

AGENDA: September 27, 2023

• Review and Approval of Prior Meeting Notes

CAPTRUST Review Topics

- Industry/Fiduciary Update
- SECURE 2.0
- Capital Market Commentary
- Q2 2023 Quarterly Investment Review
- Expense Analysis
- Shareclass Analysis

TIAA Review Topics

- TIAA Plan Review Report
- SECURE 2.0

Additional Topics

• Goals, Objectives, & Action Items

MEETING NOTES

To: Kalamazoo Valley Community College Optional Retirement Plan Committee

Date: April 12, 2023

Re: Meeting Notes

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

Jeremy Tollas (CAPTRUST)

Absent: Becky Craft (KVCC)

Review and approval of the December 12, 2022 Meeting Notes – Approved by Committee

CAPTRUST Investment Review – Presented by Jeremy Tollas

Industry/Fiduciary Update

CAPTRUST provided an industry and fiduciary update to the Committee. The topics included float income, DOL cybersecurity audit questions, ESG regulations, monitoring target date funds, and SECURE 2.0. Please see the meeting materials for more details on these topics.

SECURE 2.0

CAPTRUST discussed the new implications of the SECURE Act 2.0 and presented a summary of the Act including relevant provisions and effective dates. CAPTRUST reviewed a document specific to 403(b) and 457 Plans.

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.

Q4 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.

Investment Policy Statement Review

CAPTRUST reviewed the IPS which outlines the purpose and objectives of the Plan, roles and responsibilities of the Committee, CAPTRUST, investment managers, etc., and various performance and monitoring criteria. The IPS serves as a road map to the Optional Retirement Plan (ORP). No changes were deemed necessary to the IPS.

Vendor Cybersecurity Review

CAPTRUST reviewed a cybersecurity due diligence report that was created by CAPTRUST to outline TIAA's cybersecurity practices. Information was gathered from audited SOC reports and directly from TIAA. As part of this review, CAPTRUST gave an overview of the key characteristics of the TIAA SOC-1 and SOC-2 reports.

TIAA Review - Presented by Jeremy Tollas (Ruben Barrera was absent)

Ruben was not present at the meeting. Jeremy gave a high-level overview of the report that was provided by TIAA.

Plan Review Report

The report reviewed key demographic statistics of the multiple KVCC plans.

Key statistics:

- 329 participants with a balance
- 95% average participant income replacement ratio.
- \$3.2 million in contributions.
- \$51.8 million of plan assets

Further details can be found in TIAA meeting materials provided.

Goals, Objectives, & Action Items

It was discussed that KVCC will work with Ruben over the coming months to make sure TIAA has a presence at the KVCC benefits fair in the fall given the positive feedback from TIAA being at the event this past year.

Action Items

• KVCC will work with TIAA regarding KVCC benefits fair as outlined above.

KALAMAZOO VALLEY COMMUNITY COLLEGE 2ND QUARTER, 2023

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

2nd Quarter, 2023 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



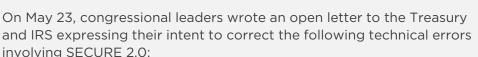
SECTION 1: RETIREMENT INDUSTRY UPDATES
Industry Updates

FIDUCIARY UPDATE

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



SECURE ACT 2.0 CORRECTION



- The provision regarding the increase to age 75 for required minimum distributions (effective in 2033) could be interpreted to apply to people who turn 74 after December 31, 2032. It is meant to apply to those turning 73 after that date.
- The provision mandating that catch-up contributions in retirement plans be designated as Roth starting in 2024 for those with more than \$145,000 in prior-year earnings could be read as a ban on catch-up contributions entirely, which is not the intent.



403(b) DETERMINATION LETTER

On May 24, the IRS issued a newsletter on its new 403(b) determination letter program.

- This program is available for individually designed plans only, not preapproved plans that use prototype or volume-submitter documents.
- The program is open to submissions beginning on different dates, based on the last digit of the sponsor's FIN.
- It opened on June 1, 2023, for sponsors whose EINs end in the number 1, 2, or 3.



IRS GUIDANCE ON EPCRS

On May 25, the IRS issued guidance on its formal procedure for correcting plan defects, known as the Employee Plans Compliance Resolution System (EPCRS), as updated by SECURE 2.0.

- Even though EPCRS has yet to be amended, the SECURE 2.0 provisions are effective immediately, which means many defects can now be self-corrected, regardless of time frame.
- The correction process can also be used to correct defects that occurred before SECURE 2.0 was enacted.



BACK TO BASICS: ROTH CONTRIBUTIONS



Unlike pre-tax contributions, Roth contributions are made on an after-tax basis and treated as wages for federal, state, and other applicable tax purposes. Although Roth contributions are made with after-tax money, they differ from after-tax contributions that may also be allowed in a retirement plan.

Roth contributions in a retirement plan have the same contribution limits as pre-tax contributions. Also, they are combined with pre-tax contributions for purposes of the 402(g) limit, which sits at \$22,500 for 2023.

Contributions and earnings are not taxed at withdrawal if they remain in the plan for at least five years and the participant is at least 59 1/2 years old, dies, or becomes disabled before starting payments.

Unlike Roth IRAs, Roth retirement plan contributions are not subject to income restrictions. All participants are eligible to use this feature.

Roth contributions can only be rolled over to another qualified plan that allows for Roth contributions or to a Roth IRA.

Lastly, Roth contributions will not be subject to required minimum distribution (RMD) rules starting in 2024.

PERCENTAGE OF PLANS OFFERING
ROTH CONTRIBUTIONS

			88%
54%	60%	69%	59%
22%	25%	37%	
2012	2015	2018	2021
_	- 401(k)	4 03(b)	



Roth contributions in a retirement plan allow employees who may have lower earnings—and therefore lower tax rates—to pay less taxes now than they might pay in retirement, when their income could be higher.

They also allow high earners who are not otherwise able to contribute to a Roth IRA to build Roth savings through their retirement plans and diversify the taxability of their incomes in retirement or delay RMDs.

These contributions allow optionality to employees who believe their tax rates will increase over time and would prefer to pay taxes now instead of in retirement.

Source: Plan Sponsor Council of America 401(k) and 403(b) survey data



SECURE SERIES: ROTH PROVISIONS

The SECURE 2.0 Act introduced several updates and policy changes specifically for Roth money in qualified retirement plans. This is an overview of three of the most impactful changes. Note that the Roth updates in SECURE 2.0 focus on expanding and enhancing Roth usage. They do not restrict any existing Roth functionality.

No RMDs for Roth Contributions (Mandatory)	Roth Employer Contribution (Optional)	Catch-up Contributions for High Earners (Mandatory)
Who: Participants in qualified retirement plans.	Who: Plan sponsors with qualified retirement plans.	Who: Participants in qualified retirement plans with prior-year wages exceeding \$145,000. The \$145,000 will be adjusted for inflation in the future.
What: Roth contributions in retirement plans will no longer be subject to required minimum distributions (RMDs). This aligns employer-sponsored plans with Roth IRAs.	What: Employers will have the ability to make matching and nonelective contributions to Roth accounts for their participants.	What: Any catch-up contributions made by participants who meet the wage qualification must be made as Roth contributions.
When: Effective January 1, 2024.	When: Effective immediately.	When: Effective January 1, 2024
Why: This provision eliminates an incentive for participants to roll existing Roth assets in an employer-sponsored plan into a Roth IRA.	Why: This change allows greater flexibility for plan sponsors to align with participants' preferences.	Why: Increasing Roth contributions will increase tax revenue to cover the cost of other SECURE 2.0 provisions.
Considerations: Sponsors should consider the implications of Roth money remaining in the plan for a longer period after retirement.	Considerations: Plan sponsors should consider the following: Is Roth currently offered in the plan? Are in-plan Roth conversions available? What are the administrative and tax implications of offering Roth employer contributions? Would this conflict with the current vesting schedule for employer contributions?	Considerations: Starting in 2024, unless Roth is available, participants will not be able to make catch-up contributions. This is a meaningful consideration for plans that do not offer Roth today.



SECURE SERIES: QUALIFIED STUDENT LOAN PAYMENTS

SECURE 2.0 contains an optional provision designed to help participants pay down student debt and take full advantage of their employer's match contribution through qualified student loan payments (QSLPs). Section 110 allows employers to treat qualifying student loan payments as elective deferrals for purposes of matching contributions. It is effective for contributions made for plan years beginning after December 31, 2023.

- A QSLP is a matching contribution that must be available for all employees who are otherwise eligible for matching contributions.
 Vesting and match rates must be the same for QSLPs as for other matching contributions.
- Employees receiving QSLPs may be disaggregated for purposes of actual deferral percentage (ADP) testing.
- There are specific definitions for qualified higher education expenses, eligible student, eligible expenses, and qualified student loan payments. To qualify, the employee must meet these definitions.
- Employee self-certification is allowed.
 Certification must be performed annually.
- Employees can make elective deferrals in addition to student loan payments.
- The frequency of QSLPs may be the same as the match on elective deferrals or at a different frequency, with a minimum of once per year.

	NO STUDENT LOAN MATCH	STUDENT LOAN MATCH NO DEFERRAL	STUDENT LOAN MATCH SOME DEFERRAL
Student Loan Payments	\$2,500	\$2,500	\$2,500
Employee Deferral	\$0	\$0	\$500
Employer Match	\$0	\$2,500	\$3,000

Scenarios assume a dollar-for-dollar match up to 5% and a \$60,000 employee salary.

There are many outstanding questions regarding QSLP administration, including when model plan amendment language will be available, how payments will be tracked, and how the timing of QSLPs will work with plan testing. Plan sponsors that are interested in adding this option should ask their recordkeepers about timing, cost, and administration.



FIDUCIARY TRAINING: ERISA EXPENSE ACCOUNTS

Fiduciary training is a critical part of being a fiduciary, and it's a way to minimize risk through education and governance. As a fiduciary, it is important to understand what an ERISA expense account is and ensure that a prudent process is followed when using this type of account. It is also a fiduciary's responsibility to evaluate the impact this type of arrangement can have on overall plan costs.



WHAT IS AN ERISA EXPENSE ACCOUNT?

This is an account used to pay eligible plan expenses. The account is funded by rebates from certain investments in the plan lineup. This type of arrangement is known as *revenue sharing*, and there are options for how a plan sponsor can allocate the funds. If the credits are not allocated directly back to participants, they will be deposited within the plan to an ERISA expense or spending account.

USES





- Audit fees
- · Third-party administrative and compliance fees
- Recordkeeping fees
- Advisory fees
- Required plan amendment costs

As a reminder, business or settlor plan expenses cannot be paid from plan assets. Funds not used by the end of the plan year in which they occur should be allocated to plan participants.



ERISA EXPENSE ACCOUNT VS. FORFEITURE ACCOUNT

ERISA expense accounts hold accumulated revenue credits from the investments held in a plan. A forfeiture account holds the unvested portion of an employer contribution that remains after a terminated participant's account is distributed. Forfeitures may be used to pay eligible plan expenses but may also be used to reduce or offset future employer contributions. An expense account may only be used toward applicable fees and as additional income, if allocated to participants.

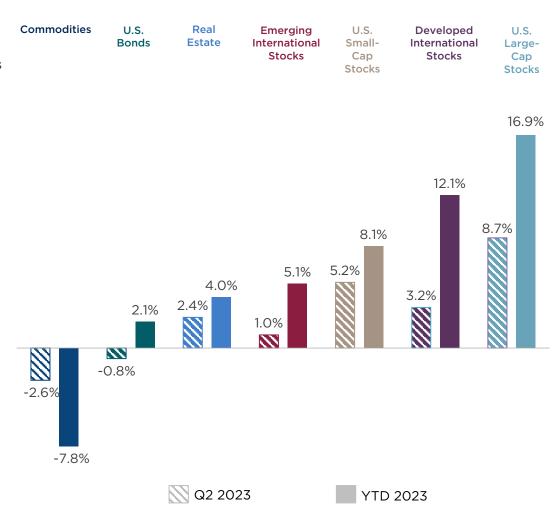


SECTION 2: MARKET COMMENTARY AND REVIEW
Market Commentary
Market Review
Asset Class Returns
Index Performance

MARKET RESILIENCE

Over the past year, labor markets have remained strong despite the Fed's actions to slow the economy to combat inflation. This labor market strength has given consumers the confidence to continue spending, and the economy has continued expanding in response. In the second quarter, this economic resilience received an artificial-intelligence-fueled tailwind, sending stocks upward.

- While large- and small-cap U.S. stock indexes posted strong results, extreme dispersion exists among sectors. The technology sector soared ahead, while four sectors sit in negative territory for the year.
- Bond investors have been forced to raise their interest-rate expectations, putting downward pressure on bond prices.
- Outside the U.S., developed international stocks enjoyed strong results.
- Meanwhile, emerging market stocks have underperformed, weighed down by disappointing economic activity in China.
- Despite modest gains for the year, real estate uncertainty remains high, especially in the office and retail sectors.
- Commodities posted a second consecutive quarterly decline, with both oil and precious metals prices sinking.



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

	Q2 2023	YTD 2023	Last 12 Months
U.S. Stocks	8.7%	16.9%	19.6%
Q2 Best Sector: Technology	17.2%	42.8%	40.3%
 Q2 Worst Sector: Utilities 	-2.5%	-5.7%	-3.7%
International Stocks	3.2%	12.1%	19.4%
Emerging Markets Stocks	1.0%	5.1%	2.2%

Fixed Income

	6.30.23	3.31.23	6.30.22
1-Year U.S. Treasury Yield	5.42%	4.62%	2.78%
10-Year U.S. Treasury Yield	3.84%	3.47%	3.02%
	QTD 2023	YTD 2023	Last 12 Months
10-Year U.S. Treasury Total Return	-1.91%	1.78%	-3.55%

Equities - Relative Performance by Market Capitalization and Style

	Q2	2023			YTD 2023				Last 12	2 Months	
	Value	Blend	Growth		Value	Blend	Growth	Growth		Blend	Growth
Large	4.1%	8.7%	12.8%	Large	5.1%	16.9%	29.0%	Large	11.5%	19.6%	27.1%
Mid	3.9%	4.8%	6.2%	Mid	5.2%	9.0%	15.9%	Mid	10.5%	14.9%	23.1%
Small	3.2%	5.2%	7.1%	Small	2.5%	8.1%	13.6%	Small	6.0%	12.3%	18.5%

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.

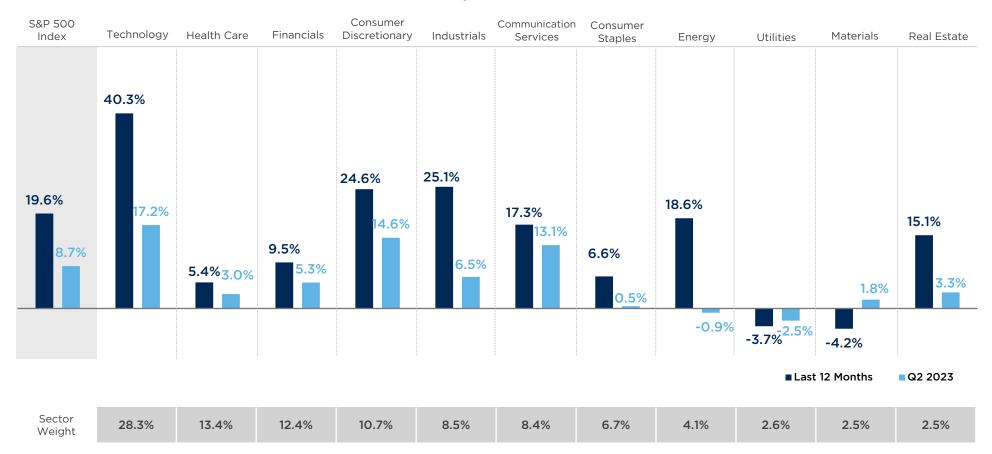


MARKET COMMENTARY

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
March 2023	4.75%	4.03%	3.58%	3.47%	3.65%	6.81%
June 2023	5.30%	4.90%	4.16%	3.84%	3.86%	7.15%
Change	0.55%	0.87%	0.58%	0.37%	0.21%	0.34%

U.S. Treasury yields moved higher this quarter as economic growth left investors with the expectation of Fed rate hikes to continue. Though mortgage rates remain exceptionally high, new home sales have driven purchase activity in the housing market.

Bloomberg U.S. Aggregate Bond Index	Yield to Worst	Duration	Total Return Q2 2023	Spread	Treasury Rate	AA Spread	BBB Spread
March 2023	4.40%	6.33		0.57%	3.83%	0.75%	1.67%
June 2023	4.81%	6.31	-0.84%	0.49%	4.32%	0.67%	1.51%
Change	0.41%	-0.02		-0.08%	0.49%	-0.08%	-0.17%

Performance for core bonds was negative for the quarter as yields rose. Yields moved higher for core fixed income, while credit spreads narrowed slightly.

Bloomberg U.S. Long Credit Index	Yield to Worst	Duration	Total Return Q2 2023	Spread	Treasury Rate	AA Spread	BBB Spread
March 2023	5.28%	13.05		1.59%	3.69%	1.06%	1.93%
June 2023	5.42%	12.88	-0.42%	1.48%	3.94%	0.97%	1.83%
Change	0.14%	-0.17		-0.10%	0.24%	-0.09%	-0.10%

Performance for longer-maturity bonds was negatively impacted this quarter by higher yields and narrower credit spreads.

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



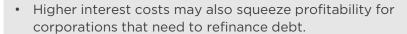
ECONOMIC OUTLOOK

Uncertainty is likely to endure as key data points remain polarized. 2023 recession predictions have failed to materialize, with labor markets and consumer strength expanding the economy instead. Looking forward, tighter lending standards, higher debt burdens, and a Fed committed to 2% inflation may present the hard-landing potholes the country has avoided so far.

HEADWINDS

The Rising Cost of Debt

- As interest rates have climbed from near-zero levels, public debt burden may reach a record.
- With savings declining, many consumers face the added burden of higher interest payments on home, auto, and student loans.



 With a significant portion of government debt maturing soon, refinancing at higher rates could require fiscal constraint and reinvigorate the debt ceiling debate.

Liquidity Constraints

• Liquidity fuels the economy. Yet money supply is contracting as the Fed reduces its balance sheet, the Treasury refills its reserves, and commercial banks impose stricter lending standards.

Sticky Inflation and Fed Determination

• Core inflation remains stubbornly elevated, likely resulting in additional Fed restrictions.

TAILWINDS

The Consumer

 Labor participation has not returned to pre-pandemic levels, creating historically low unemployment and steady wage growth—two underpinnings of consumer strength.



As inflation falls from its June 2022 peak, real wage growth
has supported consumer spending. Combined with excess
savings and higher interest income, wage growth has partially
insulated consumers from rising debt costs.

Debt Ceiling Resolution

 A debt ceiling deal reduced uncertainty and helped the U.S. avoid default, but the agreement lacked notable spending changes. The stage is set for another showdown in 2025.

Artificial Intelligence and Productivity

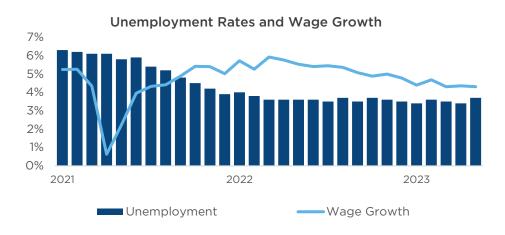
- In 2022, the technology sector saw a breakthrough in artificial intelligence (AI), creating AI models that interpret, learn, and provide human-like responses faster than ever.
- Al has tremendous potential but will require significant capital to develop necessary infrastructure.

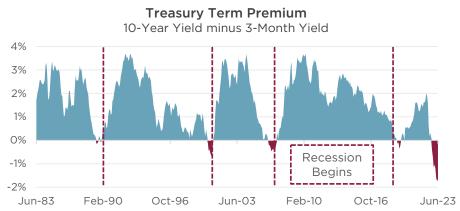
Despite consumer-driven economic resilience year-to-date, the impact of Fed policy changes does not seem fully absorbed. Given economic uncertainty, investors should remain vigilant, diversified, and prepared for ongoing volatility.



ECONOMIC RESILIENCE DEFIES RECESSION PREDICTIONS

A solid labor market with historically low unemployment has fueled wage growth and strengthened the consumer. However, indicators that have predicted past recessions are still present. The lagged effect of Fed tightening plus reduced borrowing capacity in the financial system continue to pose significant risks that may lead to deeper economic contraction.





ECONOMIC RESILIENCE

- Labor market strength. Although wage growth has waned from its 6 percent post-pandemic peak, it now exceeds inflation. This makes for a strong consumer and is supported by an unemployment rate much lower than the 15-year average.
- Cooling inflation. Time and rate hikes have moderated inflation from its 7 percent peak in June 2022. Still, core inflation—the Fed's key indicator—remains elevated.
- Consumer spending. Job security, excess savings, and cooling inflation have supported consumer confidence, keeping spending, especially spending on services, at elevated levels.

RECESSION SIGNALS

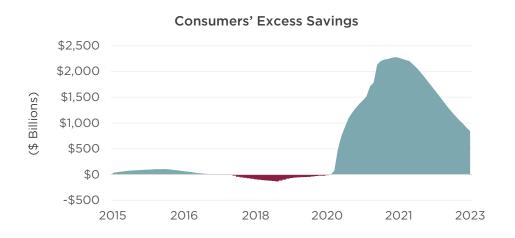
- Inverted yield curve. Historically, investors willing to accept a lower rate on longer-maturity Treasurys has been a harbinger of a weakening economy and a consistent recession predictor.
- Contracting money supply. With less money available in the financial system, consumers and companies may slow borrowing.
- **Tighter lending standards.** Recent banking system stress could lead to stricter lending standards. Combined with interest rate hikes, this could constrain economic growth.

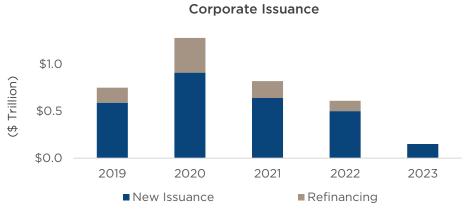
Sources: U.S. Bureau of Economic Analysis, Bloomberg, CAPTRUST Research. Data as of June 30, 2023.



INTEREST INCOME VS. INTEREST EXPENSE

The Fed is aggressively raising interest rates to slow the economy and ease inflation. In theory, these moves encourage saving by paying people and institutions higher returns on unspent balances, and they discourage borrowing by raising the cost of debt. However, these measures can also support short-term economic activity, depending on the balance sheets of various savers and borrowers.





BENEFITS AND CHALLENGES FOR CONSUMERS

- Excess savings. Due to limited spending and fiscal support, consumers accumulated nearly \$2.3 trillion in excess savings after the pandemic. Although these balances have been declining, nearly \$800 billion remains. If invested in safe, liquid securities, these savings can earn more than 5 percent thanks to the Fed's rate-hiking program.
- Demographics. Nearly 70 percent of household net worth is held by individuals age 55 or older. These consumers generally have more assets that benefit from higher interest income, less debt subject to higher interest expense, and less need to save.

BENEFITS AND CHALLENGES FOR CORPORATIONS

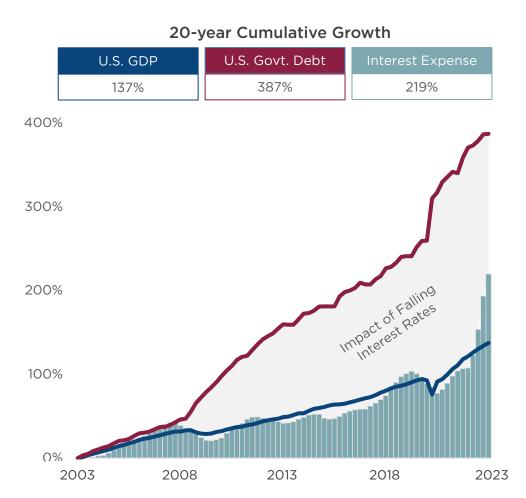
- Corporate debt issuance. Companies issued a record \$1 trillion in debt at near-zero rates in 2020. Issuance accelerated in early 2022 before rate hikes began. Corporate balance sheets have been buoyed by elevated cash balances and cheap debt, partially insulating them from the rising cost of debt capital.
- Maturing corporate debt. This insulation may be short-lived for some, with nearly \$3.5 trillion in debt maturing by 2024.
 Assuming interest rates remain elevated, corporate interest expenses will rise, creating a more difficult environment for companies that have depended on cheap capital.

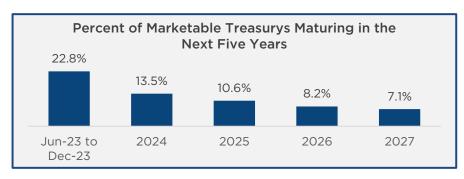
Sources: U.S. Bureau of Economic Analysis, Bloomberg, Dealogic, CAPTRUST Research. Data as of June 30, 2023.



RISING GOVERNMENT INTEREST EXPENSE

Government spending composed more than 17% of first-quarter gross domestic product (GDP). Discretionary spending was already under pressure with the passage of the Fiscal Responsibility Act of 2023. However, a more significant headwind could come from rising interest rate costs, further reducing the impact of government spending on future GDP.





OBSERVATIONS

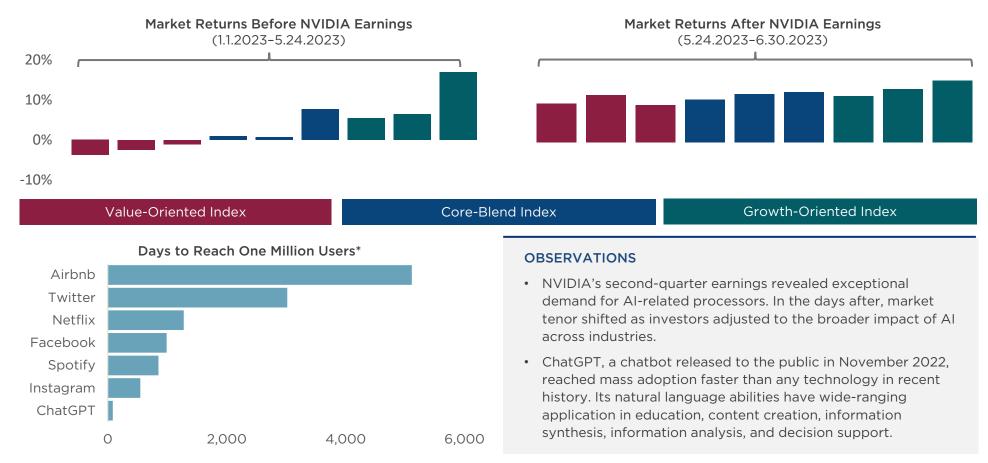
- Since 2003, government debt has increased nearly three times as fast as GDP. However, due to falling interest rates, growth in interest expense has generally aligned with growth in GDP.
- Recently, rising rates have driven interest expense significantly above GDP growth, a trend that is likely to continue with more than 60% of marketable Treasurys maturing in the next five years.
- As interest expense on historical debt continues to take a bigger bite out of the government's budget, additional fiscal responsibility will be required elsewhere, creating headwinds for future economic activity.

Sources: U.S. Bureau of Economic Analysis, U.S. Department of the Treasury, CAPTRUST Research. Data as of June 30, 2023.



THE POWER OF ARTIFICIAL INTELLIGENCE

In late 2022, the technology sector saw a breakthrough in large language models (LLMs). LLMs allow artificial intelligence (AI) to learn and respond in conversational language. On May 24, NVIDIA, which makes processors that power AI technology, reported second-quarter sales 57% higher than expectations, unleashing a fervor of AI-related excitement. Although mass adoption is distant, the potential of AI has companies across sectors investing in related technology and infrastructure, providing support for economic growth.



Sources: Bloomberg, Statista, Our World in Data, CAPTRUST Research. Data as of June 30, 2023. Indexes represented include the Russell 2000, Russell Mid-Cap, and Russell 1000 Value, Core, and Growth, respectively.

*Days to Reach One Million Users is adjusted for number of internet users using a base year of 1999.

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

Mid-Cap Value Stocks (Russell Mid-Cap Value)

Large-Cap Value Stocks (Russell 1000 Value)

Mid-Cap Growth Stocks (Russell Mid-Cap Growth)

International Equities (MSCI EAFE)

Fixed Income (Bloomberg U.S. Aggregate Bond)

Cash (Merrill Lynch 3-Month Treasury Bill)

Mob

Inc., Bloomberg,

Small-Cap Value Stocks (Russell 2000 Value)

Small-Cap Growth Stocks (Russell 2000 Growth)

Large-Cap Growth Stocks (Russell 1000 Growth)

INDEX PERFORMANCE

Period Ending 6.30.23 | Q2 23

INDEXES	Q2 2023	YTD	2022	2021	2020	2019	2018	1 YEAR	3 YEARS	5 YEARS	10 YEARS
90-Day U.S. Treasury	1.17%	2.25%	1.46%	0.05%	0.67%	2.28%	1.87%	3.59%	1.27%	1.55%	0.98%
Bloomberg Government 1-3 Year	-0.58%	1.00%	-3.81%	-0.60%	3.14%	3.59%	1.58%	0.17%	-1.11%	0.93%	0.76%
Bloomberg Intermediate Govt	-1.12%	1.11%	-7.73%	-1.69%	5.73%	5.20%	1.43%	-0.99%	-2.85%	0.82%	0.93%
Bloomberg Muni Bond	-0.10%	2.67%	-8.53%	1.52%	5.21%	7.54%	1.28%	3.19%	-0.58%	1.84%	2.68%
Bloomberg Intermediate Govt/Credit	-0.81%	1.50%	-8.23%	-1.44%	6.43%	6.80%	0.88%	-0.10%	-2.46%	1.23%	1.41%
Bloomberg Intermediate Credit	-0.26%	2.21%	-9.10%	-1.03%	7.08%	9.52%	0.01%	1.56%	-1.86%	1.82%	2.17%
Bloomberg Aggregate Bond	-0.84%	2.09%	-13.01%	-1.54%	7.51%	8.72%	0.01%	-0.94%	-3.97%	0.77%	1.52%
Bloomberg Corporate IG Bond	-0.29%	3.21%	-15.76%	-1.04%	9.89%	14.54%	-2.51%	1.55%	-3.45%	1.76%	2.63%
Bloomberg High Yield	1.75%	5.38%	-11.19%	5.28%	7.11%	14.32%	-2.08%	9.06%	3.14%	3.35%	4.43%
Bloomberg Global Aggregate	-1.53%	1.43%	-16.25%	-4.71%	9.20%	6.84%	-1.20%	-1.32%	-4.97%	-1.08%	0.20%
Bloomberg U.S. Long Corporate	-0.54%	4.88%	-25.62%	-1.13%	13.94%	23.89%	-7.24%	0.98%	-6.16%	1.61%	3.52%
S&P 500	8.74%	16.89%	-18.11%	28.71%	18.40%	31.49%	-4.38%	19.59%	14.61%	12.30%	12.86%
Dow Jones Industrial Average	3.97%	4.94%	-6.86%	20.95%	9.72%	25.34%	-3.48%	14.23%	12.31%	9.58%	11.25%
NASDAQ Composite	12.81%	31.73%	-33.10%	21.39%	43.64%	35.23%	-3.88%	25.02%	11.09%	12.91%	15.01%
Russell 1000 Value	4.07%	5.12%	-7.54%	25.16%	2.80%	26.54%	-8.27%	11.54%	14.31%	8.10%	9.21%
Russell 1000	8.58%	16.68%	-19.13%	26.45%	20.96%	31.43%	-4.78%	19.36%	14.10%	11.91%	12.64%
Russell 1000 Growth	12.81%	29.02%	-29.14%	27.60%	38.49%	36.39%	-1.51%	27.11%	13.74%	15.13%	15.74%
Russell Mid-Cap Value Index	3.86%	5.23%	-12.03%	28.34%	4.96%	27.06%	-12.29%	10.50%	15.05%	6.83%	9.03%
Russell Mid-Cap Index	4.76%	9.01%	-17.32%	22.58%	17.10%	30.54%	-9.06%	14.92%	12.51%	8.45%	10.32%
Russell Mid-Cap Growth Index	6.23%	15.94%	-26.72%	12.73%	35.59%	35.47%	-4.75%	23.13%	7.63%	9.71%	11.52%
MSCI EAFE	3.22%	12.13%	-14.01%	11.78%	8.28%	22.66%	-13.36%	19.41%	9.48%	4.90%	5.91%
MSCI ACWI ex U.S.	2.67%	9.86%	-15.57%	8.29%	11.13%	22.13%	-13.78%	13.33%	7.75%	4.01%	5.24%
Russell 2000 Value	3.18%	2.50%	-14.48%	28.27%	4.63%	22.39%	-12.86%	6.01%	15.44%	3.54%	7.29%
Russell 2000	5.21%	8.09%	-20.44%	14.82%	19.96%	25.52%	-11.01%	12.31%	10.83%	4.21%	8.25%
Russell 2000 Growth	7.05%	13.55%	-26.36%	2.83%	34.63%	28.48%	-9.31%	18.53%	6.10%	4.22%	8.83%
MSCI Emerging Markets	1.04%	5.10%	-19.74%	-2.22%	18.69%	18.90%	-14.25%	2.22%	2.72%	1.32%	3.33%
Dow Jones U.S. Real Estate Index	2.43%	4.04%	-25.17%	38.99%	-5.29%	28.92%	-4.03%	-2.65%	5.97%	4.57%	6.57%
HFRX Absolute Return Index	0.46%	0.26%	0.85%	2.10%	2.72%	4.37%	-0.49%	2.09%	2.42%	1.74%	1.89%
Consumer Price Index (Inflation)	0.67%	1.62%	6.44%	7.19%	1.32%	2.31%	2.00%	3.09%	5.74%	3.89%	2.71%
BLENDED BENCHMARKS	Q2 2023	YTD	2022	2021	2020	2019	2018	1 YEAR	3 YEARS	5 YEARS	10 YEARS
25% S&P 500/5% MSCI EAFE/70% BB Agg	1.73%	6.17%	-14.08%	6.13%	10.87%	14.96%	-1.55%	5.08%	1.30%	4.08%	4.70%
30% S&P 500/10% MSCI EAFE/60% BB Agg	2.41%	7.41%	-14.35%	8.27%	11.56%	16.79%	-2.44%	7.12%	2.91%	4.90%	5.51%
35% S&P 500/15% MSCI EAFE/50% BB Agg	3.10%	8.65%	-14.64%	10.44%	12.18%	18.63%	-3.34%	9.17%	4.53%	5.71%	6.32%
40% S&P 500/20% MSCI EAFE/40% BB Agg	3.78%	9.91%	-14.96%	12.64%	12.75%	20.48%	-4.25%	11.24%	6.15%	6.49%	7.11%
45% S&P 500/25% MSCI EAFE/30% BB Agg	4.47%	11.17%	-15.28%	14.87%	13.25%	22.33%	-5.17%	13.32%	7.77%	7.25%	7.88%
60% S&P 500/40% Bloomberg Barclays Agg	4.86%	10.81%	-15.79%	15.86%	14.73%	22.18%	-2.35%	11.24%	7.10%	7.94%	8.45%

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	TVALUE —	
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2022	(%)	CURRENT	(%)
Money Market	Vanguard Federal Money Market Investor	\$8,168	0.09%	\$94,226	0.78%
Stable Value	TIAA Traditional - Retirement Choice	\$645,265	7.17%	\$757,403	6.28%
Intermediate Core Bond	Vanguard Total Bond Market Index Adm	\$88,845	0.99%	\$117,159	0.97%
Global Bond - USD Hedged	Vanguard Total Intl Bd Idx Admiral	\$35,573	0.40%	\$43,378	0.36%
Moderately Conservative Allocation	TIAA-CREF Lifecycle Retire Income Instl	\$2,326	0.03%	\$2,683	0.02%
Moderate Allocation	Vanguard Balanced Index Adm	\$515,292	5.72%	\$669,394	5.55%
Target Date 2000-2010 Aggressive	TIAA-CREF Lifecycle 2010 Institutional	\$143,284	1.59%	\$181,051	1.50%
Target Date 2015 Aggressive	TIAA-CREF Lifecycle 2015 Institutional	\$89,252	0.99%	\$105,619	0.88%
Target Date 2020 Aggressive	TIAA-CREF Lifecycle 2020 Institutional	\$896,268	9.96%	\$1,006,807	8.35%
Target Date 2025 Aggressive	TIAA-CREF Lifecycle 2025 Institutional	\$636,666	7.07%	\$582,354	4.83%
Target Date 2030 Aggressive	TIAA-CREF Lifecycle 2030 Institutional	\$597,978	6.64%	\$720,422	5.97%
Target Date 2035 Aggressive	TIAA-CREF Lifecycle 2035 Institutional	\$1,029,051	11.43%	\$2,080,265	17.25%
Target Date 2040 Aggressive	TIAA-CREF Lifecycle 2040 Institutional	\$958,114	10.64%	\$1,393,905	11.56%
Target Date 2045 Aggressive	TIAA-CREF Lifecycle 2045 Institutional	\$567,050	6.30%	\$772,889	6.41%
Target Date 2050 Aggressive	TIAA-CREF Lifecycle 2050 Institutional	\$736,909	8.19%	\$959,523	7.96%
Target Date 2055 Aggressive	TIAA-CREF Lifecycle 2055 Institutional	\$189,779	2.11%	\$279,116	2.31%
Target Date 2060 Aggressive	TIAA-CREF Lifecycle 2060 Institutional	\$91,060	1.01%	\$102,439	0.85%
Target Date 2065+ Aggressive	TIAA-CREF Lifecycle 2065 Institutional	\$4,745	0.05%	\$12,781	0.11%

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.



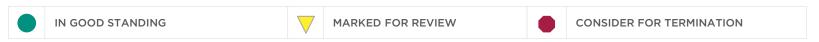
			_	MARKET	VALUE -	
FUND OPTION	CURRENT INVESTMENT NAME		12.31.2022	(%)	CURRENT	(%)
Aggressive Allocation	CREF Stock R1		\$165,432	1.84%	\$236,942	1.96%
Specialty-Private Real Estate	TIAA Real Estate Account		\$283,974	3.15%	\$301,844	2.50%
Large Company Blend	Vanguard Total Stock Mkt Idx Adm		\$826,317	9.18%	\$1,002,488	8.31%
Foreign Large Blend	Vanguard Total Intl Stock Index Admiral		\$391,119	4.34%	\$492,968	4.09%
Loan	Loan Deemed		\$2,054	0.02%	\$2,094	0.02%
Loan	Loan Fund		\$98,285	1.09%	\$141,343	1.17%
		TOTALS	\$9,002,805	100%	\$12,059,094	100%

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INVESTMENT				QUANTI		QUALIT	ATIVE	TOTALS				
	Risk-Ad Perfor	•	vs. Peers Performance		Style		Confidence		Fund	Fund	Overall	Total
	3 Yr	5 Yr	3 Yr	5 Yr	3 Yr	5 Yr	3 Yr	5 Yr	Management	Firm		Score
Moderately Conservative Allocation TIAA-CREF Lifecycle Retire Income Instl								_				91

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 Items. 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			QUANT	ITATIVE				QUALITATIVE				TOTALS		
	Risk-Adjusted vs. Peers Glidepath Performance Performance		Portfolio Underlying		Fund Fund			Total						
	3 Yr	5 Yr	3 Yr	5 Yr	% of Equities	Beta to Equities	Construct. Inv. Vehicles		Firm	Overall	Score			
TIAA-CREF Lifecycle				_					_			77		

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 feelds. Qualitative scoring areas for target date funds include Risk Adjusted Performance (3 & 5 yr.); Performance vs. Releivy feelds as coring areas for target date funds include Risk Adjusted Performance (3 & 5 yr.); Performance vs. Releivy feelds as coring areas for target date funds includes a score for Portfolio Construction and Underlying 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, and fair value pricing methodology. Proprietary to the Investment Consultant. This methodology incorporates both qualitative and quantitative entrics. This methodology incorporates both qualitative and quantitative metrics. This methodology, investme



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. Relevant Peer Group; and Glidepath. Qualitative Scoring Areas for target date funds measures for target date funds includes a score for Portfolio Construction and Underlying 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 metrics and may include quantitative enteria 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 methodolog



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. Releivant Peer Group; and Glidepath. Qualitative Scoring Areas for target date funds measure the quality 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 index replication strategy, securitie



FUND MANAGEMENT ITEMS	COMMENTARY
TIAA-CREF Lifecycle	
	Hans Erickson, head of Target Date Multi-Asset, recently left the firm to pursue another opportunity. Target Date Portfolio Manager John Cunniff has assumed leadership of the team and succeeded Hans as head of Target Date Multi-Asset. 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	Q2 '23	YTD '23	2022	2021	2020	2019	2018	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*
MONEY MARKET											
Vanguard Federal Money Market Investor	1.24%	2.35%	1.55%	0.01%	0.45%	2.14%	1.78%	3.77%	1.31%	1.50%	0.94%
ICE BofA ML US Treasury Bill 3 Mon USD	1.17%	2.25%	1.46%	0.05%	0.67%	2.28%	1.87%	3.59%	1.27%	1.55%	0.98%
STABLE VALUE											
TIAA Traditional - Retirement Choice	-	-	-	-	-	-	-	-	-	-	-
ICE BofA ML US Treasury Bill 3 Mon USD	1.17%	2.25%	1.46%	0.05%	0.67%	2.28%	1.87%	3.59%	1.27%	1.55%	0.98%
Morningstar US Stable Value GR USD	0.70%	1.35%	1.89%	1.74%	2.26%	2.52%	2.26%	2.40%	2.02%	2.19%	2.01%
INTERMEDIATE CORE BOND											
Vanguard Total Bond Market Index Adm	-0.90%	2.23%	-13.16%	-1.67%	7.72%	8.71%	-0.03%	-0.90%	-4.02%	0.77%	1.48%
Bloomberg US Agg Bond TR USD	-0.84%	2.09%	-13.01%	-1.55%	7.51%	8.72%	0.01%	-0.94%	-3.97%	0.77%	1.52%
Intermediate Core Bond Universe	-0.88%	2.21%	-13.45%	-1.56%	7.85%	8.42%	-0.43%	-1.03%	-3.84%	0.66%	1.41%
GLOBAL BOND - USD HEDGED											
Vanguard Total Intl Bd Idx Admiral	0.19%	3.71%	-12.92%	-2.22%	4.54%	7.88%	2.93%	0.27%	-3.38%	0.23%	2.04%
Bloomberg Global Aggregate TR Hdg USD	0.01%	3.00%	-14.22%	-0.96%	7.78%	11.85%	-0.47%	1.36%	-3.03%	1.29%	2.48%
Global Bond- USD Hedged Universe	0.00%	2.99%	-12.38%	-1.70%	6.58%	8.60%	0.03%	0.90%	-2.83%	0.43%	1.75%
MODERATELY CONSERVATIVE ALLOCATION											
TIAA-CREF Lifecycle Retire Income Instl	2.06%	5.94%	-12.51%	7.08%	11.10%	15.30%	-3.84%	6.39%	3.31%	4.09%	5.07%
40% S&P 500, 60% Bloomberg Agg	2.95%	7.85%	-14.76%	9.81%	12.53%	17.62%	-1.47%	7.13%	3.38%	5.62%	6.18%
Moderately Conservative Allocation Universe	1.62%	5.18%	-13.28%	7.86%	8.89%	14.84%	-4.36%	5.44%	2.89%	3.42%	4.37%

*ANNUALIZED

INVESTMENT NAME	Q2 '23	YTD '23	2022	2021	2020	2019	2018	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*
MODERATE ALLOCATION											
Vanguard Balanced Index Adm	4.63%	10.48%	-16.90%	14.22%	16.40%	21.79%	-2.86%	10.69%	6.51%	7.33%	8.09%
60% S&P 500, 40% Bloomberg Agg	4.86%	10.81%	-15.79%	15.86%	14.73%	22.18%	-2.35%	11.24%	7.09%	7.94%	8.45%
Moderate Allocation Universe	3.21%	7.36%	-14.98%	13.13%	12.41%	19.33%	-5.88%	8.79%	6.25%	5.53%	6.47%
TARGET DATE 2000-2010 AGGRESSIVE											
TIAA-CREF Lifecycle 2010 Institutional	1.99%	5.88%	-12.40%	6.88%	11.24%	15.43%	-3.92%	6.42%	3.31%	4.09%	5.30%
Morningstar Lifetime Aggressive 2010 Index	2.19%	6.43%	-14.42%	10.36%	12.46%	17.62%	-4.03%	7.35%	4.61%	4.92%	5.80%
2000-2010 Aggressive	2.24%	6.54%	-13.09%	8.07%	11.78%	15.36%	-3.42%	6.40%	3.67%	4.45%	5.21%
TARGET DATE 2015 AGGRESSIVE											
TIAA-CREF Lifecycle 2015 Institutional	2.24%	6.10%	-12.85%	7.74%	11.80%	16.51%	-4.41%	6.84%	3.80%	4.36%	5.70%
Morningstar Lifetime Aggressive 2015 Index	2.40%	6.95%	-15.80%	11.11%	13.13%	19.08%	-4.69%	7.91%	4.83%	5.07%	6.18%
2015 Aggressive	2.14%	6.90%	-13.64%	9.39%	12.33%	17.04%	-4.04%	6.69%	4.10%	4.58%	5.69%
TARGET DATE 2020 AGGRESSIVE											
TIAA-CREF Lifecycle 2020 Institutional	2.51%	6.76%	-13.52%	8.46%	12.38%	17.79%	-5.18%	7.59%	4.32%	4.62%	6.16%
Morningstar Lifetime Aggressive 2020 Index	2.70%	7.54%	-16.75%	12.15%	13.49%	20.68%	-5.45%	8.77%	5.42%	5.32%	6.68%
2020 Aggressive	2.77%	7.55%	-14.46%	10.29%	13.20%	18.99%	-4.80%	7.58%	5.10%	5.00%	6.31%
TARGET DATE 2025 AGGRESSIVE											
TIAA-CREF Lifecycle 2025 Institutional	3.08%	7.58%	-14.32%	9.85%	13.44%	19.44%	-6.05%	8.91%	5.30%	5.09%	6.75%
Morningstar Lifetime Aggressive 2025 Index	3.11%	8.25%	-17.27%	13.61%	13.51%	22.45%	-6.34%	10.02%	6.47%	5.69%	7.25%
2025 Aggressive	3.11%	8.19%	-15.44%	11.78%	13.47%	20.56%	-5.78%	8.60%	5.86%	5.43%	6.77%

*ANNUALIZED

INVESTMENT NAME	Q2 '23	YTD '23	2022	2021	2020	2019	2018	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*
TARGET DATE 2030 AGGRESSIVE											
TIAA-CREF Lifecycle 2030 Institutional	3.70%	8.67%	-15.16%	11.23%	14.54%	21.27%	-7.09%	10.51%	6.36%	5.61%	7.36%
Morningstar Lifetime Aggressive 2030 Index	3.63%	9.06%	-17.35%	15.32%	13.26%	24.11%	-7.27%	11.61%	7.90%	6.14%	7.79%
2030 Aggressive	3.91%	9.38%	-16.27%	13.53%	15.78%	22.17%	-6.08%	10.39%	7.06%	6.14%	7.44%
TARGET DATE 2035 AGGRESSIVE											
TIAA-CREF Lifecycle 2035 Institutional	4.39%	9.93%	-15.98%	12.70%	15.48%	23.04%	-8.04%	12.40%	7.48%	6.15%	7.96%
Morningstar Lifetime Aggressive 2035 Index	4.13%	9.80%	-17.08%	16.84%	12.91%	25.28%	-8.04%	13.22%	9.30%	6.58%	8.16%
2035 Aggressive	4.75%	10.99%	-17.07%	15.34%	15.42%	23.86%	-7.17%	12.48%	8.42%	6.77%	7.98%
TARGET DATE 2040 AGGRESSIVE											
TIAA-CREF Lifecycle 2040 Institutional	5.26%	11.35%	-16.67%	14.33%	16.44%	24.56%	-8.92%	14.33%	8.74%	6.73%	8.52%
Morningstar Lifetime Aggressive 2040 Index	4.46%	10.28%	-16.81%	17.67%	12.74%	25.78%	-8.50%	14.31%	10.20%	6.84%	8.32%
2040 Aggressive	5.01%	11.41%	-17.37%	16.37%	17.64%	24.60%	-7.17%	13.53%	9.07%	7.25%	8.63%
TARGET DATE 2045 AGGRESSIVE											
TIAA-CREF Lifecycle 2045 Institutional	5.84%	12.20%	-17.32%	15.94%	17.31%	25.87%	-9.59%	15.61%	9.82%	7.20%	8.88%
Morningstar Lifetime Aggressive 2045 Index	4.57%	10.45%	-16.68%	17.81%	12.71%	25.80%	-8.72%	14.71%	10.50%	6.90%	8.31%
2045 Aggressive	5.68%	12.43%	-18.15%	17.66%	16.68%	25.62%	-8.11%	14.75%	9.99%	7.47%	8.88%
TARGET DATE 2050 AGGRESSIVE											
TIAA-CREF Lifecycle 2050 Institutional	6.13%	12.56%	-17.65%	16.48%	17.44%	26.19%	-9.82%	16.08%	10.04%	7.32%	8.97%
Morningstar Lifetime Aggressive 2050 Index	4.54%	10.43%	-16.66%	17.62%	12.67%	25.69%	-8.86%	14.68%	10.48%	6.82%	8.23%
2050 Aggressive	5.61%	12.49%	-17.79%	17.44%	18.17%	25.57%	-7.36%	14.93%	10.02%	7.64%	9.12%

*ANNUALIZED

INVESTMENT NAME	Q2 '23	YTD '23	2022	2021	2020	2019	2018	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*
TARGET DATE 2055 AGGRESSIVE											
TIAA-CREF Lifecycle 2055 Institutional	6.17%	12.73%	-17.73%	16.64%	17.52%	26.36%	-9.86%	16.29%	10.19%	7.37%	9.04%
Morningstar Lifetime Aggressive 2055 Index	4.49%	10.36%	-16.69%	17.39%	12.65%	25.56%	-8.98%	14.55%	10.40%	6.72%	8.12%
2055 Aggressive	5.88%	12.92%	-18.30%	18.03%	16.02%	25.83%	-8.19%	15.32%	10.40%	7.75%	9.04%
TARGET DATE 2060 AGGRESSIVE											
TIAA-CREF Lifecycle 2060 Institutional	6.25%	12.84%	-17.79%	16.80%	17.75%	26.70%	-10.06%	16.49%	10.35%	7.45%	-
Morningstar Lifetime Aggressive 2060 Index	4.43%	10.29%	-16.73%	17.15%	12.63%	25.42%	-9.10%	14.40%	10.31%	6.62%	8.04%
2060 Aggressive	5.91%	12.88%	-18.23%	17.82%	17.23%	25.78%	-7.85%	15.21%	10.37%	7.80%	-
TARGET DATE 2065+ AGGRESSIVE											
TIAA-CREF Lifecycle 2065 Institutional	6.30%	12.98%	-17.70%	17.15%	-	-	-	16.58%	-	-	-
Morningstar Lifetime Aggressive 2065 Index	4.37%	10.22%	-16.74%	16.91%	12.62%	25.22%	-9.60%	14.26%	10.22%	6.52%	7.92%
2065+ Aggressive	5.85%	12.91%	-18.28%	18.44%	15.43%	-	-	15.13%	10.84%	-	-
AGGRESSIVE ALLOCATION											
CREF Stock R1	6.38%	13.73%	-18.62%	18.67%	17.64%	27.13%	-9.86%	16.98%	11.17%	7.99%	9.32%
85% S&P 500, 15% Bloomberg Agg	7.28%	14.59%	-17.20%	23.77%	17.14%	27.97%	-3.58%	16.44%	11.78%	10.71%	11.23%
Aggressive Allocation Universe	5.40%	11.56%	-19.21%	18.50%	16.69%	25.81%	-9.30%	14.31%	9.55%	7.07%	8.52%
SPECIALTY-PRIVATE REAL ESTATE											
TIAA Real Estate Account	-4.60%	-6.89%	8.19%	17.87%	-0.84%	5.51%	4.79%	-9.10%	6.08%	4.88%	6.18%
NCREIF Property Index	-1.98%	-3.76%	5.52%	17.70%	1.60%	6.42%	6.72%	-6.60%	6.79%	5.90%	7.82%
NCREIF ODCE Index	-2.68%	-5.77%	7.46%	22.18%	1.18%	5.34%	8.35%	-9.98%	7.99%	6.50%	8.74%

*ANNUALIZED

INVESTMENT NAME	Q2 '23	YTD '23	2022	2021	2020	2019	2018	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*
LARGE COMPANY BLEND											
Vanguard Total Stock Mkt Idx Adm	8.41%	16.17%	-19.53%	25.71%	20.99%	30.80%	-5.17%	18.92%	13.75%	11.30%	12.28%
S&P 500 Index	8.74%	16.89%	-18.11%	28.71%	18.40%	31.49%	-4.38%	19.59%	14.60%	12.31%	12.86%
Large Blend Universe	7.96%	15.14%	-18.15%	26.68%	17.18%	29.77%	-5.65%	18.26%	13.72%	10.96%	11.59%
FOREIGN LARGE BLEND											
Vanguard Total Intl Stock Index Admiral	2.61%	9.44%	-16.01%	8.62%	11.28%	21.51%	-14.43%	12.31%	7.51%	3.69%	5.05%
MSCI EAFE	3.22%	12.13%	-14.01%	11.78%	8.28%	22.66%	-13.36%	19.41%	9.48%	4.90%	5.91%
Foreign Large Blend Universe	2.88%	11.18%	-15.92%	10.07%	9.73%	22.04%	-15.23%	16.21%	7.97%	3.90%	5.10%

This summary is intended for "Institutional (Plan Sponsor) Use Only" and only includes historical performance of the funds currently in the plan's fund lineup as compared to the peer group (universe) maintained/developed by CAPTRUST (using Morningstar open-end mutual fund data), which may include other investment types such as collective investment trusts. Fund and peer group returns are shown net of investment management fees, unless otherwise indicated, but gross of CAPTRUST advisory fees. The plan's overall performance will be reduced by CAPTRUST's advisory fees and other plan level fees not contemplated in this summary. Therefore, each participant's account performance will differ substantially. Past performance is not indicative of future results. Information from sources believed to be reliable, but not warranted by CAPTRUST to be accurate or complete.

^{*}ANNUALIZED

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Fund Fact Sheets.....

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0.5

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INVESTMENT PROFILE

INDUSTRY ANALYSIS

The Federal Reserve has increased the overnight lending rate a total of ten times, to a final target range set between 5.25% - 5.50%, since its initial hike in 2022. The respective interest rate changes have resulted in the yield curve's continued inverse state to end the quarter. Intrinsically, short-term interest rates remain elevated above longer-dated alternatives and yields on money market funds have elevated 500 basis points over a rolling 12-month period. After leaving interest rates unchanged following its June meeting, the Federal Reserve announced plans for further monetary tightening later in 2023. Inflation is expected to remain the Federal Reserve's priority until its target level is reached. As such, inflation levels continued to fall in the second quarter. Money market fund investors can expect yields to remain at elevated levels, in the near term, as they are expected to closely track short-term interest rates.

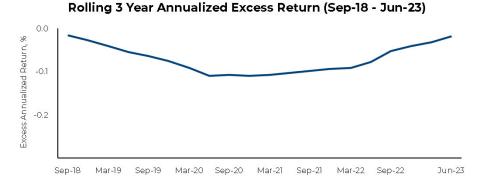
	Last Qtr.	CYTD	1 Year	3 Years	5 Years	10 Ye
Vanguard Federal Money Market Investor	1.24	2.35	3.77	1.31	1.50	0.94
FTSE 3 Month T-Bill	1.25	2.39	3.75	1.33	1.57	0.98

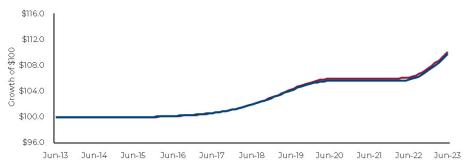
	2022	2021	2020	2019	2018
Vanguard Federal Money Market Investor	1.55	0.01	0.45	2.14	1.78
FTSF 3 Month T-Bill	1.50	0.05	0.58	2.25	1.86

	STD DEV / 5 YEAR
Vanguard Federal Money Market Investor	0.43
FTSE 3 Month T-Bill	0.43

Ticker Fund Inception Date -0.02Last Ouarter Prospectus Expense Ratio SEC Yield CYTD -0.04Performance vs Risk - 5 Year 0.02 Year 8 -0.02Years Return, -0.06 Years 10 -0.03 Years 0.4 Annualized StdDev, % -0.80 0.00 0.80 -1.60 Excess Annualized Return % Vanguard Federal Money Market Investor 90 Day U.S. Treasury Bill Vanguard Federal Money Market Investor

Cumulative Performance (Jul 2013 - Jun 2023)





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INDUSTRY ANALYSIS

Inflation levels continue to decline overall in the first half of 2023, but market uncertainty remains with industry professionals concerned about a potential economic recession. The Federal Reserve, in its sole hike of the second quarter. increased the overnight lending rate by 25 basis points in May and rates were unchanged following the FOMC June meeting. Following the Federal Reserve's 10th rate increase since beginning its monetary tightening program, as of guarter-end, the target range was set between 5.00%- 5.25%. When determining potential guaranteed crediting rates, issuers rely on forward-looking methodology and the outlook of the interest rate environment. As such, potential new money guaranteed crediting rates remain appealing and guaranteed stable value providers continue to operate as expected in the second quarter. With the Federal Reserve announcing plans to continue its monetary tightening in 2023, we can expect guaranteed crediting rates to continue increasing. As a reminder. rising interest rates present negative pressure on existing general account underlying portfolios in the short-term, as the value of current portfolio holdings decline, but give contract issuers comfort that higher yields will support the ability to offer higher quaranteed rates in 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:							
4/1/2023 - 4/30/2023	5/1/2023 - 5/31/2023	6/1/2023 - 6/30/2023					
6.25%	6.50%	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.					

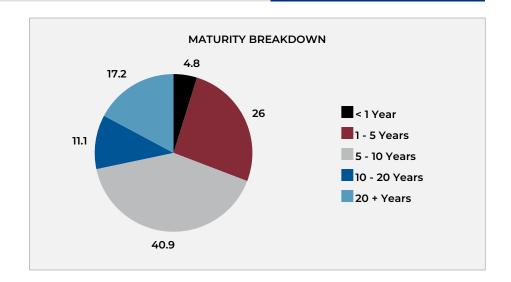
LIQUIDITY PROVISIONS							
Plan Sponsor	Participant						
Allowed over a 60-month (5 years) period without a surrender charge with 90-day advance notice from institution.	Transfers and withdrawals can be made in 84 monthly installments (7 years). Lump sum withdrawals are only available within 120 days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

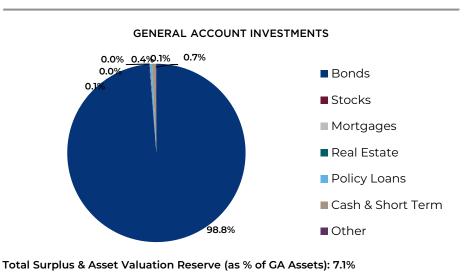
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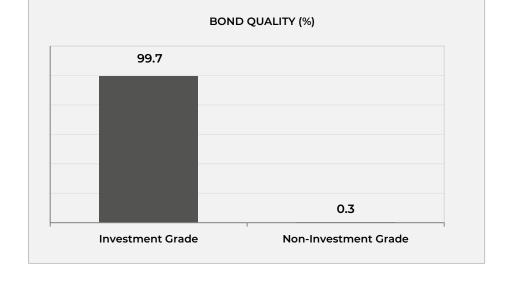
TIAA-CREF LIFE INS CO
Period Ending 6.30.23 | Q2 23

AGENCY RATINGS*					
A.M. Best (15 ratings)	A++ (1/15)				
Standard & Poors (20)	AA+ (2)				
Moody's (21)	Aal (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.





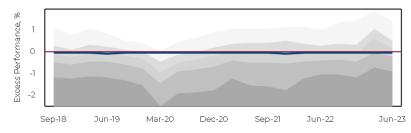


Source: Vital Signs *Agency ratings as of most recent quarter-end, all other data as of most recent year end.

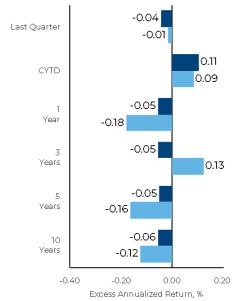
Performance Disclosure: The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate thus an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please call 800.216.0645. 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 sexpensions, because in a prospectus, please contact your financial advisors. CAPTRUST Financial Advisors. Member FINARASINC.

TRAILING AND CALENDAR RETURNS											
	Last Quarter	CYTD	1 Year	3 Years	5 Years	10 Years	2022	2021	2020	2019	2018
Vanguard Total Bond Market Index Adm	-0.90	2.23	-0.90	-4.02	0.77	1.48	-13.16	-1.67	7.72	8.71	-0.03
Blmbg. U.S. Aggregate Float Adjusted	-0.86	2.12	-0.85	-3.97	0.82	1.54	-13.07	-1.58	7.75	8.87	-0.08
Intermediate Core Bond Median	-0.88	2.21	-1.03	-3.84	0.66	1.41	-13.45	-1.56	7.85	8.42	-0.43
Rank (%)	56	48	41	62	39	42	35	56	56	35	30
Population	433	433	433	409	401	357	428	430	432	450	451

KEY MEASURES/5 YEAR									
	Sharpe Ratio	Alpha	Beta	R-Squared	Up Capture	Down Capture	Information Ratio		
Vanguard Total Bond Market Index Adm	-0.12	-0.05	1.00	1.00	99.89	100.58	-0.18		
Blmbg. U.S. Aggregate Float Adjusted	-0.11	0.00	1.00	1.00	100.00	100.00	-		
Intermediate Core Bond Median	-0.13	-0.15	1.00	0.96	99.96	101.56	-0.13		



Performance vs Risk 5 Year

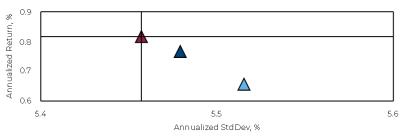


INVESTMENT PROFILE

Ticker	VBTLX
Portfolio Manager	Barrickman,J
Portfolio Assets	\$97,335 Million
PM Tenure	10 Years 4 Months
Net Expense(%)	0.05 %
Fund Inception	2001
Category Expense Median	0.55
Subadvisor	-

HOLDINGS OVERVIEW

% Assets in Top 10 Holdings	4.75 %
Number of Holdings	17724
Turnover	40.00 %
Avg. Effective Duration	6.56 Years
SEC Yield	4.36 %



Vanguard Total Bond Market Index Adm

A Blmbg. U.S. Aggregate Float Adjusted

A Intermediate Core Bond Median

Vanguard Total Bond Market Index Adm

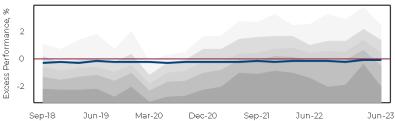
Intermediate Core Bond Median

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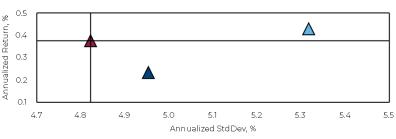


TRAILING AND CALENDAR RETURNS													
	Last Quarter	CYTD	1 Year	3 Years	5 Years	10 Years	2022	2021	2020	2019	2018		
Vanguard Total Intl Bd ldx Admiral™	0.19	3.71	0.27	-3.38	0.23	2.04	-12.92	-2.22	4.54	7.88	2.93		
Blmbg. Global Agg ex-USD Flt Adj RIC Cpd (H)	0.37	3.56	0.45	-3.31	0.38	2.24	-12.72	-2.10	4.75	8.06	3.16		
Global Bond-USD Hedged Median	0.00	2.99	0.90	-2.83	0.43	1.75	-12.38	-1.70	6.58	8.60	0.03		
Rank (%)	39	16	60	68	69	33	61	65	85	69	3		
Population	128	128	128	125	104	81	128	126	120	112	110		

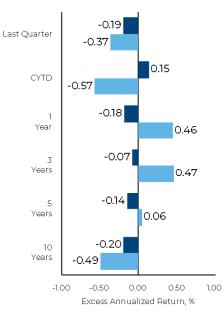
KEY MEASURES/5 YEAR											
Sharpe Alpha Beta R-Squared Up Down Information Ratio Capture Capture Ratio											
Vanguard Total Intl Bd ldx Admiral™	-0.24	-0.15	1.02	1.00	100.02	102.22	-0.40				
Blmbg. Global Agg ex-USD Flt Adj RIC Cpd (H)	-0.22	0.00	1.00	1.00	100.00	100.00	-				
Global Bond-USD Hedged Median	-0.15	0.10	1.00	0.82	98.84	95.13	0.05				













INVESTMENT PROFILE

Ticker	VTABX
Portfolio Manager	Barrickman, J/Talone, T
Portfolio Assets	\$23,815 Million
PM Tenure	10 Years 1 Month
Net Expense(%)	0.11 %
Fund Inception	2013
Category Expense Median	0.65
Subadvisor	-

HOLDINGS OVERVIEW

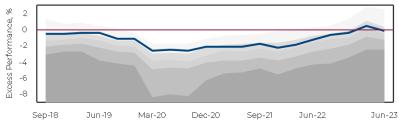
% Assets in Top 10 Holdings	3.25 %
Number of Holdings	7047
Turnover	27.00 %
Avg. Effective Duration	7.49 Years
SEC Yield	3.25 %

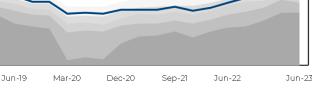
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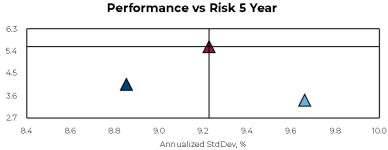


TRAILING AND CALENDAR RETURNS													
	Last Quarter	CYTD	1 Year	3 Years	5 Years	10 Years	2022	2021	2020	2019	2018		
TIAA-CREF Lifecycle Retire Income Instl	2.06	5.94	6.39	3.31	4.09	5.07	-12.51	7.08	11.10	15.30	-3.84		
40% S&P 500, 60% Bloomberg Agg	2.94	7.85	7.13	3.38	5.62	6.18	-14.76	9.81	12.53	17.62	-1.47		
Moderately Conservative Allocation Median	1.62	5.18	5.44	2.89	3.42	4.37	-13.28	7.86	8.89	14.84	-4.36		
Rank (%)	24	30	22	35	30	22	38	69	23	40	34		
Population	451	451	451	445	434	375	457	463	477	520	554		

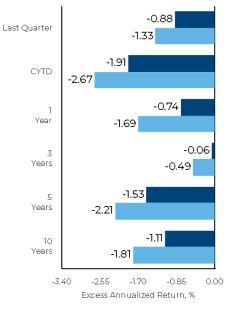
KEY MEASURES/5 YEAR											
	Sharpe Ratio	Alpha	Beta	R-Squared	Up Capture	Down Capture	Information Ratio				
TIAA-CREF Lifecycle Retire Income Instl	0.32	-1.09	0.93	0.94	88.54	96.47	-0.69				
40% S&P 500, 60% Bloomberg Agg	0.47	0.00	1.00	1.00	100.00	100.00	-				
Moderately Conservative Allocation Median	0.25	-1.80	0.99	0.92	90.21	105.22	-0.69				

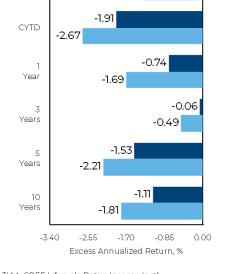














INVESTMENT PROFILE

Ticker	TLRIX
Portfolio Manager	Cunniff,J/Sedmak,S
Portfolio Assets	\$169 Million
PM Tenure	15 Years 7 Months
Net Expense(%)	0.37 %
Fund Inception	2007
Category Expense Median	0.92
Subadvisor	-

HOLDINGS OVERVIEW

% Assets in Top 10 Holdings	78.60 %
Number of Holdings	22
Turnover	28.00 %
Avg. Market Cap	\$93,780 Million
Dividend Yield	2.29 %

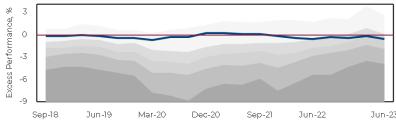
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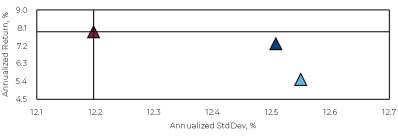
Annualized Return,

TRAILING AND CALENDAR RETURNS												
Last Quarter CYTD 1 Year 3 Years 5 Years 10 Years 2022 2021 2020 2019 2018											2018	
Vanguard Balanced Index Adm	4.63	10.48	10.69	6.51	7.33	8.09	-16.90	14.22	16.40	21.79	-2.86	
60% S&P 500, 40% Bloomberg Agg	4.86	10.81	11.24	7.09	7.94	8.45	-15.79	15.86	14.73	22.18	-2.35	
Moderate Allocation Median	3.23	7.36	8.79	6.25	5.53	6.47	-14.98	13.13	12.41	19.33	-5.88	
Rank (%)	14	13	20	44	16	13	83	36	16	17	10	
Population	749	749	744	720	704	606	758	766	769	801	837	

KEY MEASURES/5 YEAR											
Sharpe Alpha Beta R-Squared Up Down Information Ratio Ratio											
Vanguard Balanced Index Adm	0.51	-0.72	1.02	0.99	98.92	102.14	-0.55				
60% S&P 500, 40% Bloomberg Agg	0.56	0.00	1.00	1.00	100.00	100.00	-				
Moderate Allocation Median	0.37	-1.96	1.00	0.95	92.64	103.07	-0.65				











INVESTMENT PROFILE

Ticker	VBIAX
Portfolio Manager	Team Managed
Portfolio Assets	\$40,393 Million
PM Tenure	10 Years 4 Months
Net Expense(%)	0.07 %
Fund Inception	2000
Category Expense Median	0.99
Subadvisor	-

HOLDINGS OVERVIEW

% Assets in Top 10 Holdings	15.73 %
Number of Holdings	15648
Turnover	19.00 %
Avg. Market Cap	\$134,228 Million
Dividend Yield	1.70 %
Avg. Effective Duration	6.56 Years
SEC Yield	2.56 %

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Moderate Allocation Median



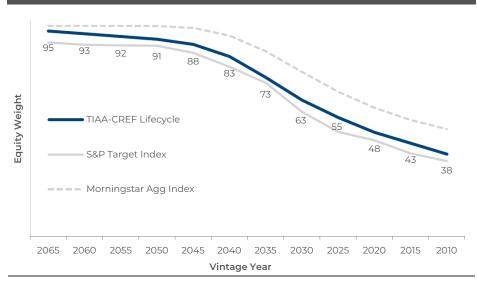
Investor Assumptions/Glidepath Methodology

Glidepath Management	· 30 years after retirement (assumed at age 65)
Assumed Investor Savings Rate	$\cdot9.6\%$ for young individuals to 13.6% for individuals closest to retirement
Assumed Investor Income Growth Rate	• Median salary at age 22 is \$32,376, and at age 67 it is \$68,679
Income Replacement	• Total income replacement rate 80% of one's ending salary
Assumed Accumulated Savings at Retirement	• No such assumption was made
Life Expectancy	• 95 years or longer
Asset Allocation Flexibility	•10% to 20% 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.

Investment Profile						
% Open Architecture:	0%	Active/Passive:	Active			
Inception Date:	10-15-2004	% Active:	93%			
Net Assets \$MM:	\$33,390	Manager Tenure:	17.33 Yrs (longest)			
Manager Name:	Cunniff, Sedmak	Expense Range:	0.37% - 0.70%			
Avg # of Holdings:	19	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 65/35 split between domestic and international, with the 35% 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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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:

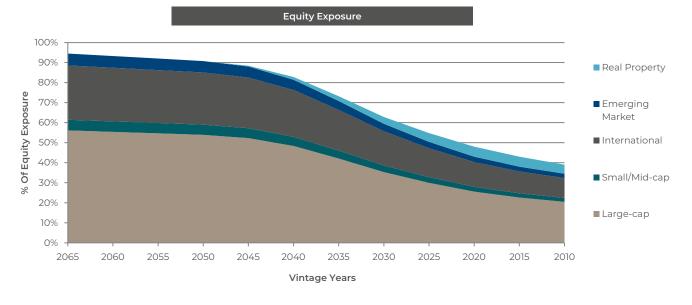
- Addition of International Bond, Small/Mid Cap Equity and International Small Cap Equity to strategic glidepath 2019:
- End of glidepath extended to 30 years with an allocation of 80% fixed income, 20% equity. The Nuveen Dividend Value fund was also added

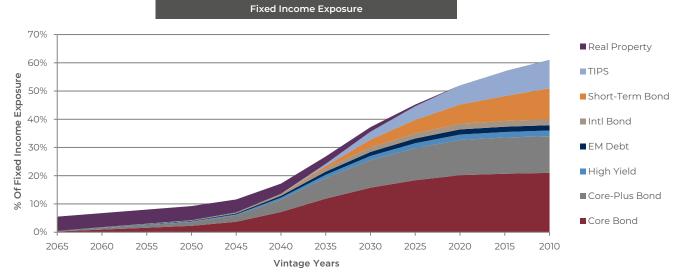
2021:

 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 12/31/22. Asset allocations shown are static in nature and do not incorporate any tactical views implemented by the manager.

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	3 Years Beta	3 Years Sharpe	3 Years Up Capture	3 Years Down Capture	5 Years Beta	5 Years Sharpe	5 Years Up Capture	5 Years Down Capture
TIAA-CREF Lifecycle 2010 Institutional	1.04	0.28	106.77	105.85	1.09	0.32	107.54	109.52
S&P Target Date 2010 Index	1.00	0.25	100.00	100.00	1.00	0.34	100.00	100.00
Target-Date 2000-2010 Median	1.02	0.18	99.53	105.24	1.01	0.30	102.70	103.37
TIAA-CREF Lifecycle 2015 Institutional	1.02	0.32	103.92	104.29	1.07	0.33	105.35	106.74
S&P Target Date 2015 Index	1.00	0.31	100.00	100.00	1.00	0.35	100.00	100.00
Target-Date 2015 Median	1.07	0.25	105.21	111.31	1.05	0.31	102.66	106.74
TIAA-CREF Lifecycle 2020 Institutional	1.01	0.35	103.54	103.18	1.05	0.34	105.02	105.60
S&P Target Date 2020 Index	1.00	0.34	100.00	100.00	1.00	0.34	100.00	100.00
Target-Date 2020 Median	1.05	0.29	105.32	107.19	1.04	0.31	102.55	105.96
TIAA-CREF Lifecycle 2025 Institutional	1.03	0.41	102.93	105.64	1.05	0.35	103.78	105.54
S&P Target Date 2025 Index	1.00	0.44	100.00	100.00	1.00	0.37	100.00	100.00
Target-Date 2025 Median	1.04	0.34	101.13	107.93	1.03	0.33	99.31	103.92
TIAA-CREF Lifecycle 2030 Institutional	1.00	0.47	100.30	103.86	1.02	0.37	101.37	102.94
S&P Target Date 2030 Index	1.00	0.51	100.00	100.00	1.00	0.39	100.00	100.00
Target-Date 2030 Median	1.04	0.42	100.42	107.76	1.01	0.35	100.52	102.76
TIAA-CREF Lifecycle 2035 Institutional	0.98	0.51	97.55	101.59	1.00	0.38	99.25	100.73
S&P Target Date 2035 Index	1.00	0.57	100.00	100.00	1.00	0.40	100.00	100.00
Target-Date 2035 Median	1.02	0.49	100.34	105.83	1.01	0.37	99.72	101.26
TIAA-CREF Lifecycle 2040 Institutional	0.98	0.56	98.51	101.90	1.01	0.39	100.58	102.06
S&P Target Date 2040 Index	1.00	0.60	100.00	100.00	1.00	0.41	100.00	100.00
Target-Date 2040 Median	1.02	0.54	100.70	105.86	1.02	0.39	100.66	102.35
TIAA-CREF Lifecycle 2045 Institutional	1.01	0.60	101.70	104.64	1.04	0.40	103.88	105.60
S&P Target Date 2045 Index	1.00	0.62	100.00	100.00	1.00	0.42	100.00	100.00
Target-Date 2045 Median	1.02	0.57	101.44	105.72	1.02	0.40	101.58	103.11
TIAA-CREF Lifecycle 2050 Institutional	1.01	0.60	101.66	105.13	1.04	0.41	103.64	105.38
S&P Target Date 2050 Index	1.00	0.63	100.00	100.00	1.00	0.42	100.00	100.00
Target-Date 2050 Median	1.02	0.58	100.54	105.25	1.02	0.40	100.90	101.95

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	3 Years Beta	3 Years Sharpe	3 Years Up Capture	3 Years Down Capture	5 Years Beta	5 Years Sharpe	5 Years Up Capture	5 Years Down Capture
TIAA-CREF Lifecycle 2055 Institutional	1.01	0.60	102.02	105.69	1.04	0.41	103.91	105.74
S&P Target Date 2055 Index	1.00	0.64	100.00	100.00	1.00	0.43	100.00	100.00
Target-Date 2055 Median	1.01	0.58	100.47	104.84	1.01	0.40	100.34	101.57
TIAA-CREF Lifecycle 2060 Institutional	1.02	0.61	103.00	106.20	1.05	0.41	104.54	106.40
S&P Target Date 2060 Index	1.00	0.64	100.00	100.00	1.00	0.43	100.00	100.00
Target-Date 2060 Median	1.02	0.58	100.45	104.82	1.01	0.41	100.47	101.33
TIAA-CREF Lifecycle 2065 Institutional	-	-	-	-	-	-	-	-
S&P Target Date 2065+ Index	1.00	0.64	100.00	100.00	1.00	0.43	100.00	100.00
Target-Date 2065+ Median	1.03	0.55	99.94	106.84	1.07	0.41	105.70	108.48

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TIAA-CREF LIFECYCLE MEETING DATE: JULY 20, 2023

FOCUS AREA

Organizational Update

COMMENTARY

As we have previously communicated, Portfolio Manager John Cunniff recently succeeded Hans Erickson as head of Target Date Multi-Asset following Hans's departure from the firm at the end of 2022. John is the natural successor to Hans as he had served as co-portfolio manager alongside Hans since 2006. John has also held multiple roles on the team including managing the day-to-day operations of the target date suite and more recently leading the team's glidepath and asset allocation research efforts.

We met with John and other members of the team, including Portfolio Managers Steve Sedmak and Jeff Sun, in Nuveen's New York offices in March. We are comfortable with the current composition of the team. However, we will be closely monitoring the team's ability to continue executing at a high level as John has taken on more senior managerial responsibilities with the new role.

Investments Update

COMMENTARY

As we previously wrote, Nuveen changed its glidepath for the target date suite in October 2022. The firm increased the equity allocation in the glidepath section that is 20 - 15 years away from retirement. This impacted 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.

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 found that human capital does not change that significantly when a participant turns 40. As a result, the team adjusted the glidepath to better align with the gradual decline of participants' human capital from age 40 to 50. To reflect this, the glidepath now decreases 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.



TIAA-CREF LIFECYCLE MEETING DATE: JULY 20, 2023

FOCUS AREA

Performance and Positioning Update

COMMENTARY

TIAA-CREF Lifecycle Performance Update:

The TIAA-CREF Lifecycle series had solid results in the second quarter, outperforming the benchmark and mostly outperforming peers.

- Manager selection was the primary driver of Lifecycle's outperformance.
- TIAA-CREF Growth & Income, TIAA-CREF Large Cap Value, and Nuveen Growth Opportunities were the leading contributors as they all outperformed their respective benchmarks.
- Offsetting some of their contribution was underperformance by Nuveen Dividend Growth. While the strategy was a top contributor in 2022, its focus on higher quality dividend growth companies, a lower risk profile, and unfavorable stock selection have weighed on its year-to-date results.
- Lifecycle's strategic asset allocation had a mixed impact on performance in the second quarter.
- Within equities, a larger allocation to U.S. large-caps and a smaller allocation to international equities compared to peers and the benchmark helped relative performance.
- · Within fixed income, an underweight to core fixed income relative to the benchmark was additive.
- However, offsetting some of these contributions was the series's allocation to direct real estate through TIAA Real Property. The strategy was the largest detractor in the quarter, posting a negative 3.00% return and underperforming both equities and fixed income.
- The direct real estate allocation had a larger negative impact on the near-dated vintages, where the TIAA Real Property allocation is funded from the equity portfolio, given equities continued to move higher in the quarter.

Positioning Update:

The Lifecycle team closed one tactical position during the quarter.

- In May 2023, the portfolio management team closed its 0.50% overweight to high yield at the expense of U.S. large-cap core equities. The team views greater potential upside for U.S. large-cap equities.
- The team has brought the portfolio back to its neutral strategic allocation. There are no open tactical positions.

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

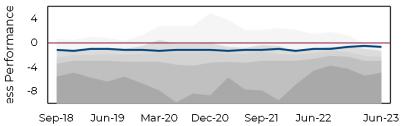


CREF STOCK R1

TRAILING AND CALENDAR RETURNS											
	Last Quarter	CYTD	1 Year	3 Years	5 Years	10 Years	2022	2021	2020	2019	2018
CREF Stock R1	6.38	13.73	16.98	11.17	7.99	9.32	-18.62	18.67	17.64	27.13	-9.86
CREF Stock Benchmark	6.27	13.68	16.83	11.79	8.90	10.06	-18.17	19.90	17.93	28.17	-8.11
Aggressive Allocation Median	5.40	11.56	14.31	9.55	7.07	8.52	-19.21	18.50	16.69	25.81	-9.30
Rank (%)	26	23	21	14	20	21	39	46	46	28	59
Population	203	203	203	195	190	175	202	204	201	212	235

KEY MEASURES/5 YEAR								
Sharpe Alpha Beta R-Squared Up Down Information Ratio Ratio								
CREF Stock R1	0.42	-0.95	1.02	1.00	99.65	103.22	-0.86	
CREF Stock Benchmark	0.47	0.00	1.00	1.00	100.00	100.00	-	
Aggressive Allocation Median	0.39	-152	0.98	0.98	93.84	99 99	-0.65	





Performance vs Risk 5 Year



-4.00 -3.00 -2.00 -1.00 0.00 Excess Annualized Return, %

INVESTMENT PROFILE

CUSIP	194408803
Portfolio Manager	Team Managed
Portfolio Assets	\$13,270 Million
PM Tenure	27 Years 3 Months
Net Expense(%)	0.49 %
Fund Inception	2015
Category Expense Median	-
Subadvisor	-

HOLDINGS OVERVIEW

% Assets in Top 10 Holdings	17.31 %
Number of Holdings	9565
Turnover	41.00 %
Avg. Market Cap	\$83,826 Million
Dividend Yield	2.41 %
Avg. Effective Duration	
SEC Vield	-

Annualized Return, 9 0.8 8.8 7.2								\dashv
0.8								
6.4	18.0	18.1	18.2	18.3 Annualize	18.4 d Std Dev, %	18.5	18.6	18.7
A 0	CREF Stock	: R1	A c	REF Stock Bend	hmark	Agaressiv	e Allocation Me	dian

CREF Stock R1 Aggressive Allocation Median

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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/.



TRAILING AND CALENDAR RETURNS											
	Last Quarter	CYTD	1 Year	3 Years	5 Years	10 Years	2022	2021	2020	2019	2018
TIAA Real Estate Account	-4.60	-6.89	-9.10	6.08	4.88	6.18	8.19	17.87	-0.84	5.51	4.79
NCREIF Property Index	-1.98	-3.76	-6.60	6.79	5.90	7.82	5.52	17.70	1.60	6.42	6.72
NCREIF ODCE Index	-2.68	-5.77	-9.98	7.99	6.50	8.74	7.46	22.18	1.18	5.34	8.35

KEY MEASURES/5 YEAR									
	Sharpe Ratio	Alpha	Beta	R-Squared	Up Capture	Down Capture	Information Ratio		
TIAA Real Estate Account	0.55	-1.68	1.13	0.93	97.22	144.34	-0.59		
NCREIF Property Index	0.82	0.00	1.00	1.00	100.00	100.00	-		
NCREIF ODCE Index	0.71	-1.42	1.36	0.99	119.66	149.41	0.36		

Last Quarter

CYTD

Year

3

Years

Years

10

Years

-2.62

-2.01

-2.51

-3.39

-0.70

-0.72

-1.03

-6.00 -4.00 -2.00 0.00 2.00 4.00

Excess Annualized Return, %

TIAA Real Estate Account

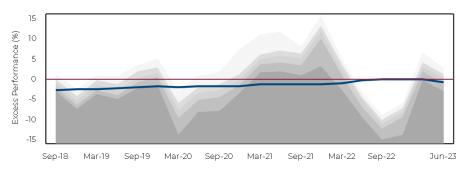
NCREIF ODCE Index

1.19

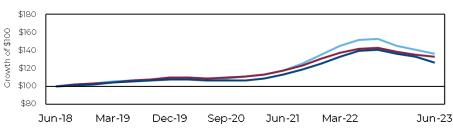
0.59

0.92

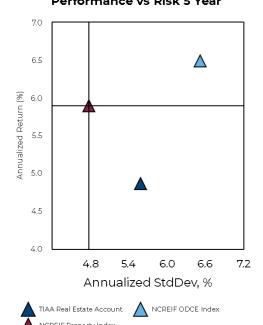
Rolling 3 Year Annualized Excess Return



5 Year Cumulative Performance



Performance vs Risk 5 Year





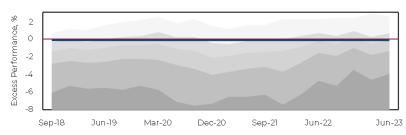


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TRAILING AND CALENDAR RETURNS											
	Last Quarter	CYTD	1 Year	3 Years	5 Years	10 Years	2022	2021	2020	2019	2018
Vanguard Total Stock Mkt Idx Adm	8.41	16.17	18.92	13.75	11.30	12.28	-19.53	25.71	20.99	30.80	-5.17
CRSP U.S. Total Market TR Index	8.41	16.17	18.94	13.77	11.31	12.29	-19.49	25.72	20.99	30.84	-5.17
Large Blend Median	7.96	15.14	18.26	13.72	10.96	11.59	-18.15	26.68	17.18	29.77	-5.65
Rank (%)	39	38	41	49	42	28	77	61	18	38	41
Population	1,192	1,192	1,182	1,134	1,093	974	1,175	1,188	1,220	1,264	1,297

KEY MEASURES/5 YEAR								
	Sharpe Ratio	Alpha	Beta	R-Squared	Up Capture	Down Capture	Information Ratio	
Vanguard Total Stock Mkt Idx Adm	0.57	-0.01	1.00	1.00	99.96	100.01	-0.62	
CRSP U.S. Total Market TR Index	0.58	0.00	1.00	1.00	100.00	100.00	-	
Large Blend Median	0.57	0.18	0.96	0.97	97.41	97.52	-0.13	



Performance vs Risk 5 Year







INVESTMENT PROFILE

Ticker	VTSAX
Portfolio Manager	Louie,M/Nejman,W/O
	Reilly,G
Portfolio Assets	\$316,757 Million
PM Tenure	28 Years 6 Months
Net Expense(%)	0.04 %
Fund Inception	2000
Category Expense Median	0.76
Subadvisor	-

HOLDINGS OVERVIEW

% Assets in Top 10 Holdings	25.87 %
Number of Holdings	3886
Turnover	3.00 %
Avg. Market Cap	\$127,598 Million
Dividend Yield	1.83 %

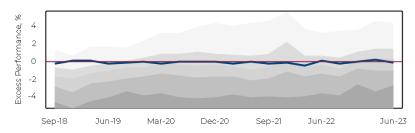
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Large Blend Median

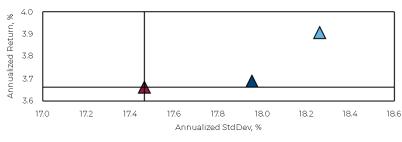


TRAILING AND CALENDAR RETURNS											
	Last Quarter	CYTD	1 Year	3 Years	5 Years	10 Years	2022	2021	2020	2019	2018
Vanguard Total Intl Stock Index Admiral	2.61	9.44	12.31	7.51	3.69	5.05	-16.01	8.62	11.28	21.51	-14.43
FTSE Global ex USA All Cap Index (Net)	2.53	9.12	12.51	7.61	3.66	5.09	-16.10	8.84	11.24	21.80	-14.61
Foreign Large Blend Median	2.88	11.18	16.21	7.97	3.90	5.09	-15.92	10.07	9.73	22.04	-15.23
Rank (%)	60	78	86	59	57	54	52	65	41	60	39
Population	665	665	664	634	610	504	678	711	747	755	751

KEY MEASURES/5 YEAR								
	Sharpe Ratio	Alpha	Beta	R-Squared	Up Capture	Down Capture	Information Ratio	
Vanguard Total Intl Stock Index Admiral	0.21	0.01	1.02	0.99	103.41	103.69	0.06	
FTSE Global ex USA All Cap Index (Net)	0.21	0.00	1.00	1.00	100.00	100.00	-	
Foreign Large Blend Median	0.22	0.30	1.02	0.95	105.17	104.56	0.09	



Performance vs Risk 5 Year









INVESTMENT PROFILE

Ticker	VTIAX
Portfolio Manager	Franquin,C/Perre,M
Portfolio Assets	\$70,215 Million
PM Tenure	14 Years 10 Months
Net Expense(%)	0.11 %
Fund Inception	2010
Category Expense Median	0.90
Subadvisor	-

HOLDINGS OVERVIEW

% Assets in Top 10 Holdings	9.55 %
Number of Holdings	7990
Turnover	5.00 %
Avg. Market Cap	\$26,466 Million
Dividend Yield	3.80 %

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/.



APPENDIX

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 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 ratios, 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.



Allocation Tier								
Asset Class	Investment Name	Ticker	Value	% Assets	Exp %	ense Ratio \$	Rev	enue Share
Moderately Conservative Allocation	TIAA-CREF Lifecycle Retire Income Instl	TLRIX	\$2,683	0.02%	0.37%	\$10	0.00%	\$0
Moderate Allocation	Vanguard Balanced Index Adm	VBIAX	\$669,394	5.55%	0.07%	\$469	0.00%	\$ O
Target Date Series	TIAA-CREF Lifecycle	-	\$8,197,171	67.98%	0.43%	\$35,060	0.00%	\$0
Aggressive Allocation	CREF Stock R1	QCSTRX	\$236,942	1.96%	0.46%	\$1,078	0.30%	\$710
Allocation Total			\$9,106,190	75.51%	0.40%	\$36,616	0.01%	\$710

Passive Tier									
Asset Class	Investment Name Ticker Value % Asse		% Assets	% Assets Expense Ratio			Revenue Share		
					%	\$	%	\$	
Intermediate Core Bond	Vanguard Total Bond Market Index Adm	VBTLX	\$117,159	0.97%	0.05%	\$59	0.00%	\$0	
Global Bond - USD Hedged	Vanguard Total Intl Bd Idx Admiral	VTABX	\$43,378	0.36%	O.11%	\$48	0.00%	\$0	
Large Company Blend	Vanguard Total Stock Mkt Idx Adm	VTSAX	\$1,002,488	8.31%	0.04%	\$401	0.00%	\$0	
Foreign Large Blend	Vanguard Total Intl Stock Index Admiral	VTIAX	\$492,968	4.09%	0.11%	\$542	0.00%	\$0	
Passive Total			\$1,655,994	13.73%	0.06%	\$1,050	0.00%	\$0	

Active Tier									
Asset Class	set Class Investment Name Ticker Value % Asse				Exp	ense Ratio	Rev	Revenue Share	
7 10000 01000			7 4.4.5	70 7 10000	%	\$	%	\$	
Money Market	Vanguard Federal Money Market Investor	VMFXX	\$94,226	0.78%	0.11%	\$104	0.00%	\$0	
Stable Value	TIAA Traditional - Retirement Choice	-	\$757,403	6.28%	0.15%	\$1,136	0.15%	\$1,136	
Specialty-Private Real Estate	TIAA Real Estate Account	QREARX	\$301,844	2.50%	0.77%	\$2,324	0.24%	\$724	
Active Total			\$1,153,473	9.57%	0.31%	\$3,564	0.16%	\$1,861	

Information shown has been obtained from sources deemed to be reliable but is not guaranteed to be accurate or complete. Target date expenses and revenue sharing shown are a weighted average based on plan assets. Expense ratios are rounded to two decimal places.



Other Tier								
Asset Class	Investment Name	Ticker Value % Assets		Expense Ratio		Revenue Share		
					%	\$	%	\$
Loan	Loan Deemed	-	\$2,094	0.02%	-	\$0	-	\$0
Loan	Loan Fund	-	\$141,343	1.17%	-	\$0	-	\$0
Other Total			\$143,437	1.19%	0.00%	\$0	0.00%	\$0

Plan Totals	\$12,059,094 100.00%	0.34%	\$41,230	0.02%	\$1,861
	Revenue Credit	(0.02%)	(\$1,861)		
	Recordkeeper Cost	0.17%	\$20,500		
Calculated off of assets reflected in the report, and may not reflect the actual invoice amount.	CAPTRUST Tired Advisory Fee	0.26%	\$31,059		
	Total Plan Cost:			0.75%	\$90,928

Information shown has been obtained from sources deemed to be reliable but is not guaranteed to be accurate or complete. Target date expenses and revenue sharing shown are a weighted average based on plan assets. Expense ratios are rounded to two decimal places.



From continuous analysis of the data, we have derived multiple fee ranges for a wide variety of retirement plans. The ranges are broken down into segments driven by average account balance and total plan assets, which are two main factors used by administrators when pricing their services.

Total Assets (millions)	\$12.1
Average Account Balance	\$49,021
Total RK/Admin. Fees	0.17%

			Average Acco	unt Balance (i	n \$ thousands))	
		\$10 - \$25	\$25 - \$50	\$50 - \$75	\$75 - \$100	\$100 - \$150	\$150+
Plan Size (in \$ millions)	Range						
<\$5	Hi	.72%	.44%	.36%	.31%	.25%	.29%
	Avg	.55%	.34%	.28%	.23%	.18%	.23%
	Low	.38%	.25%	.22%	.15%	.12%	.14%
\$5 - \$15	Hi	.60%	.36%	.27%	.21%	.21%	.20%
	Avg	.50%	.28%	.21%	.16%	.16%	.15%
	Low	.40%	.21%	.15%	.12%	.12%	.11%
\$15 - \$25	Hi	.46%	.29%	.23%	.17%	.17%	.13%
	Avg	.36%	.24%	.18%	.15%	.13%	.10%
	Low	.27%	.18%	.15%	.12%	.10%	.07%
\$25 - \$50	Hi	.41%	.24%	.19%	.16%	.16%	.13%
	Avg	.32%	.20%	.15%	.13%	.12%	.10%
	Low	.25%	.15%	.12%	.11%	.08%	.06%
\$50- \$100	Hi	.35%	.27%	.16%	.14%	.12%	.11%
	Avg	.29%	.21%	.14%	.11%	.10%	.08%
	Low	.22%	.16%	.11%	.09%	.08%	.05%
\$100 - \$250	Hi	.31%	.19%	.13%	.11%	.09%	.07%
	Avg	.25%	.15%	.11%	.09%	.07%	.05%
	Low	.19%	.11%	.09%	.08%	.06%	.04%
\$250 - \$500	Hi Avg Low	:	.16% .13% .09%	.11% .09% .07%	.08% .07% .06%	.07% .05% .04%	.05% .04% .03%

Information shown has been obtained from sources deemed to be reliable but is not guaranteed to be accurate or complete. This information has been prepared or is distributed for informational purposes only and is not a solicitation or an offer to buy any security or to participate in any investment strategy. Plans with over \$500M in assets may have additional pricing complexities that could warrant further analysis. Source: CAPTRUST Institutional Client Data - 2023

ALLOCATION TIER	ASSET CLASS	EXPENSE RATIO	NET INVESTMENT COST	UNIVERSE 25 th PERCENTILE	UNIVERSE MEDIAN	UNIVERSE 75 th PERCENTILE
TIAA-CREF Lifecycle Retire Income Instl	Moderately Conservative Allocation	0.37%	0.37%	0.49%	0.65%	0.83%
Vanguard Balanced Index Adm	Moderate Allocation	0.07%	0.07%	0.53%	0.68%	0.87%
TIAA-CREF Lifecycle	Target Date Series	0.43%	0.43%	0.31%	0.42%	0.52%
CREF Stock R1	Aggressive Allocation	0.46%	0.16%	0.67%	0.83%	1.09%

PASSIVE TIER	ASSET CLASS	EXPENSE RATIO	NET INVESTMENT COST	UNIVERSE 25 th PERCENTILE	UNIVERSE MEDIAN	UNIVERSE 75 th PERCENTILE
Vanguard Total Bond Market Index Adm	Intermediate Core Bond	0.05%	0.05%	0.04%	0.10%	0.20%
Vanguard Total Intl Bd Idx Admiral	Global Bond - USD Hedged	O.11%	O.11%	0.03%	0.06%	0.07%
Vanguard Total Stock Mkt Idx Adm	Large Company Blend	0.04%	0.04%	0.05%	0.16%	0.25%
Vanguard Total Intl Stock Index Admiral	Foreign Large Blend	0.11%	O.11%	0.06%	0.16%	0.29%

ACTIVE TIER	ASSET CLASS	EXPENSE RATIO	NET INVESTMENT COST	UNIVERSE 25 th PERCENTILE	UNIVERSE MEDIAN	UNIVERSE 75 th PERCENTILE
Vanguard Federal Money Market Investor	Money Market	O.11%	O.11%	0.18%	0.20%	0.37%
TIAA Traditional - Retirement Choice	Stable Value	0.15%	0.00%	0.37%	0.43%	0.50%
TIAA Real Estate Account	Specialty-Private Real Estate	0.77%	0.53%	0.74%	0.80%	1.00%

Information shown is based on data collected from third party sources, including investment manager databases and/or investment manager requests for information and is not warranted to be accurate or complete. The fees shown for the peer groups are comprised of the institutional mutual fund share classes for each respective asset class, as determined by CAPTRUST, and divided between active and passive investment managers. Not all mutual funds have an institutional share class. This material has been prepared solely for the Plan illustrated here and has been provided for informational purposes only. This material is for institutional investor use only and is not intended to be shared with individual investors.





Advisor Fee Benchmarking Report

Plan Size

\$12,000,000

Advisor/Consultant Fee (\$)

\$31,059

Advisor/Consultant Fee (bps)

25.00

Number of Plans Included

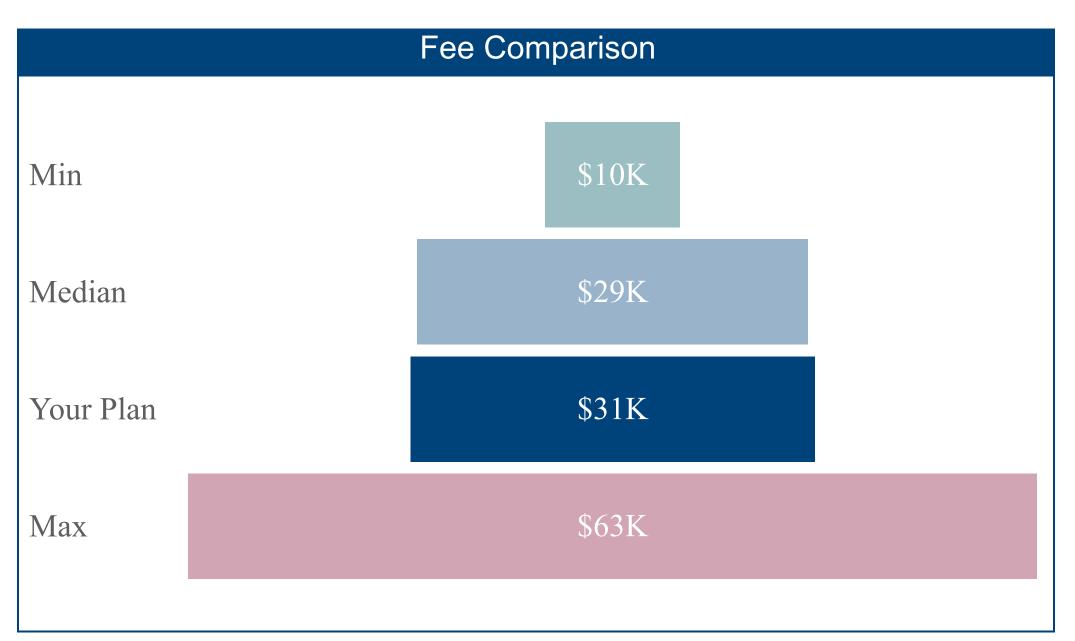
601

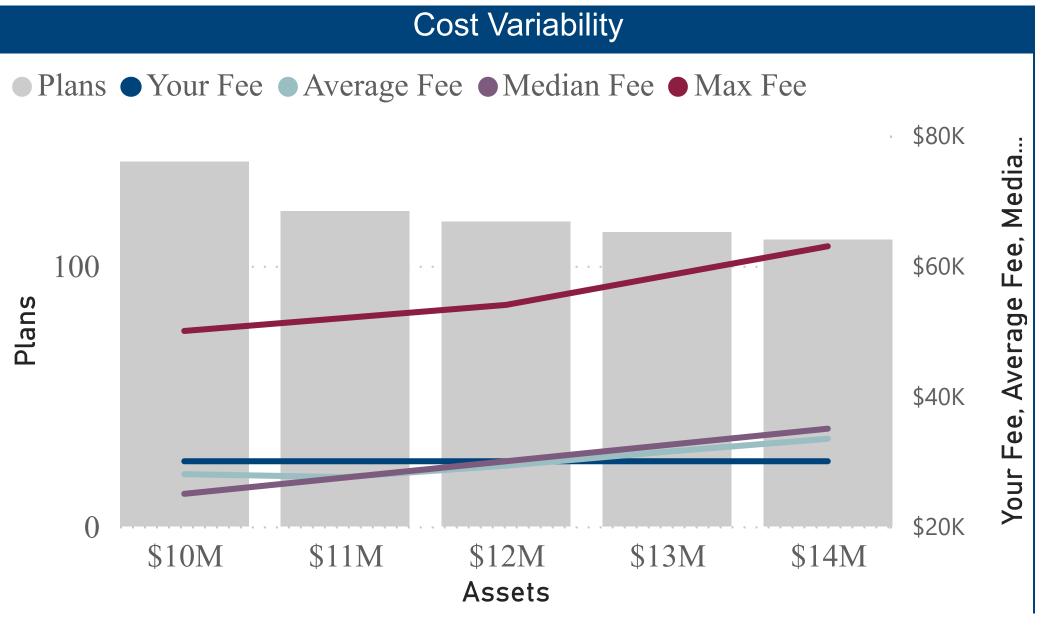
Asset Range of Plans Included | Max

\$10,000,000

to

\$14,000,000





Selected Services					
Service	Plans in Your Range	% Plans in Your Range ▼			
Vendor Fee / Service Review or Benchmarking	586	97.50%			
Investment Policy Statement Development	581	96.67%			
Fund Menu Design	576	95.84%			
Vendor Management/Issue Resolution	571	95.01%			
Co-Fiduciary? ERISA section 3(21)	556	92.51%			
Plan Design Consulting	556	92.51%			
Vendor Search	554	92.18%			
Vendor Transition Support	546	90.85%			
Fiduciary Training for Committee	544	90.52%			
Education Program Strategy	533	88.69%			
Compliance Oversight	415	69.05%			
Financial Wellness Program Strategy	390	64.89%			
Financial Wellness External Provider Search	260	43.26%			
Other Specialized Committee Training	214	35.61%			

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CAPTRUST is not affiliated with Ann Schleck & Co or Fi360. CAPTRUST does not participate in the Ann Schleck survey and is not represented in the data shown. The purpose of this report is to provide information gathered from a third party regarding investment advisory fees and services. It is not intended to be solely relied upon by the plan sponsor in determining the fee reasonableness of investment advisory fees. Data is from sources deemed to be.





Planning toward lifelong financial security for you and your employees

Kalamazoo Valley Community College

PRESENTATION BY

Ruben Barrera

September 27, 2023

Legislation



What to know about SECURE 2.0 Act

The provisions are intended to expand access to retirement plans, reinforce the importance of saving, and offers more workers more opportunity for lifetime income in retirement.

Spotlight on key provisions:

2022/2023 2024+

MANDATORY

- Increase Required Minimum Distribution (RMD) age from 72 to 73 starting 2023, then to 75 by 2033.
- Penalty for failure to take RMD is reduced from 50% to 25%.

OTHER/OPTIONAL

- Allows participants to self-certify hardship distributions
- Treatment of employer matching and nonelective contributions as Roth
- Reduces some required disclosures for "unenrolled" participants
- Eliminates partial annuitization penalty for RMD purposes.
 Regulations are needed to effectuate.
- Allows employers to offer small financial incentives to employees for contributing to a retirement plan
- Permits 403(b) sponsors to join a multiple employer plan (MEP) or pooled employer plan (PEP)
- <Eliminates the "first day of the month" rule for governmental 457(b) plans>

MANDATORY

- Age 50+ catch-up contributions made to a retirement plan must be designated as Roth if the participant earned more than \$145,000 in the prior year with employer sponsoring the plan
- Reduces the service requirement for part-time workers in 401(k) plans to 2 years-down from 3 years- to enroll and this extends to ERISA 403)(b) plans
- Expands auto-enrollment and auto-escalation policies for new plans (2025)
- Creates retirement savings "lost and found" database (2025)

OTHER/OPTIONAL

- Student loan payments eligible for matching contributions
- Increases age-based catch-up contribution amounts for participants aged 50+ and aged 60-63
- Provides participants with emergency savings and withdrawal options
- Modifies certain reporting and disclosure requirements



Consideration checklist and next steps

- Review the mandatory versus other/optional provisions carefully as they may have different meanings depending upon the terms of a specific plan.
- Assess the impact to your retirement plan objectives, goals and overall plan design.
- Operational impact may include:
 - · Provision impact to retirement plan goals
 - Budget and timing resource allocation
 - Potential updates to payroll file and current salary deferral process
 - Employee communications and education
 - Programming and IT change requirements
 - Update plan documents as needed
 - Plan amendments must be made on or after January 1, 2025 (2027 in the case of governmental plans)



SECURE 2.0 Act enacted into law: What it means for plan sponsors and employees

As of March 2023

Securing a Strong Retirement Act (SECURE 2.0 Act of 2022) is an important piece of retirement legislation that was signed into law on December 29, 2022. This Act includes provisions intended to make retirement plans more widely accessible, reinforces the importance of saving; and offers many American workers the opportunity for greater financial security in retirement.

Now is the time for plan sponsors and consultants to understand how the provisions of the new law may impact their retirement plans. We've assembled this summary as a starting point for helping you to build a deeper understanding of the provisions within the bill. We expect additional guidance regarding the implementation of the provisions and will provide timely updates to you.

This SECURE 2.0 provision summary guide is organized into four sections

- 1. Near-term provisions to focus on
- 2. Beyond 2023: additional provisions to consider
- 3. Provisions specific to IRAs only
- Within the first two sections, the provisions are divided into two categories: mandatory and other I optional. We've updated these two categories and recategorized provisions, as applicable. Mandatory' means either employers are required to implement the SECURE 2.0 provision for their plan, or the provision is applicable by law but does not require a plan change. Other I optional means either the SECURE 2.0 provision may, but is not required, be implemented by a plan sosons or there are other applicable to considerations.

For each provision, we've included a high-level description, the impacted plan type(s), effective date and the Act section number. Note the effective date for the provisions vary—some start immediately (12/29/22 SECURE 2.0 enactment) and others start in years to come.

Plan sponsors should review all provisions with their legal counsel to determine how a provision may impact their plan(s)



Visit and bookmark TIAA.org/SecureAct2.



Plan Sponsor Summary



Using actual participant salary data enables better analysis, reporting and outreach



Deeper plan- and participantlevel measurement

- Evaluation of how guaranteed lifetime income options can impact plan outcomes
- Detailed analysis of employee retirement readiness including:
- Examination of how participants' actual saving and investment behavior can impact plan outcomes



Integrated business planning and reporting

- Outcomes-based analysis provided in your annual Business Plan, Plan Review & Communication, Education & Advice Plan
- Access to your participant retirement readiness summary, individual income replacement ratios & lists of at-risk employees on PlanFocus[®]



Personalized employee engagement

- Targeted employee communication, education & advice programs
- Employees' projected income in retirement is available on their individual retirement plan account home page

Any guarantees under annuities issued by TIAA are subject to TIAA's claims-paying ability.



How it applies to a single participant

Dana, 46 years old, program administrator

Dana is in her mid career so saving behavior and her risk-based asset allocation are the primary drivers of her overall score. As she enters preretirement, protecting her assets and income will play a larger role.

Dana's third-party recommendations vs. behaviors









Saving for the future (64% of score)



Managing investments and finances (31% of score)



Protecting against key risks (5% of score)

Overall rating



Could improve

Executive summary: Snapshot

Outcomes profile	Plan profile	Participant profile			
102.1% Average income replacement ratio ¹	\$58.6 Million Assets	336 Participants with balances			
16.5% Year-over-Year	14.8% Year-over-Year				
	Contributions \$4,072,593	Participant Counts and Average Balances ³			
Annuitants (as of 12/31/2022) \$0.18M \$30,251	 18.3% Year-over-Year ■ Employer 49.8% \$2,026,872 ■ Employee 32.3% \$1,316,271 ■ Matching 0.0% \$0 ■ Rollovers 17.9% \$729,450 	Active 231 69% \$198,874 Terminated 88 26% \$137,482 Other 17 5% \$23,934			
Total annual Average annual payout	Distributions ² \$2,591,704	Engagement (as of 06/30/2023)			
	↓ -48.7% Year-over-Year	Total phone calls (Transactional) 26			
	■ Loan 5.0% \$130,728 ■ In-service 19.5% \$504,860	Advice 38			
	Terminated 60.6% \$1,570,280 Other 14.9% \$385,836	Increased contributions 179			
		Rebalanced 9			

This report is as of the period ending 06/30/2023 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 06/30/2023 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.



Report methodology and assumptions

Annual updates to capital market assumptions

Morningstar routinely updates TIAA's advice engine methodology, which powers the POA, to better align assumptions with future market expectations and life expectancy changes. Our advice applications and tools reflect the most recent capital market assumptions (CMAs) provided by Morningstar. This routine update, which typically occurs annually, includes the following:

- Adjustment to the long-term average inflation rate, rates of return, risk (standard deviation), and correlation coefficients for all asset classes
- Adjustment of forecasted/projected rates of return used in Monte Carlo simulations, used to assess the likelihood of achieving goals.

This year, changes to assumptions were generally small and factors more likely to impact projections are contributions, withdrawals (if any) and changes in the market value of the participant's investment.

Note: The CMAs are available upon request. You have the option to request specific capital market assumptions.

Social Security

Over the past few years we have noted in the POA that uncertainty around the role of Social Security in its current form represents a potential risk to participants and should be factored into interpreting your plan-level outcomes. To help you understand the potential magnitude of this risk, included in this POA is an alternative hypothetical projection of your plan's income replacement ratio assuming participants retiring after 2034 receive reduced level of income (21% less) from Social Security based on the 2018 Social Security Trustees Report. We are not trying to predict what Social Security reform will look like if and when it occurs. But we felt that quantifying the potential impact to plan outcomes absent reforms using the Trustee report as a source could add value to the discussion on the role of Social Security in your plan. This alternative calculation can be found in the footnote on page titled "Different income sources provide various benefits and risks." In general, the reduction in income replacement from Social Security for participants' retiring after 2034 is approximately 10 percentage points.

Behaviors relative to advice

The Financial Wellness Assessment aligns to Morningstar advice methodology to in-plan behaviors such as savings, asset allocation (Managing) and investments in guaranteed asset class (Protecting). The individual behaviors are weighted and combined at the participant level. We run this analysis for participants who are active and for whom we have an actual salary.

- The Savings analysis is based upon comparing a participant's combined employee and
 employer savings rate to their Morningstar recommendation. The difference between the
 two is calculated as a percent and translated to a 4.0 scale. Those who are at or above
 their recommended savings level are exhibiting "good behavior." A score below 3.7 through
 1.7 is assigned a "could improve" designation and those below 1.7 are assigned a "may
 need more help" designation.
- The Managing grade compares a participant's risk level to the risk level recommended by Morningstar. If the difference between the actual and recommended is "0" or "1," the participant is exhibiting a "good behavior." A difference of 2 or 3 "could improve," and 4 or 5 "may need more help."
- The Protecting grade is calculated for participants who have a recommendation for
 guaranteed asset class in their portfolio. The logic is same as with the Savings category in
 that a difference between the actual and recommended percentage is calculated and
 turned into a grade based upon a 4.0 scale. Those who are at or above their recommended
 exposure to the guaranteed asset class are exhibiting "good behavior." A score below 3.7
 through 1.7 is assigned a "could improve" designation and those below 1.7 are assigned a
 "may need more help" designation.

The overall weighting is age based with an emphasis on savings. The weight of the savings component is derived by subtracting a participant's age from 110. For example, the weight of the Savings component for a 40-year-old is 70%. The other two components, Managing and Protecting, are calculated by subtracting 70% from 100% and sharing that 30% weighting as follows: If that 40-year-old participant has a recommended guaranteed asset class percentage of 5%, that is the weighting for the Protecting component and the remaining 25% is the weighting for the asset allocation (Managing) component. An exception to this rule occurs when a participant is 60 and older with assets more than \$1M. Then the calculation logic is the same but we begin by subtracting the age from 90 rather than 110.



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 by 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.



Income replacement ratio methodology and assumptions

Annual updates to capital market assumptions

Morningstar routinely updates TIAA's advice engine methodology, which powers the POA, to better align assumptions with future market expectations and life expectancy changes. Effective 12/31/2018, our advice applications and tools will reflect the most recent capital market assumptions (CMAs) provided by Morningstar. This routine update, which typically occurs annually, includes the following:

- Adjustment to the long-term average inflation rate, rates of return, risk (standard deviation), and correlation coefficients for all asset classes.
- Adjustment of forecasted/projected rates of return used in Monte Carlo simulations, used to assess the likelihood of achieving goals.

This year, there have been slight decreases in the 10- and 20-year rates of return for most equities and fixed income asset classes. As a result, those with more aggressive portfolios closer to retirement will see more of an impact such as a greater decrease in wealth values and a decrease in the probability of achieving goals success while those with more conservative forecasted equity return assumptions will experience reduced equity projections.

Note: The CMAs are available upon request. You have the option to request specific capital market assumptions.

Updates to Social Security

Additional enhancements to our advice engine are being made to update Social Security projections. Morningstar has refined the Social Security calculations for individuals that have turned 62 years old. The new engine dynamically calculates wage index factors depending on when the investor turns 60 years old, and bend points depending on when the investor turns 62 years old. This may reduce Social Security income projected for active participants over 67.

Over the past few years we have noted in the POA that uncertainty around the role of Social Security in its current form represents a potential risk to participants and should be factored into interpreting your plan-level outcomes. To help you understand the potential magnitude of this risk, included in this POA is an alternative hypothetical projection of your plan's income replacement ratio assuming participants retiring after 2034 receive reduced level of income (21% less) from Social Security based on the 2018 Social Security Trustees Report. We are not trying to predict what Social Security reform will look like if and when it occurs. But we felt that quantifying the potential impact to plan outcomes absent reforms using the Trustee report as a source could add value to the discussion on the role of Social Security in your plan. This alternative calculation can be found in the footnote on page titled "Different income sources provide various benefits and risks."

Updated assumptions about life expectancy

Our Morningstar-driven retirement planning applications and tools have been enhanced to reflect increased life expectancy. The POA, as all our tools, now assumes life expectancy to be longer than average. Please note that this change may have caused the estimated retirement income result to be lower (and the estimated retirement savings needs to be higher) than if a shorter life expectancy was assumed.

The retirement income projection assumes the following estimated life expectancies: a male, age 67, will live until age 91 and a female, age 67, will live until age 93. These assumptions are based on an approach which uses the Gompertz Law of Mortality and the 2012 Society of Actuaries Immediate Annuity Mortality table to determine life expectancy. The approach is developed and owned by Morningstar Investment Management. It is important to note that these life expectancy assumptions are longer than average, meaning that only 30% of the population is estimated to reach these ages. This may cause the estimated retirement income result to be lower (and estimated retirement savings needs to be higher) than if a shorter life expectancy was assumed. These assumptions may not be appropriate for all investors. Forecasts involve known and unknown risks, uncertainties and other factors which may cause the actual results to differ materially and/or substantially from the estimated retirement income result.

What is the potential impact of all these methodology changes to the POA?

Taken together, these changes may impact plan-level income-replacement ratios provided via the TIAA Plan Outcome Assessment®. Ultimately, the level of impact to a specific participant or plan sponsor will be unique.

While every plan may be different depending on the demographics and participant savings and investing behaviors, we expect the combined impact of these change could result in a decrease in a plan's average retirement income replacement ratio of approximately 5-7 percentage points, of which the change in life expectancy represents 4-5 percentage points. Plans with more younger participants and/or active participants over age 67 may be impacted more.

These ranges exclude the impact from the down equity markets in 2018. For example, the S&P 500 was down 13.8% in the fourth quarter of 2018 and down 4.4% for the year.



Market Analysis





Retirement plans must be able to tackle important risks that erode savings

Participant retirement risks

Longevity



Chance that one partner of a couple age 65 will live to 951

Market



2008–2009 drop in the market from risk of withdrawing money in a down market

Cognitive



Over 6 million

Americans may have dementia caused by Alzheimer's²

Inflation



Inflation
diminishes your
purchasing power
over time



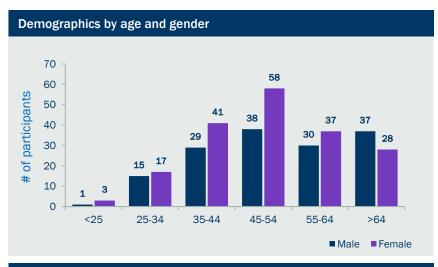
Retirement income planning is a really hard problem... the hardest problem I've ever looked at.

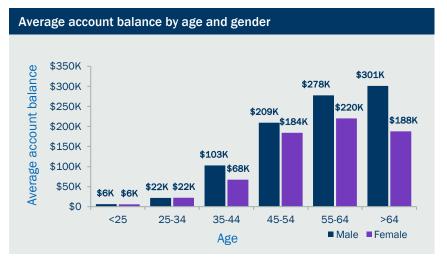
Dr. William Sharpe,
 Economist, Nobel Laureate³

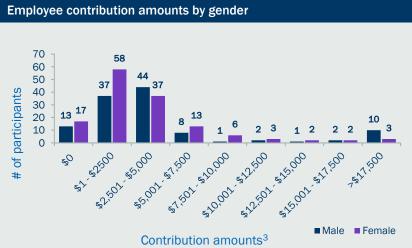
1. Based on January 2021 TIAA dividend mortality tables. 2. Source: 2022 National Institute on Aging www.nia.nih.gov. 3. Avery Phillips, Smarter Time, June 2019



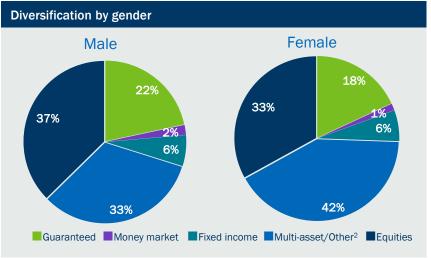
Employee summary: Gender and age







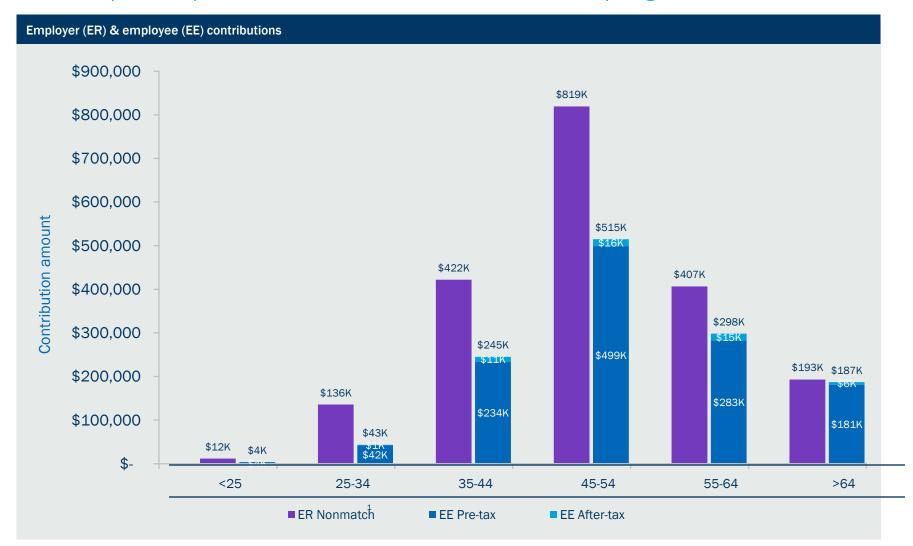
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This report is as of the period ending 06/30/2023 and reflects the trailing 12 months of activity unless otherwise noted. The report includes all TIAA plans except 457(f), 457(b) Private, Nonqualified Deferred Compensation, and Retirement Healthcare plans. 1. Data reflected is for all participant statuses except Employee Contribution Rates by Gender which applies additional filters. 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.



Active participants: Contribution amounts by age



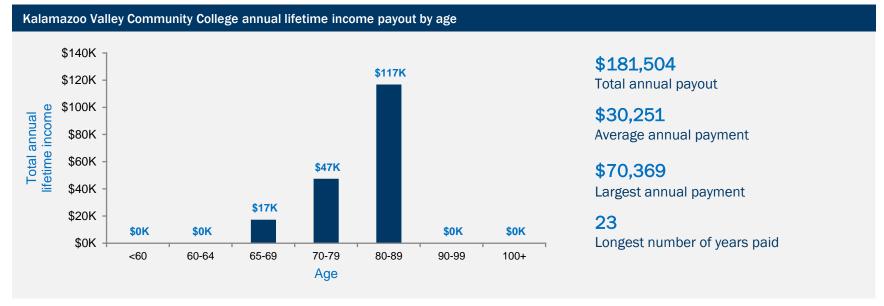
This report is as of the period ending 06/30/2023 and reflects the trailing 12 months of activity unless otherwise noted. The report includes all TIAA plans except 457(f), 457(b) Private, Nonqualified Deferred Compensation, and Retirement Healthcare plans. 1. "ER nonmatch" includes all employer contributions other than match contributions.



Your plan's retirement outcomes for annuitized participants

Kalamazoo Valley Community College annuitant profile (as of 12/31/2022)

6 65-69 60-64 80-89 Age group 50-59 70-79 90-99 100+ Total annuitants with assets 0 0 1 2 3 0 0 **Annuitants** 77 Average age Average annual \$0 \$0 \$17,365 \$23,700 \$38,913 \$0 \$0 12 payout Average years annuitized



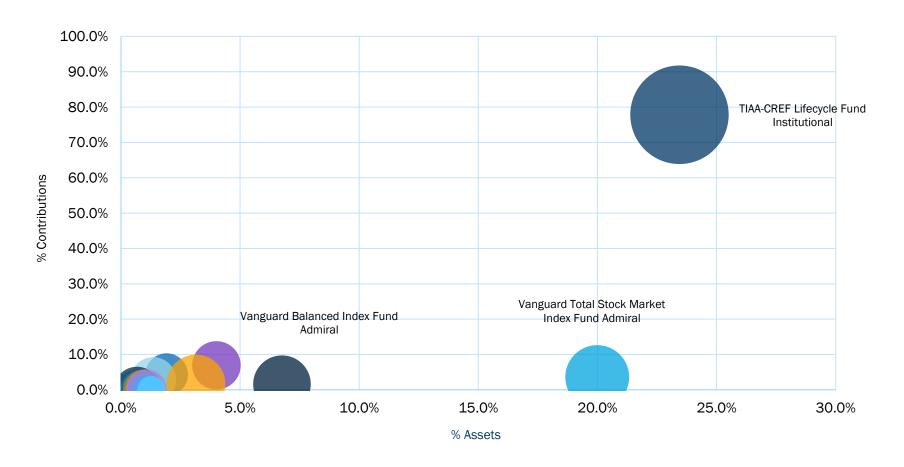
^{1.} Please note: these individuals may not be active participants or included in the data set used to calculate the plan's income replacement ratio.

Investments



Investment flow summary

of participants (bubble size)



This report is as of the period ending 06/30/2023 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%	10%	20%
TIAA Traditional	98	\$11,595,586	19.80%			
CREF Stock R1	81	\$3,957,304	6.76%			
CREF Growth R1	26	\$3,526,937	6.02%			
TIAA-CREF Lifecycle 2035-Inst	37	\$3,436,824	5.87%			
Vanguard Ttl Stk Mkt ldx Adm	57	\$2,347,166	4.01%			
otal as a % of total assets		\$24,863,817	42.46%			
	Participant count	Total assets	Balance % of total	0%	0%	0%
TIAA Access Lifecycle 2060 T2	2	\$21,213	0.04%	0%	0%	<u> </u>
TIAA Access Lifecycle 2060 T2 TIAA-CREF Lifecycle 2065-Inst				0%	0%	
	2	\$21,213	0.04%	0%	0%	<u> </u>
TIAA-CREF Lifecycle 2065-Inst	2	\$21,213 \$12,781	0.04% 0.02%	0%	0%	
TIAA-CREF Lifecycle 2065-Inst TIAA-CREF Lfcyle Rtmt Inc-Inst	2 2 1	\$21,213 \$12,781 \$2,683	0.04% 0.02% 0.00%	0%	0%	0%

This report is as of the period ending 06/30/2023 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.



Working together to drive better outcomes



Show each employee a clear path to retirement

- Meet the needs of a highly diverse workforce with a more engaging, tailored approach.
- Consider personalized, inplan asset allocation advice for all employees regardless of their net worth or income.



Quantify outcomes in terms of income replacement

- Measure retirement readiness and income replacement gaps.
- Provide the options
 participants need to properly
 diversify and generate
 lifetime income in retirement.



Increase efficiency and optimize plan management

- Consolidate recordkeeping solutions to provide simplicity and control.
- Evaluate innovative investment offerings designed to help meet emerging needs.
- Simplify plan administration for your HR team while making it easier for participants to understand and make choices.

Thank you







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SECURE 2.0 Act enacted into law: What it means for plan sponsors and employees As of May 2023

Securing a Strong Retirement Act (SECURE 2.0 Act of 2022) is an important piece of retirement legislation that was signed into law on December 29, 2022. This Act includes provisions intended to make retirement plans more widely accessible; reinforces the importance of saving; and offers many American workers the opportunity for greater financial security in retirement.

Now is the time for plan sponsors and consultants to understand how the provisions of the new law may impact their retirement plans. We've assembled this summary as a starting point for helping you to build a deeper understanding of the provisions within the bill. We expect additional guidance regarding the implementation of the provisions and will provide timely updates to you.

This SECURE 2.0 provision summary guide is organized into four sections:

- 1. Near-term provisions to focus on today
- 2. Beyond 2023: additional provisions to consider
- 3. Provisions specific to IRAs only
- 4. Additional provisions

Within the first two sections, the provisions are divided into two categories: *mandatory* and *other / optional*. We've updated these two categories and recategorized provisions, as applicable. 'Mandatory' means either employers are required to implement the SECURE 2.0 provision for their plan, or the provision is applicable by law but does not require a plan change. 'Other / optional' means either the SECURE 2.0 provision may be implemented-but is not required-by a plan sponsor or there are other applicability considerations.

For each provision, we've included a high-level description, the impacted plan type(s), effective date and the Act section number. Note the effective date for the provisions varies—some start immediately (12/29/22 SECURE 2.0 enactment) and others start in years to come.

Plan sponsors should review all provisions with their legal counsel to determine how a provision may impact their plan(s).

Near-term provisions > MANDATORY

Near-term provisions to focus on today

The provisions in this section are likely to impact retirement plans now. Some of these provisions are effective 12/29/22—the date of SECURE 2.0 enactment—and other provisions are effective in 2023.

The provisions are divided into two categories: *mandatory* and *other / optional*. We've updated these two categories and recategorized provisions, as applicable. 'Mandatory' means either employers are required to implement the SECURE 2.0 provision for their plan, or the provision is applicable by law but does not require a plan change. 'Other / optional' means either the SECURE 2.0 provision may be implemented-but is not required-by a plan sponsor or there are other applicability considerations.

MANDATORY PROVISIONS

Provision (bill section number)	Description	Effective date
Required minimum distribution (RMD) age increase (§107)	Increases the age for RMDs from 72 to 73 starting in 2023, and then to 75 starting in 2033. Federal guidance is needed to determine the RMD age for individuals born in 1959. Affected plan types: 401(a), 401(k), 403(b), 457(b), other defined contribution plans, traditional IRAs, simplified employee pensions (SEPs), SIMPLE IRAs	Distributions required to be made after 12/31/22, then distributions required to be made after 12/31/32
Remove required minimum distribution barriers of life annuities (§201)	Eliminates certain barriers to the availability of life annuities that arise under current law due to an actuarial Minimum Income Threshold Test (MITT) in the required minimum distribution regulations, such as annuity payments that increase by less than 5% per year and lump-sum return of premium death benefits. Affected plan types: 401(a), 401(k), 403(b), 457(b) and other defined contribution plans, and traditional IRAs, SEP IRAs, SIMPLE IRAs, Roth IRA beneficiary accounts	Calendar years ending after December 29, 2022
Reduction in excise tax (§302)	The penalty for failure to take required minimum distributions is reduced from 50% to 25%. The excise tax may be reduced to 10% if corrected in a timely manner. A taxpayer may need to seek the reduction in the penalty tax in his or her tax filing. Affected plan types: 401(a), 401(k), 403(b), 457(b) and other defined contribution plans, traditional IRAs, SEP IRAs, SIMPLE IRAs, Roth IRA beneficiary accounts	Taxable years beginning after 12/29/22
Distribution to firefighters (§308)	The special rule for "qualified public safety employees" in governmental plans, under which age 50 is substituted for age 55 for purposes of this exception from the 10% tax, now extends to private sector firefighters. The taxpayer may need to seek the exception to the penalty tax in his or her tax filing.	Distributions made after 12/29/22

Near-term provisions > MANDATORY (Cont'd)

Provision (bill section number)	Description	Effective date
	Affected plan types: 401(a), 401(k), 403(a), 403(b) plans sponsored by private entities	
Substantially equal periodic payment rule (§323)	The exception to the 10% equal periodic payment continues to apply in the case of a rollover of the account, an exchange of an annuity providing the payments, or an annuity that satisfies the required minimum distribution rules. The taxpayer may need to seek the exception to the penalty tax in his or her tax filing. Affected plan types: 401(a), 401(k), 403(a), 403(b), IRAs	12/29/22 for annuity distributions 12/31/23 for transfers, rollovers and exchanges
Exception to penalty for individuals with a terminal illness (§326)	An exception to the 10% early withdrawal tax is provided in the case of a distribution to a terminally ill individual. The taxpayer may need to seek the exception to the penalty tax in his or her tax filing. Affected plan types: 401(a), 401(k), 403(a), 403(b), IRAs	Distributions made after 12/29/22
Repeal of direct payment requirement on exclusion from gross income of distributions from governmental plans for health and long-term care insurance (§328)	There is no longer a requirement for a governmental plan to pay health insurance premiums directly for a public safety officer to receive the \$3,000 exclusion from gross income. The taxpayer may need to seek the exclusion in his or her tax filing. Affected plan types: Governmental 401(a), 401(k), 403(a), 403(b), 457(b)	Distributions made after 12/29/22
Modify eligible age for exemption from early withdrawal penalty (§329)	The exemption from the 10% tax on early distributions which applies to a distribution from a governmental plan to a public safety officer who is at least age 50 is extended to include public safety officers with at least 25 years of service with the employer sponsoring the plan. The taxpayer may need to seek the exception to the penalty tax exception in his or her tax filling. Affected plan types: Governmental. 401(a), 401(k), 403(a), 403(b)	Distributions made after 12/29/22
Exemption from penalty for corrections employees (§330)	The public safety officer exemption to the 10% penalty on early distributions is also extended to corrections officers who are employees of state and local governments. The taxpayer may need to seek the penalty tax exception in his or her tax filing. Affected plan types: Governmental. 401(a), 401(k), 403(a), 403(b)	Distributions made after 12/29/22
Corrections of mortality tables (§335)	For purposes of the minimum funding rules, a pension plan is not required to assume beyond the plan's valuation date future mortality improvements at any age greater than 0.78%. Affected plan types: 401(a) defined benefit plans	2/29/22

Near-term provisions > MANDATORY (Cont'd)

Provision (bill section number)	Description	Effective date
Recognition of tribal government domestic relations orders (§339)	Tribal courts are added to the list of courts authorized under federal law to issue qualified domestic relations orders (QDRO). This applies to domestic relations orders received by plan administrators after the effective date, including any submitted for reconsideration after such date.	QDRO received by plan administrators after 12/31/22
	Affected plan types: 401(a), 401(k), 403(b), 457(b)	

Provision (bill section number)	Description	Effective date
Information needed for financial options risk mitigation act (§342)	Pension plan administrators must provide plan participants and retirees with critical information that would allow people considering what is best for their financial futures to compare between benefits offered under the plan and the lump sum, and would explain how the lump sum was calculated, the ramifications of accepting a lump sum, such as the loss of certain federal protections, details about the election period, where to follow up with questions and other information. Affected plan types: ERISA 401(a) defined benefit plans	The DOL must issue regulations not earlier than 12/29/23, which may not be effective earlier than 1 year after a final rule
Cash balance (§348)	For plan sponsors of a hybrid plan that use a variable crediting rate, the interest crediting rate that is treated as in effect and as the projected interest crediting rate is a reasonable projection of such variable interest rate, subject to a maximum of 6 percent. Affected plan types: 401(a) defined benefit plans	Plan years beginning after 12/29/22
Termination of variable rate premium indexing (§349)	The "applicable dollar amount" language is now a flat \$52 for each \$1,000 of unfunded vested benefits for determining the premium fund target for purposes of unfunded vested benefits. Affected plan types: 401(a) defined benefit plans	12/29/22
Plan amendments (§501)	Plan amendments are allowed on or before the last day of the first plan year beginning on or after January 1, 2025 (2027 in the case of governmental plans), as long as the plan operates in accordance with such amendments as of the effective date of a bill requirement or amendment. Plan amendment dates are aligned under the SECURE Act, the CARES Act, and the Taxpayer Certainty and Disaster Tax Relief Act of 2020 to these new dates (instead of 2022 and 2025). Affected plan types: 401(a), 401(k), 403(b), 457(b)	12/29/22

Enhancing retiree health benefits in pension plans (§606)

The sunset date is extended to the end of 2032 for employers to use assets from an overfunded pension plan to pay retiree health and life insurance benefits, subject to specific requirements.

Affected plan types: 401(a) defined benefit plans

Transfers made on or after 12/29/22

OTHER / OPTIONAL PROVISIONS

Provision (bill section number)	Description	Effective date
Modification of credit for small employer pension plan startup costs (§102)	Increases the small business startup credit from 50% to 100% for employers with up to 50 employees. Except in the case of defined benefit plans, an additional credit is provided, generally a percentage of the amount contributed by the employer on behalf of employees, up to a per-employee cap of \$1,000. Affected plan types: 401(a), 403(a), SEPs, SIMPLE retirement accounts	Taxable years beginning after 12/31/22
Pooled employer plan modification (§105)	Allows a pooled employer plan (PEP) to designate a named fiduciary other than an employer in the plan to collect contributions to the plan. Affected plan types: 401(a), 401(k), 403(b) PEPs	Plan years beginning after 12/31/22
Multiple employer plans (MEPs) (§106)	Permits 403(b) plan sponsors to join together under a single, multiple employer plan (MEP) or pooled employer plan (PEP). Relief from the "one bad apple" rule is included, protecting the tax treatment of compliant employers from the violations of any one employer in the group. Affected plan type: 403(b)	Plan years beginning after 12/31/22
Clarifies start-up credit for MEPs (§111)	The start-up credit for small businesses joining a multiple employer plan (MEP) or pooled employer plan (PEP) is available for 3 years based on the date the employer joins the MEP/PEP. Employers with up to 100 employees are generally eligible for the annual tax credit. Affected plan types: 401(a), 401(k), 403(b) MEPs and PEPs	Retroactively for taxable years beginning after 12/31/19
Military spouse retirement plan eligibility credit for small employers (§112)	Small employers are eligible for a tax credit with respect to their defined contribution plans if they (1) make military spouses immediately eligible for plan participation within 2 months of hire, (2) upon plan eligibility, make the military spouse eligible for any matching or nonelective contribution that they would have been eligible for otherwise at 2 years of service, and (3) make the military spouse 100% immediately vested in all employer contributions. Affected plan types: Defined contribution plans sponsored by forprofit entities	Taxable years beginning after 12/31/22
Small, immediate financial incentives for contributing to a plan (§113)	Allows employers to offer employees de minimis financial incentives (such as gift cards in small amounts) for making deferrals to a retirement plan, provided plan assets are not used to fund the incentives. . Affected plan types: 401(k), 403(b)	Plan years beginning after 12/29/22

Provision (bill section number)	Description	Effective date
Tax treatment of certain nontrade or business SEP contributions	Employers of domestic employees (e.g., nannies) are permitted to provide retirement benefits for such employees under a Simplified Employee Pension (SEP).	Taxable years beginning after 12/29/22
(§118)	Affected plan types: SEPs	, _ ,
Section 415 limit for employees of rural electric cooperatives	The compensation-based limit for participants who are non- highly compensated employees and participate in a rural electric cooperative retirement plan is eliminated.	Limitation years ending after 12/29/22
(§119)	Affected plan types: Rural electric cooperative retirement plans	
Enhancement of 403(b) plans (§128)	Congress enhanced the federal tax code to allow 403(b) plans to offer Collective Investment Trusts (CITs). However, federal securities laws still need to be amended for 403(b) plans to include CITs. As a result, CITs are still unavailable in 403(b) plans.	Investments after 12/29/22, but pending further amendment
	Affected plan type: 403(b)	
Eliminate partial annuitization penalty (§204)	When a portion of a participant's defined contribution plan account is distributed in the form of annuity payments, and the annuity payments exceed the amount that would be required to be distributed under the individual account rules based on the value of the annuity, the excess annuity payment amount for a year can be applied towards the RMD due for the year from the remaining portion of the plan account. Regulatory guidance is needed to effectuate. Affected plan types: 401(a), 401(k), 403(b), 457(b), other defined	Plan years beginning after 12/29/22
	contribution plans, traditional IRAs, SEP IRAs, SIMPLE IRAs, Roth IRA beneficiary accounts	
Recovery of retirement plan overpayments (§301)	Retirement plan fiduciaries are given the latitude to decide not to recoup overpayments that were mistakenly made to retirees. If plan fiduciaries choose to recoup overpayments, limitations and protections apply to safeguard retirees. Affected plan types: 401(a), 401(k), ERISA 403(b)	12/29/22
Expansion of Employee Plans Compliance Resolution System (§305)	 The Employee Plans Compliance Resolution System (EPCRS) is expanded to: Allow more types of errors to be corrected internally through self-correction Apply to inadvertent IRA errors Exempt certain failures to make required minimum distributions from the otherwise applicable excise tax Affected plan types: 401(a), 403(a), 403(b), SEPs, SIMPLE retirement accounts	12/29/22

Near-term provisions > OTHER / OPTIONAL (Cont'd)

Provision (bill section number)	Description	Effective date
Eliminate the "first day of the month" requirement for governmental section 457(b) plans (§306)	Eliminates the "first day of the month" rule for governmental 457(b) plans allowing participants to change their salary deferrals at any time in the month so long as the compensation has not yet been made available to them. Affected plan type: Governmental 457(b)	Tax years beginning after 12/29/22
Qualified birth or adoption distributions (QBADs) repayment (§311)	Allows individuals to receive distributions from their retirement plan in the case of birth or adoption without paying the 10 percent additional tax under Code section 72(t) (known as a qualified birth or adoption distribution, or "QBAD"). Participants who take qualified birth or adoption distributions must repay the amount to a retirement plan account within three years for it to be considered a rollover. Plan sponsors do not have to allow QBADs to be recontributed to the plan. Affected plan types: 401(a), 401(k), 403(b), governmental 457(b), Traditional IRAs	Distributions made after December 29, 2022, and retroactively to the 3-year period beginning on the day after the date on which such distribution was received.
Employee certifying hardship (§312)	Under certain circumstances, employees are permitted to self-certify that they have had an event that constitutes a hardship (or unforeseeable emergency for governmental 457(b) plans) for purposes of taking a hardship withdrawal. Affected plan types: 401(k), 403(b), governmental 457(b)	Plan years beginning after 12/29/22
Retroactive first year elective deferrals for sole proprietors (§317)	An employer may establish a new 401(k) plan after the end of the taxable year, but before the tax filing date, and treat the plan as having been established on the last day of the taxable year. Such plans may be funded by employer contributions up to the employer's tax filing date. When the plan is sponsored by a sole proprietor or single member LLC, it may receive employee contributions up to the date of the employee's tax return filing date for the initial year. Affected plan types: 401(k)	Plan years beginning after 12/29/22
"Unenrolled" participant disclosures (§320)	Plan sponsors are no longer required to distribute certain otherwise-required notices under ERISA and the Code to employees who are not enrolled as participants in their retirement plan. However, the plan is required to send an annual reminder notice of the participant's eligibility to participate in the plan and any other required notice requested by the participant. Affected plan types: 401(a), 401(k), 403(a), ERISA 403(b)	Plan years beginning after 12/31/22

Near-term provisions > OTHER / OPTIONAL (Cont'd)

Provision (bill section number)	Description	Effective date
Use of retirement funds in connection with federally declared disasters (§331)	Participants affected by a federally declared disaster occurring on or after January 26, 2021, are permitted to take a penalty-free withdrawal up to a limited amount from their retirement plan or IRA. Such distributions are considered gross income over 3 years. Distributions can be repaid.	For disasters occurring on or after 01/26/21
	Affected plan types: 401(a), 403(a), 403(b), governmental 457(b), IRAs	
RMD rules for special needs trust	In the case of a special needs trust established for a beneficiary with a disability, the trust may provide for a charitable organization as the remainder beneficiary.	Calendar years beginning after
(§337)	Affected plan types: 401(a), 401(k), 403(a), 403(b), 457(b), IRAs	12/29/22
Annual audits for group of plans (§345)	Under current law, generally, a Form 5500 for a defined contribution plan must contain an opinion from an independent qualified public accountant as to whether the plan's financial statements and schedules are fairly presented. However, no such opinion is required with respect to a plan covering fewer than 100 participants. Defined contribution plans filing under a group of plans are only required to submit an audit opinion if they have 100 participants or more. Affected plan types: ERISA 401(a) and 401(k) plans	12/29/22
SIMPLE and SEP Roth IRAs (§601)	SIMPLE IRAs are now allowed to accept Roth contributions. In addition, employers are now allowed to offer employees the ability to treat employee and employer SEP contributions as Roth (in whole or in part). Affected plan types: SIMPLE IRAs, SEPs	Taxable years beginning after 12/31/22
Optional treatment of employer matching contributions as Roth contributions (§604)	Permits 401(a), 403(b), or governmental 457(b) plan participants to designate employer-matching contributions as Roth contributions. Permits 401(a), 403(b), or governmental 457(b) plan participants to designate employer-matching and/or non-elective contributions as Roth contributions.	Contributions made after 12/29/22
	Affected plan types: 401(k), 403(b), governmental 457(b)	

The provisions in this section are effective 12/31/23, and beyond. Although the effective dates for these provisions may not impact a plan immediately, we encourage you to evaluate them and plan accordingly.

The provisions are divided into two categories: *mandatory* and *other / optional*. We've updated these two categories and recategorized provisions, as applicable. 'Mandatory' means either employers are required to implement the SECURE 2.0 provision for their plan, or the provision is applicable by law but does not require a plan change. 'Other / optional' means either the SECURE 2.0 provision may be implemented-but is not required-by a plan sponsor or there are other applicability considerations.

MANDATORY PROVISIONS

Provision (bill section number)	Description	Effective date
Auto-enrollment in new retirement plans (§101)	A newly established 401(k) or 403(b) plan must automatically enroll participants in the respective plan upon becoming eligible and include auto-escalation provisions unless an exception is met.	Plan years beginning after 12/31/24
	Affected plan types: 401(k), 403(b)	
Penalty-free withdrawals for certain emergency expenses	The 10% early withdrawal penalty tax is waived for withdrawals from a retirement plan account for personal or family emergency expenses. The taxpayer may need to seek an exception to the penalty tax in his or her tax filing.	Distributions made after 12/31/23
(§115)	Affected plan types: 401(a), 401(k), 403(b), 403(c), traditional IRAs	
Improving coverage for part-time workers (§125)	Reduces the service requirement for part-time workers to 2 years—down from 3 years—to enroll in ERISA 401(k) and 403(b) plans. Service for 12-month periods beginning before January 1, 2023, are not taken into account for purposes of the new participation and vesting rules. Pre-2021 service is disregarded for vesting purposes (retroactive to plan years beginning after 12/31/20) for 401(k) plans.	Plan years beginning after 12/31/24
	Affected plan types: ERISA 401(k) and 403(b) plans	
Retirement savings "lost and found" (§303)	Establishes a national online searchable database to allow individuals to locate the plan administrator of any plan in which they have been a participant or beneficiary.	No later than 2 years after 12/29/22
(3000)	Affected plan types: ERISA 401(a), 401(k), and 403(b) plans	

Beyond 2023 > MANDATORY (Cont'd)

Provision (bill section number)	Description	Effective date
Reform of family attribution rule (§315)	Stock attribution rules: Address inequities where spouses with separate businesses reside in a community property state when compared to spouses who reside in separate property states. Modifies the attribution of stock between parents and minor children. Affected plan types: 401(a), 401(k), 403(b)	Plan years beginning after 12/31/23
Roth plan distribution rules (§325)	Pre-death required minimum distributions for Roth accounts in employer plans are eliminated. Minimum distributions due in 2023 but which may be taken in 2024 are still required to be paid. Affected plan types: 401(a), 401(k), 403(a), 403(b), governmental 457(b)	Taxable years beginning after 12/31/23
Paper benefit statement requirement (§338)	Plans are required to deliver paper retirement account statements to participants at least once a year for defined contribution plans, and once every three years for defined benefit plans. Participants may elect to receive all statements electronically. The other three quarterly statements required for ERISA-covered plans can be provided electronically. Affected plan types: ERISA 401(a), 401(k), and 403(b) defined contribution plans, 401(a) defined benefit plans	The Labor Secretary must update the relevant sections of their regulations and corresponding guidance by 12/31/24, and the annual paper statement is effective for plan years beginning after 12/31/25
Defined benefit annual funding notices (§343)	A defined benefit pension plan must more clearly define its funding issues on the plan's annual funding notice. Affected plan types: ERISA 401(a) defined benefit plans	Plan years beginning after 12/31/23

OTHER / OPTIONAL PROVISIONS

Provision (bill section number)	Description	Effective date
Saver's match (§103/104)	Replaces the previous tax credit for IRA and retirement plan contributions with a federal matching contribution to the taxpayer's IRA or retirement plan. The Treasury Department is directed to promote this provision to increase awareness and participation. Affected plan types: 401(k), 403(b), governmental 457(b), traditional IRAs	Taxable years beginning after 12/31/26; no later than 7/1/26
Higher catch-up contributions for ages 60-63 (§109)	Raises the annual age-based catch-up contribution amount to the greater of \$10,000 or 150% of regular age 50+ catch-up limit for 401(k), 403(b) and governmental 457(b) plans, and to the greater of \$5,000 or 150% of regular age 50+ catch-up limit for SIMPLE IRA and SIMPLE 401(k) plans. The higher catch-up amount applies at ages 60, 61, 62, and 63. Affected plan types: 401(k), 403(b), governmental 457(b), SIMPLE retirement accounts	Taxable years beginning after 12/31/24
Student loan payments eligible for matching contributions (§110)	Permits a plan sponsor to make matching contributions based on the employee's qualified student loan payments. Affected plan types: 401(k), 403(b) governmental, 457(b), SIMPLE retirement accounts	Plan years beginning after 12/31/23
Allow additional nonelective contributions to SIMPLE plans (§116)	Employers are permitted to make additional nonelective contributions to each employee of the plan in a uniform manner. Affected plan types: SIMPLE plans	Taxable years beginning after 12/31/23
Contribution limit for SIMPLE plans (§117)	In the case of an employer with no more than 25 employees, the annual deferral limit and the catch-up contribution at age 50 are increased by 10%, as compared to the limit that would otherwise apply in the first year this change is effective. Employers with 26 to 100 employees are permitted to provide higher deferral limits, but only if the employer either provides a 4% matching contribution or a 3% employer contribution. Similar changes to contribution limits for SIMPLE 401(k) plans apply. An employer can limit the amount that an employee can contribute to the plan. Affected plan types: SIMPLE IRA qualified salary reduction arrangements, SIMPLE 401(k) plans	Taxable years beginning after 12/31/23

Beyond 2023 > OTHER / OPTIONAL (Cont'd)

Provision (bill section number)	Description	Effective date
Exemption for certain automatic portability transactions (§120)	A retirement plan service provider is permitted to provide employer plans with automatic portability services involving the automatic transfer of a participant's default IRA into the participant's new employer's retirement plan, unless the participant affirmatively elects otherwise.	For transactions occurring on or after the date, which is 12 months after 12/29/22
	Affected plan types: Traditional IRAs	
Starter 401(k) plans for employers with no retirement plan	An employer that does not sponsor a retirement plan is permitted to offer a starter 401(k) plan (or safe harbor 403(b) plan).	Plan years beginning after 12/31/23
(§121)	Affected plan types: 401(k), 403(b)	
Emergency savings accounts linked to individual account plans	Employers may offer to their non-highly compensated employees' pension-linked emergency savings accounts and may automatically opt employees into these accounts.	Plan years beginning after 12/31/23
(§127)	Affected plan types: ERISA 401(k) and 403(b) plans	
Updating dollar limit for mandatory distributions (§304)	Increases the dollar threshold—from \$5,000 to \$7,000—at which a plan could transfer former employees' retirement accounts from a workplace retirement plan into an IRA without participant consent.	Distributions made after 12/31/23
	Affected plan types: 401(a), 401(k), 403(b)	
Exclusion of certain disability-related first responder treatment payments (§309)	First responders may now exclude service-connected disability pension payments from gross income after reaching retirement age. The taxpayer may need to seek exclusion of such payments from gross income in his or her tax filing.	Amounts received in taxable years beginning after 12/31/26
	Affected plan types: 401(a), 401(k), 403(a), 403(b), governmental 457(b)	12/01/20
Application of top-heavy rules covering excludable employees	Allows an employer to perform the top-heavy test separately on the non-excludable and excludable employees.	Plan years beginning after 12/31/23
(§310)	Affected plan types: 401(a), 401(k)	
Penalty-free distributions for domestic abuse survivors (§314)	Participants may self-certify that they experienced domestic abuse and are permitted to take a penalty-free withdrawal up to a limited amount. Such a distribution will not be subject to the 10% penalty tax on early distributions. Additionally, the participant may repay the withdrawn money over 3 years and will be refunded for income taxes on money that is repaid.	Distributions made after 12/31/23
	Affected plan types: 401(a), 401(k), 403(b), 457(b), traditional IRAs	

Beyond 2023 > OTHER / OPTIONAL (Cont'd)

Provision (bill section number)	Description	Effective date
Benefit accruals under previous plan year (§316)	Permits an employer to adopt a new retirement plan by the due date of the employer's tax return for the fiscal year in which the plan is effective. Also allows discretionary amendments that increase participants' benefits to be adopted by the due date of the employer's tax return.	Plan years beginning after 12/31/23
	Affected plan types: 401(a), 401(k), 403(a)	
Surviving spouse election to be treated as employee (§327)	A surviving spouse may elect to be treated as the deceased employee for purposes of the required minimum distribution rules.	Calendar years beginning after 12/31/23
	Affected plan types: 401(a), 401(k), 403(a), 403(b), 457(b)	12/01/20
Replacing SIMPLE retirement accounts with safe harbor 401(k) plans (§332)	An employer is allowed to replace a SIMPLE IRA plan with a SIMPLE 401(k) plan or other 401(k) plan that requires mandatory employer contributions during a plan year.	Plan years beginning after 12/31/23
(3002)	Affected plan types: SIMPLE IRAs, SIMPLE 401(k), 401(k)	
Long-term care contracts purchased with retirement plan distributions (§334)	Retirement plans can distribute up to \$2,500 per year for the payment of premiums for certain specified long-term care insurance contracts. These distributions are exempt from the additional tax on early distributions.	Effective 3 years after 12/29/2022
	Affected plan types: 401(a), 401(k), 403(a), 403(b), 457(b), IRAs	
Consolidation of defined contribution plan notices (§341)	The Treasury and DOL will amend regulations to permit a plan to consolidate certain required plan notices.	Not later than 2 years after 12/29/22
	Affected plan types: ERISA 401(a), 401(k) and 403(b) plans	, 50015 01101 12/20/22
Safe harbor for correcting employee elective deferral failures (§350)	Provides a grace period for correcting "reasonable errors" associated with administering auto-enrollment and auto-escalation features, without penalty, subject to certain requirements. Errors must be corrected prior to 9½ months after the end of the plan year in which the errors were made.	Applicable to errors with a required correction date after 12/31/23
	Affected plan types: 401(a), 401(k), 403(b), governmental 457(b)	

Beyond 2023 > OTHER / OPTIONAL (Cont'd)

Provision (bill section number)	Description	Effective date
Aligning 403(b) and 401(k) hardship distribution rules (§602)	403(b) plan participants may now request a hardship distribution from certain employer contributions in addition to salary deferrals. Also, 403(b) plan participants are no longer required to take a plan loan prior to requesting a hardship distribution. Affected plan types: 403(b) plans	Plan years beginning after 12/31/23
Elective deferrals generally limited to regular contribution limit (§603)	Age 50+ catch-up contributions made to a retirement plan must be designated as Roth contributions for participants earning more than \$145,000 in the prior year from the employer sponsoring the plan. A plan will need to comply with the provision if age 50+ catch-up contributions remain a plan feature for taxable years beginning after 12/31/2023. Affected plan types: 401(k), 403(b), governmental 457(b) plans	Taxable years beginning after 12/31/23

Provisions specific to IRAs

The provisions in this section are specific to IRAs only. However, if a provision affects both IRAs **and** retirement plans, refer to the above sections in this guide for additional IRA impacts.

Provision (bill section number)	Description	Effective date
Indexing IRA catch-up limit (§108)	The \$1,000 limit on IRA contributions for individuals who have attained age 50 is now indexed. Affected plan types: IRAs	Taxable years beginning after 12/31/23
529 plan to Roth IRA rollovers (§126)	Permits tax-and penalty-free rollovers of up to \$35,000 over the course of the 529 plan beneficiary's lifetime from 529 college savings plans to Roth IRAs, with limitations. Affected plan types: 529, Roth IRAs	Distributions made after 12/31/23
One-time election for qualified charitable distribution to split-interest entity; increase in qualified charitable distribution limitation (§307)	The IRA charitable distribution provision is expanded to allow for a one-time \$50,000 distribution to charities through charitable gift annuities, charitable remainder unitrusts, and charitable remainder annuity trusts. Section 307 also indexes for inflation the annual IRA charitable distribution limit of \$100,000. Affected plan types: IRAs	Distributions made in taxable years ending after 12/29/22
Individual retirement plan statute of limitations for excise tax on excess contributions and certain accumulations (§313)	The statute of limitations for excise taxes imposed on excess contributions or required minimum distribution failures start running as of the date that a specific excise tax return (Form 5329) is filed for the violation. A 3-year period of limitations begins when the taxpayer files an individual tax return (Form 1040) for the year of the violation, except in the case of excess contributions, in which case the period of limitations runs 6 years from the date Form 1040 is filed. Affected plan types: IRAs (other than Roth IRAs)	12/29/22
Tax treatment of IRA involved in a prohibited transaction (§322)	If an individual has multiple IRAs and engages in a prohibited transaction, only the IRA with respect to which the prohibited transaction occurred will be disqualified. Affected plan types: IRAs	Taxable years beginning after 12/29/22

IRA Provisions (Cont'd)

Provision (bill section number)	Description	Effective date
Elimination of additional tax on IRA corrective distributions of excess contributions (§333)	IRA distributions due to excess contributions and earnings allocable to the excess contribution are exempted from the 10% additional tax on early distributions, depending on specific conditions.	12/29/22
	Affected plan types: IRAs	

Additional provisions

This last section includes provisions for which service providers need more guidance, as well as provisions that impact plan types/programs that TIAA does not offer. Timely updates will be provided as we receive more guidance.

Provision (bill section number)	Description	Effective date
Deferral of tax for certain sales of employer stock to employee stock ownership plan sponsored by S corporation (§114)	The gain deferral provisions of Code section 1042 are expanded, limited to 10% on the deferral to sales of employer stock to S corporation ESOPs, if certain conditions are met. Affected plan types: ESOPs	Sales made after 12/31/27
Assist states in locating owners of applicable savings bonds (§122)	The Treasury Secretary must share certain relevant information with a state that relates to an applicable savings bond registered to an owner with a last known or registered address in that state to help locate the registered owner. Affected plan types: n/a	12/29/22
Certain securities treated as publicly traded in case of employee stock ownership plans (§123)	Certain ESOP rules are updated with respect to whether a security is a "publicly traded employer security" and "readily tradable on an established securities market," according to specific conditions. Highly regulated companies with 6 liquid securities that are quoted on non-exchange markets may now treat their stock as "public" for ESOP purposes, thus making it easier for these companies to offer ESOPs to their U.S. employees. Affected plan types: ESOPs	Plan years beginning after 12/31/27
Modification of age requirement for qualified ABLE programs (§124)	The age is increased by which blindness or disability must occur for an individual to be an eligible individual by reason of such blindness or disability for an ABLE program. Affected plan types: ABLE programs	Taxable years beginning after 12/31/25
Qualifying longevity annuity contracts (§202)	QLACs may be sold with spousal survival rights, and free-look periods are permitted up to 90 days with respect to contracts purchased or received in an exchange on or after July 2, 2014. Affected plan types: QLACs	Contracts generally purchased or received in an exchange on or after 12/29/22

Additional provisions (Cont'd)

Provision (bill section number)	Description	Effective date
Insurance-dedicated exchange-traded funds (§203)	The Treasury Department must update the regulations to reflect the ETF structure to provide that ownership of an ETF's shares by certain types of institutions that are necessary to the ETF's structure does not preclude look-through treatment for the ETF, as long as it otherwise satisfies the current-law requirements for look-through treatment, thus facilitating the creation of a new type of "insurance-dedicated" ETF. Affected plan types: 401(a), 401(k), 403(b), 457(b), IRAs	Segregated asset account investments made on or after 7 years after 12/29/22
Performance benchmarks for asset allocation funds (§318)	The Labor Secretary is directed to update the DOL's regulations so that an investment that uses a mix of asset classes can be benchmarked against a blend of broad-based securities market indices, subject to certain requirements, to allow better comparisons and aid participant decision making. Affected plan types: ERISA 401(a), 401(k) and 403(b) plans	No later than 2 years after 12/29/22
Report to Congress on reporting and disclosure requirements (§319)	The Treasury Department, DOL, and Pension Benefit Guaranty Corporation are directed to review reporting and disclosure requirements for pension plans and to make recommendations to Congress to consolidate, simplify, standardize, and improve such requirements. Affected plan types: 401(a), 401(k), 403(a), 403(b)	No later than 3 years after 12/29/22
Review of pension risk transfer interpretive bulletin (§321)	The DOL must review the current interpretive bulletin governing pension risk transfers to determine whether amendments are warranted and to report to Congress its finding, including an assessment of any risk to participants. Affected plan types: ERISA 401(a) defined benefit plans	Not later than 1 year after 12/29/22
Treasury guidance on rollovers (§324)	The Treasury Secretary is required to simplify and standardize the rollover process by issuing sample forms for direct rollovers that may be used by both the incoming and outgoing retirement plans or IRAs. Affected plan types: 401(a), 401(k), 403(a), 403(b), governmental 457(b), IRAs	No later than 1/1/25
Report to Congress on section 402(f) notices (§336)	The Government Accountability Office is required to issue a report to Congress on the effectiveness of section 402(f) notices. Affected plan types: 401(a), 401(k), 403(b), governmental 457(b), IRAs	No later than 18 months after 12/29/22
Defined contribution plan fee disclosure improvements (§340)	The DOL must review its fiduciary disclosure requirements in participant-directed individual account plan regulations. Affected plan types: ERISA 401(a), 401(k) and 403(b) plans	No later than 3 years after 12/29/22

Additional provisions (Cont'd)

Provision (bill section number)	Description	Effective date
Report on pooled employer plans (§344)	The Labor Secretary must conduct a study on the new and growing pooled employer plan industry. Affected plan types: ERISA 401(a), 401(k) and 403(b) PEPs	Within 5 years of 12/29/22 and every 5 years thereafter
Worker Ownership, Readiness and Knowledge (WORK) Act (§346)	Requires Department of Labor to establish a program to foster employee ownership programs through existing and new state programs. Affected plan types: Employee ownership programs	No later than 180 days after 12/29/22
Report by the Secretary of Labor on the impact of inflation on retirement savings (§347)	The DOL Secretary, in consultation with the Treasury Secretary, must report on the impact of inflation on retirement savings. Affected plan types: n/a	Not later than 90 days after 12/29/22
Amendments relating to Setting Every Community Up for Retirement Enhancement Act of 2019 (§401)	Technical and clerical amendments to effectuate SECURE Act 1.0 of 2019. These amendments do not change the substance of the provisions. Affected plan types: 401(k), 403(b), IRAs (including Roth IRAs)	Retroactively effective as if included in SECURE Act of 2019, enacted 12/20/19
Charitable conservation easements (§605)	Charitable deductions are no longer allowed for a qualified conservation contribution if the deduction claimed exceeds two-and-one-half times the sum of each partner's relevant basis in the contributing partnership, subject to specific conditions. Taxpayers now have the opportunity to correct certain defects in an easement deed (excluding easements involved in abusive transactions). Affected plan types: n/a	Contributions made after 12/29/22
Relating to judges of the Tax Court (§701)	Changes to pension annuity provisions for U.S. Tax Court judges include pensions of the surviving spouses and dependent children of judges who have been assassinated. Affected plan types: Retirement plans for U.S. Tax Court judges	Generally, 12/29/22
Special judges of the Tax Court (§702)	Providing parity between special trial judges of the Tax Court and other federal judges, a retirement plan is established under which a special trial judge may elect to receive retired pay in a similar manner and under similar rules to regular judges. Affected plan types: Retirement plans for federal special trial judges	180 days after 12/29/22



TIAA remains committed to helping you better understand the new SECURE 2.0 Act provisions—whether mandatory or optional.

Visit and bookmark **TIAA.org/SecureAct2** for regular updates and information. We are here to support you every step of the way.

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