



...MassMutual

THE STRENGTH TO RETIRE.



Fulton County Defined Contribution Plan may be the best way to work toward your personal retirement goals. But saving for retirement can be both challenging and complicated, depending on your financial situation. This guide can help make complicated choices about retirement and saving for it, simple. Take control of your retirement now by turning your dreams into plans.

Fulton County Defined Contribution Plan offers a variety of investment choices and other features to make saving for retirement simple.

- The Plan makes a base contribution of 8% of compensation for each employee.
- Employees are required to make a 6% contribution to their Defined Contributions account.
- Flexible investment choices allow you to choose where to invest the contributions.
- Automatic rebalancing helps to keep your portfolio in line with your investment goals through periodic rebalancing. Periodic rebalancing of your account helps ensure your investments stay aligned over time with the selected strategy you originally selected. For your convenience, you can initiate or discontinue this service at any time. Auto rebalancing is not recommended when using an asset allocation investment option.
- Your vested account balance is always yours to take with you should you change employers. You may also have access to your account savings before you reach retirement age.

Achieving a successful retirement.

The main goal of the plan is to help you build toward a comfortable income during retirement. This guide provides important information on how to use features of the plan and make them work best for you. Be sure to read it carefully, and feel free to contact us if you have any questions.



Online:

www.retiresmart.com



Phone:

1-800-743-5274

Dedicated customer service representatives available Monday - Friday, 8 a.m. to 8 p.m. ET or automated phone line 24/7.



Rollover Specialists:

1-888-526-6905

Get help rolling in accounts from a prior retirement account, Monday – Friday, 8 a.m. to 6 p.m. ET. You are encouraged to compare the benefits and features of the different plans before consolidating your accounts. Things to consider include each plan's available investment options, guarantees, fees and expenses.

Enrolling in the plan is easy.

- The paper forms that are applicable to your plan have been enclosed. Complete the information required, sign and date the form. Follow the return instructions on the form.
- Once your enrollment is processed, MassMutual will send you a confirmation report. You should keep this for your records.
- After you've received your confirmation, you can access your account and take advantage of all of our online tools at www.retiresmart.com. Select "Create Account" to create your Username, Password and PIN. You will use this PIN on our voice response phone system.

Access your retirement account – anytime, anywhere.

Your quarterly statements will be delivered to your online account - to access your statements, simply log into your account at www.retiresmart.com, and your statement will be posted to your account in Portable Document Format (PDF). To view the PDF, it is required you have Adobe® Acrobat® viewer software installed on your personal computer. The software is available for download, free of charge, from the Adobe® website.

If you do not have the ability to access and retain PDF documents on your personal computer, then paper statements are available, free of charge, via U.S. mail - to elect paper delivery of your quarterly statements please contact our Participant Information Center at 1-800-743-5274 or change your election under the "My Preferences" tab on www.retiresmart.com.

Choosing investments that are right for you.

Following the simple steps outlined in this guide may help you become more confident with your investment decisions.

If you don't make a choice, your plan will invest your contributions in an asset allocation option on your behalf. This option is selected based on your date of birth and a projected retirement age of 65. (You may want to consider a different option if this is not your intended retirement age.) Offering professional management and monitoring as well as diversification all in one investment, it becomes more conservative as your retirement date approaches. You can change this option any time you wish.

Generally target retirement date (lifecycle) investment options are designed to be held beyond the presumed retirement date to offer a continuing investment option for the investor in retirement. The year in the investment option name refers to the approximate year an investor in the option would plan to retire and likely would stop making new contributions to the investment option. However, investors may choose a date other than their presumed retirement date to be more

conservative or aggressive depending on their own risk tolerance.

Target retirement date (lifecycle) investment options are designed for participants who plan to withdraw the value of their accounts gradually after retirement. Each of these options follows its own asset allocation path (“glide path”) to progressively reduce its equity exposure and become more conservative over time. Options may not reach their most conservative allocation until after their target date. Others may reach their most conservative allocation in their target date year. Investors should consider their own personal risk tolerance, circumstances and financial situation. These options should not be selected solely on a single factor such as age or retirement date. Please consult the prospectus (if applicable) pertaining to the options to determine if their glide path is consistent with your long-term financial plan. Target retirement date investment options’ stated asset allocation may be subject to change.

Investments in these options are not guaranteed and you may experience losses, including losses near, at, or after the target date. Additionally, there is no guarantee that the options will provide adequate income at and through retirement.

Understanding asset allocation.

Determining your asset allocation is an important first step in choosing investment options in your workplace retirement plan. Asset allocation is how you divide your savings among different investment types such as stocks, bonds, and short-term investments. Here we highlight **four** basic steps in developing your asset allocation strategy.

Step 1 – Understand the asset classes.

Consider that your choices generally focus on three things: stocks, bonds and short-term investments. These three types of investments are known as the basic “asset classes”:

- **Stocks**, also called equities, are shares of ownership in a company.
- **Bonds**, also called fixed income investments, are loans made to governments or corporations.
- **Short-term investments**, also known as cash equivalents, are designed to maintain their dollar value. Examples include money market funds, certificates of deposit and Treasury bills.

Although the investment menu in your workplace plan may have many options, most will fall into these basic groups, or a combination of them. Please note that asset allocation doesn't ensure a profit or protect against loss in a declining market, but it may be a sound strategy.

Why it's important.

Each asset class has different characteristics you should be aware of. Historically speaking, stocks have posed greater investment risk than the other asset classes, but have offered the potential for the highest return. Short-term

investments have offered lower returns in exchange for low investment risk. Bonds have tended to fall somewhere in the middle.

Step 2 – Know your tolerance for risk.

How much risk you are comfortable with is an important consideration in choosing your asset allocation strategy. How do you feel about investment risk – the chance that your investments could lose money? You also need to think about inflation risk – the risk that conservative investments such as short-term investments may not keep pace with inflation.

Investing in more than one asset class – or a blend of them – may help to balance your risk. Mixing the various investment types can provide a balance of growth with preservation, because the markets for each investment don't always move in the same direction as each other.¹

Step 3 – Establish your time horizon.

Your tolerance for risk must be considered in the context of your time horizon. Do you have quite a bit of time until you retire or are you getting closer? In the short term, the most volatile investments, such as stocks, can rise and fall dramatically. **Past performance is not indicative of future performance.**

If you need your money within the next few years, you might want to avoid putting a large percentage into a single asset class that could dip in value in the short term. On the other hand, assuming you have six years or more before you will need your money, you may consider investing a percentage of your savings in investments that offer greater potential for return. That's because you have

more time to potentially ride out short-term fluctuations in the value of your investments.

Step 4 – Determine your asset allocation strategy.

The participant website offers tools and resources to help. To determine which strategy may be right for you, check out the Risk Quiz. Log into your account » My Account » Investment Selection » Risk Quiz.

Revisit your strategy once a year and after major life events to ensure it is still in line with your current needs and outlook. You may want to consider adjusting the proportions of stocks, bonds and short-term investments as you get closer to retirement. Remember, everyone's situation will differ, and you should consult a financial advisor about your own particular situation.

Learn more.

The right asset allocation strategy can help you maintain your confidence through market ups and downs. You can learn more about asset allocation at **www.retiresmart.com**. If you have questions, call **1-800-743-5274**.

¹ <http://www.sec.gov/investor/pubs/assetallocation.htm>

Past performance is no guarantee of future results. The information contained herein is not intended or written as specific legal or tax advice and may not be relied on for purposes of avoiding any federal tax penalties. Neither MassMutual nor any of its employees or representatives are authorized to give legal or tax advice. You must rely on the advice of your own independent tax counsel.

Investor Profile Quiz

This short, self-scoring investor profile and risk quiz is designed to suggest an investment strategy that may be right for your retirement savings based on your personal risk tolerance and situation. Circle the answer that best matches your needs.

SECTION 1: TIME HORIZON

1. I plan to withdraw my money in 3 years or less and do not want to lose any of it: a. Yes b. No

If you answered Yes to question 1, set your investment course with a SHORT TERM STRATEGY.

- 2. My current age is:
 - a. Under 40 5
 - b. 40–54 3
 - c. 55 and over 1
- 3. I expect to retire:
 - a. Not for at least 20 years 5
 - b. In 5 to 20 years 3
 - c. Within 5 years 1

SECTION 2: RISK TOLERANCE

Long-Term Goals

- 4. For this portfolio, my goal is:
 - a. To grow my assets aggressively 5
 - b. To grow my assets with caution 3
 - c. To avoid losing money 1
- 5. What would I expect from this portfolio over time?
 - a. To generally keep pace with the stock market 5
 - b. To make a decent profit, but probably trail the stock market 3
 - c. To have a high degree of stability, but only modest profits 1

Short-Term Goals

- 6. Which of these statements best describes your attitude about the performance of this portfolio over the next three years?
 - a. I can live if I lose money 5
 - b. I better at least break-even 3
 - c. I better end up with at least a little profit 1
- 7. Which of these statements best describes your attitude about the performance of this portfolio over the next three months?
 - a. Who cares? One calendar quarter means nothing 5
 - b. If I suffered a loss of greater than 10%, I'd get concerned 3
 - c. I can tolerate only small short term losses 1

Financial Situation

- 8. If I lost my job tomorrow, I would:
 - a. Have other sources of income to last me more than six months 5
 - b. Have enough cash on hand to last three to six months 3
 - c. Need to tap into my retirement investment within 30 days 1

- 9. Upon retirement my investment will represent:
 - a. A minor part (less than 25%) of my retirement income 5
 - b. An important part (25% – 75%) of my retirement income 3
 - c. The vast majority (over 75%) of my retirement income 1

SECTION 3: INVESTMENT STRATEGY

Add up your points from Questions 2-9 to determine which investment strategy below is best for you.

MY TOTAL: _____

Total Points	Investment Strategy
0 - 8	Short Term
9 - 17	Conservative
18 - 27	Moderate
28 - 35	Aggressive
36 - 40	Ultra Aggressive

Based on this “investment strategy,” you’re ready to consider how to divide your investments among the different asset classes.

Using this score, you may decide to choose a custom portfolio as outlined on the following page.

Your plan's investment options.

The portfolios below are built out of the investment options available in your plan*:

ASSET CATEGORY	INVESTMENT NAME	INVESTMENT PORTFOLIOS				
		Short Term	Conservative	Moderate	Aggressive	Ultra Aggressive
Stable Value	Diversified Bond SAGIC	95%	21%	6%	2%	
Intermediate Term Bond	BlackrockTotal Return Fund	2%	24%	17%	7%	
Intermediate Term Bond	JP Morgan Government Bond Fund	3%	25%	17%	7%	
Multi Sector Bond	PIMCO Income Fund					
Asset Allocation/ Lifestyle	Invesco Equity and Income Fund					
Asset Allocation/ Lifecycle	Vanguard Target Rtrmnt Incm Fd					
Asset Allocation/ Lifecycle	Vanguard Target Rtrmnt 2015 Fd					
Asset Allocation/ Lifecycle	Vanguard Target Rtrmnt 2020 Fd					
Asset Allocation/ Lifecycle	Vanguard Target Rtrmnt 2025 Fd					
Asset Allocation/ Lifecycle	Vanguard Target Rtrmnt 2030 Fd					
Asset Allocation/ Lifecycle	Vanguard Target Rtrmnt 2035 Fd					
Asset Allocation/ Lifecycle	Vanguard Target Rtrmnt 2040 Fd					
Asset Allocation/ Lifecycle	Vanguard Target Rtrmnt 2045 Fd					
Asset Allocation/ Lifecycle	Vanguard Target Rtrmnt 2050 Fd					
Asset Allocation/ Lifecycle	Vanguard Target Rtrmnt 2055 Fd					
Asset Allocation/ Lifecycle	Vanguard Target Rtrmnt 2060 Fd					
Large Cap Value	MFS Value Fund		2%	3%	5%	6%
Large Cap Value	Vanguard Value Index Fund		2%	4%	5%	6%
Large Cap Core	Vanguard Institutional Indx Fd		10%	18%	26%	34%
Large Cap Growth	Sel TRP/LS Blue Chip Growth Fd		2%	4%	5%	6%
Large Cap Growth	Vanguard Growth Index Fund		2%	4%	5%	6%
Mid Cap Value	American Century Mid Cp Val Fd		1%	4%	5%	4%

Your plan's investment options.

ASSET CATEGORY	INVESTMENT NAME	INVESTMENT PORTFOLIOS				
		Short Term	Conservative	Moderate	Aggressive	Ultra Aggressive
Mid Cap Growth	Sel Md Cp Gr Fd (TRP/ Frontier)		1%	4%	5%	5%
Small Cap Value	Invesco Small Cap Value Fund		2%	4%	5%	6%
Small Cap Growth	Janus Henderson Venture Fd		3%	4%	6%	7%
Intl/Global Large Growth	AmerFunds EuroPacific Gr Fund		5%	11%	17%	20%
Intl/Global Small/ Mid Cap	Oppenheimer Global Op- port Fund					

*Investment allocation strategies are a convenient way of allocating your account among certain of the plan's individual investment options. Any investment allocation strategies included in these materials are not intended to be investment advice or recommendations to you and may or may not be appropriate for your circumstances. In applying investment allocation strategies to your individual circumstances, you should consider your other assets, income and investments as well as your risk tolerance. If you direct your contributions or current account balance to an investment allocation strategy, your contributions or account balance will be invested in each of the individual investment alternatives in the percentages indicated for the strategy. The plan may offer other investment options not included in the strategies and the individual investment alternatives included in the strategies may also be available on a stand-alone basis. The CustomChoice Strategies chart lists asset classes, along with their weightings in the allocation strategy.

RISK DISCLOSURES FOR CERTAIN ASSET CATEGORIES – PLEASE NOTE THAT YOUR PLAN MAY NOT OFFER ALL OF THE INVESTMENT TYPES DISCUSSED BELOW.

Please consider an investment option's objectives, risks, fees and expenses carefully before investing. This and other information about the investment option can be found in the applicable prospectuses or summary prospectuses, if any, or fact sheets for the investment options listed, which are available from your plan sponsor, the participant website at www.retiresmart.com or by contacting our Participant Information Center at 1-800-743-5274 between 8:00 a.m. and 8:00 p.m. ET, Monday through Friday. Please read them carefully before investing.

If a retirement plan fully or partially terminates its investment in the Guaranteed Interest Account (GIA), Super Flex (SF) Guaranteed, Fixed Interest Account or Separate Account Guaranteed Interest Contract (SAGIC) investment options, the plan receives the liquidation value of its investment, which may either be more or less than the book value of its investment. As a result of this adjustment, a participant's account balance may be either increased or decreased if the plan fully or partially terminates the contract with MassMutual.

Government/Retail Money Market Funds:

You could lose money by investing in the fund. Although the fund seeks to preserve the value of your investment at \$1.00 per share, it cannot guarantee it will do so. The fund may impose a fee upon the sale of your shares or may temporarily suspend your ability to sell shares if the fund's liquidity falls below required minimums because of market conditions or other factors. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Money Market Floating NAV:

You could lose money by investing in the fund. Because the share price of the fund will fluctuate, when you sell your shares they may be worth more or less than what you originally paid for them. The fund may impose a fee upon the sale of your shares or may temporarily suspend your ability to sell shares if the fund's liquidity falls below required minimums because of market conditions

or other factors. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Risks of investing in bond and debt securities investments include the risk that a bond issuer will default by failing to repay principal and interest in a timely manner (credit risk) and/or the risk that the value of these securities will decline when interest rates increase (interest rate risk).

Risks of investing in inflation-protected bond investments include credit risk and interest rate risk. Neither the bond investment nor its yield is guaranteed by the U.S. Government.

High yield bond investments are generally subject to greater market fluctuations and risk of loss of income and principal than lower yielding debt securities investments.

Investments in value stocks may remain undervalued for extended periods of time, and the market may not recognize the intrinsic value of these securities.

Investments that track a benchmark index are professionally managed investments. However, the benchmark index itself is unmanaged and does not incur fees or expenses and cannot be purchased directly for investment.

Investments in growth stocks may experience price volatility due to their sensitivity to market fluctuations and dependence on future earnings expectations.

Investments in companies with small or mid market capitalization ("small caps" or "mid caps") may be subject to special risks given their characteristic narrow markets, limited financial resources, and less liquid stocks, all of which may cause price volatility.

International/global investing can involve special risks, such as political changes and currency fluctuations. These risks are heightened in emerging markets. Other trading restrictions may apply. Please see the investment's prospectus for more details.

A significant percentage of the underlying investments in aggressive asset allocation portfolio options have a higher than average risk exposure. Investors should consider their risk tolerance carefully before choosing such a strategy.

An investment with multiple underlying investments (which may include MassMutual RetireSmart and any other offered proprietary or non-proprietary asset-allocation, lifestyle, lifecycle or custom blended investments) may be subject to the expenses of those underlying investments in addition to those of the investment itself.

Investments may reside in the specialty category due to 1) allowable investment flexibility that precludes classification in standard asset categories and/or 2) investment concentration in a limited group of securities or industry sectors. Investments in this category may be more volatile than less-flexible and/or less-concentrated investments and may be appropriate as only a minor component in an investor's overall portfolio.

Participants with a large ownership interest in a company or employer stock investment may have the potential to manipulate the value of units of this investment option through their trading practices. As a result, special transfer restrictions may apply. This type of investment option presents a higher degree of risk than diversified investment options under the plan because it invests in the securities of a single company.

Investments that invest more of their assets in a single issuer or industry sector (such as company stock or sector investments) involve additional risks, including unit price fluctuations, because of the increased concentration of investments.

A participant will be prohibited from transferring into most mutual funds and similar investments if they have transferred into and out of the same investment within the previous 60 days. Certain stable value, guaranteed interest, fixed income and other investments are not subject to this rule. This rule does not prohibit participants from transferring out of any investment at any time.

Excessive Trading Policy: MassMutual strongly discourages plan participants from engaging in excessive trading. The MassMutual Excessive Trading Policy helps protect the interests of long-term investors like you. If you would like to view the MassMutual Excessive Trading Policy, please visit MassMutual's participant website at www.retiresmart.com. In addition, you cannot transfer into any investment options if you have already made a purchase followed by a sale (redemption) involving the same investment within the last sixty days.

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Beneficiary Form

Fulton County Defined Contribution Plan
Fulton County
60157-1-1

1 Enter your personal information (Please print clearly)

Participant's Name (First, Middle Initial, Last)		Participant's Social Security Number (SSN)	
Street Address		Apt. No	
City	State	Zip	
()	()		
Daytime Phone	Evening Phone	Email Address	
Marital Status: <input type="radio"/> Married <input type="radio"/> Single or Legally Separated			

2 Designate Beneficiary(ies) (Check one box only)

A: **Spouse Primary Beneficiary:** I would like my spouse to receive my entire account balance upon my death.

Spouse's Name	Spouse's Social Security Number (SSN)	Spouse's Date of Birth: mm - dd - yyyy
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or

B: **Non-Spouse or Multiple Primary Beneficiaries:** I would like the following person(s) to receive my account balance upon my death: **(If division is other than equal shares, write in whole percentages totaling 100%.)**

Beneficiary Name	Social Security Number	Relationship	Percentage %
Beneficiary Name	Social Security Number	Relationship	Percentage %
Beneficiary Name	Social Security Number	Relationship	Percentage %
Beneficiary Name	Social Security Number	Relationship	Percentage %

Note: If you are married and you have NOT elected your spouse as **sole** primary beneficiary, your spouse **must** consent to the beneficiary designation as provided in Section 3. The Plan Administrator will not recognize an alternate beneficiary designation provided by a married participant which does not reflect a valid spousal consent.

Contingent Beneficiary (Optional)

If no Primary Beneficiary listed on the front of this form is alive upon my death, I designate the following person(s) to receive my account balance upon my death: **(Must be in whole percentages totaling 100%.)** **Plan Administrator: Please retain a copy of this form in your files.**

Beneficiary Name	Social Security Number	Relationship	Percentage %
Beneficiary Name	Social Security Number	Relationship	Percentage %

Beneficiary Form

Fulton County Defined Contribution Plan
Fulton County
60157-1-1

Beneficiary Name	Social Security Number	Relationship	Percentage %
Beneficiary Name	Social Security Number	Relationship	Percentage %

3

Provide spousal consent (If you are married and you have NOT elected your spouse as sole primary beneficiary, please have your spouse provide consent below.) The spouse's signature must be witnessed by a Notary Public.

Spouse's First Name	Spouse's Middle Name	Spouse's Last Name
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In signing below, I confirm that I have reviewed the beneficiary designation made by my spouse and that, as a spouse, I may have interests in the participant's account subject to the designation. I am fully satisfied with the beneficiary designation, and I consent to and accept the designation, without regard to whether I survive or predecease my spouse. In doing so, I further understand that I am giving up my right to the interest in the participant's account. I also acknowledge that my consent is irrevocable unless my spouse chooses to change the designation in the future.

Spouse's Signature	Date
--------------------	------

Notary Signature I have signed my name and affixed my official notarial seal below:

Notary Public's Signature	Date
State	County
Notary Stamp/Seal	Date Commission Expires

Beneficiary Form

Fulton County Defined Contribution Plan
Fulton County
60157-1-1

4 Sign, date and return your forms

By signing this form, I certify that the information I have provided is accurate, to the best of my knowledge. I have read the Instructions and understand the elections I have made. I designate the above beneficiary(ies) to receive my account balance at my death. I understand that this beneficiary designation supersedes and replaces any previous designation.

I hereby authorize MassMutual to contact me or the Plan Administrator if they have any questions or require further documentation to process this form.

X _____
Participant's Signature Date

In addition to submitting this completed form for processing, please keep a copy of this form for your records.

Mail to: **MassMutual, PO Box 219062, Kansas City, MO 64121.**

For overnight delivery, mail to: **MassMutual, 430 W. 7th St., Kansas City, MO 64105.**

After receipt of this form, MassMutual will send you written confirmation once your account is updated. This designation supersedes any prior designation.

Plan Administrator Use Only (Beneficiary form cannot be processed without your signature)

I certify that, to the best of my knowledge, the information on this form is accurate and complete. If a married participant designated a non-spouse Primary Beneficiary, and the Spouse's signature was not witnessed by a Notary Public, I certify that I have witnessed the spouse's signature acknowledging and agreeing to the designation.

Plan Administrator/TPA Signature Date

IMPORTANT: IF NO VALID BENEFICIARY DESIGNATION IS ON FILE OR IF DESIGNATION CANNOT OTHERWISE BE DETERMINED, BENEFICIARY(IES) WILL BE DETERMINED BY THE PLAN FIDUCIARY ACCORDING TO PLAN DOCUMENTS AND APPLICABLE LAW. FOR YOUR MAILING ADDRESS, PROVIDE EITHER A STREET ADDRESS OR P.O. BOX, NOT BOTH. IF YOU PROVIDED BOTH, MASSMUTUAL WILL FOLLOW USPS GUIDELINES AND USE THE P.O. BOX AS YOUR MAILING ADDRESS.

Sample wording for use in completing this form:

To Designate

1. Your estate
2. The trustee of the Trust established under your Will
3. The trustee of your Revocable or Irrevocable Trust

Use This Wording

- Executors or Administrators of my estate
(Name of trustee) as trustee, or the then acting trustee, of the Trust established under (your name) Will dated (date of Will)
(Name of trustee) as trustee, or the then acting trustee, of the (name of Trust) established on (date of Trust)

Trust as Beneficiary:

Before designating a trust as the beneficiary of your plan benefit, you should consult an attorney with expertise in trusts and estates law. Some of the factors to consider include:

1. Who is going to be the beneficiary – your spouse, a minor child – and what are their financial needs?
2. Are the protections of a trust desirable?
3. What are the income tax consequences of designating a trust as beneficiary?

Beneficiary Form

Fulton County Defined Contribution Plan
Fulton County
60157-1-1

The following requirements must be satisfied before your trust beneficiaries will be treated as your retirement plan's designated beneficiary:

1. The trust must be valid under state law.
2. The trust must be irrevocable or must, by its terms, become irrevocable on your death.
3. The trust's beneficiaries must be identifiable from the trust instrument.
4. You must provide trust documentation to the retirement plan administrator.
5. All trust beneficiaries must be individuals.

Investment Election Form

Fulton County Defined Contribution Plan
Fulton County
60157-1-1



1

Enter your personal information (Please print clearly)

- Employee Surviving Beneficiary (attach notice of death form)
 Alternate Payee (attach a QDRO form)

Participant's Name (First, Middle Initial, Last)		Participant's Social Security Number (SSN)
Street Address	Apt. No.	Birthdate: mm - dd - yyyy
City	State	Zip
()	()	
Daytime Phone	Evening Phone	Email Address
Marital Status: <input type="radio"/> Married <input type="radio"/> Single or Legally Separated <input type="radio"/> Check here to sign up for email notification*		

Plan Administrator Use Only

(Form cannot be processed without this required information and signature)

Hire Date ____/____/____ Plan Entry Date ____/____/____

Payroll Frequency: Monthly (12/Yr) Semi-Monthly (24/Yr) Bi-Weekly (26/Yr) Weekly (52/Yr)

Years of credited services as of last plan year end:_____ (if this information is **NOT** provided, MassMutual will assume the employee has completed a year of service for each year since hire date.)

As Plan Administrator, I acknowledge receipt, accuracy, completeness including participant's signature.

Plan Administrator Signature	Date
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Investment Election Form

Fulton County Defined Contribution Plan
Fulton County
60157-1-1

2 Choose one of the investment strategies below

Your investment strategies are outlined on the following pages. **Choose the selection that works for you.**

IMPORTANT NOTE: This investment election applies to your rollover and all future contributions. Investment allocation strategies are a convenient way of allocating your account among certain of the plan's individual investment options. Any investment allocation strategies included in these materials are not intended to be investment advice or recommendations to you and may or may not be appropriate for your circumstances. In applying investment allocation strategies to your individual circumstances, you should consider your other assets, income and investments as well as your risk tolerance. If you direct your contributions or current account balance to an investment allocation strategy, your contributions or account balance will be invested in each of the individual investment alternatives in the percentages indicated for the strategy. The plan may offer other investment options not included in the strategies and the individual investment alternatives included in the strategies may also be available on a stand-alone basis. The Investment Portfolio chart lists asset classes, along with their weightings in the allocation strategy. Additional investment options may exist that are not included in the portfolio. When selecting your investments, choose only **ONE** portfolio from any of the strategies, sign the form and you're done **OR** you can select individual investment options (under Option C) and build your own portfolio. See below for a complete list of options. The investment options available in this plan may change at the direction of the Plan Sponsor. Elections made on this form may be modified to follow the intent of those changes. If you choose investments for only one source group, contributions from other sources will be allocated to those chosen investments.

Until you make your investment selection, your contributions will be invested in the Target Asset Allocation Investment Option listed below which has the target retirement date closest to your 65th birthday. If you are near, at or past your 65th birthday, your contributions will be invested in the target asset allocation investment option that shows no target retirement date. Following your enrollment, you will receive a transaction confirmation that will tell you specifically in which Target Asset Allocation Option your contributions have been invested. Subject to certain restrictions, you may redirect your contributions to any other investment option under the Plan at any time.

A: Age-Based Investment Option

(If you make a selection here, do not make a selection under any other option.)

If you select one of these Asset Allocation investment options, based on the date closest to the year you plan to retire, you're almost done! Check the appropriate box and go to Step 3.

- | | | | |
|--|--|--|--|
| <input type="radio"/> Vanguard Target Rtrmnt Incm Fd | <input type="radio"/> Vanguard Target Rtrmnt 2015 Fd | <input type="radio"/> Vanguard Target Rtrmnt 2020 Fd | <input type="radio"/> Vanguard Target Rtrmnt 2025 Fd |
| <input type="radio"/> Vanguard Target Rtrmnt 2030 Fd | <input type="radio"/> Vanguard Target Rtrmnt 2035 Fd | <input type="radio"/> Vanguard Target Rtrmnt 2040 Fd | <input type="radio"/> Vanguard Target Rtrmnt 2045 Fd |
| <input type="radio"/> Vanguard Target Rtrmnt 2050 Fd | <input type="radio"/> Vanguard Target Rtrmnt 2055 Fd | <input type="radio"/> Vanguard Target Rtrmnt 2060 Fd | |

Target Asset Allocation Investment Options are single solutions that offer professional management and monitoring as well as diversification – all in one investment. Each investment option has an automatic process that invests more conservatively as retirement nears and the options are named to coincide with a particular retirement date. Your plan is designed to invest your contributions into one of these options as the default investment based on your date of birth and a

Investment Election Form

Fulton County Defined Contribution Plan
Fulton County
60157-1-1

projected retirement age of 65. You may always choose new investment options at any time.

or

B: Custom Portfolio Investment Option

(If you make a selection here, do not make a selection under any other option.)

Custom portfolios, based on different risk tolerances, have been arranged using the individual funds available to your plan. The amounts of each individual fund contained in the different Custom Portfolio options are shown on the right side of the following fund list. If you select one of these Custom Portfolio investment options, you're almost done! Check the appropriate box and go to Step 3.

- Short Term Conservative Moderate Aggressive
 Ultra Aggressive

or

C: Individual Fund Option

(If you enter selections here, do not make a selection under any other option.)

First, select the individual funds in which you wish to invest. Then, enter the percentage of your contributions to be invested in each of those funds in the space provided. Make sure selections are whole percentages and total 100%. When they add up to 100%, you're almost done! Go to Step 3.

Investment Options	Breakdowns for Custom Portfolio Options						Ultra Aggressive
	All Contributions	Rollover	Short Term	Conservative	Moderate	Aggressive	
Diversified Bond SAGIC	_____ %	_____ %	95%	21%	6%	2%	
BlackrockTotal Return Fund	_____ %	_____ %	2%	24%	17%	7%	
JP Morgan Government Bond Fund	_____ %	_____ %	3%	25%	17%	7%	
PIMCO Income Fund	_____ %	_____ %					
Invesco Equity and Income Fund	_____ %	_____ %					
Vanguard Target Rtrmnt Incm Fd	_____ %	_____ %					
Vanguard Target Rtrmnt 2015 Fd	_____ %	_____ %					
Vanguard Target Rtrmnt 2020 Fd	_____ %	_____ %					
Vanguard Target Rtrmnt 2025 Fd	_____ %	_____ %					
Vanguard Target Rtrmnt 2030 Fd	_____ %	_____ %					

Investment Election Form

Fulton County Defined Contribution Plan
 Fulton County
 60157-1-1

Breakdowns for Custom Portfolio Options

Investment Options	All		Short Term	Conservative	Moderate	Aggressive	Ultra Aggressive
	Contributions	Rollover					
Vanguard Target Rtrmnt 2035 Fd	_____%	_____%					
Vanguard Target Rtrmnt 2040 Fd	_____%	_____%					
Vanguard Target Rtrmnt 2045 Fd	_____%	_____%					
Vanguard Target Rtrmnt 2050 Fd	_____%	_____%					
Vanguard Target Rtrmnt 2055 Fd	_____%	_____%					
Vanguard Target Rtrmnt 2060 Fd	_____%	_____%					
MFS Value Fund	_____%	_____%		2%	3%	5%	6%
Vanguard Value Index Fund	_____%	_____%		2%	4%	5%	6%
Vanguard Institutional Indx Fd	_____%	_____%		10%	18%	26%	34%
Sel TRP/LS Blue Chip Growth Fd	_____%	_____%		2%	4%	5%	6%
Vanguard Growth Index Fund	_____%	_____%		2%	4%	5%	6%
American Century Mid Cp Val Fd	_____%	_____%		1%	4%	5%	4%
Sel Md Cp Gr Fd (TRP/Frontier)	_____%	_____%		1%	4%	5%	5%
Invesco Small Cap Value Fund	_____%	_____%		2%	4%	5%	6%
Janus Henderson Venture Fd	_____%	_____%		3%	4%	6%	7%
AmerFunds EuroPacific Gr Fund	_____%	_____%		5%	11%	17%	20%
Oppenheimer Global Opport Fund	_____%	_____%					

***All contributions must equal 100%**

3 Sign, date and return your forms

Please provide your signature and return to your Plan Administrator. After receipt of this form, MassMutual will send you written confirmation once your account is established.

I understand I may revoke this election at any time or I may change this election as allowed by the Plan. I understand that the maximum annual limit on contributions is determined under the Plan document and the Internal Revenue Code. Any amounts contributed may be reduced or returned to me as required by these limitations.



Participant's Signature

Date

Investment Election Form

Fulton County Defined Contribution Plan
Fulton County
60157-1-1

IMPORTANT NOTE: IF YOU ENROLL BY MAILING THIS FORM TO MASSMUTUAL, BUT THEN SUBSEQUENTLY CHANGE YOUR ELECTIONS THROUGH THE AUTOMATED PHONE LINE OR THE PARTICIPANT WEBSITE, THE MOST RECENTLY DATED ACTIVITY WILL PREVAIL. FOR YOUR MAILING ADDRESS, PROVIDE EITHER A STREET ADDRESS OR P.O. BOX, NOT BOTH. IF YOU PROVIDE BOTH, MASSMUTUAL WILL FOLLOW USPS GUIDELINES AND USE THE P.O. BOX AS YOUR MAILING ADDRESS.

If you have selected an investment strategy and one or more of the strategy's component investments listed on your form has been replaced, any contributions that would have been invested in that component investment will be invested according to the investment allocation in effect at the time the strategy is implemented and the new component will be listed on your confirmation form.

Investors should consider an investment's objectives, risks, charges and expenses carefully before investing. For this and other information, see the prospectus available from your plan sponsor, on the participant website at www.retiresmart.com or by contacting our Participant Information Center at 1-800-743-5274 between 8:00 a.m. and 8:00 p.m. ET, Monday through Friday. Read it carefully before investing.

*By selecting 'Email Notification' in Section 1 above, you are consenting to receive electronic notices regarding materials for your retirement plan. You will receive an email notification that will contain a link to our secure participant website log-in page. Once you log-in to your account, you will be able to view all available plan-related documents referenced in the electronic notice. You may view the documents online, save them to your personal computer, or print them for your records. Documents will be posted either in HTML or PDF format. By electing 'Email Notification,' you are verifying that you possess the ability to view and download HTML and PDF documents. These documents may include, for example, a Summary Plan Description (SPD), a Summary of Material Modification, individual benefit statements, investment related information, as well as any notice or communication required under the Internal Revenue Code (IRC), including but not limited to, loan notes, notices to interested parties and notices of available distribution options. In the event of an invalid email address, full mailbox, or spam settings, MassMutual will send printed material via U.S. mail. The election or cancellation date of the email notification program may result in notifications remaining in their existing delivery method for a short period of time. Adobe Acrobat Reader version 7.0 or higher is required to view retirement statements. Visit www.adobe.com for a free download.

To get the most out of your plan...You may also roll over your eligible distributions from your prior employer's qualified plan.

Participant Fees Disclosure Statement

Plan: Fulton County Defined Contribution Plan

Subscription: Fulton County

Created: 06/09/2018

Account Number: 60157-1-1

You are a participant or beneficiary in an individual account plan that allows you to direct the investment of your account balance. This disclosure statement is designed to provide you with information that will allow you to make informed decisions when selecting and managing your investments. This disclosure statement advises you of information regarding fees and expenses associated with your participation in the Plan. The General Plan Information section provides information regarding the operation of the Plan. The Comparative Chart section provides information about the Plan's designated investment alternatives including investment performance, operating expenses, fees, trade restrictions, and an industry benchmark relative to each non-fixed interest investment to help you make investment decisions. If the Plan has target date or life cycle investment allocation alternatives, this disclosure statement will include a Target Date Asset Allocation Investment Alternatives section providing information on how the investment allocation will change over time, when it will reach its most conservative asset allocation, the relevance of any dates used to describe the investment and the participant age groups for whom the investment alternative is designed. If your Plan's administrative expenses could be deducted from your account balance, this disclosure statement will include an Administrative Expenses section. The Administrative Expenses section provides information regarding charges for administrative expenses incurred on a Plan-wide basis that may be deducted from your account. An Individual Expenses section regarding individual expenses that may be deducted from your account, will also be included in this disclosure statement if the Plan charges participants and beneficiaries for the expenses associated with individual transactions.

Please be mindful that:

- An investment's past performance is no guarantee of future results.
- To help achieve long-term retirement security, you should give careful consideration to the benefits of a well-balanced and diversified investment portfolio.
- Fees are only one of several factors you should consider when making investment decisions. For more information and an example demonstrating the long-term effect of fees and expenses, please visit: <https://www.dol.gov/sites/default/files/ebsa/about-ebsa/our-activities/resource-center/publications/a-look-at-401k-plan-fees.pdf> and <https://www.dol.gov/agencies/ebsa/about-ebsa/our-activities/resource-center/publications/understanding-your-retirement-plan-fees>.

General Plan Information

Investment Instructions: In order to direct your Plan investments, you must make your election at www.retiresmart.com or contact the MassMutual Participant Information Center at 1-888-606-7343. If you are currently not participating in the Plan and have questions concerning plan provisions, including eligibility requirements, contact Fulton County Benefits Office at (404) 612-4243 or 141 Pryor Street, S.W. Suite 7001, Atlanta GA 30303.

Limitations on Instructions:

- You may give investment instructions on any day the New York Stock Exchange is open for business.
- Any trade restrictions specific to an individual investment alternative will be listed in the Comparative Chart.



General Plan Information (continued)

- If the Plan offers publicly traded employer securities as a designated investment alternative, certain discretionary transactions requested by participants who are officers, directors, or principal stockholders that involve employer securities will have trading restrictions imposed as additional reporting of those transactions is required.

Designated Investment Alternatives (DIA): The Plan provides designated investment alternatives into which you can direct the investment of your Plan funds. The Comparative Chart below identifies these designated investment alternatives and provides information regarding the alternatives.

Investment Manager: For information regarding the designated investment manager for the Plan (if any), please contact your Plan Sponsor.

The Plan's Self-Directed Brokerage Account Option

Through your plan account you may access your Self Directed Brokerage Account (SDBA), a separate investment vehicle which provides a direct link to Charles Schwab & Co.'s Personal Choice Retirement Account (PCRA). The SDBA gives you the opportunity to select and manage investments from a larger universe of investment options. To obtain more information about your SDBA, including any fee and expense information, please contact your Plan Sponsor or SDBA Enrollment Brochure. Note: Offered through Charles Schwab & Co. at an additional cost. Charles Schwab & Co. is not an affiliate or subsidiary of MassMutual. This option is intended for knowledgeable investors. The level of risk will vary depending on the investment choices a participant makes.

MassMutual may assess an annual account maintenance fee of up to \$100 annually for maintaining an SDBA. The annual fee is subtracted from your core investment assets.

Any additional trading restrictions or limitations imposed on the amounts that may be invested in the SDBA are disclosed here:

The maximum percentage of your account that can be transferred to the SDBA is 50.0000000%.

Your Plan has the following initial minimum transfer requirement: \$5000.00

Subsequent transfers may be made of at least the following amount: \$1000.00

A SDBA offered through a 403(b) plan will exclusively offer mutual funds as investment alternatives.

For more information on how to establish a Self Directed Brokerage Account go to www.retiresmart.com or contact the MassMutual Participant Information Center at 1-888-606-7343.

Glossary of Terms: Please visit <http://www.massmutual.com/glossary> for a glossary of investment terms relevant to the investment options under this Plan. This glossary is intended to help you better understand your options.

Comparative Chart

This section includes important information to help you compare the investment alternatives offered under your Plan. If you want additional information about your investment options, you can go to the specific Internet web site addresses shown below or you can contact the MassMutual Participant Information Center at 1-888-606-7343. If you are currently not participating in the Plan, contact Fulton County Benefits Office at (404) 612-4243 or 141 Pryor Street, S.W. Suite 7001, Atlanta GA 30303. To help achieve long-term retirement security, you should give careful consideration to the benefits of a well-balanced and diversified investment portfolio. Spreading your assets among different types of investments can help you achieve a favorable rate of return, while minimizing your overall risk of losing money. This is because market or other economic conditions that cause one category of assets, or one particular security, to perform very well often cause another asset category, or another particular security, to perform poorly. If you invest more than 20% of your retirement savings in any one company, industry or class of investment, your savings may not be properly diversified. Although diversification is not a guarantee against loss, it is an effective strategy to help you manage investment risk. In deciding how to invest your retirement savings, you should take into account all of your assets, including any retirement savings outside of the Plan. No single approach is right for everyone because, among other factors, individuals have different financial goals, different time horizons for meeting their goals, and different tolerances for risk. It is also important to periodically review your investment portfolio, your investment objectives, and the investment alternatives under the Plan to help ensure that your retirement savings will meet your retirement goals. Diversification does not assure a profit and does not protect against a loss in a declining market.

Document Summary

This section focuses on the performance of investment alternatives that have a fixed or stated rate of return. The chart shows the annual rate of return of each such alternative, the term or length of time that you will earn this rate of return and other information relevant to performance.

Comparative Chart (continued)

Fixed Return Investments			
Name of Investment Type of Investment Investment Inception Date Investment Manager Investment Profile	Annual Rate of Return	Term	Shareholder-Type Fees, Restrictions and Other
Diversified Bond SAGIC STABLE VALUE 08/17/2007 MassMutual www.MassMutual.com/FF/rm3503db.PDF	3.95%	Quarterly	The rate of return listed was effective beginning on 05/31/2018, is reset Quarterly, and is calculated net of certain contract expenses. Under the terms of your group annuity contract, there is a guaranteed minimum gross interest rate of 0.00%. Although the gross rate of return provided under the contract will never fall below 0.00%, the net rate of return may, in some instances, be less than 0.00% after applicable expenses are deducted from the contract. Current rate of return information is available by contacting the MassMutual Participant Information Center at 1-888-606-7343. If you are currently not participating in the Plan, contact Fulton County Benefits Office at (404) 612-4243 or 141 Pryor Street, S.W. Suite 7001, Atlanta GA 30303.

This section focuses on the performance of investment alternatives that do not have a fixed or stated rate of return. The chart shows how these alternatives have performed over time and allows you to compare them with an appropriate benchmark for the same time periods. **Past performance does not guarantee how the investment alternative will perform in the future. Your investment in these alternatives could lose money.**

Information about an investment alternative's principal risks is available on the Investment Profile. You can obtain a specific Investment Profile using the web site address provided for the specific investment alternative in the Comparative Chart.

This chart also shows fee and expense information for the investment alternatives under your Plan. It shows the Total Annual Operating Expense which are expenses that reduce the rate of return of the investment alternative. Any shareholder-type fees are also disclosed. These fees are in addition to Total Annual Operating Expenses. Expense information is reflected as of the date of this report and may change over time. Please note that expense information for each investment alternative reflected on the Investment Profile is updated from time to time. Please see the Investment Profile which includes current expense information as well as the date the expenses were most recently updated.

Comparative Chart (continued)

Name of Investment Type of Investment Investment Inception Date Investment Manager Investment Profile	Variable Return Investments			Fees and Expense Information	
	Average Annual Total Return as of 05/31/2018	Benchmark	Gross Total Annual Operating Expenses	Net Total Annual Operating Expenses**	Shareholder-Type Fees, Restrictions and Other
	1 Year 5 Year 10 years 0.11% 2.75% 4.29%	1 Year 5 Year 10 years -0.38% 1.99% 3.73%	As a % Per \$1000 0.64% \$6.40	As a % Per \$1000 0.39% \$3.90	
BOND					
Blackrock Total Return Fund INTERMEDIATE TERM BOND 01/01/2003 BlackRock www.MassMutual.com/FF/mphqx.PDF	10 Year or *Since Fund Inception if less than 10 years	10 Year or *Since Fund Inception if less than 10 years			
JP Morgan Government Bond Fund INTERMEDIATE TERM BOND 01/01/2000 JP Morgan www.MassMutual.com/FF/higax.pdf	1 Year 5 Year 10 years -0.87% 1.32% 3.58%	BBgBarc US Agg Bond BBgBarc US Government Bd Tr	0.68% \$6.80	0.48% \$4.80	
PIMCO Income Fund MULTI SECTOR BOND 03/31/2007 PIMCO Funds www.MassMutual.com/FF/pimix.PDF	1 Year 5 Year 10 years 2.98% 5.21% 9.01%	BBgBarc US Agg Bond	0.53% \$5.30	0.50% \$5.00	

Comparative Chart (continued)

Name of Investment Type of Investment Investment Inception Date Investment Manager Investment Profile	Variable Return Investments			Fees and Expense Information		Shareholder-Type Fees, Restrictions and Other
	Average Annual Total Return as of 05/31/2018	Benchmark	Net Total Annual Operating Expenses**	Gross Total Annual Operating Expenses	Net Total Annual Operating Expenses**	
	10 Year or *Since Fund Inception if less than 10 years	10 Year or *Since Fund Inception if less than 10 years	As a %	As a %	Per \$1000	
ASSET ALLOCATION	1 Year 5 Year 10 years	1 Year 5 Year 10 years				
Invesco Equity and Income Fund ASSET ALLOCATION/LIFESTYLE 09/25/2012 Invesco www.MassMutual.com/FF/ieifx.PDF	7.68% 8.54% 10.00%	7.47% 7.25% 8.13% Lipper Balanced Index	0.40%	\$4.00	0.39% \$3.90	
Vanguard Target Rtrmnt Incm Fd ASSET ALLOCATION/LIFECYCLE 11/01/2003 Vanguard www.MassMutual.com/FF/vtinx.pdf	4.07% 4.47% 4.85%	2.86% 2.75% 3.84% DJ Target Today Index	0.13%	\$1.30	0.13% \$1.30	
Vanguard Target Rtrmnt 2015 Fd ASSET ALLOCATION/LIFECYCLE 10/28/2003 Vanguard www.MassMutual.com/FF/vtxvx.pdf	5.75% 6.07% 5.37%	3.51% 3.77% 3.93% DJ Target 2015 Index	0.13%	\$1.30	0.13% \$1.30	
Vanguard Target Rtrmnt 2020 Fd ASSET ALLOCATION/LIFECYCLE 06/08/2006 Vanguard www.MassMutual.com/FF/vtwvx.pdf	7.20% 7.08% 5.79%	4.48% 4.74% 4.38% DJ Target 2020 Index	0.13%	\$1.30	0.13% \$1.30	
Vanguard Target Rtrmnt 2025 Fd ASSET ALLOCATION/LIFECYCLE 10/28/2003 Vanguard www.MassMutual.com/FF/vttvx.pdf	8.30% 7.76% 6.01%	6.11% 5.86% 4.97% DJ Target 2025 Index	0.14%	\$1.40	0.14% \$1.40	

Comparative Chart (continued)

Name of Investment Type of Investment Investment Inception Date Investment Manager Investment Profile	Variable Return Investments			Fees and Expense Information		
	Average Annual Total Return as of 05/31/2018	Benchmark	Net Total Annual Operating Expenses**	Gross Total Annual Operating Expenses	Net Total Annual Operating Expenses**	Shareholder-Type Fees, Restrictions and Other
Vanguard Target Rtrmnt 2030 Fd ASSET ALLOCATION/LIFECYCLE 06/08/2006 Vanguard www.MassMutual.com/FF/vtrhx.pdf	1 Year 9.29% 5 Year 8.35% 10 years 6.20%	10 Year or less than *Since Fund Inception if 10 years 1 Year 8.02% 5 Year 7.04% 10 years 5.57% DJ Target 2030 Index	As a % 0.14% Per \$1000 \$1.40	As a % 0.14% Per \$1000 \$1.40	As a % 0.14% Per \$1000 \$1.40	
Vanguard Target Rtrmnt 2035 Fd ASSET ALLOCATION/LIFECYCLE 10/28/2003 Vanguard www.MassMutual.com/FF/vtrhx.pdf	10.25% 8.95%	9.70% 8.01% 6.09% DJ Target 2035 Index	0.14% \$1.40	0.14% \$1.40	0.14% \$1.40	
Vanguard Target Rtrmnt 2040 Fd ASSET ALLOCATION/LIFECYCLE 06/08/2006 Vanguard www.MassMutual.com/FF/vtrhx.pdf	11.21% 9.43%	11.13% 8.79% 6.52% DJ Target 2040 Index	0.15% \$1.50	0.15% \$1.50	0.15% \$1.50	
Vanguard Target Rtrmnt 2045 Fd ASSET ALLOCATION/LIFECYCLE 10/28/2003 Vanguard www.MassMutual.com/FF/vtrhx.pdf	11.65% 9.60%	12.19% 9.30% 6.85% DJ Target 2045 Index	0.15% \$1.50	0.15% \$1.50	0.15% \$1.50	
Vanguard Target Rtrmnt 2050 Fd ASSET ALLOCATION/LIFECYCLE 06/08/2006 Vanguard www.MassMutual.com/FF/vtrhx.pdf	11.64% 9.60%	12.66% 9.50% 6.95% DJ Target 2050 Index	0.15% \$1.50	0.15% \$1.50	0.15% \$1.50	

Comparative Chart (continued)

Name of Investment Type of Investment Investment Inception Date Investment Manager Investment Profile	Variable Return Investments			Fees and Expense Information		Shareholder-Type Fees, Restrictions and Other
	Average Annual Total Return as of 05/31/2018	Benchmark	Gross Total Annual Operating Expenses	Net Total Annual Operating Expenses**		
Vanguard Target Rtrmnt 2055 Fd ASSET ALLOCATION/LIFECYCLE 08/19/2010 Vanguard www.MassMutual.com/FF/vffvx.pdf	1 Year 11.66% 5 Year 9.56% 10 years 11.07%	10 Year or *Since Fund Inception if less than 10 years 1 Year 12.69% 5 Year 9.51% 10 years 10.76% DJ Target 2055 Index	As a % \$1000 0.15%	Per \$1000 \$1.50	0.15%	
Vanguard Target Rtrmnt 2060 Fd ASSET ALLOCATION/LIFECYCLE 01/20/2012 Vanguard www.MassMutual.com/FF/vttvx.PDF	11.65% 9.57% 10.88%	12.69% 9.50% 11.46% DJ Target 2060 Index	0.15%	\$1.50	0.15%	\$1.50
MFS Value Fund LARGE CAP VALUE 04/29/2006 MFS Investment Management www.MassMutual.com/FF/meikx.PDF	6.18% 10.48% 7.78%	8.24% 10.09% 7.38% Russell 1000® Value Idx	0.49%	\$4.90	0.49%	\$4.90
Vanguard Value Index Fund LARGE CAP VALUE 01/01/2000 Vanguard www.MassMutual.com/FF/vvix.pdf	11.91% 11.43% 8.16%	8.24% 10.09% 7.38% Russell 1000® Value Idx	0.05%	\$0.50	0.05%	\$0.50
Vanguard Institutional Indx Fd LARGE CAP CORE 01/01/2006 Vanguard www.MassMutual.com/FF/viix.PDF	14.37% 12.97% 9.16%	14.38% 12.99% 9.14% S&P 500® Index	0.02%	\$0.20	0.02%	\$0.20

Comparative Chart (continued)

Name of Investment Type of Investment Investment Inception Date Investment Manager Investment Profile	Variable Return Investments			Fees and Expense Information	
	Average Annual Total Return as of 05/31/2018	Benchmark	Gross Total Annual Operating Expenses	Net Total Annual Operating Expenses**	Shareholder-Type Fees, Restrictions and Other
Sel TRP/LS Blue Chip Growth Fd LARGE CAP GROWTH 01/01/2004 MassMutual Select www.MassMutual.com/FF/mbczx.PDF	1 Year 23.88% 5 Year 17.61% 10 years 11.96%	10 Year or less than *Since Fund Inception if 10 years 1 Year 21.02% 5 Year 15.70% 10 years 10.89% Russell 1000® Growth Index	As a % 0.65% Per \$1000 \$6.50	As a % 0.65% Per \$1000 \$6.50	
Vanguard Growth Index Fund LARGE CAP GROWTH 01/01/2004 Vanguard www.MassMutual.com/FF/vigax.PDF	17.38% 14.61% 10.27%	21.02% 15.70% 10.89% Russell 1000® Growth Index	0.06% \$0.60	0.06% \$0.60	
American Century Mid Cp Val Fd MID CAP VALUE 07/27/2013 American Century www.MassMutual.com/FF/amdvx.PDF	7.79% N/A 11.60%	8.34% 10.83% 11.29% Russell Mid Cap Value Idx	0.66% \$6.60	0.61% \$6.10	
Sel Mid Cp Gr Fd (TRP/Frontier) MID CAP GROWTH 08/01/2000 MassMutual Select www.MassMutual.com/FF/mefzx.PDF	15.01% 14.31% 10.75%	18.44% 13.02% 9.58% Russell Mid Cap Growth Index	0.72% \$7.20	0.72% \$7.20	
Invesco Small Cap Value Fund SMALL CAP VALUE 08/27/2005 Invesco www.MassMutual.com/FF/vsmix.pdf	19.69% 10.61% 10.51%	16.35% 10.95% 8.71% Russell 2000® Value Idx	0.87% \$8.70	0.86% \$8.60	

Comparative Chart (continued)

Name of Investment Type of Investment Investment Inception Date Investment Manager Investment Profile	Variable Return Investments				Fees and Expense Information			
	Average Annual Total Return as of 05/31/2018		Benchmark		Gross Total Annual Operating Expenses	Net Total Annual Operating Expenses**	Shareholder-Type Fees, Restrictions and Other	
	1 Year	5 Year	10 years	1 Year	5 Year	10 years	As a %	Per \$1000
Janus Henderson Venture Fd SMALL CAP GROWTH 06/01/2012 Janus Henderson www.MassMutual.com/FF/jvtnx.PDF	24.44%	14.46%	16.38%	25.09%	13.33%	16.08%	0.67%	\$6.70
AmerFunds EuroPacific Gr Fund INTL/GLOBAL LARGE GROWTH 05/02/2009 American Funds www.MassMutual.com/FF/rergx.pdf	13.05%	8.18%	10.24%	9.68%	5.45%	8.68%	0.50%	\$5.00
Oppenheimer Global Opport Fund INTL/GLOBAL SMALL/MID CAP 10/23/1990 Oppenheimer www.MassMutual.com/FF/ogtix.PDF	30.51%	20.49%	13.24%	11.81%	8.88%	4.95%	0.73%	\$7.30

*The benchmark since inception return is calculated from the month-end of the investment's inception.

Comparative Chart (continued)

**The Net Total Annual Operating Expenses include any investment expense waiver/reimbursement arrangements documented in the investment's prospectus and may be lower than the Gross Total Annual Operating Expenses due to the indicated expense waivers or reimbursements, which may be subject to expiration. Additional information regarding investment expense waivers specific to each investment is included in this document, if available, including whether the waiver is contractual or voluntary and its date of expiration. All available information about investment expense waivers is current and complete as of the date of this report. If information regarding the waivers is incomplete, it is because our third-party data provider was unable to make the information available. For some investments, the Net Total Annual Operating Expense ratio figure reflects the subtraction of interest expense, which results from an investment's use of certain other investments. This expense is required to be treated as an investment expense for accounting purposes, but is not payable to the investment adviser or subadviser (if applicable). For more information, please see the investment profile or the prospectus that corresponds to the investment, which are both available from MassMutual. Contact the MassMutual Participant Information Center at 1-888-606-7343. If you are currently not participating in the Plan, contact Fulton County Benefits Office at (404) 612-4243 or 141 Pryor Street, S.W. Suite 7001, Atlanta GA 30303.

Other share classes of an investment or its underlying investment (depending upon the investment) may have existed longer, which may account for any pre-inception performance shown. If pre-inception performance is shown, it is generally the performance of an older share class of the investment itself or its underlying investment (depending upon the investment) adjusted for fees and expenses of the newer share class. However, if using the expenses of the newer share class rather than the expenses of the older share class (due to lower expenses of the newer share class) would result in better performance, then pre-inception performance represents that of the older share class without any expense adjustment.

The cumulative effect of fees and expenses can substantially reduce the growth of your retirement savings. Visit the U.S. Department of Labor's Website for an example showing the long-term effect of fees and expenses at <https://www.dol.gov/sites/default/files/ebsa/about-ebsa/our-activities/resource-center/publications/a-look-at-401k-plan-fees.pdf>. Fees and expenses are only one of many factors to consider when you decide to invest in an alternative. You may also want to think about whether an investment in a particular option, along with your other investments, will help you achieve your financial goals.

To obtain additional information about the Plan's designated investment alternatives, please obtain the Investment Profiles for the specific investment alternatives you are interested in using the web site addresses provided in the Comparative Chart or go to www.retiresmart.com.

You have the right to request the following information relating to the Plan's investment alternatives: copies of prospectuses or any short-form or summary prospectus or similar documents, financial statements or reports, a statement of the value of each investment available under the Plan as well as the valuation date, and a list of the assets that make up the portfolio of each investment under the Plan that constitute "plan assets" within the meaning of U.S. Department of Labor regulations and the value of each of these assets. In addition, you may request a free paper copy of the information available on the web site(s) listed on the Comparative Charts above and the Glossary of Investment Terms. This information can be obtained by contacting Fulton County Benefits Office at (404) 612-4243 or 141 Pryor Street, S.W. Suite 7001, Atlanta GA 30303 or MassMutual Participant Information Center, P.O. Box 219062, Kansas City, MO 64121-9062, 1-888-606-7343.

Administrative Expenses

If fees/expenses are incurred for plan administration, such fees/expenses may be charged to the Plan. As an individual account Plan, these Administrative Fees may be charged against your account balance to the extent they are not charged against forfeitures or paid by the Plan Sponsor. As a result, your account balance may be reduced for your share of any Plan Administrative fees charged against your account. These fees may be charged on a pro rata basis (i.e., based on the relative size of each participant and beneficiary's account) and/or a per capita basis (i.e., each participant and beneficiary is charged the same fee). If Plan Administrative fees are charged to your account balance, the actual dollar amount will be reported to you in the calendar quarter following the quarter in which the charge occurs. Please refer to your quarterly account statement for information on any fees actually charged to your account.

Please note that the Plan Administrative fees which appear below are not reflected in the total annual operating expenses of any of the Plan's investment options. However, in addition to the Plan Administrative fee amounts listed in this section, some of the Plan's Administrative fees may have been paid through revenue sharing arrangements maintained with one or more of the Plan's investment options in which you may be invested.

Pro Rata Fees

Plan administration fees/expenses that may be charged pro rata include, but are not limited to, fees/expenses for legal, accounting, audit, compliance, intermediary/advisor, investment, recordkeeping, and trustee services (collectively "Plan Administration Fees").

Per Capita Fees

Plan administration fees/expenses that may be charged on a per capita basis are fees/expenses for recordkeeping services.

If the Plan's Sponsor normally pays the fees for administrative services performed by MassMutual, and the payment is overdue in accordance with the Plan Sponsor's Administrative Services Agreement with MassMutual, the Plan Sponsor is authorizing that the outstanding expenses will be deducted from participants' account balances on a pro rata basis to the extent allowed by the Plan's Administrative Services Agreement. Your share of the overdue expense will be determined by multiplying the fee by a ratio that is equal to the value of your account balance divided by the value of all account balances under the plan.

Consulting Services

Certain consulting services may be performed during the next 12 months if applicable to the provisions in your Plan and if requested by the Plan Sponsor. The fee for any of the services that are performed will only be paid from plan assets if directed by the Plan Sponsor. Consulting services include the following.

Employer contribution calculation and allocation service is an optional service that a Plan Sponsor can elect to have MassMutual perform on their behalf. The fee for employer contribution calculation and allocation services is \$500. An additional fee of \$200 per hour will be charged if more than three hours are required to complete the service. If the Plan has a matching contribution provision that requires a true-up calculation to be performed at the end of a plan year, there is a \$250 fee if the true-up contribution has to be revised. If the Plan Sponsor requests MassMutual to perform research, (such as documenting regulatory compliance, e.g. providing historical participant transaction forms, supporting financial reports, past Forms 5500 filings, prior years nondiscrimination tests, etc.) a \$75 per hour fee may be charged.

If a plan amendment is required for a MassMutual plan document due to a change in a regulation, law, or to comply with Title I of ERISA, there will be a charge of \$100. If the Volume Submitter plan document is amended and requires customization of provisions, an additional hourly fee of \$200 will be charged.

If an amendment to the investment contract is required, the amendment preparation fee is \$300.

Administrative Expenses (continued)

If the Plan has a participant loan provision and the Loan Policy needs to be amended, the loan Policy amendment fee is \$100.

If the Plan has a qualified default investment arrangement, a safe harbor plan design, an automatic enrollment feature or other plan provision for which a participant disclosure notice must be provided annually, the Plan Sponsor may request MassMutual to prepare the applicable notices. The fee for preparation of participant disclosure notices may be paid from participant accounts if directed by the Plan Sponsor.

The fees for mailing participant notices and disclosures may be paid from participant accounts if directed by the Plan Sponsor. The fee for mailing certain required notices is calculated based on producing, packaging and mailing the materials.

If any of these consulting services are performed and the Plan's Sponsor directs MassMutual to deduct the fees for these services from participants' account balances, the fees will be deducted on a pro rata basis. Your share of the expense will be determined by multiplying the fee by a ratio that is equal to the value of your account balance divided by the value of all participants' account balances under the plan.

Regulatory Testing

Nondiscrimination testing is required to be performed each year. Basic nondiscrimination testing services are included as part of the Plan's administrative services expenses. However, in certain situations additional fees for nondiscrimination testing may be charged.

If the Plan Sponsor maintains two or more retirement plans and those plans must be combined to perform the annual nondiscrimination testing, a fee will be charged to aggregate the plans data and perform the testing on a combined basis. The fee for aggregating the retirement plan data is \$2,000 per plan.

If a completed nondiscrimination test needs to be revised at a later time, a \$500 fee will be charged for each revised test. This revision fee applies to ADP and ACP tests, 415 limitation tests, and the 416 top-heavy tests.

Specialized nondiscrimination testing may be required due to the complexity of certain plan provisions. The fee for specialized testing is \$1250. An additional fee of \$200 per hour will be charged if more than three hours are required to complete the testing service. In addition, the Plan's definition of compensation used for the annual nondiscrimination testing purposes may itself require a nondiscrimination test. If the compensation ratio test is required to be performed the fee is \$500.

If any additional regulatory testing services are performed and the Plan's Sponsor directs MassMutual to deduct the fees for these services from participants' account balances, the fees will be deducted on a pro rata basis. Your share of the expense will be determined by multiplying the fee by a ratio that is equal to the value of your account balance divided by the value of all participants' account balances under the plan.

Reporting Services

The retirement plan is required to file Form 5500 Annual Return/Report of Employee Benefit with the U.S. Department of Labor each plan year. Preparation of the Form 5500 Annual Return/Report is part of the Plan's administrative services expenses. However, in certain situations, additional fees for preparation or amendment of the Form 5500 filing may be charged.

If this Plan has investments with more than one investment provider, a fee will be charged to prepare a consolidated Form 5500 filing. The fee for preparation of a consolidated Form 5500 Annual Return for a plan that has plan assets with multiple investment providers will be \$500 per investment provider.

If MassMutual prepares an amended Form 5500 Annual Return/Report filing for the Plan's Sponsor, a fee will be charged. The fee to prepare an amended Form 5500 Annual Return/Report is \$250 for plan years beginning in 2009 and later and \$500 for plan years that began prior to 2009.

Administrative Expenses (continued)

If the Plan's Sponsor directs MassMutual to deduct the fees for this service from participants' account balances, the fees will be deducted on a pro rata basis. Your share of the expense will be determined by multiplying the fee by a ratio that is equal to the value of your account balance divided by the value of all participants' account balances under the plan.

Contract Discontinuance and Termination Services

If at some point in the future the Plan discontinues the investment provider relationship with MassMutual either by transitioning the Plan to a new record keeper or because of the complete termination of the Plan, additional fees may be charged depending on the terms of the investment contract/agreement in effect at that time and certain administrative services performed in conjunction with the event.

When investment contracts are discontinued, the participants' accounts could be assessed contract surrender charges, termination asset charges, or market value adjustments. Your Plan's specific investment contract/agreement will identify which of these discontinuance fees are in effect. The discontinuance fees may also be dependent on the conditions of the market at the point in time the investment contract/agreement is discontinued.

If any special reports are requested during the transition of the plan to a new record keeper, a \$300 fee may be charged for each report.

Adjustment Fees

On occasion, the Plan Sponsor may request that certain calculations be performed to make adjustments to specific participants' accounts or to calculate and allocate earnings. The fee for such a service is \$75 per hour.

If the Plan's Sponsor directs MassMutual to deduct the adjustment fee from participants' account balances, the fee will be deducted on a pro rata basis. Your share of the expense will be determined by multiplying the fee by a ratio that is equal to the value of your account balance divided by the value of all participants' account balances under the plan.

In addition, there may be other administrative services performed by service providers outside of MassMutual during the next 12 months. However, it is unknown at this time if any services by other service providers will be required, what fees may be charged and whether those fees will be paid from plan assets. Examples of other administrative services that may occur outside of MassMutual and that may be paid by plan assets if not paid by the Plan Sponsor include but are not limited to: legal services; third party administrator services; accounting services; plan audits; and intermediary/advisor services. If any fees for services performed outside of MassMutual are to be deducted from participant accounts, they may be deducted on a pro rata or a per capita basis. The Plan Sponsor will direct which allocation method will be used when the fee for the service is submitted for payment to the service provider or reimbursement to the Plan Sponsor.

Instructions and General Information for the Self-Directed Brokerage Account

Your employer has arranged with Massachusetts Mutual Life Insurance Company (“MassMutual”) to offer you a Self-Directed Brokerage Account (SDBA) through Charles Schwab & Co., Inc. Member SIPC (“Schwab”). The Schwab Personal Choice Retirement Account (PCRA) provides you with the ability to invest in a wide variety of investments, including stocks, bonds, exchange-traded funds and mutual funds. Please review this information carefully.

Note: The PCRA is offered through Charles Schwab & Co.. Charles Schwab & Co. is not an affiliate or subsidiary of MassMutual. This option is intended for knowledgeable investors and the level of risk will vary depending on the investment choices a participant makes.

Fees and Limits

There is no annual charge from Schwab to open or maintain a PCRA account. To obtain more information about the PCRA, including any applicable annual maintenance fees, commissions and/or transaction fees, please contact your Plan Sponsor, review the Participant Fee Disclosure statement and refer to the Schwab Pricing Summary attached to this information booklet.

Instructions for Opening an Account

Activating Your Schwab PCRA

- Log onto www.schwab.com/pcraopen
- Enter your plan’s account number (xxxx-x)* as the Retirement Plan ID, sdba (lower case) as your Plan Password, and your Social Security Number. Click on “Login” then choose “Open New PCRA Account”
- Complete and submit the online PCRA Electronic Account Opening Application to open your Schwab PCRA and obtain your account number
- Once you submit the form electronically, your account will be open, and you will receive your Schwab PCRA account number on the screen soon after.

You will receive a Schwab PCRA Welcome Kit that confirms your account number and explains the details of investing through the Schwab PCRA.

Activating Your Schwab Web Access. You will need to activate your account for online access.

- Go to www.schwab.com
- Click the “New User” tab, then click the “Register” button to activate your account for online access.
- Fill in the required information. You will need your new Schwab PCRA number for this step.
- Establish a login and password for your account

- Once your Schwab PCRA is activated, you can place trades and manage your account through Schwab's electronic channels, such as Schwab.com, mobile applications (via iPhone[®], Apple Watch[™], iPad[®], Android and Kindle Fire) and automated phone services.

If you are already a Schwab client, log in with your ID and password. From the Select Account drop-down menu, choose your Schwab PCRA account number.

Charles Schwab & Co. Inc.
Self-Directed Brokerage Account Provider

Should you have any questions about the completion of your online application, activating your Web access or any other general investment-related inquiries, please contact Schwab's PCRA Call Center toll free at **1-888-393-7272** between the hours of 9 a.m. and 7:30 p.m. ET.

A variety of information is available on Schwab.com to help you learn about and select investments, including Schwab Equity Ratings™ an independent, third-party research from leading providers such as Credit Suisse, Argus Research, Standard & Poor's, Morningstar®, Reuters, MarketEdge® and JP Morgan Fixed Income Research. Equity, mutual fund and fixed income screener tools are also available, as well as online or in-person investing workshops.

Investment Advisor Instructions

If you currently have an Investment Advisor, and you would like your Investment Advisor to provide services with respect to your Schwab SDBA, please contact your Investment Advisor to discuss whether or not he or she currently maintains an Investment Advisor Services Agreement with Schwab Advisor Services. Once you have spoken to your Investment Advisor, please contact Schwab at 1-888-393-7272 to obtain any forms that may be needed to help continue your Investment Advisor's services at Schwab (if applicable).

Questions?

For more information on how to establish a self-directed brokerage account go to www.RetireSMART.com or contact MassMutual's Participant Information Center at 1-877-908-5576 between the hours of 8 a.m. and 8 p.m. ET.

* Your plan's account number is on the top right corner of your Participant Fee Disclosure statement included in this enrollment package.

Schwab Personal Choice Retirement Account® (PCRA)

Pricing Summary –
Effective January 1, 2018

Schwab provides a broad range of value-added services, some of which have associated fees. This document provides you with a summary of your plan-specific commissions and transaction fees for trade orders placed in your Schwab PCRA. This pricing summary supersedes any prior pricing summaries, pricing guides, and notices that you may have received. Schwab reserves the right to change or waive fees at our discretion.

Commissions and Transaction Fees¹

Equities

Stocks and Third-Party Exchange-Traded Funds (ETFs) per Executed Trade*		ETFs (including Schwab ETFs™) participating in Schwab ETF OneSource™ per Executed Trade ³	
Trading Channel	Commission	Trading Channel	Commission
Electronic ²	\$4.95	Electronic	\$0
Broker-Assisted	Electronic commission, plus \$25	Broker-Assisted	Electronic commission, plus \$25

*These fees also apply to trades of Canadian stocks, American Depositary Receipts, and stocks of foreign-incorporated companies that are listed on U.S. or Canadian exchanges or whose trades clear and settle in the U.S. or Canada.

Mutual Funds⁴

Some funds may also charge sales and/or redemption fees. Please read the prospectuses for details. You can buy shares directly from a fund company or its principal underwriter or distributor without paying Schwab's transaction or services charges (except Schwab Funds®).

No-Transaction-Fee Funds (includes funds available through the Mutual Fund OneSource® service) ⁵		Transaction-Fee Funds ⁵	
Trading Channel	Transaction Fee	Trading Channel	Transaction Fee
Electronic	\$0	Electronic	\$50 per buy, \$0 per sell
Broker-Assisted	\$25 service charge per trade may apply	Broker-Assisted	Electronic fee, plus \$25 service charge per trade

Note: For information about offshore funds (funds registered outside the U.S. for purchase by non-U.S. persons only), please call the Schwab PCRA Call Center.

Investors should consider carefully information contained in the prospectus, including investment objectives, risks, trading policies, charges, and expenses. You can request a prospectus by calling Schwab's dedicated PCRA Call Center at 1-888-393-PCRA (7272). You may also request a prospectus online at www.schwab.com/prospectus. Please read the prospectus carefully before investing.

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Options⁶

Options per Executed Trade

Trading Channel	Commission
Electronic	\$4.95, plus \$0.65 per contract
Broker-Assisted	Electronic commission, plus \$25

Note: Stock or option trades resulting from an option exercise or assignment will be subject to the corresponding electronic commission pricing schedule.

Pricing for Combined Equity and Option Orders

Equity plus option leg orders (includes Buy/Writes, Sell/Writes, and Unwinds): \$0.65 per contract for the option leg, plus \$4.95 commission for the equity leg. (There is no base commission for the option leg.)

Equities - Foreign Stock

Foreign Stock Transactions* Trades Placed on the U.S. Over-The-Counter Market		Foreign Stock Transactions Trades Placed Directly on a Foreign Exchange	
Trading Channel	Transaction Fee	Trading Channel	Transaction Fee
Electronic	\$4.95, plus a \$50 foreign transaction fee ⁷	Electronic	Not available
Broker-Assisted	\$79.95; electronic commission of \$4.95, plus \$25 for broker assistance, plus a \$50 foreign transaction fee	Broker-Assisted	The greater of \$100 or 0.75% of principal, with no maximum

*These fees also apply to trades of foreign ordinary shares placed directly on a foreign exchange or on the U.S. over-the-counter market.

Fixed Income Investments⁸

Schwab may act as principal on certain fixed income transactions. When Schwab acts as agent, a commission will be charged on the transaction. When Schwab acts as principal, the mark-up is included in the bond price.

Product Type	Electronic Commission or Mark-up	Broker-Assisted Commission or Mark-up
New issues, including Certificates of Deposit	\$0 (a selling concession is included in the original offering price)	
Treasury Bills, Notes, Bonds ⁹ , and TIPS (Secondary and Auction)	\$0	\$25
Secondary transactions for Corporate Bonds, Municipal Bonds, Government Agencies, Zero-Coupon Treasuries (including STRIPS), and Certificates of Deposit	\$1 per bond (\$10 minimum/\$250 maximum)	Electronic commission, plus \$25 per trade
Preferred REITS	Stock commissions and minimums apply for secondary transactions.	
Commercial Paper, Foreign Bonds, Asset-Backed Securities, Mortgage-Backed Securities and Unit Investment Trusts	These are specialty products - please call 1-888-393-PCRA for information.	

Note: Large block transactions (orders of more than 250 bonds) may be eligible for special handling and/or pricing -- please call the Schwab PCRA Call Center for information.

Our commissions and mark-ups may be slightly less than our published schedule (shown above) due to rounding.

Exchange Process Fee

This is a fee Schwab charges to offset fees imposed on us by national securities and self-regulatory organizations or by U.S. option exchanges.

The Securities and Exchange Commission (SEC) assesses transaction fees on national securities exchanges and self-regulatory organizations based on the aggregate dollar amount of sales of certain securities. The SEC recalculates the amount of this fee periodically—at least once per year but sometimes more often. National securities exchanges and self-regulatory organizations offset the transaction fees by charging their member broker-dealers such as Schwab, and we, in turn, offset this fee by charging you an Exchange Process Fee for covered sell transactions.

U.S. option exchanges charge Schwab and other broker-dealers per-contract fees for purchase and sales of exchange-listed options. The exchanges may charge these fees even on transactions executed on other exchanges, which can result in multiple fees being imposed on Schwab for a single transaction. Schwab offsets these fees by charging you a single Exchange Process Fee for each covered transaction.

Any Exchange Process Fee that appears on your trade confirmation for a sale of an exchange-listed option will combine the offset for the fees charged both by the U.S. option exchanges and by the national securities and self-regulatory organizations.

Schwab's Exchange Process Fee will rise or fall periodically depending upon the rate set by the SEC or by the U.S. option exchanges, as applicable.

Notes:

- This pricing summary applies only to the PCRA accounts held at Charles Schwab & Co., Inc., and established on behalf of retirement plan participants. You can obtain more information about PCRA commissions and transaction fees by calling Schwab's dedicated PCRA Call Center at 1-888-393-PCRA (7272), Monday through Friday, 9:00 am through 7:30 pm (ET). Or, view the current *Charles Schwab Pricing Guide for Retirement Plan and Health Savings Accounts* on www.schwab.com for a more complete description of all other commissions and transaction fees.
- Your PCRA is a cash-up-front account. For all purchases, we require cleared funds in the account. When you're selling, we require securities on deposit. It is your responsibility to avoid overspending your account. If your account becomes overspent, Schwab reserves the right to liquidate a portion of your account to cover the debit balance. If liquidation is necessary, a broker-assisted fee of \$25 will apply.

¹ Excluding mutual funds, commissionable trades that execute over more than one day will be charged a separate commission for each additional day; each separate commission will apply to the portion of the trade executed on the corresponding additional day. Electronic trade orders for which price or quantity are changed by the client, and as a result execute over multiple trades on the same day, are each charged a separate commission.

² Trades placed through Schwab's electronic channels, such as Schwab.com, mobile applications, and automated phone services. Certain securities may not be available through all electronic trading channels. Up to 999,999 shares can be placed per trade.

³ Conditions apply: Trades in ETFs available through Schwab ETF OneSource (including Schwab ETFs™) are available without commissions when placed online through a Schwab account. Service charges apply for trade orders placed through a broker (\$25). An exchange processing fee applies to sell transactions. Certain types of Schwab ETF OneSource transactions are not eligible for the commission waiver, such as short sells and buys to cover (not including Schwab ETFs). Schwab reserves the right to change the ETFs we make available without commissions. All ETFs are subject to management fees and expenses. *Please see the Charles Schwab Pricing Guide for Retirement Plan and Health Savings Accounts* (the "Pricing Guide") for additional information. As of 01/01/2018, Schwab ETF OneSource had 254 ETFs.

Investment returns will fluctuate and are subject to market volatility, so that an investor's shares, when redeemed or sold, may be worth more or less than their original cost. Shares are bought and sold at market price, which may be higher or lower than the net asset value (NAV).

Charles Schwab & Co., Inc. receives remuneration from third-party ETF companies participating in Schwab ETF OneSource™ for recordkeeping, shareholder services, and other administrative services, including program development and maintenance.

Schwab ETFs™ are distributed by SEI Investments Distribution Co. (SIDCO). SIDCO is not affiliated with Charles Schwab & Co., Inc. Learn more at schwab.com/SchwabETFs.

Third-party Schwab ETF OneSource shares purchased may not be immediately marginable at Schwab.

⁴ Charles Schwab & Co., Inc. (Member SIPC) receives remuneration from fund companies for recordkeeping and shareholder services and for other administrative services for shares purchased through Schwab's Mutual Fund OneSource® program. Schwab also may receive remuneration from transaction-fee fund companies for certain administrative services.

Trades in no-load mutual funds available through OneSource (including Schwab Funds®), as well as certain other funds, are available without transaction fees when placed through Schwab's electronic channels such as, Schwab.com, mobile applications, or automated phone services. Schwab reserves the right to change the funds we make available without transaction fees and to reinstate fees on any funds. Funds are also subject to management fees and expenses.

Schwab's short-term redemption fee will be charged on redemption of funds purchased through Schwab's Mutual Fund OneSource® service (and certain other funds with no transaction fee) and held for 90 days or less. Schwab reserves the right to exempt some funds from this fee, including certain Schwab Funds®, which may charge a separate redemption fee, and funds that accommodate short-term trading.

⁵ Standard fees apply on both transactions when placing simultaneous orders to sell one or more transaction-fee fund(s) and purchase additional transaction-fee fund(s) with the proceeds.

⁶ Options carry a high level of risk and are not suitable for all investors. Certain requirements must be met to trade options through Schwab. Please read the Options Disclosure Document titled "Characteristics and Risks of Standardized Options" before considering any option transaction. Call Schwab at 1-888-383-PCRA (7272) to request a current copy. Supporting documentation for any claims or statistical information is available upon request.

⁷ Transactions in foreign ordinary shares incur additional custody, clearing, and settlement expenses. A foreign transaction fee is added to trades placed on the U.S. over-the-counter market through the online or automated phone channels. The commission and foreign transaction fee will be combined and appear as one line item, labeled "Commission," on your trade confirmation.

⁸ For fixed income trades placed through one of Schwab's electronic channels, discounts may apply.

⁹ Schwab reserves the right to act as principal on any Bond transaction. In secondary market principal transactions the price will be subject to our standard mark up in the case of purchases, and a mark down in the case of sales, and also may include a profit or loss to Schwab in the form of a bid-ask spread. When trading as principal, Schwab may also be holding the security in its own account prior to selling it to you and, therefore, may make (or lose) money depending on whether the price of the security has risen or fallen while Schwab has held it.

Schwab Personal Choice Retirement Account® (PCRA) is offered through Charles Schwab & Co., Inc. (Schwab), a registered broker-dealer that also provides other brokerage and custody services to its customers.

**QUALIFIED DEFAULT INVESTMENT ALTERNATIVE (QDIA) NOTICE
FOR PLAN YEAR BEGINNING 2018
Fulton County Defined Contribution Plan**

If you are an eligible Participant in the Fulton County Defined Contribution Plan (the "Plan"), you have the right to direct your plan investments. The amounts contributed to the Plan on your behalf will be invested in accordance with the Plan's investment procedures. Any earnings on the investment of your contributions under the Plan will be allocated to your Plan account.

If you have made an investment election with respect to your own account, the following information may not apply to you.

Right to direct investment. This notice advises you that as a Participant (including a Beneficiary of a deceased Participant or alternate payee under a QDRO) in the Plan, you have the right to direct the investment of all of your Plan account assets.

Default investment. You may invest your accounts specified above (your "directed accounts") in any of the investment choices offered in the Plan. If you do *not* make an election as to how the Plan should invest any of your future directed accounts (e.g. rollover contribution, employee or employer contribution) by returning the election form to the Plan Administrator, by electronically making your election via logging on to the participant website at www.retiresmart.com or by calling 1-800-743-5274, the Plan Trustee will invest your future directed accounts in the "default" investment that the Plan officials have selected. The default investment is the Vanguard Target Retirement Series.

Vanguard Target Retirement Income Fund MF-618
Vanguard Target Retirement 2015 Fund MF-621
Vanguard Target Retirement 2020 Fund MF-622
Vanguard Target Retirement 2025 Fund MF-623
Vanguard Target Retirement 2030 Fund MF-624
Vanguard Target Retirement 2035 Fund MF-625
Vanguard Target Retirement 2040 Fund MF-626
Vanguard Target Retirement 2045 Fund MF-627
Vanguard Target Retirement 2050 Fund MF-628
Vanguard Target Retirement 2055 Fund MF-1283
Vanguard Target Retirement 2060 Fund MF-1403

Generally target retirement date (lifecycle) investment options are designed to be held beyond the presumed retirement date to offer a continuing investment option for the investor in retirement. The year in the investment option name refers to the approximate year in which an investor in the option would plan to retire and likely would stop making new contributions to the investment option. However, investors may choose a date other than their presumed retirement date to be more conservative or aggressive depending on their own risk tolerance.

Target retirement date (lifecycle) investment options are designed for participants who plan to withdraw the value of their accounts gradually after retirement. Each of these options follows its own asset allocation path ("glide path") to progressively reduce its equity exposure and become more conservative over time. Options may not reach their most conservative allocation until after their target date. Others may reach their most conservative allocation in their target date year. Investors should consider their own personal risk tolerance, circumstances and financial situation. These options should not be selected solely on a single factor such as age or retirement date. Please consult the prospectus (if applicable) pertaining to the options to determine if their glide path is consistent with your long-term financial plan. Target retirement date investment options' stated asset allocation may be subject to change. Investments in these options are not guaranteed and you may experience losses, including losses near, at, or after the target date. Additionally, there is no guarantee that the options will provide adequate income at and through retirement.

Description of default investment. The description of the default investment options including investment strategy, risk and return characteristics, and fees and expenses are shown on the attached Investment Profiles.

Right to alternative investment. Even if the Plan Trustee invests some or all of your directed accounts in the default investment, you have the continuing right to direct the investment of your directed accounts in one or more of the other investment choices available to you under the Plan. You may change your investments daily. You are entitled to transfer amounts defaulted into the default investment to any of the alternative investment choices without restriction or without incurring a financial penalty.

To learn more about the available investments under the Plan, you may contact your Plan Administrator or log onto the participant website at www.retiresmart.com or call 1-800-743-5274.

Additional information. Please refer to the Summary Plan Description and any Summary of Material Modifications for additional information regarding Plan contributions, withdrawal restrictions, and other Plan features. You also may contact the Plan Administrator for more information. The following is the name, address and phone number of the Plan Administrator.

Fulton County
141 Pryor Street, S.W.
Suite 7001
Atlanta, GA 30303
(404) 612-7698

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www.massmutual.com

Important Disclosures

Current performance may be lower or higher than return data quoted herein. For more current information, including month-end performance, please call 877-474-5016 or visit www.massmutual.com/retire.

The investment return and the principal value of an investment will fluctuate; so an investor's shares/units, when redeemed, may be worth more or less than their original cost. Investment portfolio statistics change over time. The investment is not FDIC-insured, may lose value and is not guaranteed by a bank or other financial institution.

Some plan investments may be made available through an unregistered group annuity contract issued to your plan by the Massachusetts Mutual Life Insurance Company ("MassMutual"). If that is the case, those plan investments 1.) may be in a separate investment account of MassMutual that purchases shares/units of one or more underlying investments, or 2.) may be invested directly in the investment via a separate arrangement between your plan and a trust company.

Pre-inception Returns

For newer share classes, Morningstar may provide adjusted historical returns based on the oldest surviving share class of a fund with at least three years of performance history. This enables companies to showcase the complete history of an investment. Morningstar calculates these returns by adjusting the initial share class performance for any difference in fee structure. However, if using the expenses of the newer share class rather than the expenses of the older share class would result in better performance, then pre-inception performance represents that of the older share class without any expense adjustment. The fees and expenses are referenced in the report's Operations section. Adjusted historical returns are not actual returns. Calculation methodologies utilized by Morningstar may differ from those applied by other entities, including the investment itself.

Performance

These figures reflect performance without adjusting for sales charges or the effects of taxation. They are adjusted, however, to reflect all actual ongoing fund expenses and assume reinvestment of dividends and capital gains. Returns are compared to an appropriate benchmark peer group to help investors evaluate performance. The investment's performance is generally compared with that of an index. The index is an unmanaged portfolio of specified securities and does not reflect any initial or ongoing expenses nor can it be invested in directly. An investment's portfolio may differ significantly from the securities in the index. The Index may not be the same as the comparative index noted in the investment's prospectus (if applicable).

Gross Expense Ratio/Net Expense Ratio

Expense ratios reflect the percentage of the investment's assets paid for operating expenses and management fees. In contrast to net expense ratios, gross expense ratios do not reflect any fee waivers in effect during the time period, which are typically disclosed alongside the expense ratios themselves. Net expense ratios reflect the fees actually borne by investors during the period they are in effect. Investment expense information (including waiver information) is pulled from an investment's most recent prospectus, if applicable. If an additional separate investment account fee applies, it is added to the gross and net expense ratio listed in the prospectus or other source of the expense information and factored into the performance of the separate investment account.

Unitized Plan Fund

If this is a unitized plan fund, it will invest in shares of the referenced underlying investment. Depending on the level of administrative services revenue ("ASR") generated from the underlying investment and MassMutual's target ASR for the plan, on a periodic basis MassMutual will make adjustments to the unitized plan fund's expense to cause each unitized plan fund to produce ASR equal to the target ASR. If the ASR MassMutual receives from the underlying investment is more than MassMutual's target ASR, MassMutual will allocate to the unitized plan fund a share of the revenue MassMutual received from the underlying investment so that the net expense of the unitized plan fund equals MassMutual's target revenue. If the ASR MassMutual receives from an

underlying investment is less than MassMutual's target ASR, MassMutual will redeem shares or units from the underlying investment such that the amount of the revenue received from the underlying investment for administrative services and the redeemed share or units equals MassMutual's target revenue. As a result of this process, the reported performance and expenses of the unitized plan fund is based on but not identical to the performance and expenses reported for the underlying investment.

Maximum Sales Charge/12b-1 Fee/Redemption Fee

Maximum Sales Charges and Redemption Fees are waived for MassMutual retirement plan participants. In addition, 12b-1 Fees are a component of the Net and Gross Expense Ratio; they are not in addition to the overall expense ratio.

Morningstar Proprietary Statistics

Some Morningstar proprietary calculations, including the Morningstar Rating, Morningstar Return, and Morningstar Risk may be calculated based on pre-inception returns. Please see the pre-inception returns disclosure (above) for more details. For definitions of these statistics, please visit www.MassMutual.com/FF/mstrdisclosure.pdf.

Morningstar Rating™

This brings load-adjustments, performance (returns) and risk together into one evaluation. To determine a fund's star rating for a given time period (three, five, or 10 years), the fund's risk-adjusted return is plotted on a bell curve: If the fund scores in the top 10% of its category, it receives 5 stars (Highest); if it falls in the next 22.5% it receives 4 stars (Above Average); a place in the middle 35% earns 3 stars (Average); those lower still, in the next 22.5%, receive 2 stars (Below Average); and the bottom 10% get only 1 star (Lowest). The Overall Morningstar Rating is a weighted average of the available three-, five-, and 10-year ratings.

Investment Risk

Money market investments are not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. Although these investments seek to preserve the value of your investment at \$1.00 per share, it cannot guarantee that it will do so. The fund's sponsor has no legal obligation to provide financial support to a money market option; and you should not expect that the sponsor will provide financial support to the fund at any time. You could lose money by investing in a money market option.

Risks of investing in debt securities investments include the risk that a bond issuer will default by failing to repay principal and interest in a timely manner (credit risk) and/or the risk that the value of these securities will decline when interest rates increase (interest rate risk).

Risks of investing in inflation-protected bond investments include credit risk and interest rate risk. Neither the bond investment nor its yield is guaranteed by the U.S. government.

High-yield bond investments are generally subject to greater market fluctuations and risk of loss of income and principal than lower-yielding debt securities investments. Investments that track a benchmark index are professionally managed. However, the benchmark index itself is unmanaged and does not incur fees or expenses and cannot be purchased directly.

Investments in value stocks may remain undervalued for extended periods of time, and the market may not recognize the intrinsic value of these securities.

Investments in growth stocks may experience price volatility due to their sensitivity to market fluctuations and dependence on future earnings expectations.

Investments in companies with small or mid market capitalization ("small caps" or "mid caps") may be subject to special risks given their characteristic narrow markets, limited financial resources, and less liquid stocks, all of which may cause price volatility.

International/global investing can involve special risks, such as political changes and currency fluctuations. These risks are heightened in emerging markets.

A significant percentage of the underlying investments in aggressive asset allocation portfolio investments have a

higher than average risk exposure. Investors should consider their risk tolerance carefully before choosing such a strategy. An investment with multiple underlying investments (which may include MM RetireSMARTSM and any other offered proprietary or non-proprietary asset-allocation, lifestyle (risk based), lifecycle (target date) or custom blended investments) may be subject to the expenses of those underlying investments in addition to those of the investment itself.

Investments may reside in the specialty category due to 1) allowable investment flexibility that precludes classification in standard asset categories and/or 2) investment concentration in a limited group of securities or industry sectors. Investments in this category may be more volatile than less-flexible and/or less-concentrated investments and may be appropriate as only a minor component in an investor's overall portfolio.

Participants with a large ownership interest in a company or employer stock investment may have the potential to manipulate the value of units of this investment option through their trading practices. As a result, special transfer restrictions may apply. This type of investment option presents a higher degree of risk than diversified investment options under the plan because it invests in the securities of a single company.

Investments that invest more of their assets in a single issuer or industry sector (such as company stock or sector investments) involve additional risks, including unit price fluctuations, because of the increased concentration of investments.

A participant will be prohibited from transferring into most mutual funds and similar investments if they have transferred into and out of the same investment within the previous 60 days. Certain stable value, guaranteed interest, fixed income and other investments are not subject to this rule. This rule does not prohibit participants from transferring out of any investment at any time.

Target Date (lifecycle)

Generally these investment options are designed to be held beyond the presumed retirement date to offer a continuing investment option for the investor in retirement. The year in the investment option name refers to the approximate year an investor in the option would plan to retire and likely would stop making new contributions to the investment option. However, investors may choose a date other than their presumed retirement date to be more conservative or aggressive depending on their own risk tolerance. They are designed for participants who plan to withdraw the value of their accounts gradually after retirement. Each of these options follows its own asset allocation path ("glide path") to progressively reduce its equity exposure and become more conservative over time. Options may not reach their most conservative allocation until after their target date. Others may reach their most conservative allocation in their target date year. Investors should consider their own personal risk tolerance, circumstances and financial situation. These options should not be selected solely on a single factor such as age or retirement date. Please consult the prospectus (if applicable) pertaining to the options to determine if their glide path is consistent with your long-term financial plan. Target retirement date investment options' stated asset allocation may be subject to change. Investments in these options are not guaranteed and you may experience losses, including losses near, at, or after the target date. Additionally, there is no guarantee that the options will provide adequate income at and through retirement.

Investors should consider an investment's objectives, risks, charges and expenses carefully before investing. For this and other information, see a fact sheet (investment profile) or the prospectus, if applicable. You may obtain a prospectus or fact sheet from your plan sponsor or visiting www.retiresmart.com. Read it carefully before investing.

Vanguard Target Retirement Income Inv VTINX

Benchmark

Morningstar Lifetime Mod Incm TR USD

Overall Morningstar Rating™

★★★★★

Out of 137 Target-Date Retirement funds. An investment's overall Morningstar Rating, based on its risk-adjusted return, is a weighted average of its applicable 3-, 5-, and 10-year Ratings. See disclosure for details.

Morningstar Return

Above Average

Morningstar Risk

Average

Investment Objective & Strategy

From investment's prospectus

The investment seeks to provide current income and some capital appreciation.

The fund invests in other Vanguard mutual funds according to an asset allocation strategy designed for investors currently in retirement. Its indirect bond holdings are a diversified mix of short-, intermediate-, and long-term U.S. government, U.S. agency, and investment-grade U.S. corporate bonds; inflation-protected public obligations issued by the U.S. Treasury; mortgage-backed and asset-backed securities; and government, agency, corporate, and securitized investment-grade foreign bonds issued in currencies other than the U.S. dollar.

Fees and Expenses as of 01-27-17

Prospectus Net Expense Ratio	0.13%
Total Annual Operating Expense	0.13%
Maximum Sales Charge	—
12b-1 Fee	—
Redemption Fee/Term	—

Waiver Data	Type	Exp. Date	%
—	—	—	—

Operations and Management

Fund Inception Date	10-27-03
Portfolio Manager(s)	William A. Coleman Walter Nejman
Name of Issuer	Vanguard
Telephone	800-662-7447
Web Site	www.vanguard.com

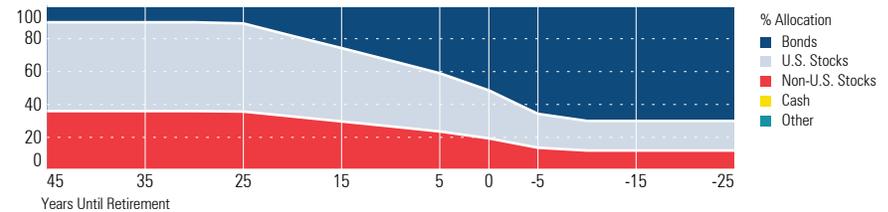
Benchmark Description: Morningstar Lifetime Mod Incm TR USD

The index measures the performance of a portfolio of global equities, bonds and traditional inflation hedges such as commodities and TIPS. This portfolio is held in proportions appropriate for a US investor who is at least ten years into retirement. The Moderate risk profile is for investors who are comfortable with average exposure to equity market volatility.

Category Description: Target-Date Retirement

Retirement income portfolios provide a mix of stocks, bonds, and cash for those investors already in or entering retirement. These portfolios tend to be managed to more of a conservative asset-allocation strategy. These portfolios aim to provide investors with steady income throughout retirement.

Allocation of Assets



Performance

Trailing Returns	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Investment Return %	4.27	5.23	3.47	4.91	4.97	5.28
Benchmark Return %	3.83	4.93	2.50	4.64	4.76	—
Category Average %	4.44	5.70	2.65	4.36	3.66	4.50
Morningstar Rating™	—	—	★★★★★	★★★★★	★★★★★	—
# of Funds in Category	—	—	137	114	66	—
Quarter End Returns as of 06-30-17	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Fund Return %	4.27	5.23	3.47	4.91	4.97	5.28
Standardized Return %	4.27	5.23	3.47	4.91	4.97	5.28

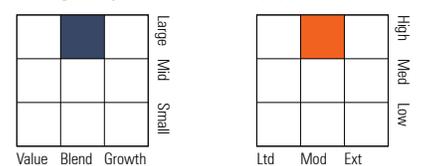
Performance Disclosure: The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost.

Portfolio Analysis as of 05-31-17

Composition as of 05-31-17



Morningstar Style Box™ as of 05-31-17(EQ) ; 04-30-17(F-I)



Top 10 Holdings as of 05-31-17

Holder	% Assets
Vanguard Total Bond Market II Idx Inv	37.29
Vanguard Total Stock Mkt Idx Inv	17.99
Vanguard Shrt-Term Infl-Prot Sec Idx Inv	16.79
Vanguard Total Intl Bd Idx Investor	15.93
Vanguard Total Intl Stock Index Inv	11.99
CMT Market Liquidity Rate	0.00
Total Number of Holdings	6
Annual Turnover Ratio %	11.00
Total Fund Assets (\$mil)	11,328.23

Morningstar Sectors as of 05-31-17

Sector	% Fund	S&P 500 %
Cyclical	39.18	32.56
Basic Materials	5.64	2.89
Consumer Cyclical	11.64	11.02
Financial Services	18.02	16.33
Real Estate	3.88	2.32
Sensitive	37.25	40.34
Communication Services	3.88	3.89
Energy	6.07	6.01
Industrials	11.58	10.56
Technology	15.72	19.88
Defensive	23.57	27.09
Consumer Defensive	8.95	9.12
Healthcare	11.46	14.81
Utilities	3.16	3.16

Principal Risks as of 05-31-17

Credit and Counterparty, Prepayment (Call), Currency, Loss of Money, Not FDIC Insured, Country or Region, Income, Interest Rate, Market/Market Volatility, Equity Securities, Underlying Fund/Fund of Funds, Fixed-Income Securities, Management

Vanguard Target Retirement 2015 Inv VTXVX

Benchmark

Morningstar Lifetime Mod 2015 TR USD

Overall Morningstar Rating™

★★★★★

Out of 91 Target-Date 2015 funds. An investment's overall Morningstar Rating, based on its risk-adjusted return, is a weighted average of its applicable 3-, 5-, and 10-year Ratings. See disclosure for details.

Morningstar Return

Above Average

Morningstar Risk

Below Average

Investment Objective & Strategy

From investment's prospectus

The investment seeks to provide capital appreciation and current income consistent with its current asset allocation.

The fund invests in other Vanguard mutual funds according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2015 (the target year). The fund's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase.

Fees and Expenses as of 01-27-17

Prospectus Net Expense Ratio	0.14%
Total Annual Operating Expense	0.14%
Maximum Sales Charge	—
12b-1 Fee	—
Redemption Fee/Term	—

Waiver Data	Type	Exp. Date	%
—	—	—	—

Operations and Management

Fund Inception Date	10-27-03
Portfolio Manager(s)	William A. Coleman Walter Nejman
Name of Issuer	Vanguard
Telephone	800-662-7447
Web Site	www.vanguard.com

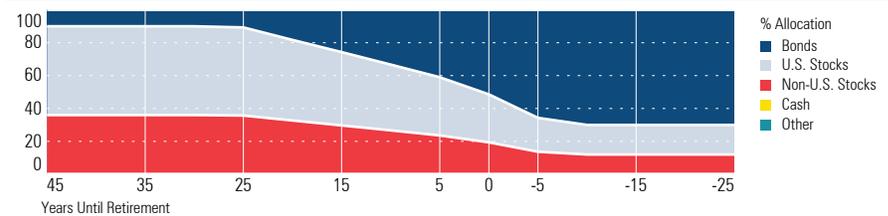
Benchmark Description: Morningstar Lifetime Mod 2015 TR USD

The index measures the performance of a portfolio of global equities, bonds and traditional inflation hedges such as commodities and TIPS. This portfolio is held in proportions appropriate for a US investor who is about five years away from retirement. The Moderate risk profile is for investors who are comfortable with average exposure to equity market volatility.

Category Description: Target-Date 2015

Target-date portfolios provide diversified exposure to stocks, bonds, and cash for those investors who have a specific date in mind (in this case, the years 2011-2015) for retirement. These portfolios aim to provide investors with an optimal level of return and risk, based solely on the target date. Management adjusts the allocation among asset classes to more-conservative mixes as the target date approaches, following a preset glide path. A target-date portfolio is part of a series of funds offering multiple retirement dates to investors.

Allocation of Assets



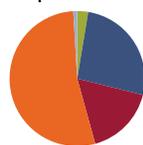
Performance

Trailing Returns	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Investment Return %	5.79	8.13	4.20	7.27	4.86	6.19
Benchmark Return %	5.15	6.76	3.27	6.40	5.05	—
Category Average %	5.66	8.24	3.38	6.61	4.07	5.07
Morningstar Rating™	—	—	★★★★★	★★★★★	★★★★★	—
# of Funds in Category	—	—	91	69	31	—
Quarter End Returns as of 06-30-17	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Fund Return %	5.79	8.13	4.20	7.27	4.86	6.19
Standardized Return %	5.79	8.13	4.20	7.27	4.86	6.19

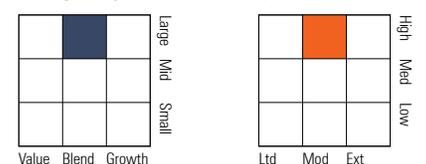
Performance Disclosure: The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost.

Portfolio Analysis as of 05-31-17

Composition as of 05-31-17	% Assets
U.S. Stocks	26.3
Non-U.S. Stocks	16.8
Bonds	53.4
Cash	2.6
Other	0.9



Morningstar Style Box™ as of 05-31-17(EQ) ; 04-30-17(F-I)



Top 10 Holdings as of 05-31-17	% Assets
Vanguard Total Bond Market II Idx Inv	31.70
Vanguard Total Stock Mkt Idx Inv	26.55
Vanguard Total Intl Stock Index Inv	17.70
Vanguard Total Intl Bd Idx Investor	13.59
Vanguard Shrt-Term Infl-Prot Sec Idx Inv	10.44
CMT Market Liquidity Rate	0.02
Total Number of Holdings	6
Annual Turnover Ratio %	9.00
Total Fund Assets (\$mil)	17,102.88

Morningstar Sectors as of 05-31-17	% Fund	S&P 500 %
Cyclical	39.18	32.56
Basic Materials	5.64	2.89
Consumer Cyclical	11.64	11.02
Financial Services	18.02	16.33
Real Estate	3.88	2.32
Sensitive	37.25	40.34
Communication Services	3.88	3.89
Energy	6.07	6.01
Industrials	11.58	10.56
Technology	15.72	19.88
Defensive	23.57	27.09
Consumer Defensive	8.95	9.12
Healthcare	11.46	14.81
Utilities	3.16	3.16

Principal Risks as of 05-31-17

Credit and Counterparty, Prepayment (Call), Currency, Loss of Money, Not FDIC Insured, Country or Region, Income, Interest Rate, Market/Market Volatility, Equity Securities, Underlying Fund/Fund of Funds, Fixed-Income Securities, Management, Target Date

Vanguard Target Retirement 2020 Inv VTWVX

Benchmark

Morningstar Lifetime Mod 2020 TR USD

Overall Morningstar Rating™

★★★★★

Out of 184 Target-Date 2020 funds. An investment's overall Morningstar Rating, based on its risk-adjusted return, is a weighted average of its applicable 3-, 5-, and 10-year Ratings. See disclosure for details.

Morningstar Return

High

Morningstar Risk

Average

Investment Objective & Strategy

From investment's prospectus

The investment seeks to provide capital appreciation and current income consistent with its current asset allocation.

The fund invests in other Vanguard mutual funds according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2020 (the target year). The fund's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase.

Fees and Expenses as of 01-27-17

Prospectus Net Expense Ratio	0.14%
Total Annual Operating Expense	0.14%
Maximum Sales Charge	—
12b-1 Fee	—
Redemption Fee/Term	—

Waiver Data	Type	Exp. Date	%
—	—	—	—

Operations and Management

Fund Inception Date	06-07-06
Portfolio Manager(s)	William A. Coleman Walter Nejman
Name of Issuer	Vanguard
Telephone	800-662-7447
Web Site	www.vanguard.com

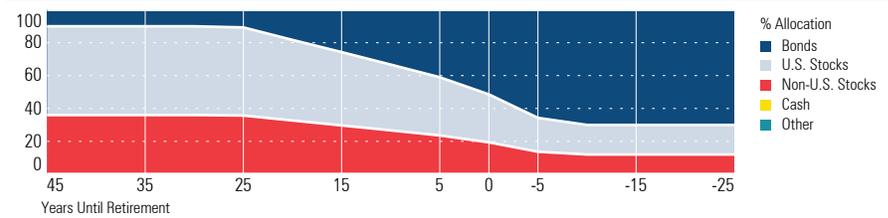
Benchmark Description: Morningstar Lifetime Mod 2020 TR USD

The index measures the performance of a portfolio of global equities, bonds and traditional inflation hedges such as commodities and TIPS. This portfolio is held in proportions appropriate for a US investor who is about ten years away from retirement. The Moderate risk profile is for investors who are comfortable with average exposure to equity market volatility.

Category Description: Target-Date 2020

Target-date portfolios provide diversified exposure to stocks, bonds, and cash for those investors who have a specific date in mind (in this case, the years 2016-2020) for retirement. These portfolios aim to provide investors with an optimal level of return and risk, based solely on the target date. Management adjusts the allocation among asset classes to more-conservative mixes as the target date approaches, following a preset glide path. A target-date portfolio is part of a series of funds offering multiple retirement dates to investors.

Allocation of Assets



Performance

Trailing Returns	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Investment Return %	7.01	10.30	4.85	8.40	5.07	6.22
Benchmark Return %	5.79	7.98	3.61	7.28	5.04	—
Category Average %	5.99	8.77	3.50	6.57	3.80	4.85
Morningstar Rating™	—	—	★★★★★	★★★★★	★★★★★	—
# of Funds in Category	—	—	184	148	84	—

Quarter End Returns as of 06-30-17	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Fund Return %	7.01	10.30	4.85	8.40	5.07	6.22
Standardized Return %	7.01	10.30	4.85	8.40	5.07	6.22

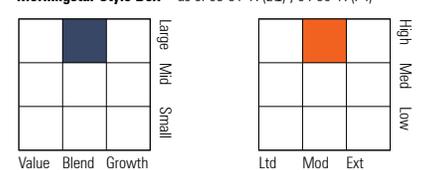
Performance Disclosure: The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost.

Portfolio Analysis as of 05-31-17

Composition as of 05-31-17



Morningstar Style Box™ as of 05-31-17(EQ) ; 04-30-17(F-I)



Top 10 Holdings as of 05-31-17

Holder	% Assets
Vanguard Total Stock Mkt Idx Inv	33.42
Vanguard Total Bond Market II Idx Inv	28.62
Vanguard Total Intl Stock Index Inv	22.62
Vanguard Total Intl Bd Idx Investor	12.13
Vanguard Shrt-Term Infl-Prot Sec Idx Inv	3.21
CMT Market Liquidity Rate	0.00
Total Number of Holdings	6
Annual Turnover Ratio %	15.00
Total Fund Assets (\$mil)	30,138.56

Morningstar Sectors as of 05-31-17

Sector	% Fund	S&P 500 %
Cyclical	38.92	32.56
Basic Materials	5.57	2.89
Consumer Cyclical	11.58	11.02
Financial Services	17.87	16.33
Real Estate	3.90	2.32
Sensitive	37.38	40.34
Communication Services	3.93	3.89
Energy	6.01	6.01
Industrials	11.60	10.56
Technology	15.84	19.88
Defensive	23.70	27.09
Consumer Defensive	9.10	9.12
Healthcare	11.50	14.81
Utilities	3.10	3.16

Principal Risks as of 05-31-17

Credit and Counterparty, Prepayment (Call), Currency, Loss of Money, Not FDIC Insured, Country or Region, Income, Interest Rate, Market/Market Volatility, Equity Securities, Underlying Fund/Fund of Funds, Fixed-Income Securities, Management, Target Date

Vanguard Target Retirement 2025 Inv VTTVX

Benchmark

Morningstar Lifetime Mod 2025 TR USD

Overall Morningstar Rating™

★★★★

Out of 158 Target-Date 2025 funds. An investment's overall Morningstar Rating, based on its risk-adjusted return, is a weighted average of its applicable 3-, 5-, and 10-year Ratings. See disclosure for details.

Morningstar Return

Above Average

Morningstar Risk

Average

Investment Objective & Strategy

From investment's prospectus

The investment seeks to provide capital appreciation and current income consistent with its current asset allocation.

The fund invests in other Vanguard mutual funds according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2025 (the target year). The fund's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase.

Fees and Expenses as of 01-27-17

Prospectus Net Expense Ratio	0.14%
Total Annual Operating Expense	0.14%
Maximum Sales Charge	—
12b-1 Fee	—
Redemption Fee/Term	—

Waiver Data	Type	Exp. Date	%
—	—	—	—

Operations and Management

Fund Inception Date	10-27-03
Portfolio Manager(s)	William A. Coleman Walter Nejman
Name of Issuer	Vanguard
Telephone	800-662-7447
Web Site	www.vanguard.com

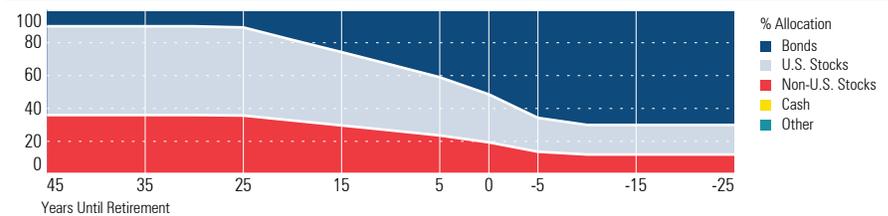
Benchmark Description: Morningstar Lifetime Mod 2025 TR USD

The index measures the performance of a portfolio of global equities, bonds and traditional inflation hedges such as commodities and TIPS. This portfolio is held in proportions appropriate for a US investor who is about 15 years away from retirement. The Moderate risk profile is for investors who are comfortable with average exposure to equity market volatility.

Category Description: Target-Date 2025

Target-date portfolios provide diversified exposure to stocks, bonds, and cash for those investors who have a specific date in mind (in this case, the years 2021-2025) for retirement. These portfolios aim to provide investors with an optimal level of return and risk, based solely on the target date. Management adjusts the allocation among asset classes to more-conservative mixes as the target date approaches, following a preset glide path. A target-date portfolio is part of a series of funds offering multiple retirement dates to investors.

Allocation of Assets



Performance

Trailing Returns	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Investment Return %	7.83	11.95	5.18	9.17	5.10	6.74
Benchmark Return %	6.59	9.75	4.01	8.35	5.09	—
Category Average %	7.20	11.04	4.07	7.89	4.17	5.95
Morningstar Rating™	—	—	★★★★★	★★★★	★★★	—
# of Funds in Category	—	—	158	118	48	—

Quarter End Returns as of 06-30-17	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Fund Return %	7.83	11.95	5.18	9.17	5.10	6.74
Standardized Return %	7.83	11.95	5.18	9.17	5.10	6.74

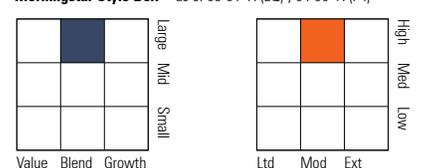
Performance Disclosure: The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost.

Portfolio Analysis as of 05-31-17

Composition as of 05-31-17



Morningstar Style Box™ as of 05-31-17(EQ) ; 04-30-17(F-I)



Top 10 Holdings as of 05-31-17

Asset	% Assets
Vanguard Total Stock Mkt Idx Inv	38.45
Vanguard Total Intl Stock Index Inv	26.02
Vanguard Total Bond Market II Idx Inv	25.09
Vanguard Total Intl Bd Idx Investor	10.44
CMT Market Liquidity Rate	0.00
Total Number of Holdings	5
Annual Turnover Ratio %	15.00
Total Fund Assets (\$mil)	35,372.04

Morningstar Sectors as of 05-31-17

Sector	% Fund	S&P 500 %
Cyclical	39.22	32.56
Basic Materials	5.66	2.89
Consumer Cyclical	11.64	11.02
Financial Services	18.04	16.33
Real Estate	3.88	2.32
Sensitive	37.22	40.34
Communication Services	3.88	3.89
Energy	6.07	6.01
Industrials	11.58	10.56
Technology	15.69	19.88
Defensive	23.56	27.09
Consumer Defensive	8.96	9.12
Healthcare	11.44	14.81
Utilities	3.16	3.16

Principal Risks as of 05-31-17

Credit and Counterparty, Prepayment (Call), Currency, Loss of Money, Not FDIC Insured, Country or Region, Income, Interest Rate, Market/Market Volatility, Equity Securities, Underlying Fund/Fund of Funds, Fixed-Income Securities, Management, Target Date

Vanguard Target Retirement 2030 Inv VTHRX

Benchmark

Morningstar Lifetime Mod 2030 TR USD

Overall Morningstar Rating™

★★★★

Out of 184 Target-Date 2030 funds. An investment's overall Morningstar Rating, based on its risk-adjusted return, is a weighted average of its applicable 3-, 5-, and 10-year Ratings. See disclosure for details.

Morningstar Return

Above Average

Morningstar Risk

Average

Investment Objective & Strategy

From investment's prospectus

The investment seeks to provide capital appreciation and current income consistent with its current asset allocation.

The fund invests in other Vanguard mutual funds according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2030 (the target year). The fund's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase.

Fees and Expenses as of 01-27-17

Prospectus Net Expense Ratio	0.15%
Total Annual Operating Expense	0.15%
Maximum Sales Charge	—
12b-1 Fee	—
Redemption Fee/Term	—

Waiver Data	Type	Exp. Date	%
—	—	—	—

Operations and Management

Fund Inception Date	06-07-06
Portfolio Manager(s)	William A. Coleman Walter Nejman
Name of Issuer	Vanguard
Telephone	800-662-7447
Web Site	www.vanguard.com

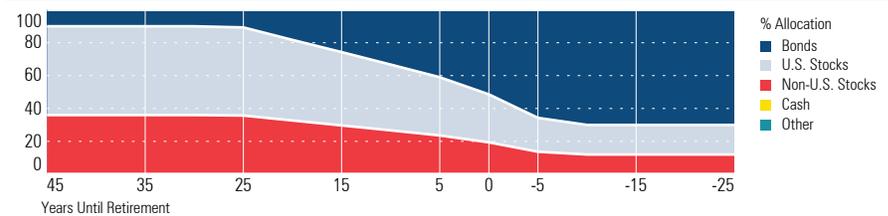
Benchmark Description: Morningstar Lifetime Mod 2030 TR USD

The index measures the performance of a portfolio of global equities, bonds and traditional inflation hedges such as commodities and TIPS. This portfolio is held in proportions appropriate for a US investor who is about 20 years away from retirement. The Moderate risk profile is for investors who are comfortable with average exposure to equity market volatility.

Category Description: Target-Date 2030

Target-date portfolios provide diversified exposure to stocks, bonds, and cash for those investors who have a specific date in mind (in this case, the years 2026-2030) for retirement. These portfolios aim to provide investors with an optimal level of return and risk, based solely on the target date. Management adjusts the allocation among asset classes to more-conservative mixes as the target date approaches, following a preset glide path. A target-date portfolio is part of a series of funds offering multiple retirement dates to investors.

Allocation of Assets



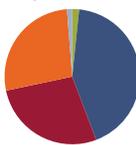
Performance

Trailing Returns	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Investment Return %	8.56	13.40	5.42	9.90	5.10	6.49
Benchmark Return %	7.48	11.98	4.43	9.42	5.21	—
Category Average %	7.91	12.45	4.36	8.39	4.04	5.21
Morningstar Rating™	—	—	★★★★	★★★★	★★★★	—
# of Funds in Category	—	—	184	148	84	—
Quarter End Returns as of 06-30-17	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Fund Return %	8.56	13.40	5.42	9.90	5.10	6.49
Standardized Return %	8.56	13.40	5.42	9.90	5.10	6.49

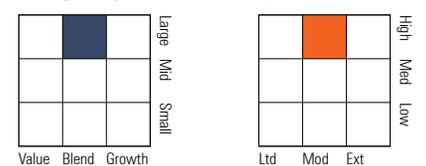
Performance Disclosure: The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost.

Portfolio Analysis as of 05-31-17

Composition as of 05-31-17	% Assets
U.S. Stocks	42.6
Non-U.S. Stocks	27.4
Bonds	27.1
Cash	1.7
Other	1.3



Morningstar Style Box™ as of 05-31-17(EQ) ; 04-30-17(F-I)



Top 10 Holdings as of 05-31-17	% Assets
Vanguard Total Stock Mkt Idx Inv	43.07
Vanguard Total Intl Stock Index Inv	28.91
Vanguard Total Bond Market II Idx Inv	19.81
Vanguard Total Intl Bd Idx Investor	8.21
CMT Market Liquidity Rate	0.00

Total Number of Holdings	5
Annual Turnover Ratio %	16.00
Total Fund Assets (\$mil)	29,226.41

Morningstar Sectors as of 05-31-17	% Fund	S&P 500 %
Cyclical	38.90	32.56
Basic Materials	5.56	2.89
Consumer Cyclical	11.58	11.02
Financial Services	17.86	16.33
Real Estate	3.90	2.32
Sensitive	37.40	40.34
Communication Services	3.93	3.89
Energy	6.01	6.01
Industrials	11.60	10.56
Technology	15.86	19.88
Defensive	23.71	27.09
Consumer Defensive	9.09	9.12
Healthcare	11.52	14.81
Utilities	3.10	3.16

Principal Risks as of 05-31-17

Credit and Counterparty, Prepayment (Call), Currency, Loss of Money, Not FDIC Insured, Country or Region, Income, Interest Rate, Market/Market Volatility, Equity Securities, Underlying Fund/Fund of Funds, Fixed-Income Securities, Management, Target Date

Vanguard Target Retirement 2035 Inv VTTHX

Benchmark

Morningstar Lifetime Mod 2035 TR USD

Overall Morningstar Rating™

★★★★

Out of 158 Target-Date 2035 funds. An investment's overall Morningstar Rating, based on its risk-adjusted return, is a weighted average of its applicable 3-, 5-, and 10-year Ratings. See disclosure for details.

Morningstar Return

Above Average

Morningstar Risk

Average

Investment Objective & Strategy

From investment's prospectus

The investment seeks to provide capital appreciation and current income consistent with its current asset allocation.

The fund invests in other Vanguard mutual funds according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2035 (the target year). The fund's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase.

Fees and Expenses as of 01-27-17

Prospectus Net Expense Ratio	0.15%
Total Annual Operating Expense	0.15%
Maximum Sales Charge	—
12b-1 Fee	—
Redemption Fee/Term	—

Waiver Data	Type	Exp. Date	%
—	—	—	—

Operations and Management

Fund Inception Date	10-27-03
Portfolio Manager(s)	William A. Coleman Walter Nejman
Name of Issuer	Vanguard
Telephone	800-662-7447
Web Site	www.vanguard.com

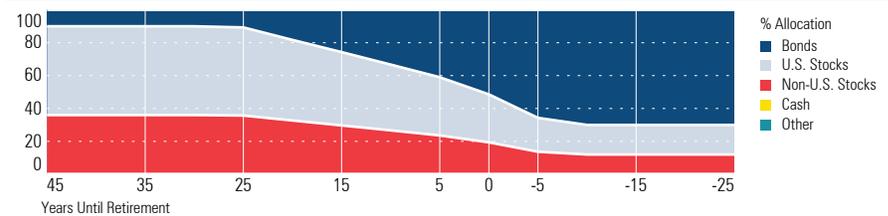
Benchmark Description: Morningstar Lifetime Mod 2035 TR USD

The index measures the performance of a portfolio of global equities, bonds and traditional inflation hedges such as commodities and TIPS. This portfolio is held in proportions appropriate for a US investor who is about 25 years away from retirement. The Moderate risk profile is for investors who are comfortable with average exposure to equity market volatility.

Category Description: Target-Date 2035

Target-date portfolios provide diversified exposure to stocks, bonds, and cash for those investors who have a specific date in mind (in this case, the years 2031-2035) for retirement. These portfolios aim to provide investors with an optimal level of return and risk, based solely on the target date. Management adjusts the allocation among asset classes to more-conservative mixes as the target date approaches, following a preset glide path. A target-date portfolio is part of a series of funds offering multiple retirement dates to investors.

Allocation of Assets



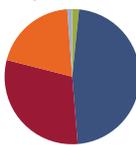
Performance

Trailing Returns	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Investment Return %	9.30	14.99	5.66	10.63	5.25	7.34
Benchmark Return %	8.28	14.13	4.75	10.19	5.36	—
Category Average %	8.99	14.62	4.81	9.41	4.47	6.56
Morningstar Rating™	—	—	★★★★	★★★★	★★★★	—
# of Funds in Category	—	—	158	118	48	—
Quarter End Returns as of 06-30-17	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Fund Return %	9.30	14.99	5.66	10.63	5.25	7.34
Standardized Return %	9.30	14.99	5.66	10.63	5.25	7.34

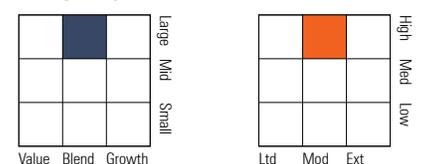
Performance Disclosure: The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost.

Portfolio Analysis as of 05-31-17

Composition as of 05-31-17	% Assets
U.S. Stocks	47.1
Non-U.S. Stocks	30.3
Bonds	19.9
Cash	1.6
Other	1.2



Morningstar Style Box™ as of 05-31-17(EQ) ; 04-30-17(F-I)



Top 10 Holdings as of 05-31-17	% Assets
Vanguard Total Stock Mkt Idx Inv	47.60
Vanguard Total Intl Stock Index Inv	31.84
Vanguard Total Bond Market II Idx Inv	14.63
Vanguard Total Intl Bd Idx Investor	5.92
CMT Market Liquidity Rate	0.00

Total Number of Holdings	5
Annual Turnover Ratio %	14.00
Total Fund Assets (\$mil)	28,181.47

Morningstar Sectors as of 05-31-17	% Fund	S&P 500 %
Cyclical	39.20	32.56
Basic Materials	5.65	2.89
Consumer Cyclical	11.64	11.02
Financial Services	18.03	16.33
Real Estate	3.88	2.32
Sensitive	37.25	40.34
Communication Services	3.88	3.89
Energy	6.07	6.01
Industrials	11.58	10.56
Technology	15.72	19.88
Defensive	23.57	27.09
Consumer Defensive	8.95	9.12
Healthcare	11.46	14.81
Utilities	3.16	3.16

Principal Risks as of 05-31-17

Credit and Counterparty, Prepayment (Call), Currency, Loss of Money, Not FDIC Insured, Country or Region, Income, Interest Rate, Market/Market Volatility, Equity Securities, Underlying Fund/Fund of Funds, Fixed-Income Securities, Management, Target Date

Vanguard Target Retirement 2040 Inv VFORX

Benchmark

Morningstar Lifetime Mod 2040 TR USD

Overall Morningstar Rating™

★★★★

Out of 184 Target-Date 2040 funds. An investment's overall Morningstar Rating, based on its risk-adjusted return, is a weighted average of its applicable 3-, 5-, and 10-year Ratings. See disclosure for details.

Morningstar Return

Above Average

Morningstar Risk

Average

Investment Objective & Strategy

From investment's prospectus

The investment seeks to provide capital appreciation and current income consistent with its current asset allocation.

The fund invests in other Vanguard mutual funds according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2040 (the target year). The fund's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase.

Fees and Expenses as of 01-27-17

Prospectus Net Expense Ratio	0.16%
Total Annual Operating Expense	0.16%
Maximum Sales Charge	—
12b-1 Fee	—
Redemption Fee/Term	—

Waiver Data	Type	Exp. Date	%
—	—	—	—

Operations and Management

Fund Inception Date	06-07-06
Portfolio Manager(s)	William A. Coleman Walter Nejman
Name of Issuer	Vanguard
Telephone	800-662-7447
Web Site	www.vanguard.com

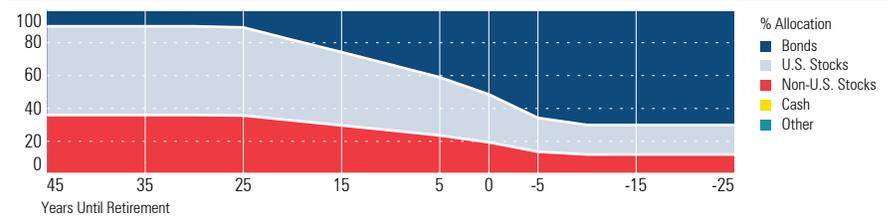
Benchmark Description: Morningstar Lifetime Mod 2040 TR USD

The index measures the performance of a portfolio of global equities, bonds and traditional inflation hedges such as commodities and TIPS. This portfolio is held in proportions appropriate for a US investor who is about 30 years away from retirement. The Moderate risk profile is for investors who are comfortable with average exposure to equity market volatility.

Category Description: Target-Date 2040

Target-date portfolios provide diversified exposure to stocks, bonds, and cash for those investors who have a specific date in mind (in this case, the years 2036-2040) for retirement. These portfolios aim to provide investors with an optimal level of return and risk, based solely on the target date. Management adjusts the allocation among asset classes to more-conservative mixes as the target date approaches, following a preset glide path. A target-date portfolio is part of a series of funds offering multiple retirement dates to investors.

Allocation of Assets



Performance

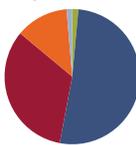
Trailing Returns	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Investment Return %	10.00	16.49	5.85	11.10	5.50	6.84
Benchmark Return %	8.82	15.58	4.90	10.53	5.44	—
Category Average %	9.23	15.09	4.88	9.50	4.26	5.55
Morningstar Rating™	—	—	★★★★	★★★★	★★★★	—
# of Funds in Category	—	—	184	148	84	—

Quarter End Returns as of 06-30-17	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Fund Return %	10.00	16.49	5.85	11.10	5.50	6.84
Standardized Return %	10.00	16.49	5.85	11.10	5.50	6.84

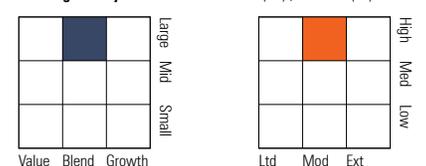
Performance Disclosure: The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost.

Portfolio Analysis as of 05-31-17

Composition as of 05-31-17	% Assets
U.S. Stocks	51.5
Non-U.S. Stocks	33.1
Bonds	12.6
Cash	1.5
Other	1.3



Morningstar Style Box™ as of 05-31-17(EQ) ; 04-30-17(F-I)



Top 10 Holdings as of 05-31-17	% Assets
Vanguard Total Stock Mkt Idx Inv	52.09
Vanguard Total Intl Stock Index Inv	34.87
Vanguard Total Bond Market II Idx Inv	9.24
Vanguard Total Intl Bd Idx Investor	3.80
CMT Market Liquidity Rate	0.00

Total Number of Holdings	5
Annual Turnover Ratio %	16.00
Total Fund Assets (\$mil)	20,962.50

Morningstar Sectors as of 05-31-17	% Fund	S&P 500 %
Cyclical	38.89	32.56
Basic Materials	5.56	2.89
Consumer Cyclical	11.58	11.02
Financial Services	17.85	16.33
Real Estate	3.90	2.32
Sensitive	37.40	40.34
Communication Services	3.93	3.89
Energy	6.01	6.01
Industrials	11.60	10.56
Technology	15.86	19.88
Defensive	23.71	27.09
Consumer Defensive	9.09	9.12
Healthcare	11.52	14.81
Utilities	3.10	3.16

Principal Risks as of 05-31-17

Hedging Strategies, Credit and Counterparty, Prepayment (Call), Currency, Loss of Money, Not FDIC Insured, Country or Region, Income, Interest Rate, Market/Market Volatility, Equity Securities, Fixed-Income Securities, Management, Target Date

Vanguard Target Retirement 2045 Inv VTIVX

Benchmark

Morningstar Lifetime Mod 2045 TR USD

Overall Morningstar Rating™

★★★★

Out of 158 Target-Date 2045 funds. An investment's overall Morningstar Rating, based on its risk-adjusted return, is a weighted average of its applicable 3-, 5-, and 10-year Ratings. See disclosure for details.

Morningstar Return

Above Average

Morningstar Risk

Below Average

Investment Objective & Strategy

From investment's prospectus

The investment seeks to provide capital appreciation and current income consistent with its current asset allocation.

The fund invests in other Vanguard mutual funds according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2045 (the target year). The fund's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase.

Fees and Expenses as of 01-27-17

Prospectus Net Expense Ratio	0.16%
Total Annual Operating Expense	0.16%
Maximum Sales Charge	—
12b-1 Fee	—
Redemption Fee/Term	—

Waiver Data	Type	Exp. Date	%
—	—	—	—

Operations and Management

Fund Inception Date	10-27-03
Portfolio Manager(s)	William A. Coleman Walter Nejman
Name of Issuer	Vanguard
Telephone	800-662-7447
Web Site	www.vanguard.com

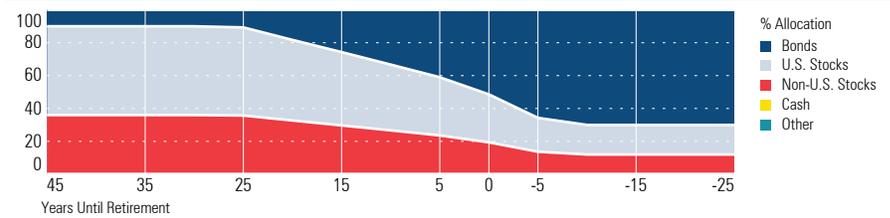
Benchmark Description: Morningstar Lifetime Mod 2045 TR USD

The index measures the performance of a portfolio of global equities, bonds and traditional inflation hedges such as commodities and TIPS. This portfolio is held in proportions appropriate for a US investor who is about 35 years away from retirement. The Moderate risk profile is for investors who are comfortable with average exposure to equity market volatility.

Category Description: Target-Date 2045

Target-date portfolios provide diversified exposure to stocks, bonds, and cash for those investors who have a specific date in mind (in this case, the years 2041-2045) for retirement. These portfolios aim to provide investors with an optimal level of return and risk, based solely on the target date. Management adjusts the allocation among asset classes to more-conservative mixes as the target date approaches, following a preset glide path. A target-date portfolio is part of a series of funds offering multiple retirement dates to investors.

Allocation of Assets



Performance

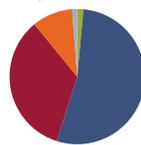
Trailing Returns	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Investment Return %	10.27	17.02	5.98	11.18	5.52	7.77
Benchmark Return %	9.08	16.22	4.90	10.57	5.41	—
Category Average %	9.84	16.30	5.15	10.11	4.61	7.10
Morningstar Rating™	—	—	★★★★	★★★★	★★★★	—
# of Funds in Category	—	—	158	117	46	—

Quarter End Returns as of 06-30-17	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Fund Return %	10.27	17.02	5.98	11.18	5.52	7.77
Standardized Return %	10.27	17.02	5.98	11.18	5.52	7.77

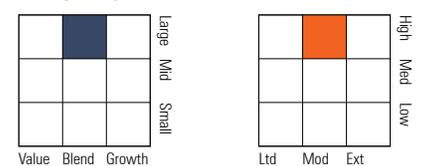
Performance Disclosure: The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost.

Portfolio Analysis as of 05-31-17

Composition as of 05-31-17	% Assets
U.S. Stocks	53.4
Non-U.S. Stocks	34.2
Bonds	9.7
Cash	1.5
Other	1.2



Morningstar Style Box™ as of 05-31-17(EQ) ; 04-30-17(F-I)



Top 10 Holdings as of 05-31-17	% Assets
Vanguard Total Stock Mkt Idx Inv	53.97
Vanguard Total Intl Stock Index Inv	36.00
Vanguard Total Bond Market II Idx Inv	7.11
Vanguard Total Intl Bd Idx Investor	2.92
CMT Market Liquidity Rate	0.00

Total Number of Holdings	5
Annual Turnover Ratio %	13.00
Total Fund Assets (\$mil)	19,068.15

Morningstar Sectors as of 05-31-17	% Fund	S&P 500 %
Cyclical	39.18	32.56
Basic Materials	5.64	2.89
Consumer Cyclical	11.64	11.02
Financial Services	18.02	16.33
Real Estate	3.88	2.32
Sensitive	37.25	40.34
Communication Services	3.88	3.89
Energy	6.07	6.01
Industrials	11.58	10.56
Technology	15.72	19.88
Defensive	23.57	27.09
Consumer Defensive	8.95	9.12
Healthcare	11.46	14.81
Utilities	3.16	3.16

Principal Risks as of 05-31-17

Hedging Strategies, Credit and Counterparty, Prepayment (Call), Currency, Loss of Money, Not FDIC Insured, Country or Region, Income, Interest Rate, Market/Market Volatility, Equity Securities, Fixed-Income Securities, Management, Target Date

Vanguard Target Retirement 2050 Inv VFIFX

Benchmark

Morningstar Lifetime Mod 2050 TR USD

Overall Morningstar Rating™

★★★★

Out of 176 Target-Date 2050 funds. An investment's overall Morningstar Rating, based on its risk-adjusted return, is a weighted average of its applicable 3-, 5-, and 10-year Ratings. See disclosure for details.

Morningstar Return

Above Average

Morningstar Risk

Average

Investment Objective & Strategy

From investment's prospectus

The investment seeks to provide capital appreciation and current income consistent with its current asset allocation.

The fund invests in other Vanguard mutual funds according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2050 (the target year). The fund's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase.

Fees and Expenses as of 01-27-17

Prospectus Net Expense Ratio	0.16%
Total Annual Operating Expense	0.16%
Maximum Sales Charge	—
12b-1 Fee	—
Redemption Fee/Term	—

Waiver Data	Type	Exp. Date	%
—	—	—	—

Operations and Management

Fund Inception Date	06-07-06
Portfolio Manager(s)	William A. Coleman Walter Nejman
Name of Issuer	Vanguard
Telephone	800-662-7447
Web Site	www.vanguard.com

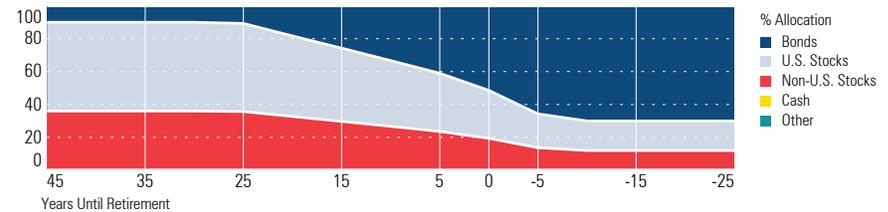
Benchmark Description: Morningstar Lifetime Mod 2050 TR USD

The index measures the performance of a portfolio of global equities, bonds and traditional inflation hedges such as commodities and TIPS. This portfolio is held in proportions appropriate for a US investor who is about 40 years away from retirement. The Moderate risk profile is for investors who are comfortable with average exposure to equity market volatility.

Category Description: Target-Date 2050

Target-date portfolios provide diversified exposure to stocks, bonds, and cash for those investors who have a specific date in mind (in this case, the years 2046-2050) for retirement. These portfolios aim to provide investors with an optimal level of return and risk, based solely on the target date. Management adjusts the allocation among asset classes to more-conservative mixes as the target date approaches, following a preset glide path. A target-date portfolio is part of a series of funds offering multiple retirement dates to investors.

Allocation of Assets



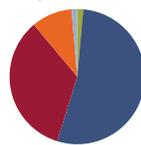
Performance

Trailing Returns	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Investment Return %	10.27	16.99	5.99	11.18	5.52	6.92
Benchmark Return %	9.20	16.41	4.81	10.50	5.36	—
Category Average %	9.66	15.93	5.10	9.94	4.33	5.71
Morningstar Rating™	—	—	★★★★	★★★★	★★★★	—
# of Funds in Category	—	—	176	137	41	—
Quarter End Returns as of 06-30-17	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Fund Return %	10.27	16.99	5.99	11.18	5.52	6.92
Standardized Return %	10.27	16.99	5.99	11.18	5.52	6.92

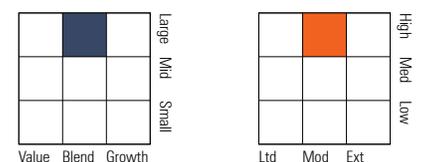
Performance Disclosure: The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost.

Portfolio Analysis as of 05-31-17

Composition as of 05-31-17	% Assets
U.S. Stocks	53.4
Non-U.S. Stocks	34.2
Bonds	9.7
Cash	1.4
Other	1.4



Morningstar Style Box™ as of 05-31-17(EQ) ; 04-30-17(F-I)



Top 10 Holdings as of 05-31-17	% Assets
Vanguard Total Stock Mkt Idx Inv	53.97
Vanguard Total Intl Stock Index Inv	36.00
Vanguard Total Bond Market II Idx Inv	7.14
Vanguard Total Intl Bd Idx Investor	2.89
CMT Market Liquidity Rate	0.00

Total Number of Holdings	5
Annual Turnover Ratio %	12.00
Total Fund Assets (\$mil)	12,350.37

Morningstar Sectors as of 05-31-17	% Fund	S&P 500 %
Cyclical	38.88	32.56
Basic Materials	5.55	2.89
Consumer Cyclical	11.58	11.02
Financial Services	17.85	16.33
Real Estate	3.90	2.32
Sensitive	37.41	40.34
Communication Services	3.93	3.89
Energy	6.01	6.01
Industrials	11.60	10.56
Technology	15.87	19.88
Defensive	23.71	27.09
Consumer Defensive	9.09	9.12
Healthcare	11.52	14.81
Utilities	3.10	3.16

Principal Risks as of 05-31-17

Hedging Strategies, Credit and Counterparty, Prepayment (Call), Currency, Loss of Money, Not FDIC Insured, Country or Region, Income, Interest Rate, Market/Market Volatility, Equity Securities, Fixed-Income Securities, Management, Target Date

Vanguard Target Retirement 2055 Inv VFFVX

Benchmark

Morningstar Lifetime Mod 2055 TR USD

Overall Morningstar Rating™

★★★★

Out of 145 Target-Date 2055 funds. An investment's overall Morningstar Rating, based on its risk-adjusted return, is a weighted average of its applicable 3-, 5-, and 10-year Ratings. See disclosure for details.

Morningstar Return

Above Average

Morningstar Risk

Below Average

Investment Objective & Strategy

From investment's prospectus

The investment seeks to provide capital appreciation and current income consistent with its current asset allocation.

The fund invests in other Vanguard mutual funds according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2055 (the target year). The fund's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase.

Fees and Expenses as of 01-27-17

Prospectus Net Expense Ratio	0.16%
Total Annual Operating Expense	0.16%
Maximum Sales Charge	—
12b-1 Fee	—
Redemption Fee/Term	—

Waiver Data	Type	Exp. Date	%
—	—	—	—

Operations and Management

Fund Inception Date	08-18-10
Portfolio Manager(s)	William A. Coleman Walter Nejman
Name of Issuer	Vanguard
Telephone	800-662-7447
Web Site	www.vanguard.com

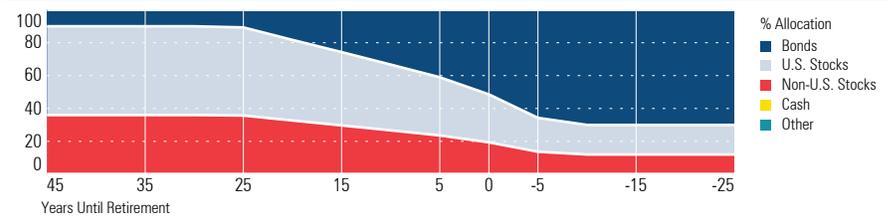
Benchmark Description: Morningstar Lifetime Mod 2055 TR USD

The index measures the performance of a portfolio of global equities, bonds and traditional inflation hedges such as commodities and TIPS. This portfolio is held in proportions appropriate for a US investor who is about 45 years away from retirement. The Moderate risk profile is for investors who are comfortable with average exposure to equity market volatility.

Category Description: Target-Date 2055

Target-date portfolios provide a diversified exposure to stocks, bonds, and cash for those investors who have a specific date in mind (in this case, the years 2051-2055 and beyond) for retirement. These portfolios aim to provide investors with an optimal level of return and risk, based solely on the target date. Management adjusts the allocation among asset classes to more-conservative mixes as the target date approaches, following a preset glide path. A target-date portfolio is part of a series of funds offering multiple retirement dates to investors.

Allocation of Assets



Performance

Trailing Returns	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Investment Return %	10.24	16.99	5.93	11.15	—	10.96
Benchmark Return %	9.29	16.50	4.71	10.40	—	10.23
Category Average %	10.07	16.67	5.34	10.49	—	10.10
Morningstar Rating™	—	—	★★★★	★★★★	—	—
# of Funds in Category	—	—	145	89	—	—

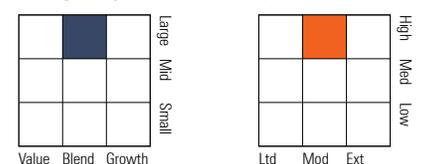
Quarter End Returns as of 06-30-17	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Fund Return %	10.24	16.99	5.93	11.15	—	10.96
Standardized Return %	10.24	16.99	5.93	11.15	—	10.96

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.

Portfolio Analysis as of 05-31-17



Morningstar Style Box™ as of 05-31-17(EQ) ; 04-30-17(F-I)



Top 10 Holdings as of 05-31-17

Asset	% Assets
Vanguard Total Stock Mkt Idx Inv	53.98
Vanguard Total Intl Stock Index Inv	35.99
Vanguard Total Bond Market II Idx Inv	7.11
Vanguard Total Intl Bd Idx Investor	2.90
CMT Market Liquidity Rate	0.03

Total Number of Holdings	5
Annual Turnover Ratio %	8.00
Total Fund Assets (\$mil)	4,973.70

Morningstar Sectors as of 05-31-17

Sector	% Fund	S&P 500 %
Cyclical	38.88	32.56
Basic Materials	5.55	2.89
Consumer Cyclical	11.58	11.02
Financial Services	17.85	16.33
Real Estate	3.90	2.32
Sensitive	37.41	40.34
Communication Services	3.93	3.89
Energy	6.01	6.01
Industrials	11.60	10.56
Technology	15.87	19.88
Defensive	23.71	27.09
Consumer Defensive	9.09	9.12
Healthcare	11.52	14.81
Utilities	3.10	3.16

Principal Risks as of 05-31-17

Hedging Strategies, Credit and Counterparty, Prepayment (Call), Currency, Loss of Money, Not FDIC Insured, Country or Region, Income, Interest Rate, Market/Market Volatility, Equity Securities, Fixed-Income Securities, Management, Target Date

Vanguard Target Retirement 2060 Inv VTTSX

Benchmark

Morningstar Lifetime Mod 2060 TR USD

Overall Morningstar Rating™

★★★

Out of 15 Target-Date 2060+ funds. An investment's overall Morningstar Rating, based on its risk-adjusted return, is a weighted average of its applicable 3-, 5-, and 10-year Ratings. See disclosure for details.

Morningstar Return

Average

Morningstar Risk

Below Average

Investment Objective & Strategy

From investment's prospectus

The investment seeks to provide capital appreciation and current income consistent with its current asset allocation.

The fund invests in other Vanguard mutual funds according to an asset allocation strategy designed for investors planning to retire and leave the workforce in or within a few years of 2060 (the target year). The fund's asset allocation will become more conservative over time, meaning that the percentage of assets allocated to stocks will decrease while the percentage of assets allocated to bonds and other fixed income investments will increase.

Fees and Expenses as of 01-27-17

Prospectus Net Expense Ratio	0.16%
Total Annual Operating Expense	0.16%
Maximum Sales Charge	—
12b-1 Fee	—
Redemption Fee/Term	—

Waiver Data	Type	Exp. Date	%
—	—	—	—

Operations and Management

Fund Inception Date	01-19-12
Portfolio Manager(s)	William A. Coleman Walter Nejman
Name of Issuer	Vanguard
Telephone	800-662-7447
Web Site	www.vanguard.com

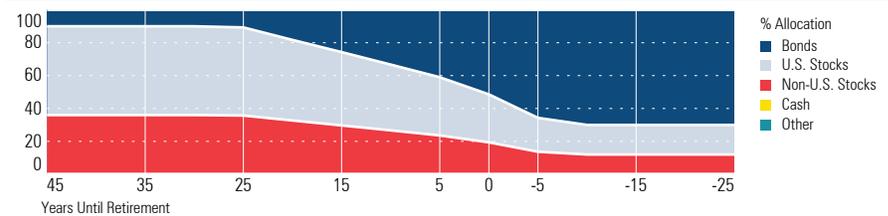
Benchmark Description: Morningstar Lifetime Mod 2060 TR USD

The index measures the performance of a portfolio of global equities, bonds and traditional inflation hedges such as commodities and TIPS. This portfolio is held in proportions appropriate for a US investor who is about 45 years away from retirement. The Moderate risk profile is for investors who are comfortable with average exposure to equity market volatility.

Category Description: Target-Date 2060+

Target-date portfolios provide a diversified exposure to stocks, bonds, and cash for those investors who have a specific date in mind (in this case, the years 2060 and beyond) for retirement. These portfolios aim to provide investors with an optimal level of return and risk, based solely on the target date. Management adjusts the allocation among asset classes to more-conservative mixes as the target date approaches, following a preset glide path. A target-date portfolio is part of a series of funds offering multiple retirement dates to investors.

Allocation of Assets



Performance

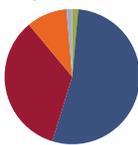
Trailing Returns	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Investment Return %	10.26	17.00	5.92	11.17	—	10.71
Benchmark Return %	9.36	16.54	4.60	10.27	—	—
Category Average %	10.14	16.90	5.43	11.17	—	10.45
Morningstar Rating™	—	—	★★★	—	—	—
# of Funds in Category	—	—	15	—	—	—

Quarter End Returns as of 06-30-17	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception
Fund Return %	10.26	17.00	5.92	11.17	—	10.71
Standardized Return %	10.26	17.00	5.92	11.17	—	10.71

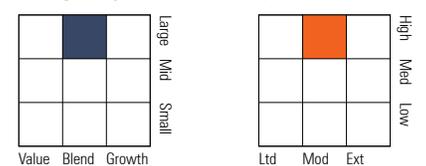
Performance Disclosure: The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost.

Portfolio Analysis as of 05-31-17

Composition as of 05-31-17	% Assets
U.S. Stocks	53.4
Non-U.S. Stocks	34.2
Bonds	9.7
Cash	1.4
Other	1.4



Morningstar Style Box™ as of 05-31-17(EQ) ; 04-30-17(F-I)



Top 10 Holdings as of 05-31-17	% Assets
Vanguard Total Stock Mkt Idx Inv	53.97
Vanguard Total Intl Stock Index Inv	36.01
Vanguard Total Bond Market II Idx Inv	7.15
Vanguard Total Intl Bd Idx Investor	2.87
Total Number of Holdings	5
Annual Turnover Ratio %	6.00
Total Fund Assets (\$mil)	1,810.80

Morningstar Sectors as of 05-31-17	% Fund	S&P 500 %
Cyclical	38.88	32.56
Basic Materials	5.55	2.89
Consumer Cyclical	11.58	11.02
Financial Services	17.85	16.33
Real Estate	3.90	2.32
Sensitive	37.41	40.34
Communication Services	3.93	3.89
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Industrials	11.60	10.56
Technology	15.87	19.88
Defensive	23.71	27.09
Consumer Defensive	9.09	9.12
Healthcare	11.52	14.81
Utilities	3.10	3.16

Principal Risks as of 05-31-17

Hedging Strategies, Credit and Counterparty, Prepayment (Call), Currency, Loss of Money, Not FDIC Insured, Country or Region, Income, Interest Rate, Market/Market Volatility, Equity Securities, Fixed-Income Securities, Management, Target Date



MassMutual
PO Box 219062
Kansas City, MO 64121-9062

