

AGENDA: April 12, 2023

• Review and Approval of Prior Meeting Notes

CAPTRUST Review Topics

- Industry/Fiduciary Update
- SECURE 2.0
- Capital Market Commentary
- Q4 2022 Quarterly Investment Review
- Investment Policy Statement Review
- Vendor Cybersecurity Review

Additional Topics

- TIAA Plan Review Report
- Goals, Objectives, & Action Items

MEETING NOTES

To: Kalamazoo Valley Community College Optional Retirement Plan Committee

Date: December 12, 2022

Re: Meeting Notes

Attendees: Brian Lueth, Valerie Owens, Aaron Hillard, Becky Craft, and Philipp Jonas (KVCC)

Jeremy Tollas and Max Gates (CAPTRUST) Ruben Barrera and Tony Battaglia (TIAA)

Review and approval of the September 28, 2022 Meeting Notes - Approved by Committee

TIAA Review - Presented by Ruben Barrera

Ruben briefly introduced Tony Battaglia who is KVCC's client service manager going forward and reiterated his primary responsibilities with the Plans. Tony then left the meeting to join a different previously scheduled meeting.

Plan Review Report

TIAA reviewed key demographic statistics of the multiple KVCC plans.

Key statistics:

- 331 participants with a balance
- 89% average participant income replacement ratio.
- \$3.3 million in contributions.
- \$48.9 million of plan assets

Further details can be found in TIAA meeting materials provided.

Missing Participant Procedure Review

Ruben covered TIAA's processes and guidance for finding missing participants and sent a follow-up document that outlines these processes.

Share Class Minimums

Ruben discussed the share class minimums for investments managed by TIAA in the Plan. Typically, plans at TIAA are eligible to move from the R1 to R2 share class of TIAA-CREF funds that are eligible once all aggregated plan assets surpass \$400 million.

TIAA Traditional

KVCC wanted to confirm current payout options from TIAA Traditional (standard vs. graded) as well as participant access to see TIAA traditional payout rates. Ruben will follow up by email with answers related to the questions.

<u>CAPTRUST Investment Review – Presented by Jeremy Tollas and Max Gates</u>

Industry/Fiduciary Update

CAPTRUST provided an industry and fiduciary update to the Committee. The topics included DOL auditor independence update, common retirement plan failures, auto-portability, and enhanced disclosures for ESG investments. Please see the meeting materials for more details on these topics.

Q3 2022 Quarterly Investment Review

CAPTRUST reviewed the quarterly investment report with the Committee in detail. The report includes performance data on all the various investment options offered in the Plan.

For the funds scored and marked for closer ongoing review, CAPTRUST reviewed quantitative and qualitative data for these funds. This typically includes an overview of CAPTRUST's outlook on the manager's current environment, investment strategy, team, performance, and process. CAPTRUST has no recommended changes to the Plan's investment options at this time. Please see the meeting materials for additional commentary.

Capital Market Commentary

CAPTRUST provided a capital market and economic overview, highlighting performance of major asset classes and indices year-to-date. Please see the meeting material for market commentary topics.

Plan Design Trends

CAPTRUST reviewed a plan design benchmarking report with the Committee. The purpose of this report is to provide insight into how the plan design of the Kalamazoo Valley Community College Employee Optional Retirement Plan benchmark against plans of a similar size. The benchmarking data was compiled by Invesco. Please refer to the meeting materials for additional details on this report.

TDF/QDIA Analysis Review

CAPTRUST provided a Target Date Fund/QDIA analysis to the Committee. This report lists and compares a variety of Target Date Fund Series that could be available for use as a QDIA in the Plan. The purpose of this report is to continuously check that the current TDF series is appropriate for the Plan. Please see the meeting materials for the report.

2023 COLA Updates

The Internal Revenue Service announced its annual update to dollar limitations for pension and other retirement plans for tax year 2023. Some of the retirement plan-related limitations have changed due to the annual cost-of-living increase meeting the statutory threshold that triggers their adjustment. The employee contribution limit for the 2023 tax year increased to \$22,500 and the catch-up contribution limit increased to \$7,500.

Additional Topics

After-Tax Contributions are still being discussed internally as a committee.

Action Items

TIAA to follow up with the Committee regarding the questions that were asked regarding TIAA
 Traditional payout options and published rates.

SECURE ACT 2.0: KEY PROVISIONS FOR EXISTING 403(B)/457(B) PLANS

RETROACTIVELY EFFECTIVE



Use of retirement funds for federally declared disasters (§331):

403(b)/457(b) Govt.

Applies to disasters occurring on or after January 26, 2021: \$22,000 may be withdrawn without penalty from retirement plans for affected individuals. Distributions may be repaid. Increases the maximum loan amount for qualified individuals to \$100,000 and extends the repayment period.



EFFECTIVE 2023

Increase in RMD age (\$107): 403(b)/457(b)

Increases required minimum distribution (RMD) age to 73 effective January 1, 2023.



Hardship/unforeseeable emergency withdrawals self-certification (§312):

403(b)/457(b) Govt.
Allows employers to accept written certification from employees that their need constitutes a deemed hardship/unforeseeable emergency.



Small financial incentives for contributing to a plan (§113): 403(b)

Allows employers to provide small financial incentives (e.g., low-dollar gift cards) to boost plan participation. Payment for the incentives is not allowed to come from plan assets.



Expand Employee Plans Compliance Resolution System (§305): 403(b)

Expands the Employee Plans Compliance Resolution System (EPCRS) to allow for more plan errors to be corrected via self-correction.



Penalty exception for terminal illnesses (§326): 403(b)

Eliminates the 10% early withdrawal penalty for individuals with a physician-certified terminal illness.



Eliminate unnecessary plan notice requirements for unenrolled participants (§320): ERISA 403(b)

Reduces the plan sponsor burden of providing notice requirements to unenrolled participants to one annual eligibility notice.



Multiple Employer 403(b) Plans (§106):

403(b)

Permits 403(b) plans to participate in multiemployer plans (MEPs) and pooled employer plans (PEPs).



Optional treatment of employer contributions as Roth (§604):

403(b)/457(b) Govt.
Allows defined
contribution plans to
provide participants the
option to receive employer
matching or non-elective
contributions as Roth.



Enhancement of 403(b) Plans (§128): 403(b)

Permits 403(b) plans to participate in collective investment trusts (CITs). Unfortunately, 403(b) assets are still not exempt from securities law registration requirements.



Eliminate first day of the month requirement (\$306): 457(b) Govt.

Eliminates the requirement that participants request deferral changes prior to the beginning of the month in which the deferral would be made.



Items with a yellow outline are mandatory.



SECURE ACT 2.0: KEY PROVISIONS FOR EXISTING 403(B)/457(B) PLANS

EFFECTIVE 2024

EFFECTIVE 2025



Withdrawals for certain emergency expenses (§115): 403(b)

Individuals may withdraw \$1,000 per year with selfcertification. No additional distributions for three calendar vears unless repayment occurs or elective deferrals since the distribution equal/exceed the amount of the distribution.



Student loan payments as elective deferrals for purposes of matching contributions (§110): 403(b)/457(b) Govt.

Employees repaying student loans can receive their retirement match contributions from employers. Employee must make qualified student loan payments and can self-certify.



Changes to catch-up source (§603): 403(b)/457(b) Govt.

Requires catch-up contributions to be made as Roth-only, with an exception for those who make \$145.000 or less (dollar amount is indexed).



Dollar limit for mandatory distributions (§304): 403(b)/457(b) Govt.

Employers may transfer former employees' retirement accounts with balances up to \$7,000 to IRAs, with notice requirements. Amounts less than \$1,000 can be distributed via check.



Exemption for certain automatic portability transactions (§120): ERISA 403(b)*

Permits service providers to provide automatic portability services, which allows for the automatic rollover of an employee's former plan to a new one.



Penalty-free withdrawal for domestic abuse (§314): 403(b)/457(b) Govt.

Allows retirement plans to permit participants who selfcertify they are experiencing domestic abuse to withdraw money penalty-free.



Surviving spouse election to be treated as employee (§327): 403(b)/457(b)

Allows the surviving spouse to be treated as the deceased employee for purposes of RMD rules.



Roth plan distribution rules (§325): 403(b)/457(b) Govt.

Eliminates the pre-death RMD requirement for Roth accounts in employer plans.



Pension-linked emergency savings (§127): 403(b)

Employers may automatically enroll participants into an emergency savings account at up to 3% of salary for a total contribution amount of \$2,500. Participating employees may take tax- and penalty-free distributions at least once per calendar month.



Hardship withdrawal rules for 403(b) plans (§602): 403(b)

Makes 403(b) hardship distribution rules the same as those for 401(k) plans.



Higher catch-up limit for ages 60 to 63 (§109):

403(b)/457(b) Govt.

Increases the limits to the areater of \$10.000 or 50% more than the regular indexed catch-up amount for ages 60, 61, 62, and 63.



Items with a vellow outline are mandatory. *Effective 12.29.2023



SECURE ACT 2.0: KEY PROVISIONS FOR EXISTING 403(B)/457(B) PLANS

EFFECTIVE 2025

EFFECTIVE 2026

EFFECTIVE 2027

EFFECTIVE 2033



Retirement savings lost and found (§303)*: ERISA 403(b)

Creates a national database to search for lost participant funds that will be run by the DOL.



Coverage for long-term part-time workers (LTPT) (§125): ERISA 403(b)

Provides that employees who work two consecutive years at 500 hours a year or more must be allowed to participate in the plan. Pre-2021 service may be disregarded for vesting purposes. Amends SECURE Act of 2019 LTPT provision.



Requirement to provide paper statement in some cases (§338): ERISA 403(b)

Requires plan sponsors of defined contribution plans to provide a paper benefit statement at least annually (unless the participant elects otherwise). Other statements may be provided electronically.



Savers' match (§103): 403(b)/457(b) Govt.

Taxpayers with qualified retirement contributions who meet certain gross income requirements are eligible to receive a government matching contribution of up to \$2,000 to an eligible IRA or retirement plan. Matching amounts do not count toward annual plan contribution limits.



Increase in RMD age (§107): 403(b)/457(b) Increases RMD age to 75.



First responder retirement payments (§309):

403(b)/457(b) Govt.
Excludes service-connected,
disability pension payments for
first responders from gross
income after reaching
retirement age, up to an
annualized excludable
disability amount.



Items with a yellow outline are mandatory. *Creation of database must be no later than 12.29.2024



KALAMAZOO VALLEY COMMUNITY COLLEGE 4TH QUARTER, 2022

DEFINED CONTRIBUTION QUARTERLY REVIEW

CAPTRUST

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Our mission is to enrich the lives of our clients, colleagues and communities through sound financial advice, integrity, and a commitment to service beyond expectation.



IN THIS REVIEW

Kalamazoo Valley Community College Employee Optional Retirement Plan

Kalamazoo Valley Community College Employee Optional Retirement Plan

4th Quarter, 2022 Quarterly Review

prepared by:

Jeremy Tollas, CPFA ,CIMA®

Vice President | Financial Advisor

Section 1

RETIREMENT INDUSTRY UPDATES

Section 2

MARKET COMMENTARY AND REVIEW

Section 3

PLAN INVESTMENT REVIEW

Section 4

FUND FACT SHEETS

Appendix



SECTION I. RETIREMENT INDOSTRIT OF DATES										

2023 PREDICTIONS: NEW OPPORTUNITIES, NEW IDEAS

The new year will be shaped by increased personalization and shifting employee and employer needs.

(1)

INVESTMENTS

- Conversations around environmental, social, and governance (ESG) investments will intensify as the industry attempts to standardize data and terminology and investors try to personalize ESG goals.
- In the wake of higher interest rates and market volatility, there will be a renewed focus on the appropriateness of fixed income, capital preservation options, and default investments within plans.
- The industry will continue to drive new qualified default investment alternative options (i.e., QDIA 2.0), including personalized target-date funds, managed accounts, and integration with retirement income products.



A NEW SOCIAL CONTRACT

- Employees will continue to demand more workplace flexibility and personalization. Retirement plans and financial wellness services will play a critical role. Support with budgeting, debt management, student loans, and withdrawal advice will be in high demand.
- Employees staying in plans longer will drive the evaluation of products and solutions designed to meet their decumulation needs, including managed accounts and retirement income solutions.



TO BE CONTINUED...

- Plan sponsors will continue to outsource retirement plan responsibilities through the utilization of 3(38) and 3(16) discretionary services.
- Recordkeeper consolidation will persist.
- Retirement plan fee litigation will continue.



FIDUCIARY UPDATE

Retirement plan fiduciaries should be mindful of recent compliance issues that may be relevant to their plans.



FLOAT INCOME

Float income is the earnings accrued by a service provider that handles plan assets while awaiting deposit or distribution.

- In most circumstances, float income is considered service provider compensation by the Department of Labor (DOL) and must be disclosed to the plan sponsor as part of the service provider's 408(b)(2) fee disclosure.
- For smaller plans, float income is negligible, particularly in a low interest rate environment. But in the mega-plan market (plan assets greater than \$1 billion), float income can be significant.
- Plan sponsors should understand their provider's float policy, particularly when float income is retained as part of its compensation.



DOL AUDIT ACTIVITY: CYBERSECURITY

Recent DOL retirement plan audit questionnaires included questions on cybersecurity. With no standardized audit guidelines, it is difficult to know if these questions will be part of future audits, but plan sponsors should prepare accordingly.

- The questions focus on any cybersecurity incidents that have occurred, as well as policies and procedures around issues like data privacy, business continuity and disaster recovery, asset and data management, risk assessment, network security and monitoring, service provider management, and training.
- Plan sponsors should review the DOL's cybersecurity guidance for tips and best practices.



NOW WHAT? IMPACTS OF THE ESG FINAL RULE

On November 22, the Department of Labor (DOL) released its final rule designed to clarify a path forward for retirement plan fiduciaries to incorporate environmental, social, and governance (ESG) factors into their investment selection and monitoring process. The DOL made it clear that fiduciaries may consider ESG factors when making investment decisions and exercising shareholder rights. However, there is no requirement to incorporate these considerations. Below are some key plan sponsor considerations.

DO WE NEED TO CONSIDER ADDING AN ESG FUND TO OUR PLAN?

The ruling does not require ESG factors to be considered as part of the investment selection or monitoring process.

The rule maintains the duties of prudence and loyalty that require plan fiduciaries to focus on relevant risk-return factors and act solely in the best interests of plan participants and beneficiaries.

If a fiduciary determines that an ESG factor is material to an investment's risk-return profile, then the addition of an investment that considers ESG factors could be reasonable.

DO WE NEED TO MONITOR AN ESG INVESTMENT DIFFERENTLY?

The ruling does not change the expectations for how fiduciaries should monitor their investments.

Most plans utilize an investment policy statement (IPS) to establish the criteria for their selection and monitoring processes. Applying those guidelines will create the basis of a prudent process.

Fiduciaries should understand how their selected investments do—or do not—consider ESG factors as part of their investment management strategy.

WHAT IF OUR PARTICIPANTS ARE ASKING FOR ESG OPTIONS?

The final rule amends ERISA section 404(a) to clarify that fiduciaries do not violate their duty of loyalty solely because they consider participant preferences.

The DOL acknowledged that aligning participant preferences with available investment options could be beneficial.

However, this does not allow plan fiduciaries to add investment options that would otherwise be imprudent simply because participants request them.

Proxy Voting and Shareholder Engagement: The final rule makes it clear that fiduciaries must act solely in accordance with the economic interests of the plan when deciding whether and how to exercise shareholder rights. Plan sponsors should review their proxy voting policies and the policies of any third parties to which they delegate proxy voting for consistency with the final rule.



FIDUCIARY FLASH TRAINING: WHAT IS A QDIA?

Fiduciary training is a critical part of being a fiduciary and a way to minimize risk through education and governance. The DOL views this as an important element to managing a retirement plan and looks for evidence of formal training during investigations. A good fiduciary curriculum covers a range of topics. Here we review qualified default investment alternatives (QDIA) and how they can reduce a plan sponsor's fiduciary liability.

DEFINITION OF A QDIA

A QDIA is a safe harbor for plan sponsors to use with participants who do not make their own investment elections. Authorized by the Pension Protection Act of 2006 and subsequent DOL guidance, QDIAs alleviate the fiduciary liability associated with undirected investment decisions.

DOL APPROVED OPTIONS

- Lifecycle (risk-based) or target-date (age-based) funds
- Professionally managed accounts that consider participant age or retirement date
- Balanced funds that consider employee group characteristics

REQUIRED CRITERIA

The following criteria must be met to obtain QDIA safe harbor relief:

- Assets must be invested in a QDIA option as defined in the regulation.
- Participants and beneficiaries must be given an opportunity to provide investment direction but have not done so.
- Initial and annual notices containing DOL-required information must be furnished to participants.
- Participants must have the opportunity to direct investments out of a QDIA without penalty as frequently as other plan investments (at least quarterly).
- The plan must offer a broad range of investment alternatives as defined under ERISA 404(c).

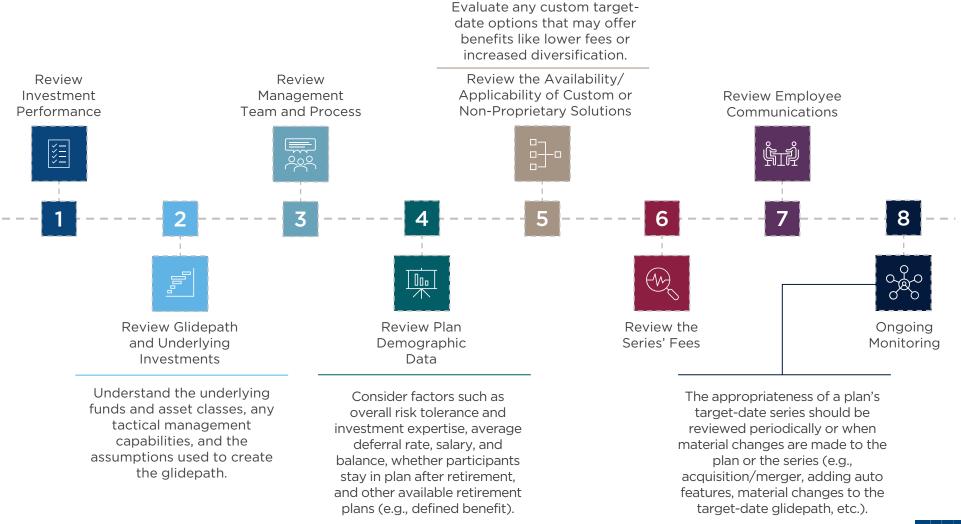
QDIA SELECTION

The right QDIA depends on a variety of factors, including the demographics of the employer's workforce, plan design, investment philosophy, and the overall level of participant investment sophistication.



BACK TO BASICS: TARGET DATE TIPS

In 2013, the DOL released Target Date Retirement Funds—Tips for Plan Fiduciaries to assist plan sponsors with the selection and monitoring of target-date funds. In addition to reviewing target-date investment performance and fees, plan sponsors should consider other areas of the DOL's guidance.



SECURE ACT 2.0: WHAT TO KNOW

Congress reached a bipartisan, bicameral retirement bill called SECURE Act 2.0 of 2022 and President Biden signed it into law as part of the \$1.7 trillion government funding bill. With more than 90 provisions, the impact to the retirement industry is extensive. Much of the legislation is focused on increasing retirement savings and coverage.

REQUIRED PROVISIONS:

- Increase in the required minimum distribution (RMD) age to 73 for those who attain age 72 between January 1, 2023 and December 31, 2032 and age 75 for those who attain age 74 after December 31, 2032.
- Catch-up contribution limit increased to the greater of \$10,000 or 50% more than the regular catch-up amount for ages 60 to 63. Effective for taxable years beginning after December 31, 2024.*
- Catch-up contributions made after December 31, 2023 must be made as Roth contributions with an exception for employees earning \$145,000 or less (dollar amount is indexed).*
- Newly created Retirement Savings Lost and Found Database will collect information on missing, lost, or non-responsive participants and beneficiaries and assist savers in locating their benefits. The database must be created by 2025.
- Long-term, part-time required years of service reduced from three years to two, effective for plan years beginning after December 31, 2024. The requirement is also extended to ERISA 403(b) plans. The SECURE Act of 2019 required employers with 401(k) plans to permit employees with at least 500 hours of service in three consecutive years to participate in their plans.
- Saver's Credit modified to Saver's Match program. Taxpayers meeting gross income requirements with qualified retirement contributions can receive a government match contribution of up to \$2,000 to an eligible IRA or retirement plan, which does not count toward the annual plan contribution limit. This provision applies to taxable years beginning after December 31, 2026.
- RMDs removed for Roth money held in employer plans, effective for tax years beginning after December 31, 2023.
- Paper benefit statements must be provided at least once per year, effective for plan years beginning after December 31, 2025.

Plan amendments pursuant to SECURE 2.0 must be made on or before the last day of the first plan year beginning on January 1, 2025 (2027 for governmental plans).

*Mandatory for plans offering catch-up contributions



SECURE ACT 2.0: WHAT TO KNOW

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OPTIONAL PROVISIONS:

- Employers can allow matching contributions to be made as Roth contributions, effective immediately.
- Student loan repayments can be treated as elective deferrals for the purpose of matching contributions for plan years beginning after December 31, 2023.
- Employers can offer an emergency savings distribution option of \$1,000 per year that can be repaid to the plan. Effective for distributions made after December 31, 2023.
- Employers can offer an emergency savings account linked to a defined contribution plan for non-highly compensated employees.

 Participants can be automatically enrolled at up to 3% of salary for a total contribution amount of \$2,500. Participating employees may take tax- and penalty-free distributions at least once per calendar month. Effective for plan years beginning after December 31, 2024.
- Automatic small balance cash-out maximum increased from \$5,000 to \$7,000. Effective for distributions made after December 31, 2023.
- 403(b) plans can join a pooled employer plan (PEP), effective immediately.
- Employers may accept written certification by the employee for hardship distributions, effective immediately.
- De minimis financial incentives (not paid by plan assets) can be provided to employees to encourage retirement plan participation, effective immediately.

Plan amendments pursuant to SECURE 2.0 must be made on or before the last day of the first plan year beginning on January 1, 2025 (2027 for governmental plans).

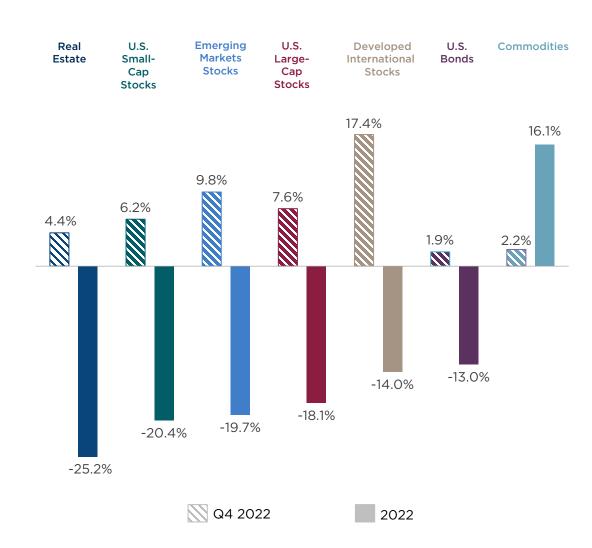


SECTION 2: MARKET COMMENTARY AND REVIEW
Madad Carrenda
Market Commentary
Market Review
Asset Class Returns
Index Performance

A WELCOME REPRIEVE

Investors grew optimistic over the first half of the fourth quarter, anticipating the Federal Reserve was near the end of its tightening cycle. However, the excitement faded as Chairman Powell cautioned that conditions would need to remain restrictive for some time.

- Gains early in the quarter were more than enough to offset December declines, leading to positive quarterly results across nearly all asset classes.
- U.S. stock market gains were broad based. The energy sector remained at the top of the charts, posting a 25% quarterly return. On the flip side, the mega-cap growth darlings of the last decade lagged.
- Outside the U.S., investors benefited from both rising stock prices and a weakening U.S. dollar.
- Bond yields were volatile, seesawing based on every Fed whisper. Despite these swings, longer-term Treasury yields ended the quarter little changed, enabling bond markets to post a modest return for the quarter.
- Even with a year-end rally, public real estate lost approximately one-quarter of its value in 2022.
- Commodities were the sole bright spot for the year despite rising recession concerns.



Asset class returns are represented by the following indexes: Bloomberg U.S. Aggregate Bond Index (U.S. bonds), S&P 500 Index (U.S. large-cap stocks), Russell 2000® (U.S. small-cap stocks), MSCI EAFE Index (international developed market stocks), MSCI Emerging Market Index (emerging market stocks), Dow Jones U.S. Real Estate Index (real estate), and Bloomberg Commodity Index (commodities).

MARKET COMMENTARY

DIGGING DEEPER: STOCKS AND BONDS

Equities

	Q4 2022	YTD 2022	Last 12 Months
U.S. Stocks	7.5%	-18.1%	-18.1%
• Q4 Best Sector: Energy	22.7%	65.4%	65.4%
 Q4 Worst Sector: Consumer Discretionary 	-10.2%	-37.0%	-37.0%
International Stocks	17.4%	-14.0%	-14.0%
Emerging Markets Stocks	9.8%	-19.7%	-19.7%

Fixed Income

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	12.31.22	9.30.22	12.31.21
1-Year U.S. Treasury Yield	4.73%	4.05%	0.09%
10-Year U.S. Treasury Yield	3.88%	3.83%	1.52%
	QTD 2022	YTD 2022	Last 12 Months
10-Year U.S. Treasury Total Return	0.62%	-16.33%	-16.33%

Equities - Relative Performance by Market Capitalization and Style

	Q4	2022		YTD 2022				Last 12 Months			
	Value	Blend	Growth		Value	Blend	Growth		Value	Blend	Growth
Large	12.4%	7.5%	2.2%	Large	-7.5%	-18.1%	-29.1%	Large	-7.5%	-18.1%	-29.1%
Mid	10.5%	9.2%	6.9%	Mid	-12.0%	-17.3%	-26.7%	Mid	-12.0%	-17.3%	-26.7%
Small	8.4%	6.2%	4.1%	Small	-14.5%	-20.4%	-26.4%	Small	-14.5%	-20.4%	-26.4%

Sources: Bloomberg, U.S. Treasury. Asset class returns are represented by the following indexes: S&P 500 Index (U.S. stocks), MSCI EAFE Index (international developed market stocks), and MSCI Emerging Markets Index (emerging market stocks). Relative performance by market capitalization and style is based upon the Russell US Style Indexes except for large-cap blend, which is based upon the S&P 500 Index.

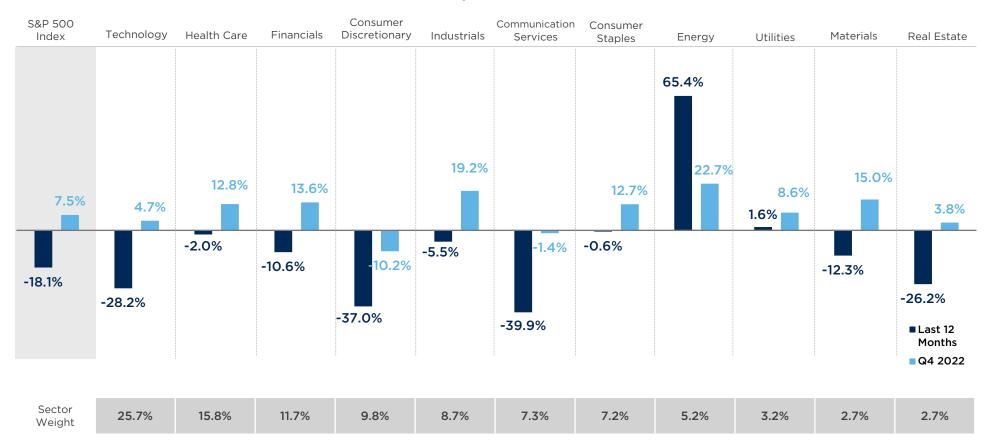


MARKET COMMENTARY

DIGGING DEEPER: U.S. EQUITY MARKETS

The S&P 500 Index is a market-capitalization-weighted index of U.S. large-cap stocks across a diverse set of industry sectors. The stocks represented in these 11 sectors generated a range of returns for the last 12 months and the most recent quarter.

Returns by S&P 500 Sector



Source: Bloomberg. All calculations are cumulative total return, not annualized, including dividends for the stated period. Past performance is not indicative of future returns.



DIGGING DEEPER: FIXED INCOME MARKET

Interest Rates	3 Months	2 Years	5 Years	10 Years	30 Years	Mortgage Rate
September 2022	3.33%	4.22%	4.06%	3.83%	3.79%	7.06%
December 2022	4.42%	4.41%	3.99%	3.88%	3.97%	6.66%
Change	1.09%	0.19%	-0.07%	0.05%	0.18%	-0.40%

U.S. Treasury yields continued moving higher last quarter, driven by an aggressive Fed response to high inflation. Mortgage rates moved lower, yet remain near their highest levels in two decades, cooling demand in a hot housing market.

Bloomberg U.S. Aggregate Bond Index	Yield to Worst	Duration	Total Return Q4 2022	Spread	Treasury Rate	AA Spread	BBB Spread
September 2022	4.75%	6.20		0.62%	4.13%	0.79%	1.93%
December 2022	4.68%	6.17	1.87%	0.51%	4.17%	0.73%	1.59%
Change	-0.07%	-0.03		-0.11%	0.04%	-0.06%	-0.34%

Performance for core bonds was modestly positive for the quarter, but still declined 13% over the past year. Credit spreads and yields moved lower for core fixed income, contributing to positive quarterly performance.

Bloomberg U.S. Long Credit Index	Yield to Worst	Duration	Total Return Q4 2022	Spread	Treasury Rate	AA Spread	BBB Spread
September 2022	5.89%	12.63		1.96%	3.93%	1.31%	2.38%
December 2022	5.59%	12.81	5.30%	1.57%	4.02%	1.06%	1.93%
Change	-0.31%	0.18		-0.39%	0.08%	-0.25%	-0.45%

Performance for longer-maturity bonds was boosted this quarter by lower yields and tighter credit spreads.

Sources: Bloomberg, U.S. Treasury, CAPTRUST Research



ECONOMIC OUTLOOK

Though inflation has receded from its 40-year high witnessed earlier in 2022, the Federal Reserve remains committed to lowering inflation to its long-term target. This resolve threatens economic growth, and its impact can already be seen in the housing market. A robust labor market, while cushioning the economy, could prolong Fed tightening, causing investors to focus on the potential depth of an economic slowdown.

HEADWINDS

Learning as We Go

• It is difficult to forecast the market environment in 2023 when everyone, including the Fed, is learning as they go. Ongoing uncertainty about rate hikes is driving volatility.



 Because Fed policy acts with a lag, the economy has yet to feel the impact of 2022's 4.25% rate hikes. The Fed is also expected to shrink its balance sheet this year, with uncertain impact.

Rising Interest Rates

- The financial pain of surging interest rates will transition from the investor to the issuer as coupon payments reset higher.
- Nearly 20% of S&P 500 companies' debt matures in the next 24 months, and \$6 trillion of Treasury debt matures in 2023.

Housing Shock

- The doubling of mortgage rates has caused a collapse in residential real estate activity.
- The impact on home prices is unknown, but weakness is unlikely to result in a crisis as both consumers and banks remain in healthier financial positions.

TAILWINDS

Stronger Foundation

- With interest rates near zero for the last decade, investors have been forced to take more risk. With the reestablishment of a positive risk-free rate, investors can approach risk out of conviction.
- While near-term questions remain, this more fundamental approach toward risk-taking should provide a stronger foundation for investment outcomes.

Resilient Labor Market

- While the labor market's strength contributes to inflation pressures, it also protects economic activity in the face of the Fed's tightening programs.
- The Fed's focus is to return inflation to its 2% long-term target.
 However, lowering inflation below wage growth should be the minimal threshold, allowing positive real income improvement.

Pandemic Effects Reversing

 Subsiding supply-chain constraints, gas prices, COVID-related restrictions in China, and inflation could improve consumer sentiment and spending.

The wide range of future outcomes and an uncertain policy environment limits the ability to create a singular forecast with confidence. Investors should remain vigilant, diversified, and prepared for ongoing volatility.



2023 MARKET SCENARIOS

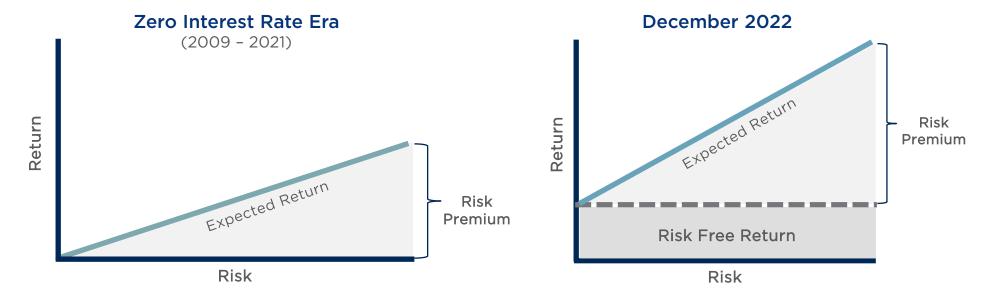
Investors should look forward with a healthy dose of humility as the range of potential outcomes for 2023 remains wider than normal. Below, we outline four different narratives that represent realistic paths for 2023, with each scenario leading to a different investment landscape.

POTENTIAL OUTCOME	OUTCOME #1 MISSION ACCOMPLISHED	OUTCOME #2 MILD RECESSION	OUTCOME #3 OVERSHOOTING TARGET	OUTCOME #4 STAGFLATION CRISIS
FED POLICY	The Fed achieves a soft landing, and the tightening cycle ends by mid-year	Inflation and a continued tight labor market force the Fed to keep rates higher for longer	The Fed is hesitant to reverse course too early, fearing a repeat of prior inflation-fighting policy errors	Despite aggressive measures, Fed tools prove insufficient to manage supply-side constraints
INFLATION	Inflation subsides as labor market excesses are withdrawn without significant impact to unemployment levels	Inflation is tamed but remains sticky, despite improvements in pandemic-distorted categories	Inflation recedes faster than expected as the Fed's tightening pace proves too aggressive	A warp-speed rate hike cycle slows global economies while rising debt levels and housing weakness weigh on consumer spending
CORPORATIONS	Corporations adeptly manage through the slowing environment	Corporations navigate the slowing environment without significant strain	Profits come under pressure as demand wanes, leading to job cuts and rising unemployment	Corporations are forced to cut jobs amid economic weakness while the Fed is unable to pivot due to inflation
FINANCIAL MARKETS	Markets are noisy early in the year but stabilize and move higher as valuations recover, signaling the start of a new bull market	Markets are choppy with a widening gap between winners and losers	Confused investors capitulate, sending markets lower as it becomes evident the Fed has made a different type of policy error	Markets reach new lows as the severity of an economic slowdown is debated



STRONGER RISK-FREE FOUNDATION

The Capital Market Line principle connects risk with return and is a foundational concept in finance. It begins with the risk-free rate and argues that investors demand higher expected returns for each additional unit of risk. There are two critical variables—the risk-free level where the line starts, and the slope of the line—reflecting the incremental demand for return for each additional unit of risk.



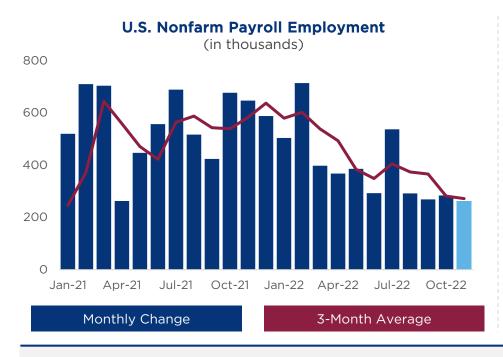
OBSERVATIONS

- For much of the last decade, investors have coped with a near-zero risk-free rate. Central banks made it expensive to maintain a conservative portfolio. Consequently, investors with return requirements were forced to accept higher risk. This capital shift pulled future returns to the present, flattening the slope of the Capital Market Line.
- Normalizing the risk-free rate—a fundamental data point in nearly every business and investment calculation—was always going to be disruptive. The Fed amplified this disruption with the pace of its 2022 rate hikes. Businesses and investors will continue to feel reverberations for much of 2023.
- Despite near-term challenges, these policy actions should create a stronger foundation to support the next decade of investing.



A TALE OF TWO ECONOMIC INDICATORS

The Federal Reserve's efforts to tame inflation are taking effect as the pace of inflation has slowed consistently since June. Two other closely watched indicators are the U.S. labor and housing markets. While rising mortgage rates have cooled red-hot home sales, employment tells a different story. A softer labor market is necessary before the Fed can wind down its fight against inflation.





OBSERVATIONS

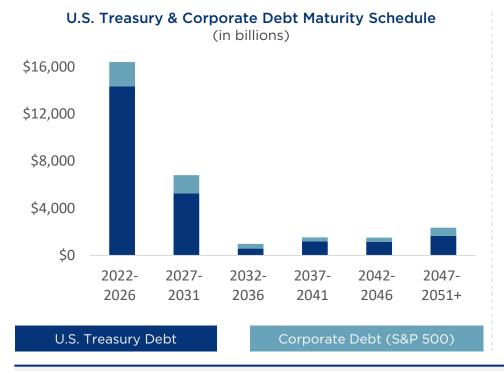
- The economy continues to add 200,000+ jobs each month. Early retirements and shifting demographics have lowered labor force participation. Surging demand and dwindling supply of workers have increased wage pressures, contributing to inflation woes.
- Demand for housing has fallen precipitously since the Fed began raising rates in March. New and existing home sales have declined 31% since January 2022. Housing permits, a leading indicator of housing demand, have also dropped 11%, indicating the Fed's campaign has all but paralyzed the housing market.

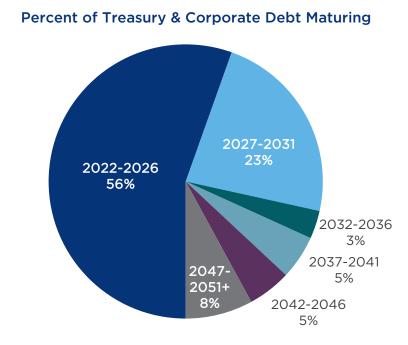
Sources: U.S. Bureau of Labor Statistics, U.S. Census Bureau, Freddie Mac, National Association of Realtors, CAPTRUST Research



REFINANCING AT HIGHER RATES

As interest rates rise from near-zero level and debt matures in both the U.S. Treasury and corporate markets, the government and companies will be forced to refinance at notably higher rates.





OBSERVATIONS

- More than 50% of debt for the U.S. Treasury and corporate markets (represented by S&P 500 constituents) will mature by 2026.
- Nearly 60% of U.S. Treasury bonds mature in the next five years, including more than \$6 trillion in 2023. As this debt is refinanced at higher rates, the U.S. government's interest payments will also rise, potentially driving up national debt and budget deficits.
- Over \$1 trillion of corporate debt, or approximately 20%, matures in the next 24 months.

Sources: Bloomberg, Strategas, CAPTRUST Research



ASSET CLASS RETURNS

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Mid-Cap Growth 46.29%	Small-Cap Growth 29.09%	Fixed Income 7.84%	Mid-Cap Value 18.51%	Small-Cap Growth 43.30%	Mid-Cap Value 14.75%	Large-Cap Growth 5.67%	Small-Cap Value 31.74%	Large-Cap Growth 30.21%	Cash 1.87%	Large-Cap Growth 36.39%	Large-Cap Growth 38.49%	Mid-Cap Value 28.34%	Cash 1.46%
Large-Cap Growth 37.21%	Mid-Cap Growth 26.38%	Large-Cap Growth 2.64%	Small-Cap Value 18.05%	Mid-Cap Growth 35.74%	Large-Cap Value 13.45%	Fixed Income 0.55%	Mid-Cap Value 20.00%	International Equities 25.62%	Fixed Income 0.01%	Mid-Cap Growth 35.47%	Mid-Cap Growth 35.59%	Small-Cap Value 28.27%	Large-Cap Value -7.54%
Small-Cap Growth 34.47%	Mid-Cap Value 24.75%	Large-Cap Value 0.39%	International Equities 17.90%	Small-Cap Value 34.52%	Large-Cap Growth 13.05%	Cash 0.05%	Large-Cap Value 17.34%	Mid-Cap Growth 25.27%	Large-Cap Growth -1.51%	Small-Cap Growth 28.48%	Small-Cap Growth 34.63%	Large-Cap Growth 27.60%	Mid-Cap Value -12.03%
Mid-Cap Value 34.21%	Small-Cap Value 24.50%	Cash 0.10%	Large-Cap Value 17.51%	Large-Cap Growth 33.48%	Mid-Cap Growth 11.90%	Mid-Cap Growth -0.20%	Small-Cap Growth 11.32%	Small-Cap Growth 22.17%	Mid-Cap Growth -4.75%	Mid-Cap Value 27.06%	International Equities 8.28%	Large-Cap Value 25.16%	Fixed Income -13.01%
International Equities 32.46%	Large-Cap Growth 16.71%	Mid-Cap Value -1.38%	Mid-Cap Growth 15.81%	Mid-Cap Value 33.46%	Fixed Income 5.97%	International Equities -0.39%	Mid-Cap Growth 7.33%	Large-Cap Value 13.66%	Large-Cap Value -8.27%	Large-Cap Value 26.54%	Fixed Income 7.51%	Mid-Cap Growth 12.73%	International Equities -14.01%
Small-Cap Value 20.58%	Large-Cap Value 15.51%	Mid-Cap Growth -1.65%	Large-Cap Growth 15.26%	Large-Cap Value 32.53%	Small-Cap Growth 5.60%	Small-Cap Growth -1.38%	Large-Cap Growth 7.08%	Mid-Cap Value 13.34%	Small-Cap Growth -9.31%	International Equities 22.66%	Mid-Cap Value 4.96%	International Equities 11.78%	Small-Cap Value -14.48%
Large-Cap Value 19.69%	International Equities 8.21%	Small-Cap Growth -2.91%	Small-Cap Growth 14.59%	International Equities 23.29%	Small-Cap Value 4.22%	Large-Cap Value -3.83%	Fixed Income 2.65%	Small-Cap Value 7.84%	Mid-Cap Value -12.29%	Small-Cap Value 22.39%	Small-Cap Value 4.63%	Small-Cap Growth 2.83%	Small-Cap Growth -26.36%
Fixed Income 5.24%	Fixed Income 5.89%	Small-Cap Value -5.50%	Fixed Income 4.22%	Cash 0.07%	Cash 0.03%	Mid-Cap Value -4.78%	International Equities 1.51%	Fixed Income 3.54%	Small-Cap Value -12.86%	Fixed Income 8.72%	Large-Cap Value 2.80%	Cash 0.05%	Mid-Cap E Growth -26.72%
Cash 0.21%	Cash 0.13%	International Equities -11.73%	Cash 0.11%	Fixed Income -2.02%	International Equities -4.48%	Small-Cap Value -7.47%	Cash 0.33%	Cash 0.86%	International Equities -13.36%	Cash 2.28%	Cash 0.67%	Fixed Income -1.54%	Large-Cap Growth -29.14%
Small-Cap Value Stocks (Russell 2000 Value) Small-Cap Growth Stocks (Russell 2000 Growth) Large-Cap Growth Stocks (Russell 1000 Growth) Mid-Cap Growth Stocks (Russell Mid-Cap Value)								th)	International Equities (MSCI EAFE) Fixed Income (Bloomberg U.S. Aggregate Bond) Cash (Merrill Lynch 3-Month Treasury Bill)				

The information contained in this report is from sources believed to be reliable but is not warranted by CAPTRUST to be accurate or complete.



INDEX PERFORMANCE Period Ending 12.31.22 | Q4 22

INDEXES	Q4 2022	YTD	2021	2020	2019	2018	2017	1 YEAR	3 YEARS	5 YEARS	10 YEARS
90-Day U.S. Treasury	0.84%	1.46%	0.05%	0.67%	2.28%	1.87%	0.86%	1.46%	0.72%	1.26%	0.76%
Bloomberg Government 1-3 Year	0.73%	-3.81%	-0.60%	3.14%	3.59%	1.58%	0.45%	-3.81%	-0.46%	0.74%	0.66%
Bloomberg Intermediate Govt	1.01%	-7.73%	-1.69%	5.73%	5.20%	1.43%	1.14%	-7.73%	-1.38%	0.46%	0.69%
Bloomberg Muni Bond	4.10%	-8.53%	1.52%	5.21%	7.54%	1.28%	5.45%	-8.53%	-0.77%	1.25%	2.13%
Bloomberg Intermediate Govt/Credit	1.54%	-8.23%	-1.44%	6.43%	6.80%	0.88%	2.14%	-8.23%	-1.26%	0.73%	1.12%
Bloomberg Intermediate Credit	2.52%	-9.10%	-1.03%	7.08%	9.52%	0.01%	3.67%	-9.10%	-1.23%	1.08%	1.75%
Bloomberg Aggregate Bond	1.87%	-13.01%	-1.54%	7.51%	8.72%	0.01%	3.54%	-13.01%	-2.71%	0.02%	1.06%
Bloomberg Corporate IG Bond	3.63%	-15.76%	-1.04%	9.89%	14.54%	-2.51%	6.42%	-15.76%	-2.88%	0.45%	1.96%
Bloomberg High Yield	4.17%	-11.19%	5.28%	7.11%	14.32%	-2.08%	7.50%	-11.19%	0.05%	2.31%	4.03%
Bloomberg Global Aggregate	4.55%	-16.25%	-4.71%	9.20%	6.84%	-1.20%	7.39%	-16.25%	-4.48%	-1.65%	-0.44%
Bloomberg U.S. Long Corporate	5.40%	-25.62%	-1.13%	13.94%	23.89%	-7.24%	12.09%	-25.62%	-5.72%	-0.75%	2.23%
S&P 500	7.56%	-18.11%	28.71%	18.40%	31.49%	-4.38%	21.83%	-18.11%	7.66%	9.42%	12.56%
Dow Jones Industrial Average	16.01%	-6.86%	20.95%	9.72%	25.34%	-3.48%	28.11%	-6.86%	7.32%	8.37%	12.30%
NASDAQ Composite	-1.03%	-33.10%	21.39%	43.64%	35.23%	-3.88%	28.24%	-33.10%	5.27%	8.67%	13.23%
Russell 1000 Value	12.42%	-7.54%	25.16%	2.80%	26.54%	-8.27%	13.66%	-7.54%	5.96%	6.66%	10.29%
Russell 1000	7.24%	-19.13%	26.45%	20.96%	31.43%	-4.78%	21.69%	-19.13%	7.35%	9.13%	12.37%
Russell 1000 Growth	2.20%	-29.14%	27.60%	38.49%	36.39%	-1.51%	30.21%	-29.14%	7.78%	10.95%	14.09%
Russell Mid-Cap Value Index	10.45%	-12.03%	28.34%	4.96%	27.06%	-12.29%	13.34%	-12.03%	5.82%	5.72%	10.10%
Russell Mid-Cap Index	9.18%	-17.32%	22.58%	17.10%	30.54%	-9.06%	18.52%	-17.32%	5.88%	7.10%	10.95%
Russell Mid-Cap Growth Index	6.90%	-26.72%	12.73%	35.59%	35.47%	-4.75%	25.27%	-26.72%	3.85%	7.64%	11.40%
MSCI EAFE	17.40%	-14.01%	11.78%	8.28%	22.66%	-13.36%	25.62%	-14.01%	1.34%	2.03%	5.16%
MSCI ACWI ex U.S.	14.37%	-15.57%	8.29%	11.13%	22.13%	-13.78%	27.77%	-15.57%	0.53%	1.36%	4.28%
Russell 2000 Value	8.42%	-14.48%	28.27%	4.63%	22.39%	-12.86%	7.84%	-14.48%	4.70%	4.12%	8.47%
Russell 2000	6.23%	-20.44%	14.82%	19.96%	25.52%	-11.01%	14.65%	-20.44%	3.10%	4.12%	9.01%
Russell 2000 Growth	4.13%	-26.36%	2.83%	34.63%	28.48%	-9.31%	22.17%	-26.36%	0.65%	3.50%	9.20%
MSCI Emerging Markets	9.79%	-19.74%	-2.22%	18.69%	18.90%	-14.25%	37.75%	-19.74%	-2.34%	-1.03%	1.81%
Dow Jones U.S. Real Estate Index	4.44%	-25.17%	38.99%	-5.29%	28.92%	-4.03%	9.84%	-25.17%	-0.50%	4.03%	6.65%
HFRX Absolute Return Index	-0.31%	0.85%	2.10%	2.72%	4.37%	-0.49%	3.39%	0.85%	1.89%	1.90%	2.03%
Consumer Price Index (Inflation)	0.46%	6.42%	7.10%	1.28%	2.26%	1.92%	2.13%	6.42%	4.90%	3.77%	2.57%
BLENDED BENCHMARKS	Q4 2022	YTD	2021	2020	2019	2018	2017	1 YEAR	3 YEARS	5 YEARS	10 YEARS
25% S&P 500/5% MSCI EAFE/70% BB Agg	4.13%	-14.08%	6.13%	10.87%	14.96%	-1.55%	8.93%	-14.08%	0.36%	2.73%	4.26%
30% S&P 500/10% MSCI EAFE/60% BB Agg	5.18%	-14.35%	8.27%	11.56%	16.79%	-2.44%	10.90%	-14.35%	1.14%	3.34%	5.07%
35% S&P 500/15% MSCI EAFE/50% BB Agg	6.23%	-14.64%	10.44%	12.18%	18.63%	-3.34%	12.90%	-14.64%	1.88%	3.93%	5.87%
40% S&P 500/20% MSCI EAFE/40% BB Agg	7.28%	-14.96%	12.64%	12.75%	20.48%	-4.25%	14.93%	-14.96%	2.60%	4.50%	6.65%
45% S&P 500/25% MSCI EAFE/30% BB Agg	8.33%	-15.28%	14.87%	13.25%	22.33%	-5.17%	16.99%	-15.28%	3.29%	5.04%	7.42%
60% S&P 500/40% Bloomberg Barclays Agg	5.39%	-15.79%	15.86%	14.73%	22.18%	-2.35%	14.21%	-15.79%	3.83%	5.96%	8.09%

Sources: Morningstar Direct, MPI. The opinions expressed in this report are subject to change without notice. This material has been prepared or is distributed solely for informational purposes and is not a solicitation or an offer to buy any security or to participate in any investment strategy. The performance data quoted represents past performance and does not guarantee future results. Index averages are provided for comparison purposes only. The information and statistics in this report are from sources believed to be reliable but are not guaranteed to be accurate or complete. CAPTRUST is an investment adviser registered under the Investment Advisers Act of 1940.



SECTION 3: PLAN INVESTMENT REVIEW
Plan Investment Menu Review
Plan Assets
Investment Policy Monitor
Investment Review Select Commentary
Investment Performance Summary



		_	MARKE	T VALUE —	
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2021	(%)	CURRENT	(%)
Money Market	Vanguard Federal Money Market Investor	\$3,229	0.04%	\$8,168	0.09%
Stable Value	TIAA Traditional - Retirement Choice	\$393,451	5.12%	\$645,265	7.17%
Intermediate Core Bond	Vanguard Total Bond Market Index Adm	\$44,907	0.58%	\$88,845	0.99%
Global Bond - USD Hedged	Vanguard Total Intl Bd Idx Admiral	\$21,144	0.27%	\$35,573	0.40%
Allocation50% to 70% Equity	Vanguard Balanced Index Adm	\$296,221	3.85%	\$515,292	5.72%
Target Date Ret Income Aggressive	TIAA-CREF Lifecycle Retire Income Instl	\$2,257	0.03%	\$2,326	0.03%
Target Date 2000-2010 Aggressive	TIAA-CREF Lifecycle 2010 Institutional	\$106,650	1.39%	\$143,284	1.59%
Target Date 2015 Aggressive	TIAA-CREF Lifecycle 2015 Institutional	\$77,459	1.01%	\$89,252	0.99%
Target Date 2020 Aggressive	TIAA-CREF Lifecycle 2020 Institutional	\$983,867	12.79%	\$896,268	9.96%
Target Date 2025 Aggressive	TIAA-CREF Lifecycle 2025 Institutional	\$738,693	9.61%	\$636,666	7.07%
Target Date 2030 Aggressive	TIAA-CREF Lifecycle 2030 Institutional	\$896,856	11.66%	\$597,978	6.64%
Target Date 2035 Aggressive	TIAA-CREF Lifecycle 2035 Institutional	\$847,287	11.02%	\$1,029,051	11.43%
Target Date 2040 Aggressive	TIAA-CREF Lifecycle 2040 Institutional	\$930,188	12.10%	\$958,114	10.64%
Target Date 2045 Aggressive	TIAA-CREF Lifecycle 2045 Institutional	\$461,283	6.00%	\$567,050	6.30%
Target Date 2050 Aggressive	TIAA-CREF Lifecycle 2050 Institutional	\$593,312	7.71%	\$736,909	8.19%
Target Date 2055 Aggressive	TIAA-CREF Lifecycle 2055 Institutional	\$146,152	1.90%	\$189,779	2.11%
Target Date 2060 Aggressive	TIAA-CREF Lifecycle 2060 Institutional	\$71,476	0.93%	\$91,060	1.01%
Target Date 2065+ Aggressive	TIAA-CREF Lifecycle 2065 Institutional	-	-	\$4,745	0.05%

CONTINUED...

Information provided by Record Keeper. For informational purposes. Not a substitute for official statements produced by the plan custodian. Information has been obtained from sources considered reliable, but its accuracy and completeness are not guaranteed. This report is not an illustration of investment performance, but rather a historical illustration of asset allocation.



		_	— MARKET VALUE —				
FUND OPTION	CURRENT INVESTMENT NAME		12.31.2021	(%)	CURRENT	(%)	
Allocation85%+ Equity	CREF Stock R1		\$118,318	1.54%	\$165,432	1.84%	
Specialty-Private Real Estate	TIAA Real Estate Account		\$135,356	1.76%	\$283,974	3.15%	
Large Company Blend	Vanguard Total Stock Mkt Idx Adm		\$606,413	7.89%	\$826,317	9.18%	
Foreign Large Blend	Vanguard Total Intl Stock Index Admiral		\$214,118	2.78%	\$391,119	4.34%	
Loan	Loan Deemed		\$1,975	0.03%	\$2,054	0.02%	
Loan	Loan Fund		-	-	\$98,285	1.09%	
		TOTALS	\$7,690,613	100%	\$9,002,805	100%	

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INVESTMENT	QUANTITATIVE								QUALI1	TATIVE	TOTALS		
	Risk-Ad Perforn	-	vs. Peers Performance		St	yle	Confi	dence	Fund	Fund	Overall	Total	
	3 Yr	5 Yr	3 Yr	5 Yr	3 Yr	5 Yr	3 Yr	5 Yr	Management	Firm		Score	

LEGEND



The CAPTRUST Investment Policy Monitor ("Scorecard") is an illustration of our monitoring system and is designed to assist our clients in their efforts to provide fiduciary oversight to investment assets. It is not intended as a solicitation to buy any security. The scoring system measures quantitative areas as well as qualitative (or subjective) fields for actively managed investment options. Quantitative scoring areas include Risk Adjusted Performance vs. Relevant Peer Group; Style Attribution; and Confidence. Qualitative Scoring Areas measure the quality of the Management Team while also considering the stewardship of the investment option's parent company under Investment Family ltems. Qualitative areas of analysis are subjective in nature. CAPTRUST typically requires at least 3 months of monitoring before including an investment in this report. Investments that have been added to our system less than 3 months prior to a report being generated may have a Fund Management assessment of '25' as a default, but will be updated, if necessary, after the first quarter of monitoring to more accurately reflect our system. Investments that are not mutual funds or have less than 3 years of performance history may not be scored. This material is for institutional investor use only and is not intended to be shared with individual investors.



TARGET DATE INVESTMENTS

INVESTMENT	QUANTITATIVE							QUALIT	ATIVE		тот	ALS
		djusted mance		Peers mance	Glide	epath	Portfolio	Underlying	Fund	Fund	Overall	Total
	3 Yr	5 Yr	3 Yr	5 Yr	% of Equities	Beta to Equities	Construct. Inv. Vehi		Mgmt	Firm		Score
TIAA-CREF Lifecycle									_			81

CAPITAL PRESERVATION INVESTMENTS

INVESTMENT	Overall	Commentary
Vanguard Federal Money Market Investor		This Capital Preservation option is in good standing per the guidelines as established by the Investment Policy Statement.
TIAA Traditional - Retirement Choice		This Capital Preservation option is in good standing per the guidelines as established by the Investment Policy Statement.

CONTINUED...

The CAPTRUST Financial Advisors Investment Scorecard is an illustration of our monitoring system and is designed to assist our clients in their efforts to provide fiduciary oversight to investment assets. It is not intended as a solicitation to buy any security. The scoring system measures quantitative areas as well as qualitative (or subjective) fields. Quantitative scoring areas for target date funds include Risk Adjusted Performance (3 & 5 yr.); Performance vs. Releivy of the Management Team while also considering the stewardship of the investment option's parent company under Investment Family Items.

Qualitative areas of analysis are subjective in nature. Qualitative Scoring for Target Date funds also includes a score for Portfolio Construction and Underlying Investment vehicles to express CAPTRUST's views on the manager or strategy.

CAPTRUST typically requires at least 3 months of monitoring before including an investment in this report. Investments that have been added to our system less than 3 months prior to a report being generated may have a Fund Management assessment of '25' as a default, but will be updated, if necessary, after the first quarter of monitoring to more accurately reflect our system. Investments that are not mutual funds or have less than 3 years of performance history may not be scored. Capital Preservation options are evaluated using a comprehensive scoring methodology proprietary to the Investment Consultant. This methodology incorporates both qualitative metrics, depending on the type of capital preservation option being evaluated, and may include quantitative criteria such as: Crediting Rate/Yield, Market to Book Ratio, Average Crediting Quality, Insurer Quality/Diversification, Duration, and Sector Allocations, and/or qualitative criteria such as: Tracking Error, Fees, and Performance versus relevant peer group, and/or qualitative erriteria such as: Intended to be shared to short performance versus relevant peer group, and/or qualitative erriteria such as index replication stra



PASSIVE INVESTMENTS

INVESTMENT	Overall	Commentary
Vanguard Total Bond Market Index Adm		This fund currently meets the guidelines set forth by CAPTRUST for passively managed investments. This assessment is based on both quantitative and qualitative data. Examples of quantitative and qualitative items considered include, but are not limited to, quality of management, tracking error, and cost.
Vanguard Total Intl Bd Idx Admiral	•	This fund currently meets the guidelines set forth by CAPTRUST for passively managed investments. This assessment is based on both quantitative and qualitative data. Examples of quantitative and qualitative items considered include, but are not limited to, quality of management, tracking error, and cost.
Vanguard Balanced Index Adm	•	This fund currently meets the guidelines set forth by CAPTRUST for passively managed investments. This assessment is based on both quantitative and qualitative data. Examples of quantitative and qualitative items considered include, but are not limited to, quality of management, tracking error, and cost.
Vanguard Total Stock Mkt Idx Adm	•	This fund currently meets the guidelines set forth by CAPTRUST for passively managed investments. This assessment is based on both quantitative and qualitative data. Examples of quantitative and qualitative items considered include, but are not limited to, quality of management, tracking error, and cost.
Vanguard Total Intl Stock Index Admiral		This fund currently meets the guidelines set forth by CAPTRUST for passively managed investments. This assessment is based on both quantitative and qualitative data. Examples of quantitative and qualitative items considered include, but are not limited to, quality of management, tracking error, and cost.

The CAPTRUST Financial Advisors Investment Scorecard is an illustration of our monitoring system and is designed to assist our clients in their efforts to provide fiduciary oversight to investment assets. It is not intended as a solicitation to buy any security. The scoring system measures quantitative areas as well as qualitative (or subjective) fields. Quantitative scoring areas for target date funds include Risk Adjusted Performance (3 & 5 yr.); Performance vs. Releive the Amagement Team while also considering the stewardship of the investment option's parent company under Investment Family Items.

Qualitative areas of analysis are subjective in nature. Qualitative Scoring for Target Date funds also includes a score for Portfolio Construction and Underlying Investment vehicles to express CAPTRUST's views on the manager or strategy.

CAPTRUST typically requires at least 3 months of monitoring before including an investment in this report. Investments that have been added to our system less than 3 months prior to a report being generated may have a Fund Management assessment of '25' as a default, but will be updated, if necessary, after the first quarter of monitoring to more accurately reflect our system. Investments that are not mutual funds or have less than 3 years of performance history may not be scored. Capital Preservation options are evaluated using a comprehensive scoring methodology proprietary to the Investment Consultant. This methodology incorporates both qualitative and quantitative metrics and may include quantitative criteria such as: Crediting Rate/Yield, Market to Book Ratio, Average Crediting Quality, Insurer Quality/Diversification, Duration, and Sector Allocations, and/or qualitative criteria such as: Tracking Error, Fees, and Performance versus relevant peer group, and/or qualitative criteria such as index replication strategy, securities lending practices, and fair value pricing methodology. Distinct investment options are evaluated using a comprehensive scoring methodology proprietary



INVESTMENTS IN DISTINCT ASSET CLASSES

INVESTMENT	Overall	Commentary
CREF Stock R1	•	This fund currently meets the guidelines set forth by CAPTRUST for distinct investments in the Investment Policy Statement. This assessment is based on both quantitative and qualitative data. Examples of quantitative and qualitative items considered include, but are not limited to, quality of management, excess return, and risk-adjusted performance.
TIAA Real Estate Account	•	This fund currently meets the guidelines set forth by CAPTRUST for distinct investments in the Investment Policy Statement. This assessment is based on both quantitative and qualitative data. Examples of quantitative and qualitative items considered include, but are not limited to, quality of management, excess return, and risk-adjusted performance.

The CAPTRUST Financial Advisors Investment Scorecard is an illustration of our monitoring system and is designed to assist our clients in their efforts to provide fiduciary oversight to investment assets. It is not intended as a solicitation to buy any security. The scoring system measures quantitative areas as well as qualitative (or subjective) fields. Quantitative scoring areas for target date funds include Risk Adjusted Performance (3 & 5 yr.); Performance vs. Releivy of the Management Team while also considering the stewardship of the investment option's parent company under Investment Family Items.

Qualitative areas of analysis are subjective in nature. Qualitative Scoring for Target Date funds also includes a score for Portfolio Construction and Underlying Investment vehicles to express CAPTRUST's views on the manager or strategy.

CAPTRUST typically requires at least 3 months of monitoring before including an investment in this report. Investments that have been added to our system less than 3 months prior to a report being generated may have a Fund Management assessment of '25' as a default, but will be updated, if necessary, after the first quarter of monitoring to more accurately reflect our system. Investments that are not mutual funds or have less than 3 years of performance history may not be scored. Capital Preservation options are evaluated using a comprehensive scoring methodology proprietary to the Investment Consultant. This methodology incorporates both qualitative metrics, depending on the type of capital preservation option being evaluated, and may include quantitative criteria such as: Crediting Rate/Yield, Market to Book Ratio, Average Crediting Quality, Insurer Quality Diversification, Duration, and Sector Allocations, and/or qualitative criteria such as: Tracking Error, Fees, and Performance versus relevant peer group, and/or qualitative criteria such as: Inchain the performance versus relevant peer group, and/or qualitative criteria such as: Tracking Error, Fees, and Performance vers



FUND MANAGEMENT ITEMS	COMMENTARY
TIAA-CREF Lifecycle	
	Nuveen announced on 11/8/2022 that Hans Erickson, head of Target Date Multi-Asset, intends to leave the firm to pursue another opportunity. Target Date Portfolio Manager John Cunniff will assume leadership of the team effectively immediately. Mr. Erickson will be staying with the firm until March 2023 to assist with the transition. Nuveen has increased the equity allocation in the section of the glidepath 20-15 years from retirement by 4%. This change impacts three current vintages, the 2045, 2040, and 2035 vintage funds. The equity allocation was increased by 1.8% in the 2045 vintage, by 4% in the 2040 vintage, and by 2.2% in the 2035 vintage. To fund these increases, the vintages' fixed income allocations were reduced. For the Lifecycle (active) series, there was no impact to the private real estate allocation.

INVESTMENT NAME	Q4 '22	YTD '22	2021	2020	2019	2018	2017	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*
MONEY MARKET											
Vanguard Federal Money Market Investor	0.88%	1.55%	0.01%	0.45%	2.14%	1.78%	0.81%	1.55%	0.67%	1.18%	0.71%
ICE BofA ML US Treasury Bill 3 Mon USD	0.84%	1.46%	0.05%	0.67%	2.28%	1.87%	0.86%	1.46%	0.72%	1.26%	0.76%
STABLE VALUE											
TIAA Traditional - Retirement Choice	-	-	-	-	-	-	-	-	-	-	-
ICE BofA ML US Treasury Bill 3 Mon USD	0.84%	1.46%	0.05%	0.67%	2.28%	1.87%	0.86%	1.46%	0.72%	1.26%	0.76%
Morningstar US Stable Value GR USD	0.55%	1.89%	1.74%	2.26%	2.52%	2.26%	1.95%	1.89%	1.96%	2.13%	1.97%
INTERMEDIATE CORE BOND											
Vanguard Total Bond Market Index Adm	1.67%	-13.16%	-1.67%	7.72%	8.71%	-0.03%	3.56%	-13.16%	-2.75%	-0.01%	1.00%
Bloomberg US Agg Bond TR USD	1.87%	-13.01%	-1.55%	7.51%	8.72%	0.01%	3.54%	-13.01%	-2.71%	0.02%	1.06%
Intermediate Core Bond Universe	1.64%	-13.45%	-1.56%	7.85%	8.42%	-0.43%	3.38%	-13.45%	-2.77%	-0.12%	0.93%
GLOBAL BOND - USD HEDGED											
Vanguard Total Intl Bd Idx Admiral	-0.01%	-12.92%	-2.22%	4.54%	7.88%	2.93%	2.39%	-12.92%	-3.81%	-0.23%	-
Bloomberg Global Aggregate TR Hdg USD	2.79%	-14.22%	-0.96%	7.78%	11.85%	-0.47%	5.36%	-14.22%	-2.89%	0.38%	1.95%
Global Bond- USD Hedged Universe	1.11%	-12.35%	-1.70%	6.58%	8.60%	0.03%	4.11%	-12.35%	-3.09%	-0.14%	1.34%
ALLOCATION50% TO 70% EQUITY											
Vanguard Balanced Index Adm	4.90%	-16.90%	14.22%	16.40%	21.79%	-2.86%	13.89%	-16.90%	3.38%	5.50%	7.77%
60% S&P 500, 40% Bloomberg Agg	5.39%	-15.79%	15.86%	14.73%	22.18%	-2.35%	14.21%	-15.79%	3.83%	5.96%	8.08%
Allocation50% to 70% Equity Universe	6.51%	-15.00%	13.13%	12.38%	19.33%	-5.88%	13.95%	-15.00%	2.92%	4.08%	6.30%

*ANNUALIZED

INVESTMENT NAME	Q4 '22	YTD '22	2021	2020	2019	2018	2017	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*
TARGET DATE RET INCOME AGGRESSIVE											
TIAA-CREF Lifecycle Retire Income Instl	4.62%	-12.51%	7.08%	11.10%	15.30%	-3.84%	12.10%	-12.51%	1.35%	2.91%	4.67%
Morningstar Lifetime Aggressive Income Index	6.11%	-13.03%	9.86%	11.49%	15.79%	-3.15%	10.78%	-13.03%	2.13%	3.62%	4.91%
Retirement Income Aggressive	4.85%	-14.71%	7.30%	9.86%	14.67%	-2.33%	9.94%	-14.71%	0.09%	2.23%	3.40%
TARGET DATE 2000-2010 AGGRESSIVE											
TIAA-CREF Lifecycle 2010 Institutional	4.54%	-12.40%	6.88%	11.24%	15.43%	-3.92%	12.76%	-12.40%	1.36%	2.93%	4.99%
Morningstar Lifetime Aggressive 2010 Index	6.43%	-14.42%	10.36%	12.46%	17.62%	-4.03%	12.78%	-14.42%	2.03%	3.70%	5.59%
2000-2010 Aggressive	4.92%	-13.33%	7.59%	11.12%	15.37%	-3.66%	10.86%	-13.33%	1.24%	2.93%	4.72%
TARGET DATE 2015 AGGRESSIVE											
TIAA-CREF Lifecycle 2015 Institutional	4.89%	-12.85%	7.74%	11.80%	16.51%	-4.41%	13.85%	-12.85%	1.63%	3.17%	5.44%
Morningstar Lifetime Aggressive 2015 Index	6.97%	-15.80%	11.11%	13.13%	19.08%	-4.69%	14.17%	-15.80%	1.91%	3.73%	6.02%
2015 Aggressive	5.25%	-13.75%	8.53%	11.79%	16.52%	-4.13%	12.20%	-13.75%	1.42%	3.11%	5.20%
TARGET DATE 2020 AGGRESSIVE											
TIAA-CREF Lifecycle 2020 Institutional	5.21%	-13.52%	8.46%	12.38%	17.79%	-5.18%	15.58%	-13.52%	1.77%	3.32%	5.94%
Morningstar Lifetime Aggressive 2020 Index	7.59%	-16.75%	12.15%	13.48%	20.68%	-5.45%	15.85%	-16.75%	1.95%	3.87%	6.58%
2020 Aggressive	5.65%	-14.59%	9.55%	12.85%	17.91%	-4.95%	13.90%	-14.59%	1.64%	3.36%	5.83%
TARGET DATE 2025 AGGRESSIVE											
TIAA-CREF Lifecycle 2025 Institutional	5.90%	-14.32%	9.85%	13.44%	19.44%	-6.05%	17.40%	-14.32%	2.21%	3.68%	6.57%
Morningstar Lifetime Aggressive 2025 Index	8.33%	-17.27%	13.61%	13.51%	22.45%	-6.34%	17.73%	-17.27%	2.18%	4.12%	7.20%
2025 Aggressive	6.11%	-15.65%	11.28%	13.70%	19.53%	-5.78%	16.03%	-15.65%	2.15%	3.72%	6.44%

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INVESTMENT NAME	Q4 '22	YTD '22	2021	2020	2019	2018	2017	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*
TARGET DATE 2030 AGGRESSIVE											
TIAA-CREF Lifecycle 2030 Institutional	6.71%	-15.16%	11.23%	14.54%	21.27%	-7.09%	19.21%	-15.16%	2.63%	4.02%	7.17%
Morningstar Lifetime Aggressive 2030 Index	9.19%	-17.35%	15.32%	13.26%	24.11%	-7.27%	19.48%	-17.35%	2.58%	4.44%	7.73%
2030 Aggressive	7.17%	-16.89%	12.88%	14.64%	21.52%	-6.74%	18.21%	-16.89%	2.60%	4.13%	7.13%
TARGET DATE 2035 AGGRESSIVE											
TIAA-CREF Lifecycle 2035 Institutional	7.60%	-15.98%	12.70%	15.48%	23.04%	-8.04%	21.11%	-15.98%	3.03%	4.35%	7.75%
Morningstar Lifetime Aggressive 2035 Index	10.02%	-17.08%	16.84%	12.91%	25.28%	-8.04%	20.68%	-17.08%	3.03%	4.73%	8.05%
2035 Aggressive	7.86%	-17.19%	14.27%	15.42%	22.95%	-6.94%	19.59%	-17.19%	2.99%	4.42%	7.60%
TARGET DATE 2040 AGGRESSIVE											
TIAA-CREF Lifecycle 2040 Institutional	8.33%	-16.67%	14.33%	16.44%	24.56%	-8.92%	22.91%	-16.67%	3.52%	4.71%	8.23%
Morningstar Lifetime Aggressive 2040 Index	10.61%	-16.81%	17.67%	12.74%	25.78%	-8.50%	21.23%	-16.81%	3.34%	4.90%	8.14%
2040 Aggressive	8.47%	-17.37%	15.60%	16.21%	24.38%	-7.91%	20.78%	-17.37%	3.46%	4.80%	7.99%
TARGET DATE 2045 AGGRESSIVE											
TIAA-CREF Lifecycle 2045 Institutional	8.94%	-17.32%	15.94%	17.31%	25.87%	-9.59%	23.62%	-17.32%	3.99%	5.06%	8.50%
Morningstar Lifetime Aggressive 2045 Index	10.88%	-16.68%	17.81%	12.71%	25.80%	-8.72%	21.41%	-16.68%	3.43%	4.90%	8.09%
2045 Aggressive	9.02%	-17.45%	16.63%	16.95%	24.83%	-7.99%	21.10%	-17.45%	3.78%	4.99%	8.09%
TARGET DATE 2050 AGGRESSIVE											
TIAA-CREF Lifecycle 2050 Institutional	9.21%	-17.65%	16.48%	17.44%	26.19%	-9.82%	24.04%	-17.65%	4.05%	5.09%	8.56%
Morningstar Lifetime Aggressive 2050 Index	10.95%	-16.66%	17.62%	12.67%	25.69%	-8.86%	21.53%	-16.66%	3.37%	4.82%	7.98%
2050 Aggressive	9.17%	-17.83%	17.05%	17.29%	24.94%	-8.34%	21.31%	-17.83%	3.87%	5.02%	8.16%

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INVESTMENT NAME	Q4 '22	YTD '22	2021	2020	2019	2018	2017	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*
TARGET DATE 2055 AGGRESSIVE											
TIAA-CREF Lifecycle 2055 Institutional	9.28%	-17.73%	16.64%	17.52%	26.36%	-9.86%	24.23%	-17.73%	4.09%	5.13%	8.61%
Morningstar Lifetime Aggressive 2055 Index	10.98%	-16.69%	17.39%	12.65%	25.56%	-8.98%	21.63%	-16.69%	3.28%	4.72%	7.86%
2055 Aggressive	9.23%	-17.97%	17.46%	16.58%	25.07%	-8.10%	21.47%	-17.97%	3.83%	5.11%	8.43%
TARGET DATE 2060 AGGRESSIVE											
TIAA-CREF Lifecycle 2060 Institutional	9.30%	-17.79%	16.80%	17.75%	26.70%	-10.06%	24.40%	-17.79%	4.18%	5.20%	-
Morningstar Lifetime Aggressive 2060 Index	11.00%	-16.73%	17.15%	12.63%	25.42%	-9.10%	21.73%	-16.73%	3.19%	4.61%	7.75%
2060 Aggressive	9.26%	-18.24%	17.55%	17.08%	25.03%	-8.04%	21.38%	-18.24%	3.93%	5.10%	-
TARGET DATE 2065+ AGGRESSIVE											
TIAA-CREF Lifecycle 2065 Institutional	9.29%	-17.70%	17.15%	-	-	-	-	-17.70%	-	-	-
Morningstar Lifetime Aggressive 2065 Index	11.02%	-16.75%	16.91%	12.62%	25.22%	-9.60%	21.73%	-16.75%	3.11%	4.41%	7.61%
2065+ Aggressive	9.28%	-18.31%	18.04%	15.14%	-	-	-	-18.31%	3.60%	-	-
ALLOCATION85%+ EQUITY											
CREF Stock R1	10.12%	-18.62%	18.67%	17.64%	27.13%	-9.86%	23.01%	-18.62%	4.35%	5.42%	8.89%
85% S&P 500, 15% Bloomberg Agg	6.77%	-17.20%	23.77%	17.14%	27.97%	-3.58%	18.92%	-17.20%	6.28%	8.17%	10.91%
Allocation85%+ Equity Universe	8.67%	-19.21%	18.50%	16.69%	25.81%	-9.30%	21.06%	-19.21%	3.64%	4.95%	8.33%
SPECIALTY-PRIVATE REAL ESTATE											
TIAA Real Estate Account	-3.49%	8.19%	17.87%	-0.84%	5.51%	4.79%	4.37%	8.19%	8.14%	6.93%	7.41%
NCREIF Property Index	-3.50%	5.53%	17.70%	1.60%	6.42%	6.72%	6.96%	5.53%	8.06%	7.46%	8.82%
NCREIF ODCE Index	-4.97%	7.46%	22.18%	1.18%	5.34%	8.35%	7.61%	7.46%	9.93%	8.68%	10.09%

*ANNUALIZED



INVESTMENT NAME	Q4 '22	YTD '22	2021	2020	2019	2018	2017	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*
LARGE COMPANY BLEND											
Vanguard Total Stock Mkt Idx Adm	7.14%	-19.53%	25.71%	20.99%	30.80%	-5.17%	21.17%	-19.53%	6.97%	8.71%	12.08%
S&P 500 Index	7.56%	-18.11%	28.71%	18.40%	31.49%	-4.38%	21.83%	-18.11%	7.66%	9.42%	12.56%
Large Blend Universe	7.93%	-18.16%	26.68%	17.18%	29.77%	-5.65%	21.13%	-18.16%	7.09%	8.52%	11.57%
FOREIGN LARGE BLEND											
Vanguard Total Intl Stock Index Admiral	14.67%	-16.01%	8.62%	11.28%	21.51%	-14.43%	27.55%	-16.01%	0.51%	1.09%	4.06%
MSCI EAFE	17.40%	-14.01%	11.78%	8.28%	22.66%	-13.36%	25.62%	-14.01%	1.34%	2.03%	5.16%
Foreign Large Blend Universe	16.86%	-15.92%	10.07%	9.73%	22.04%	-15.23%	25.51%	-15.92%	0.60%	1.18%	4.23%

^{*}ANNUALIZED

SECTION		

Fund Fact Sheets.....

INDUSTRY ANALYSIS **INVESTMENT PROFILE** In 2022, the Federal Reserve increased the overnight lending rate a total of seven times to a Ticker VMFXX final target range set between 4.25% - 4.50%, subsequently increasing short-term interest Fund Inception Date 1981 rates and causing a slight inversion at the front-end of the yield curve. Money market fund 0.00 Last Quarter Prospectus Expense Ratio 0.11 % yields have increased in the fourth quarter and are up significantly relative this time last year. SEC Yield Yields are expected to continue to closely track short-term interest rates as the Federal Reserve contemplates further action. Inflation levels eased in the fourth quarter but remain at relatively high levels. The Fed responded with two hikes to the overnight lending rate, the 0.05 Year final hike of 50 basis-points, down from the previous four increases of 75 basis-points. In December 2021, the SEC proposed amendments, currently still under regulatory review, that Performance vs Risk - 5 Year would improve the resilience of money market funds through increased transparency and liquidity requirements for money market funds, aiming to provide funds a more substantial -0.04liquidity buffer in the event of rapid redemptions. Years **Last Quarter** 1 Year 3 Years 5 Years 10 Years 0.88 1.18 Vanguard Federal Money Market Investor 1.55 0.67 0.71 Annualized Retu FTSE 3 Month T-Bill 0.87 1.50 0.71 1.25 0.74 5 -0.06Years 2021 2020 2019 2018 2017 Vanguard Federal Money Market Investor 0.01 0.45 2.14 1.78 0.81 10 FTSE 3 Month T-Bill 0.05 0.58 2.25 1.86 0.84 -0.03 Years 0.3 0.4 **KEY MEASURES / 5 YEAR** Annualized StdDev, % -1.60 -0.80 0.00 0.80 Vanguard Federal Money Market Investor 0.31 Excess Annualized Return % Vanguard Federal Money Market Investor FTSE 3 Month T-Bill 0.31 90 Day U.S. Treasury Bill Vanguard Federal Money Market Investor Rolling 3 Year Annualized Excess Return (Mar-18 - Dec-22) Cumulative Performance (Jan 2013 - Dec 2022) 0.1 \$111.0 Annualized Return, \$108.0 0.0 00 \$105.0 Growth \$102.0 -0.2 \$99.0 \$96.0 Sep-18 Mar-18 Mar-19 Sep-19 Mar-20 Sep-20 Mar-21 Sep-21 Mar-22 Dec-22 Dec-12 Dec-13 Dec-14 Dec-15 Dec-16 Dec-17 Dec-18 Dec-19 Dec-20 Dec-21 Dec-22

For use with CAPTRUST clients only. Performance summarized here represents past performance and does not guarantee future results. Data has been obtained from Morningstar and is not guaranteed to be accurate or complete. Money Market [mutual] fund investing involves risk. For a prospectus with a complete description of the risks associated with investing in this fund, please call CAPTRUST at (800)216-0645. For a detailed description of the risks associated with investing by asset class, please visit https://www.captrust.com/important-disclosures/



INDUSTRY ANALYSIS

Inflation eased in the fourth quarter, but concerns endure as levels remain high, with some industry professionals indicating the potential of a mild recession in the upcoming year. The Federal Reserve increased the overnight lending rate twice in the fourth quarter. With an increase of 50 basis-points in its final hike of the year, down from the previous four of 75 basis-points to a final target range between 4.25% - 4.50%. Guaranteed contract providers continue to operate as expected, with increases to guaranteed crediting rates overall year-to-date. Following the Fed's seven rate increases in 2022 and plans to continue its tightening policy in the near term, we can expect guaranteed products to continue increasing crediting rates. When determining the guaranteed rate for a fund, insurance companies use forward-looking projections of the interest rate environment. Rising interest rates present negative pressure on current general account underlying portfolios in the short-term, as the value of current portfolio holdings decline, but give insurer's comfort that higher yields will support the ability to offer higher guaranteed rates future quarters.

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The TIAA Traditional Annuity is a guaranteed annuity account (group annuity contract) that is backed by the financial strength and claims-paying ability of TIAA. The product offers participants guaranteed principal and a contractually specified interest rate. The contractually agreed upon minimum annual interest rate is between 1-3%. The TIAA Board of Trustees also reserves the right each year to declare a higher crediting rate to participants which remains effective for a twelve month period that begins each March 1.

GROSS CREDITING RATES - For Contributions Applied:							
10/1/2021 - 12/31/2021	1/1/2022 - 3/31/2022	4/1/2022 - 6/30/2022	7/1/2022 - 9/30/2022	10/1/2022 - 12/31/2022			
2.75%	3.50%	5.25%	5.75%	6.50%			

INVESTMENT DETAILS							
Crediting Rate Details:	Current contributions are invested at the new money rate, which can change monthly but is guaranteed until the last day of February. Old Money is grouped by time period into vintages, rates on all vintages are reviewed for reset every March 1st.						
Competing Options:	Allowed.						
Minimum Rate:	1.00 – 3.00% floor during accumulation stage and 2.00% during annuity payout stage, reset annually.						

LIQUIDITY PROVISIONS							
Plan Sponsor	Participant						
Allowed over a 60-month (5 years) period without a surrender charge with 90-day advance notice from institution.	Transfers and withdrawals can be made in 84 monthly installments (7 years). Lump sum withdrawals are only available within 120 days of termination of employment with a 2.5% surrender charge.						

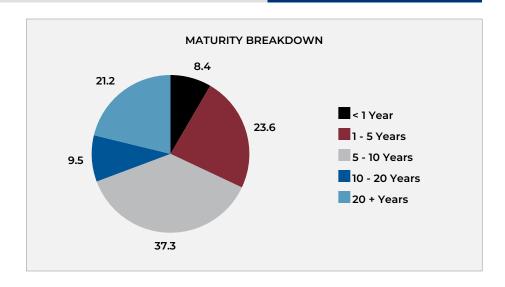
Important Disclosures: This slide is intended solely for institutional use. The opinions expressed in this report are subject to change without notice. The statistics and data have been compiled from sources believed to be reliable but are not guaranteed to be accurate or complete. Any performance quoted represents past performance and does not guarantee future results. Bloomberg Index averages are derived from Morningstar. This material is not a solicitation or an offer to buy any security or to participate in any investment strategy. Any such solicitation must be made by prospectus only. For more information or to obtain a prospectus, please contact your financial advisor at 800.216.0645. CAPTRUST Financial Advisors.

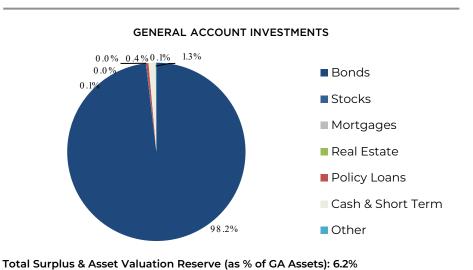
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Period Ending 12.31.22 | Q4 22

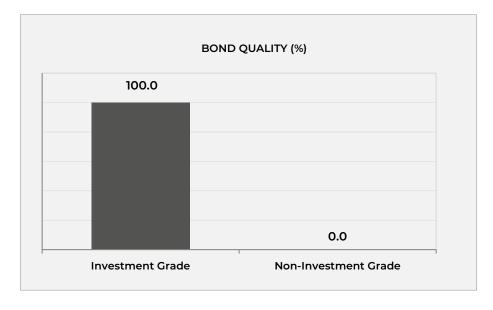
AGENCY RATINGS*						
A.M. Best (15 ratings)	A++ (1/15)					
Standard & Poors (20)	AA+ (2)					
Moody's (21)	Aa 1 (2)					
Fitch (21)	AAA (1)					
Weiss (16)	B (5)					
Comdex Ranking (Percentile Rank)	99					

Comdex Ranking: Insurers are assigned a percentile rank, per agency, based on their ratings relative to peers. Percentiles are then averaged to arrive at one Comdex Ranking; over 1,100 companies are currently ranked.









Performance Disclosure: The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate thus an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800.2lich 645. Agency ratings are sourced from Bloomberg. Index averages are derived from Morningstar. The opinions expressed in this report are subject to change without notice. This material is not a solicitation or an offer to buy any sex holicitation must be made by prospectus, please contact your financial advisors. CAPTRUST Financial Advisors. Member FINARASIPC.

TRAILING AND CALENDAR RETURNS										
	Last Quarter	1 Year	3 Years	5 Years	10 Years	2021	2020	2019	2018	2017
Vanguard Total Bond Market Index Adm	1.67	-13.16	-2.75	-0.01	1.00	-1.67	7.72	8.71	-0.03	3.56
Blmbg. U.S. Aggregate Float Adjusted	1.85	-13.07	-2.67	0.06	1.08	-1.58	7.75	8.87	-0.08	3.63
Intermediate Core Bond Median	1.63	-13.45	-2.77	-0.12	0.93	-1.56	7.85	8.42	-0.43	3.38
Rank (%)	46	35	49	37	43	56	56	34	30	40
Population	437	428	412	393	359	430	432	450	451	505

KEY MEASURES/5 YEAR									
	Sharpe Ratio	Alpha	Beta	R-Squared	Up Capture	Down Capture	Information Ratio		
Vanguard Total Bond Market Index Adm	-0.22	-0.06	1.00	1.00	99.38	100.34	-0.24		
Blmbg. U.S. Aggregate Float Adjusted	-0.21	0.00	1.00	1.00	100.00	100.00	-		
Intermediate Core Bond Median	-0.24	-0.17	0.99	0.96	98.61	101.68	-0.16		

Last Quarter

Year

Years

Years

10 Years

-0.60

-0.19

-0.09

-0.07

-0.09

-0.18

-0.20

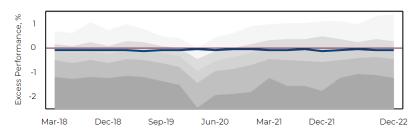
0.00

-0.06

-0.23

-0.38

Rolling 3 Year Annualized Excess Return



Performance vs Risk 5 Year



INVESTMENT PROFILE

Ticker	VBTLX
Portfolio Manager	Barrickman,J
Portfolio Assets	\$93,099 Million
PM Tenure	
Net Expense(%)	0.05 %
Fund Inception	2001
Category Expense Median	0.55
Subadvisor	-

HOLDINGS OVERVIEW



Vanguard Total Bond Market Index Adm

-0.40

Excess Annualized Return, %

Intermediate Core Bond Median

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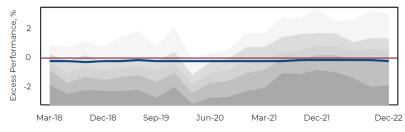
Blmbg. U.S. Aggregate Float Adjusted



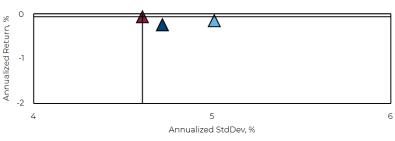
TRAILING AND CALENDAR RETURNS										
	Last Quarter	1 Year	3 Years	5 Years	10 Years	2021	2020	2019	2018	2017
Vanguard Total Intl Bd Idx Admiral™	-0.01	-12.92	-3.81	-0.23	-	-2.22	4.54	7.88	2.93	2.39
Blmbg. Global Agg ex-USD Flt Adj RIC Cpd (H)	0.08	-12.72	-3.63	-0.04	1.86	-2.10	4.75	8.06	3.16	2.57
Global Bond-USD Hedged Median	1.18	-12.32	-3.09	-0.14	1.34	-1.70	6.58	8.60	0.03	4.11
Rank (%)	93	65	80	58	-	65	85	69	3	88
Population	128	128	116	104	77	126	120	112	110	96

KEY MEASURES/5 YEAR									
	Sharpe Ratio	Alpha	Beta	R-Squared	Up Capture	Down Capture	Information Ratio		
Vanguard Total Intl Bd Idx Admiral™	-0.29	-0.19	1.02	1.00	99.52	102.59	-0.60		
Blmbg. Global Agg ex-USD Flt Adj RIC Cpd (H)	-0.26	0.00	1.00	1.00	100.00	100.00	-		
Global Bond-USD Hedged Median	-0.23	-0.08	0.98	0.80	92.53	93.59	-0.03		

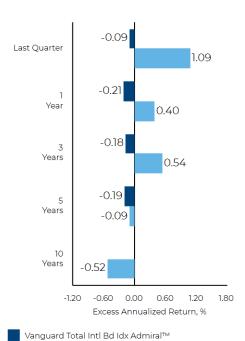
Rolling 3 Year Annualized Excess Return



Performance vs Risk 5 Year







INVESTMENT PROFILE

licker	VIABX
Portfolio Manager	Barrickman,J/Talone,T
Portfolio Assets	\$23,933 Million
PM Tenure	
Net Expense(%)	0.11 %
Fund Inception	2013
Category Expense Median	0.66
Subadvisor	_

HOLDINGS OVERVIEW

% Assets in Top 10 Holdings

Number of Holdings	6903
Turnover	25.00 %
Avg. Effective Duration	7.57 Years
SEC Yield	2.94 %

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Global Bond-USD Hedged Median

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Vanguard Total Intl Bd Idx Admiral™

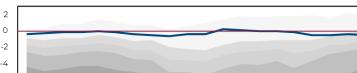
Blmbg. Global Agg ex-USD Flt Adj RIC Cpd (H)



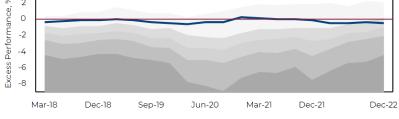
4.21 %

TRAILING AND CALENDAR RETURNS										
	Last Quarter	1 Year	3 Years	5 Years	10 Years	2021	2020	2019	2018	2017
Vanguard Balanced Index Adm	4.90	-16.90	3.38	5.50	7.77	14.22	16.40	21.79	-2.86	13.89
60% S&P 500, 40% Bloomberg Agg	5.39	-15.79	3.83	5.96	8.08	15.86	14.73	22.18	-2.35	14.21
Allocation50% to 70% Equity Median	6.51	-15.00	2.92	4.08	6.30	13.13	12.38	19.33	-5.88	13.94
Rank (%)	84	83	40	20	16	36	15	17	10	51
Population	758	752	725	711	620	766	769	801	837	852

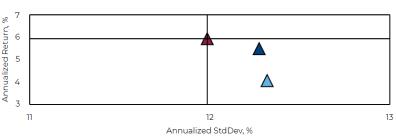
KEY MEASURES/5 YEAR									
	Sharpe Ratio	Alpha	Beta	R-Squared	Up Capture	Down Capture	Information Ratio		
Vanguard Balanced Index Adm	0.39	-0.53	1.02	0.99	99.26	101.76	-0.42		
60% S&P 500, 40% Bloomberg Agg	0.44	0.00	1.00	1.00	100.00	100.00	-		
Allocation50% to 70% Equity Median	0.29	-1.54	1.00	0.95	92.61	100.97	-0.54		



Rolling 3 Year Annualized Excess Return



Performance vs Risk 5 Year









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Vanguard Balanced Index Adm

Allocation--50% to 70% Equity Median

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TIAA CREF LIFECYCLE

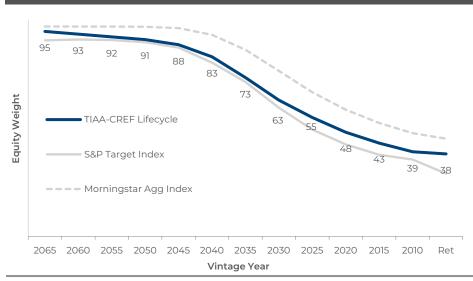
Investor Assumptions/Glidepath Methodology

Glidepath Management	· 30 years after retirement (assumed at age 65)
Assumed Investor Savings Rate:	•10%
Assumed Investor Income Growth Rate	• Equal to inflation
Income Replacement	· A range of percentages was used to design the glidepath
Assumed Accumulated Savings at Retirement	• No such assumption was made
Life Expectancy	• Determined according to RP-2000 mortality tables
Asset Allocation Flexibility	• Up to 10% from targets
Other Assumptions	Made conservative capital market assumption that equity risk premiums will be lower going forward

The TIAA CREF Lifecycle portfolios are constructed to achieve favorable retirement outcomes over time horizons and circumstances that broadly represent the investors of the funds. Reflecting this goal, TIAA models their portfolios to consider a large range of assumptions and focus not just on average or expected investment returns, but on the distribution of anticipated results at different points in time over the course of one's investment time horizon. This is why the Lifecycle Fund's glidepath is constructed with the objective of maximizing risk-adjusted outcomes at and in retirement for investors, based on their target retirement date.

In ve stm ent Profile										
% Open Architecture:	0%	Active/Passive:	Active							
Inception Date:	10-15-2004	% Active:	100%							
Net Assets \$MM:	\$33,402	Manager Tenure:	16.83 Yrs (longest)							
Manager Name:	Erickson, Cunniff, Sedmak	Expense Range:	0.37% - 0.70%							
Avg # of Holdings:	20	Investment Structure:	Mutual Fund							





Dedicated Asset Class Granularity/Diversification							
Emerging Market Equities	Yes						
International/Global Debt	Yes						
Inflation-Protected Securities	Yes						
High Yield Fixed Income	Yes						
Real Estate	Yes						
Commodities	No						

The equity exposure within TIAA CREF Lifecycle target date funds is well diversified between domestic and international equities. TIAA maintains a 70/30 split between domestic and international, with the 30% in international also encompassing an exposure to emerging market equities. As a participant gets closer to retirement, the mix of fixed income securities gradually transitions from more aggressive funds to a more conservative mix.

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TIAA CREF LIFECYCLE

Material Changes to the Series

2012:

Introduced the tactical management program

 Increased allocation to international equity from 25% to 30%

2015:

· Added emerging markets debt

2016:

 Increased equity from 90% to 95% in longer dated vintage years

2016:

Added a Direct Real Estate Fund

2017:

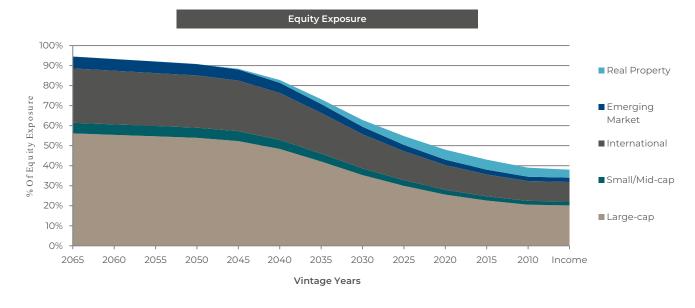
- Addition of International Bond, Small/Mid Cap Equity and International Small Cap Equity to strategic glidepath 2019:
- End of glidepath extended to 30 years with an allocation of 80% fixed income, 20% equity. The Nuveen Dividend Value fund was also added

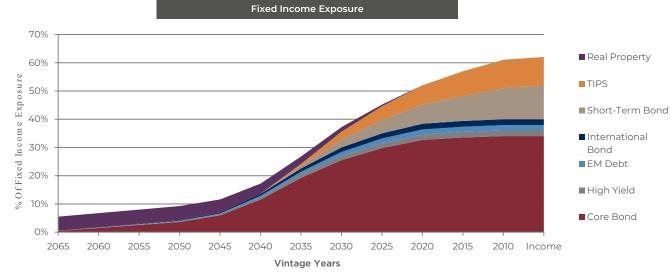
2021:

 Moved the U.S./non-U.S. equity split within the series from 70% U.S./30% non-U.S. to 65% U.S./35% non-U.S.

2022:

 Increased equity allocation in the glidepath section that is 20 – 15 years away from retirement. The equity allocation was increased by 1.8% in the 2045 vintage, by 4% in the 2040 vintage, and by 2.2% in the 2035 vintage. To fund these increases, the vintages' fixed income allocations were reduced.





^{*}All information provided by the asset manager, as of 12/31/21. Asset allocations shown are static in nature and do not incorporate any tactical views implemented by the manager.

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	3 Years	3 Years	3 Years	3 Years	5 Years	5 Years	5 Years	5 Years
	Beta	Sharpe	Up Capture	Down Capture	Beta	Sharpe	Up Capture	Down Capture
TIAA-CREF Lifecycle 2010 Institutional	1.10	0.11	110.60	110.15	1.10	0.23	108.76	109.80
S&P Target Date 2010 Index	1.00	0.10	100.00	100.00	1.00	0.23	100.00	100.00
Target-Date 2000-2010 Median	1.01	0.04	102.40	102.27	1.01	0.20	101.34	101.34
TIAA-CREF Lifecycle 2015 Institutional	1.07	0.14	107.80	107.48	1.07	0.24	106.37	106.86
S&P Target Date 2015 Index	1.00	0.13	100.00	100.00	1.00	0.25	100.00	100.00
Farget-Date 2015 Median	1.06	0.09	104.05	108.25	1.02	0.22	102.46	104.65
TIAA-CREF Lifecycle 2020 Institutional	1.06	0.15	107.58	106.16	1.06	0.25	105.99	105.84
S&P Target Date 2020 Index	1.00	0.12	100.00	100.00	1.00	0.24	100.00	100.00
Target-Date 2020 Median	1.03	0.10	106.07	106.16	1.01	0.22	100.47	103.68
TIAA-CREF Lifecycle 2025 Institutional	1.05	0.18	105.48	106.22	1.05	0.26	104.25	105.63
S&P Target Date 2025 Index	1.00	0.18	100.00	100.00	1.00	0.28	100.00	100.00
Farget-Date 2025 Median	1.02	0.11	100.80	105.14	1.02	0.23	98.89	103.12
TIAA-CREF Lifecycle 2030 Institutional	1.02	0.20	102.79	103.61	1.03	0.27	101.82	103.09
S&P Target Date 2030 Index	1.00	0.21	100.00	100.00	1.00	0.29	100.00	100.00
Target-Date 2030 Median	1.02	0.16	100.41	104.31	1.01	0.25	100.10	102.34
TIAA-CREF Lifecycle 2035 Institutional	1.00	0.22	100.09	101.34	1.00	0.28	99.84	101.25
S&P Target Date 2035 Index	1.00	0.24	100.00	100.00	1.00	0.30	100.00	100.00
Target-Date 2035 Median	1.01	0.20	100.27	103.13	1.00	0.27	99.39	101.26
TIAA-CREF Lifecycle 2040 Institutional	1.00	0.24	101.03	102.07	1.02	0.29	101.32	102.88
6&P Target Date 2040 Index	1.00	0.25	100.00	100.00	1.00	0.31	100.00	100.00
Farget-Date 2040 Median	1.02	0.23	101.17	103.49	1.02	0.29	100.45	101.98
FIAA-CREF Lifecycle 2045 Institutional	1.03	0.26	104.64	105.19	1.05	0.30	104.99	106.48
S&P Target Date 2045 Index	1.00	0.27	100.00	100.00	1.00	0.32	100.00	100.00
Farget-Date 2045 Median	1.02	0.24	102.15	103.89	1.02	0.29	101.32	102.49
TIAA-CREF Lifecycle 2050 Institutional	1.03	0.26	104.50	105.42	1.04	0.30	104.64	106.35
S&P Target Date 2050 Index	1.00	0.27	100.00	100.00	1.00	0.32	100.00	100.00
Target-Date 2050 Median	1.01	0.24	101.23	103.41	1.01	0.30	100.21	101.61

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	3 Years	3 Years	3 Years	3 Years	5 Years	5 Years	5 Years	5 Years
	Beta	Sharpe	Up Capture	Down Capture	Beta	Sharpe	Up Capture	Down Capture
TIAA-CREF Lifecycle 2055 Institutional	1.03	0.27	104.57	105.58	1.05	0.30	104.72	106.47
S&P Target Date 2055 Index	1.00	0.27	100.00	100.00	1.00	0.32	100.00	100.00
Target-Date 2055 Median	1.01	0.24	100.74	102.95	1.01	0.29	99.98	101.51
TIAA-CREF Lifecycle 2060 Institutional	1.04	0.27	105.64	106.37	1.05	0.31	105.49	107.25
S&P Target Date 2060+ Index	1.00	0.27	100.00	100.00	1.00	0.32	100.00	100.00
Target-Date 2060 Median	1.01	0.24	100.70	103.16	1.01	0.30	99.91	101.93
TIAA-CREF Lifecycle 2065 Institutional	-	-	-	-	-	-	-	-
S&P Target Date 2065+ Index	1.00	0.28	100.00	100.00	1.00	0.32	100.00	100.00
Target-Date 2065+ Median	1.01	0.24	100.55	103.89	1.06	0.28	104.51	106.68
TIAA-CREF Lifecycle Retire Income Instl	1.22	0.11	128.17	121.23	1.22	0.23	123.07	121.80
S&P Target Date Retirement Income Index	1.00	0.02	100.00	100.00	1.00	0.18	100.00	100.00
Target-Date Retirement Median	0.83	-0.05	81.03	84.91	0.81	0.13	80.07	80.33

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PLAN INVESTMENT REVIEW | TARGET DATE REVIEW

TIAA-CREF LIFECYCLE

MEETING DATE: JANUARY 19, 2023

FOCUS AREA

Organizational Update

COMMENTAR'

Hans Erickson, head of Target Date Multi-Asset, has left the firm. John Cunniff, Target Date Multi-Asset portfolio manager, has succeeded Hans as head of Target Date Multi-Asset, and the team now reports to John. Steve Sedmak, who joined the team in 2016 and was named as a portfolio manager in 2018 will continue to manage the target date suite with John. In succeeding Hans, John has taken on all of Hans's responsibilities. These include managing the team, setting the research agenda, working with the product development team, and exercising authority on all research and product decisions. In his 16-year tenure on the Lifecycle suite, John has been involved with each of these functions, but has not had ultimate authority of them as that was with Hans. This will be new for John.

Investments Update

COMMENTARY

As we wrote last quarter, Nuveen recently changed its glidepath for the target date suite. Nuveen has increased the equity allocation in the glidepath section that is 20 – 15 years away from retirement. This change is a result of Nuveen's human capital model research. Previously, the glidepath began rolling down 8% every 5 years starting at age 40 until age 65. However, Nuveen finds that human capital does not change that significantly when a participant turns 40. The glidepath has been adjusted to better align with the gradual decline of participants' human capital from age 40 to 50. To reflect this, the glidepath has been smoothed out to decrease equity by 4% every 5 years at 40 and 45. There were no changes to the near retirement vintages or the beginning of the glidepath.

The change was implemented on October 1, 2022, and impacts three vintages, the 2045, 2040, and 2035 funds. The equity allocation was increased by 1.8% in the 2045 vintage, by 4% in the 2040 vintage, and by 2.2% in the 2035 vintage. To fund these increases, the vintages' fixed income allocations were reduced. There have been no changes to the sub-asset class allocations.



PLAN INVESTMENT REVIEW | TARGET DATE REVIEW

TIAA-CREF LIFECYCLE

MEETING DATE: JANUARY 19, 2023

FOCUS AREA

Performance and Positioning Update

COMMENTAR

TIAA-CREF Lifecycle Performance Update:

The TIAA-CREF Lifecycle series had mixed peer-relative performance in the fourth quarter and broadly trailed the benchmark.

- During the quarter, Lifecycle's further-dated vintages outperformed while near-dated funds trailed the peer group.
- Lifecycle's underperformance relative to peers and the benchmark was primarily a result of its strategic asset allocation.
- The series's allocation to direct real estate through TIAA Real Property was the largest detractor as it posted its first negative quarterly return of the year and underperformed both equities and fixed income.
- This allocation also contributed to the near-dated vintages peer-relative underperformance because the TIAA Real Property allocation is funded from the equity portfolio.
- Smaller allocations to non-U.S. developed and U.S. mid-cap stocks further weighed on performance relative to peers.
- Further-dated vintages experienced peer-relative outperformance due to an underweight to core fixed income whereas a larger allocation to core fixed income in near-dated vintages resulted in them trailing the peer group.
- While Lifecycle's strategic asset allocation was a detractor, manager selection had a positive impact on performance. However, it was not enough to offset the negative asset allocation effect.
- The leading contributors for Lifecycle were the Nuveen Dividend Growth, TIAA-CREF Large-Cap Value, and Nuveen Growth Opportunities strategies, all of which outperformed their respective benchmarks in the fourth quarter.
- Poor security selection in the TIAA-CREF International Opportunities and TIAA-CREF Emerging Markets Equity strategies was a detractor.
- Despite the series's mixed performance in the fourth quarter, all Lifecycle funds outperformed peers for the year. Outperformance was mainly driven by the inclusion of the TIAA Real Property strategy.

Positioning Update:

The Lifecycle team maintained two tactical positions and closed two tactical positions during the quarter.

- The portfolio management team continued to maintain its 0.50% overweight position to U.S. large-cap value at the expense of U.S. large-cap growth that they initiated in
- The team continues to believe valuations for value sectors remain attractive compared to growth sectors.
- The team also continued to maintain its 0.50% overweight to high yield at the expense of U.S. large cap core equities given yields and valuations remain attractive.
- In December 2022, TIAA-CREF closed its overweight position to emerging market debt versus core fixed income due to concerns about global growth.
- The team also closed its U.S. small/mid-cap equities overweight relative to the large-cap core allocation in December around concerns about slowing growth.

Note: Benchmark relative performance refers to fund performance compared to the S&P Target Date Indexes.



PLAN INVESTMENT REVIEW | TARGET DATE REVIEW

TIAA-CREF LIFECYCLE

	QTD	YTD	1 Year	3 Year	5 Year	10 Year
TIAA-CREF Lifecycle 2010 Fund	4.54	-12.40	-12.40	1.36	2.93	4.98
S&P Target Date 2010 Index	5.00	-11.44	-11.44	1.23	2.82	4.37
TIAA-CREF Lifecycle 2010 Custom Benchmark	4.71	-13.16	-13.16	1.44	3.25	5.01
TIAA-CREF Lifecycle 2015 Fund	4.89	-12.85	-12.85	1.63	3.17	5.44
S&P Target Date 2015 Index	5.19	-12.16	-12.16	1.52	3.07	5.01
TIAA-CREF Lifecycle 2015 Custom Benchmark	5.14	-13.77	-13.77	1.68	3.50	5.49
TIAA-CREF Lifecycle 2020 Fund	5.21	-13.52	-13.52	1.77	3.32	5.94
S&P Target Date 2020 Index	5.77	-12.81	-12.81	1.49	3.14	5.50
TIAA-CREF Lifecycle 2020 Custom Benchmark	5.56	-14.32	-14.32	1.91	3.75	6.06
TIAA-CREF Lifecycle 2025 Fund	5.90	-14.32	-14.32	2.21	3.68	6.57
S&P Target Date 2025 Index	6.34	-13.13	-13.13	2.26	3.75	6.23
TIAA-CREF Lifecycle 2025 Custom Benchmark	6.10	-14.98	-14.98	2.35	4.17	6.74
TIAA-CREF Lifecycle 2030 Fund	6.71	-15.16	-15.16	2.63	4.02	7.17
S&P Target Date 2030 Index	7.27	-13.96	-13.96	2.73	4.17	6.84
TIAA-CREF Lifecycle 2030 Custom Benchmark	6.75	-15.69	-15.69	2.79	4.58	7.42
TIAA-CREF Lifecycle 2035 Fund	7.60	-15.98	-15.98	3.03	4.35	7.75
S&P Target Date 2035 Index	8.31	-14.99	-14.99	3.29	4.63	7.42
TIAA-CREF Lifecycle 2035 Custom Benchmark	7.56	-16.29	-16.29	3.27	5.01	8.07
TIAA-CREF Lifecycle 2040 Fund	8.33	-16.67	-16.67	3.52	4.71	8.23
S&P Target Date 2040 Index	9.17	-15.56	-15.56	3.72	4.97	7.84
TIAA-CREF Lifecycle 2040 Custom Benchmark	8.33	-16.73	-16.73	3.81	5.46	8.63
TIAA-CREF Lifecycle 2045 Fund	8.94	-17.32	-17.32	3.99	5.06	8.50
S&P Target Date 2045 Index	9.77	-15.84	-15.84	3.98	5.16	8.11
TIAA-CREF Lifecycle 2045 Custom Benchmark	8.78	-17.32	-17.32	4.33	5.86	8.94
TIAA-CREF Lifecycle 2050 Fund	9.21	-17.65	-17.65	4.05	5.09	8.56
S&P Target Date 2050 Index	10.01	-15.97	-15.97	4.12	5.26	8.33
TIAA-CREF Lifecycle 2050 Custom Benchmark	8.96	-17.63	-17.63	4.42	5.93	9.02
TIAA-CREF Lifecycle 2055 Fund	9.28	-17.73	-17.73	4.09	5.13	8.61
S&P Target Date 2055 Index	10.11	-15.97	-15.97	4.18	5.31	8.46
TIAA-CREF Lifecycle 2055 Custom Benchmark	9.06	-17.70	-17.70	4.50	6.00	9.10
TIAA-CREF Lifecycle 2060 Fund	9.30	-17.79	-17.79	4.18	5.20	-
S&P Target Date 2060 Index	10.12	-16.01	-16.01	4.16	5.35	8.50
TIAA-CREF Lifecycle 2060 Custom Benchmark	9.16	-17.77	-17.77	4.58	6.06	-
TIAA-CREF Lifecycle 2065 Fund	9.29	-17.70	-17.70		-	-
S&P Target Date 2065+ Index	10.03	-15.95	-15.95	4.22	5.38	-
TIAA-CREF Lifecycle 2065 Custom Benchmark	9.25	-17.85	-17.85	-	-	-

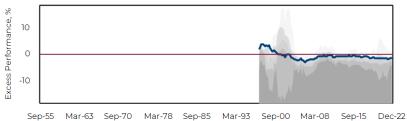


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TRAILING AND CALENDAR RETURNS											
	Last Quarter	1 Year	3 Years	5 Years	10 Years	2021	2020	2019	2018	2017	
CREF Stock R1	10.12	-18.62	4.35	5.42	8.89	18.67	17.64	27.13	-9.86	23.01	
CREF Stock Benchmark	9.35	-18.18	5.19	6.57	9.85	20.49	18.08	28.36	-7.98	23.30	
Allocation85%+ Equity Median	8.67	-19.21	3.64	4.95	8.33	18.50	16.69	25.81	-9.30	21.06	
Rank (%)	15	39	26	33	28	46	46	28	59	26	
Population	203	202	190	190	167	204	201	212	235	252	

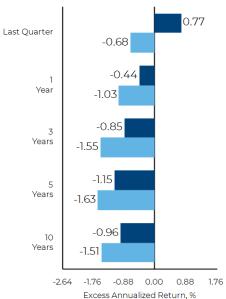
	KEY MEASURES/5 YEAR										
	Sharpe Ratio	Alpha	Beta	R-Squared	Up Capture	Down Capture	Information Ratio				
CREF Stock R1	0.31	-1.15	1.01	1.00	98.67	103.03	-1.06				
CREF Stock Benchmark	0.37	0.00	1.00	1.00	100.00	100.00	-				
Allocation85%+ Equity Median	0.29	-1.37	0.97	0.98	93.43	98.54	-0.58				

Rolling 3 Year Annualized Excess Return



Performance vs Risk 5 Year





INVESTMENT PROFILE

CUSIP

Portfolio Manager	Chalupnik,D/Cunniff,
	J/Malik,S
Portfolio Assets	\$12,007 Million
PM Tenure	
Net Expense(%)	0.46 %
Fund Inception	1952
Category Expense Median	

HOLDINGS OVERVIEW

Subadvisor

SEC Yield

% Assets in Top 10 Holdings	13.26 %
Number of Holdings	9530
Turnover	50.00 %
Avg. Market Cap	\$67,717 Million
Dividend Yield	2.49 %
Avg. Effective Duration	-

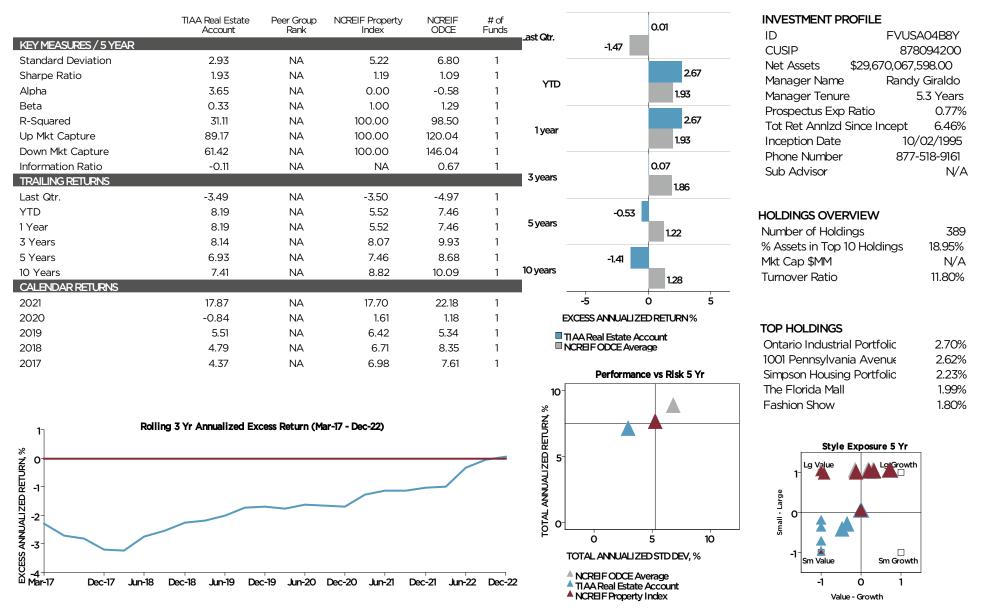
	17.8	17.9	18.0	18.1	18.2	18.3	18.4	18.5	18.6	Excess Annualize
				Annu	ıalized StdD	ev, %				CREF Stock R1
Δ	CREF Stock F	श		CREF Stock	k Benchmark	/	Allocation-	85%+ Equity	Median	Allocation85%+ Equity Median

For use with CAPTRUST clients only. Performance here represents past performance and does not guarantee future results. Data has been obtained from Morningstar and is not guaranteed to be accurate or complete. Variable Annuity Accounts are not mutual funds. Investing always involves risk. For prospectus with a complete description of the risks associated with investing in the underlying fund, please call CAPTRUST at (800)216-0645. For a detailed description of the risks associated with investing by asset class, please visit https://www.captrust.com/important-disclosures/



7

Annualized Return, %



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VTSAX

0.04 %

2000

0.75

21.35 %

4029

4.00 %

1.75 %

\$105,305 Million

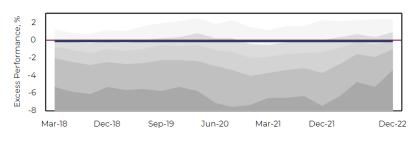
Nejman,W/O'Reilly,G

\$278,242 Million

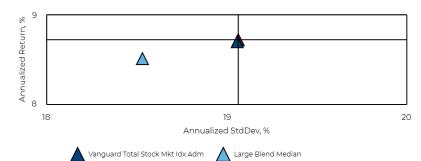
TRAILING AND CALENDAR RETURNS											
	Last Quarter	1 Year	3 Years	5 Years	10 Years	2021	2020	2019	2018	2017	
Vanguard Total Stock Mkt Idx Adm	7.14	-19.53	6.97	8.71	12.08	25.71	20.99	30.80	-5.17	21.17	
CRSP U.S. Total Market TR Index	7.15	-19.49	6.99	8.73	12.10	25.72	20.99	30.84	-5.17	21.19	
Large Blend Median	7.93	-18.16	7.09	8.52	11.57	26.68	17.18	29.77	-5.65	21.13	
Rank (%)	74	77	54	46	31	61	18	38	41	49	
Population	1,203	1,174	1,131	1,091	971	1,188	1,220	1,264	1,297	1,357	

KEY MEASURES/5 YEAR										
	Sharpe Ratio	Alpha	Beta	R-Squared	Up Capture	Down Capture	Information Ratio			
Vanguard Total Stock Mkt Idx Adm	0.47	-0.01	1.00	1.00	99.96	100.01	-0.68			
CRSP U.S. Total Market TR Index	0.47	0.00	1.00	1.00	100.00	100.00	-			
Large Blend Median	0.47	0.15	0.97	0.97	97.28	97.96	-0.09			

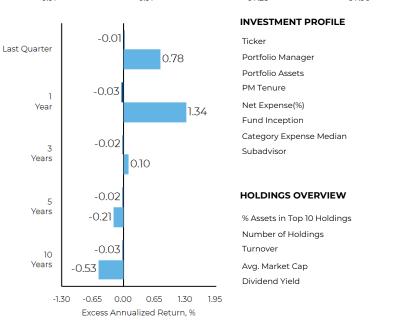
Rolling 3 Year Annualized Excess Return



Performance vs Risk 5 Year



Vanguard Total Stock Mkt Idx Adm Large Blend Median



For use with CAPTRUST clients only. Performance summarized here represents past performance and does not guarantee future results. Data has been obtained from Morningstar and is not guaranteed to be accurate or complete. Mutual fund investing involves risk. For a prospectus with a complete description of the risks associated with investing in this fund, please call CAPTRUST at (800)216-0645. For a detailed description of the risks associated with investing by asset class, please visit

https://www.captrust.com/important-disclosures/

CRSP U.S. Total Market TR Index



VTIAX

8.89 %

TRAILING AND CALENDAR RETURNS											
	Last Quarter	1 Year	3 Years	5 Years	10 Years	2021	2020	2019	2018	2017	
Vanguard Total Intl Stock Index Admiral	14.67	-16.01	0.51	1.09	4.06	8.62	11.28	21.51	-14.43	27.55	
FTSE Global ex USA All Cap Index (Net)	14.14	-16.10	0.52	1.10	4.18	8.84	11.24	21.80	-14.61	27.41	
Foreign Large Blend Median	16.86	-15.92	0.60	1.18	4.23	10.07	9.73	22.04	-15.23	25.51	
Rank (%)	81	52	53	54	60	65	41	60	39	28	
Population	694	678	661	620	526	711	747	755	751	796	

	KEY MEASURES/5 YEAR										
	Sharpe Ratio	Alpha	Beta	R-Squared	Up Capture	Down Capture	Information Ratio				
Vanguard Total Intl Stock Index Admiral	0.08	0.01	1.02	0.99	102.18	102.19	0.03				
FTSE Global ex USA All Cap Index (Net)	0.08	0.00	1.00	1.00	100.00	100.00	-				
Foreign Large Blend Median	0.09	0.16	1.02	0.95	103.33	103.19	0.04				

Year

3

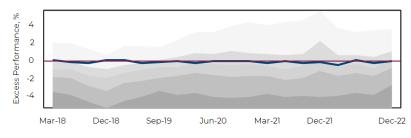
5

10 Years

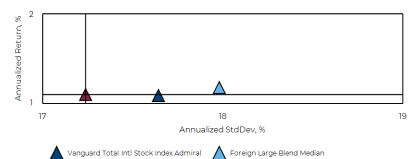
Years

Years

Rolling 3 Year Annualized Excess Return



Performance vs Risk 5 Year



Last Quarter 2.72 Portfolio Manager

0.53

0.09

0.18

0.08

0.08

0.04

1.50

Excess Annualized Return, %

3.00

0.00

-0.02

-0.02

-0.12

Portfolio Manager	Franquin,C/Perre,M
Portfolio Assets	\$59,468 Million
PM Tenure	
Net Expense(%)	0.11 %
Fund Inception	2010
Category Expense Median	0.91
Subadvisor	-

HOLDINGS OVERVIEW

% Assets in Top 10 Holdings

INVESTMENT PROFILE

Ticker



Vanguard Total Intl Stock Index Admiral

Foreign Large Blend Median

-1.50

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https://www.captrust.com/important-disclosures/

FTSE Global ex USA All Cap Index (Net)



APPENDIX
Period Ending 12.31.22 | Q4 22

Kalamazoo Valley Community College Employee Optional Retirement Plan

APPENDIX	
Your CAPTRUST Service Team	
Glossary of Terms	
Evaluation Methodology	

TEAM MEMBERS	RESPONSIBILITIES
Jeremy Tollas, CPFA ,CIMA® Vice President Financial Advisor Jeremy.Tollas@captrust.com	Account Role: Lead Consultant Our Lead Consultants serve as the primary relationship manager for the fiduciaries of corporate retirement plans. They oversee and ensure quality delivery of comprehensive investment advisory services. They are available to assist with any aspect of clients' accounts, or put them in contact with the appropriate resources here at CAPTRUST.
Lisa Mason Senior Client Management Associate Institutional Client Service Lisa.Mason@captrust.com	Account Role: Client Management Consultant The Client Management Consultants are focused on overall client management from initial conversion of new plans to CAPTRUST throughout their 'life' at CAPTRUST. As the primary contact for day-to-day client service needs, the main goal of the Client Management Consultant is to deliver exceptional proactive client service. On a daily basis, the Client Management Consultants are available to assist employees with questions related to plan enrollment and education, available investment options, and other areas.
Maxwell M. Gates Client Management Associate II Institutional Client Service Maxwell.Gates@captrust.com	Account Role: Client Management Consultant The Client Management Consultants are focused on overall client management from initial conversion of new plans to CAPTRUST throughout their 'life' at CAPTRUST. As the primary contact for day-to-day client service needs, the main goal of the Client Management Consultant is to deliver exceptional proactive client service. On a daily basis, the Client Management Consultants are available to assist employees with questions related to plan enrollment and education, available investment options, and other areas.

ALPHA

Alpha measures a manager's rate of return in excess of that which can be explained by its systematic risk, or Beta. It is a result of regressing a manager's returns against those of a benchmark index. A positive alpha implies that a manager has added value relative to its benchmark on a risk-adjusted basis.

BATTING AVERAGE

Batting Average, an indicator of consistency, measures the percentage of time an active manager outperformed the benchmark.

BETA

Beta measures a manager's sensitivity to systematic, or market risk. Beta is a result of the analysis regressing a manager's returns against those of a benchmark Index. A manager with a Beta of 1 should move perfectly with a benchmark. A Beta of less than 1 implies that a manager's returns are less volatile than the market's (i.e., selected benchmarks). A Beta of greater than 1 implies that a manager exhibits greater volatility than the market (i.e., selected benchmark).

CAPTURE RATIO

Up Market Capture is the average return of a manager relative to a benchmark index using only periods where the benchmark return was positive. Down Market Capture is the average return of a manager relative to a benchmark index using only periods where the benchmark return was negative. An Up Market Capture of greater than 100% and a Down Market Capture of less than 100% is considered desirable.

INFORMATION RATIO

The Information Ratio measures a manager's excess return over the passive index divided by the volatility of that excess return, or Tracking Error. To obtain a higher Information Ratio, which is preferable, a manager must demonstrate the ability to generate returns above its benchmark while avoiding large performance swings relative to that same benchmark.

PERCENTILE RANK

Percentile Rankings are based on a manager's performance relative to all other available funds in its universe. Percentiles range from 1, being the best, to 100 being the worst. A ranking in the 50th percentile or above demonstrates that the manager has performed better on a relative basis than at least 50% of its peers.

RISK-ADJUSTED PERFORMANCE

Risk-adjusted Performance, or RAP, measures the level of return that an investment option would generate given a level of risk equivalent to the benchmark index.

R-SQUARED

R-squared measures the portion of a manager's movements that are explained by movements in a benchmark index. R-squared values range from 0 to 100. An R-squared of 100 means that all movements of a manager are completely explained by movements in the index. This measurement is identified as the coefficient of determination from a regression equation. A high R-squared value supports the validity of the Alpha and Beta measures, and it can be used as a measure of style consistency.

SHARPE RATIO

Sharpe ratio measures a manager's return per unit of risk, or standard deviation. It is the ratio of a manager's excess return above the risk-free rate divided by a manager's standard deviation. A higher sharpe ratio implies greater manager efficiency.

STANDARD DEVIATION

Standard Deviation is a measure of the extent to which observations in a series vary from the arithmetic mean of the series. This measure of volatility or risk allows the estimation of a range of values for a manager's returns. The wider the range, the more uncertainty, and, therefore, the riskier a manager is assumed to be.

TRACKING ERROR

Tracking Error is the standard deviation of the portfolio's residual (i.e. excess) returns. The lower the tracking error, the closer the portfolio returns have been to its risk index. Aggressively managed portfolios would be expected to have higher tracking errors than portfolios with a more conservative investment style.

TREYNOR RATIO

The Treynor Ratio is a measure of reward per unit of risk. With Treynor, the numerator (i.e. reward) is defined as the annualized excess return of the portfolio versus the risk-free rate. The denominator (i.e. risk) is defined as the portfolio beta. The result is a measure of excess return per unit of portfolio systematic risk. As with Sharpe and Sortino, the Treynor Ratio only has value when it is used as the basis of comparison between portfolios. The higher the Treynor Ratio, the better.



MARKED FOR REVIEW

The following categories of the Investment Policy Monitor appear "Marked For Review" when:

CAPTRUST's Investment Policy Monitoring Methodology

The Investment Policy Monitoring Methodology document describes the systems and procedures CAPTRUST uses to monitor and evaluate the investment vehicles in your plan/account on a quarterly basis.

Our current Investment Policy Monitoring Methodology document can be accessed through the following link:

captrust.com/investmentmonitoring

QUANTITATIVE EVALUATION ITEMS

3/5 Year Risk- adjusted Performance

The investment option's 3 or 5 Year Annualized Risk Adjusted Performance falls below the 50th percentile of the peer group.

3/5 Year Performance vs. Peers

The investment option's 3 or 5 Year Annualized Peer Relative Performance falls below the 50th percentile of the peer group.

3/5 Year Style

The investment option's 3 or 5 Year R-Squared measure falls below the absolute threshold set per asset class.

3/5 Year Confidence

The investment option's 3 or 5 Year Confidence Rating falls below the 50th percentile of the peer group.

Glidepath Assessment

% of Equity Exposure: The combined percentage of an investment option's equity exposure ranks in the top 20th percentile or bottom 20th percentile of the peer group.

Regression to the Benchmark: The investment option's sensitivity to market risk - as measured by beta relative to a Global Equity Index - is above 0.89.

QUALITATIVE EVALUATION ITEMS

Fund Management

A significant disruption to the investment option's management team has been discovered.

Fund Family

A significant disruption to the investment option's parent company has been discovered.

Portfolio Construction

The investment option's combined Portfolio Construction score is 6 or below out of a possible 15 points.

Underlying Investment Vehicles

The investment option's combined Underlying Investment Vehicles score is 6 or below out of a possible 15 points.





Fiduciary Update | First Quarter 2023

Jeremy Tollas, CIMA®, CPFATM Vice President | Financial Advisor

Contents:

- SECURE 2.0: Investment and Fiduciary Issues
- 401(k) and 403(b) Fee Cases Continue
- \$750,000 Cyberloss
 Recovery Case Progressing
- Ex-husband Inherits 401(k)
 Plan Due to Flawed
 Beneficiary Designation
- \$24,000 Payment Settles
 \$2 Million Claim
- Accidental Death Benefits Depend on Circumstances
- DOL ESG Regulation Final

SECURE 2.0—Investment and Fiduciary Issues

The widely reported <u>SECURE 2.0</u> law includes more than 90 provisions, most of which pertain to retirement plan design and operation. As a point of reference, the first SECURE Act included only 31 provisions. A few provisions of the new law relate directly to fiduciary and investment issues.

- 403(b) plans, which are a close cousin to 401(k) plans, have not been permitted to use collective investment trusts (CITs). CITs have long been used in 401(k) plans for stable value investments, and CIT versions of traditional mutual funds are increasingly used in 401(k) plans to reduce investment expenses. The new law permits 403(b) plans to use CITs. Although the rule is effective as of December 29, 2022, this provision will not be available until corresponding changes are made in securities laws.
- Under current fiduciary law, when a plan participant is overpaid from plan assets, plan fiduciaries must take reasonable steps to recover the overpayment. SECURE 2.0 leaves recovery of overpayments to the discretion of plan fiduciaries. Under tax law,

if the exact terms of a retirement plan are not followed, including overpayments to participants, the plan's tax-preferred status can be challenged by the Internal Revenue Service (IRS). The IRS has previously issued guidance providing some relief if overpayments are not recovered, and SECURE 2.0 codifies preservation of a plan's tax-preferred status if overpayments are not recovered. Plan sponsors experiencing a situation like this should consult with their ERISA attorneys for guidance.

A few other aspects of SECURE 2.0 touch on topics that have been covered in earlier Fiduciary Updates.

 The penalty for not taking required minimum distributions (RMDs) has been reduced from 50 percent of the late distribution amount to 25 percent of the late distribution amount. This penalty is further reduced to 10 percent if the corrective distribution is made during a two-year correction window.

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 The 10 percent withdrawal penalty for early retirement plan distributions will be waived for individuals with an illness that is reasonably expected to result in death within 7 years, per a doctor's certification.

401(k) and 403(b) Fee Cases Continue

The flow of cases alleging fiduciary breaches through the overpayment of fees and the retention of underperforming investments in 401(k) and 403(b) plans continues but without significant new developments. Here are a few updates.

- Two of the approximately 10 cases alleging that it was a fiduciary breach to retain the BlackRock LifePath Index Funds have been dismissed and amended complaints have been filed. The challenged funds are an indexed target date series with a to-retirement design. Tullgren v. Booz Allen Hamilton v. Hall (E.D. Va. 2022); Hall v. Capital One Financial Group (E.D. Va. 2022).
- We previously reported on three Court of Appeals decisions dismissing fees suits because
 the initial claims did not sufficiently make a case that plan fiduciaries had breached their
 duties. District courts have applied the reasoning of these cases and dismissed other cases
 early in the litigation process. Nohara v. Prevea Clinic (E.D. Wis. 2022); Glick v. Thedacare
 (E.D. Wis. 2022).
- In a rare victory for a plaintiff in an ERISA fiduciary breach case, a judge in Connecticut has permitted a jury trial on some claims. Garthwait v. Evercore Energy Co. (D. Conn. 2022). Over the years, judges have written many pages on whether a jury trial is available in ERISA cases, with virtually all concluding no. Juries decide cases where the resolution would be legal, such as resolving an alleged breach of contract, and judges decide cases where the resolution would be equitable in nature. This is generally understood to be the situation with issues involving trusts, which fund retirement plans.

\$750,000 Cybersecurity Loss Case Progresses with One Defendant Out

We have previously reported on a participant's lawsuit attempting to recover more than \$750,000 taken from her 401(k) account through cyber-fraud. The suit was filed against the recordkeeper, the plan fiduciaries, and the asset custodian/trustee, alleging various fiduciary breaches in making or allowing the fraudulent distribution. All three defendants filed motions to dismiss.

The asset custodian/trustee was released from the case, but the recordkeeper and plan fiduciaries were not. The court concluded that the asset custodian/trustee was not a fiduciary because it did not exercise any discretion or independent control over the plan or its assets. Its role was exclusively to follow the directions of others. This directed trustee role is different from the role discretionary common law trustees play in retirement plans, such as deciding which investments to offer in a 401(k) plan.

The judge noted that plan fiduciaries could be liable for the loss if they failed to reasonably select or monitor the recordkeeper. However, he observed that, "ERISA's duty of care requires prudence not prescience. [Fiduciaries] must adopt reasonable procedures, but not absolutely air-tight procedures, to protect against the possibility of what happened here, which was a heinous crime."

With respect to the recordkeeper, Alight, the court found that it may be considered a functional fiduciary but cautioned that it might not be. Under ERISA, a person or institution is a fiduciary if they exercise discretion or control over plan assets, regardless of whether they have been appointed as a



fiduciary. The judge took the unusual step of recommending that the participant file a negligence suit against Alight. He went on to point out that the statute of limitations would run out in March 2023, concluding with, "the clock is ticking." *Disberry v. Employee Relations Committee of The Colgate-Palmolive Company* (S.D. NY 2022).

Surprise! Ex-husband Inherits 401(k) Account Balance

A plan participant was divorced in 2002, and it was agreed that her ex-husband would have no claim to her 401(k) account. At that time, the ex-husband was the sole beneficiary. In 2008, the participant changed her 401(k) plan beneficiary from her ex-husband to her three siblings, with each to receive 33 1/3 percent. Unfortunately, the beneficiary designation form required that the allocation be in whole percentages. As a result, the beneficiary change was rejected.

In 2019, when the participant died, her \$600,000 401(k) benefit was paid to her ex-husband. The participant's estate sued the plan sponsor for breach of fiduciary duty in failing to correct the beneficiary designation form. At trial, it was revealed that, soon after the erroneous beneficiary designation form was submitted, the plan sponsor telephoned the participant and left a message notifying her of the error. The participant also received 11 annual account statements showing her ex-husband as the sole beneficiary. Award of the 401(k) account to the ex-husband was upheld at trial and on appeal. *Gelschus v. Hogen* (8th Cir. 2022).

Surprise! \$24,000 Payment Resolves \$2 Million Claim

An insurance company determined that it had overpaid a healthcare provider in Texas by more than \$2 million through the payment of participant claims. The insurance company demanded repayment and months of discussions and correspondence ensued, but no agreement was reached. The provider eventually sent a letter and refund check for \$24,000 to the insurance company.

The check included a notation saying it was in "full and final payment" of the repayment claim. Copies of the letter and check were sent to seven different addresses and individuals at the insurance company who had been involved in the negotiations. The physical check was sent to the insurance company's lockbox where payments were received.

Five days after the letters were received by individuals at the insurance company, the check was deposited by the lockbox provider, and copies of the check and letter were scanned into the insurer's tracking system. The next day, upon seeing the letter and check in the tracking system, an insurance company representative emailed the healthcare provider's general counsel to reject the settlement offer.

The healthcare provider contended that acceptance of the check was full satisfaction of the insurer's claim for reimbursement. Disappointed with that outcome, the insurance company sued. Applying Texas law, the trial court and court of appeals concluded that acceptance of the \$24,000 check resolved the matter. *United Healthcare of Texas, Inc. v. Low-T Physicians Service* (Tex. App.—Fort Worth 1-5-23).

Accidental Death Coverage: What Is an Accident?

In addition to traditional life insurance, many employers' benefit programs include additional coverage if a death is the result of an accident. Two recent cases illustrate differing outcomes.



In *Goldfarb v. Reliance Standard Insurance Co.* (S.D. Fla. 2023), a covered employee was an avid mountain climber. He decided to go mountain climbing in Pakistan in the winter. After making reasonable preparations, he embarked—but did not return. Aerial surveillance identified a body and what appeared to be his equipment in the area where he was climbing. The employee was then declared dead.

A claim for accidental death benefits was denied, with the insurance carrier taking the position that winter mountain climbing in Pakistan was so dangerous that death was not considered an accident. However, the policy did not have a mountain climbing exclusion. The trial court found that the deceased did not expect his mountain climbing expedition to cause serious injury or death. The accidental death benefit was ordered to be paid.

In another accidental death case, *McChristion v. Sun Life Assurance Co. of Canada* (W.D. Tex. 2022), a motorcyclist lost control and wound up under the trailer of an 18-wheel truck. He was dragged for some distance and did not survive. The crashed motorcycle's speedometer was found locked at 105 miles per hour. Where the accident happened, the speed limit was 45 miles per hour.

The employer-provided accidental death insurance claim was denied. In this case, the denial was upheld because the behavior of the deceased was so intentionally reckless that it was excluded. The claim was also denied because it resulted from criminal behavior in the violation of motor vehicle laws, but the judge did not reach this issue.

DOL Finalizes ESG Regulation

In November 2022, the most recent volley of guidance from the U.S. Department of Labor on the use of environmental, social, and governance (ESG) factors, also known as socially responsible investment factors, in retirement plan investments became final. The bottom lines continue to be:

- In ERISA-covered plans, investment decisions must be made based on economic factors and in the best interests of plan participants and their beneficiaries.
- In certain cases, ESG factors may be considered economic factors by plan fiduciaries.
- Making socially responsible investments available to participants through a self-directed brokerage vehicle versus a core investment option can be advantageous.
 - o If properly structured, plan fiduciaries are not responsible for specific investments available in the brokerage window.
 - If socially responsible funds will be made available, a brokerage window can permit
 a wide range of choices for plan participants to select what they are passionate
 about.

INVESTMENT POLICY STATEMENT

For

Kalamazoo Valley Community College Optional Retirement Plan

March 2022

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SUMMARY OF PURPOSE AND OBJECTIVES

Plan Purpose and Objectives

The Plan was originally adopted effective January 1, 1997 and covers the employees of the College and its related entities according to the terms of the Plan document, with the objective of offering participants the opportunity to save, manage, accumulate and preserve retirement account assets.

All of the Plan assets are invested at the discretion of the participant, or if permitted, their beneficiary, in investment options selected from a group of alternatives made available by the Plan. The number and types of investment alternatives available and the investment managers retained to manage the alternatives are subject to change. Decisions regarding investment options will be made in the sole interest of the participants and beneficiaries of the Plan. As named fiduciaries of the Plan, the Kalamazoo Valley Community College Advisory Committee (the "Committee") has the authority and responsibility, on behalf of Kalamazoo Valley Community College, to select and change, from time to time, the investment alternativesprovided under the Plan.

The provisions of this Investment Policy Statement are subject to the terms of the Plan, the agreement establishing the trust maintained pursuant to the Plan, the charter under which the Committee is organized, and any relevant investment advisory agreement. To the extent of any conflict, the terms of such Plan, agreement, charter, or investment advisory agreement control. This Investment Policy Statement does not provide any additional rights to any party other than those that are described in those documents.

Purpose of the Investment Policy Statement

The purpose of this Investment Policy Statement is to assist the Committee in effectively selecting, supervising, and evaluating the investment options provided under the Plan. The primary focus of this Investment Policy Statement is to:

- 1. Clearly describe and distinguish among the responsibilities of the Committee, the investment managers, the third party administrator, the custodian, the trustee, the investment consultant, and any additional service providers.
- 2. Provide participants a range of diversified funding options along the risk-return spectrum to assist participants in their retirement investment decision making.
- 3. Establish formal criteria to select and monitor the investment options under the Plan.
- 4. Facilitate communication between the Committee and all service providers.

The Committee will formally review this Investment Policy Statement at least annually and, if appropriate, can be amended to reflect changes in the capital markets, participant objectives, Plan demographics, legislative and regulatory changes, or other factors relevant to the Plan. Any modifications to this Investment Policy Statement will be reviewed and discussed with the appropriate parties prior to implementation.

ROLES AND RESPONSIBILITIES

Kalamazoo Valley Community College Advisory Committee

The Committee is broadly responsible to oversee the administration of the Plan and investment of the Plan assets. Its duties include establishing investment policy, hiring service providers, and monitoring and evaluating the performance of service providers in carrying out the policy.

The responsibilities of the Committee include:

- 1. Establishing the number and types of investment options available to Plan participants, including default options for participants who fail to make investment elections.
- 2. Conducting appropriate due diligence in the selection and retention of all service providers as necessary. Examples of service providers may include record keeper, investment consultant, investment managers, custodian, and trustee.
- 3. Monitoring and controlling Plan expenses.
- 4. Establishing effective communication procedures among all service providers and the Committee.
- 5. Monitoring success of investment program in meeting established objectives-including appropriateness of funds offered and fund performance.
- 6. Ensuring there is a comprehensive employee communication program in place for the participants of the Plan that provides information to assist participants in making informed decisions regarding the investment of contributions and existing balances among the investment choices offered in the Plan.
- 7. Obtaining such fiduciary training as the Committee determines is appropriate and necessary.
- 8. Implementing a communication process to receive and evaluate possible investment options, changes to the Investment Policy Statement, or changes to the plan document by appropriate parties, which may include employees and service providers.

Kalamazoo Valley Community College Staff

The appropriate staff of Kalamazoo Valley Community College, as designated by Kalamazoo Valley Community College from time to time, is responsible for the day-to-day administrative duties of the Plan. Specifically, in conjunction with the Committee Liaison (see Addendum A for current Committee Liaison), the staff is responsible for the following:

- 1. Providing the Committee with appropriate information to fulfill its responsibilities.
- 2. Ensuring that participant and college contributions are collected and remitted to the trust in a timely manner.
- 3. If applicable, facilitating the audit process by acting as interface between the auditors and various Plan service providers.

Investment Consultant (If Used)

The primary role of the Investment Consultant is to assist the Committee in fulfilling its responsibilities by providing information, analysis and a prudent process that contribute to the success of the investment program. In specific terms, the responsibilities of the Investment Consultant are as follows:

- 1. Assisting the Committee in selecting a set of investment options that provides the Plan participants with the ability to construct a diversified portfolio at the appropriate risk level.
- 2. Assisting in identifying appropriate market benchmarks and peer groups for the evaluation of each investment option.

- 3. Assisting in a prudent Investment Manager search process, identifying appropriate candidates for review and selection by the Committee.
- 4. Monitoring the investment management firms and investment options on an on-going basis and inform the Committee of any developments that might impact performance.
- 5. As requested, assisting in educating the Committee on investment issues that might impact the Plan.
- 6. Assisting the Committee in analyzing fees and summarizing fees paid to various service providers.
- 7. Keeping abreast of and updating the Committee on the legislative environment, industry trends, and plan design options.
- 8. In addition to the above services, the Investment Consultant is responsible for any other services listed in the Investment Advisory Agreement.

Custodian (Directed Trustee)

The Custodian provides the services listed below:

- 1. Adequate safekeeping services.
- 2. Accurate and timely pricing of securities.
- 3. Timely settlement of securities transactions.
- 4. Timely collection of income.
- 5. Suitable accounting services.
- 6. Appropriate data processing capabilities.
- 7. Providing Committee with proxies for voting when received from mutual funds and investment managers.
- 8. Communication with the staff, or Committee if appropriate, regarding any concerns or issues with respect to such services.
- 9. In addition to the above services, the Custodian is responsible for any other services listed in the Custodial Service Agreement.

Third Party Administrator (TPA)/Record Keeper

The TPA provides the services listed below.

- 1. Suitable and accurate participant record keeping and administrative services.
- 2. Accurate and timely plan data and reports to the Committee/staff upon request.
- 3. Compliance testing and required form filing services.
- 4. Participant services including quarterly statements, Voice Response Unit (VRU) access, access to phone representatives, and Web access to participant account information and transactions.
- 5. Notification to the Committee/staff of any concerns or issues with respect to such services.
- 6. In addition to the above services, the TPA is responsible for any other services listed in the Third Party Service Agreement.

Investment Managers

The specific duties and responsibilities of each Investment Manager are as follows:

- 1. To manage the Plan assets under its supervision in accordance with guidelines and objectives included in each Investment Manager's agreement, or in accordance with the prospectus for mutual funds and consistent with each Investment Manager's stated investment philosophy and style as presented to the Committee/Investment Consultant.
- 2. To exercise investment discretion in regard to buying, managing and selling assets held in the portfolio, subject to any limitations contained in this document and the Investment Manager's agreement.

See Addendum B for listing of all investment managers.

INVESTMENT OPTION POLICIES

Selection of Investment Options

The Committee will determine, through an understanding of eligible participants, the most appropriate number and type of investment options to offer, and which specific Investment Manager to employ for each investment option. The Committee has selected the asset classes and Investment Managers to represent the investment options shown in Addendum B.

The Committee chose to include several investment options that offer annuity pay-out contracts within the Plan in order to provide for periodic payments that are guaranteed to continue until a defined point in time or as long as the participant or beneficiary lives. Options to allow for lump-sum distributions upon retirement may be incorporated. The two annuity types that have been chosen to be included in the Plan are as follows:

Fixed Annuity

The objective of a fixed annuity is to provide an option with a guaranteed fixed interest rate while guaranteeing the principal investment. The option is designed to provide participants a guaranteed income payout for a specified term or for life. Because of the guarantees, there may be additional restrictions on withdrawals from this class. There is also risk associated with the entity issuing the annuity contracts. If the entity fails, there is potential for loss.

Variable Annuity

The objective of a variable annuity is to provide an option similar to a fixed annuity in that it offers a guaranteed income payout for a specified term or for life. The difference in the variable annuity option's returns are not fixed. They may earn higher or lower rates of return, depending on the investment performance of the underlying investments. This option also has the possibility of additional restrictions on withdrawals and the risk associated with the issuingentity.

Default Investment

The discretionary assets of participants who do not make an active selection among theavailable options will be placed in the Plan's default fund (see Addendum A for current default funds).

Description of Investment Options

In order to provide appropriate investment alternatives for participants, a diversified menu of investment options is to be made available under the Plan. The specific investment options available under the Plan are identified in Addendum B. Below are descriptions of asset classes that are intended to be offered in the Plan, but additional asset classes may be offered as the Committee deems appropriate. Some of the asset classes may contain an annuity option:

Money Market

Investments in short term, high-quality securities with very limited principal risk (or risk commensurate with other money market funds). The interest rate for investments in this asset class will be a function of short-term rates for assets held.

Fixed/Guaranteed Return

The objective of this asset class is to provide an option with a guaranteed fixed interest rate while guaranteeing the principal investment backed by a specific entity. If the entity fails, there is potential for loss.

Total Domestic Fixed Income

The objective of this asset class is to provide a broad exposure to U.S. investment-grade bonds. Options in this asset class will generally invest in a diversified portfolio of governmental and corporate securities of all maturities (short, intermediate, and long). The options, like other fixed income asset classes, are subject to interest rate risk.

Total International Fixed Income

The objective of this asset class is to provide a broad exposure to non-U.S. investment- grade bonds. Options in this asset class will generally invest in a diversified portfolio of governmental and corporate securities from developed countries as well as emerging markets. The options, like other fixed income asset classes, are subject to interest rate risk. Because this asset class invests in non-U.S. bonds, it is also subject to additional risks, such as country risk and potential exchange rate risk.

Total Balanced

The objective of this asset class is to provide a simple way to have both equity and fixed income exposure. Options in this asset class will be roughly split between stock holdings and bond holdings.

Total Domestic Equities

The objective of this asset class is to provide exposure to the entire U.S. equity market. Options in this asset class will be inclusive of the various market cap sizes (i.e. small, mid, and large) as well as the style of holdings (i.e. value and growth).

Total International Equities

The objective of this asset class is to provide exposure to both developed and emerging international corporations. Options in this asset class will track stock markets all over the world, with the exception of the United States. Because this class invests in non-U.S. equities, it may be subject to more volatility.

Target Date Investment

The objective of this asset class is to provide options that vary in risk and return based on a target retirement date. The option is designed to provide those participants that want to make an investment decision based on their target retirement date the ability to do so. The portfolios will be reallocated with greater emphasis on more conservative investments as the participant nears the stated retirement date.

Direct Real Estate

The objective of this asset class is to provide an option that has generally lower correlation with the broad stock and bond markets, achieve positive long-term returns and potentially provide a hedge against increased inflation through rental income and a diversified portfolio

of directly held, private real estate investments and real estate-related investments.

PERFORMANCE OBJECTIVES

Time Horizon

The Committee acknowledges that fluctuating rates of return characterize the securities markets, particularly during short-term time periods. Accordingly, the Committee focuses on time horizons of three years and greater (e.g. a full market cycle) in evaluating the asset class and investment option performance relative to established benchmarks.

Performance Objectives

Based on the analysis that led to asset allocation and investment option decisions, the Committee has identified performance benchmarks for each investment option and the separatemandates within multiple manager options. The relevant benchmarks for specific investment options are listed in Addendum B.

The Plan's investment options will be selected to:

- 1. Seek to maximize return within reasonable and reasonable levels of risk.
- 2. Provide investment returns comparable to returns for investment options having similar investment objectives and risk profiles.
- 3. Provide a diverse portfolio of investment options covering a broad range of asset classes.
- 4. Control administrative and management costs.

INVESTMENT OPTION SELECTION AND EVALUATION

Investment Option Selection

Although the Plan is not subject to ERISA, the Committee's intent is to follow a process that embodies the principles of procedural due diligence. Accordingly, when selecting investment options, the Committee will employ a competitive search process, which includes the following steps:

- 1. Identification of qualified candidates from Investment Manager search databases maintained by the Investment Consultant (if applicable).
- 2. Analysis of qualified candidates in terms of:
 - Quantitative characteristics, such as GIPS-compliant composite return data, riskadjusted rates of return and relevant portfolio characteristics.
 - Qualitative characteristics, such as key personnel, investment philosophy, investment strategy, research orientation, decision-making process, and risk controls.
 - Organizational factors, such as type and size of firm, ownership structure, clientservicing capabilities, client growth and retention, and fees (including surrender charges and commissions).
- 3. Selection of finalist candidates based on a due diligence process. Investment options should meet the following minimum criteria:
 - Investment options should correspond to the asset classes outlined in this Investment Policy Statement. For example, the total domestic equities

component of this Investment Policy Statement should be implemented with a stock investment option invested primarily in domestic stocks.

- The Investment Manager should have been in place for three years or more, or must have a long term track record managing assets with a similar style at another investment fund or investment management firm.
- The same investment strategy should have been followed for at least three years (or the Investment Manager should have been following the same strategy for at least three years).
- Options should have total net assets exceeding \$300 million.
- Options should have a net expense ratio that is lower than the median (50th percentile) of their peer group unless above median expenses are justified by superior risk adjusted performance.
- Annuity contract providers shall have rating signifying financial strength as determined by nationally recognized statistical rating agencies such as Standard & Poor's, Moody's, and Fitch

Performance Evaluation and Review

The Committee will regularly evaluate the performance of each investment option. In evaluating each investment option, the Committee will consider qualitative factors likely to impact the future performance of the investment option in addition to current and historical rates of return. As part of that process, the Committee may consider the ranking of investment options relative to their peers using a comprehensive Scoring System proprietary to the Investment Consultant. (See Investment Consultant/Advisor's Investment Policy Monitoring Methodology document (if used).

A review process may include the following steps:

- 1. Communication with the Investment Manager and/or a representative from the investment management firm stating the reasons for the review, the steps of the review and the possible results (retain or terminate.)
- 2. A detailed quantitative analysis of the portfolio during the period of underperformance. The analysis will focus on attribution of returns and evaluation of characteristics of the portfolio relative to the investment option's stated style and relative to the characteristics of portfolios that performed well during the period in question.
- 3. A conference call and/or meeting with representatives of the investment management firm to gain insights into any organizational and managerial staff changes.
- 4. A review of information gathered from the quantitative analysis and interview. The review may lead to a decision to retain the investment option in a normal capacity, retain subject to improvement over a six-month to one-year period, or terminate.

The Committee reserves the right to remove any investment option at its discretion. However, the decision to retain or remove an investment option cannot be made by a formula. It is a judgment that is dependent on the Committee's confidence in future performance.

SERVICE PROVIDER SELECTION AND EVALUATION

In carrying out the policies of this Investment Policy Statement, the Committee may rely on various service providers, in addition to the Investment Managers, including, but not limited to: the Investment Consultant, Custodian, Third Party Administrator, and/or firms providing Plan participants individual investment advice or account management. Such service providers generally shall be evaluated and selected based on the following:

Furthering the Objectives of the Plan in a Cost-Effective Manner. Each service provider is intended to further the objectives of the Plan described in this Investment Policy Statement. The service providers shall be expected to deliver administratively efficient services and charge fees that are reasonable given the service(s) provided.

Core Business Commitment and Expertise. Service providers are intended to have a history of providing services to other retirement plans and its management should demonstrate an ongoing commitment to such business, and its employees should have a reputation among its clients for the quality of its services. The firm should show an appropriate knowledge of the Plan requirements and other applicable statutes and regulations. It should also be able to understand and communicate the Plan sponsor's business culture.

Fiduciary Status and Conflicts of Interest. To the extent required based on the services being provided to the Plan, the service provider shall acknowledge its role as a fiduciary to the Plan. Service providers are expected to disclose any potential conflicts of interest to the Committee.

REVENUE SHARING POLICIES

The Committee will analyze total fees, including revenue sharing, on a periodic basis to determine reasonableness of fees for services provided.

Prepared by:		Reviewed and Accepte	d:	
DocuSigned by:		DocuSigned by:		
Jeremy Tollas	3/30/2022	Brian Luth	4/4/2022	
CAPTRUST	Date	Committee Member	Date	

ADDENDUM A

Background Information

If an employee elects to participate in the ORP, the contribution rates are set at 3.5% for employee contributions and 11.5% for employer contributions. If the employee wishes to contribute more, they would have to participate in a supplemental plan, either a 403(b) or 457(b) plan.

Summary of Plan Responsibilities As of March 2022

Name of Plan: Kalamazoo Valley Community College Optional

Retirement Plan

Plan Sponsor: Kalamazoo Valley Community College

Committee Liaison: Brian Lueth

Advisory Committee: Kalamazoo Valley Community College Advisory

Committee

Investment Consultant: CAPTRUST

Plan Administrator: Kalamazoo Valley Community College

Plan Custodian/Directed Trustee: TIAA

Plan Recordkeeper/TPA: TIAA

Default Fund: TIAA CREF Lifecycle Inst

ADDENDUM B

Summary of Investment Options As of March 2022

Investment Asset Class	Investment Option	Index*	Peer Group
Money Market	Vanguard Federal Money Market	ICE BofA ML US Treasury Bill 3 Mon USD	Money Market
Fixed/Guaranteed	TIAA Traditional (annuity)	ICE BofA ML US Treasury Bill 3 Mon USD	Stable Value
Total International Fixed Income	Vanguard Total Intl Bd Index	BBgBarc Global Aggregate TR USD	World Bond
Total Domestic Fixed Income	Vanguard Total Bond Market Index	BBgBarc Aggregate Bond Index	Intermediate F/I
Total Balanced	Vanguard Balanced Index Adm	60% S&P 500, 40% BBgBarc Agg	Allocation50% to 70% Equity
Total Domestic Equities	Vanguard Total Stock Mkt Index Adm	S&P 500 Index	Large Blend
Total International Equities	Vanguard Total Intl Stock Index	MSCI EAFE	Foreign Large Blend
Aggressive Allocation	CREF Stock (annuity)	85% S&P 500, 15% BBgBarc Agg	Allocation85%+ Equity
Direct Real Estate	TIAA Real Estate Account (annuity)	NCREIF Property Index	Real Estate
Target Date	TIAA-CREF Lifecycle Institutional	Age Appropriate Morningstar Target Date Index	Target Date

^{*} The indices listed specifically within this IPS are broad in nature and reflective of the performance of the asset class(es) referenced. An investment fund employed in implementing a strategy may contain distinctive parameters. As such, the underlying holdings of the fund may differ from the underlying holdings of the broad benchmark. Where such conditions exist, a customized benchmark may be used internally by the investment consultant (if used) for the purpose of examining the manager's skill in greater detail. Indices are unmanaged, pay no transaction fees, reflect past performance and typically reflect the reinvestment of dividends and/or income. Unmanaged indices are fully invested and returns are gross of investment management fees. Investors cannot invest directly in these unmanaged indices.



Information Technology Security

- Audit Type: SOC 2, Type 2
- Audit as of Date: October 2020 September 2021
- Audit Opinion: Unqualified
- TIAA Cybersecurity Program is available for review at https://www.tiaa.org/public/cybersecurity-program.html
 - Additional information pertaining to their security posture is available at: https://tiaa.org/public/support/security-center.

Participant Protection

- As of Date: July 2021
- Should a security breach be deemed to occur, we will notify the plan sponsor, send all required breach notifications to affected individuals and make regulatory notifications, to the extent required. TIAA follows all applicable state and federal regulations regarding notification of affected individuals and regulators; TIAA also offers credit monitoring, identity theft repair and insurance at our expense

Response to DOL's Best Practices

- As of Date: August 2022
- TIAA has responded to the Department of Labor's (DOL) Cybersecurity Guidance. See the following pages to view their response.













Information Technology Security

SOC 2 report receives an above-baseline categorization, SOC 1 report receives a meets-baseline categorization, and no SOC report receives a below-baseline categorization. A qualified opinion in any report receives a below-baseline categorization. ISO certificates and other information security programs may also be considered.

CAPTRUST will review the SOC report and note its relevance to the services being performed, review any additional certificates or information security programs in use, and discuss any relevant findings with the service provider. Any applicable remediation plans will be noted. If CAPTRUST cannot obtain access to such information for a service provider, that will be noted, and no review will be performed.

Participant Protection

Participant fraud protection programs that do not require specific actions by the participant receive an above-baseline categorization. Participant fraud prevention programs that require certain reasonable actions by the participant to be taken in order to be valid will receive a baseline categorization. Recordkeepers with no fraud protection available to participants receive a below-baseline categorization.

Response to DOL's Best Practice

Recordkeepers that respond thoroughly to the DOL's 12 best practices will receive a baseline categorization. Those that do not provide detailed written, thorough responses to the DOL's 12 Best Practices will receive a below-baseline categorization.

Information Technology Security: As of September 2022

CAPTRUST acknowledges TIAA's SOC 2 Type II report of its recordkeeping platform, containing an unqualified opinion. SOC 2 reports provide valuable insights into an organization's risk and security posture based on AICPA's Trust Services Criteria within the scope of the engagement.

CAPTRUST also acknowledges that TIAA's Cybersecurity Program, publicly available at https://www.tiaa.org/public/cybersecurity-program.html. TIAA's program "seeks to prevent, protect and resolve issues relating to customer personal information. It includes physical, administrative, and technical controls to:

- Protect the security and confidentiality of client information of the TIAA companies;
- Defend against anticipated threats or hazards to the security or integrity of client information and business information of TIAA; and
- Protect against unauthorized access to or use of client information that could result in substantial harm or inconvenience to any client."

TIAA was responsive during the due diligence process and their assurance documentation communicates a commitment (through regular assessment) to maintaining appropriate security controls to protect its information assets.

TIAA can provide this documentation under nondisclosure agreement with the client.

Participant Protection: Information Provided by TIAA

Provide the degree to which the plan sponsor will be indemnified by the service provider for cybersecurity breaches.

At TIAA, we take responsibility for a security breach – as such term is defined under applicable law – occurring in our system; therefore, we do not expect that a plan sponsor would suffer any out-of-pocket losses requiring indemnification. We will notify the plan sponsor, send all required breach notifications to affected individuals and make regulatory notifications, to the extent required. We will also offer affected individuals a fully-paid credit monitoring for two years, in addition to other internal security measures.

Provide the degree to which the participant will be indemnified by the service provider for cybersecurity breaches.

At TIAA, we take responsibility for a security breach – as such term is defined under applicable law – occurring in our system; therefore, should a security breach be deemed to occur, we will notify the plan sponsor, send all required breach notifications to affected individuals and make regulatory notifications, to the extent required. We will also offer affected individuals a fully-paid credit monitoring service for two years, in addition to other internal security measures. Our practice is to reinstate a client's TIAA account in full if there is a loss that is determined to be the result of unauthorized activity through no fault of the client. At the same time, it is important that clients safeguard their account information by following common security practices. These practices are outlined in our website, TIAA.org. If there are indicators that a loss is attributable to client negligence, further investigation may be required before we can make a determination regarding restitution.

DOL's Best Practices: Information Provided by TIAA

1. A formal, well documented cybersecurity program

Teachers Insurance and Annuity Association of America (also "TIAA") has a formal, well-documented cybersecurity program. TIAA is an insurance company regulated by the New York Department of Financial Services, as well as a savings and loan holding company subject to the oversight of the Federal Reserve Bank of Boston. As such, TIAA is required to maintain a written, risk-based cybersecurity program ("Cybersecurity Program") pursuant to the Gramm Leach Bliley Act of 1999 ("GLBA"), the Fair Credit Reporting Act ("FCRA") as amended by the Fair and Accurate Credit Transactions Act of 2003 ("FACT Act"), the respective regulations promulgated thereunder, including the Federal Financial Institutions Examination Council (FFIEC) Examination Guidance and the NY DFS Cybersecurity Regulation, and applicable state privacy laws, including but not limited to 201 CMR 17.00 et. seq. Our Cybersecurity Program is also mapped against the International Organization for Standardization/the International Electrotechnical Commission (ISO/IEC 27002) and the National Institute of Standards and Technology (NIST) Cybersecurity Framework and is consistent with the DOL's "Cybersecurity Program Best Practices."

Within TIAA's Cybersecurity Program, the privacy and security of our clients' information is the top priority. TIAA combines technology, people, and process to protect client data and to identify, prevent, defend against, and respond to anticipated threats. TIAA's Cybersecurity Program is documented in enterprise policies, control standards, and standard operating procedures that reflect the procedural aspects of operations.

The policies, standards, and operational components of our Cybersecurity Program are regularly reviewed by internal stakeholders, assessed by internal and external auditors, and examined by regulators.

DOL's Best Practices: Information Provided by TIAA (continued)

Prudent annual risk assessments

TIAA operates a robust enterprise risk management framework with explicit first, second, and third lines

of defense. Cybersecurity operates within that risk framework and performs detailed risk assessments on TIAA's Information Technology ("IT") assets (including, but not limited to, business applications, servers, databases, network devices, end user devices, and suppliers). Risk classification occurs at least annually, and subsequent control assessments are performed with varied frequency based on inherent risk ratings. Emerging risks and technologies are also consistently evaluated, and new assessment capabilities are developed and put into operation as needed.

Risk assessment details are formally documented and any findings are reviewed in accordance with TIAA's enterprise risk management framework and managed accordingly.

Within the enterprise risk management framework, TIAA additionally conducts various vulnerability assessments and employs external parties to perform targeted penetration and vulnerability assessments against our systems and networks. TIAA regularly updates its computing environment with security vulnerability patches and other similar safeguards to address identified risks.

3. A reliable annual third-party audit of security controls

TIAA's Cybersecurity Program is risk-based, consistent with regulatory obligations and examination guidance applicable to financial institutions, industry standards and the DOL guidance. This risk-based approach requires the adoption, implementation and review of controls to minimize risks to customer information and includes the Federal Financial Institutions Examination Council (FFIEC) booklets, International Organization for Standardization/the International Electrotechnical Commission (ISO/IEC 27002), National Institute of Standards and Technology (NIST), as applicable.

DOL's Best Practices: Information Provided by TIAA (continued)

3. A reliable annual third-party audit of security controls (continued)

TIAA is regularly assessed by internal and external auditors, and engages a nationally recognized accounting firm to issue Statement on Standards for Attestation Engagements No. 18 (SSAE18) (formerly SSAE16, SAS70) SOC1 and SOC2 reports for Defined Contribution Retirement Recordkeeping annually. The reports include a transparent view of TIAA's business operations, as well as our cybersecurity, and IT availability controls.

With regards to cybersecurity, the most recent SOC2 covers the period of 10/1/2020 to 9/30/2021 and has an unqualified opinion and zero exceptions. TIAA is happy to provide its SOC2 results to clients, upon request.

4. Clearly defined and assigned information security roles and responsibilities

TIAA's management, in particular the Board of Directors and Senior Executive Management, is responsible for overseeing the execution and delivery of TIAA's Cybersecurity Program through TIAA's Chief Information Security Officer (CISO). The CISO role is a dedicated executive position with principal responsibility for overseeing TIAA's Cybersecurity Program as dictated in TIAA's IT policies, standards, and operating procedures.

DOL's Best Practices: Information Provided by TIAA (continued)

4. Clearly defined and assigned information security roles and responsibilities (continued)

The CISO also chairs TIAA's Information Security Leadership Committee (ISLC) which has been established with representation from Technology, Legal, Operations Risk, Compliance, Business Operations, Internal Audit, and others to:

- Create enterprise strategic planning for security priorities
- Recommend and approve IT policies and standards for enterprise adoption
- Ensure cross-functional collaboration on all security incidents
- · Identify, select and adapt controls based on identified threats, risks and cost-benefit analysis
- Provide guidance and leadership for protecting information from unauthorized access, destruction, modification, and disclosure
- Initiate and monitor associated risk action plans, progress against plans, and supporting performance and operational metrics
- · Leverage and implement IT risk best practices across all business areas
- Coordinate corporate security initiatives at the senior leader level
- Ensure representation from all business areas to provide a firm-wide approach to information security

DOL's Best Practices: Information Provided by TIAA (continued)

5. Strong access control procedures

TIAA's Cybersecurity Program maintains a comprehensive identity and access management program that provides oversight on the following related controls for TIAA's workforce:

- Systems access and entitlements are granted on a need-to-know basis. Only the minimum level of access required for successful job completion is permitted.
- Systems access and entitlements are reviewed by management on a recurring basis and revoked when job functions change or upon separation from TIAA. Initial access and entitlements are only provisioned with appropriate management approvals.
- · Password requirements are based on industry best practices.
- Multi-factor authentication is required to access TIAA's network.
- TIAA's participant websites implement risk-based adaptive multi-factor authentication to secure user authentication and sensitive transactions; users can elect to always use a one-time PIN or biometrics (on TIAA's mobile app and IVR) to authenticate.

DOL's Best Practices: Information Provided by TIAA (continued)

6. Assets or data stored in a cloud or managed by a third-party service provider are subject to appropriate security reviews and independent security assessments

TIAA operates a robust enterprise risk management framework with explicit first, second, and third lines of defense. As part of that framework, TIAA operates an explicit Supplier Risk Management function that oversees initial and recurring risk assessments of suppliers. Suppliers are assessed against TIAA's policies and standards before engagement and risks are documented, classified, and managed. Suppliers are reassessed on a recurring basis.

TIAA's contracts with suppliers address cybersecurity concerns as stated in the DOL guidelines.

7. Cybersecurity awareness training conducted at least annually for all personnel and updated to reflect risk identified by the most recent risk assessment

TIAA operates an enterprise-wide cybersecurity training and awareness program that drives a culture of security accountability across TIAA's workforce. The program aims to ensure TIAA's workforce understands comprehensive security is the responsibility of every employee at TIAA, and not just the responsibility of cybersecurity professionals or technological controls. TIAA's workforce is educated to recognize attack vectors, maintain vigilance, and on how to report any potential threats.

TIAA's workforce is required to complete formal risk management and cybersecurity training upon joining the company and also on a recurring basis. TIAA further provides targeted online training to certain employees based on their role or at-risk behaviors. Examples of this more targeted formal training can include extensive training on secure coding for employees operating in software development roles and specialized training for privileged users. Training completion is monitored, recorded and reported to management.

DOL's Best Practices: Information Provided by TIAA (continued)

7. Cybersecurity awareness training conducted at least annually for all personnel and updated to reflect risk identified by the most recent risk assessment (continued)

TIAA also conducts recurring phishing email simulations across TIAA's workforce. Phishing continues to be an effective attack vector for malicious parties, and this program drives vigilance and accountability around these dangers. Phishing simulation results are reported to TIAA's Board of Directors to ensure proper visibility and oversight. TIAA additionally sponsors recurring cybersecurity-related enterprise communications and enterprise-wide events that remind employees of their security responsibilities. TIAA's phishing awareness program was awarded a 2022 CSO50 award for innovation, details are accessible below.

Within TIAA's Cybersecurity Program, TIAA further ensures its cybersecurity workforce undergoes continuous training on security tools, emerging threats and cybersecurity concepts. TIAA has a strong academic relationship with New York University (NYU) and has a significant number of employees pursuing cyber-related graduate degrees at the school, the most of any of NYU's current industry partners. To recognize this outstanding commitment to cybersecurity education, TIAA was awarded a CSO50 Award in early 2021.

DOL's Best Practices: Information Provided by TIAA (continued)

8. Secure system development life cycle (SDLC) program

TIAA's software development teams adhere to a policy-based secure systems development life cycle (SDLC) methodology to manage software development and ongoing systems maintenance. This methodology, and associated governance activities, ensure proper software development procedures. These procedures include, but are not limited to, planning, analysis, design, development, testing, and user documentation, and further include analysis, design, implementation, and testing of security requirements. Using a risk-based approach, the methodology requires software development teams to collaborate with Cybersecurity Architects and cybersecurity subject matter experts to help ensure security policy and standards are included. Developers additionally deploy integrated vulnerability scanning tools and use a risk-based approach to remediate findings accordingly. Developers are required to undergo formal training on secure coding and tools.

TIAA's policies and standards dictate security features and functionality that must be included in appropriate transaction-based software to ensure alerts, logging, and additional user validation (i.e., multi- factor authentication for certain transactions) are in place, per regulatory guidance. As part of TIAA's enterprise risk management framework, business applications (regardless of source or hosting) are assessed for risk against all applicable policies and standards on a recurring basis.

TIAA additionally conducts network, host, and application vulnerability and risk assessments, and employs external parties to perform targeted penetration and vulnerability assessments against systems and networks. TIAA regularly updates its computing environment with security vulnerability patches and other similar safeguards to address identified risks.

DOL's Best Practices: Information Provided by TIAA (continued)

A business resiliency program which effectively addresses business continuity, disaster recovery and incident response

TIAA has well-documented business continuity and disaster recovery programs and plans that are regularly reviewed and tested. Business-critical functions are required to have procedures in place to make sure business operations can continue in an emergency. TIAA's business continuity plan covers operational criteria including, but not limited to:

- · Backing up and recovering data
- · Building redundancy into all critical systems
- Maintaining geographically diverse business center locations, personnel, processes and technology
- Minimizing financial, operational and credit risk exposures
- Establishing alternate ways to communicate with our participants
- · Confirming emergency contacts and alternate business facilities for our employees
- Arranging emergency procedures with critical business partners, such as banks
- Communicating with and reporting to regulators
- Ensuring participants have prompt access to their accounts and funds

DOL's Best Practices: Information Provided by TIAA (continued)

10. Encryption of sensitive data stored and in transit

TIAA's Cybersecurity Program implements a comprehensive data loss prevention program that defines data classification parameters, educates TIAA's workforce on those parameters, provides tools to support data classification efforts, and implements numerous controls to reduce the risk of any unauthorized data exposure. These controls include, but are not limited to, encryption of sensitive data in storage, encryption of sensitive data in transit, encryption of portable employee devices, and network monitoring.

The controls implemented by TIAA's data loss prevention program are dictated by TIAA's IT policies and standards.

11. Strong technical controls implementing best security practices

TIAA's Cybersecurity Program implements numerous layers of comprehensive technologies to prevent, detect, and respond to malicious activity and to protect client data and company assets from anticipated threats. TIAA implements the latest in firewall, intrusion prevention, antivirus, backup, and other technologies. Recurring scanning is conducted to identify vulnerabilities in hardware, software, and firmware models, and versions and stringent patching requirements are enforced, monitored, and reported to management.

DOL's Best Practices: Information Provided by TIAA (continued)

12. Responsiveness to cybersecurity incidents or breaches

TIAA implements and maintains a multi-disciplinary, enterprise-wide incident response program based on the banking regulators' "Interagency Guidance on Response Programs for Unauthorized Access to Customer Information and Customer Notice." In the event of an incident or breach, there are procedures in place to investigate, contain, and mitigate the impact and risk to clients and the enterprise, as well as to restore capabilities or services that were impacted. As part of our incident response plan, if there was a breach of customer data, TIAA follows all applicable state and federal regulations regarding notification of affected individuals and regulators; TIAA also offers credit monitoring, identity theft repair and insurance at our expense. It is also TIAA's practice to reinstate a participant's account for any financial losses that may occur due to unauthorized access to the account, through no fault of their own. For more details please read the Customer Protection Policy details on TIAA.org.

PLAN SPONSOR ACTION ITEMS

- 1. Ask for a copy of your provider's SOC report annually. These are generally distributed under nondisclosure agreement. Look for an unqualified opinion from the auditor. If there is a qualified or no opinion given, ask your vendor for more information.
- 2. Consider any third-party or additional data from sources considered to be reliable in your assessment of each vendor.
- 3. Review a copy of your provider's service contract and look for verbiage related to indemnification in the event of a cybersecurity breach or cybersecurity fraud. Look for references to cybersecurity insurance retained by the vendor to cover such incidents. Ask legal counsel to review.
- 4. Understand participant indemnification policies and any required actions needed on behalf of account holders. Communicate these policies to participants periodically.
- 5. Ask for a written response to the DOL's 12 Best Practices annually. Review these answers and ask any follow up questions needed for clarity or regarding areas of concern.
- 6. Communicate the DOL's best practices, "Online Security Tips for Participants and Beneficiaries" to account holders in the plan periodically.

WHAT'S IN A SOC REPORT

The most common type of information security audit report is a Service Operational Control (SOC) report that validates a company's security program. In a SOC report, auditors determine if a company is following established policies and procedures consistently. There are two different SOC reports available. Each covers a different scope of services.



SOC 1

Tests internal controls and risks associated with financial reporting (as defined by the provider)



SOC 2

Tests data privacy and security, confidentiality, processing integrity, and availability controls

A SOC report can be a Type 1 or Type 2. Type 1 tests internal controls as of a specified point in time. Type 2 reports test internal controls over a consecutive 6- to 12-month period. SOC audit reports must be performed by a licensed CPA firm and are typically updated annually.

WHAT'S IN A SOC REPORT (CONTINUED)



A FEW KEY AREAS TO PAY ATTENTION TO IN A SOC REPORT

- 1. Scope of the audit—What systems were included and tested.
- 2. The Auditor's Opinion—Unqualified or nonqualified opinions indicate that controls tested in the report are presented fairly, suitably designed and operating effectively; Qualified opinions indicate that controls mostly align with standards but miss the mark in a few areas; Adverse opinions are the strongest indication that the service organization has "materially failed" the audit; Disclaimers are technically not opinions but rather a position where the auditor cannot issue one due to insufficient evidence (effects could both be material or pervasive).
- **3. Other Information**—This section may provide useful information for evaluation that was not included in the scope of the audit, including information on business continuity, incident response, and disaster recovery.
- **4. Exceptions**—You should note any relevant exceptions found during testing, particularly in critical areas that may impact your specific service. The report should also note any actions taken by management to address exceptions. If no documented actions are described in the report, you should ask the company to provide those responses for review.

Plan Review Kalamazoo Valley Community College

Optimizing plan effectiveness to help drive better outcomes

Delivered by: Ruben Barrera

As of December 31, 2022





Welcome to your Plan Review

What's the purpose of this report?

To help you answer three important questions to drive better outcomes:



- How well is your plan working to prepare employees for retirement?
- Are your participants on track to retire with sufficient income?
- What actions can be taken to make your plan more effective?

What's inside?



- Executive summary with key plan metrics, including your plan's income replacement ratio.
- Plan and participant details, including information about participants receiving lifetime income from your plan.
- In-depth information about retirement readiness drivers—employee engagement, investment solutions and plan management.

Why is income replacement important?



- Within the executive summary, you'll find your plan's income replacement ratio. We believe it's the best way to evaluate retirement readiness and plan success.
- The income replacement ratio measures how much income employees will be able to replace in retirement based on their current situations—like savings rate, investments and salary.¹

How do I get started?

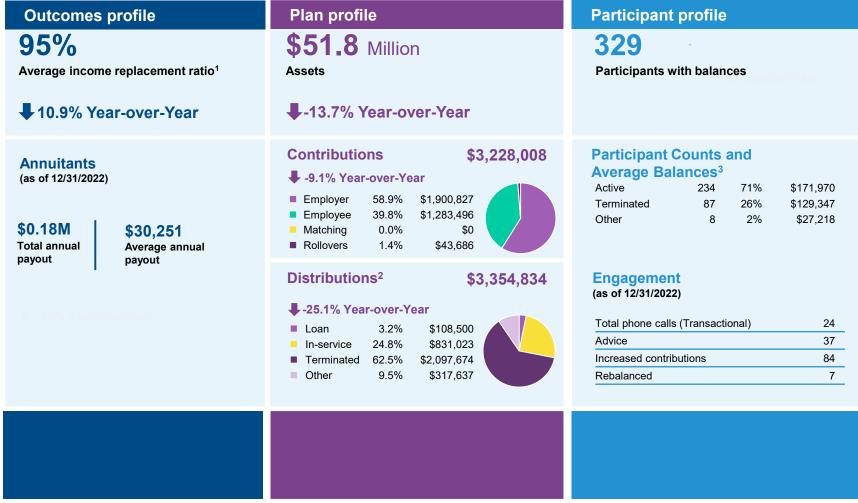




- 2. Identify opportunities for improvement.
- 3. Contact your TIAA relationship manager or call the Administrator Telephone Center at **888-842-7782** to develop an action plan.

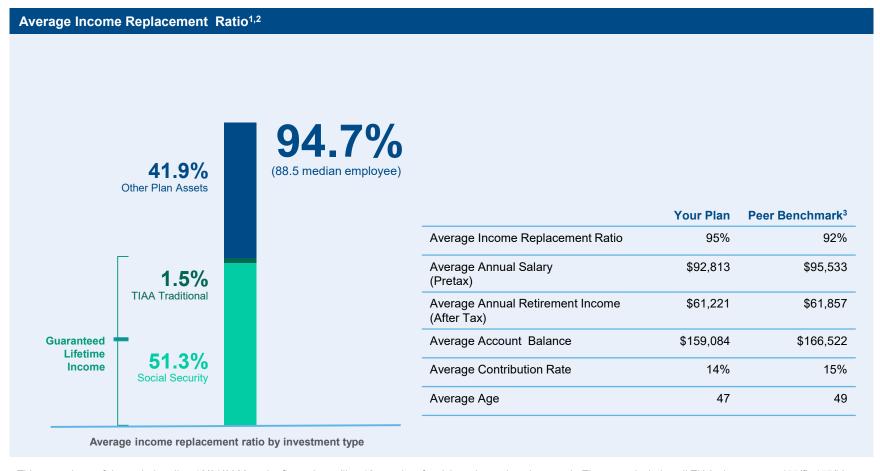
1. When your employees' salary data is provided, an actual income replacement ratio is calculated; otherwise, estimated salary is used.

Executive summary: Snapshot



This report is as of the period ending 12/31/2022 and reflects the trailing 12 months of activity unless otherwise noted. The report includes all TIAA plans except 457(f), 457(b) Private, Nonqualified Deferred Compensation, and Retirement Healthcare plans. This report excludes details on non-participant accounts (forfeiture and revenue credit account) but includes the balances. 1. Refer to the "Income replacement ratio methodology and assumptions" page. 2. Certain Distributions (e.g., QDRO, Disability or Age 70.5 Minimum Distribution) may be categorized under In-Service, Terminated or Other. Please see the Glossary for additional information. 3. "Active" participants have a status of Active or Leave, a balance greater than zero and have made a contribution in the last 12 months. "Terminated" participants have a status of Terminated and a balance. "Other" represents all other participants in the plans (other status codes and non-contributing) with a balance.

Executive summary: TIAA Plan Outcome Assessment®



This report is as of the period ending 12/31/2022 and reflects the trailing 12 months of activity unless otherwise noted. The report includes all TIAA plans except 457(f), 457(b) Private, Nonqualified Deferred Compensation, and Retirement Healthcare plans.

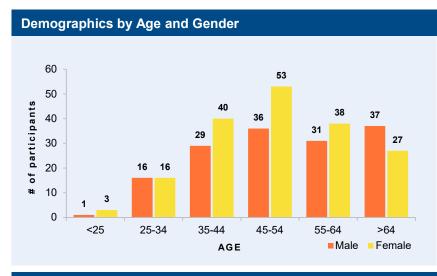
^{1.} This report uses estimated salary and/or compensation data. 2. Refer to the "Income replacement ratio methodology and assumptions" page. 3. The TIAA benchmark reflects institutions in the Michigan Community College Human Resources Association group.

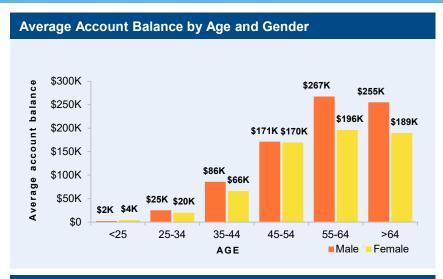
Employee Summary

Important plan and participant details

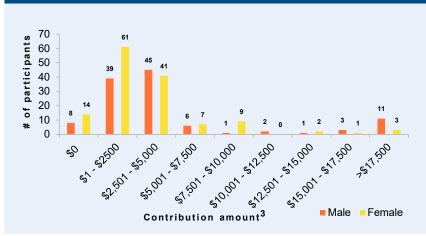


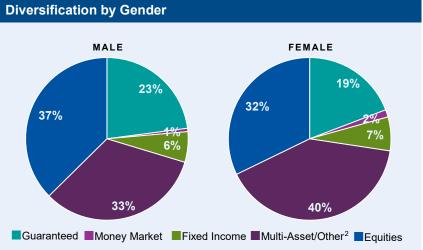
Employee summary: Gender and age¹











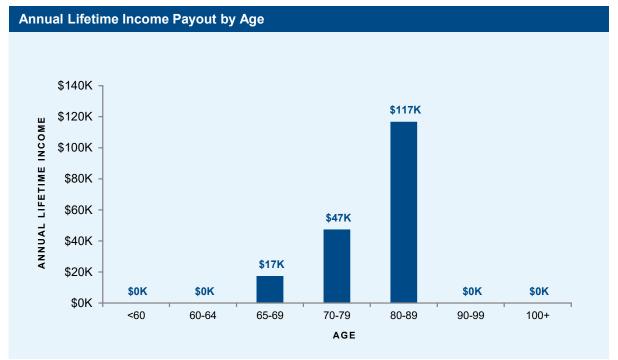
This report is as of the period ending 12/31/2022 and reflects the trailing 12 months of activity unless otherwise noted. The report includes all TIAA plans except 457(f), 457(b) Private, Nonqualified Deferred Compensation, and Retirement Healthcare plans. 1. Data reflected is for all participant statuses except Employee Contribution Amounts by Gender which includes only active or leave status. Does not include 2 participants with no age or gender on file. 2. Multi-Asset/Other includes Lifecycle, Real Estate, and Brokerage. 3. Contribution data reflects the trailing 12 months of data.

Annuitants: Lifetime income summary as of 12/31/2022

6
Total annuitants with assets
77
Average age
11.7

Average years annuitized

Age	<60	60-64	65-69	70-79	80-89	90-99	100+
Annuitants	0	0	1	2	3	0	0
Average Payout	\$0	\$0	\$17,365	\$23,700	\$38,913	\$0	\$0



\$0.18 million

Total annual payout

\$30,251

Average annual payment

\$70,369

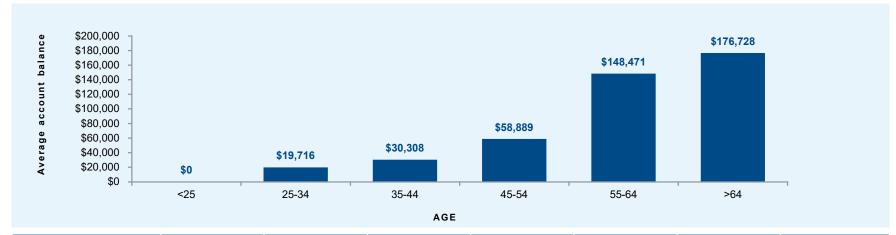
Largest annual payment

23 years

Longest number of years paid

This report is as of the period ending 12/31/2022 and reflects the trailing 12 months of activity unless otherwise noted. The report includes all TIAA plans except 457(f), 457(b) Private, Nonqualified Deferred Compensation, and Retirement Healthcare plans.

Terminated participants: Summary



Age	<25	25-34	35-44	45-54	55-64	>64	Total
Total Terminated Participants	0	3	11	13	18	42	87
Terminated Participants as % of All Participants in Age Range	0%	9%	16%	15%	26%	65%	26%
Total Terminated Assets	\$0	\$59,149	\$333,383	\$765,551	\$2,672,484	\$7,422,580	\$11,253,147
Terminated Assets as % of All Plan Assets in Age Range	0%	8%	7%	5%	17%	50%	22%
# of Participants with <\$1,000 balance	0	0	1	0	2	2	5
# of Participants with >= \$1,000 and < \$5,000 balance	0	0	1	1	0	4	6

This report is as of the period ending 12/31/2022 and reflects the trailing 12 months of activity unless it is otherwise noted. The report includes all TIAA plans except 457(f), 457(b) Private, Nonqualified Deferred Compensation, and Retirement Healthcare plans. This slide includes participants with a status of "Terminated" in at least one plan, and some of these participants may have a status as active in other plans.

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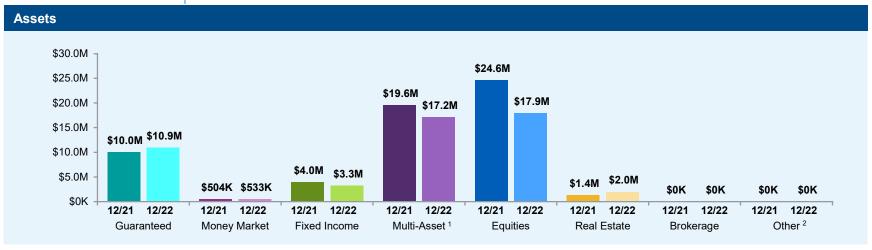
Monitoring investments

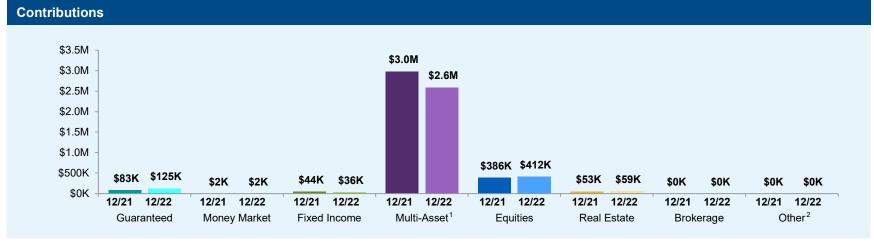
Simplify your investment lineup. Make it easy for participants to choose and easy for you to monitor.



Assets & contributions by asset class year-over-year







This report is as of the period ending 12/31/2022 and reflects the trailing 12 months of activity unless otherwise noted. The report includes all TIAA plans except 457(f), 457(b) Private, Nonqualified Deferred Compensation, and Retirement Healthcare plans. 1. Multi-Asset includes Lifecycle funds. 2. Other includes uncategorized assets.

Investment/account utilization by assets

	Participant Count	Total Assets	Balance % of Total	0% 50%
TIAA Traditional	93	\$10,840,118	20.92%	20.92%
CREF Stock R1	78	\$3,425,782	6.61%	6.61%
CREF Growth R1	29	\$2,830,545	5.46%	5.46%
TIAA-CREF Lifecycle 2035-Inst	37	\$2,201,461	4.25%	4.25%
TIAA Real Estate	81	\$1,981,368	3.82%	3.82%
Total as a % of total assets		\$21,279,273	41.07%	_

			Participant Count	Total Assets		0% 0%
■ Vanguard Federal Mone	ey Mkt Inv		3	\$18,930	0.04%	0.04%
■ TIAA-CREF Lifecycle 20	065-Inst		2	\$4,745	0.01%	0.01%
■ TIAA-CREF Lfcyle Rtmt	Inc-Inst		1	\$2,326	0.00%	0.00%
■ TIAA Access Lifecycle 2	015 T2		2	\$870	0.00%	0.00%
■ TIAA Access Lifecycle 2	2010 T2		1	\$35	0.00%	0.00%
Total as a % of total	assets			\$26,906	0.05%	
Guaranteed	■Money Market	■Fixed Income	■Multi-Asset ■E	guities Re	eal Estate	■Other ¹

This report is as of the period ending 12/31/2022 and reflects the trailing 12 months of activity unless otherwise noted. The report includes all TIAA plans except 457(f), 457(b) Private, Nonqualified Deferred Compensation, and Retirement Healthcare plans. 1. Other includes uncategorized and brokerage assets.

Investment/account utilization by contributions

	Participant Count	Total Assets	Balance % of Total	0%	20%
TIAA-CREF Lifecycle 2035-Inst	31	\$468,075	14.50%		14.50%
TIAA-CREF Lifecycle 2040-Inst	29	\$361,380	11.20%		11.20%
TIAA-CREF Lifecycle 2030-Inst	22	\$321,046	9.95%		9.95%
TIAA-CREF Lifecycle 2025-Inst	24	\$286,272	8.87%		8.87%
TIAA-CREF Lifecycle 2050-Inst	29	\$283,513	8.78%		8.78%
Total as a % of total assets		\$1,720,286	53.29%		

			Participa Cou		Total Assets	Balance % of Total	0%	1%
Vanguard Ttl Bd Mkt Idx	Adm		1	3 9	527,239	0.84%		0.849
Vanguard Ttl Intl Bnd Id:	k Adm			8	\$8,685	0.27%	0.27%	
TIAA-CREF Lifecycle 20	65-Inst			2	\$4,675	0.14%	0.14%	
Vanguard Federal Mone	y Mkt Inv			1	\$1,631	0.05%	0.05%	
TIAA-CREF Lfcyle Rtmt	Inc-Inst			1	\$365	0.01%	0.01%	
Total as a % of total	assets			9	642,595	1.32%	_	
							_	
Guaranteed	■Monev Market	■Fixed Income	■Multi-Asset	Equities	■R <i>e</i>	eal Estate	■Other ¹	

This report is as of the period ending 12/31/2022 and reflects the trailing 12 months of activity unless otherwise noted. The report includes all TIAA plans except 457(f), 457(b) Private, Nonqualified Deferred Compensation, and Retirement Healthcare plans. 1. Other includes uncategorized and brokerage assets.

	Total number of participants invested	Contribution amount	Contribution percentage of total	Asset amount	Asset percentage of total
Total		\$3,228,008		\$51,812,082	
GUARANTEED ¹					
TIAA Traditional	93	\$124,526	3.86%	\$10,840,118	20.92%
Guaranteed Total		\$124,526	3.86%	\$10,840,118	20.92%
MONEY MARKET					
Vanguard Federal Money Mkt Inv	3	\$1,631	0.05%	\$18,930	0.04%
CREF Money Market R1	16	\$0	0.00%	\$513,864	0.99%
Money Market Total		\$1,631	0.05%	\$532,793	1.03%
FIXED INCOME					
TIAA Access-WAM Core PI Bd T2	38	\$0	0.00%	\$791,703	1.53%
TIAA Access High-Yield T2	31	\$0	0.00%	\$347,887	0.67%
TIAA Access Core Bond Plus T2	7	\$0	0.00%	\$128,447	0.25%
TIAA Access Short-Term Bond T2	21	\$0	0.00%	\$906,598	1.75%
Vanguard Ttl Intl Bnd Idx Adm	22	\$8,685	0.27%	\$170,391	0.33%
Vanguard Ttl Bd Mkt ldx Adm	26	\$27,239	0.84%	\$278,178	0.54%

	Total number of participants invested	Contribution amount	Contribution percentage of total	Asset amount	Asset percentage of total
FIXED INCOME (Continued)					
CREF Core Bond R1	21	\$0	0.00%	\$325,500	0.63%
CREF Inflation-Linked Bond R1	24	\$0	0.00%	\$330,712	0.64%
Fixed Income Total		\$35,924	1.11%	\$3,279,416	6.33%
MULTI-ASSET					
TIAA Access Lifecycle 2010 T2	1	\$0	0.00%	\$35	0.00%
TIAA Access Lifecycle 2015 T2	2	\$0	0.00%	\$870	0.00%
TIAA Access Lifecycle 2020 T2	4	\$0	0.00%	\$207,430	0.40%
TIAA Access Lifecycle 2025 T2	10	\$0	0.00%	\$1,285,076	2.48%
TIAA Access Lifecycle 2030 T2	8	\$0	0.00%	\$140,419	0.27%
TIAA Access Lifecycle 2035 T2	13	\$0	0.00%	\$816,977	1.58%
TIAA Access Lifecycle 2040 T2	13	\$0	0.00%	\$299,454	0.58%

	Total number of participants invested	Contribution amount	Contribution percentage of total	Asset amount	Asset percentage of total
MULTI-ASSET (Continued)					
TIAA Access Lifecycle 2055 T2	5	\$0	0.00%	\$81,614	0.16%
TIAA Access Lifecycle 2045 T2	21	\$0	0.00%	\$962,807	1.86%
TIAA Access Lifecycle 2050 T2	22	\$0	0.00%	\$502,539	0.97%
TIAA Access Lifecycle 2060 T2	3	\$0	0.00%	\$32,822	0.06%
TIAA-CREF Lifecycle 2060-Inst	8	\$42,750	1.32%	\$91,060	0.18%
Vanguard Balanced Idx InstAdm	43	\$161,029	4.99%	\$947,492	1.83%
TIAA-CREF Lifecycle 2065-Inst	2	\$4,675	0.14%	\$4,745	0.01%
TIAA-CREF Lifecycle 2010-Inst	9	\$108,778	3.37%	\$648,078	1.25%
TIAA-CREF Lifecycle 2015-Inst	10	\$44,829	1.39%	\$335,639	0.65%

	Total number of participants invested	Contribution amount	Contribution percentage of total	Asset amount	Asset percentage of total
MULTI-ASSET (Continued)					
TIAA-CREF Lifecycle 2020-Inst	15	\$147,066	4.56%	\$1,802,070	3.48%
TIAA-CREF Lifecycle 2025-Inst	28	\$286,272	8.87%	\$1,645,709	3.18%
TIAA-CREF Lifecycle 2030-Inst	22	\$321,046	9.95%	\$1,318,908	2.55%
TIAA-CREF Lifecycle 2035-Inst	37	\$468,075	14.50%	\$2,201,461	4.25%
TIAA-CREF Lifecycle 2040-Inst	25	\$361,380	11.20%	\$1,414,442	2.73%
TIAA-CREF Lifecycle 2045-Inst	28	\$239,481	7.42%	\$777,944	1.50%
TIAA-CREF Lifecycle 2050-Inst	32	\$283,513	8.78%	\$770,957	1.49%
TIAA-CREF Lfcyle Rtmt Inc-Inst	1	\$365	0.01%	\$2,326	0.00%
CREF Social Choice R1	18	\$0	0.00%	\$687,972	1.33%

	Total number of participants invested	Contribution amount	Contribution percentage of total	Asset amount	Asset percentage of total
MULTI-ASSET (Continued)					
TIAA-CREF Lifecycle 2055-Inst	16	\$125,272	3.88%	\$189,890	0.37%
Multi-Asset Total		\$2,594,531	80.38%	\$17,168,734	33.14%
EQUITIES					
TIAA Access Intl Equity T2	43	\$0	0.00%	\$359,627	0.69%
TIAA Access Growth & Income T2	23	\$0	0.00%	\$571,440	1.10%
TIAA Access Lg-Cap Val T2	27	\$0	0.00%	\$407,014	0.79%
TIAA Access Social Ch Eq T2	25	\$0	0.00%	\$285,034	0.55%
TIAA Access Mid-Cap Gr T2	33	\$0	0.00%	\$288,734	0.56%
TIAA Access Mid-Cap Val T2	36	\$0	0.00%	\$454,540	0.88%
TIAA Access Quant Sml Cp Eq T2	17	\$0	0.00%	\$212,852	0.41%
TIAA Access Intl Equity Idx T2	53	\$0	0.00%	\$1,117,903	2.16%

	Total number of participants invested	Contribution amount	Contribution percentage of total	Asset amount	Asset percentage of total
EQUITIES (Continued)					
TIAA Access Lg-Cap Gr Idx T2	9	\$0	0.00%	\$585,214	1.13%
TIAA Access S&P 500 Index T2	28	\$0	0.00%	\$483,491	0.93%
TIAA Access Equity Index T2	3	\$0	0.00%	\$158,507	0.31%
TIAA Access Lg-Cap Val ldx T2	41	\$0	0.00%	\$504,252	0.97%
TIAA Access Sm-Cap Bl Idx T2	41	\$0	0.00%	\$536,096	1.03%
TIAA Access Real Est Secs T2	52	\$0	0.00%	\$395,364	0.76%
TIAA Access TRP Lg Cp Gr I T2	32	\$0	0.00%	\$483,657	0.93%
Vanguard Ttl Intl Stk Idx Adm	48	\$91,749	2.84%	\$639,947	1.24%
Vanguard Ttl Stk Mkt Idx Adm	55	\$259,456	8.04%	\$1,857,456	3.58%

	Total number of participants invested	Contribution amount	Contribution percentage of total	Asset amount	Asset percentage of total
EQUITIES (Continued)					
CREF Stock R1	78	\$61,037	1.89%	\$3,425,782	6.61%
CREF Global Equities R1	33	\$0	0.00%	\$1,350,277	2.61%
CREF Growth R1	29	\$0	0.00%	\$2,830,545	5.46%
CREF Equity Index R1	18	\$0	0.00%	\$956,083	1.85%
Equities Total		\$412,243	12.77%	\$17,903,812	34.55%
REAL ESTATE					
TIAA Real Estate	81	\$59,155	1.83%	\$1,981,368	3.82%
Real Estate Total		\$59,155	1.83%	\$1,981,368	3.82%
OTHER ²					
Loan Fund	9	\$0	0.00%	\$103,785	0.20%
Deemed Loan	1	\$0	0.00%	\$2,054	0.00%
Other Total		\$0	0.00%	\$105,839	0.20%

Appendix



Term	Definition
Active Participants	Participants with a status of "Active" or "Leave" that have a balance greater than zero and have made a contribution in the last 12 months.
Advice	Specific investment recommendations, either in person, online or over the phone, that are tailored to individual circumstances, including variables such as age, current savings rates, plan investments and tolerance for risk.
Annuitants	Persons receiving benefits under a TIAA annuity contract.
Average Annual Payout	The average annual amount that all annuitants are receiving for income generated from an institution's plan(s).
Average Projected Monthly Payout	The average monthly amount that participants may receive in their retirement years for income generated from the institution's plan(s).
Average Guaranteed Income	Sources of income that are expected to continue for the participant's lifetime (e.g., Social Security, TIAA Traditional, Defined Benefits).
Average Projected Monthly Income	The average after-tax retirement income your participants are projected to receive from your TIAA plan(s).
Consolidations	The number of participants who transfer balances from other service providers into TIAA retirement accounts.
Contributing Participants	Participants that have made a contribution in the last 12 months.
Contribution Rate	Annual contributions as a percentage of annual salary.
Defaulted Loans	Loans for which the participant missed the expected repayment and failed to pay the total overdue amount prior to the end of the calendar quarter following the calendar quarter in which the payment was due.

Term	Definition
Defaulted Participants	Participants who have not made an investment allocation election and whose contributions have been directed to the plan's default investment.
Distributions	Includes, but is not limited to, the following categories: Loan, Hardship, In-Service, Terminated & Other. "Other" includes: Annuity Settlement Options, Death Benefits, Plan Loan Defaults, Withdrawals due to Opt-Out Option & Test Failure. In-Service and Terminated may include one or more of these categories: Voluntary Termination, Withdrawal, Death, Beneficiary, Installment Payment, Age 70.5 Minimum Distribution, QDRO, Hardship, Disability, Unforeseen Emergency, Full Withdrawal, Unknown, IRA Recharacterization, Excess Aggregate Contribution, Excess Contribution, Excess Deferral, Excess Annual Addition.
Early Engagement	A communication program that supports participants through their online account setup, plan review and goal setting and gives them an overview of the resources available to them at TIAA.
In Range	Participants who are on target to cover their essential retirement expenses such as housing, food and healthcare but aren't yet on target to replace the income needed to maintain their current standard of living in retirement. The target income replacement rates for participants in this group vary by their current salary (pretax) and are listed below: • Current salary <\$50K: Targeted to replace 80% - 100% of after-tax income in retirement • Current salary \$50K - \$100K: Targeted to replace 60% - 85% of after-tax income in retirement • Current salary >\$125K: Targeted to replace 50% - 70% of after-tax income in retirement
Income Replacement Ratio	The percentage of current salary that is estimated to be replaced during retirement, calculated using multiple variables (e.g., contribution rate, investments, salary). This is a way to visualize how ready your employees are for retirement.
Lifetime Income	An arrangement that provides fixed or variable income payments for the life of the annuitant.
Needs Action	Participants who aren't yet on target to cover essential expense needs in retirement such as housing, food and healthcare. The target income replacement rates for participants in this group vary by their current salary (pretax) and are listed below: Current salary <\$50K: Targeted to replace <80% of after-tax income in retirement Current salary \$50K - \$100K: Targeted to replace <60% of after-tax income in retirement Current salary >\$125K: Targeted to replace <50% of after-tax income in retirement

Term	Definition
On Track	Participants who are on target to meet or exceed the income replacement rate needed to maintain their current standard of living in retirement. The target income replacement rates for participants in this group vary by their current salary (pretax) and are listed below: • Current salary <\$50K: Targeted to replace >100% of after-tax income in retirement • Current salary \$50K - \$100K: Targeted to replace >85% of after-tax income in retirement • Current salary >\$125K: Targeted to replace >70% of after-tax income in retirement
Other Enrollments	All other enrollments not classified as remittance, phone, paper or online.
Participant-Directed Contributions	Contributions that have been invested per the participant's investment allocation election.
Participation Rate	Participation Rate is calculated by dividing the (number of eligible and participating) by (number of eligible and participating + number of eligible and not participating).
Peer Benchmark	A group of institutions at TIAA who provide a measure of comparison to your plan based on comparable plan asset size and market segment (K-12, Higher Education, Healthcare & Government).
Readiness Influencers	Plan features and participant behaviors that may contribute to a participant's retirement readiness and income replacement ratio.
Rebalanced	Total number of participants who reallocated their account balances during the last 12 months.
Remittance	Participant enrollment information, including investment election specifications, provided to TIAA by the plan sponsor.
Retirement Readiness	Measures the degree to which a participant is on track to retire with sufficient lifetime income while maintaining a desired standard of living.
Terminated Participants	Participants with an employee status of "Terminated."

Term	Definition
Total Annual Payout	The total annual amount that all annuitants are receiving for income generated from an institution's plan(s).
Total Participants	Includes participants with an ending balance and at least one contribution during the evaluation period. In addition, other filters are applied to remove participants whose lbbotson results could disproportionately skew the outcomes of the larger population.

Income replacement ratio methodology and assumptions

Participant-related salary, contribution, retirement age and advice assumptions:

- TIAA estimates participant salary based on a regression-tested analysis of more than 60,000 active, premium-paying participants across 48 institutions. Participant salaries are estimated based on a function of the participant's life stage, organization type, age, TIAA recordkept assets, gender, and region and contribution rate. The participant's gross annual income is used for various calculations, including retirement income replacement ratio, estimated Social Security benefits, and estimated federal and state taxes.
- Participant contributions are aggregated for a 12-month period for participants with a balance at the beginning of the period. For participants without a beginning balance, the contribution amount from the last month of the 12-month period is annualized. IRS contribution limits are applied and adjusted for participants eligible for catch-up provisions. Morningstar Investment Management LLC shifts any contribution amount above the annual limit to after-tax contributions for modeling purposes.
- All retirement plan contributions are considered to be dedicated solely for retirement. Assets will not be liquidated for use prior to retirement, and all contributions will end at the Target Retirement Age (TRA).
- The TRA value is defaulted to 67 for most plan participants. Participants aged 66 or higher have a TRA that is set two years from the current age. Life expectancy values are estimated by Morningstar and are based on participant age and gender.
- The participant's balance is aggregated for all selected plans. Amounts are designed as pretax and Roth contributions, as appropriate.
- The participant's asset allocation, for the purposes of this analysis, is categorized into simplified asset classes (i.e., stable value, equities, real estate, fixed income, multi asset and money market).
- The advice provided Morningstar consists of model portfolios composed of target allocations for the asset classes. Based on the target retirement goals, Morningstar will recommend a specific tolerance level designed to adjust over time based on Morningstar's proprietary methodology which customizes a risk level trajectory for the participant.
- The hypothetical advice target for the model is a 100% replacement ratio.
- The Morningstar tool's advice is based on statistical projections of the likelihood that an individual will achieve their retirement goals. The projections rely on financial and economic assumptions of historical rates of return of various asset classes that may not reoccur in the future, volatility measures and other facts, as well as information the individual provides. Morningstar's advice engine includes tax-rate assumptions, mortality tables, and Social Security estimates.

Retirement income replacement ratio calculation assumptions:

- TIAA measures retirement income replacement ratios by calculating the projected stream of distributions from participants' assets and estimated Social Security benefits in current dollars as a percentage of employees' current salaries.
- Using the participant's estimated salary, current contribution rates and asset allocation, TIAA leverages the advice engine from Morningstar an independent expert retained by TIAA, to perform a sophisticated, Monte Carlo analysis (500 total simulations) to project the retirement income replacement ratio.
- The results indicate the participant's 70% probability of achieving the retirement goal. A lower probability of success is associated with better (and less likely) estimated income. Your participants can also model different outcomes for themselves by going online to TIAA.org/retirementadvisor (online Retirement Advisor tool).
- Data provided represents inputs into the Morningstar advice engine for plan management purposes. If a participant uses Retirement Advisor online or has an advice session with a consultant, estimated retirement income is not replaced with any of the information used in the Plan Outcome Assessment report calculations.
- The plan-level retirement income replacement ratio is determined by calculating the average retirement income replacement ratio of all participants in the plan analysis. All actively contributing participants are included in the analysis, unless the participant has annual compensation of less than \$25,000, has contributed less than \$300 in the previous 12-month period, has a current balance less than \$500, or is less than 23 or greater than 65 years of age.
- IMPORTANT: Projections, and other information generated through the TIAA Plan Outcome Assessment and the Morningstar tool regarding the likelihood of various investment outcomes, are hypothetical, do not reflect actual investment results, and are not a guarantee of future results. The projections are dependent in part on subjective and proprietary assumptions, including the rate of inflation and the rate of return for different asset classes, and these rates are difficult to accurately predict. The projections also rely on financial and economic historical assumptions that may not reoccur in the future, volatility measures and other facts. Results may vary with each use and over time.

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