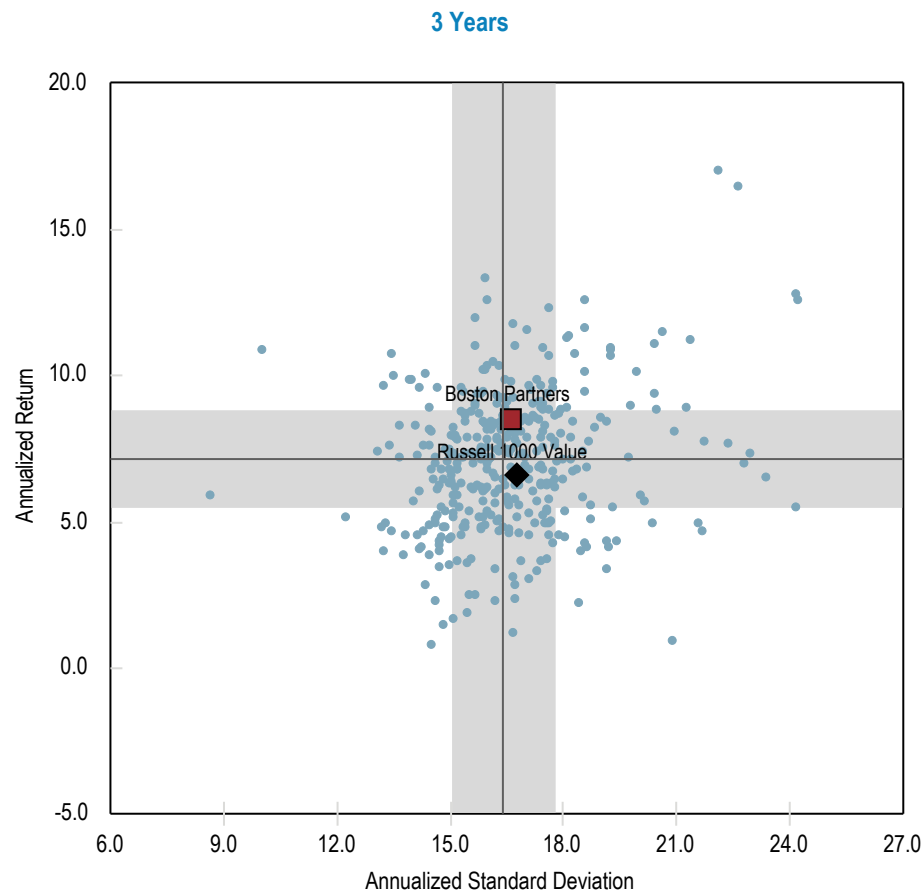


Rolling 5 Year Annualized Return (%)

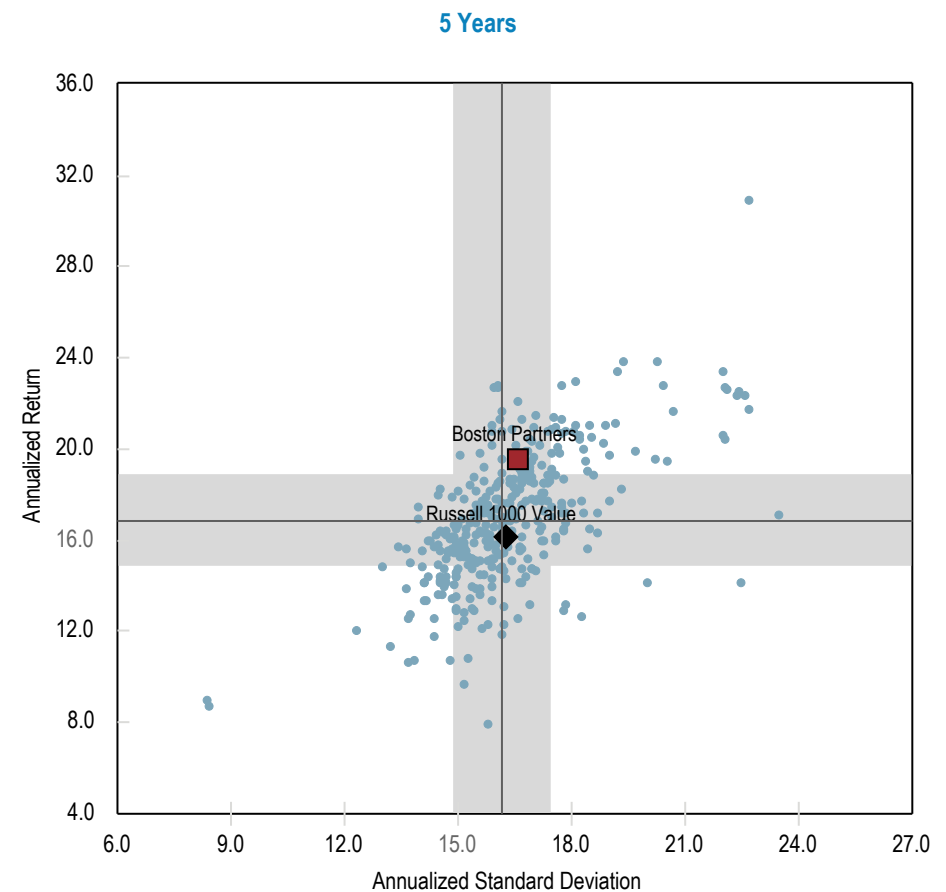


Boston Partners
Risk vs. Return 3 & 5 Year (Gross of Fees)

Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025



	3 Years		
	Anlzd Return (%)	Anlzd Standard Deviation (%)	Sharpe Ratio
Boston Partners	8.5	16.6	0.3
Russell 1000 Value Index	6.6	16.8	0.2
eV US Large Cap Value Equity Median	7.8	16.5	0.3
Population	372	372	372



	5 Years		
	Anlzd Return (%)	Anlzd Standard Deviation (%)	Sharpe Ratio
Boston Partners	19.5	16.6	1.0
Russell 1000 Value Index	16.1	16.3	0.8
eV US Large Cap Value Equity Median	17.6	16.2	0.9
Population	356	356	356

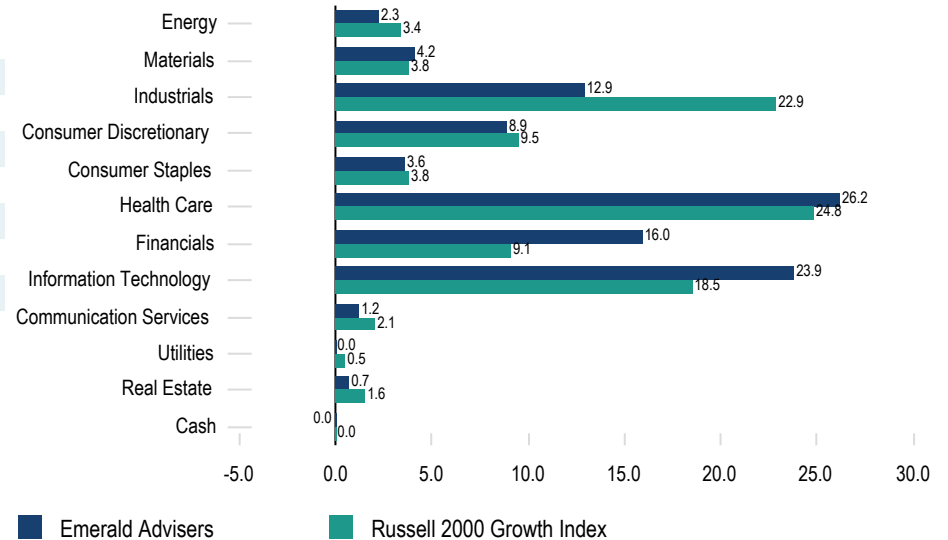
Emerald Advisers Manager Portfolio Overview

Contra Costa County Employees' Retirement Association Period Ending: March 31, 2025

Characteristics

	Portfolio	Benchmark
Number of Stocks	113	1,116
Wtd. Avg. Mkt. Cap \$M	4,102.65	4,077.91
Median Mkt. Cap \$M	2,961.85	988.04
Price/Earnings ratio	25.81	21.12
Price/Book ratio	3.77	3.82
Return on Equity (%)	2.38	2.06
Current Yield (%)	0.42	0.66
Beta (5 Years, Monthly)	0.94	1.00

Sector Allocation (%) vs. Russell 2000 Growth Index



Largest Holdings

	End Weight (%)	Quarterly Return (%)
FTAI Aviation Ltd	2.46	-22.70
Palomar Holdings Inc	2.42	29.82
Credo Technology Group Holding Ltd	2.32	-40.25
Insmed Inc	2.15	10.50
Skyward Specialty Insurance Group Inc	2.02	4.71
Kratos Defense & Security Solutions	2.02	12.55
Freshpet Inc	1.92	-43.85
Q2 Holdings Inc	1.88	-20.51
Soleno Therapeutics Inc	1.86	58.95
BridgeBio Pharma Inc	1.80	25.98

Top Contributors

	Portfolio Weight (%)	Quarterly Return (%)	Contribution to Return (%)
Intra-Cellular Therapies Inc	1.45	57.95	0.84
Soleno Therapeutics Inc	1.03	58.95	0.61
Palomar Holdings Inc	2.00	29.82	0.60
BridgeBio Pharma Inc	1.26	25.98	0.33
Akero Therapeutics Inc	0.57	45.51	0.26
Kratos Defense & Security Solutions	1.70	12.55	0.21
Baldwin Insurance Group Inc (The)	1.34	15.30	0.21
Insmed Inc	1.85	10.50	0.19
LendingTree Inc	0.56	29.73	0.17
Portillo's Inc	0.47	26.49	0.12

Top Detractors

	Portfolio Weight (%)	Quarterly Return (%)	Contribution to Return (%)
Credo Technology Group Holding Ltd	3.77	-40.25	-1.52
Freshpet Inc	2.90	-43.85	-1.27
FTAI Aviation Ltd	3.63	-22.70	-0.82
Agilysys Inc	1.44	-44.92	-0.65
Applied Optoelectronics Inc	0.92	-58.36	-0.53
Wave Life Sciences Ltd	1.53	-34.68	-0.53
RadNet Inc	1.77	-28.81	-0.51
NeoGenomics Inc	1.11	-42.42	-0.47
Chart Industries Inc	1.74	-24.36	-0.42
Allegiant Travel Co	0.92	-45.12	-0.42

% of Portfolio

12.23

3.53

% of Portfolio

19.73

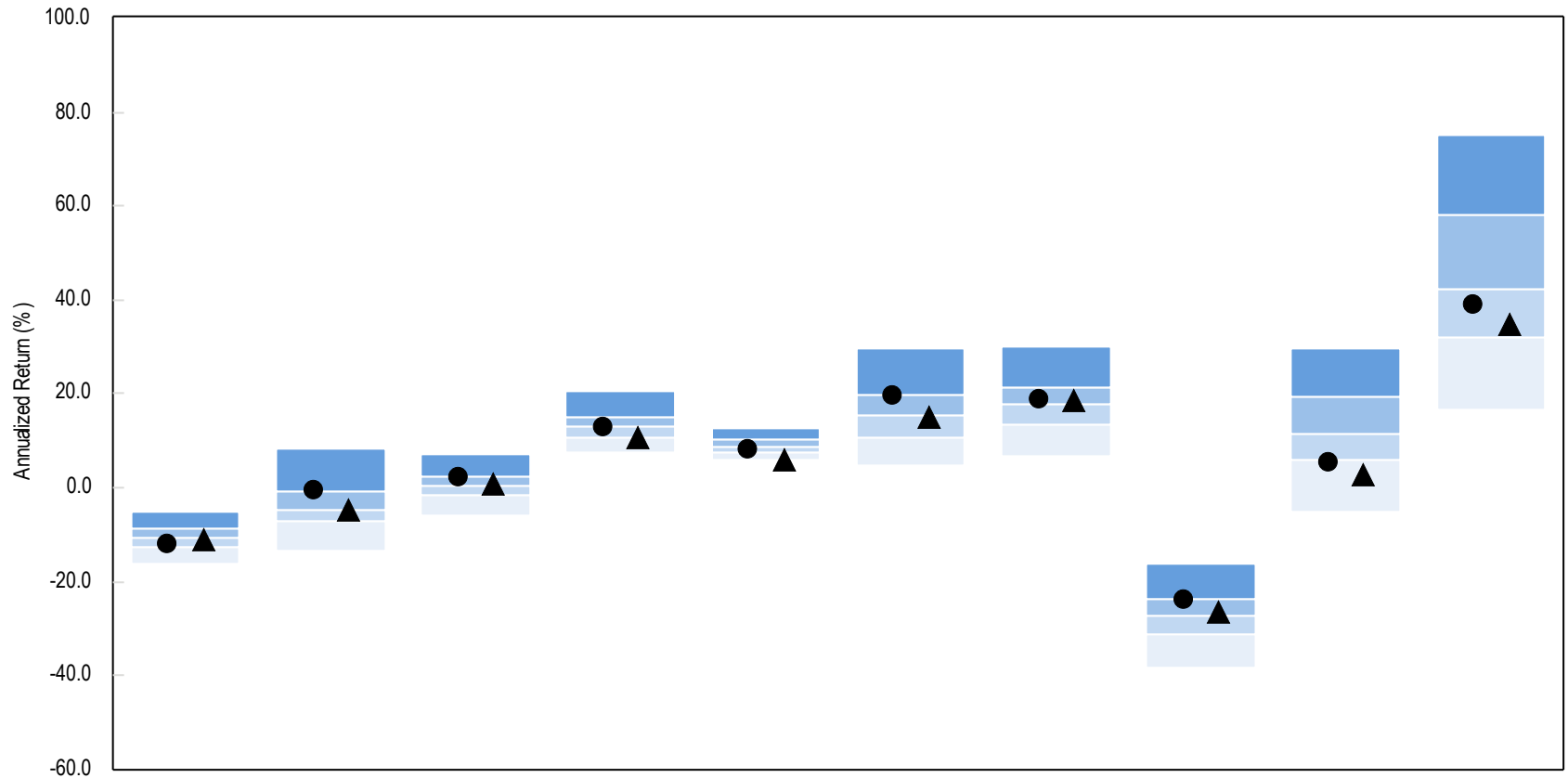
-7.15

Domestic equity small cap growth portfolio of companies with significantly high growth rates. Primary personnel include Kenneth Mertz, Joseph Garner, and Stacey Sears.

Emerald Advisers
Manager Performance Comparisons (Gross of Fees)

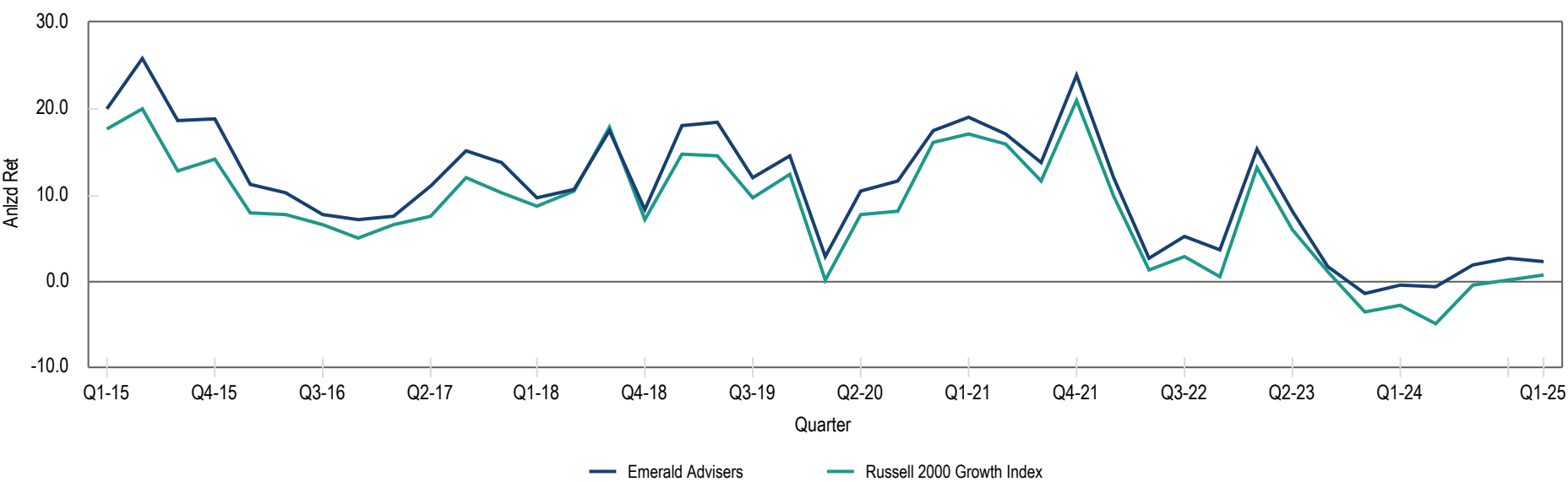
Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025

Emerald Advisers vs. eV US Small Cap Growth Equity Gross Universe

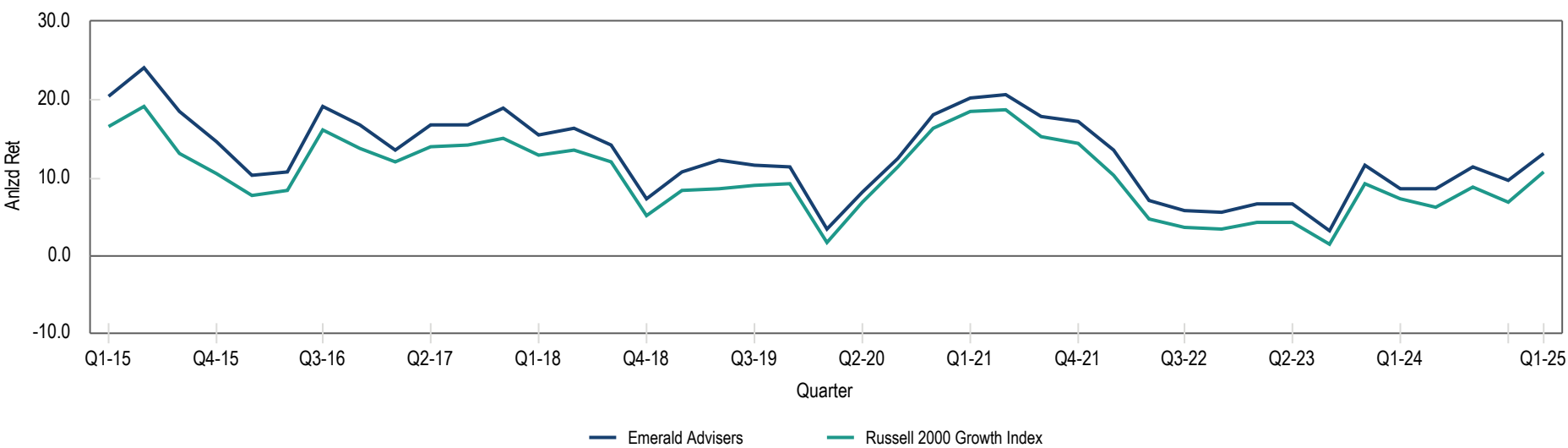


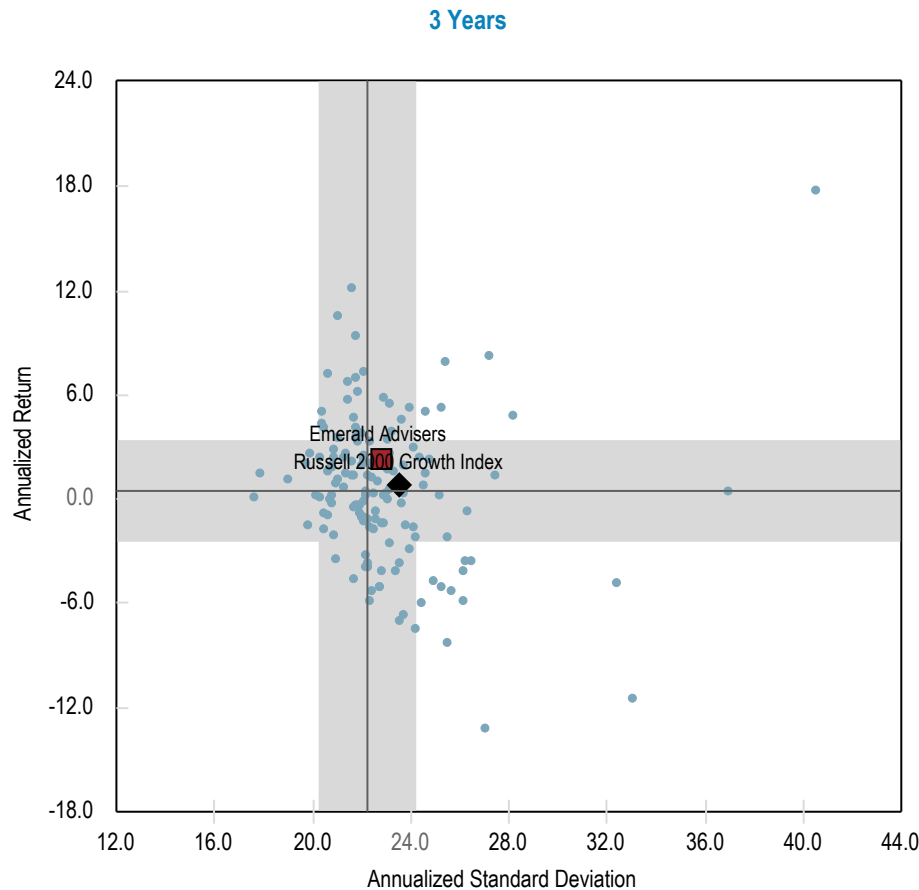
	Quarter	1 Year	3 Years	5 Years	10 Years	2024	2023	2022	2021	2020
● Emerald Advisers	-11.90 (67)	-0.31 (20)	2.30 (31)	13.16 (50)	8.25 (62)	19.67 (28)	19.15 (41)	-23.75 (27)	5.53 (76)	38.96 (57)
▲ Russell 2000 Growth Index	-11.12 (57)	-4.86 (52)	0.78 (49)	10.78 (77)	6.14 (94)	15.15 (52)	18.66 (45)	-26.36 (44)	2.83 (85)	34.63 (67)
5th Percentile	-4.98	8.30	7.13	20.61	12.67	29.79	30.05	-16.24	29.85	74.94
1st Quartile	-8.83	-0.94	2.60	15.22	10.34	19.93	21.33	-23.58	19.30	58.29
Median	-10.65	-4.60	0.50	13.14	8.85	15.42	17.67	-27.28	11.51	42.23
3rd Quartile	-12.44	-7.17	-1.59	10.91	7.65	10.81	13.38	-31.28	5.80	31.98
95th Percentile	-16.31	-13.39	-5.88	7.67	5.78	4.72	6.76	-38.39	-4.90	16.54
Population	152	151	150	148	137	156	165	173	183	184

Rolling 3 Year Annualized Return (%)

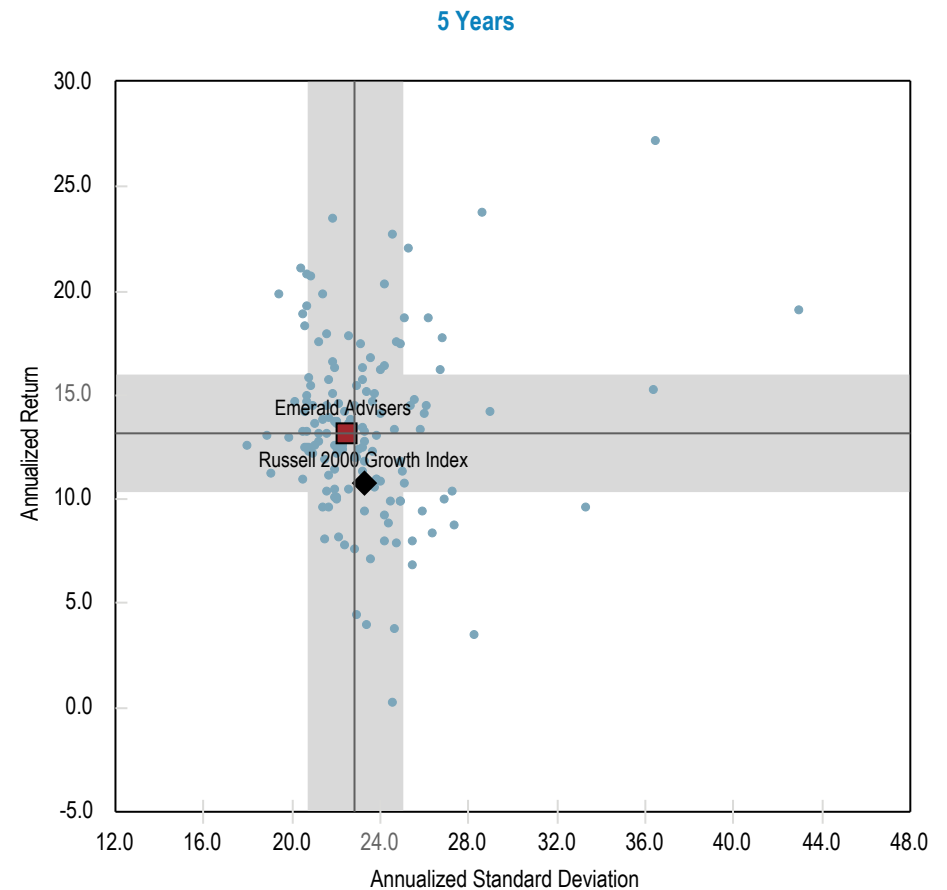


Rolling 5 Year Annualized Return (%)





	3 Years		
	Anlzd Return (%)	Anlzd Standard Deviation (%)	Sharpe Ratio
Emerald Advisers	2.3	22.8	0.0
Russell 2000 Growth Index	0.8	23.5	0.0
eV US Small Cap Growth Equity Median	0.5	22.2	-0.1
Population	150	150	150



	5 Years		
	Anlzd Return (%)	Anlzd Standard Deviation (%)	Sharpe Ratio
Emerald Advisers	13.2	22.4	0.6
Russell 2000 Growth Index	10.8	23.3	0.4
eV US Small Cap Growth Equity Median	13.1	22.8	0.6
Population	148	148	148

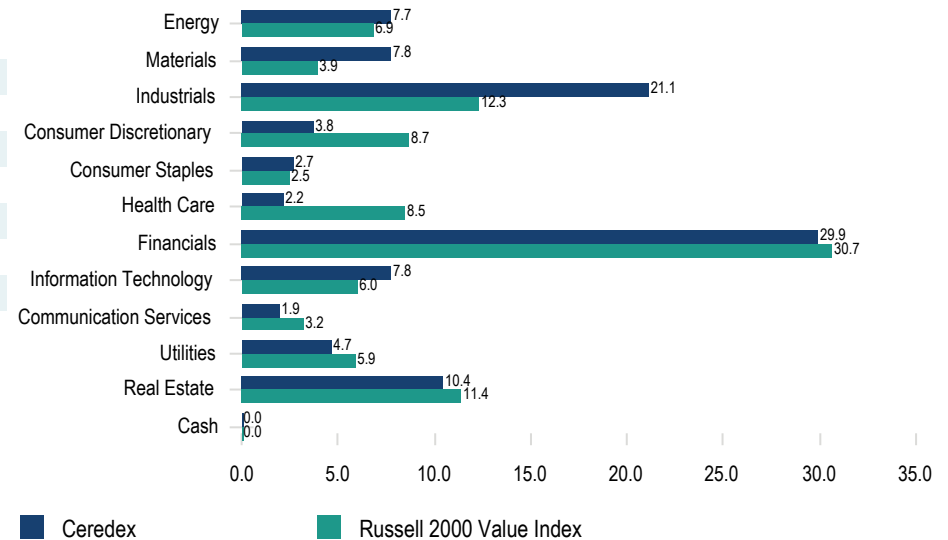
Ceredex Manager Portfolio Overview

Contra Costa County Employees' Retirement Association Period Ending: March 31, 2025

Characteristics

	Portfolio	Benchmark
Number of Stocks	78	1,427
Wtd. Avg. Mkt. Cap \$M	5,531.82	2,837.32
Median Mkt. Cap \$M	5,136.06	687.93
Price/Earnings ratio	18.17	13.86
Price/Book ratio	1.93	1.58
Return on Equity (%)	2.60	1.51
Current Yield (%)	2.66	2.35
Beta (5 Years, Monthly)	0.82	1.00

Sector Allocation (%) vs. Russell 2000 Value Index



Largest Holdings

	End Weight (%)	Quarterly Return (%)
IDACORP Inc.	2.38	7.18
OGE Energy Corp	2.30	12.59
Huntington Ingalls Industries Inc	1.87	8.81
Brixmor Property Group Inc	1.78	-3.64
Matador Resources Co	1.68	-8.65
Camden Property Trust	1.68	6.30
Cullen/Frost Bankers Inc	1.66	-6.09
STAG Industrial Inc	1.64	7.94
Fortune Brands Innovations Inc	1.62	-10.56
Hexcel Corp	1.59	-12.44

Top Contributors

	Portfolio Weight (%)	Quarterly Return (%)	Contribution to Return (%)
OGE Energy Corp	1.64	12.59	0.21
PotlatchDeltic Corp	1.26	16.07	0.20
ESCO Technologies Inc.	0.99	19.52	0.19
Range Resources Corp.	1.69	11.24	0.19
AXIS Capital Holdings Ltd	1.26	13.61	0.17
IDACORP Inc.	1.90	7.18	0.14
STAG Industrial Inc	1.46	7.94	0.12
Agree Realty Corp	0.96	10.69	0.10
Huntington Ingalls Industries Inc	1.08	8.81	0.10
Camden Property Trust	1.38	6.30	0.09

Top Detractors

	Portfolio Weight (%)	Quarterly Return (%)	Contribution to Return (%)
Amkor Technology Inc	1.59	-29.39	-0.47
Kulicke and Soffa Industries Inc	1.59	-28.92	-0.46
BRP Inc	1.32	-33.54	-0.44
Brucker Corporation	1.38	-28.72	-0.40
PROG Holdings Inc	1.02	-36.74	-0.37
MKS Instruments Inc	1.54	-23.05	-0.35
nVent Electric plc	1.51	-22.88	-0.35
Evercore Inc	0.96	-27.71	-0.27
Helios Technologies Inc	0.94	-27.97	-0.26
Materion Corp	1.50	-17.36	-0.26

% of Portfolio

13.62

1.50

% of Portfolio

13.35

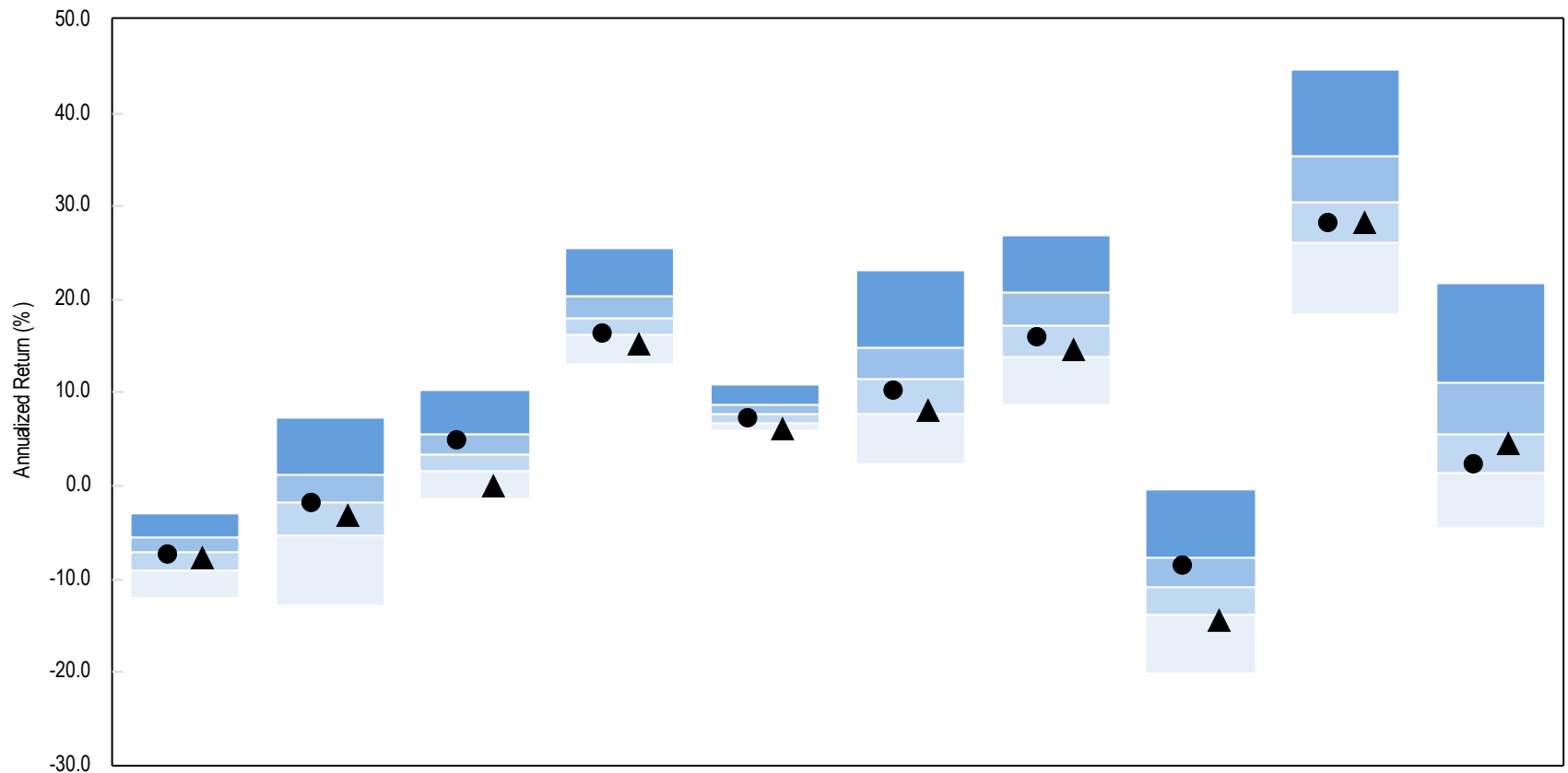
-3.63

Domestic equity small cap value portfolio of companies with dividend yields and low valuations. Primary personnel include Brett Barner and David Maynard.

Ceredex
Manager Performance Comparisons (Gross of Fees)

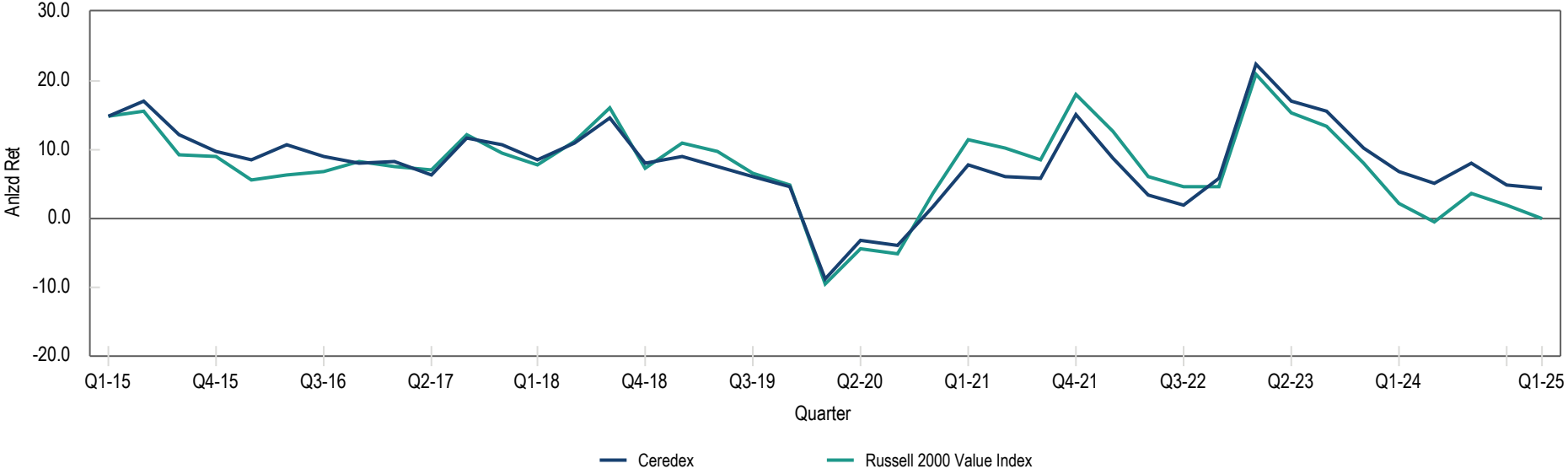
Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025

Ceredex vs. eV US Small Cap Value Equity Gross Universe

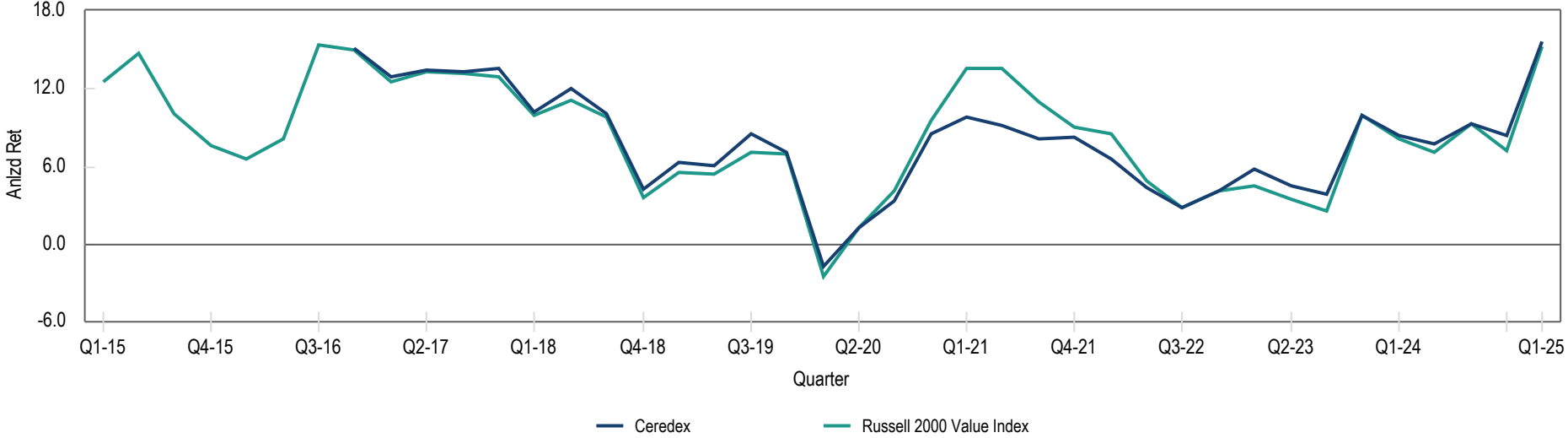


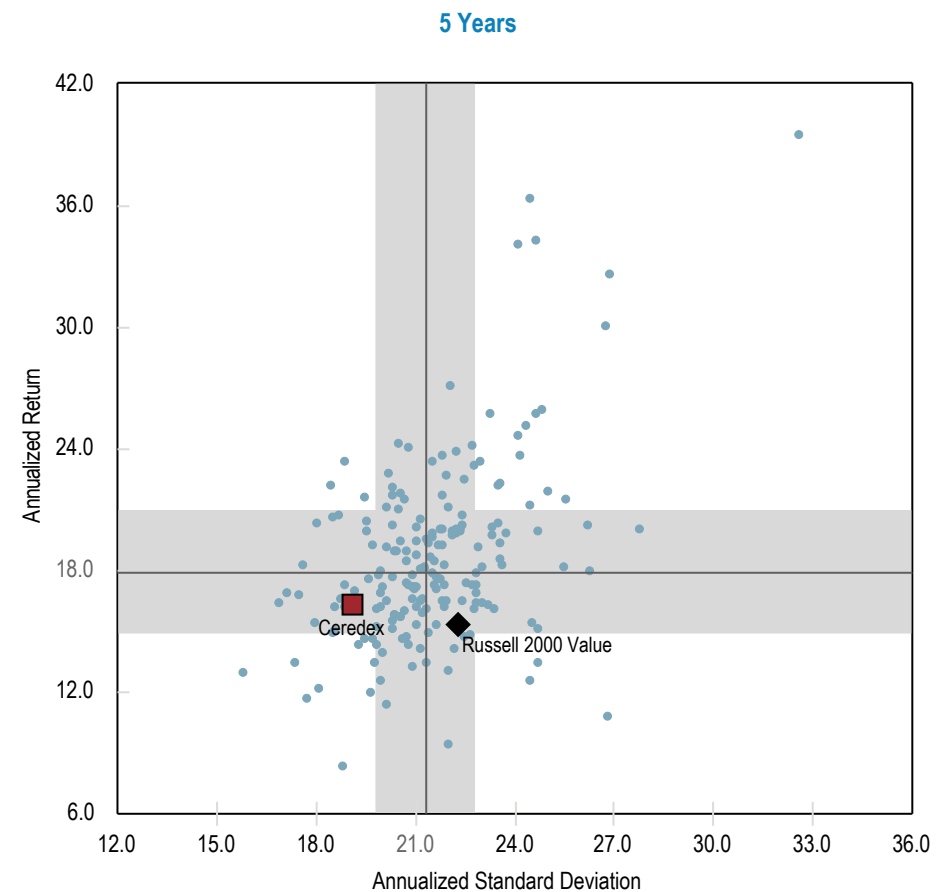
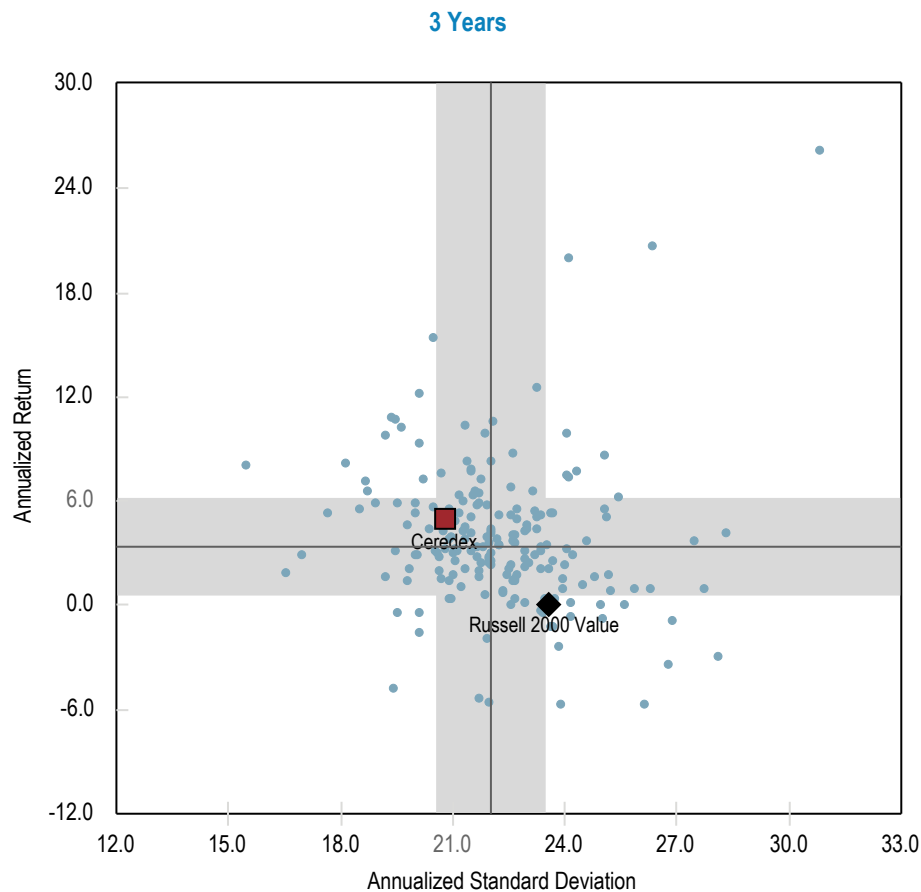
	Quarter	1 Year	3 Years	5 Years	10 Years	2024	2023	2022	2021	2020
● Ceredex	-7.21 (51)	-1.81 (51)	5.03 (33)	16.37 (71)	7.26 (63)	10.21 (60)	16.02 (61)	-8.46 (28)	28.37 (58)	2.32 (70)
▲ Russell 2000 Value Index	-7.74 (57)	-3.12 (62)	0.05 (89)	15.31 (83)	6.07 (92)	8.05 (74)	14.65 (71)	-14.48 (79)	28.27 (58)	4.63 (55)
5th Percentile	-2.93	7.41	10.32	25.49	10.98	23.22	26.83	-0.39	44.60	21.68
1st Quartile	-5.52	1.12	5.59	20.29	8.74	14.92	20.71	-7.73	35.35	11.04
Median	-7.18	-1.80	3.37	17.93	7.70	11.40	17.24	-10.93	30.41	5.47
3rd Quartile	-8.99	-5.21	1.64	16.16	6.73	7.64	13.94	-13.87	26.17	1.37
95th Percentile	-12.11	-12.82	-1.38	13.05	5.87	2.36	8.80	-20.06	18.37	-4.57
Population	194	194	192	190	165	198	213	220	232	247

Rolling 3 Year Annualized Return (%)



Rolling 5 Year Annualized Return (%)





	3 Years		
	Anlzd Return (%)	Anlzd Standard Deviation (%)	Sharpe Ratio
Ceredex	5.0	20.8	0.1
Russell 2000 Value Index	0.0	23.6	-0.1
eV US Small Cap Value Equity Median	3.4	22.0	0.1
Population	192	192	192

	5 Years		
	Anlzd Return (%)	Anlzd Standard Deviation (%)	Sharpe Ratio
Ceredex	16.4	19.1	0.8
Russell 2000 Value Index	15.3	22.3	0.6
eV US Small Cap Value Equity Median	17.9	21.3	0.8
Population	190	190	190

International Equity Managers

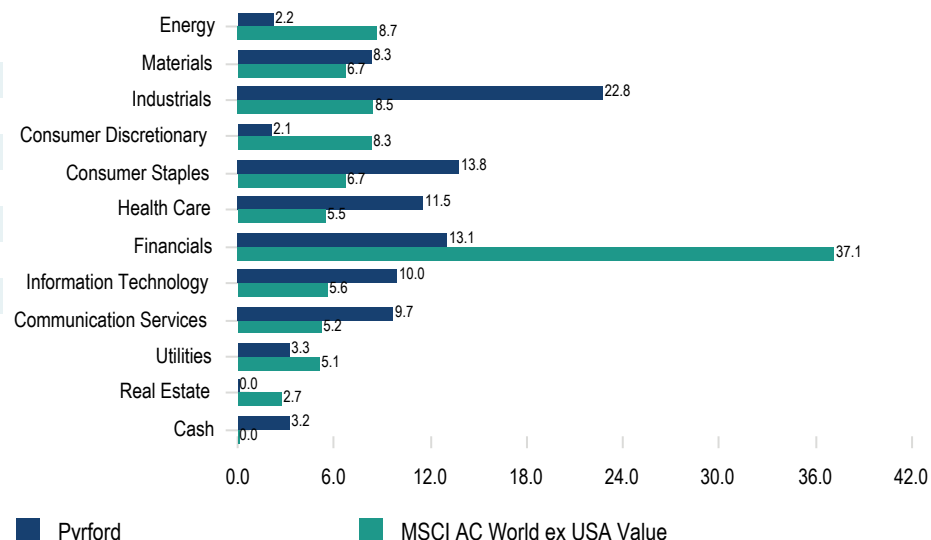
Pyrford Manager Portfolio Overview

Contra Costa County Employees' Retirement Association Period Ending: March 31, 2025

Characteristics

	Portfolio	Benchmark
Number of Stocks	77	1,143
Wtd. Avg. Mkt. Cap \$M	69,470.15	81,678.55
Median Mkt. Cap \$M	23,840.11	10,837.30
Price/Earnings ratio	17.98	11.95
Price/Book ratio	2.49	1.76
Return on Equity (%)	3.90	2.81
Current Yield (%)	3.62	4.24
Beta (5 Years, Monthly)	0.82	1.00

Sector Allocation (%) vs. MSCI AC World ex USA Value



Largest Holdings

	End Weight (%)	Quarterly Return (%)
Nestle SA, Cham Und Vevey	3.21	22.21
Japan Tobacco Inc	2.86	5.97
Roche Holding AG	2.62	20.30
United Overseas Bank Ltd	2.51	6.41
Telenor ASA	2.34	27.86
Brambles Ltd	2.26	6.37
L'Air Liquide SA	2.26	16.43
KDDI Corp	2.21	-0.13
Novartis AG	2.15	17.12
AIA Group Ltd	2.14	3.92

Top Contributors

	Portfolio Weight (%)	Quarterly Return (%)	Contribution to Return (%)
Singapore Technologies Engineering Ltd	1.16	47.89	0.55
Telenor ASA	1.94	27.86	0.54
Nestle SA, Cham Und Vevey	2.41	22.21	0.54
Roche Holding AG	2.39	20.30	0.48
Deutsche Post AG	1.85	21.20	0.39
Computershare Ltd	2.04	17.24	0.35
Novartis AG	2.02	17.12	0.35
L'Air Liquide SA	2.06	16.43	0.34
Sampo PLC	1.84	17.22	0.32
QBE Insurance Group Limited	1.37	18.23	0.25
% of Portfolio	19.08		4.11

Top Detractors

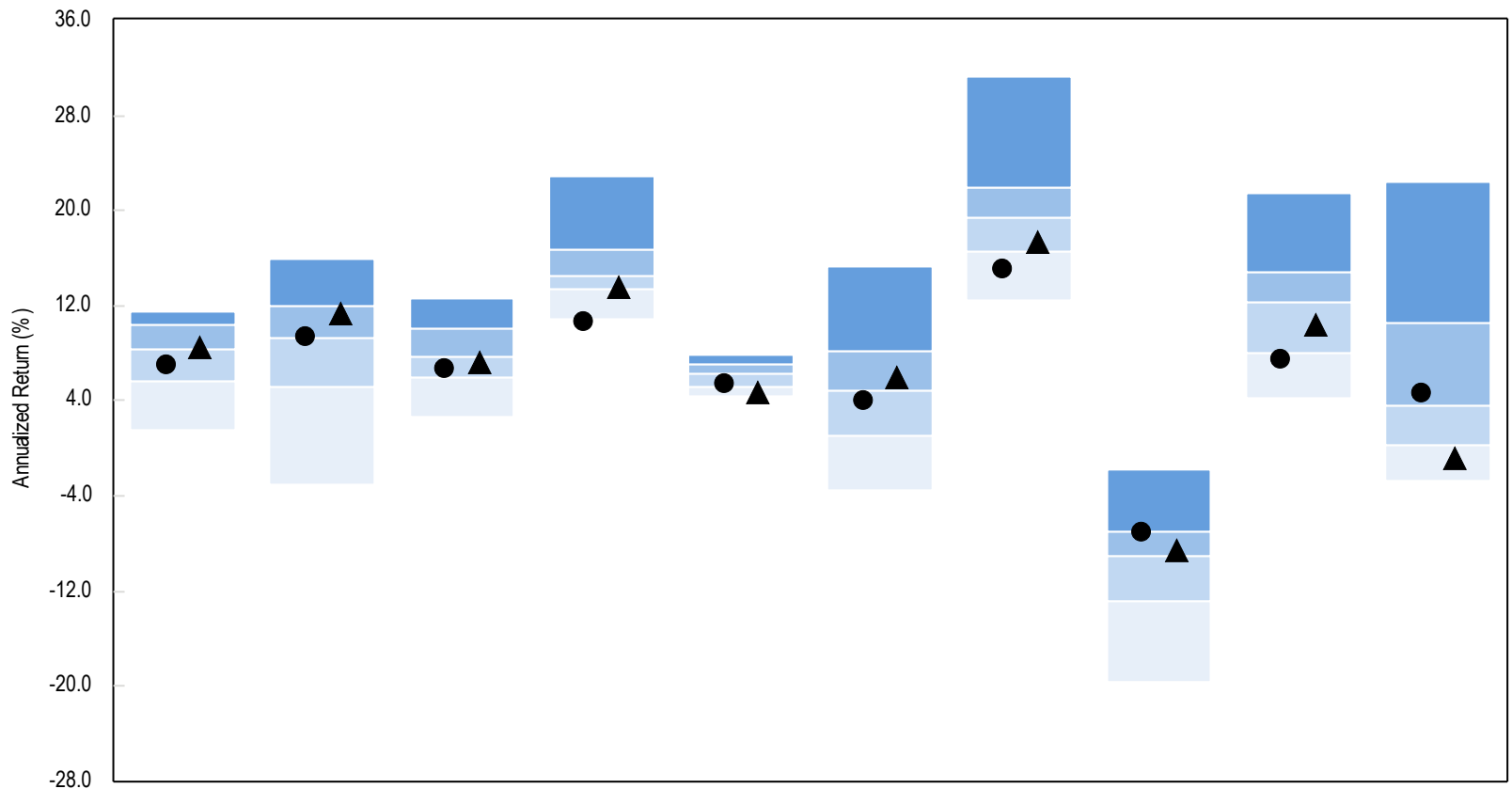
	Portfolio Weight (%)	Quarterly Return (%)	Contribution to Return (%)
ASMPT Limited	0.96	-27.55	-0.26
Nabtesco Corp	1.89	-13.52	-0.26
Perusahaan Perseroan	1.50	-13.57	-0.20
Taiwan Semiconductor Man.	1.27	-16.03	-0.20
Axiata Group BHD	0.62	-27.56	-0.17
Power Assets Holdings Ltd	1.17	-14.16	-0.17
Wolters Kluwer NV	1.42	-6.64	-0.09
Abc-Mart Inc	1.29	-7.13	-0.09
Merck KGaA	1.64	-5.60	-0.09
Venture Corp Ltd	1.68	-4.68	-0.08
% of Portfolio	13.44		-1.62

International equity value portfolio of non-US companies with low valuations at the country and stock level. Primary personnel include Tony Cousins, Daniel McDonagh, and Paul Simons.

Pyrford
Manager Performance Comparisons (Gross of Fees)

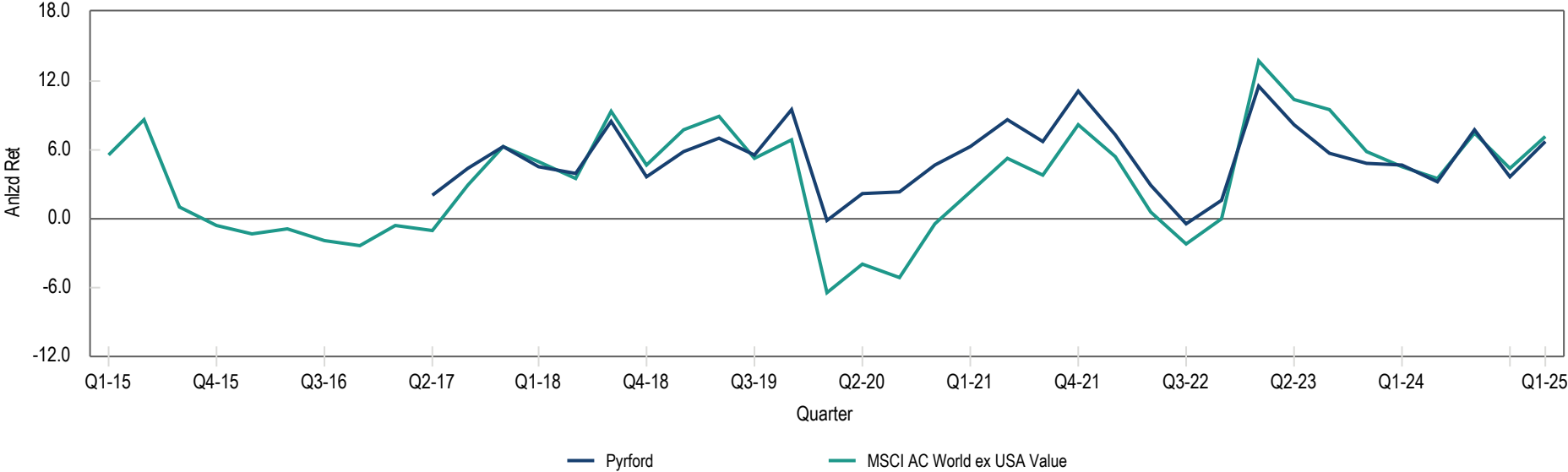
Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025

Pyrford vs. eV ACWI ex-US Value Equity Gross Universe

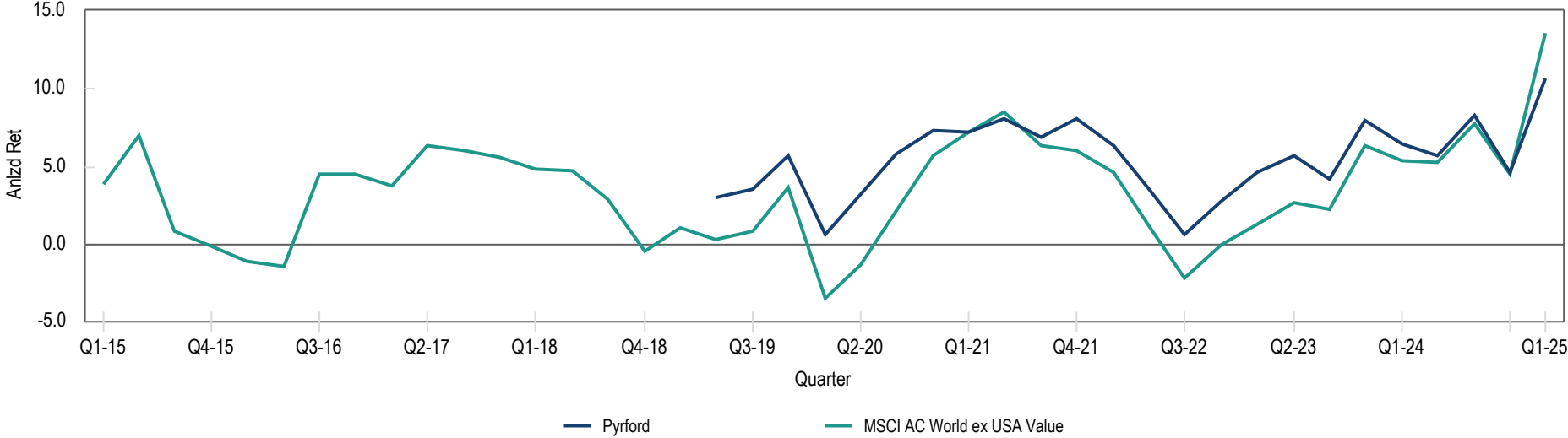


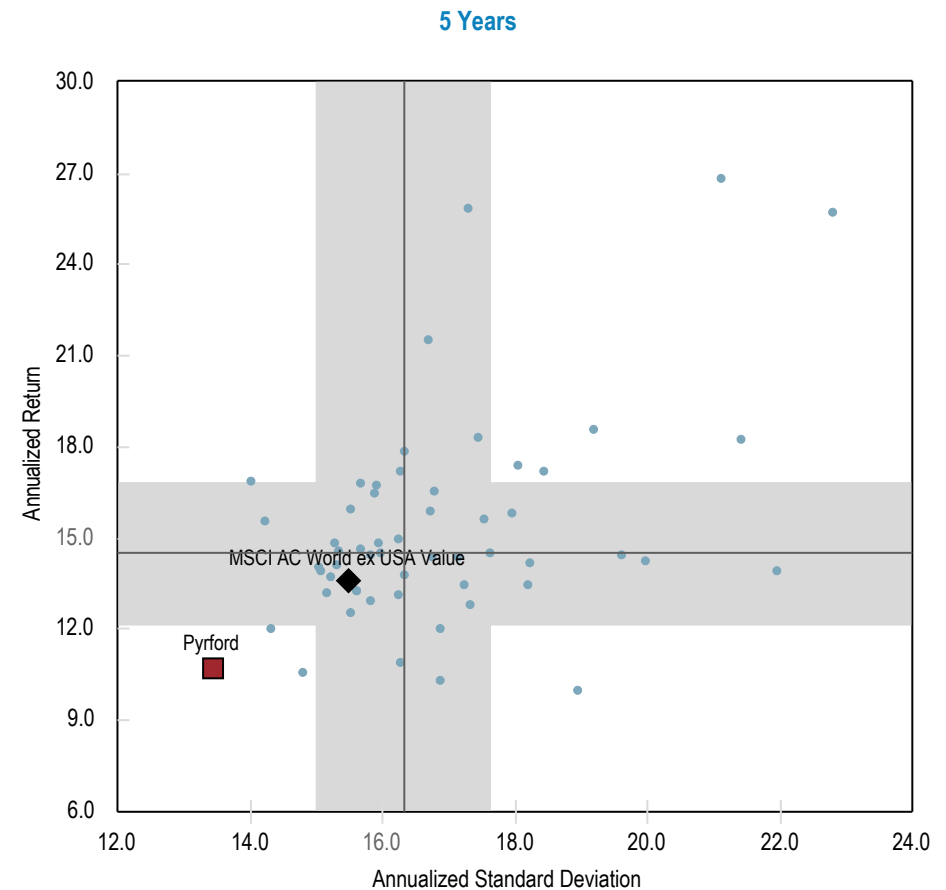
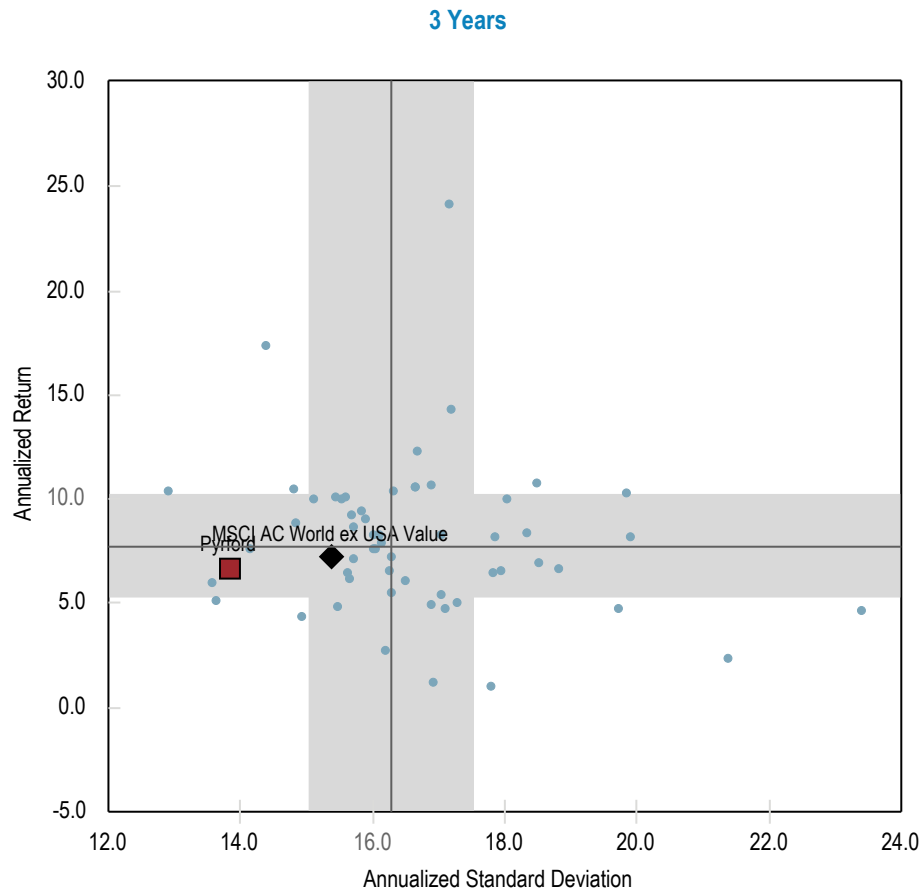
	Quarter	1 Year	3 Years	5 Years	10 Years	2024	2023	2022	2021	2020
● Pyrford	7.11 (61)	9.52 (49)	6.69 (63)	10.70 (96)	5.55 (72)	4.01 (59)	15.17 (83)	-6.97 (25)	7.57 (80)	4.66 (44)
▲ MSCI AC World ex USA Value (Net)	8.58 (49)	11.35 (37)	7.23 (58)	13.62 (74)	4.71 (84)	6.04 (40)	17.30 (67)	-8.59 (44)	10.46 (63)	-0.77 (79)
5th Percentile	11.54	15.88	12.57	22.81	7.83	15.30	31.24	-1.85	21.46	22.36
1st Quartile	10.34	11.96	10.03	16.64	7.02	8.14	21.96	-6.97	14.76	10.48
Median	8.29	9.36	7.77	14.49	6.29	4.81	19.45	-9.08	12.25	3.65
3rd Quartile	5.72	5.12	6.04	13.48	5.16	1.00	16.58	-12.83	8.07	0.30
95th Percentile	1.47	-2.99	2.69	10.84	4.32	-3.51	12.43	-19.56	4.31	-2.69
Population	63	63	58	55	39	63	64	66	68	69

Rolling 3 Year Annualized Return (%)



Rolling 5 Year Annualized Return (%)





	3 Years		
	Anlzd Return (%)	Anlzd Standard Deviation (%)	Sharpe Ratio
Pyrford	6.7	13.8	0.2
MSCI AC World ex USA Value (Net)	7.2	15.4	0.3
eV ACWI ex-US Value Equity Median	7.8	16.3	0.3
Population	58	58	58

	5 Years		
	Anlzd Return (%)	Anlzd Standard Deviation (%)	Sharpe Ratio
Pyrford	10.7	13.4	0.6
MSCI AC World ex USA Value (Net)	13.6	15.5	0.7
eV ACWI ex-US Value Equity Median	14.5	16.3	0.8
Population	55	55	55

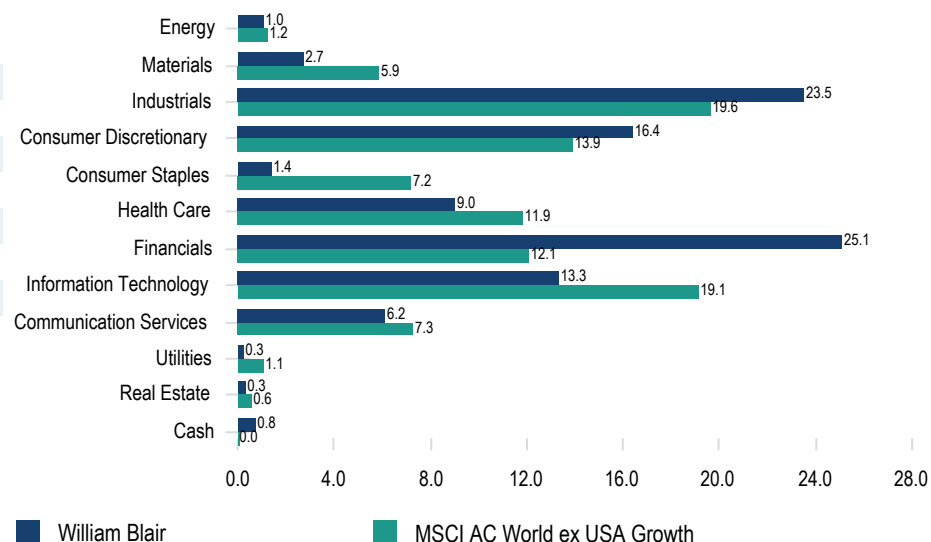
William Blair Manager Portfolio Overview

Contra Costa County Employees' Retirement Association Period Ending: March 31, 2025

Characteristics

	Portfolio	Benchmark
Number of Stocks	186	1,087
Wtd. Avg. Mkt. Cap \$M	98,445.68	132,148.76
Median Mkt. Cap \$M	22,091.95	10,460.47
Price/Earnings ratio	21.32	22.97
Price/Book ratio	3.71	3.73
Return on Equity (%)	5.39	4.98
Current Yield (%)	1.83	1.66
Beta (5 Years, Monthly)	1.04	1.00

Sector Allocation (%) vs. MSCI AC World ex USA Growth



Largest Holdings

	End Weight (%)	Quarterly Return (%)
Taiwan Semiconductor Man.	2.37	-15.61
Tencent Holdings LTD	2.30	19.00
Thales SA	1.78	84.78
Alibaba Group Holding Ltd	1.77	55.09
3I Group PLC	1.72	4.57
SAP SE	1.60	7.89
Sumitomo Mitsui	1.53	7.58
London Stock Exchange Group	1.42	4.66
BAE Systems PLC	1.34	39.94
LONZA GROUP AG	1.32	3.65

Top Contributors

	Portfolio Weight (%)	Quarterly Return (%)	Contribution to Return (%)
Thales SA	0.97	84.78	0.82
Tencent Holdings LTD	2.12	19.00	0.40
BAE Systems PLC	0.96	39.94	0.38
Safran SA	1.34	19.02	0.25
Hanwha Aerospace Co Ltd	0.22	91.99	0.21
TotalEnergies SE	0.88	19.87	0.17
SAP SE	2.16	7.89	0.17
Astrazeneca PLC	1.30	12.41	0.16
Sea Limited	0.70	22.99	0.16
MercadoLibre Inc	1.02	14.73	0.15

% of Portfolio 11.67 2.88

Top Detractors

	Portfolio Weight (%)	Quarterly Return (%)	Contribution to Return (%)
Taiwan Semiconductor Man.	3.99	-15.61	-0.62
Novo Nordisk A/S	1.67	-20.21	-0.34
Teva Pharmaceutical Industries Ltd	1.02	-30.26	-0.31
Advantest Corp	0.85	-25.84	-0.22
Recruit Holdings Co Ltd	0.63	-27.69	-0.18
Pro Medicus Ltd	0.77	-19.53	-0.15
PT Bank Central Asia TBK	1.23	-11.91	-0.15
DSV A/S	1.25	-8.69	-0.11
Accenture PLC	0.98	-10.93	-0.11
Daiichi Sankyo Company Ltd	0.72	-14.52	-0.10

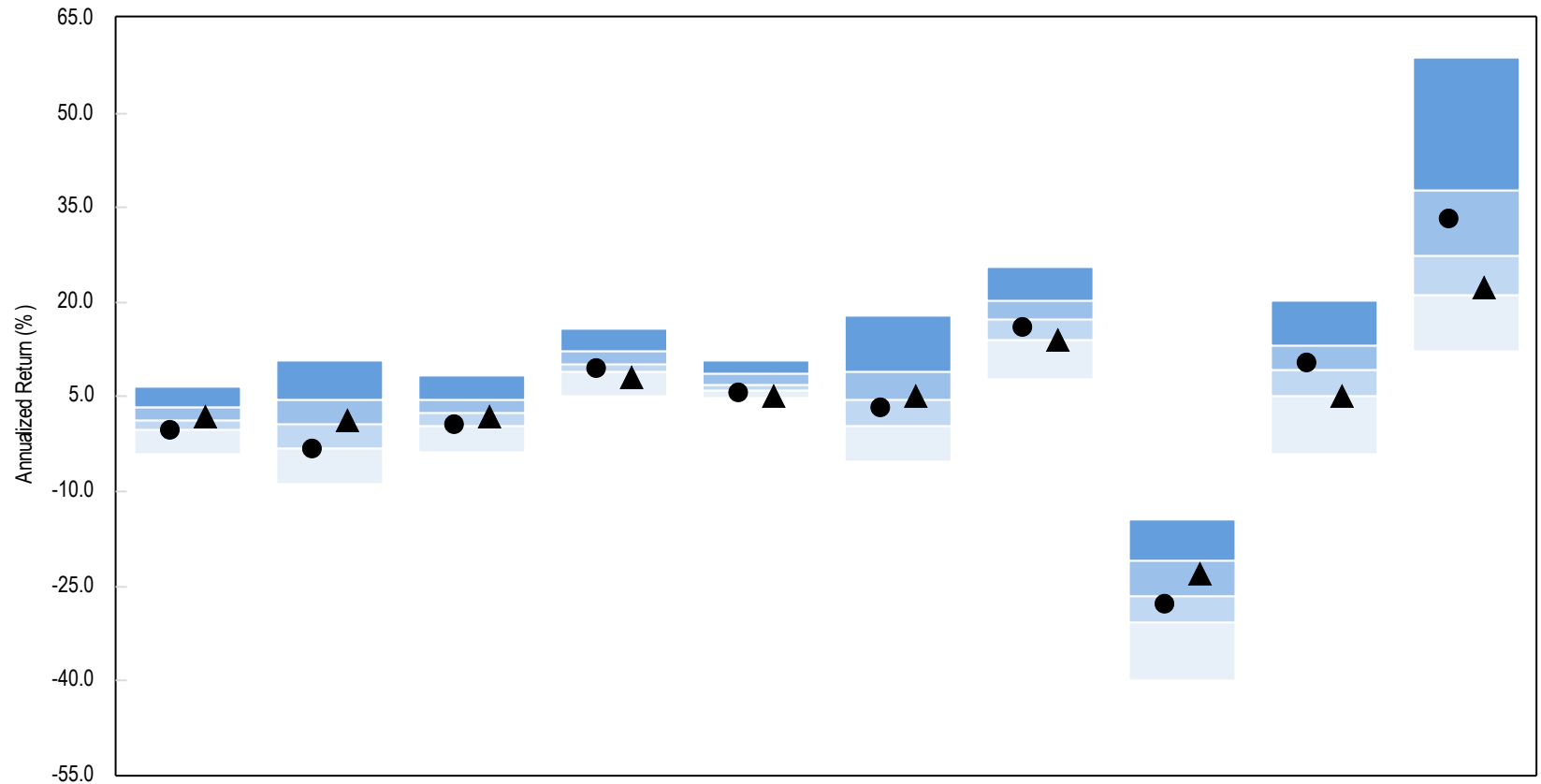
% of Portfolio 13.11 -2.28

International equity growth portfolio of non-US companies with high growth rates constructed from the security level. Primary personnel include Simon Fennell and Kenneth McAtamney.

William Blair
Manager Performance Comparisons (Gross of Fees)

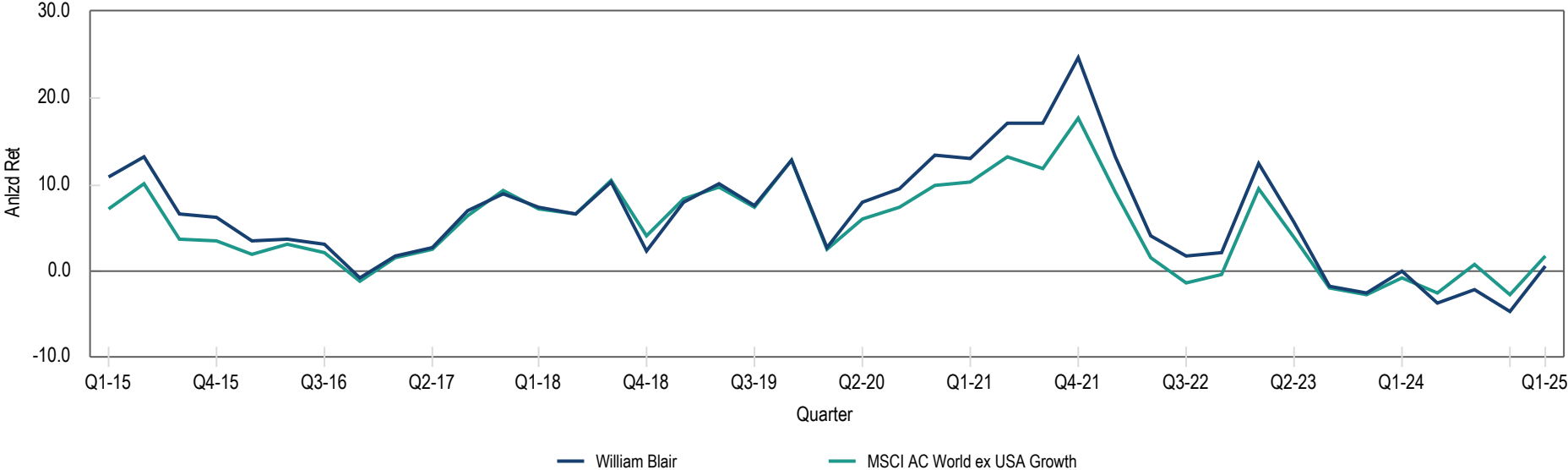
Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025

William Blair vs. eV ACWI ex-US Growth Equity Gross Universe

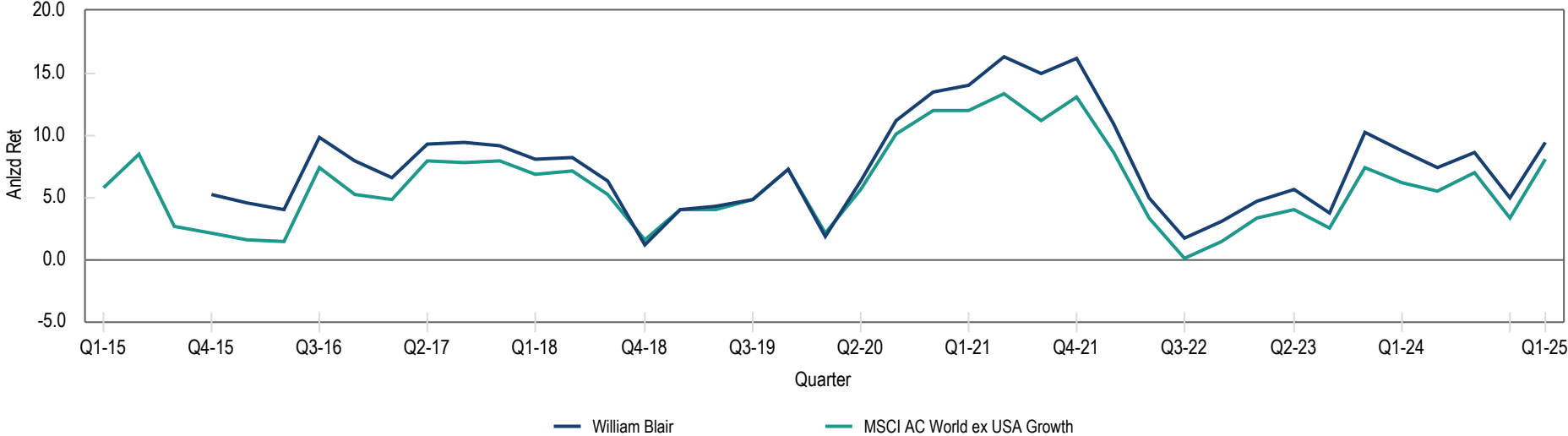


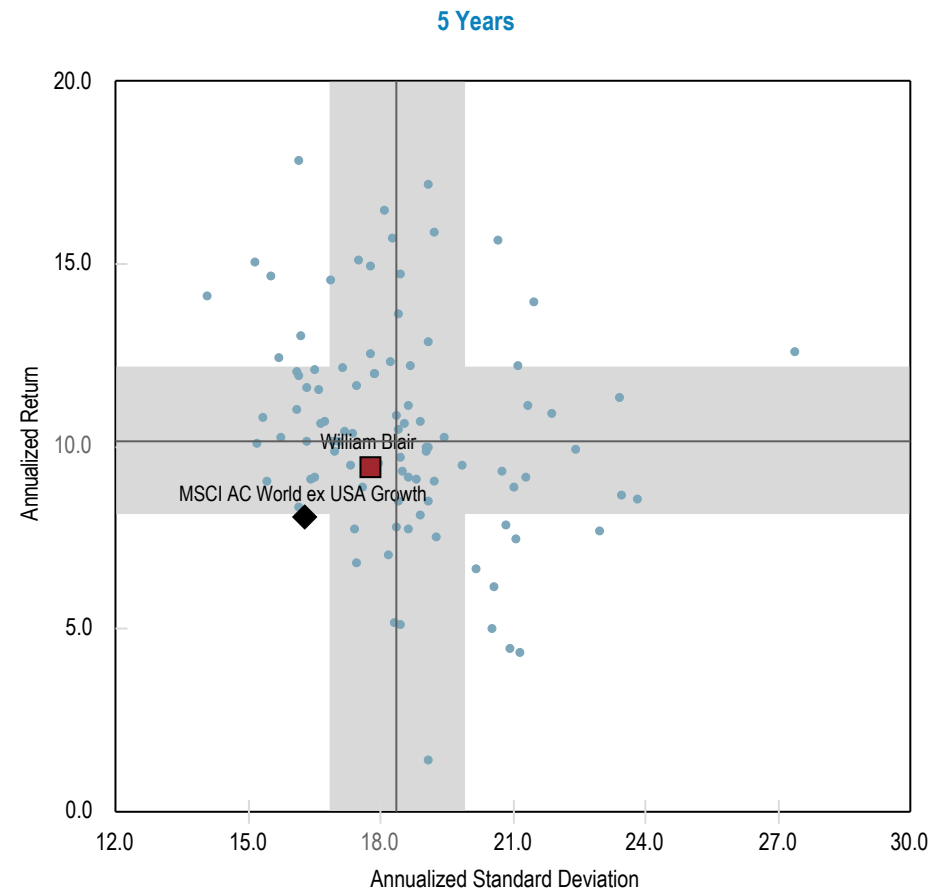
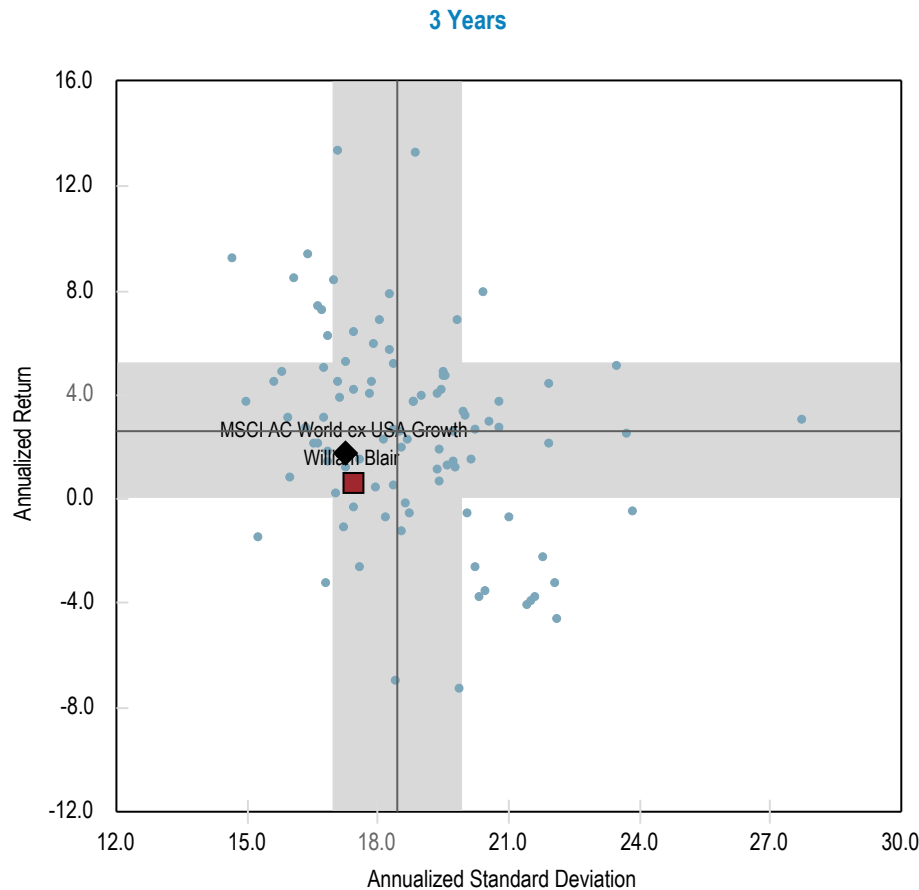
	Quarter	1 Year	3 Years	5 Years	10 Years	2024	2023	2022	2021	2020
● William Blair	-0.17 (75)	-3.30 (77)	0.60 (73)	9.48 (64)	5.63 (80)	3.39 (62)	16.15 (60)	-27.75 (58)	10.48 (41)	33.25 (34)
▲ MSCI AC World ex USA Growth	1.96 (36)	1.15 (48)	1.75 (62)	8.11 (83)	5.06 (93)	5.07 (47)	14.03 (77)	-23.05 (32)	5.09 (77)	22.20 (72)
5th Percentile	6.58	10.84	8.45	15.70	10.78	17.75	25.47	-14.29	20.29	58.75
1st Quartile	3.51	4.49	4.55	12.11	8.60	9.01	20.27	-20.98	13.16	37.76
Median	1.39	0.74	2.62	10.19	6.87	4.47	17.28	-26.59	9.33	27.47
3rd Quartile	-0.19	-3.21	0.50	8.93	5.92	0.52	14.18	-30.66	5.28	21.10
95th Percentile	-4.10	-8.84	-3.78	5.17	4.89	-5.17	7.96	-39.81	-3.92	12.38
Population	99	99	98	97	73	100	111	115	118	113

Rolling 3 Year Annualized Return (%)



Rolling 5 Year Annualized Return (%)





	3 Years		
	Anlzd Return (%)	Anlzd Standard Deviation (%)	Sharpe Ratio
William Blair	0.6	17.5	-0.1
MSCI AC World ex USA Growth (Net)	1.8	17.2	-0.1
eV ACWI ex-US Growth Equity Median	2.6	18.4	0.0
Population	98	98	98

	5 Years		
	Anlzd Return (%)	Anlzd Standard Deviation (%)	Sharpe Ratio
William Blair	9.5	17.8	0.5
MSCI AC World ex USA Growth (Net)	8.1	16.3	0.4
eV ACWI ex-US Growth Equity Median	10.2	18.4	0.5
Population	97	97	97

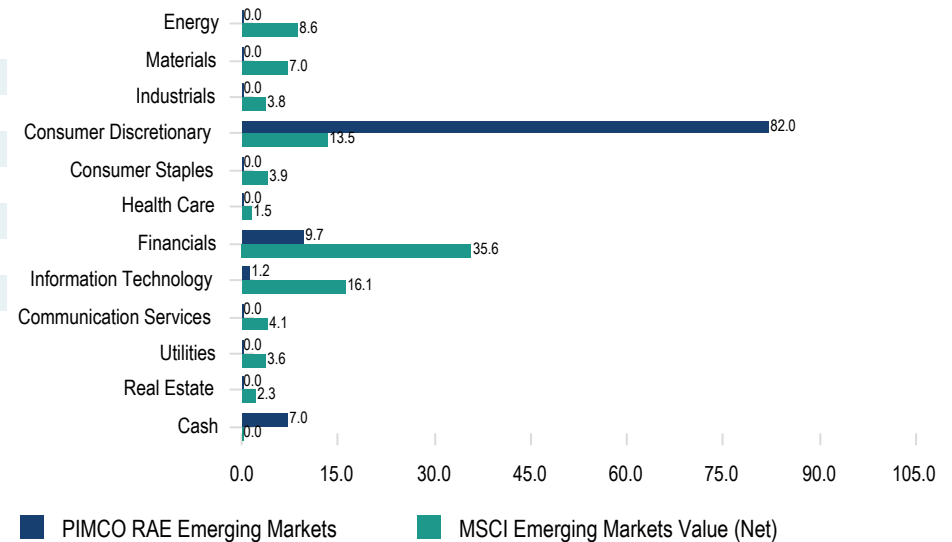
PIMCO RAE Emerging Markets Manager Portfolio Overview

Contra Costa County Employees' Retirement Association Period Ending: March 31, 2025

Characteristics

	Portfolio	Benchmark
Number of Stocks	364	681
Wtd. Avg. Mkt. Cap \$M	6,246.68	86,068.60
Median Mkt. Cap \$M	2,574.07	7,978.63
Price/Earnings ratio	8.03	10.47
Price/Book ratio	1.48	1.98
Return on Equity (%)	4.85	3.43
Current Yield (%)	8.39	4.16
Beta (5 Years, Monthly)	0.98	1.00

Sector Allocation (%) vs. MSCI Emerging Markets Value (Net)



Largest Holdings

	End Weight (%)	Quarterly Return (%)
Vipshop Holdings Limited	82.03	16.41
Lufax Holding Ltd	9.72	24.27
Silicon Motion Technology Corp	1.25	-5.61
Alibaba Group Holding Ltd	0.00	-
HDFC Bank Limited	0.00	-
Samsung Electronics Co Ltd	0.00	-
Reliance Industries Ltd	0.00	-
China Construction Bank Corp	0.00	-
SK Hynix Inc	0.00	-
Mediatek Incorporation	0.00	-

Top Contributors

	Portfolio Weight (%)	Quarterly Return (%)	Contribution to Return (%)
Bank of China Ltd	3.05	22.05	0.67
Vale SA	3.86	16.56	0.64
Petroleo Brasileiro S.A	4.41	10.75	0.47
China Construction Bank Corp	3.83	9.74	0.37
Vipshop Holdings Limited	1.55	16.41	0.25
KT Corporation	1.34	14.27	0.19
Hyundai Engineering & Construction Co Ltd	0.37	44.05	0.16
Sibanye-Stillwater Limited	0.37	42.67	0.16
AAC Technologies Holdings Inc	0.60	25.40	0.15
PICC Property & Casualty	0.88	17.11	0.15

% of Portfolio

20.26

3.23

Top Detractors

	Portfolio Weight (%)	Quarterly Return (%)	Contribution to Return (%)
China Petroleum & Chemical	3.92	-8.01	-0.31
Sammaan Capital Limited	0.92	-28.99	-0.27
National Aluminium Co Ltd	1.29	-15.12	-0.19
Compal Electronics Inc	0.95	-13.07	-0.12
Evergreen Marine Corp (Taiwan) Ltd	3.73	-3.23	-0.12
Top Glove Corp Berhad	0.27	-39.09	-0.11
Sinopharm Group Co	0.66	-15.44	-0.10
Hindustan Petroleum Corp Ltd	0.75	-11.70	-0.09
Pegatron Corp	0.87	-9.85	-0.09
REC Ltd	0.67	-12.46	-0.08

% of Portfolio

14.03

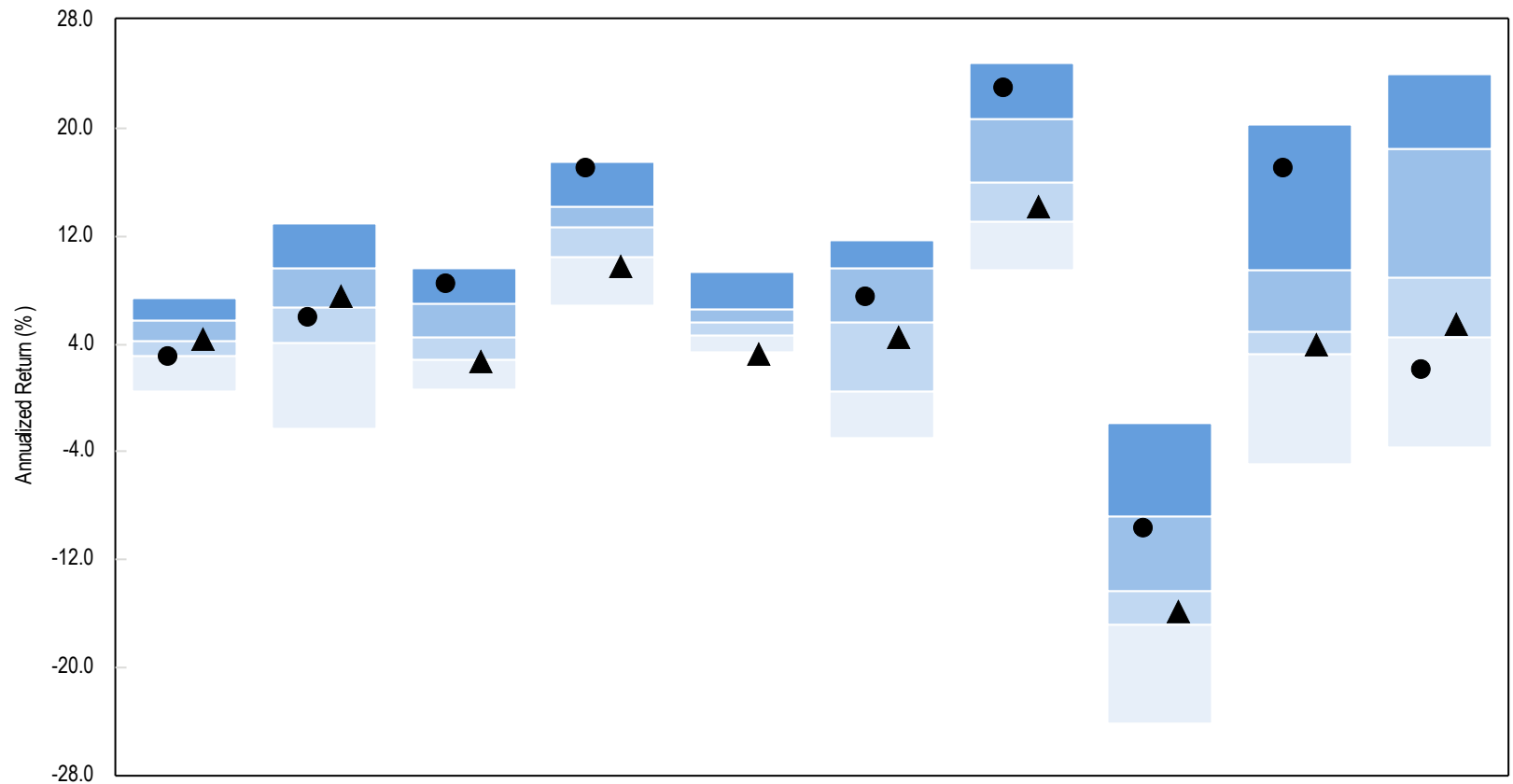
-1.49

The PIMCO RAE Emerging Markets seeks to invest 80% of its assets in investments that are economically tied to emerging market countries. The portfolio is sub-advised by Research Affiliates, LLC.

PIMCO RAE Emerging Markets
Manager Performance Comparisons (Gross of Fees)

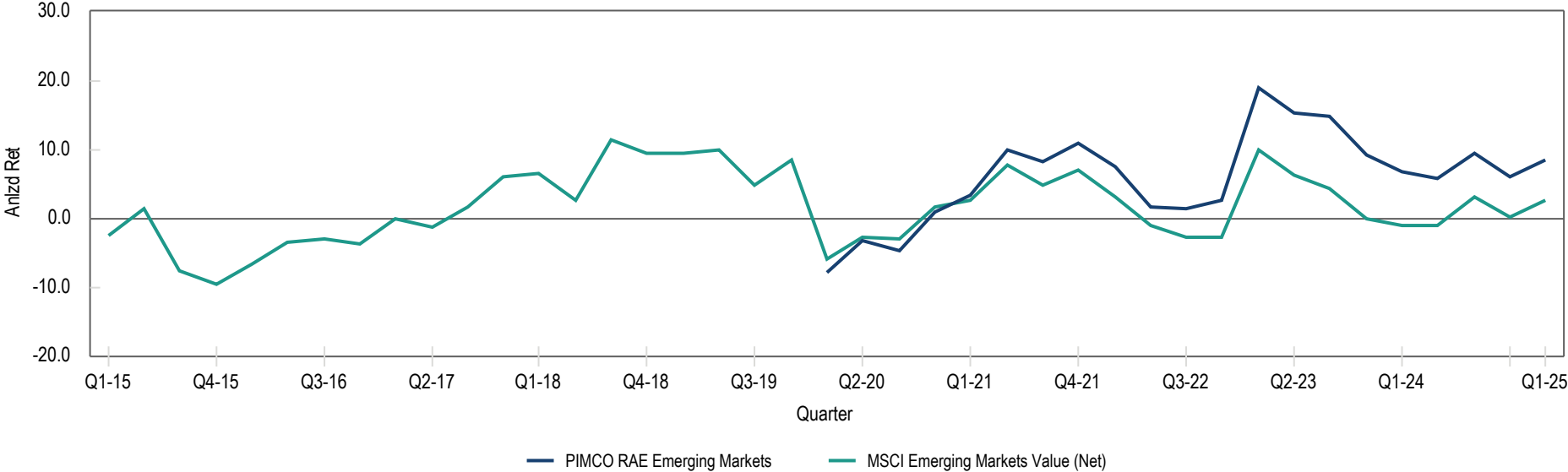
Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025

PIMCO RAE Emerging Markets vs. eV Emg Mkts All Cap Value Equity Gross Universe

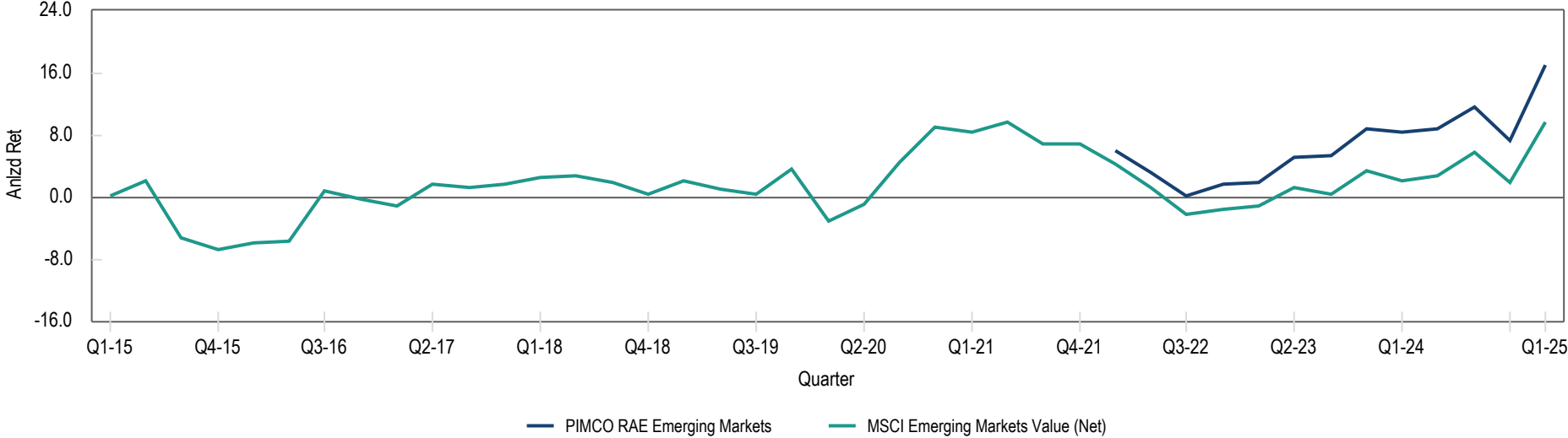


	Quarter	1 Year	3 Years	5 Years	10 Years	2024	2023	2022	2021	2020
● PIMCO RAE Emerging Markets	3.10 (75)	6.08 (55)	8.54 (10)	17.10 (7)	-	7.49 (41)	23.09 (11)	-9.66 (33)	17.08 (8)	2.13 (85)
▲ MSCI Emerging Markets Value NR	4.32 (50)	7.60 (35)	2.76 (77)	9.81 (84)	3.21 (100)	4.51 (52)	14.21 (67)	-15.83 (63)	4.00 (68)	5.48 (72)
5th Percentile	7.41	12.91	9.63	17.49	9.34	11.66	24.75	-1.92	20.32	23.96
1st Quartile	5.72	9.65	7.03	14.17	6.61	9.59	20.68	-8.83	9.47	18.49
Median	4.21	6.71	4.54	12.67	5.60	5.54	15.92	-14.26	4.87	8.93
3rd Quartile	3.07	4.05	2.88	10.43	4.62	0.47	13.06	-16.84	3.27	4.50
95th Percentile	0.52	-2.26	0.61	6.91	3.45	-3.01	9.52	-24.07	-4.86	-3.63
Population	56	56	52	46	33	55	53	58	57	59

Rolling 3 Year Annualized Return (%)

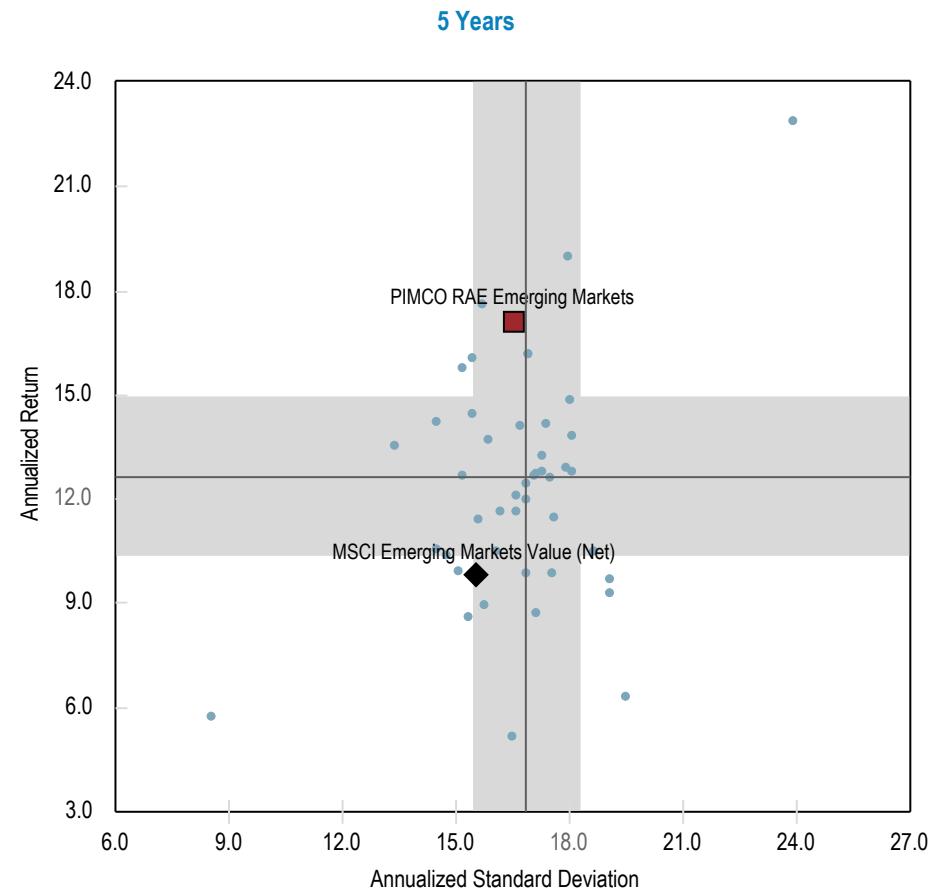
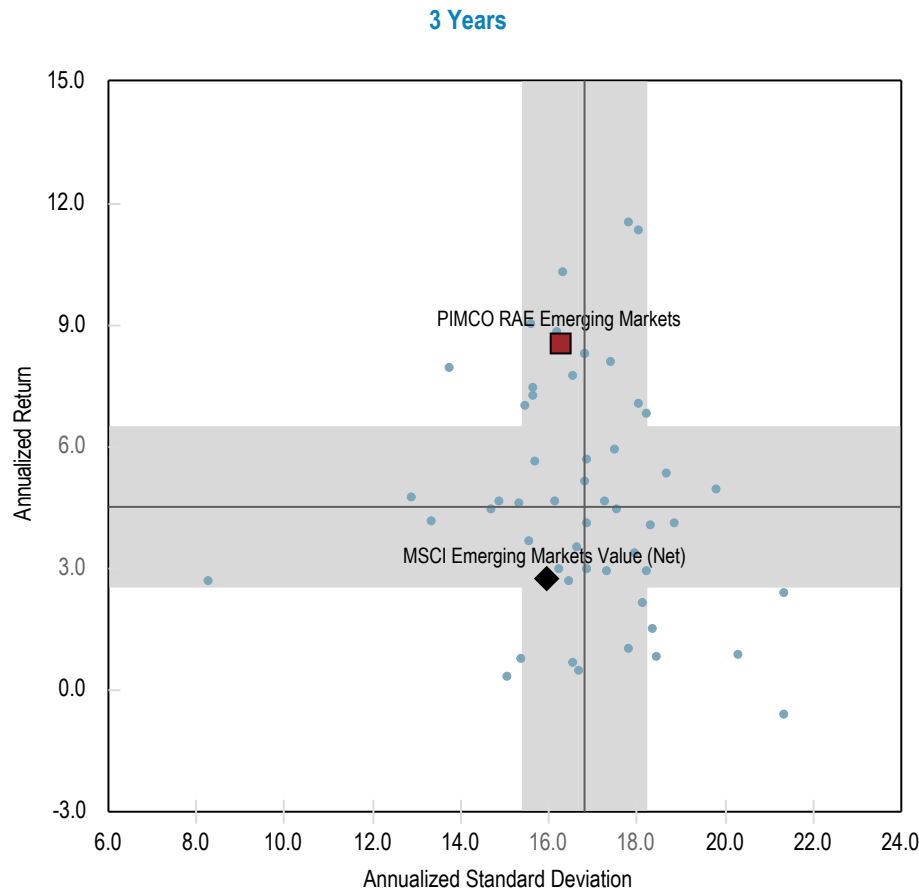


Rolling 5 Year Annualized Return (%)



PIMCO RAE Emerging Markets
Risk vs. Return 3 & 5 Year (Gross of Fees)

Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025



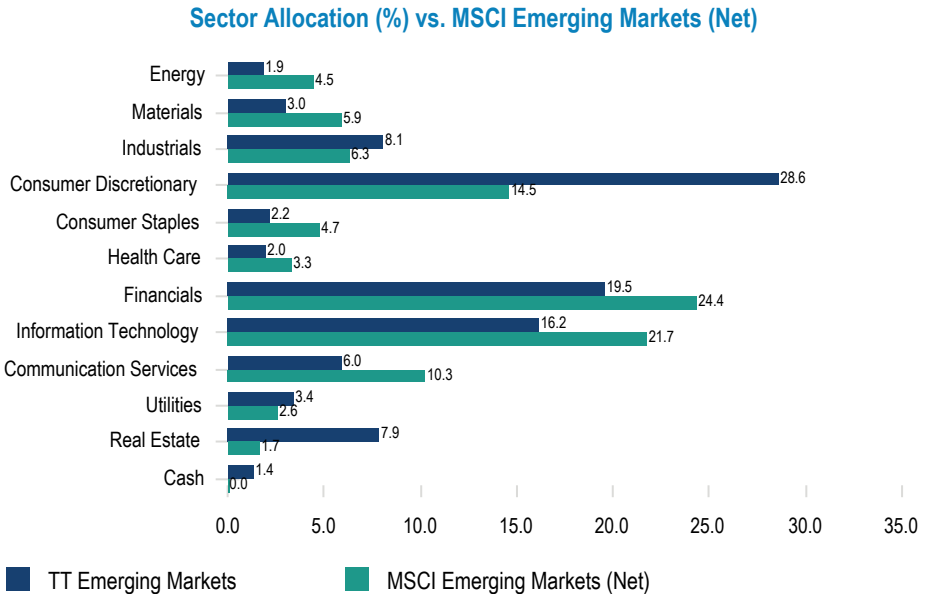
	3 Years		
	Anlzd Return (%)	Anlzd Standard Deviation (%)	Sharpe Ratio
PIMCO RAE Emerging Markets	8.5	16.3	0.3
MSCI Emerging Markets Value (Net)	2.8	15.9	0.0
eV Emg Mkts All Cap Value Equity Median	4.5	16.8	0.1
Population	52	52	52

	5 Years		
	Anlzd Return (%)	Anlzd Standard Deviation (%)	Sharpe Ratio
PIMCO RAE Emerging Markets	17.1	16.5	0.9
MSCI Emerging Markets Value (Net)	9.8	15.5	0.5
eV Emg Mkts All Cap Value Equity Median	12.7	16.8	0.6
Population	46	46	46

TT Emerging Markets Manager Portfolio Overview

Contra Costa County Employees' Retirement Association Period Ending: March 31, 2025

Characteristics		
	Portfolio	Benchmark
Number of Stocks	86	1,206
Wtd. Avg. Mkt. Cap \$M	136,839.87	153,579.21
Median Mkt. Cap \$M	21,070.66	8,042.33
Price/Earnings ratio	13.85	13.95
Price/Book ratio	2.49	2.73
Return on Equity (%)	5.56	5.03
Current Yield (%)	1.52	2.75
Beta (5 Years, Monthly)	1.09	1.00



Largest Holdings

	End Weight (%)	Quarterly Return (%)
Taiwan Semiconductor Man.	7.50	-16.03
Emaar Properties	4.52	3.89
Grupo Financiero Galicia Sa, Buenos Aires	3.98	-12.60
Tencent Holdings LTD	3.47	19.00
Pampa Energia SA	3.43	-12.21
Prosus NV	3.28	15.81
Samsung Electronics Co Ltd	3.15	8.62
MercadoLibre Inc	3.01	14.73
Contemporary Amperex Technology Co Ltd	2.91	-3.83
Alibaba Group Holding Ltd	2.67	55.09

Top Contributors

	Portfolio Weight (%)	Quarterly Return (%)	Contribution to Return (%)
Alibaba Group Holding Ltd	2.54	55.09	1.40
Hanwha Aerospace Co Ltd	1.24	91.99	1.14
Tencent Holdings LTD	5.75	19.00	1.09
BYD Company Limited	1.65	33.50	0.55
Nova Ljubljanska Banka d.d	3.59	14.54	0.52
MercadoLibre Inc	3.33	14.73	0.49
Sk Square Co Ltd	2.22	17.75	0.39
AngloGold Ashanti plc	0.57	64.27	0.36
Hong Kong Exchanges and Clearing Ltd	1.88	18.41	0.35
Zijin Mining Group Co Ltd	1.19	24.84	0.30
% of Portfolio	23.96		6.59

Top Detractors

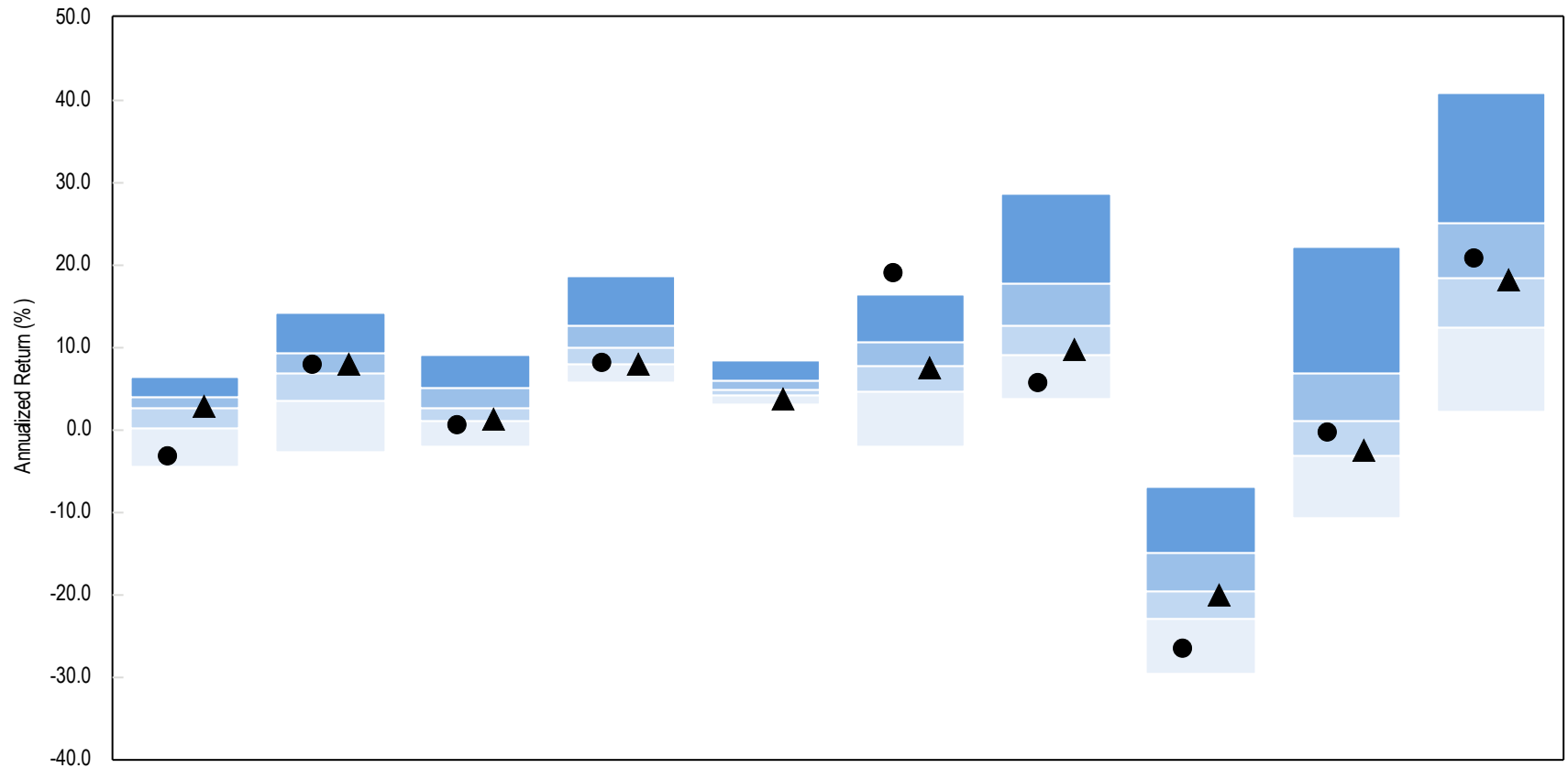
	Portfolio Weight (%)	Quarterly Return (%)	Contribution to Return (%)
Taiwan Semiconductor Man.	11.97	-16.03	-1.92
Akbank T A S	3.60	-23.25	-0.84
Prestige Estates Projects Ltd	2.16	-29.97	-0.65
Alchip Technologies Inc	2.78	-17.52	-0.49
Bim Birlesik Magazalar	2.40	-19.23	-0.46
Quanta Computer Inc	1.90	-22.76	-0.43
Hon Hai Precision Industry	1.94	-21.65	-0.42
ASE Technology Holding Co Ltd	2.44	-12.84	-0.31
Capstone Copper Corp	1.76	-16.71	-0.29
Ypf Sociedad Anonima	2.31	-11.85	-0.27
% of Portfolio	33.26		-6.08

The Emerging Markets Unconstrained strategy aims to outperform its benchmark, MSCI Emerging Markets Index by 5% per annum over a three-year rolling period. It targets high returns and long term capital growth by investing in a focused portfolio of primarily equity and equity-related securities traded in the Emerging Markets.

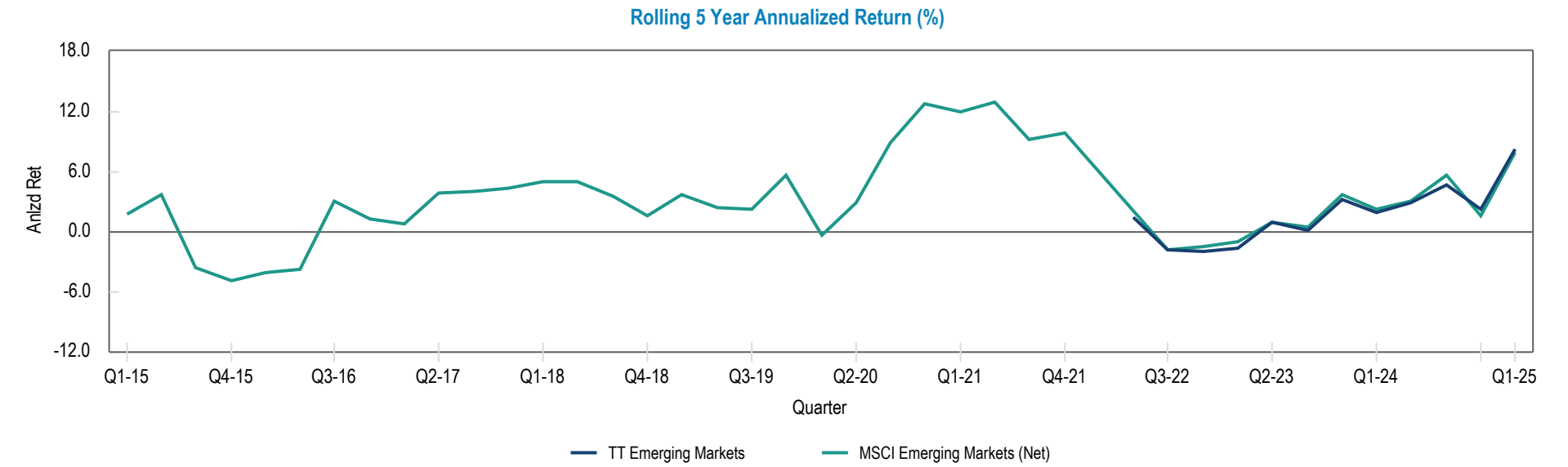
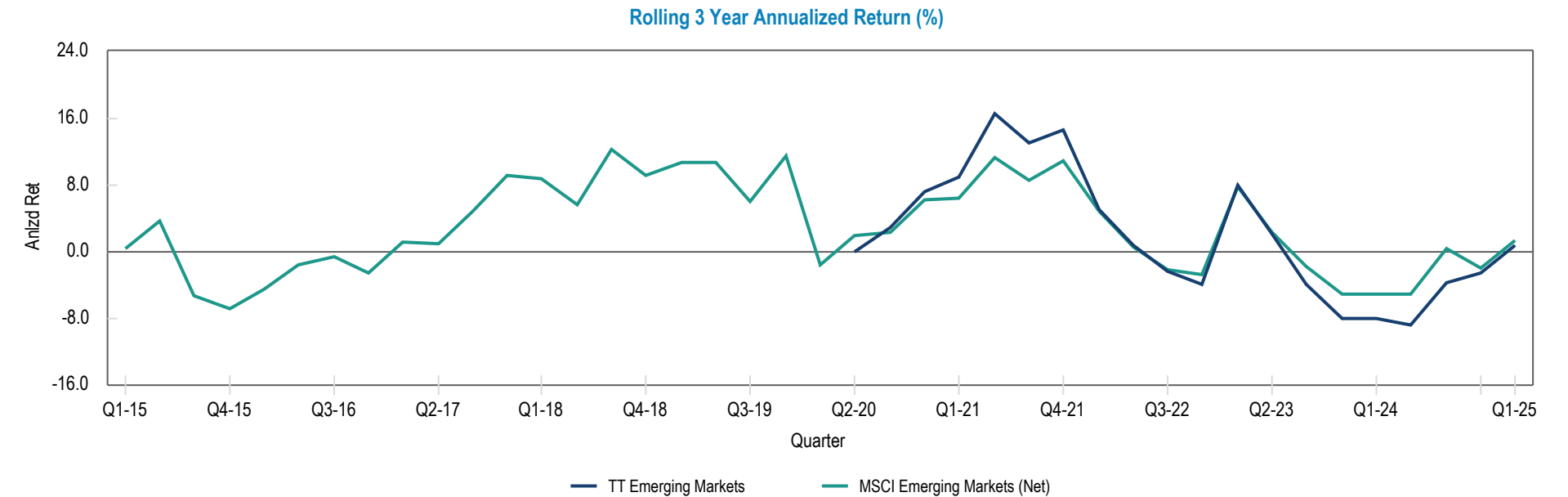
TT Emerging Markets
Manager Performance Comparisons (Gross of Fees)

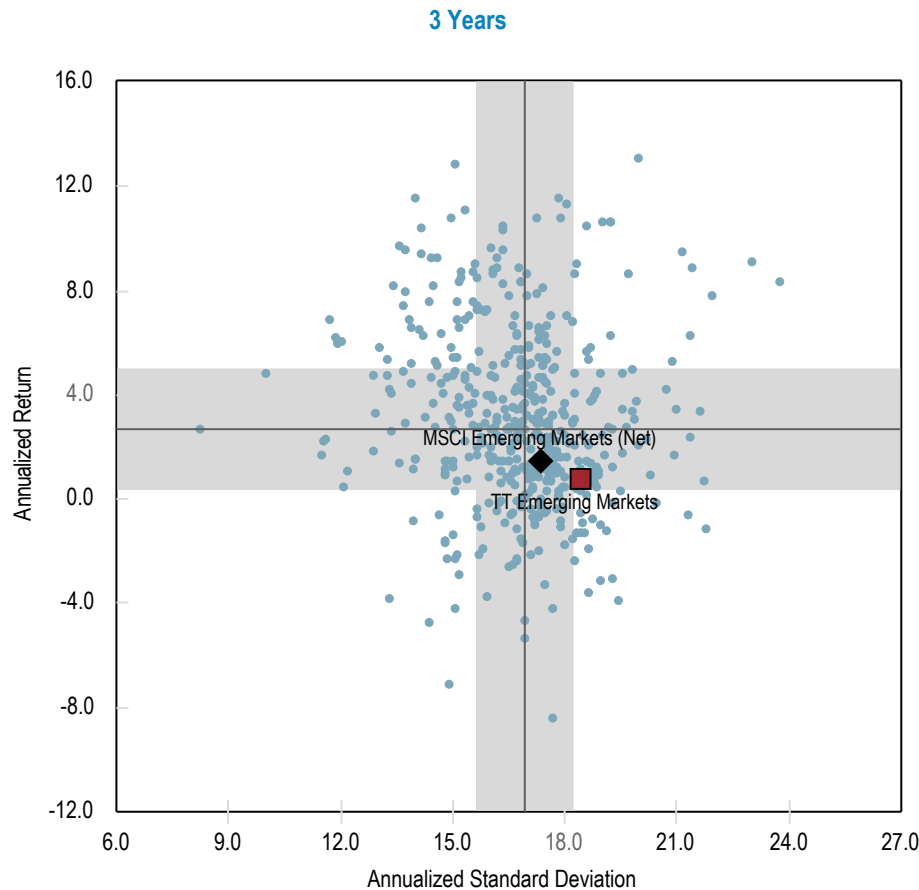
Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025

TT Emerging Markets vs. eV Emg Mkts Equity Gross Universe

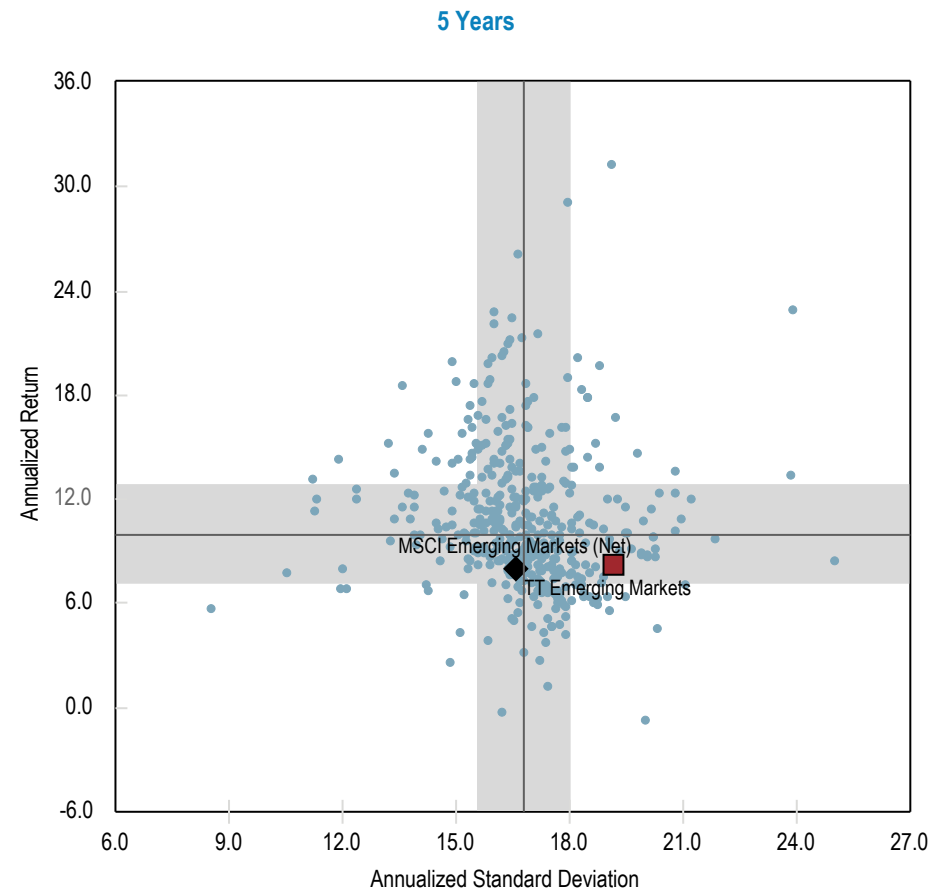


	Quarter	1 Year	3 Years	5 Years	10 Years	2024	2023	2022	2021	2020
● TT Emerging Markets	-3.03 (92)	8.08 (39)	0.78 (79)	8.28 (72)	-	19.10 (2)	5.80 (92)	-26.36 (90)	-0.23 (59)	20.79 (39)
▲ MSCI Emerging Markets	2.93 (45)	8.09 (39)	1.44 (67)	7.94 (76)	3.71 (84)	7.50 (54)	9.83 (67)	-20.09 (57)	-2.54 (72)	18.31 (51)
5th Percentile	6.50	14.24	9.20	18.64	8.36	16.47	28.67	-6.84	22.18	40.94
1st Quartile	3.89	9.36	5.13	12.72	6.06	10.69	17.68	-14.88	6.89	25.11
Median	2.61	6.89	2.70	10.00	4.99	7.82	12.60	-19.46	1.13	18.34
3rd Quartile	0.27	3.46	1.04	8.02	4.16	4.74	9.01	-22.85	-3.01	12.37
95th Percentile	-4.36	-2.58	-2.07	5.72	3.00	-2.10	3.74	-29.66	-10.70	2.14
Population	521	520	489	440	319	536	555	582	590	586





	3 Years		
	Anlzd Return (%)	Anlzd Standard Deviation (%)	Sharpe Ratio
TT Emerging Markets	0.8	18.4	-0.1
MSCI Emerging Markets (Net)	1.4	17.3	-0.1
eV Emg Mkts Equity Median	2.7	16.9	0.0
Population	489	489	489



	5 Years		
	Anlzd Return (%)	Anlzd Standard Deviation (%)	Sharpe Ratio
TT Emerging Markets	8.3	19.2	0.4
MSCI Emerging Markets (Net)	7.9	16.6	0.4
eV Emg Mkts Equity Median	10.0	16.8	0.5
Population	440	440	440

Global Equity Managers

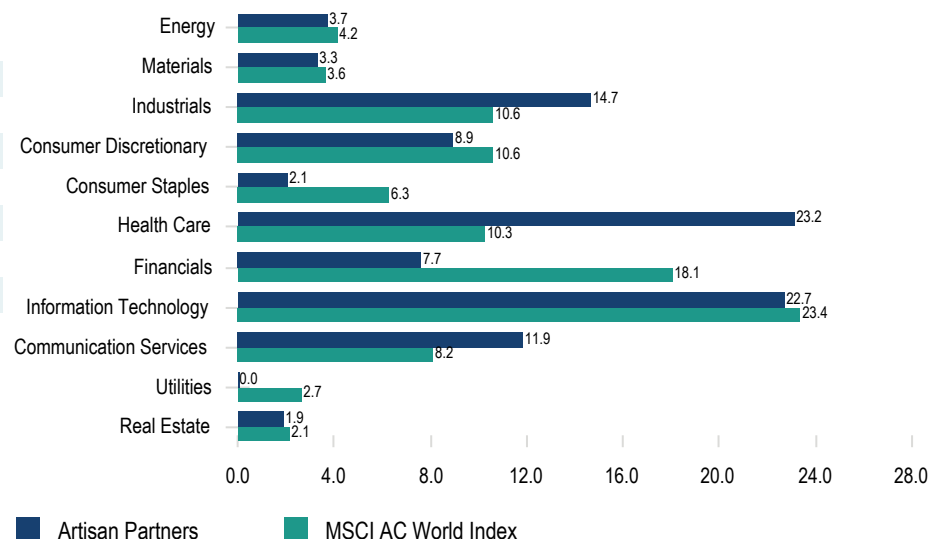
Artisan Partners Manager Portfolio Overview

Contra Costa County Employees' Retirement Association Period Ending: March 31, 2025

Characteristics

	Portfolio	Benchmark
Number of Stocks	46	2,558
Wtd. Avg. Mkt. Cap \$M	305,154.88	591,381.42
Median Mkt. Cap \$M	92,909.85	13,582.10
Price/Earnings ratio	35.04	21.06
Price/Book ratio	5.95	3.74
Return on Equity (%)	6.40	11.96
Current Yield (%)	0.83	1.94
Beta (5 Years, Monthly)	1.08	1.00

Sector Allocation (%) vs. MSCI AC World Index



Largest Holdings

	End Weight (%)	Quarterly Return (%)
Netflix Inc	5.84	4.62
Boston Scientific Corp	5.34	12.94
London Stock Exchange Group	4.40	4.66
arGEN-X SE	4.39	-3.76
Tencent Holdings LTD	4.33	19.00
LONZA GROUP AG	3.61	3.65
Amazon.com Inc	3.10	-13.28
BAE Systems PLC	3.06	39.94
Astrazeneca PLC	2.95	12.41
Apple Inc	2.86	-11.20

Top Contributors

	Portfolio Weight (%)	Quarterly Return (%)	Contribution to Return (%)
BAE Systems PLC	1.82	39.94	0.73
Boston Scientific Corp	5.23	12.94	0.68
Tencent Holdings LTD	3.36	19.00	0.64
Sea Limited	1.32	22.99	0.30
Vertex Pharmaceuticals Inc	1.40	20.39	0.28
Netflix Inc	5.33	4.62	0.25
Linde Plc	2.01	11.59	0.23
Astrazeneca PLC	1.79	12.41	0.22
RELX PLC	1.80	9.99	0.18
London Stock Exchange Group	3.80	4.66	0.18

% of Portfolio 27.86 3.69

Top Detractors

	Portfolio Weight (%)	Quarterly Return (%)	Contribution to Return (%)
Taiwan Semiconductor Man.	4.72	-15.61	-0.74
West Pharmaceutical Services Inc.	2.30	-31.61	-0.73
Advanced Micro Devices Inc	3.81	-14.94	-0.57
Marvell Technology Inc	1.22	-44.23	-0.54
Arista Networks Inc	1.68	-29.90	-0.50
Oracle Corp	2.92	-15.88	-0.46
ON Semiconductor Corp	1.25	-35.46	-0.44
Amazon.com Inc	3.23	-13.28	-0.43
Novo Nordisk A/S	2.10	-20.21	-0.42
Quanta Services Inc.	2.07	-19.55	-0.40

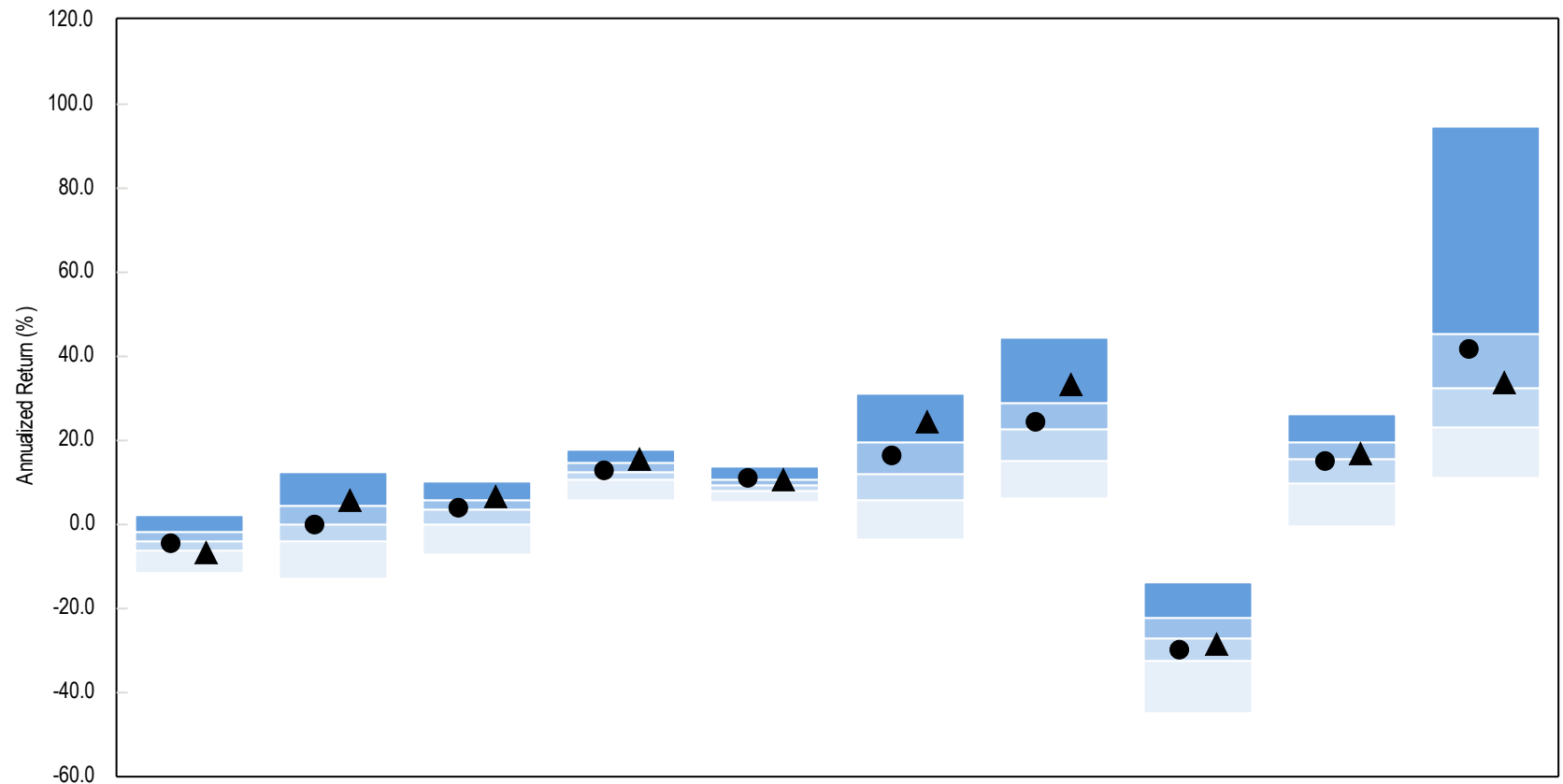
% of Portfolio 25.30 -5.24

Global equity portfolio of companies that is benchmark agnostic with accelerating profit cycles and a focus on capital allocation. Primary personnel include James Hamel, Craigh Cepukenas, and Matthew Kamm.

Artisan Partners
Manager Performance Comparisons (Gross of Fees)

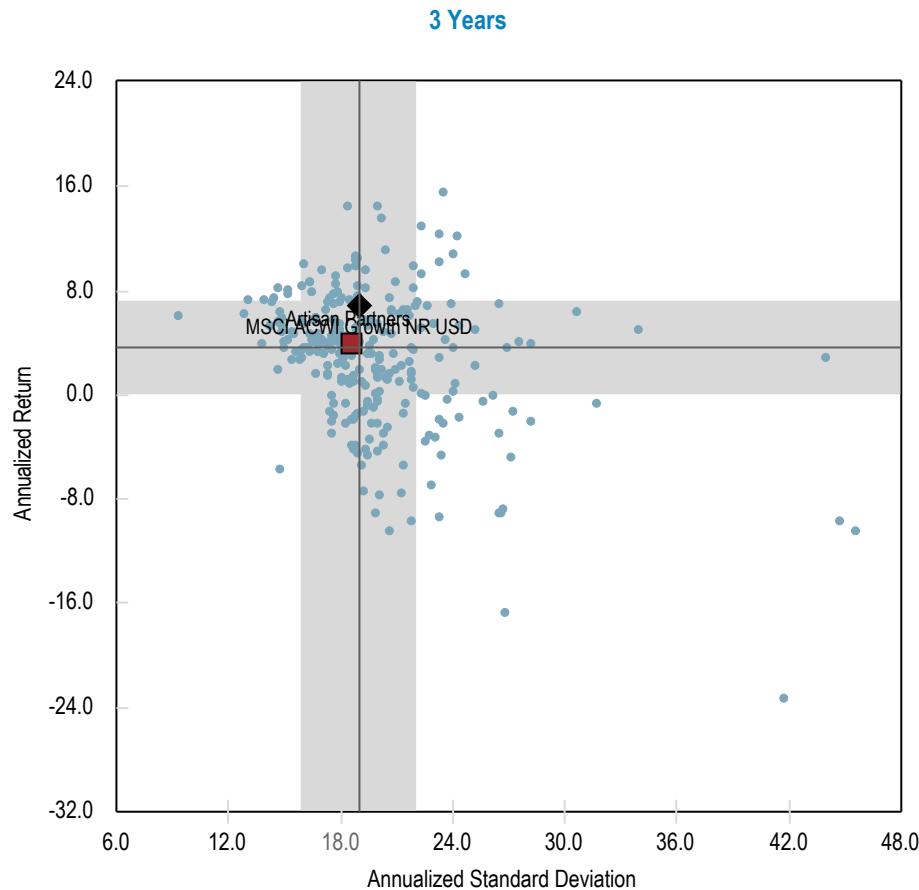
Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025

Artisan Partners vs. eV Global Growth Equity Gross Universe

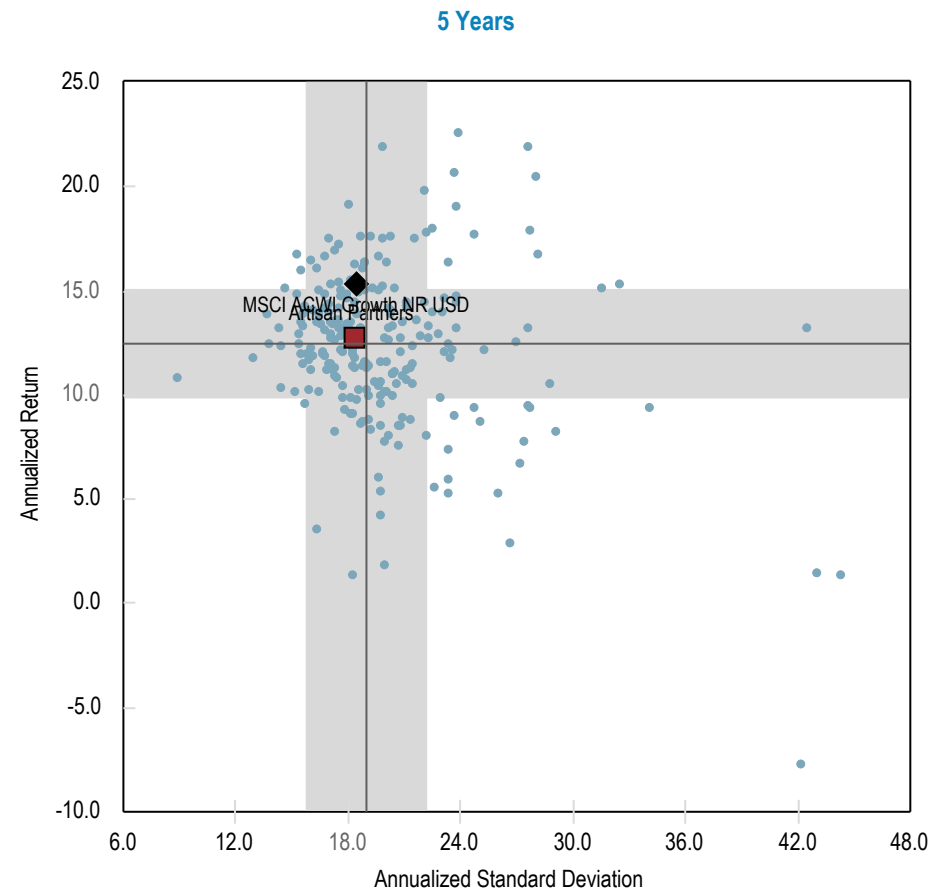


	Quarter	1 Year	3 Years	5 Years	10 Years	2024	2023	2022	2021	2020
● Artisan Partners	-4.35 (55)	0.14 (50)	3.94 (49)	12.72 (48)	11.30 (19)	16.30 (36)	24.54 (39)	-29.59 (60)	14.99 (57)	41.66 (33)
▲ MSCI ACWI Growth NR USD	-6.82 (78)	5.70 (19)	6.83 (20)	15.36 (15)	10.62 (26)	24.23 (15)	33.22 (19)	-28.61 (55)	17.10 (43)	33.60 (49)
5th Percentile	2.43	12.22	10.07	17.69	13.85	31.04	44.26	-13.75	26.07	94.60
1st Quartile	-1.66	4.39	5.96	14.45	10.68	19.68	28.81	-22.08	19.77	45.27
Median	-3.86	-0.10	3.68	12.49	9.25	11.88	22.45	-27.17	15.76	32.61
3rd Quartile	-6.42	-4.13	0.01	10.47	8.22	5.92	15.33	-32.27	9.96	23.04
95th Percentile	-11.75	-12.68	-7.16	5.81	5.18	-3.66	6.19	-44.85	-0.40	11.15
Population	294	293	268	232	139	302	310	312	297	276





	3 Years		
	Anlzd Return (%)	Anlzd Standard Deviation (%)	Sharpe Ratio
Artisan Partners	3.9	18.6	0.1
MSCI ACWI Growth NR USD	6.8	19.0	0.2
eV Global Growth Equity Median	3.7	19.0	0.1
Population	268	268	268



	5 Years		
	Anlzd Return (%)	Anlzd Standard Deviation (%)	Sharpe Ratio
Artisan Partners	12.7	18.3	0.6
MSCI ACWI Growth NR USD	15.4	18.4	0.7
eV Global Growth Equity Median	12.5	19.0	0.6
Population	232	232	232

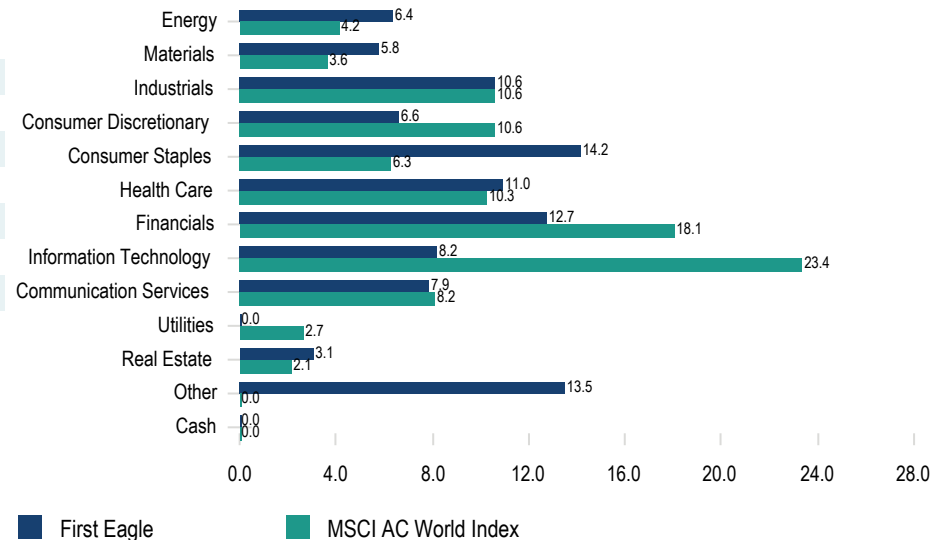
First Eagle Manager Portfolio Overview

Contra Costa County Employees' Retirement Association Period Ending: March 31, 2025

Characteristics

	Portfolio	Benchmark
Number of Stocks	129	2,558
Wtd. Avg. Mkt. Cap \$M	183,830.01	591,381.42
Median Mkt. Cap \$M	33,503.07	13,582.10
Price/Earnings ratio	17.76	21.06
Price/Book ratio	2.47	3.74
Return on Equity (%)	7.09	11.96
Current Yield (%)	2.18	1.94
Beta (5 Years, Monthly)	0.72	1.00

Sector Allocation (%) vs. MSCI AC World Index



Largest Holdings

	End Weight (%)	Quarterly Return (%)
SPDR Gold Trust	13.48	19.00
Meta Platforms Inc	2.68	-1.48
Oracle Corp	2.29	-15.88
HCA Healthcare Inc	2.05	15.38
Philip Morris International Inc	2.00	33.06
Elevance Health Inc	1.85	18.40
Alphabet Inc	1.70	-17.87
Comcast Corp	1.68	-0.86
Becton Dickinson and Co	1.63	1.43
Schlumberger Ltd	1.62	9.79

Top Contributors

	Portfolio Weight (%)	Quarterly Return (%)	Contribution to Return (%)
SPDR Gold Trust	12.98	19.00	2.47
Philip Morris International Inc	1.72	33.06	0.57
Alibaba Group Holding Ltd	0.78	55.09	0.43
Wheaton Precious Metals Corp	0.88	38.03	0.33
Elevance Health Inc	1.72	18.40	0.32
BAE Systems PLC	0.79	39.94	0.32
HCA Healthcare Inc	1.94	15.38	0.30
Imperial Oil Ltd	1.29	18.17	0.23
British American Tobacco	1.45	16.07	0.23
Prosus NV	1.41	15.81	0.22

Top Detractors

	Portfolio Weight (%)	Quarterly Return (%)	Contribution to Return (%)
Oracle Corp	2.99	-15.88	-0.47
Alphabet Inc	2.06	-17.87	-0.37
SALESFORCE INC	1.15	-19.73	-0.23
Taiwan Semiconductor Man.	1.18	-15.61	-0.18
Noble Corporation Plc	0.59	-22.85	-0.13
Alphabet Inc	0.66	-18.21	-0.12
Flowserve Corp.	0.66	-14.73	-0.10
American Express Co	1.04	-9.14	-0.10
Bio-Rad Laboratories Inc	0.35	-25.86	-0.09
DENTSPLY SIRONA Inc	0.41	-20.44	-0.08

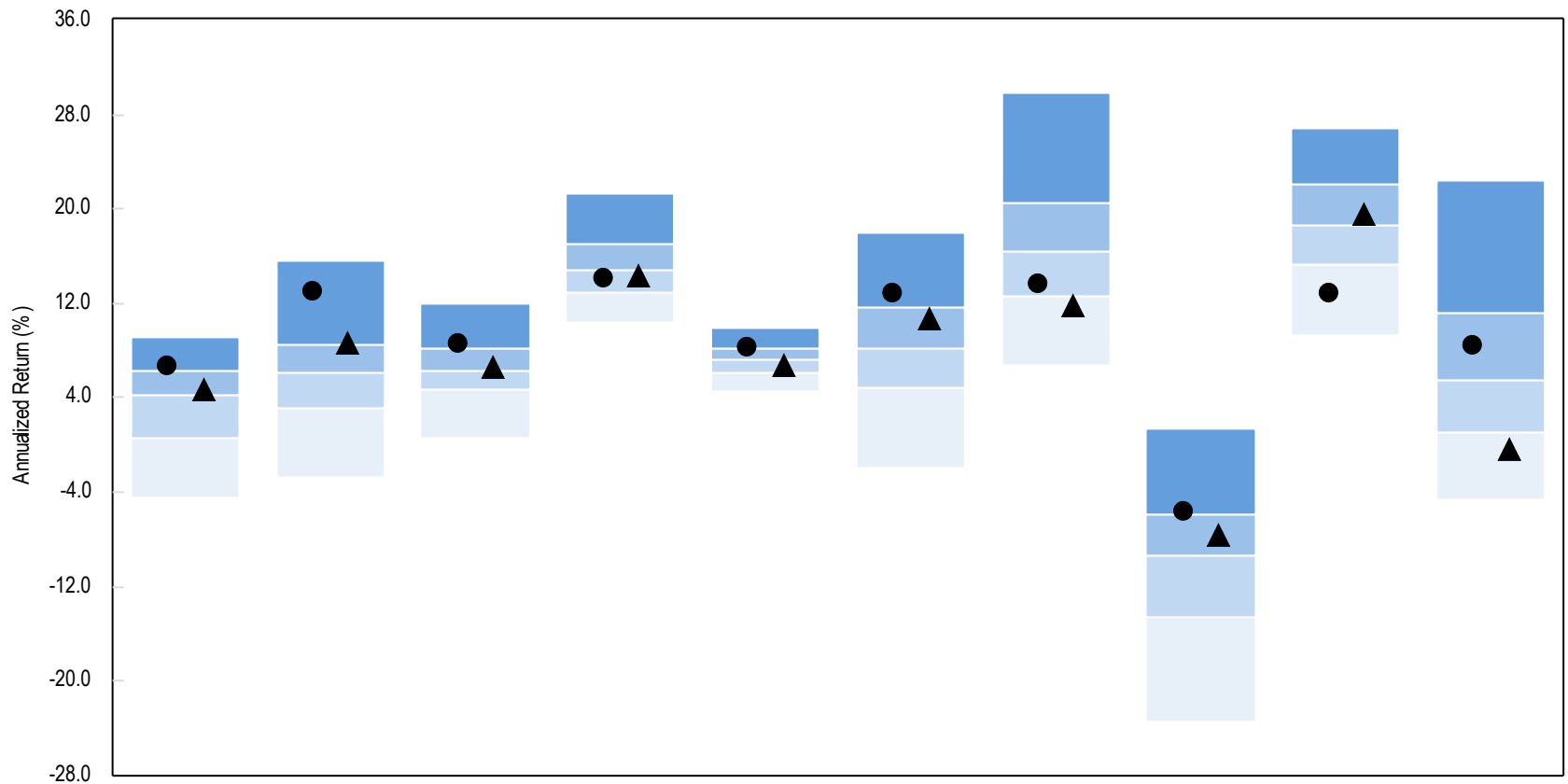
% of Portfolio	24.96	5.42	% of Portfolio	11.09	-1.88
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Global equity portfolio that is benchmark agnostic comprised of companies with low valuations. Primary personnel include Matt McLennan and Kimball Brooker.

First Eagle
Manager Performance Comparisons (Gross of Fees)

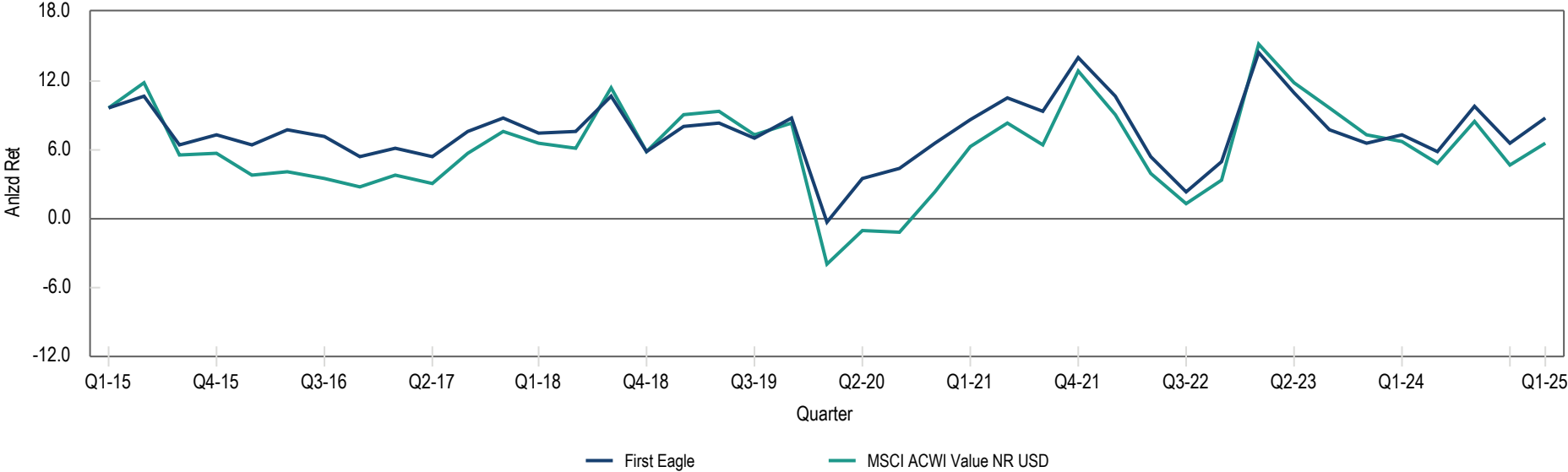
Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025

First Eagle vs. eV Global Value Equity Gross Universe

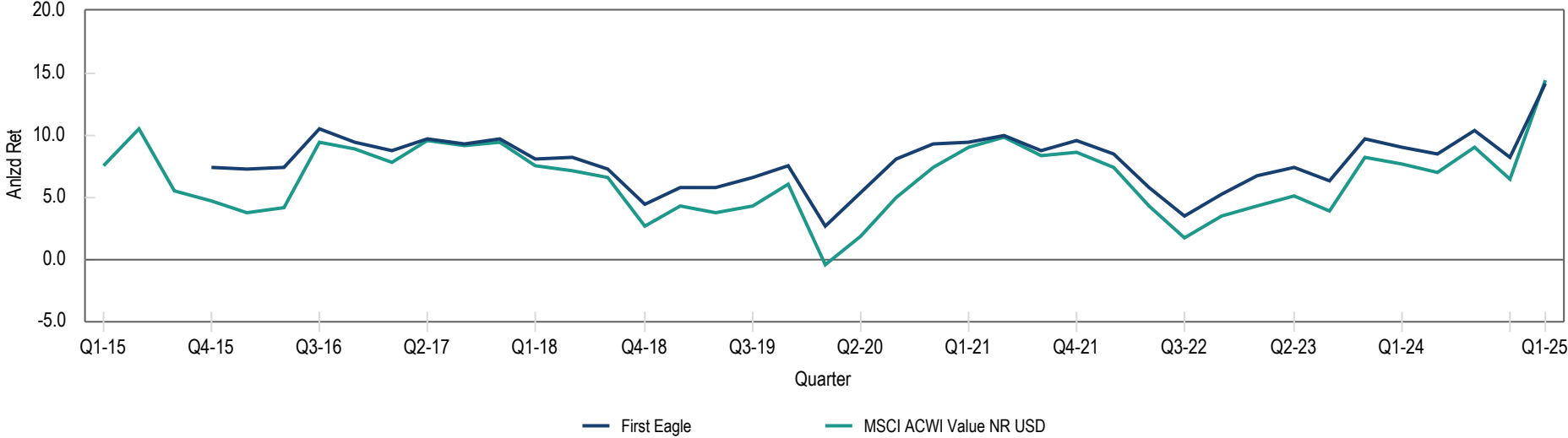


	Quarter	1 Year	3 Years	5 Years	10 Years	2024	2023	2022	2021	2020
● First Eagle	6.76 (20)	13.16 (9)	8.72 (18)	14.25 (58)	8.35 (21)	12.98 (18)	13.75 (67)	-5.61 (24)	12.95 (87)	8.47 (34)
▲ MSCI ACWI Value NR USD	4.77 (42)	8.60 (25)	6.59 (47)	14.42 (57)	6.72 (68)	10.76 (32)	11.81 (81)	-7.55 (36)	19.62 (41)	-0.33 (80)
5th Percentile	9.09	15.67	11.94	21.33	9.87	18.04	29.77	1.37	26.78	22.46
1st Quartile	6.22	8.55	8.20	17.09	8.25	11.65	20.47	-5.95	22.07	11.20
Median	4.19	6.08	6.28	14.90	7.20	8.20	16.39	-9.36	18.66	5.53
3rd Quartile	0.55	3.14	4.69	12.92	6.08	4.82	12.56	-14.64	15.29	1.03
95th Percentile	-4.41	-2.78	0.59	10.33	4.49	-1.89	6.75	-23.34	9.31	-4.62
Population	232	232	215	188	143	240	242	242	240	245

Rolling 3 Year Annualized Return (%)

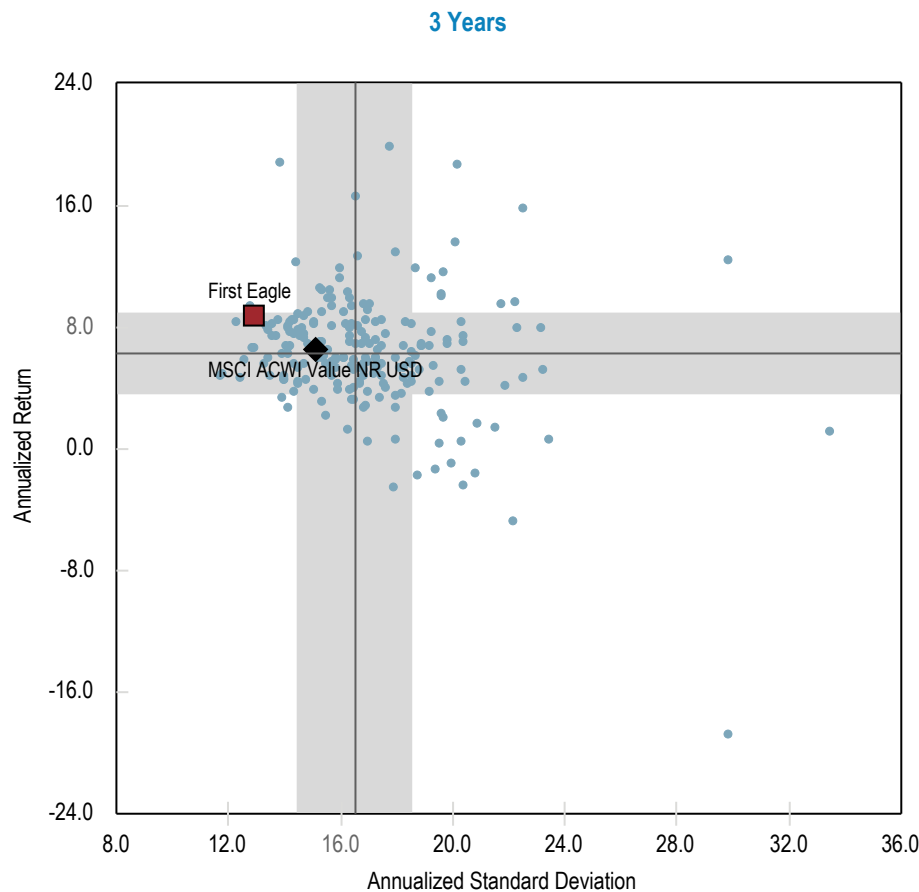


Rolling 5 Year Annualized Return (%)

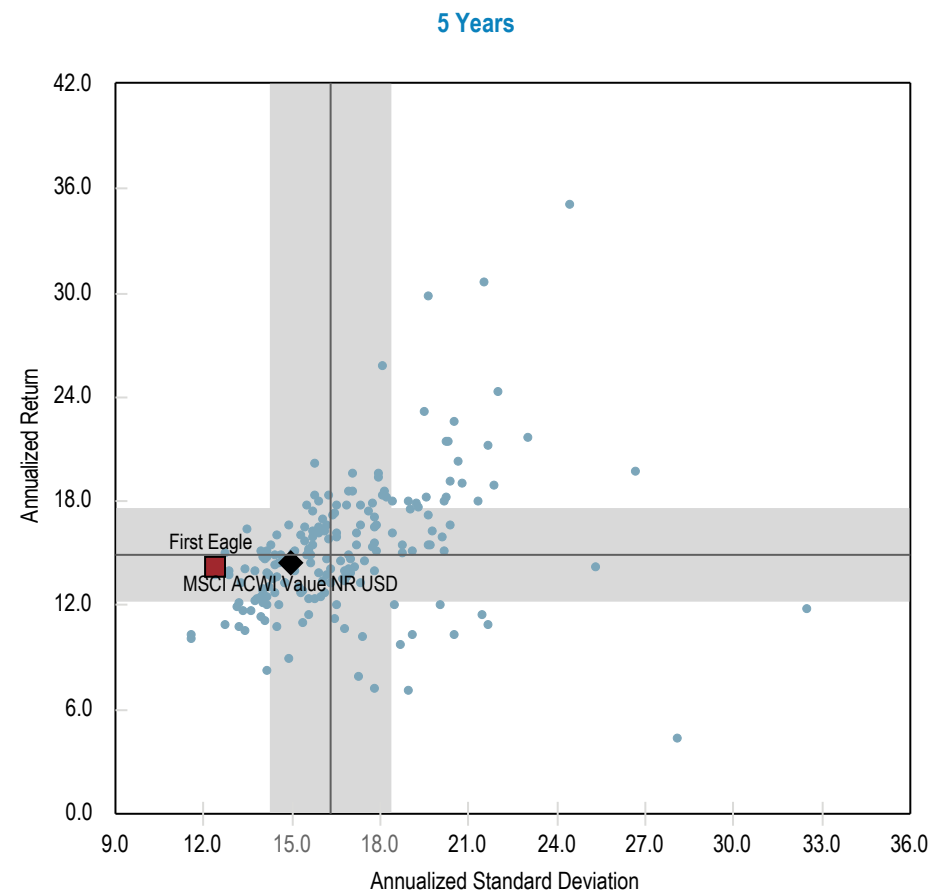


First Eagle
Risk vs. Return 3 & 5 Year (Gross of Fees)

Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025



	3 Years		
	Anlzd Return (%)	Anlzd Standard Deviation (%)	Sharpe Ratio
First Eagle	8.7	12.9	0.4
MSCI ACWI Value NR USD	6.6	15.1	0.2
eV Global Value Equity Median	6.3	16.5	0.2
Population	215	215	215



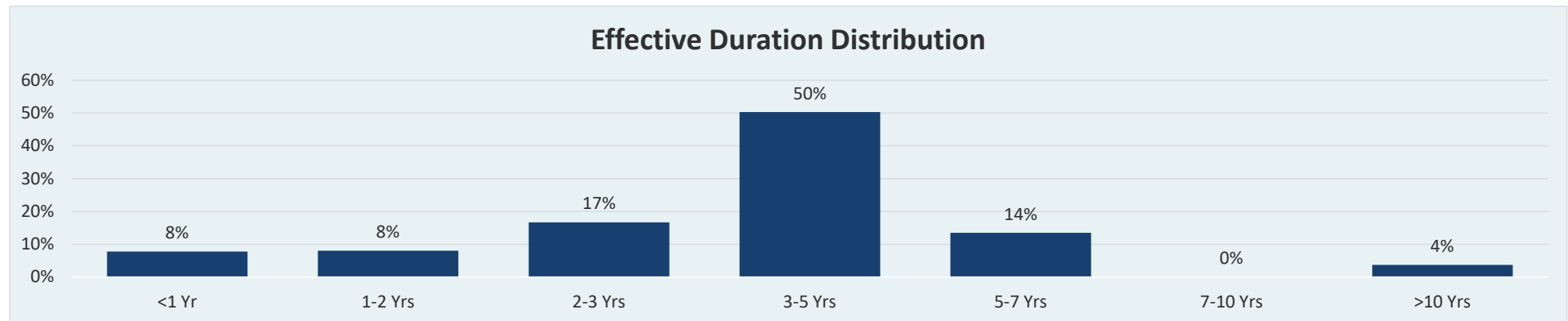
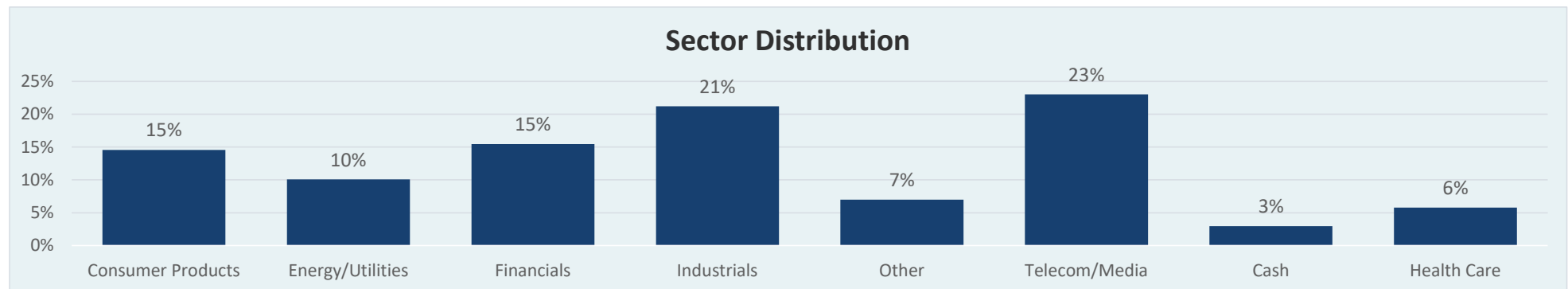
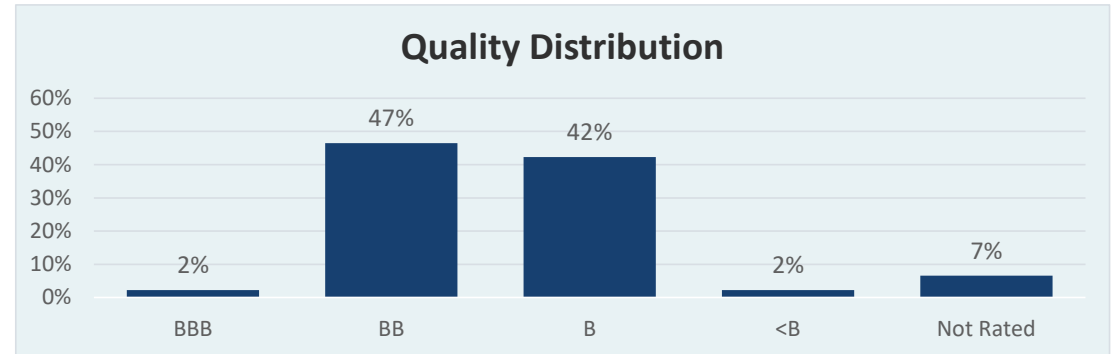
	5 Years		
	Anlzd Return (%)	Anlzd Standard Deviation (%)	Sharpe Ratio
First Eagle	14.3	12.4	0.9
MSCI ACWI Value NR USD	14.4	15.0	0.8
eV Global Value Equity Median	14.9	16.3	0.8
Population	188	188	188

High Yield Managers

Voya Global Investors
Manager Portfolio Overview

Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025

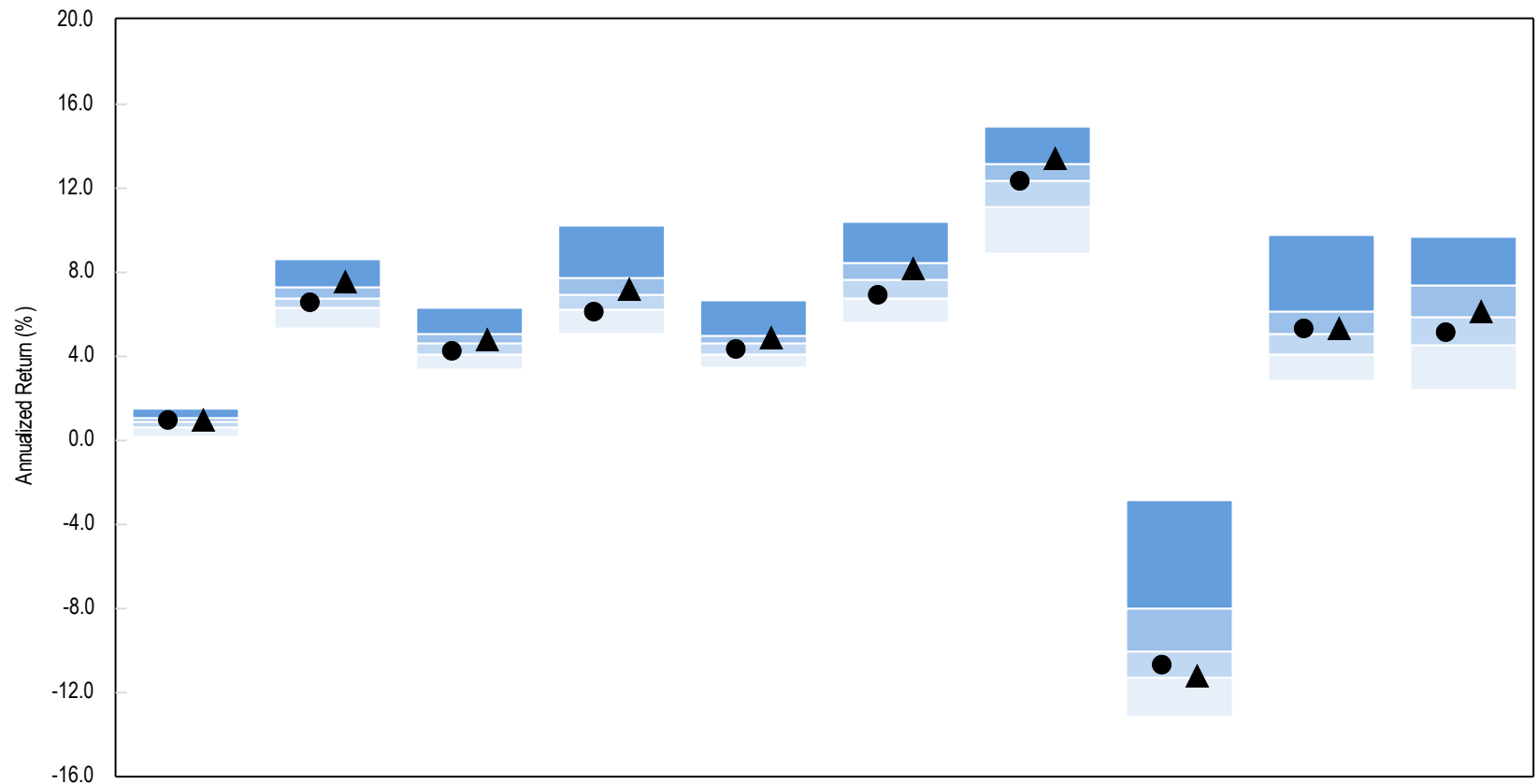
	Voya	ICE BofAML HY Master II
Effective Duration	3.30	3.20
Yield to Maturity	6.9%	7.9%
Average Quality	B1	B1
Average Coupon	6.8%	6.5%



Voya Global Investors
Manager Performance Comparisons (Gross of Fees)

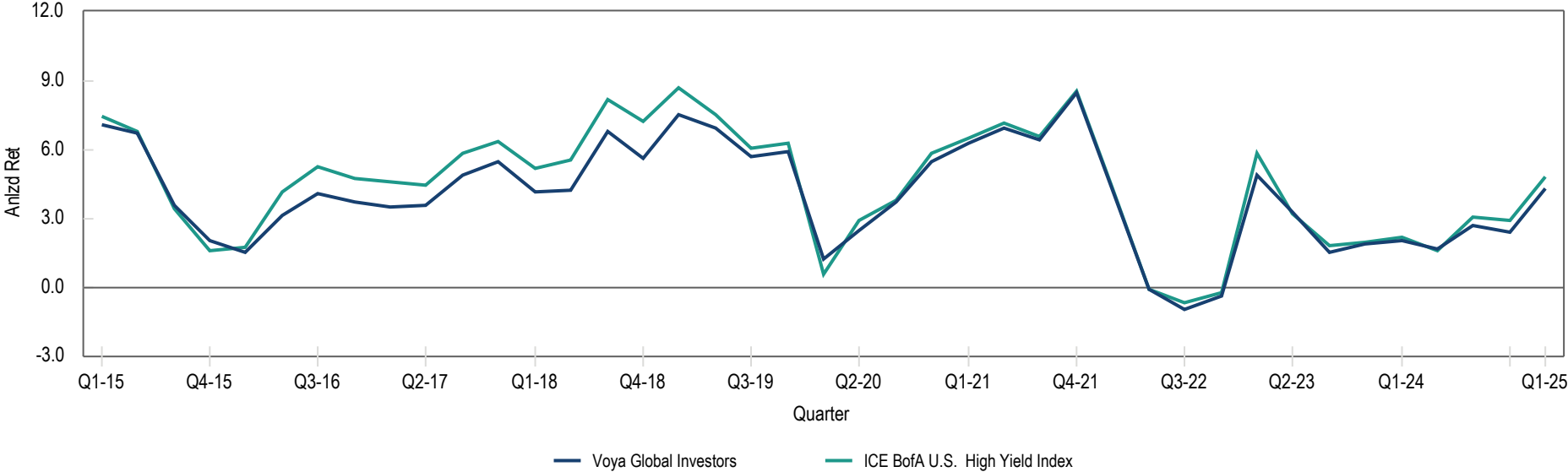
Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025

Voya Global Investors vs. eV US High Yield Fixed Inc Gross Universe

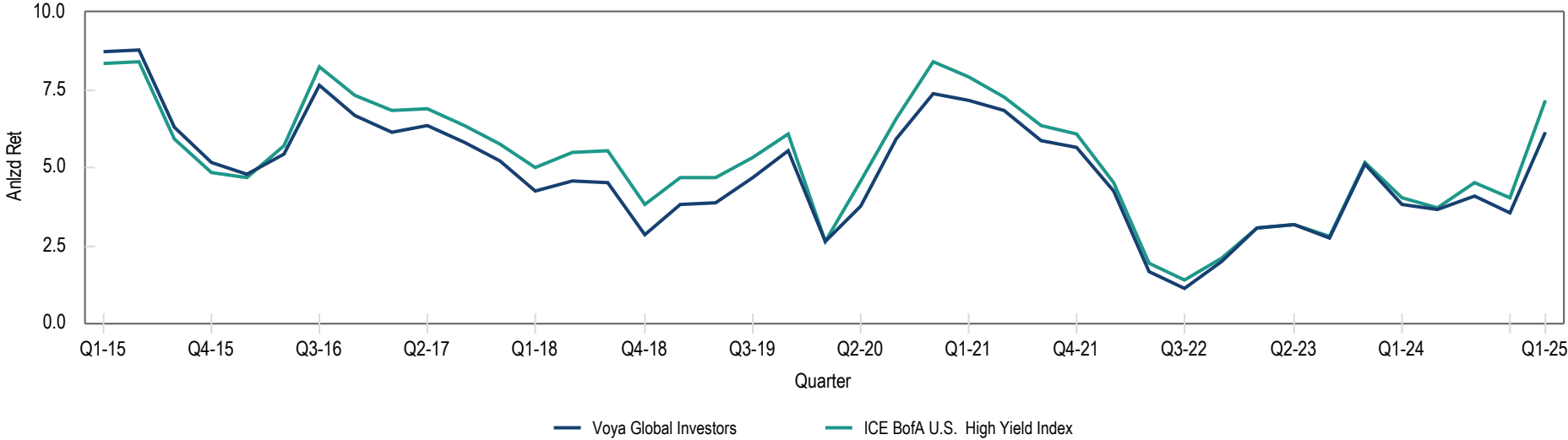


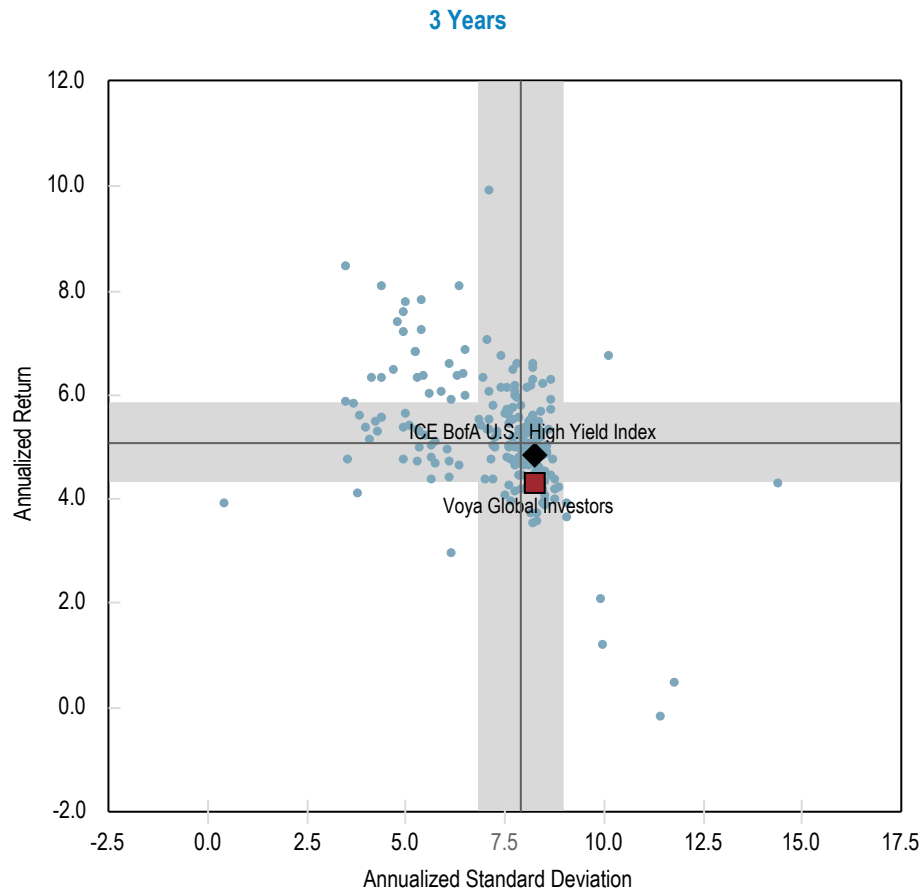
	Quarter	1 Year	3 Years	5 Years	10 Years	2024	2023	2022	2021	2020
● Voya Global Investors	0.97 (45)	6.54 (66)	4.29 (69)	6.17 (78)	4.39 (64)	6.95 (70)	12.39 (48)	-10.64 (63)	5.34 (43)	5.18 (67)
▲ ICE BofA U.S. High Yield Index	0.94 (46)	7.60 (18)	4.84 (38)	7.21 (40)	4.92 (30)	8.20 (32)	13.46 (19)	-11.22 (75)	5.36 (42)	6.17 (43)
5th Percentile	1.49	8.62	6.28	10.20	6.65	10.39	14.93	-2.84	9.81	9.67
1st Quartile	1.10	7.29	5.10	7.76	5.02	8.48	13.17	-7.97	6.12	7.40
Median	0.92	6.80	4.61	6.91	4.59	7.67	12.31	-10.07	5.06	5.89
3rd Quartile	0.59	6.29	4.11	6.21	4.13	6.79	11.15	-11.27	4.08	4.55
95th Percentile	0.18	5.32	3.34	5.04	3.45	5.63	8.86	-13.14	2.85	2.43
Population	242	241	230	214	185	247	256	270	264	267

Rolling 3 Year Annualized Return (%)

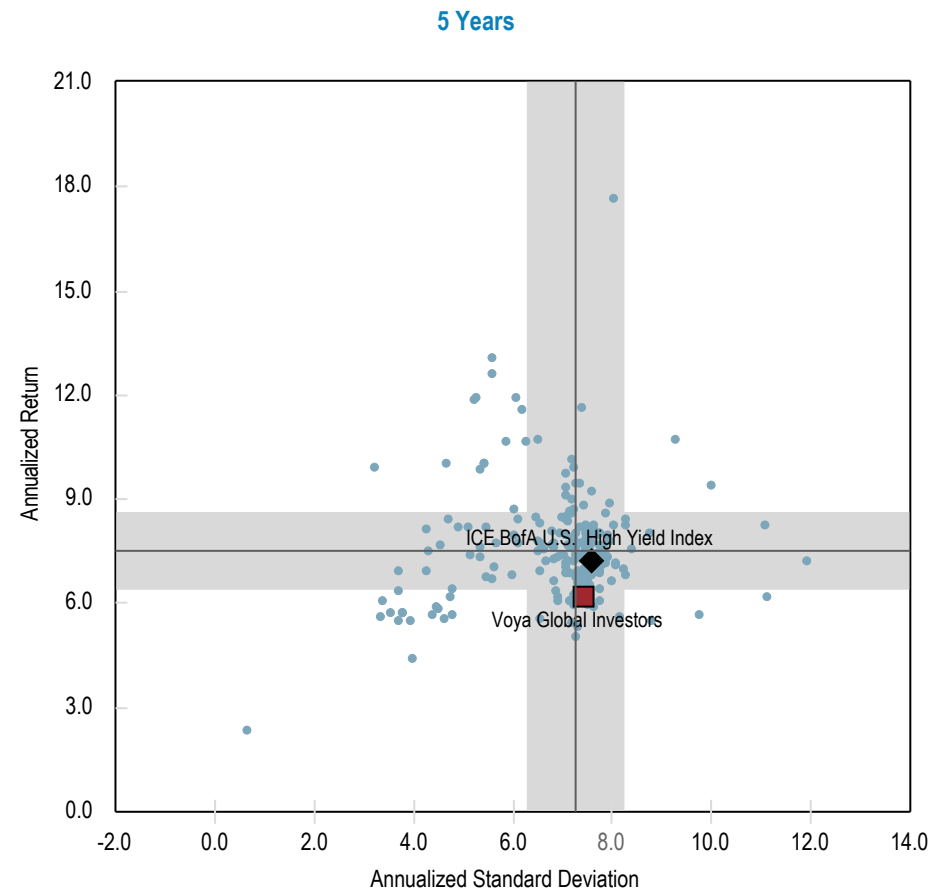


Rolling 5 Year Annualized Return (%)





	3 Years		
	Anlzd Return (%)	Anlzd Standard Deviation (%)	Sharpe Ratio
Voya Global Investors	4.3	8.2	0.0
ICE BofA U.S. High Yield Index	4.8	8.3	0.1
eV US High Yield Fixed Inc Median	5.1	7.9	0.1
Population	232	232	232



	5 Years		
	Anlzd Return (%)	Anlzd Standard Deviation (%)	Sharpe Ratio
Voya Global Investors	6.2	7.4	0.5
ICE BofA U.S. High Yield Index	7.2	7.6	0.6
eV US High Yield Fixed Inc Median	7.5	7.3	0.7
Population	215	215	215

Real Estate Managers

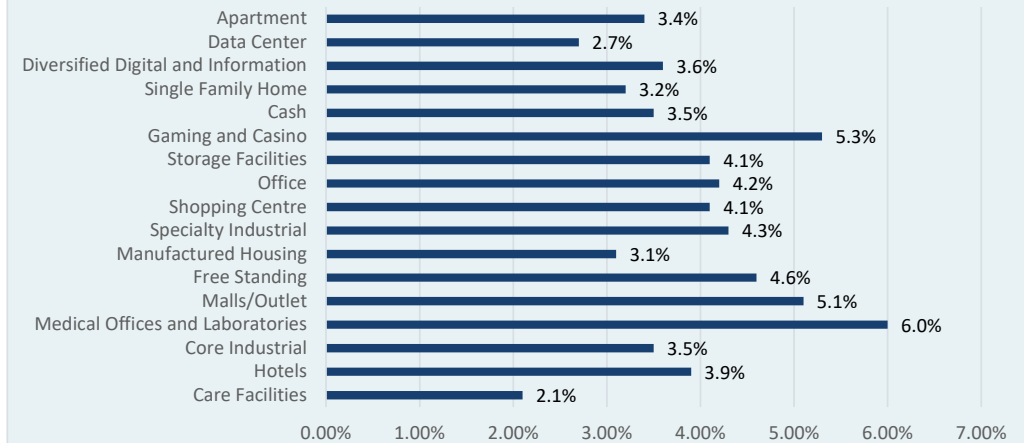
Adelante Manager Portfolio Overview

Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025

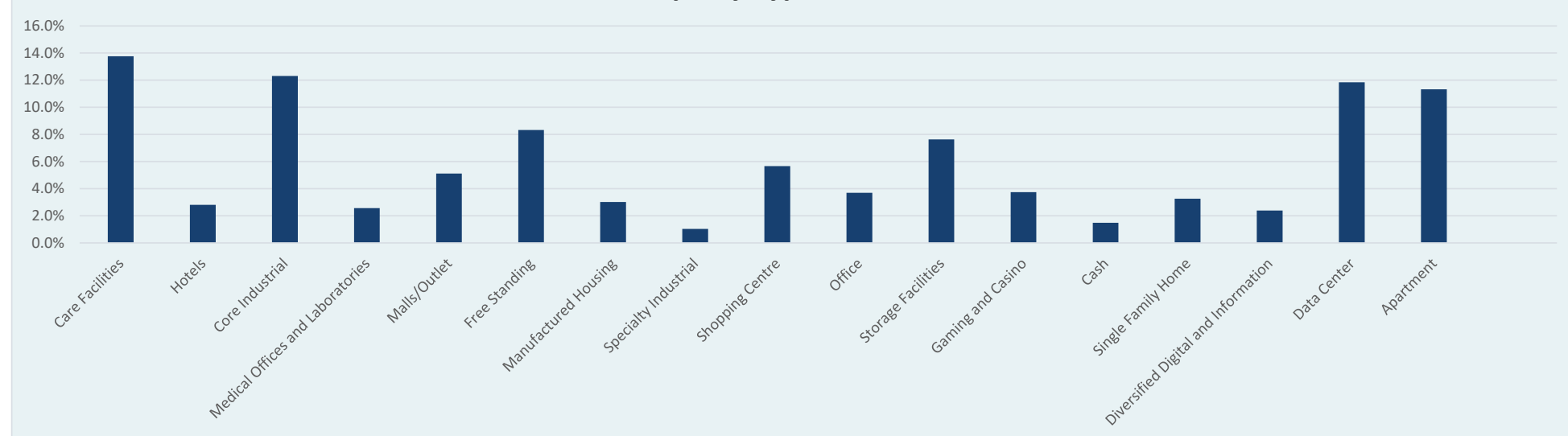
Top Five Holdings

Company	Property Type	Allocation
Welltower Inc.	Healthcare	10.1%
Prologis	Industrial	9.1%
Equinix, Inc.	Industrial Mixed	7.7%
Digital Realty	Industrial Mixed	4.2%
Simon Property Group, Inc.	Retail- Regional	4.1%

Dividend Yield by Property Type



Property Type Allocation

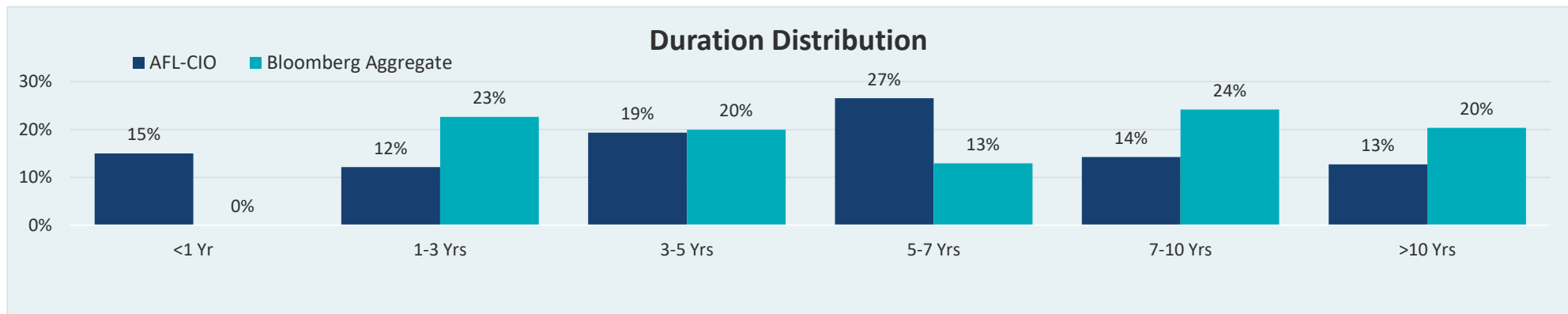
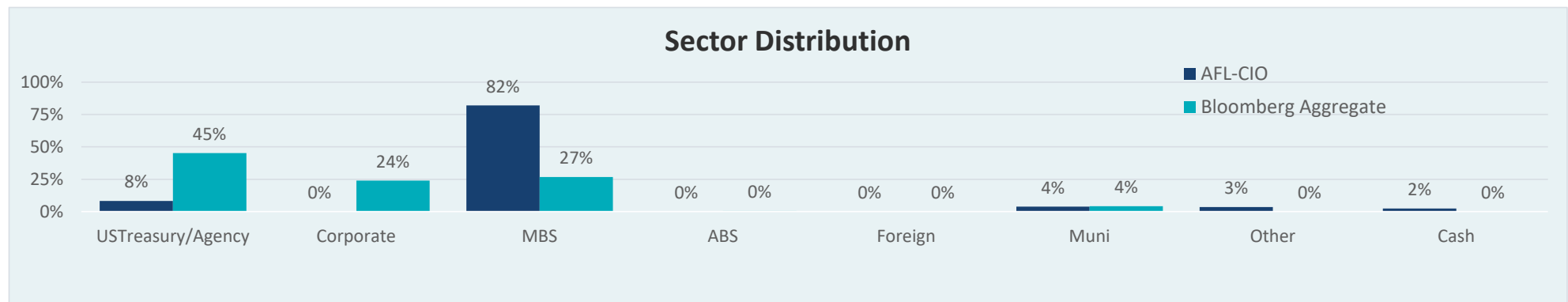
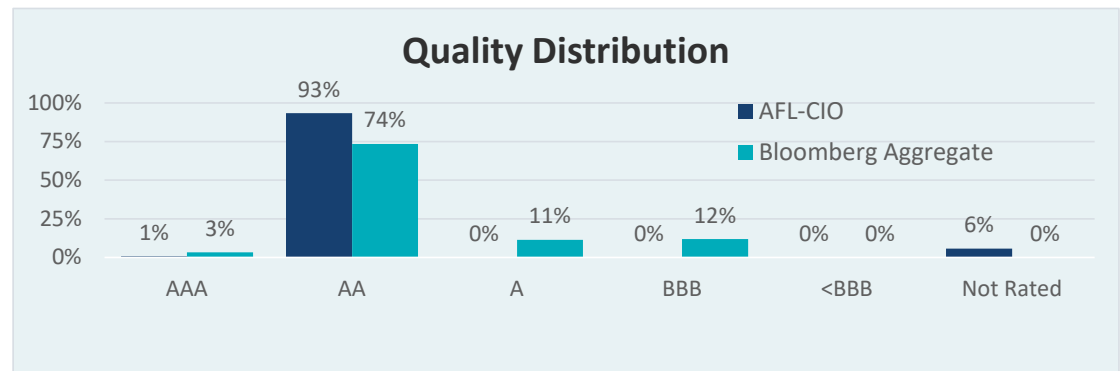


Diversifying Fixed Income Managers

AFL-CIO Manager Portfolio Overview

Contra Costa County Employees' Retirement Association Period Ending: March 31, 2025

	AFL-CIO	Bloomberg Aggregate
Effective Duration	5.84	5.96
Yield to Maturity	4.1%	3.8%
Average Quality	Aa1	Aa2
Average Coupon	3.8%	3.5%

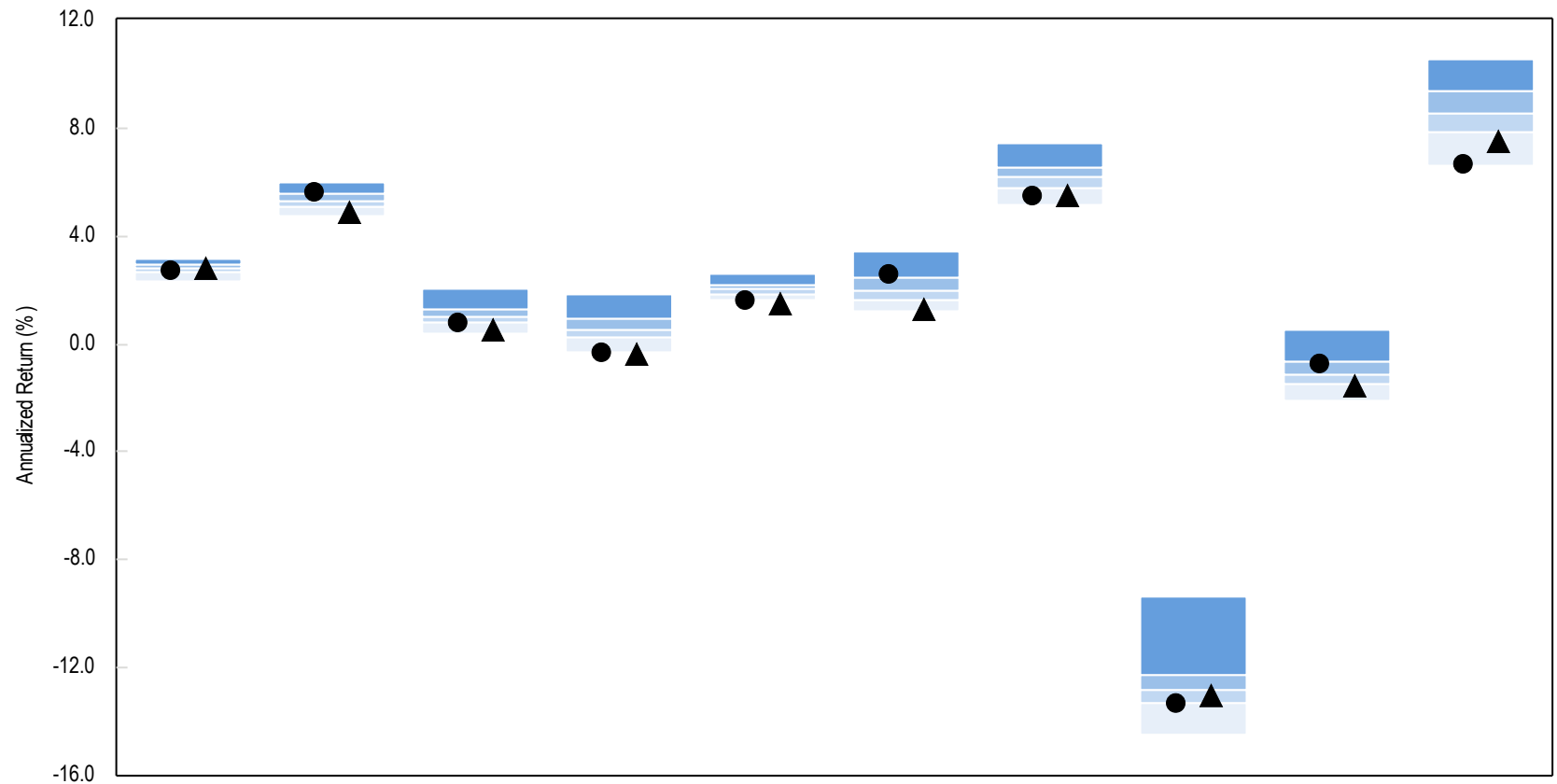


AFL-CIO

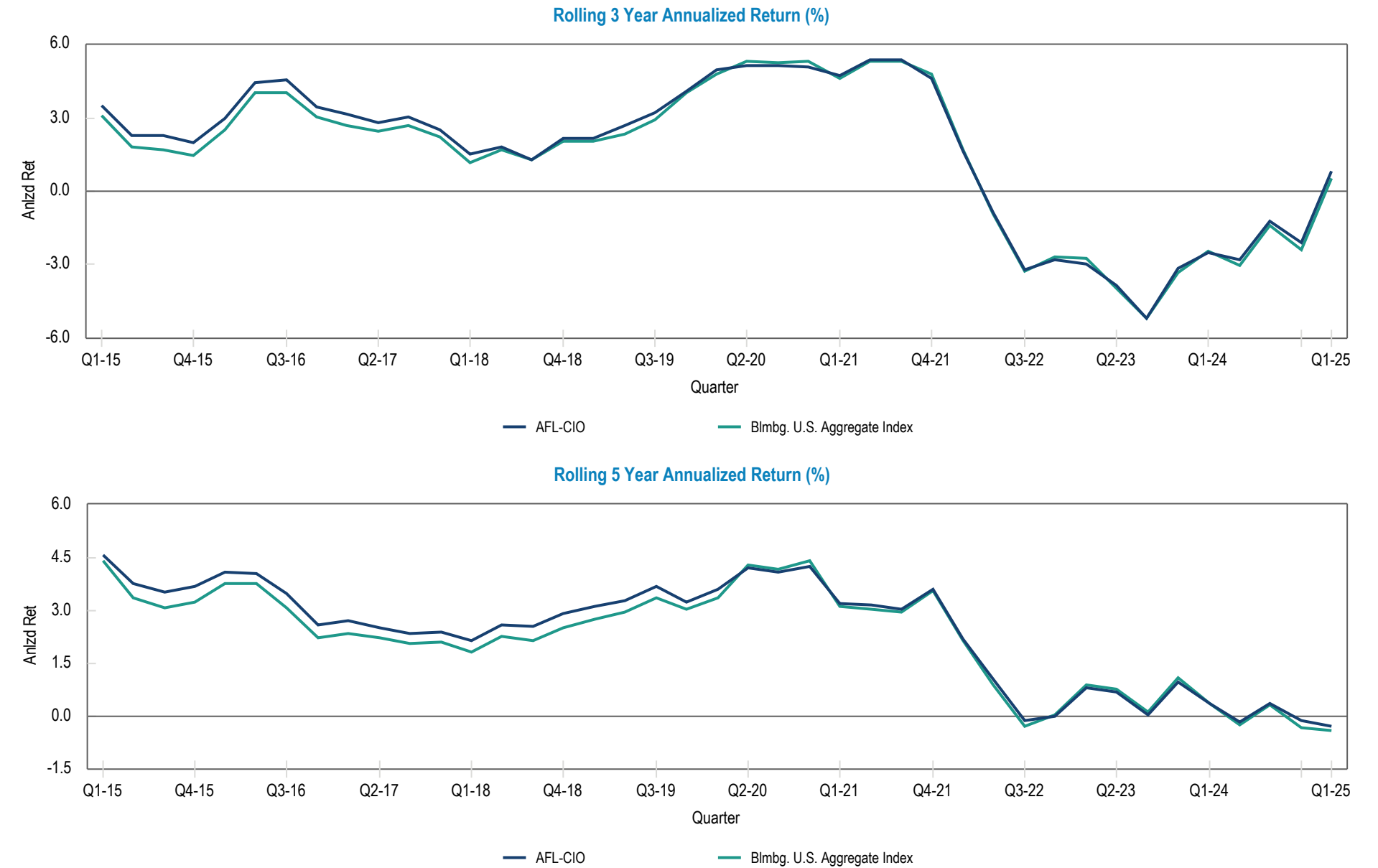
Manager Performance Comparisons (Gross of Fees)

Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025

AFL-CIO vs. eV US Core Fixed Inc Gross Universe



	Quarter	1 Year	3 Years	5 Years	10 Years	2024	2023	2022	2021	2020
● AFL-CIO	2.76 (56)	5.64 (16)	0.82 (75)	-0.27 (95)	1.65 (92)	2.60 (20)	5.51 (86)	-13.27 (73)	-0.73 (33)	6.65 (95)
▲ Blmbg. U.S. Aggregate Index	2.78 (54)	4.88 (92)	0.52 (91)	-0.40 (97)	1.46 (99)	1.25 (95)	5.53 (84)	-13.01 (61)	-1.55 (78)	7.51 (85)
5th Percentile	3.17	6.01	2.06	1.84	2.61	3.44	7.42	-9.37	0.49	10.57
1st Quartile	2.93	5.57	1.29	0.94	2.21	2.47	6.57	-12.27	-0.64	9.40
Median	2.79	5.30	1.02	0.55	2.02	1.98	6.17	-12.85	-1.11	8.57
3rd Quartile	2.68	5.10	0.80	0.25	1.81	1.64	5.75	-13.30	-1.51	7.82
95th Percentile	2.35	4.75	0.39	-0.31	1.60	1.18	5.17	-14.49	-2.10	6.64
Population	208	208	208	202	189	222	235	255	264	268

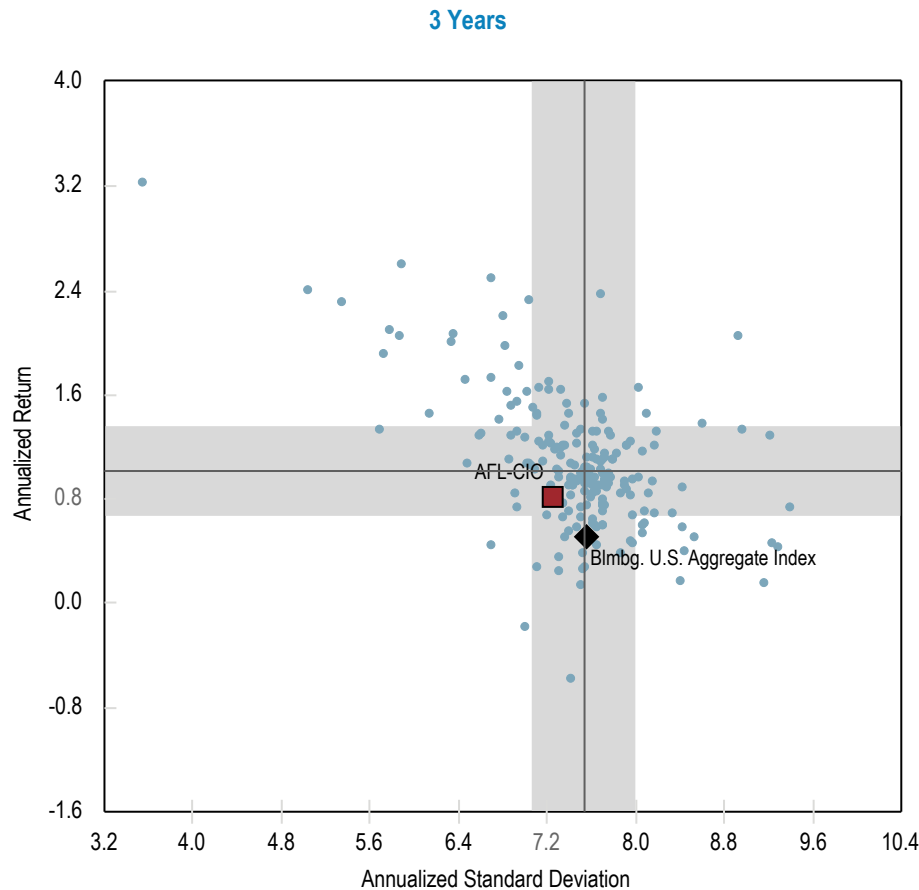


AFL-CIO

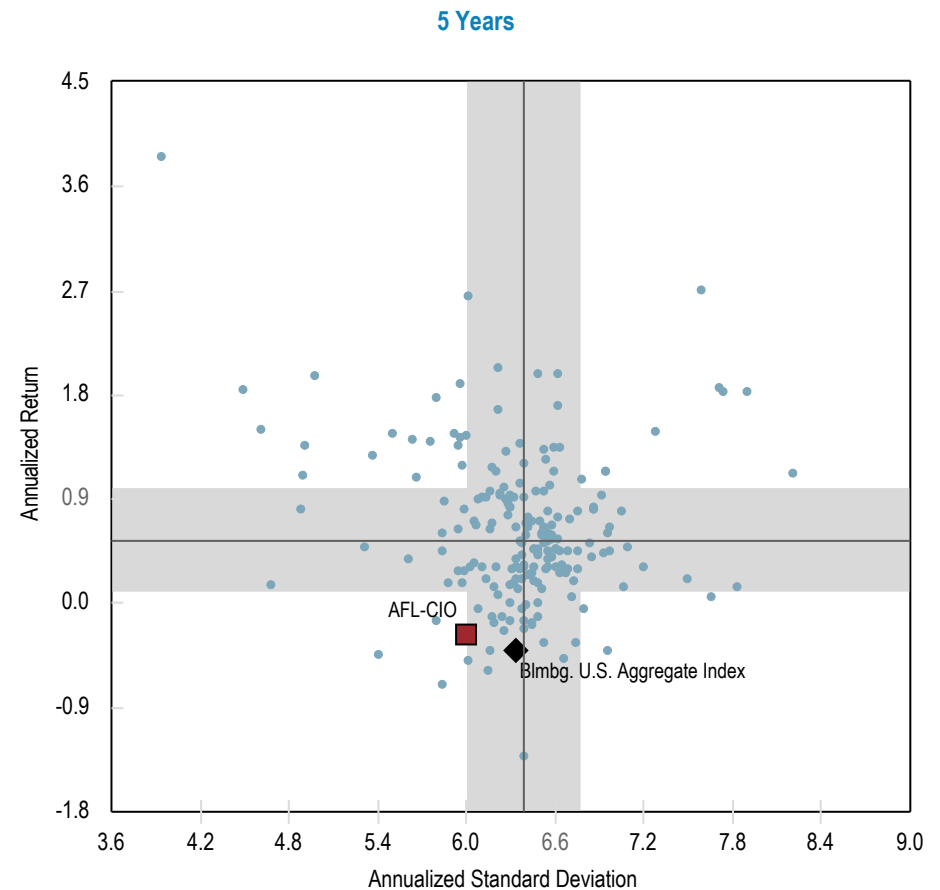
Risk vs. Return 3 & 5 Year (Gross of Fees)

Contra Costa County Employees' Retirement Association

Period Ending: March 31, 2025



	3 Years		
	Anlzd Return (%)	Anlzd Standard Deviation (%)	Sharpe Ratio
AFL-CIO	0.8	7.2	-0.4
Blmbg. U.S. Aggregate Index	0.5	7.6	-0.5
eV US Core Fixed Inc Median	1.0	7.5	-0.4
Population	208	208	208



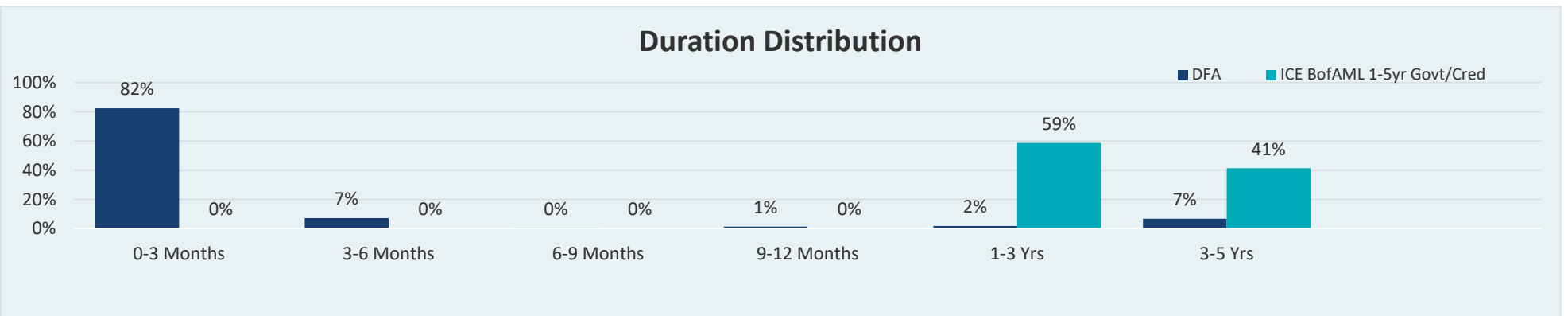
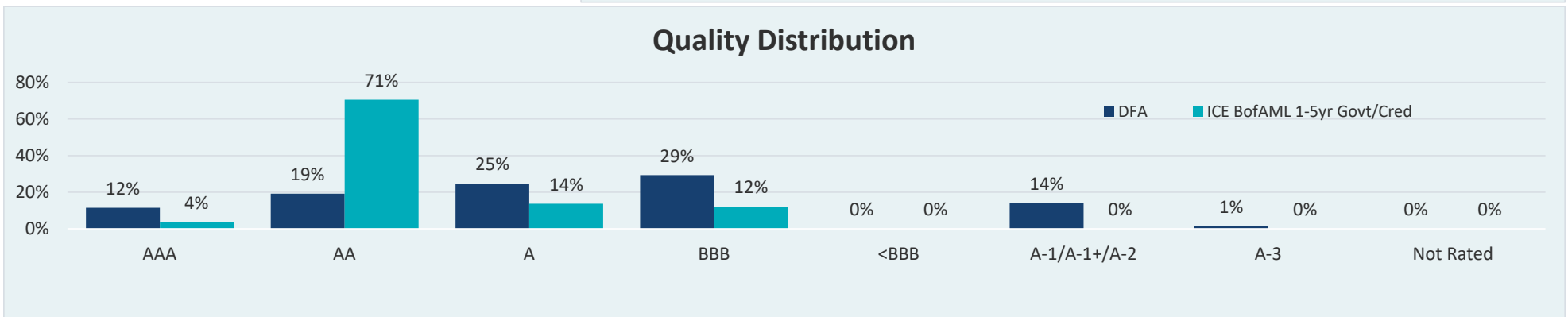
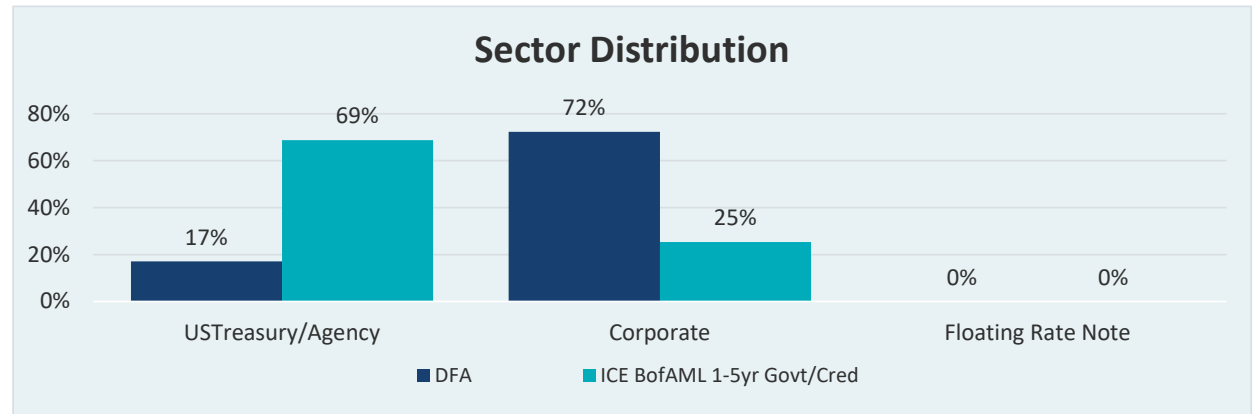
	5 Years		
	Anlzd Return (%)	Anlzd Standard Deviation (%)	Sharpe Ratio
AFL-CIO	-0.3	6.0	-0.4
Blmbg. U.S. Aggregate Index	-0.4	6.3	-0.4
eV US Core Fixed Inc Median	0.5	6.4	-0.3
Population	202	202	202

Liquidity Managers

DFA Short Credit Manager Portfolio Overview

Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025

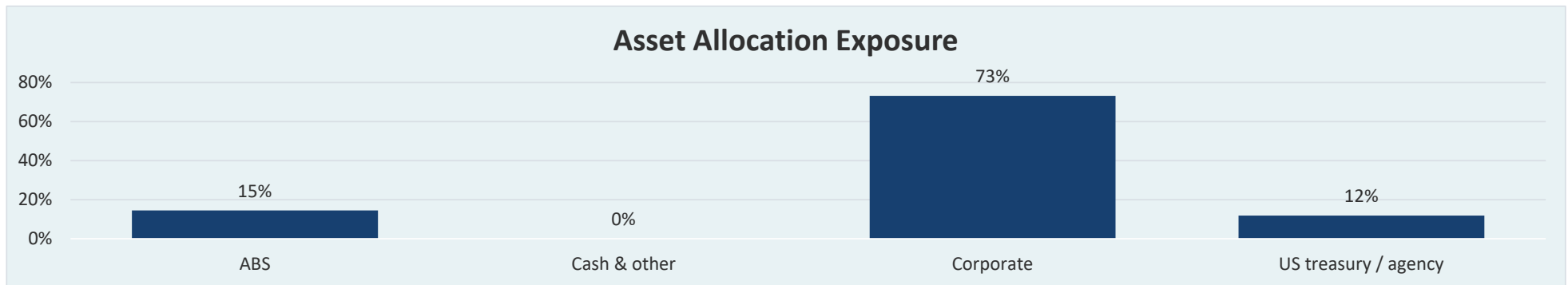
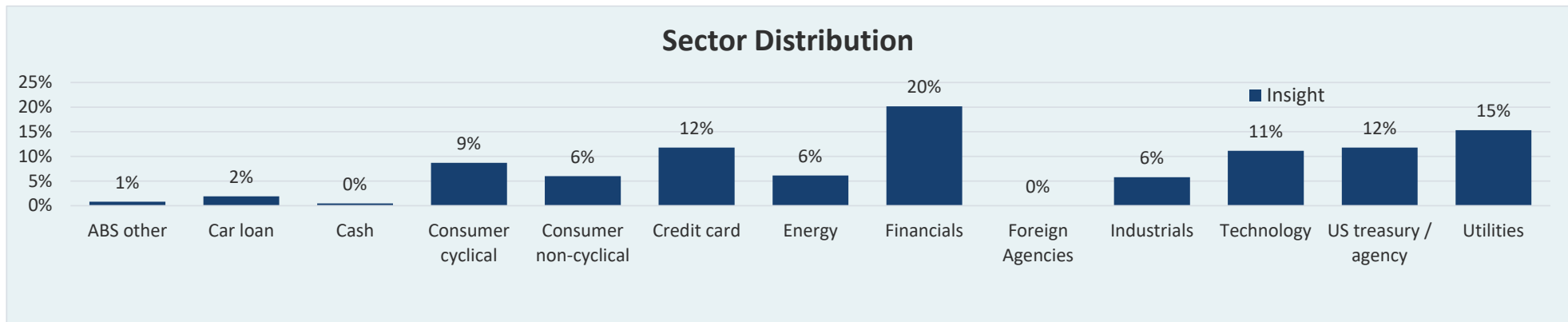
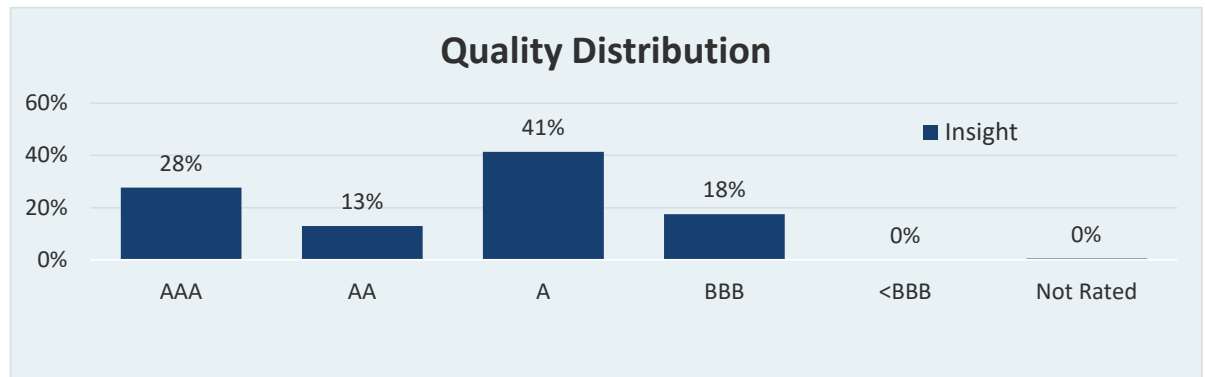
	DFA	ICE BofAML 1-5yr Govt/Cred
Effective Duration	0.37	2.56
Yield to Maturity	4.84	4.18
Average Quality	A+	Aa2
Average Coupon	3.57%	3.34%



Insight Short Duration Manager Portfolio Overview

Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025

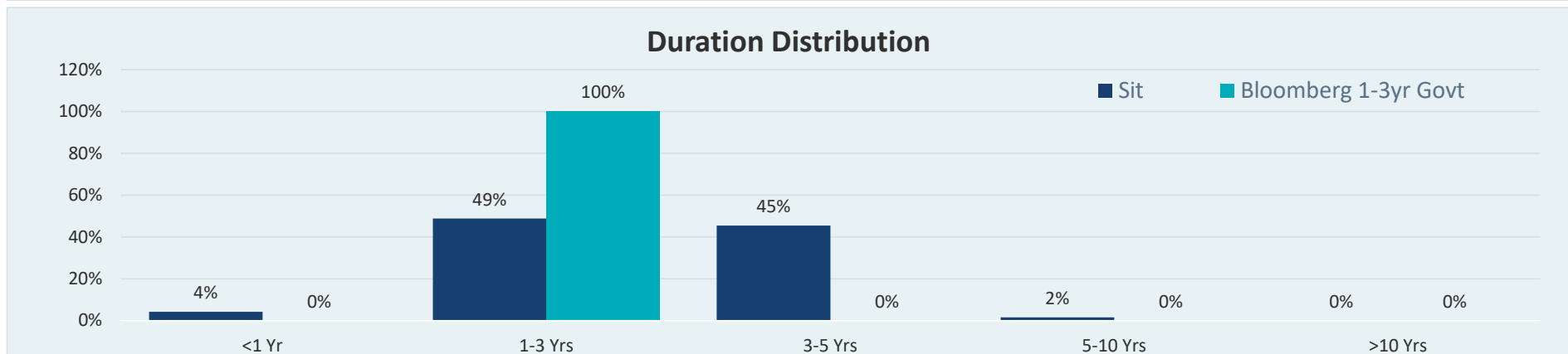
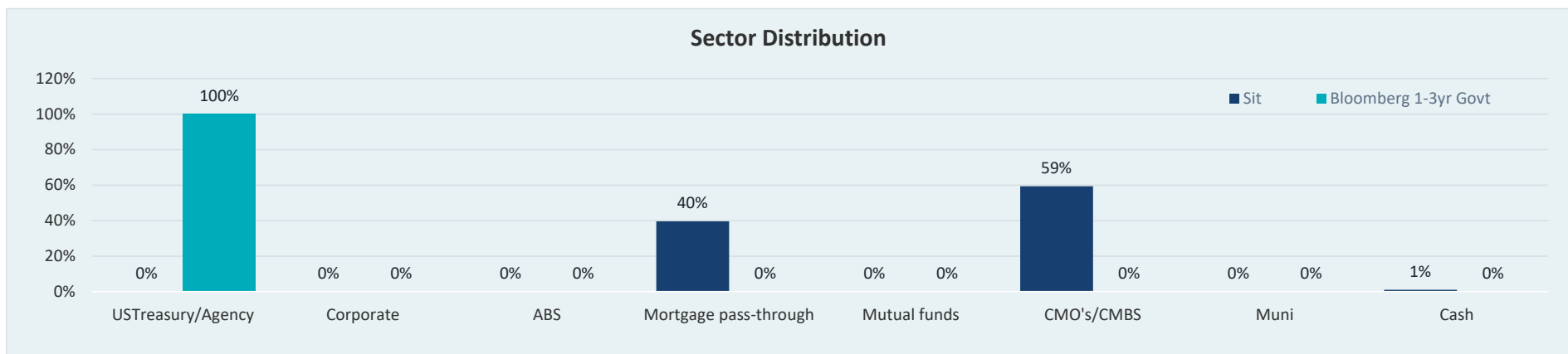
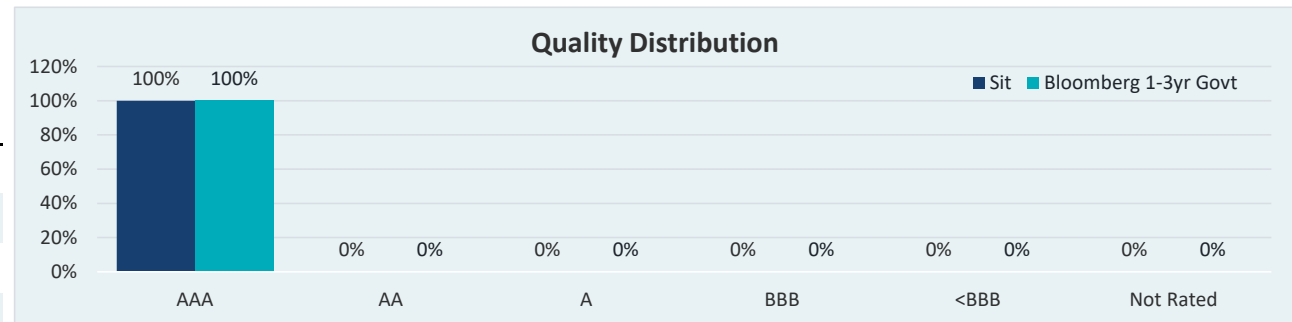
	Insight	Bloomberg 1-3yr Govt
Effective Duration	1.16	1.90
Yield to Maturity	4.55	N/A
Average Quality	A+	AGY/AGY
Average Coupon	3.74%	3.18%



Sit Short Duration Manager Portfolio Overview

Contra Costa County Employees' Retirement Association
Period Ending: March 31, 2025

	Sit	Bloomberg 1-3yr Govt
Modified Duration	2.80	1.90
Yield to Maturity	5.70	N/A
Average Quality	AGY/AGY	AGY/AGY
Average Coupon	6.00%	3.18%



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.

Policy & Custom Index Composition

Policy Index (1/1/2024 - present)	The Policy Index now matches the Implementation Benchmark stated below.
Policy Index (8/1/2023 - 1/1/2024)	16% Russell 3000, 12% MSCI ACWI ex-US (Gross), 10% MSCI ACWI (Net), 2% Wilshire REIT, 8% Private Real Estate composite returns, 2% FTSE 3-month T-bill +5%, 13% Private Equity composite returns, 10% Private Credit composite returns, 2% ICE BofAML High Yield Master II, 17% Bloomberg 1-3 Yr Gov/Credit, 2.5% Bloomberg US Aggregate, 3% 60% MSCI ACWI Net/40% Bloomberg Global Aggregate, 2.5% Bloomberg US Aggregate TR +1%.
Policy Index (7/1/2022 - present)	16% Russell 3000, 15% MSCI ACWI ex-US (Gross), 9% MSCI ACWI (Net), 2% Wilshire REIT, 8% Private Real Estate composite returns, 2.5% FTSE 3-month T-bill +5%, 13% Private Equity composite returns, 8% Private Credit composite returns, 1.5% ICE BofAML High Yield Master II, 17% Bloomberg 1-3 Yr Gov/Credit, 2.5% Bloomberg US Aggregate, 3% 60% MSCI ACWI Net/40% Bloomberg Global Aggregate, 2.5% Bloomberg US Aggregate TR +1%.
Policy Index (7/1/2021 - 6/30/2022)	16% Russell 3000, 16% MSCI ACWI ex-US (Gross), 9% MSCI ACWI (Net), 2% Wilshire REIT, 8% Private Real Estate composite returns, 3% CPI + 4%, 11% Private Equity composite returns, 8% Private Credit composite returns, 2% ICE BofAML High Yield Master II, 18% Bloomberg 1-3 Yr Gov/Credit, 2.5% Bloomberg US Aggregate, 3% 60% MSCI ACWI Net/40% Bloomberg Global Aggregate, 1.5% HFRI EH Equity Market Neutral.
Policy Index (1/1/2021 - 6/30/2021)	9% Russell 3000, 18% MSCI ACWI ex-US (Gross), 11% MSCI ACWI (Net), 1% Wilshire REIT, 8% Private Real Estate composite returns, 1.5% CPI + 4%, 11% Private Equity composite returns, 7% Private Credit composite returns, 1.5% ICE BofAML High Yield Master II, 25% Bloomberg 1-3 Yr Gov/Credit, 3% Bloomberg US Aggregate, 2% Bloomberg Global Aggregate, 2% HFRI EH Equity Market Neutral.
Policy Index (7/1/2020 - 12/31/2020)	9% Russell 3000, 18% MSCI ACWI ex-US (Gross), 11% MSCI ACWI (Net), 1% Wilshire REIT, 1.6% NCREIF Property Index, 6.4% NCREIF ODCE Index, 1.5% CPI + 4%, 11% S&P 500 +4% (Lagged), 7% ICE BofAML High Yield Master II +2%, 1.5% ICE BofAML High Yield Master II, 25% Bloomberg 1-3 Yr Gov/Credit, 3% Bloomberg US Aggregate, 2% Bloomberg Global Aggregate, 2% HFRI EH Equity Market Neutral.
Policy Index (7/1/2019 - 6/30/2020)	10% Russell 3000, 18% MSCI ACWI ex-US (Gross), 11% MSCI ACWI (Net), 1% Wilshire REIT, 1.6% NCREIF Property Index, 6.4% NCREIF ODCE Index, 2% CPI + 4%, 11% S&P 500 +4% (Lagged), 5% ICE BofAML High Yield Master II +2%, 2% ICE BofAML High Yield Master II, 24% Bloomberg 1-3 Yr Gov/Credit, 3.5% Bloomberg US Aggregate, 2% Bloomberg Global Aggregate, 2.5% HFRI EH Equity Market Neutral.
Policy Index (7/1/2018 - 6/30/2019)	11% Russell 3000, 19% MSCI ACWI ex-US (Gross), 11% MSCI ACWI (Net), 1% Wilshire REIT, 1.8% NCREIF Property Index, 7.2% NCREIF ODCE Index, 2% CPI + 4%, 10% S&P 500 +4% (Lagged), 4% ICE BofAML High Yield Master II +2%, 2% ICE BofAML High Yield Master II, 23% Bloomberg 1-3 Yr Gov/Credit, 3.5% Bloomberg US Aggregate, 2% Bloomberg Global Aggregate, 2.5% HFRI EH Equity Market Neutral.
Policy Index (10/1/2017 - 6/30/2018)	16.3% Russell 3000, 18.8% MSCI ACWI ex-US (Gross), 8.6% MSCI ACWI (Net), 1% Wilshire REIT, 1.6% NCREIF Property Index, 6.4% NCREIF ODCE Index, 2.5% CPI + 4%, 10.1% S&P 500 +4% (Lagged), 1.9% ICE BofAML High Yield Master II +2%, 4.3% ICE BofAML High Yield Master II, 25% Bloomberg 1-3 Yr Gov/Credit, 3.5% Bloomberg US Aggregate.
Policy Index (1/1/2017 - 9/30/2017)	22.9% Russell 3000, 11% MSCI ACWI ex-US (Gross), 10.9% MSCI ACWI (Net), 1% Wilshire REIT, 1.7% NCREIF Property Index, 6.8% NCREIF ODCE Index, 3.6% CPI + 4%, 8.1% S&P 500 +4% (Lagged), 1.7% ICE BofAML High Yield Master II +2%, 5.1% ICE BofAML High Yield Master II, 22.4% Bloomberg 1-3 Yr Gov/Credit, 3.2% Bloomberg US Aggregate, 1.6% 91-Day T-Bills.
Policy Index (4/1/2012-12/31/2016)	27.7% Russell 3000, 10.6% MSCI ACWI ex-US (Gross), 12.3% MSCI ACWI (Net), 19.6% Bloomberg U.S. Aggregate, 5% ICE BofAML High Yield Master II, 4% Bloomberg Global Aggregate, 13.5% Real Estate Benchmark, 6.8% S&P 500 +4% (Lagged), 0.5% 91-Day T-Bills.

Policy & Custom Index Composition (continued)

Policy Index (4/1/2011-3/31/2012)	31% Russell 3000, 10.4% MSCI EAFE (Gross), 9.6% MSCI ACWI (Net), 25% Bloomberg U.S. Aggregate, 3% ICE BofAML High Yield Master II, 4% Bloomberg Global Aggregate, 8.4% DJ Wilshire REIT, 3.1% NCREIF, 5% S&P 500 +4% (Lagged), 0.5% 91-Day T-Bills.
Policy Index (4/1/2010-3/31/2011)	35.6% Russell 3000, 10.4% MSCI EAFE (Gross), 5% MSCI ACWI (Net), 25% Bloomberg U.S. Aggregate, 3% ICE BofAML High Yield Master II, 4% Bloomberg Global Aggregate, 8.4% DJ Wilshire REIT, 3.1% NCREIF, 5% S&P 500 +4% (Lagged), 0.5% 91-Day T-Bills.
	40.6% Russell 3000, 10.4% MSCI EAFE (Gross), 25% Bloomberg U.S. Aggregate, 3% ICE BofAML High Yield Master II, 4% Bloomberg Global Aggregate, 8.4% DJ Wilshire REIT, 3.1% NCREIF, 5% S&P 500 +4% (Lagged), 0.5% 91-Day T-Bills.
	21.33% Russell 3000, 21.33% MSCI ACWI ex-US (Gross), 12% MSCI ACWI (Net), 2.67% Wilshire REIT, 10.67% Private Real Estate composite returns, 14.67% Private Equity composite returns, 10.67% Private Credit composite returns, 2.67% ICE BofAML High Yield Master II, 4% 60% MSCI ACWI Net/40% Bloomberg Global Aggregate
	13.14% Russell 3000, 26.28% MSCI ACWI ex-US (Gross), 16.06% MSCI ACWI (Net), 1.46% Wilshire REIT, 11.68 Private Real Estate composite returns, 16.06% Private Equity composite returns, 10.22% Private Credit composite returns, 2.19% ICE BofAML High Yield Master II, 2.92% Bloomberg Global Bond
	13.14% Russell 3000, 26.28% MSCI ACWI ex-US (Gross), 16.06% MSCI ACWI (Net), 1.46% Wilshire REIT, 2.34% NCREIF Property Index, 9.33% NCREIF ODCE Index, 16.06% S&P 500 +4% (Lagged), 10.22% ICE BofAML High Yield Master II +2%, 2.19% ICE BofAML High Yield Master II, 2.92% Bloomberg Global Bond
	14.7% Russell 3000, 26.4% MSCI ACWI ex-US (Gross), 16.2% MSCI ACWI (Net), 1.5% Wilshire REIT, 2.4% NCREIF Property Index, 9.4% NCREIF ODCE Index, 16.2% S&P 500 +4% (Lagged), 7.4% ICE BofAML High Yield Master II +2%, 2.9% ICE BofAML High Yield Master II, 2.9% Bloomberg Global Bond
	16.0% Russell 3000, 27.5% MSCI ACWI ex-US (Gross), 15.9% MSCI ACWI (Net), 1.5% Wilshire REIT, 2.6% NCREIF Property Index, 10.4% NCREIF ODCE Index, 14.5% S&P 500 +4% (Lagged), 5.8% ICE BofAML High Yield Master II +2%, 2.9% ICE BofAML High Yield Master II, 2.9% Bloomberg Global Bond
	23.6% Russell 3000, 27.2% MSCI ACWI ex-US (Gross), 12.5% MSCI ACWI (Net), 1.5% Wilshire REIT, 2.3% NCREIF Property Index, 9.3% NCREIF ODCE Index, 14.6% S&P 500 +4% (Lagged), 2.8% ICE BofAML High Yield Master II +2%, 6.2% ICE BofAML High Yield Master II
	32.6% Russell 3000, 15.7% MSCI ACWI ex-US (Gross), 15.5% MSCI ACWI (Net), 1.4% Wilshire REIT, 2.4% NCREIF Property Index, 9.6% NCREIF ODCE Index, 1.6% CPI +4%, 11.5% S&P 500 +4% (Lagged), 2.4% ICE BofAML High Yield Master II +2%, 7.3% ICE BofAML High Yield Master II
	Weighted-average of the benchmarks of the sub-composites that make up the composite.
	35.71% Bloomberg US Aggregate, 21.43% FTSE 3-Month T-bill +4%, 21.43 FTSE 3-Month T-bill +5%, 21.43% Bloomberg Barclays US Aggregate +1%
	46.15% Bloomberg US Aggregate, 30.77 FTSE 3-Month T-bill +4%, 23.08 FTSE 3-Month T-bill +5%.
	43.75% Bloomberg US Aggregate, 25% CPI + 4%, 31.25% HFRI EH Equity Market Neutral.
	58.33% Bloomberg US Aggregate, 41.67% CPI + 4%.
	56.1% Bloomberg US Aggregate, 43.9% CPI + 4%.
	Weighted-average of the benchmarks of the sub-composites that make up the composite.
	50% FTSE 3-Month T-bill +5%, 50% Bloomberg Barclays US Aggregate +1%
	20% Wilshire REIT, 80% Private Real Estate composite returns.
	40% Wilshire REIT, 50% NCREIF Property Index, 10% FTSE/EPRA NAREIT Developed ex-US.

Data Sources and Methodology

Period Ending: March 31, 2025

IMPLEMENTATION BENCHMARK WEIGHTS BY INVESTMENT ALLOCATION RESOLUTION (7/1/18 TO CURRENT)									
Manager	Benchmark	10/1/1017- 6/30-2018	7/1/2018- 6/30/2019	7/1/19- 6/30/202	7/1/2020- 6/30/2021	7/1/2021- 6/30/2022	7/1/2022- 7/31/2023	8/1/2023- 9/30/2024	10/1/2024- Present
BlackRock Index Fund	Russell 1000	1.00%	1.00%	2.00%	2.00%	5.00%	9.00%	10.00%	10.00%
Boston Partners	Russell 1000 Value	4.50%	3.00%	2.50%	2.00%	4.00%	4.00%	3.00%	3.00%
Jackson Square	Russell 100 Growth	4.50%	3.00%	2.50%	2.00%	4.00%	0.00%	0.00%	0.00%
Emerald	Russell 2000 Growth	3.30%	2.00%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
Ceredex	Russell 2000 Value	3.30%	2.00%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
Pyrford	MSCI ACWI ex-US Value	5.40%	5.50%	5.00%	5.00%	4.00%	4.00%	4.00%	3.50%
William Blair	MSCI ACWI ex-US Growth	5.40%	5.50%	5.00%	5.00%	4.00%	4.00%	4.00%	3.50%
Artisan	MSCI ACWI Growth	4.30%	4.00%	4.00%	4.00%	4.50%	4.50%	5.00%	5.50%
First Eagle	MSCI ACWI Value	4.30%	4.00%	4.00%	4.00%	4.50%	4.50%	5.00%	5.50%
IT Emerging Markets	MSCI Emerging Markets	4.20%	4.00%	4.00%	4.00%	4.00%	3.50%	2.00%	2.00%
PIMCO RAE Emerging Markets	MSCI Emerging Markets Value	4.20%	4.00%	4.00%	4.00%	4.00%	3.50%	2.00%	2.00%
Torchlight	Private Equity Composite	1.90%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Opportunistic	Private Equity Composite	0.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Private Equity	Private Equity Composite	8.20%	10.00%	11.00%	11.00%	11.00%	13.00%	13.00%	10.00%
Infrastructure	Infrastructure Composite	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.00%
Voya	ICE BofA High Yield Master II	5.00%	2.00%	2.00%	1.50%	2.00%	1.50%	2.00%	3.00%
Private Credit	Private Credit Composite	0.00%	4.00%	5.00%	7.00%	8.00%	8.00%	10.00%	10.00%
Adelante REIT	Wilshire REIT	1.00%	1.00%	1.00%	1.00%	2.00%	1.00%	1.00%	1.00%
INVESCO REIT	Wilshire REIT	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	1.00%	1.00%
Private RE (NPI)	Private RE Composite	1.40%	1.80%	1.60%	1.60%	0.00%	0.00%	0.00%	0.00%
Private RE (ODCE)	Private RE Composite	8.20%	7.20%	6.40%	6.40%	0.00%	0.00%	0.00%	0.00%
Private RE	Private RE Composite	0.00%	0.00%	0.00%	0.00%	8.00%	8.00%	8.00%	5.00%
Risk Parity	60% MSCI ACWI (Net) / 40% Bloomberg Globale Aggregate	0.00%	5.00%	5.00%	5.00%	3.00%	3.00%	3.00%	0.00%
Insight	Bloomberg 1-3 Yr Gov/Credit	10.70%	12.00%	12.00%	13.00%	7.00%	6.50%	6.50%	6.50%
DFA	ICE BofA 1-5 US Corp/Gov	5.30%	5.50%	6.00%	6.00%	4.00%	4.00%	4.00%	4.00%
Sit	Bloomberg 1-3 Yr Gov	6.00%	5.50%	6.00%	6.00%	7.00%	6.50%	6.50%	6.50%
AFL-CIO HIT	Bloomberg US Aggregate	3.50%	3.50%	3.50%	3.00%	2.50%	2.50%	2.50%	2.50%
Parametric Defensive Equity	CPI + 4%	0.00%	2.50%	2.50%	0.00%	1.50%	0.00%	0.00%	0.00%
BH-DG Systematic	SG CTA Index	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.00%
Wellington Real TR	Bloomberg Global Aggregate	2.50%	2.00%	2.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Acadian MAARS	FTSE 3-month T-Bill +5%	0.00%	0.00%	0.00%	1.50%	1.50%	2.50%	2.00%	0.00%
SitAR	Bloomberg US Aggregate + 1%	0.00%	0.00%	0.00%	2.00%	1.50%	2.50%	2.50%	3.50%
Cash	3-month T-Bill	1.40%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	5.00%

Data Sources and Methodology

Period Ending: March 31, 2025

Manager Line Up					
Manager	Inception Date	Data Source	Manager	Inception Date	Data Source
BlackRock Russell 1000 Index	4/20/2017	BlackRock	Invesco Real Estate V	9/27/2022	Invesco
Boston Partners	6/1/1995	Northern Trust	Oaktree REOF V	12/31/2011	Oaktree
Emerald Advisors	4/7/2003	Northern Trust	Oaktree REOF VI	9/30/2013	Oaktree
Ceredex	11/6/2011	Northern Trust	Oaktree REOF VII	4/1/2015	Oaktree
Pyrford	4/25/2014	State Street	PCCI IX	4/28/2022	PCCP
William Blair	10/29/2010	William Blair	Siguler Guff DREOF	1/25/2012	Siguler Guff
PIMCO RAE Emerging Markets	2/28/2017	State Street	Siguler Guff DREOF II	8/31/2013	Siguler Guff
TT Emerging Markets	7/27/2017	TT	Siguler Guff DREOF II Co-Inv	1/27/2016	Siguler Guff
Artisan Partners	10/1/2012	SEI Trust	Paulson Real Estate Fund II	11/10/2013	Paulson
First Eagle	1/18/2011	Northern Trust	AE Industrial Partners Fund II	4/8/2019	StepStone Group
Voya	4/25/2000	Northern Trust	Adams Street Partners	3/18/1996	StepStone Group
Adelante	9/30/2001	Northern Trust	Adams Street Partners II	1/16/2009	StepStone Group
Panagora Risk Parity Multi Asset	3/15/2019	Panagora	Adams Street Partners Venture	4/28/2017	StepStone Group
AFL-CIO	6/30/1991	AFL-CIO	Adams Street Partners - BFP	1/18/1996	StepStone Group
Wellington Real Total Return (in Liquidation)	2/26/2013	Wellington	Adams Street Partners - Fund 5	9/21/2012	StepStone Group
BH-DG Systematic Trading Fund L.P., - I	4/19/2024	BH-DG	Aether Real Assets IV	3/16/2016	StepStone Group
Sit LLCAR	4/15/2021	Northern Trust	Aether Real Assets III	11/27/2013	StepStone Group
Sit Short Duration	1/12/2016	Northern Trust	Aether Real Assets III Surplus	11/30/2013	StepStone Group
DFA Short Credit	11/21/2016	Northern Trust	Bay Area Equity Fund	6/14/2004	StepStone Group
Insight Short Duration	11/18/2016	Northern Trust	Bay Area Equity Fund II	12/7/2009	StepStone Group
Parametric Overlay	3/29/2017	Northern Trust	Commonfund	6/28/2013	StepStone Group
Cash	-	Northern Trust	EIF US Power Fund II	8/16/2005	StepStone Group
Angelo Gordon Energy Credit Opp	9/24/2015	StepStone Group	EIF US Power Fund III	5/30/2007	StepStone Group
StepStone CC Opportunities Fund	2/1/2018	StepStone Group	EIF US Power Fund IV	11/28/2011	StepStone Group
Torchlight II	9/30/2006	StepStone Group	EIF US Power Fund V	11/28/2016	StepStone Group
Torchlight IV	7/1/2012	StepStone Group	Genstar Capital Partners IX, L.P.	2/21/2019	StepStone Group
Torchlight V	7/1/2012	StepStone Group	Oaktree PIF 2009	2/28/2010	StepStone Group
Angelo Gordon Realty Fund VIII	1/23/2012	Angelo Gordon	Paladin III	11/30/2007	StepStone Group
Angelo Gordon Realty Fund IX	12/8/2014	Angelo Gordon	Ocean Avenue Fund II	6/11/2014	StepStone Group
Blackstone Real Estate Partners VIII	3/24/2023	Blackstone	Ocean Avenue Fund III	4/15/2016	StepStone Group
DLJ RECP III	6/23/2005	DLJ	Pathway 6	5/24/2011	StepStone Group
DLJ RECP IV	2/11/2008	DLJ	Pathway 7	2/7/2013	StepStone Group
DLJ RECP V	7/1/2014	DLJ	Pathway 8	11/23/2015	StepStone Group
DLJ RECP VI	3/19/2019	DLJ	Pathway	11/9/1998	StepStone Group
LaSalle Income & Growth VI	7/16/2013	LaSalle	Pathway 2008	12/26/2008	StepStone Group
LaSalle Income & Growth VII	2/28/2017	LaSalle	Siguler Guff CCCERA Opps	6/3/2014	StepStone Group
Hearthstone II	6/17/1998	Hearthstone	Siguler Guff Secondary Opps	11/30/2016	StepStone Group
Long Wharf Fund IV	7/3/2013	Long Wharf	Siris Partners IV	3/15/2019	StepStone Group
Long Wharf Fund V	9/30/2016	Long Wharf	TPG Healthcare Partners, L.P.	6/28/2019	StepStone Group
Long Wharf Fund VI	2/5/2020	Long Wharf	Trident VIII, L.P.	5/24/2019	StepStone Group
Long Wharf Fund VII	5/30/2023	Long Wharf	Wastewater Opp. Fund	12/8/2015	StepStone Group
Invesco Real Estate IV	6/30/2014	Invesco	Cross Lake RE IV	12/14/2023	Cross Lake
Invesco Real Estate V	2/20/2019	Invesco	KSL Capital Partners VI, L.P.	11/10/2023	KSL
Stockbridge Value Fund I	6/26/2024	Stockbridge	EQT Infrastructure VI	12/31/2023	StepStone Group
Jadian Real Estate Fund II GP, LLC	9/27/2024	Citco	Altaris Health Partners VI, L.P.	6/30/2024	StepStone Group
Blackfin Financial Services Fund IV	9/30/2024	StepStone Group	Arbor Investments VI, L.P	6/30/2024	StepStone Group
EPIC Fund II, SLP	9/30/2024	StepStone Group	Altor ACT I	9/30/2024	StepStone Group
			Ares US Real Estate Opp. Fund IVV=	9/30/2024	StepStone Group

Other Disclosures

All data prior to 12/31/2014 was provided by previous consultant.
As of 7/1/2018 all Private Equity and Private Credit data is provided by StepStone Group.

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: $\text{Portfolio Return} - [\text{Risk free Rate} + \text{Portfolio Beta} \times (\text{Market Return} - \text{Risk free Rate})]$.

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: $\text{Portfolio Excess Return} / \text{Portfolio Standard Deviation}$.

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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