

# CREF Social Choice Account

## Class R2

Multi-Asset

As of 3/31/2019

<b>Account Net Assets</b> \$13.84 Billion	<b>Inception Date</b> 4/24/2015	<b>CUSIP</b> 194408134	<b>Symbol</b> QCSCPX	<b>Benchmark Index</b> CREF Social Choice Account Composite Benchmark	<b>Estimated Annual Expenses<sup>1,2</sup></b> 0.33%
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### Investment Description

The Account seeks a favorable long-term rate of return that reflects the investment performance of the financial markets while giving special consideration to certain social criteria. It divides its assets between foreign and domestic equity investments (about 60%) and bonds and other fixed-income investments, including money market securities (about 40%). The Account limits its investments to companies that its advisor considers suitable from a financial perspective and whose activities are consistent with certain environmental, social and governance ("ESG") criteria.

### Morningstar Category

Allocation--50% to 70% Equity Average

### Morningstar Rating™

Overall	3 Years	5 Years	10 Years
★★★	★★★	★★★★	★★★
690	690	601	439

**The Overall Morningstar Rating for a managed product is derived from a weighted average of the performance figures associated with its three-, five-, and 10-year (if applicable) Morningstar Rating metrics.**

### Learn More

For more information please contact:  
**800-842-2252**  
Weekdays, 8 a.m. to 10 p.m. (ET),  
Saturdays, 9 a.m. to 6 p.m. (ET),  
or visit [TIAA.org](http://TIAA.org)

### Performance

	Total Return		Average Annual Total Return <sup>3</sup>				Since Inception
	3 Months	YTD	1 Year	3 Years	5 Years	10 Years	
CREF Social Choice Account	8.72%	8.72%	4.77%	7.83%	5.80%	10.03%	8.17%
CREF Social Choice Account Composite Benchmark	8.91%	8.91%	5.16%	7.86%	6.11%	10.18%	8.28%
Morningstar Moderate Target Risk TR USD <sup>4</sup>	8.68%	8.68%	4.42%	8.05%	5.40%	9.55%	-
Morningstar Allocation--50% to 70% Equity Average	8.89%	8.89%	3.90%	7.44%	5.12%	9.98%	-

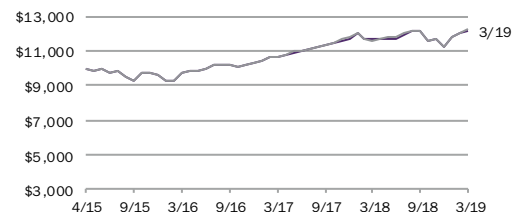
**The performance data quoted represents past performance and is no guarantee of future results. Your returns and the principal value of your investment will fluctuate so that your accumulation units, when redeemed, may be worth more or less than their original cost. Current performance may differ from figures shown. For performance current to the most recent month-end, call 800-842-2252. Performance may reflect waivers or reimbursements of certain expenses. Absent these waivers or reimbursement arrangements, performance may be lower.**

- <sup>1</sup> Total annual expense deductions, which include investment advisory, administrative, and distribution (12b-1) expenses, and mortality and expense risk charges, are estimated each year based on projected expense and asset levels. Differences between actual expenses and the estimate are adjusted quarterly and are reflected in current investment results. Historically, adjustments have been small.
- <sup>2</sup> The Account's total annual expense deduction appears in the Account's prospectus, and may be different than that shown herein due to rounding. Please refer to the prospectus for further details.
- <sup>3</sup> The Account's Class R1 began operations on March 1, 1990. The performance shown for Class R2 that is prior to its inception date is based on the performance of the Account's Class R1. The performance for these periods has not been restated to reflect the lower expenses of Class R2. If these lower expenses had been reflected, the performance of Class R2 for these periods would have been higher.
- <sup>4</sup> Previously, the Broad-Based Securities Market Index to which the Account compared its performance was the Russell 3000 Index instead of the Morningstar Moderate Target Risk Index shown in the chart. The returns of the Morningstar Moderate Target Risk Index are more appropriate for comparison purposes because they reflect multi-asset class exposure that is similar to the Account. For the period ending 3/31/2019, the following average annualized total returns (%) for the Russell 3000 Index are provided for informational/comparison purposes: 14.04 (3M), 14.04 (YTD), 8.77 (1 year), 13.48 (3 years), 10.36 (5 years), 16.00 (10 years).

### Hypothetical Growth of \$10,000

The chart illustrates the performance of a hypothetical \$10,000 investment on April 24, 2015 and redeemed on March 31, 2019.

— CREF Social Choice Account	\$12,211
— CREF Social Choice Account Composite Benchmark	\$12,241



The total returns are not adjusted to reflect sales charges, the effects of taxation or redemption fees, but are adjusted to reflect actual ongoing expenses, and assume reinvestment of dividends and capital gains, net of all recurring costs.

Please refer to the next page for important disclosure information.



# CREF Retirement Annuity Accounts CREF Social Choice Account

Class R2

Multi-Asset

As of 3/31/2019

Portfolio Composition (As of 3/31/19)		Top 10 Holdings <sup>5</sup> (As of 3/31/19)		Portfolio Statistics	
Sector	% of Net Assets	Holding	% of Net Assets	Portfolio Benchmark	
Common Stocks & Rights	58.98%	Microsoft Corp	1.45%	Alpha (3 Yr)*	0.10 -
Corporate Bonds	9.96%	Apple Inc	1.39%	Beta (3 Yr)*	0.98 -
Foreign Government & Corporate Bonds	7.90%	Alphabet Inc	1.17%	R Squared (3 Yr)*	0.99 -
Mortgage-Backed Securities	6.79%	U.S. Treasury Bond 3.000%, 05/15/47	0.67%	Sharpe Ratio (3 Yr)*	1.08 1.07
Municipal Bonds	4.58%	Procter & Gamble Co	0.59%	Standard Deviation (3 Yr Annualized)*	6.19 6.27
U.S. Agency Securities	3.46%	Cisco Systems Inc	0.56%	Turnover <sup>6</sup>	
U.S. Treasury Securities	3.21%	Merck & Co Inc	0.52%	As of 12/31/17	53.0% -
Commercial Mortgage-Backed Securities	1.79%	U.S. Treasury Note 2.375%, 02/29/24	0.52%	# Holdings	1,926 -
Asset-Backed Securities	1.22%	UnitedHealth Group Inc	0.49%	Please refer to Portfolio Statistics Definitions section.	
Bank Loan Obligations	0.27%	Home Depot Inc	0.49%	*risk statistic	
Preferred Stock	0.18%				
Short-Term Investments, Other Assets & Liabilities, Net	1.66%				
Current Asset Allocation (As of 3/31/19)		Holdings by Company Size (As of 3/31/19)			
	% of Net Assets	% of Equity Investments			
U.S. Equity	41.63%	Over \$50 Billion	45.45%		
U.S. Fixed Income	31.28%	\$15 Billion - \$50 Billion	34.23%		
International Equity	17.53%	\$2 Billion - \$15 Billion	18.14%		
International Fixed Income	7.90%	\$300 Million - \$2 Billion	2.13%		
Short-Term Investments, Other Assets & Liabilities, Net	1.66%	Under \$300 Million	0.05%		

## About the Benchmark

The CREF Social Choice Account Composite Index is a weighted average of unmanaged benchmark indices that represent the market sectors in which the Account invests. The Composite Index provides a more relevant benchmark for the Account's performance as compared to the Account's unmanaged broad-based market indices. You cannot invest directly in any index. Index returns do not reflect a deduction for fees or expenses.

The Morningstar Target Risk Index family is designed to meet the needs of investors who would like to maintain a target level of equity exposure through a portfolio diversified across equities, bonds and inflation-hedged instruments. The Morningstar Moderate Target Risk Index seeks approximately 60% exposure to global equity markets.

Index returns do not reflect a deduction for fees or expenses. You cannot invest directly in any index.

## Important Information

<sup>5</sup> The top 10 holdings are subject to change and may not be representative of the fund's current or future investments. The holdings listed only include the fund's long-term investments and may exclude any temporary cash investments and equity index products. Top holdings by issuer (for other than Fixed Income) includes the underlying ordinary shares combined with any depositary receipts, preferred shares, contract for differences (CFDs), rights, options and warrants as applicable. The holdings listed should not be considered a recommendation to buy or sell a particular security.

<sup>6</sup> The portfolio turnover rate shown may be inflated due to the inclusion of mortgage dollar roll transactions. Please consult the most current prospectus for more information.

College Retirement Equities Fund (CREF), New York, NY, issues annuity contracts and certificates.

This material is for informational or educational purposes only and does not constitute investment advice under ERISA. This material does not take into account any specific objectives or circumstances of any particular investor, or suggest any specific course of action. Investment decisions should be made based on the investor's own objectives and circumstances.

**Investment, insurance and annuity products are not FDIC insured, are not bank guaranteed, are not deposits, are not insured by any federal government agency, are not a condition to any banking service or activity, and may lose value.**

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### Morningstar Disclosure

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The Morningstar Category classifies a fund based on its investment style as measured by underlying portfolio holdings (portfolio statistics and compositions over the past three years). If the fund is new and has no portfolio, Morningstar estimates where it will fall before assigning a more permanent category. When necessary, Morningstar may change a category assignment based on current information.

The Morningstar Rating™– or “star rating”– is calculated for managed products (including mutual funds, variable annuity and variable life subaccounts, exchange-traded funds, closed-end funds and separate accounts) with at least a three-year history. Exchange-traded funds and open-ended mutual funds are considered a single population for comparative purposes. The rating is calculated based on a Morningstar Risk-Adjusted Return measure that accounts for variation in a managed product's monthly excess performance, placing more emphasis on downward variations and rewarding consistent performance. The top 10% of products in each product category receive 5 stars, the next 22.5% receive 4 stars, the next 35% receive 3 stars, the next 22.5% receive 2 stars, and the bottom 10% receive 1 star. The weights are: 100% three-year rating for 36-59 months of total returns, 60% five-year rating/40% three-year rating for 60-119 months of total returns, and 50% 10-year rating/30% five-year rating/20% three-year rating for 120 or more months of total returns. While the 10-year overall star rating formula seems to give the most weight to the 10-year period, the most recent three-year period actually has the greatest impact because it is included in all three rating periods. Where applicable, ratings are based on linked performance that considers the differences in expense ratios. The Morningstar Rating™ is for individual share classes only. Other classes may have different performance characteristics.

### A Note About Risks

This variable annuity account shares the risks associated with the types of securities in which it directly or indirectly invests. These risks include the following:

**Active Management:** The investment is actively managed and subject to the risk that the advisor's usage of investment techniques and risk analyses to make investment decisions fails to perform as expected, which may cause the portfolio to lose value or underperform investments with similar objectives and strategies or the market in general. **Credit and Counterparty:** The issuer or guarantor of a fixed-income security, counterparty to an OTC derivatives contract, or other borrower may not be able to make timely principal, interest, or settlement payments on an obligation. In this event, the issuer of a fixed-income security may have its credit rating downgraded or defaulted, which may reduce the potential for income and value of the portfolio. **Derivatives:** Investments in derivatives may be subject to the risk that the advisor does not correctly predict the movement of the underlying security, interest rate, market index, or other financial asset, or that the value of the derivative does not correlate perfectly with either the overall market or the underlying asset from which the derivative's value is derived. Because derivatives usually involve a small investment relative to the magnitude of liquidity and other risks assumed, the resulting gain or loss from the transaction will be disproportionately magnified. These investments may result in a loss if the counterparty to the transaction does not perform as promised. **Dollar Rolls:** Dollar rolls transactions may be subject to the risk that the market value of securities sold to the counterparty declines below the repurchase price, the counterparty defaults on its obligations, or the portfolio turnover rate increases because of these transactions. In addition, any investments purchased with the proceeds of a security sold in a dollar rolls transaction may lose value. **Extension:** The issuer of a security may repay principal more slowly than expected because of rising interest rates. In this event, short- and medium-duration securities are effectively converted into longer-duration securities, increasing their sensitivity to interest-rate changes and causing their prices to decline. **Foreign Securities:** Investments in foreign securities may be subject to increased volatility as the value of these securities can change more rapidly and extremely than can the value of U.S. securities. Foreign securities are subject to increased issuer risk because foreign issuers may not experience the same degree of regulation as U.S. issuers do and are held to different reporting, accounting, and auditing standards. In addition, foreign securities are subject to increased costs because there are generally higher commission rates on transactions, transfer taxes, higher custodial costs, and the potential for foreign tax charges on dividend and interest payments. Many foreign markets are relatively small, and securities issued in less-developed countries face the risks of nationalization, expropriation or confiscatory taxation, and adverse changes in investment or exchange control regulations, including suspension of the ability to transfer currency from a country. Economic, political, social, or diplomatic developments can also negatively impact performance. **High-Yield Securities:** Investments in below-investment-grade debt securities and unrated securities of similar credit quality, commonly known as "junk bonds" or "high-yield securities," may be subject to increased interest, credit, and liquidity risks. **Income:** The investment's income payments may decline depending on fluctuations in interest rates and the dividend payments of its underlying securities. In this event, some investments may attempt to pay the same dividend amount by returning capital. **Interest Rate:** Most securities are subject to the risk that changes in interest rates will reduce their market value. **Issuer:** A stake in any individual security is subject to the risk that the issuer of that security performs poorly, resulting in a decline in the security's value. Issuer-related declines may be caused by poor management decisions, competitive pressures, technological breakthroughs, reliance on suppliers, labor problems or shortages, corporate restructurings, fraudulent disclosures, or other factors. Additionally, certain issuers may be more sensitive to adverse issuer, political, regulatory, market, or economic developments. **Loss of Money:** Because the investment's market value may fluctuate up and down, an investor may lose money, including part of the principal, when he or she buys or sells the investment. **Market/Market Volatility:** The market value of the portfolio's securities may fall rapidly or unpredictably because of changing economic, political, or market conditions, which may reduce the value of the portfolio. **Not FDIC Insured:** The investment is not a deposit or obligation of, or guaranteed or endorsed by, any bank and is not insured by the Federal Deposit Insurance Corporation, the Federal Reserve Board, or any other U.S. governmental agency. **Prepayment (Call):** The issuer of a debt security may be able to repay principal prior to the security's maturity because of an improvement in its credit quality or falling interest rates. In this event, this principal may have to be reinvested in securities with lower interest rates than the original securities, reducing the potential for income. **Pricing:** Some investments may not have a market observed price; therefore, values for these assets may be determined through a subjective valuation methodology. Fair values determined by a subjective methodology may differ from the actual value realized upon sale. Valuation methodologies may also be used to calculate a daily net asset value. **Quantitative Investing:** Holdings selected by quantitative analysis may perform differently from the market as a whole based on the factors used in the analysis, the weighting of each factor, and how the factors have changed over time. **Restricted/Illiquid Securities:** Restricted and illiquid securities may fall in price because of an inability to sell the securities when desired. Investing in restricted securities may subject the portfolio to higher costs and liquidity risk. **Socially Conscious:** Adhering to social, moral, or environmental

criteria may preclude potentially profitable opportunities in sectors or firms that would otherwise be consistent with the investment objective and strategy.

**Suitability:** Investors are expected to select investments whose investment strategies are consistent with their financial goals and risk tolerance. **U.S.**

**Government Obligations:** Investments in U.S. government obligations are subject to varying levels of government support. In the event of default, some U.S. government securities, including U.S. Treasury obligations and Ginnie Mae securities, are issued and guaranteed as to principal and interest by the full faith and credit of the U.S. government. Other securities are obligations of U.S. government-sponsored entities but are neither issued nor guaranteed by the U.S. government.

### Portfolio Statistics Definitions

**Alpha (3 Yr)** is a risk statistic used to measure performance on a risk-adjusted basis. Alpha takes the volatility (price risk) of an investment and compares its risk-adjusted performance to a benchmark. The risk-adjusted excess return of the investment relative to the return of the benchmark is an investment's alpha.

**Beta (3 Yr)** is a risk statistic used to measure the magnitude of past share-price fluctuations in relation to the ups and downs of the overall market (or appropriate market index). If a security has a beta greater than 1, that security's price can be expected to be more volatile than the market.

**R Squared (3 Yr)** is a risk statistic that measures how much of an investment's performance can be explained by the returns from the overall market (or benchmark index). If an investment's total return precisely matched that of the overall market or benchmark, its R squared would be 1.00. If an investment's return bore no relationship to the market's returns, its R squared would be 0.

**Sharpe Ratio (3 Yr)** is a risk statistic used to measure the excess return per unit of risk in an investment asset. The higher the Sharpe ratio, the better the return. Excess return is the rate of return above and beyond the risk-free rate, which is usually the T-bill rate, or in excess of a market measure, such as an index fund.

**Standard Deviation (3 Yr Annualized)** is a risk statistic that measures an investment's past volatility, based on a sample. The higher the standard deviation, the higher the volatility. It is not a measure of performance and should not be considered relative to an investment's annual returns. Please note that past standard deviation is not a predictor of future volatility or risk.

**Turnover** is calculated by dividing the lesser of purchases or sales by the average value of portfolio assets during a period. Turnover is based on the portfolio's fiscal year end and is not annualized if the reporting period covers less than 12 months. If a turnover rate is not shown, it typically indicates a newly operational fund that has not yet been required to report turnover in its regulatory filings or, more rarely, the turnover rate was 0.00%.

**# Holdings** refers to the total number of individual security positions held in a portfolio on a given date.