AGENDA



500 West Big Beaver Troy, MI 48084 troymi.gov

Employees' Retirement System Board Meeting

October 21st, 2020 at 12:00 PM Electronic Remote Participation via GoToMeeting (248) 524-3306 ERSPublicComments@troymi.gov

Roll Call

Resolution: To allow all members to participate in public meetings by electronic means as allowed by Public Act 228 of 2020

RESOLVED, that the Troy Employee Retirement System Board hereby allows all members to participate in public meetings by electronic means as allowed by Public Act 228 of 2020, since an in-person meeting could detrimentally increase exposure of board members and the general public to COVID-19, and would also be difficult to facilitate in light of the recent Michigan Department of Health and Human Services epidemic orders protecting public health and safety.

Members participating electronically will be considered present and in attendance at the meeting and may participate in the meeting as if physically present. However, members must avoid using email, texting, instant messaging, and other such electronic forms of communication to make a decision or deliberate toward a decision.

Resolution: To establish public participation rules

RESOLVED, that the Troy Employees Retirement System Board hereby establishes public participation rules to provide for two methods by which members of the public can be heard by others during eligible virtual meetings. Email sent to <u>ERSPublicComments@troymi.gov</u> and received by 9:00 am on the day of the meeting will be read during the public comment period of the meeting. Voicemail left at 248-524-3306 and received by 9:00 am on the day of the meeting will be played during the public comment period of the meeting will be played during the public comment period of the meeting will be played during the public comment period of the meeting will be played during the public comment period of the meeting will be played during the public comment period of the meeting will be played during the public comment period of the meeting will be played during the public comment period of the meeting. Both email and voicemail public comments will be limited to three minutes each.

Public Comment

Minutes from the August 12th, 2020 Meeting

AGENDA



500 West Big Beaver Troy, MI 48084 troymi.gov

Employees' Retirement System Board Meeting

October 21st, 2020 at 12:00 PM Electronic Remote Participation via GoToMeeting (248) 524-3306 ERSPublicComments@troymi.gov

Retirement Requests

Name	Christopher Stout	Curtis Reynolds, Jr.	Uwe (Jake) Diepholz
Pension	DB	On-Duty Death DB (with	DB
Program		EDRO)	
Retirement Date	October 11, 2020	September 24, 2020	November 1, 2020
Department	Police	Police	Water Department
Service Time	25 years 9 months	29 years, 4 months	30 years, 1 month

Regular Business

- ICMA/RC Investment Review
 - o Economic/Market update
 - o Investment Performance Review
 - o Plan Demographic Review
 - o Education/Communication Review and Update

Investments

• Investment Review

Other Business

<u>Adjourn</u>

The next meeting is Wednesday, November 11th, 2020 at 12:00 PM.

EMPLOYEES' RETIREMENT SYSTEM BOARD OF TRUSTEES MINUTES- DRAFT- August 12th, 2020



500 West Big Beaver Troy, MI 48084 troymi.gov

Employees' Retirement System Board Meeting

MINUTES

August 12th, 2020 at 12:00 PM Electronic Remote Participation via GoToMeeting (248) 524-3306 ERSPublicComments@troymi.gov

Roll Call

The monthly meeting for the Employees' Retirement System Board of Trustees was held on **August 12th, 2020** with electronic remote participation via GoToMeeting.

The meeting was called to order at 12:00 PM by Administrator Maleszyk.

Trustees Present:	Mark Calice Thomas Gordon II Robert C Maleszyk Justin Novak (arrived 12:12 PM) Kurt Bovensiep
Trustees Absent:	Mark F Miller David Hamilton Mark Owczarzak
Also Present:	Tim Brice – Graystone Consulting (arrived 12:12 PM) Rebecca Sorensen - UBS Financial Management Darin McBride – UBS Financial Management Jeffrey T. Tebeau – GRS Consulting (left 1:00 PM) Lisa Burnham Shazia Fatima

Public Comment

None

Minutes from the May 20th, 2020 Meeting

<u>Resolution # ER – 2020-08-17</u>

Moved by: Bovensiep Seconded by: Gordon RESOLVED, that the Minutes of the May 20th, 2020 meeting be APPROVED. Yeas: - 4 -Absent: - 3 – Motion Passes

Retirement Requests

Name	Susan Riesterer	Sean Morse
Pension Program	DC	DB
Retirement Date	July 11, 2020	September 19, 2020
Department	City Clerk	Police
Service Time	14 years 8 months	25 years 8 months

<u>Resolution # ER – 2020-08-18</u> Moved by: Gordon Seconded by: Bovensiep

RESOLVED, that the Retirement Requests be **APPROVED**.

Yeas: - 4 -Absent: - 3 – Motion Passes

Regular Business

- Review of 12/31/2019 Actuarial Report
 - Jeffrey T. Tebeau, the Chief Actuary from Gabriel, Roeder, Smith & Co. presented the ERS Actuarial Valuation Report for period ended December 31st, 2019.
 - Jeff gave a summary and noted that the System experienced an actuarial gain of approximately \$5.2 million and explained what made up that gain.
 - He discussed the city's contribution computed for 2021 and 2022 and the reasons why the computed city contribution in the last five valuation reports has been \$0.
 - The 2019 Funded Ratio is 129.8% based on the market value of assets.
 - He gave some final comments noting that the Market Value of Assets exceeded the Funding Value of Assets by \$19.4 million as of December 31, 2019 as a result of which deferred gains will be recognized in the next valuation.
 - Recommendation:
 - Update the Mortality assumptions to an appropriate version of Pub-2010 Tables for the 2020 Valuation as it is required for State

reporting for fiscal year 2020 under Public Act 202.

 Option factors assumptions for the ERS Plan need to be updated. GRS will provide a letter memo with details and sample option factors for the Board to review before the Board decides on an effective date for the updates.

Resolution # ER - 2020-08-19

Moved by: Bovensiep Seconded by: Gordon

RESOLVED, that the mortality assumptions be updated to the appropriate version of Pub-2010 tables for the 2020 valuation be approved and that GRS provide a letter memo with details and sample option factors for the Board to review in the next meeting and set an effective date for updated Option factors assumptions be **APPROVED**.

Yeas: - 5 -Absent: - 2 – Motion Passes

Investments

UBS Financial Presentation

- Market Review Darin McBride
 - Darin gave a market overview in light of the COVID-19 pandemic highlighting concerns with upcoming elections, social unrest, increasing unemployment and the economy shutting down indicating that the market is still volatile.
 - Inflation and Interest rates are low resulting in a challenge for bonds to make positive returns and therefore to have a positive rate of return we have to add equity into asset allocation.
 - On the Fixed income side UBS favors TIPS, investor grade corporate bonds and high yield and on the equity side UBS favors global and mid-cap equities.
 - He concluded that a 70% equity allocation should be maintained in the portfolio in spite of concerns with COVID-19.

• Investment Review – Rebecca Sorensen

- The QTD Net Rate of Return Net of Fees as of June 30th, 2020 was as follows: Combined: 17.93%; ERS: 15.73% and NAIC: 26.10%
- The YTD Net Rate of Return Net of Fees as of June 30th, 2020 was as follows: Combined: -1.24%; ERS: -1.34% and NAIC: -0.89%
- The YTD Net Rate of Return Net of Fees as of July 31st, 2020 was as follows: Combined: 3.57%; ERS: 2.98% and NAIC: 5.62%

• Recommendations:

- o ERS portfolio:
 - Replace American Funds Europacific Growth Fund with Clearbridge International Growth
 - Replace AB High Income Fund with Blackrock High Yield Fund (current position)
 - Resolution # ER 2020-08-20

Moved by: Bovensiep Seconded by: Novak

RESOLVED, that American Funds Europacific Growth Fund be replaced with Clearbridge International Growth and AB High Income Fund be replaced with Blackrock High Yield Fund (current position) be **APPROVED**.

Yeas: - 4 - Bovensiep, Novak, Gordon, Maleszyk Nays: - 1 – Calice Absent: - 2 -**Motion Passes**

- NAIC Portfolio:
 - Varian Medical Systems (VAR) has agreed to be acquired by Siemans AG for \$177.50 per share. Investor Advisory Services (NAIC) is recommending sale and will discontinue coverage. The City owns 3000 shares held in the NAIC Account with a cost basis of \$30.76 per share.
 - Resolution # ER 2020-08-21

Moved by: Calice Seconded by: Novak

RESOLVED, that Varian Medical Systems (VAR) has agreed to be acquired by Siemans AG for \$177.50 per share. Investor Advisory Services (NAIC) is recommending sale and will discontinue coverage. The City owns 3000 shares held in the NAIC Account with a cost basis of \$30.76 per share **APPROVED**.

Yeas: - 5 - Calice, Bovensiep, Novak, Gordon, Maleszyk Nays: - 0 – Absent: - 2 -**Motion Passes**

Graystone Consulting Group Presentation

- Market Review Tim Brice
 - Tim presented the Market Slides discussing Russell Style and Market Capitalization Indices and S&P 500 Sectors.
- Investment Review Tim Brice
 - Tim presented the Performance Report as of June 30th,2020 noting the
 - Net Return Net of Fees: QTD: 16.39% and YTD: -2.85%.
 - Tim gave the Updated Performance Report as of August 11th,2020 noting the
 - Net Return Net of Fees: MTD: 2.2% and YTD: 1.5%.
 - He also presented Manager performance, Market Values, and Asset Allocation Study discussing Capital Market Assumptions, Asset Allocations and Strategic Assumptions.

Other Business

None

<u>Adjourn</u>

The meeting adjourned at 1:26 PM.

The next meeting is Wednesday, October 14th, 2020 at 12:00 PM.

Thomas Gordon II, Vice Chairman

Robert C Maleszyk, Administrator



36,9%

CITY OF TROY INVESTMENT REVIEW

OCTOBER 14, 2020



- L Economic & Market Update
- II. Investment Team and Process
- III. Investment Funds Review
- IV. Appendix

Economic and Market Update



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3





Weekly Initial Unemployment Claims

Source: Federal Reserve Economic Data (FRED); Federal Reserve Bank of St. Louis (August 25, 2020) ICMA-RC Plan Sponsor or Consultant Use Only. See disclosures at the end of presentation.

Financial Crisis of 2008



Weekly Initial Unemployment Claims 10 Worst Weeks: Post COVID-19



Source: Federal Reserve Economic Data (FRED); Federal Reserve Bank of St. Louis (August 25, 2020) ICMA-RC Plan Sponsor or Consultant Use Only. See disclosures at the end of presentation.



Historical Unemployment Rate January 1948 - September 2020



The highest unemployment rate during COVID-19 was 47% higher than the worst of the Financial Crisis. However, the unemployment rate has already decreased by 43% in the past few months.

Source: U.S. Bureau of Labor Statistics as of September 21, 2020 (Series ID: LNS140000000) ICMA-RC Plan Sponsor or Consultant Use Only. See disclosures at the end of presentation.



US Real GDP Growth - Quarterly 1Q 2000 - 1Q 2020



The level economic contraction has not reached the lowest levels that we've seen during the Financial Crisis.

Source: National Income and Product Accounts at the Bureau of Economic Analysis as of June 25, 2020. ICMA-RC Plan Sponsor or Consultant Use Only. See disclosures at the end of presentation.







The level economic contraction has not reached the lowest levels that we've seen during the Financial Crisis.

Source: National Income and Product Accounts at the Bureau of Economic Analysis as of August 25, 2020. ICMA-RC Plan Sponsor or Consultant Use Only. See disclosures at the end of presentation.





The Federal Reserve increased its balance sheet by \$3 trillion within 3 months in response to COVID-19 versus approximately 6 years during the Financial Crisis of 2008.

Source: Board of Governors of the Federal Reserve System retrieved from FRED, Federal Reserve Bank of St. Louis as of October 6, 2020. ICMA-RC Plan Sponsor or Consultant Use Only. See disclosures at the end of presentation.





Fiscal Policy Response

The \$2.4 trillion fiscal support provided by Congress so far in response to COVID-19 almost equals the entirety of the fiscal response to the Financial Crisis of 2008, excluding the support provided by the FDIC.

Sources: "The Financial Crisis: Lessons for the Next One" at the Center on Budget and Policy Priorities (October 15, 2015) "Here's Everything Congress has Done to Respond to Coronavirus so Far" at The Peter G. Peterson Foundation (April 24, 2020) ICMA-RC Plan Sponsor or Consultant Use Only. See disclosures at the end of presentation.



Stock Market Reaction Violent but Brief Downturn

S&P 500 Index January 1, 2010 to September 30, 2020



While the market downdraft in late March was historical in its speed and magnitude, the recovery of the market has been equally historic.

Past performance is no guarantee of future results. Source: Yahoo! Finance as of September 30, 2020.



ICMA-RC View Tactical Asset Allocation



Our allocation preference is tilted towards US large cap growth stocks.

Bond valuations are unattractive; however, central bank support reduces some of the downside risk.

Past performance, as shown, is no guarantee of future results.

This content was created as of the date indicated and reflects the authors' opinions. These opinions are subject to change, without notice, due to market conditions or other factors. This information is not intended as a solicitation nor does it constitute investment, tax, or legal advice. Reference to any fund or asset class is not a recommendation to buy, sell, or hold that fund or asset class. Neither ICMA-RC nor its subsidiaries are responsible for any investment action taken as a result of the information provided herein or the interpretation of such information. Investors should carefully consider their own investment goals, risk tolerance, and liquidity needs before making an investment decision.

Investment Team and Process



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13



ICMA-RC Investment Division

	Aimei Zhong, CFA, CAIA Managing Vice President Equity & Risk Industry Experience: 22 years Firm Experience: 0 years	Jeffrey Andy k	enum, CFA, CAIA (23) Dir, Research / Canavan, CFA (19) Dir., Sr. Fund Mg. Kim, CFA (14) Sr. Fund Mgr. e Seaman, CFA (10) Sr. Fund Mgr.	Tracey Smith (23) Sr. Fund Mgr.
Wayne Wicker, CFA Senior Vice President and Chief Investment Officer Industry Experience: 36 years	Matthew Brenner, CFA Managing Vice President Investments Industry Experience: 16 years Firm Experience: 4 years	Kevin I Katie G	s Mansfield, CFA (29) Sr. Director Monds, CFA (15) Director George, CFA (16) Director Refai, CAIA, CMT (23) Director	Charlie Wegrzyn, CFA (6) Inv. Analyst Brook Herman (22) Inv. Disclosure Specialist
Firm Experience: 15 years Average Industry Experience: 19 years Chartered Financial	Karen Chong-Wulff, CFA, CAIA Managing Vice President Fixed Income Industry Experience: 34 years Firm Experience: 13 years	Garth 1	ou, CFA, FRM (21) Dir., Sr. Fund Mgr. Talbert, CFA (20) Dir., Sr. Portfolio Mgr. Meng, CFA, CAIA, FRM (16) Dir., Sr. Igr.	Joel Gross (40) Sr. Mgr., Credit Research Benjamin Smith, CFA (13) Fund Mgr. Richard Rudolph, CFA (12) Portfolio Mgr. Mia Foreman (14) Sr. Credit Analyst
Analyst (CFA) Charterholders: 29 Chartered Alternative Investment Analyst	Flora Hedrick, CFA Managing Vice President Investments Industry Experience: 18 years Firm Experience: 4 years	– Wade F	F ranks, CFA (33) Dir. Sr. Portfolio Mgr.	
(CAIA): 6 Chartered Market Technician (CMT): 1 Financial Risk Manager/Professional	Venkat Balakrishnan, CFA Vice President Asset Allocation Industry Experience: 14 years Firm Experience: 4 years	Fund N Yang L	non Fitzgerald, CFA, CAIA (16) Sr. Agr. .iu, CFA, (8) Sr. Fund Mgr. Goldstein, CFA (25) Portfolio Mgr.	
Risk Manager: 3	Gus Pollak, CFA Vice President Investment Services and Innovation Industry Experience: 15 years Firm Experience: 22 years	Jeff Sr Chris I	n Roland, CFA, PRM (26) Sr. Director nith, CFA (34) Sr. Mgr. Davis, CFA (9) Sr. Mgr. I Raheem, CFA (15) Tech. Proj. Mgr.	Eric Blanton (11) Tech. Proj. Mgr. Nick Calomeris (4) Inv. Data Analyst II Kshitij Sachar (4) Inv. Data Analyst II

Timothy Sudol, CFA (27) Sr. Fund Mgr.



ICMA-RC Investment Objective and Philosophy

Objective

Provide long-term investment solutions with controlled risk to achieve investment goals. Our investment program focuses on meeting the investment needs of the plan sponsors and participants that ICMA-RC serves. Those needs require that we make available a broad range of investment offerings appropriate for retirement plan investing:

- Different asset classes, with diverse styles/risk profiles
- Active and passive choices
- Multi-asset class solutions

Investment Philosophy

We believe investment success requires prudent decision-making characterized by:





Investment Management Process

Disciplined & Continuous

Manager Research & Due Diligence

- Investment style and process
- Quantitative screening and analysis
- Qualitative analysis
- In-house and on-site visit

Portfolio Construction & Asset Allocation

- Complementary investment styles
- Correlation
- Relative performance
- Negotiate fees

Risk Management & Manager Oversight

- Continuous internal review
- Formal quarterly reviews
- Periodic rebalancing
- Termination/ Replacement





Subadvisor Due Diligence and Monitoring

Evaluation Factors

Investment Professionals	Experience & SkillTeam StructureResource Focus
Philosophy & Process	 Strength of the Process Process Consistency Research Capabilities
Portfolio	 Portfolio Construction Consistency with Investment Philosophy Performance and Risk Characteristics
Organization	 Ownership & Organizational Stability Strategic Focus of Investment Strategy Alignment of Interest with the Investor
Operations	Compliance MonitoringDisaster RecoveryTrading and Portfolio Support



Investment Funds Review



ICMA-RC Plan Sponsor or Consultant Use Only. See disclosures at the end of presentation.

18



Active Vantagepoint and VT Funds







Data as of September 30, 2020



City of Troy Recent Changes to the Funds



Target Date Funds Rolled Forward

Added the Milestone 2060 target date fund.



Target Date Glidepath Allocation Modified

Moderately increased relative allocation to Emerging Markets Equities versus International Developed Equities. Favoring US Mid Cap Equities versus US Large Cap and Small Cap Equities.



Target Date Fund Allocation Window Expanded from 5% to 10%

Increased allocation flexibility increases our ability to incorporate tactical allocation changes as the market volatility increases.



Target Funds Expanded to include Active Fixed Income and ETFs

Vantagepoint Total Return Bond Fund added as an active fixed income option. iShares Core U.S. Aggregate Bond ETF and iShares Core S&P 500 ETF added to enhance risk and liquidity management.



Vantagepoint Equity Income Fund

Removing State Street Global Advisors Equal-Weighted Cap Large Cap Value Strategy.



VT ClearBridge International Value Fund

Removing ClearBridge International Value Fund and mapping assets to the VT Diversified International Fund.



Vantagepoint Discovery Fund R7

- > 2020 Returns (through 9/30/2020)
 - Absolute Return: -9.90%
 - Excess Return: -1.21%
 - Peer Ranking: Top 31%
- 2019 Returns
 - Absolute Return: 28.52%
 - Excess Return: +3.00%
 - Peer Ranking: Top 14%

Subadvisors

- <u>Payden & Rygel (Enhanced Equity)</u> Serves as a lower volatility anchor for the strategy. Expected to provide a modest outperformance frequently.
- Wellington Management (Small Cap Core) Active Stock-Picking Strategy serves with higher-return potential and higher-levels of volatility.

Vantagepoint Select Value R7

- > 2020 Returns (through 9/30/2020)
 - Absolute Return: -12.44%
 - Excess Return: +0.40%
 - Peer Ranking: Top 17%
- > 2019 Returns
 - Absolute Return: 29.47%
 - Excess Return: +2.41%
 - Peer Ranking: Top 25%
- Subadvisors

 <u>Wells Capital Management (Mid Cap Value)</u> Higher quality, conservative value investment style targeting lower tracking error with moderate volatility.

 <u>Victory Capital Management (Mid Cap Value)</u> Classic, bottom-up investment process seeking to exploit inefficiencies within the mid cap market.

* Performance versus Open-End Funds and ETFs within the same Morningstar Category for the time period specified.

Past performance, as shown, is no guarantee of future results.



Vantagepoint Emerging Markets Fund R7

- > 2020 Returns (through 9/30/2020)
 - Absolute Return: -0.67%
 - Excess Return: +0.49%
 - Peer Ranking: 48%
- 2019 Returns
 - Absolute Return: 19.13%
 - Excess Return: +0.71%
 - Peer Ranking: 60%

Subadvisors

- <u>NS Partners (GARP Emerging Markets)</u>
 - Combines macroeconomic framework with bottom-up stock selection. Expected to outperform in rising markets and to slightly lag in falling markets.
- <u>RBC Global Asset Management (Quality Growth EM)</u>
 All-cap exposure to emerging markets combining both bottom-up fundamental research and top-down analysis to invest in companies with high CFROI.
- <u>J.P. Morgan Investment Mgmt (Emerging Markets Income)</u> Uses bottom-up approach focused on fundamentally strong companies with future growth prospects and dividend income.

Added in Jul 2019

Vantagepoint Equity Income Fund R7

- > 2020 Returns (through 9/30/2020)
 - Absolute Return: -11.43%
 - Excess Return: +0.15%
 - Peer Ranking: 52%
- 2019 Returns
 - Absolute Return: 24.09%
 - Excess Return: -2.45%
 - Peer Ranking: 65%
- Subadvisors
 - <u>T. Rowe Price (Large Cap Value)</u> Low tracking error strategy with some downside protection in weak markets.
 - <u>Southeastern (Concentrated Mid/Large Value)</u> Concentrated, aggressive portfolio with higher volatility.
 - Wellington Management (Large Cap Value) Deep-value strategy focus on financially sound but outof-favor companies.
 - <u>Yacktman Asset Management (Large Cap Value)</u> High-conviction, concentrated strategy. Expected to outperform in down-markets.
 - <u>State Street (Equal-Weight Russell 1000 Value)</u> Equal-weight index portfolio.

Removed in Aug 2020

* Performance versus Open-End Funds and ETFs within the same Morningstar Category for the time period specified. Past performance, as shown, is no guarantee of future results.

Appendix



24



Fund Performance CITY OF TROY Quarterly Report as of 09/30/2020

Fund past performance, as shown, is no guarantee of how the Fund will perform in the future. The performance shown has been annualized for periods greater than one year. Investment returns and principal value will fluctuate, so that an investor's shares, when redeemed, may be worth more or less than their original cost. For current performance, participants or plan sponsors in an ICMA-RC administered account can log in at www.icmarc.org, or institutions can go to www.vantagepointfunds.org.

Stable Value/Cash Management Fund Name / Benchmark	Prior QTR Ended 09/30/2020	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date	Gross Expense Ratio	Net Expense Ratio
Vantagepoint PLUS Fund R7 ^{A, B, C, D, E}	0.51%	1.58%	2.16%	2.17%	2.05%	2.21%	-	Oct 2013	0.68%	0.68%
ICE BofA US 3 Month Treasury Bill Index ^{1, 2}	0.04%	0.64%	1.10%	1.69%	1.20%	0.64%	-			
VT Cash Management ^{B, D, E, F}	0.00%	0.25%	0.60%	1.24%	0.81%	0.40%	-	Mar 1999	0.44%	0.44%
Ibbotson US 30-Day T-Bill Index ^{1, 3}	0.03%	0.42%	0.83%	1.54%	1.07%	0.55%	-			
Crane Government Retail Money Market Fund	-	-	-	-	-	-	-			
Index ⁴										

Bond	Prior QTR Ended		1	3	5	10	Since		Gross Expense	Net Expense
Fund Name / Benchmark	09/30/2020	YTD	Year	Year	Year	Year	Inception	Inception Date	Ratio	Ratio
Vantagepoint Core Bond Idx R5 ^{B, D, E, G, II}	0.53%	6.63%	6.80%	5.04%	3.95%	3.39%	-	Apr 1999	0.23%	0.18%
Bloomberg Barclays U.S. Agg Bond Index ^{1, 5}	0.62%	6.79%	6.98%	5.24%	4.18%	3.64%	-			
VT Western Asset Core Plus Bnd ^{B, D, E, G, II}	1.77%	6.06%	7.47%	5.63%	5.68%	-	4.87%	Jan 2015	0.52%	0.45%
Bloomberg Barclays U.S. Agg Bond Index ^{1, 5}	0.62%	6.79%	6.98%	5.24%	4.18%	3.64%	-			
Morningstar Intermediate Core-Plus Bond ^{1, 6}	1.61%	5.94%	6.37%	4.77%	4.32%	3.97%	-			
Vantagepoint Infl Foc R7 ^{B, C, D, E, G}	3.27%	9.08%	9.97%	5.52%	4.42%	3.05%	-	Oct 2013	0.51%	0.51%
Bloomberg Barclays U.S. Treasury	3.03%	9.22%	10.08%	5.79%	4.61%	3.57%	-			
Inflation-Linked Bond Index ^{1, 7}										
Morningstar Inflation-Protected Bond ^{1, 6}	2.99%	7.85%	8.79%	5.00%	4.02%	2.96%	-			
VT PIMCO High Yield ^{B, D, E, G, H}	3.89%	(0.30%)	2.07%	3.62%	5.83%	5.61%	-	Jul 2002	0.82%	0.82%
ICE BofA US High Yield BB-B Const Index ^{1, 8}	4.33%	0.55%	3.15%	4.41%	6.59%	6.29%	-			

Bond	Prior QTR Ended		1	3	5	10	Since		Gross Expense	Net Expense
Fund Name / Benchmark	09/30/2020	YTD	Year	Year	Year	Year	Inception	Inception Date	Ratio	Ratio
Morningstar High Yield Bond ^{1, 6}	4.32%	(0.99%)	1.33%	2.89%	5.18%	5.29%	-			

Guaranteed Lifetime Income	Prior QTR Ended		1	3	5	10	Since		Gross Expense	Net Expense
Fund Name / Benchmark	09/30/2020	YTD	Year	Year	Year	Year	Inception	Inception Date	Ratio	Ratio
VT Retirement IncomeAdvantage ^{B, D, E, I}	5.12%	3.86%	9.31%	6.12%	7.25%	6.62%	-	Aug 2010	1.68%	1.68%
Custom Benchmark ⁹	5.30%	5.28%	11.06%	7.97%	8.95%	8.23%	-			

Balanced/Asset Allocation	Prior QTR Ended		1	3	5	10	Since		Gross Expense	Net Expense
Fund Name / Benchmark	09/30/2020	YTD	Year	Year	Year	Year	Inception	Inception Date	-	Ratio
VP Milestone Ret Inc R7 ^{B, C, D, E, II, J}	3.15%	4.59%	7.50%	5.14%	5.82%	4.80%	-	Oct 2013	0.61%	0.56%
S&P Target Date Retirement Income Index ^{1, 10}	2.73%	3.70%	6.86%	5.40%	5.72%	5.25%	-			
Morningstar Target-Date Retirement ^{1, 6}	2.99%	3.23%	5.79%	4.85%	5.41%	4.70%	-			
VP Milestone 2015 R7 ^{B, C, D, E, II, J}	3.82%	4.14%	8.02%	5.38%	6.55%	6.33%	-	Oct 2013	0.64%	0.60%
S&P Target Date 2015 Index ^{1, 10}	3.57%	3.27%	7.14%	5.70%	6.85%	6.63%	-			
Morningstar Target-Date 2015 ^{1, 6}	3.65%	3.37%	7.31%	5.77%	6.89%	6.65%	-			
VP Milestone 2020 R7 ^{B, C, D, E, II, J}	4.15%	3.79%	8.00%	5.63%	7.08%	6.95%	-	Oct 2013	0.64%	0.62%
S&P Target Date 2020 Index ^{1, 10}	3.74%	2.67%	6.98%	5.77%	7.32%	7.20%	-			
Morningstar Target-Date 2020 ^{1, 6}	3.80%	2.73%	6.82%	5.55%	6.81%	6.68%	-			
VP Milestone 2025 R7 ^{B, C, D, E, II, J}	4.72%	3.01%	8.27%	5.75%	7.62%	7.57%	-	Oct 2013	0.67%	0.64%
S&P Target Date 2025 Index ^{1, 10}	4.39%	2.03%	7.10%	5.97%	7.86%	7.73%	-			
Morningstar Target-Date 2025 ^{1, 6}	4.55%	2.75%	7.67%	6.03%	7.68%	7.45%	-			
VP Milestone 2030 R7 ^{B, C, D, E, II, J}	5.77%	2.83%	8.95%	6.04%	8.23%	8.18%	-	Oct 2013	0.71%	0.66%
S&P Target Date 2030 Index ^{1, 10}	5.02%	1.26%	7.14%	6.10%	8.32%	8.18%	-			
Morningstar Target-Date 2030 ^{1, 6}	5.22%	2.45%	8.12%	6.31%	8.31%	7.88%	-			
VP Milestone 2035 R7 ^{B, C, D, E, II, J}	6.38%	2.12%	9.12%	6.15%	8.72%	8.74%	-	Oct 2013	0.73%	0.67%
S&P Target Date 2035 Index ^{1, 10}	5.70%	0.53%	7.17%	6.19%	8.74%	8.58%	-			
Morningstar Target-Date 2035 ^{1, 6}	5.96%	1.98%	8.58%	6.56%	8.92%	8.46%	-			
VP Milestone 2040 R7 ^{B, C, D, E, II, J}	6.85%	1.45%	9.05%	6.28%	9.20%	9.18%	-	Oct 2013	0.76%	0.69%
S&P Target Date 2040 Index ^{1, 10}	6.14%	0.00%	7.16%	6.26%	9.04%	8.85%	-			

Balanced/Asset Allocation	Prior QTR		4		5	10	Since		Gross	Net
Fund Name / Benchmark	Ended 09/30/2020	YTD	1 Year	3 Year	year	10 Year	Inception	Inception Date	Expense Ratio	Expense Ratio
Morningstar Target-Date 2040 ^{1, 6}	6.45%	1.35%	8.47%	6.49%	9.12%	8.59%	-			
VP Milestone 2045 R7 ^{B, C, D, E, II, J}	7.20%	1.11%	9.13%	6.40%	9.55%	9.34%	-	Oct 2013	0.76%	0.68%
S&P Target Date 2045 Index ^{1, 10}	6.44%	(0.32%)	7.14%	6.26%	9.23%	9.03%	-			
Morningstar Target-Date 2045 ^{1, 6}	6.86%	1.06%	8.68%	6.61%	9.40%	8.83%	-			
VP Milestone 2050 R7 ^{B, C, D, E, II, J}	7.35%	1.05%	9.15%	6.41%	9.60%	-	9.14%	Feb 2014	0.78%	0.69%
S&P Target Date 2050 Index ^{1, 10}	6.53%	(0.47%)	7.14%	6.27%	9.41%	9.18%	-			
Morningstar Target-Date 2050 ^{1, 6}	6.98%	0.85%	8.52%	6.50%	9.38%	8.81%	-			
VP Milestone 2055 R7 ^{B, C, D, E, II, J}	7.31%	0.93%	9.05%	6.42%	-	-	9.12%	Nov 2016	0.79%	0.69%
S&P Target Date 2055 Index ^{1, 10}	6.62%	(0.61%)	7.07%	6.26%	9.50%	9.31%	-			
Morningstar Target-Date 2055 ^{1, 6}	7.12%	0.85%	8.73%	6.61%	9.55%	8.99%	-			
VP Milestone 2060 R7 ^{B, D, E, II, J}	7.37%	-	-	-	-	-	9.30%	Jun 2020	0.98%	0.69%
S&P Target Date 2060+ Index ^{1, 10}	6.61%	(0.50%)	7.28%	6.41%	9.67%	9.37%	-			
Morningstar Target-Date 2060+ ^{1,6}	7.21%	0.66%	8.69%	6.70%	9.76%	-	-			
Vantagepoint MP Cons Gr R7 ^{B, C, D, E}	3.72%	3.67%	7.05%	5.03%	5.94%	5.48%	-	Oct 2013	0.65%	0.65%
S&P Target Risk Conservative Index ^{1, 11}	2.97%	4.32%	7.10%	5.65%	6.18%	5.24%	-			
Morningstar Allocation 30% to 50% Equity ^{1, 6}	3.85%	1.02%	4.38%	4.18%	5.68%	5.68%	-			
Vantagepoint MP Trad Gr R7 ^{B, C, D, E}	5.51%	3.37%	8.89%	6.33%	7.98%	7.35%	-	Oct 2013	0.69%	0.69%
S&P Target Risk Growth Index ^{1, 11}	5.13%	2.51%	7.89%	6.06%	7.94%	7.62%	-			
Morningstar Allocation 50% to 70% Equity ^{1, 6}	4.97%	1.30%	6.28%	5.71%	7.45%	7.53%	-			
Vantagepoint MP Lng-Trm Gr R7 ^{B, C, D, E}	6.43%	1.83%	8.79%	6.60%	9.06%	8.41%	-	Oct 2013	0.72%	0.72%
S&P Target Risk Aggressive Index ^{1, 11}	6.50%	1.13%	8.20%	6.24%	9.03%	9.05%	-			
Morningstar Allocation 70% to 85% Equity ^{1, 6}	5.70%	(1.31%)	4.62%	4.94%	7.65%	7.96%	-			
Vantagepoint MP Glbl Eq Gr R7 ^{B, C, D, E, K}	8.01%	2.14%	11.39%	6.88%	9.88%	9.62%	-	Oct 2013	0.78%	0.78%
MSCI ACWI Index (Net) ^{1, 12}	8.13%	1.37%	10.44%	7.12%	10.30%	8.55%	-			
Morningstar World Large Stock ^{1, 6}	8.22%	2.57%	10.77%	6.59%	9.58%	8.28%	-			
VT Puritan® Fund ^{B, D, E, L}	7.75%	11.83%	19.29%	10.77%	11.26%	10.49%	-	Apr 1999	0.53%	0.53%
S&P 500 Index ^{1, 13}	8.93%	5.57%	15.15%	12.28%	14.15%	13.74%	-			
Morningstar Allocation 50% to 70% Equity ^{1, 6}	4.97%	1.30%	6.28%	5.71%	7.45%	7.53%	-			

U.S. Stock	Prior QTR Ended		1	3	5	10	Since		Gross Expense	Net Expense
Fund Name / Benchmark	09/30/2020	YTD	Year	Year	Year	Year	Inception	Inception Date		Ratio
Vantagepoint Equity Income R7 ^{B, C, D, E, M}	5.17%	(11.43%)	(4.92%)	0.73%	6.92%	8.12%	-	Oct 2013	0.62%	0.62%
Russell 1000 Value Index ^{1, 14}	5.59%	(11.58%)	(5.03%)	2.63%	7.66%	9.95%	-			
Morningstar Large Value ^{1, 6}	4.85%	(11.07%)	(4.52%)	2.55%	7.26%	9.17%	-			
VT Invesco Diversified Div ^{B, D, E, II, M}	3.78%	(11.69%)	(7.13%)	1.76%	5.47%	-	5.99%	Dec 2013	0.58%	0.57%
Russell 1000 Value Index ^{1, 14}	5.59%	(11.58%)	(5.03%)	2.63%	7.66%	9.95%	-			
Morningstar Large Value ^{1, 6}	4.85%	(11.07%)	(4.52%)	2.55%	7.26%	9.17%	-			
VT MFS® Value ^{B, D, E, M}	5.91%	(7.70%)	(1.15%)	-	- 1	-	3.14%	Dec 2017	0.57%	0.57%
Russell 1000 Value Index ^{1, 14}	5.59%	(11.58%)	(5.03%)	2.63%	7.66%	9.95%	-			
Morningstar Large Value ^{1, 6}	4.85%	(11.07%)	(4.52%)	2.55%	7.26%	9.17%	-			
Vantagepoint 500 Stock Idx R5 ^{B, D, E, II}	8.86%	5.38%	14.90%	12.09%	13.94%	13.53%	-	Apr 1999	0.24%	0.19%
S&P 500 Index ^{1, 13}	8.93%	5.57%	15.15%	12.28%	14.15%	13.74%	-			
Vantagepoint Broad Mkt Idx R5 ^{B, D, E, II}	9.14%	5.05%	14.59%	11.39%	13.51%	13.29%	-	Apr 1999	0.24%	0.19%
Russell 3000 Index ^{1, 15}	9.21%	5.41%	15.00%	11.65%	13.69%	13.48%	-			
Vantagepoint Growth & Inc R7 ^{B, C, D, E}	8.36%	4.74%	13.58%	10.51%	12.86%	12.75%	-	Oct 2013	0.52%	0.52%
S&P 500 Index ^{1, 13}	8.93%	5.57%	15.15%	12.28%	14.15%	13.74%	-			
Morningstar Large Blend ^{1, 6}	8.06%	2.30%	10.70%	9.55%	11.77%	11.96%	-			
VT Parnassus Core Equity ^{B, D, E}	11.39%	9.11%	15.94%	14.52%	13.93%	-	11.09%	Nov 2014	0.86%	0.86%
S&P 500 Index ^{1, 13}	8.93%	5.57%	15.15%	12.28%	14.15%	13.74%	-			
Morningstar Large Blend ^{1, 6}	8.06%	2.30%	10.70%	9.55%	11.77%	11.96%	-			
Am Funds Invmt Co of America ^{III, N, O}	6.65%	2.87%	12.65%	8.29%	11.65%	11.44%	7.67%	May 2002	0.62%	0.62%
S&P 500 Index ^{1, 13}	8.93%	5.57%	15.15%	12.28%	14.15%	13.74%	-			
Morningstar Large Blend ^{1, 6}	8.06%	2.30%	10.70%	9.55%	11.77%	11.96%	-			
VT Invesco Main Street ^{B, D, E, P}	9.51%	3.90%	12.21%	9.01%	12.11%	-	13.14%	Dec 2011	0.62%	0.62%
S&P 500 Index ^{1, 13}	8.93%	5.57%	15.15%	12.28%	14.15%	13.74%	-			
Morningstar Large Blend ^{1, 6}	8.06%	2.30%	10.70%	9.55%	11.77%	11.96%	-			
Vantagepoint Growth R7 ^{B, C, D, E, M}	12.72%	23.99%	37.23%	20.36%	18.26%	15.01%	-	Oct 2013	0.65%	0.65%
Russell 1000 Growth Index ^{1, 16}	13.22%	24.33%	37.53%	21.67%	20.10%	17.25%	-			
Morningstar Large Growth ^{1, 6}	11.54%	20.64%	32.13%	18.22%	16.99%	15.01%	-			
Am Funds Growth Fund of Am R4 ^{III, M, N, O}	11.03%	18.77%	32.11%	16.43%	16.82%	14.67%	10.01%	May 2002	0.66%	0.66%

U.S. Stock Fund Name / Benchmark	Prior QTR	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception	Inception Date	Gross Expense Ratio	Net Expense Ratio
	Ended 09/30/2020									
S&P 500 Index ^{1, 13}	8.93%	5.57%	15.15%	12.28%	14.15%	13.74%	-			
Morningstar Large Growth ^{1, 6}	11.54%	20.64%	32.13%	18.22%	16.99%	15.01%	-			
VT Contrafund® ^{B, D, E, L, M}	11.80%	22.48%	35.10%	18.47%	17.75%	15.52%	-	Apr 1999	0.85%	0.85%
S&P 500 Index ^{1, 13}	8.93%	5.57%	15.15%	12.28%	14.15%	13.74%	-			
Morningstar Large Growth ^{1, 6}	11.54%	20.64%	32.13%	18.22%	16.99%	15.01%	-			
VT T Rowe Price® Growth Stock ^{B, D, E, M, Q}	12.07%	22.01%	34.15%	18.53%	18.12%	16.51%	-	Dec 2004	0.92%	0.92%
S&P 500 Index ^{1, 13}	8.93%	5.57%	15.15%	12.28%	14.15%	13.74%	-			
Morningstar Large Growth ^{1, 6}	11.54%	20.64%	32.13%	18.22%	16.99%	15.01%	-			
Vantagepoint Select Value R7 ^{B, C, D, E, M, R}	5.19%	(12.44%)	(6.79%)	(0.65%)	5.13%	8.32%	-	Oct 2013	0.71%	0.71%
Russell Midcap Value Index ^{1, 17}	6.40%	(12.84%)	(7.30%)	0.82%	6.38%	9.71%	-			
Morningstar Mid-Cap Value ^{1, 6}	4.39%	(16.25%)	(10.25%)	(1.16%)	4.93%	8.16%	-			
VT Victory Sycamore Est Value ^{B, D, E, M, R}	5.32%	(10.33%)	(5.09%)	3.21%	-	-	4.12%	Jun 2017	0.63%	0.63%
Russell Midcap Value Index ^{1, 17}	6.40%	(12.84%)	(7.30%)	0.82%	6.38%	9.71%	-			
Morningstar Mid-Cap Value ^{1, 6}	4.39%	(16.25%)	(10.25%)	(1.16%)	4.93%	8.16%	-			
T Rowe Price® Mid-Cap Value ^{III, M, N, O, Q, R}	4.49%	(8.97%)	(1.89%)	0.58%	6.64%	8.82%	9.94%	Sep 2002	1.05%	1.05%
Russell Midcap Value Index ^{1, 17}	6.40%	(12.84%)	(7.30%)	0.82%	6.38%	9.71%	-			
Morningstar Mid-Cap Value ^{1, 6}	4.39%	(16.25%)	(10.25%)	(1.16%)	4.93%	8.16%	-			
Vantagepoint Md/Sm Co Idx R5 ^{B, D, E, II, S}	5.80%	(5.97%)	1.99%	4.32%	8.87%	10.72%	-	Apr 1999	0.25%	0.20%
Russell 2500 Index ^{1, 18}	5.88%	(5.82%)	2.22%	4.45%	8.97%	10.81%	-			
Vantagepoint Agg Opps R7 ^{B, C, D, E, M, R}	9.22%	12.11%	19.74%	13.78%	14.14%	11.75%	-	Oct 2013	0.73%	0.73%
Russell Midcap Growth Index ^{1, 19}	9.37%	13.92%	23.23%	16.23%	15.53%	14.55%	-			
Morningstar Mid-Cap Growth ^{1, 6}	10.20%	15.01%	24.49%	14.68%	14.28%	13.22%	-			
VT AMG TimesSquare Mid Cap Gr ^{B, D, E, M, R}	9.24%	12.87%	22.04%	16.12%	14.78%	-	11.70%	Dec 2013	1.18%	1.18%
Russell Midcap Growth Index ^{1, 19}	9.37%	13.92%	23.23%	16.23%	15.53%	14.55%	-			
Morningstar Mid-Cap Growth ^{1, 6}	10.20%	15.01%	24.49%	14.68%	14.28%	13.22%	-			
VT Carillon Eagle Mid Cap Gr ^{B, D, E, M, R}	12.14%	18.58%	26.90%	-	-	-	15.64%	Dec 2017	0.75%	0.75%
Russell Midcap Growth Index ^{1, 19}	9.37%	13.92%	23.23%	16.23%	15.53%	14.55%	-			
Morningstar Mid-Cap Growth ^{1, 6}	10.20%	15.01%	24.49%	14.68%	14.28%	13.22%	-			
VT LSV Small Cap Value ^{B, D, E, M, S}	2.98%	(27.99%)	(21.56%)	-	-	-	(11.23%)	Dec 2017	1.06%	1.06%
U.S. Stock	Prior QTR		_	_	_				Gross	Net
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	Ended		1	3	5	10	Since		Expense	Expense
Fund Name / Benchmark	09/30/2020	YTD	Year	Year	Year	Year	Inception	Inception Date	Ratio	Ratio
Russell 2000 Value Index ^{1, 20}	2.56%	(21.54%)	(14.88%)	(5.13%)	4.11%	7.09%	-			
Morningstar Small Value ^{1, 6}	2.98%	(20.54%)	(14.26%)	(5.51%)	2.67%	6.44%	-			
Vantagepoint Discovery R7 ^{B, C, D, E, S}	4.94%	(9.90%)	(2.02%)	3.03%	8.47%	9.84%	-	Oct 2013	0.69%	0.69%
Russell 2000 Index ^{1, 21}	4.93%	(8.69%)	0.39%	1.77%	8.00%	9.85%	-			
Morningstar Small Blend ^{1, 6}	4.17%	(13.32%)	(6.56%)	(0.86%)	5.68%	8.66%	-			
Fidelity Advisor Small Cap M ^{III, N, O, S}	5.36%	(5.02%)	3.02%	2.41%	5.28%	7.63%	9.19%	Sep 1998	1.22%	1.22%
Russell 2000 Index ^{1, 21}	4.93%	(8.69%)	0.39%	1.77%	8.00%	9.85%	-			
Morningstar Small Blend ^{1, 6}	4.17%	(13.32%)	(6.56%)	(0.86%)	5.68%	8.66%	-			
VT Invesco Discovery ^{B, D, E, II, M, P, S}	8.73%	22.43%	33.66%	20.18%	17.35%	-	13.30%	Sep 2013	0.85%	0.84%
Russell 2000 Growth Index ^{1, 22}	7.16%	3.88%	15.71%	8.18%	11.42%	12.34%	-			
Morningstar Small Growth ^{1, 6}	8.17%	8.41%	18.73%	11.08%	12.88%	12.63%	-			

International/Global Stock	Prior QTR Ended		4	3	5	10	Since		Gross	Net
Fund Name / Benchmark	09/30/2020	YTD	Year	Year	Year	Year	Inception	Inception Date	Expense Ratio	Expense Ratio
American Funds Cap World G&I ^{III, K, N, O}	7.03%	0.74%	10.09%	5.96%	9.34%	8.25%	8.92%	Jun 2002	0.77%	0.77%
MSCI ACWI Index (Net) ^{1, 12}	8.13%	1.37%	10.44%	7.12%	10.30%	8.55%	-			
Morningstar World Large Stock ^{1, 6}	8.22%	2.57%	10.77%	6.59%	9.58%	8.28%	-			
VT ClearBridge Intl Value ^{B, D, E, II, K, M}	5.19%	(18.88%)	(9.92%)	-	-	-	(6.85%)	Oct 2018	1.00%	0.91%
MSCI ACWI ex USA Index (Net) ^{1, 23}	6.25%	(5.44%)	3.00%	1.16%	6.23%	4.00%	-			
Morningstar Foreign Large Value ^{1, 6}	3.01%	(14.10%)	(6.83%)	(3.83%)	2.44%	2.52%	-			
Vantagepoint International R7 ^{B, C, D, E, K}	6.26%	(4.35%)	4.30%	1.99%	6.47%	5.39%	-	Oct 2013	0.89%	0.89%
MSCI EAFE Index (Net) ^{1, 24}	4.80%	(7.09%)	0.49%	0.62%	5.26%	4.62%	-			
Morningstar Foreign Large Blend ^{1, 6}	5.80%	(5.73%)	2.19%	0.41%	5.19%	4.34%	-			
Vantagepoint Ovrseas Eq Idx R5 ^{B, D, E, II, K}	4.55%	(6.54%)	0.86%	0.77%	5.28%	4.60%	-	Apr 1999	0.30%	0.25%
MSCI EAFE Index (Net) ^{1, 24}	4.80%	(7.09%)	0.49%	0.62%	5.26%	4.62%	-			
VT Diversified International ^{B, D, E, K, M}	8.72%	6.52%	17.18%	6.68%	8.40%	7.12%	-	Dec 2004	0.75%	0.75%
MSCI EAFE Index (Net) ^{1, 24}	4.80%	(7.09%)	0.49%	0.62%	5.26%	4.62%	-			
Morningstar Foreign Large Growth ^{1, 6}	9.63%	8.10%	18.53%	7.17%	9.70%	7.12%	-			
Vantagepoint Emerging Mrkts R7 ^{B, C, D, E, K}	9.54%	(0.67%)	10.96%	2.27%	-	-	3.96%	Dec 2017	1.02%	1.02%

International/Global Stock	Prior QTR Ended		1	3	5	10	Since		Gross Expense	Net Expense
Fund Name / Benchmark	09/30/2020	YTD	Year	Year	Year	Year	Inception	Inception Date	Ratio	Ratio
MSCI Emerging Markets Index (Net) ^{1, 25}	9.56%	(1.16%)	10.54%	2.42%	8.97%	2.50%	-			
Morningstar Diversified Emerging Mkts ^{1, 6}	8.87%	(1.43%)	9.11%	1.73%	8.08%	2.46%	-			

Specialty	Prior QTR Ended		1	3	5	10	Since		Gross Expense	Net Expense
Fund Name / Benchmark	09/30/2020	YTD	Year	Year	Year	Year	Inception	Inception Date	Ratio	Ratio
VT Nuveen Real Estate Secs ^{B, D, E, T}	2.26%	(12.88%)	(13.73%)	1.91%	4.66%	8.26%	-	Jul 2009	1.06%	1.06%
MSCI US REIT Index (Gross) ^{1, 26}	1.63%	(17.12%)	(17.76%)	0.31%	3.99%	7.90%	-			
Morningstar Real Estate ^{1, 6}	2.35%	(14.01%)	(13.44%)	1.17%	4.28%	7.80%	-			

GENERAL Disclosures

Investment options listed were available at the time this information was generated and can change overtime. Investment option performance is available the 5th business day after month end and benchmark/peer group performance is available on the 10th business day after quarter end. Information prior to those time periods may be incomplete. Please refer to http://www.icmarc.org/for-individuals/plansmart/glossary.html for a glossary of investment and fee related terms.

INVESTMENT OPTION Disclosures

- A. ICMA-RC and your employer may negotiate a different fund management or service fee for your Plan that would lower the total expense ratio. The performance and total expense ratio shown do not reflect any such alternative fee arrangements.
- B. Before investing in the Fund you should carefully consider your investment goals, tolerance for risk, investment time horizon, and personal circumstances. There is no guarantee that the Fund will meet its investment objective and you can lose money.
- C. Performance information for this class prior to its inception date is the performance of the Fund adjusted to reflect the estimated fees and expenses of this class.
- D. The Fund is an investment option of VantageTrust, a group trust established and maintained by VantageTrust Company, LLC, a wholly owned subsidiary of ICMA-RC. VantageTrust provides for the commingling of assets of certain trusts and plans as described in its Declaration of Trust, and is only available for investment by such eligible trusts and plans. The Fund is not a mutual fund. Its units are not deposits of VantageTrust Company and are not insured by the Federal Deposit Insurance Corporation or any other agency. The Fund is a security that has not been registered under the Securities Act of 1933 and is exempt from investment company registration under the Investment Company Act of 1940. For additional information regarding the Fund, including a description of the principal risks, please consult the VantageTrust Funds Disclosure Memorandum, which is available when plan administration clients log in at www.icmarc.org, at www.vantagepointfunds.org for institutions, or upon request by calling 800-669-7400.

- E. When Funds are marketed to institutional clients by our Defined Contribution Investment Only (DCIO) team, the Funds are offered by ICMA-RC Services, LLC (RC Services), an SEC registered broker-dealer and FINRA member firm. RC Services is a wholly-owned subsidiary of ICMA-RC and is an affiliate of VantageTrust Company, LLC and Vantagepoint Investment Advisers, LLC.
- F. The Fund is invested in a single registered mutual fund, the Fidelity Money Market Government Portfolio. Investments in the fund are not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. It is possible to lose money by investing in the fund.
- G. A fixed income fund is subject to credit risk and interest rate risk. Credit risk is when an issuer of a fixed income security may be unable or unwilling to make payments of principal or interest to the holders of these securities or may declare bankruptcy. Fixed income securities fluctuate in value as interest rates change. When interest rates rise, the market prices of fixed income securities will usually decrease; when interest rates fall, the market prices of fixed income securities usually will increase.
- H. Funds that invest primarily in high yield bonds (bonds that are rated below investment grade and also known as "junk bonds") are subject to additional risk as these high yield bonds are considered speculative and involve a greater risk of default than "investment grade" securities. The values of these securities are particularly sensitive to changes in interest rates, issuer creditworthiness, and economic and political conditions. The market prices of these securities may decline significantly in periods of general economic difficulty, may be harder to value, and may be less liquid than higher rated securities.
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- J. The Fund is not a complete solution for all of your retirement savings needs. An investment in the Fund includes the risk of loss, including near, at or after the target date of the Fund. There is no guarantee that the Fund will provide adequate income at and through an investor's retirement.
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- P. Effective September 30, 2020, "Oppenheimer" was removed from the fund name.
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- R. Funds that invest primarily in mid-capitalization companies involve greater risk than is customarily associated with investments in larger, more established companies. Equity securities of mid-capitalization companies generally trade in lower volume and are generally subject to greater and less predictable price changes than the securities of larger companies.
- S. Funds that invest primarily in small-capitalization companies involve greater risk than is customarily associated with investments in larger, more established companies. Equity securities of small-capitalization companies are generally subject to greater price volatility than those of larger companies due to less certain growth prospects, the lower degree of liquidity in the markets for their securities, and the greater sensitivity of smaller companies to changing economic conditions. Also, small-capitalization companies may have more limited product lines, fewer capital resources and less experienced management than larger companies.
- T. Sector funds tend to be riskier and more volatile than the broad market because they are generally less diversified and more volatile than other mutual funds.

EXPENSE Disclosures

- II. Differences between the net and gross expense ratios of a fund are typically due to fee waivers, expense reimbursements, and/or expense limits.
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- 2. The Intercontinental Exchange Bank of America ("ICE BofA") US Treasury Bill 3 Month Index is comprised of a single U.S. Treasury Bill issue purchased at the beginning of each month and held for a full month, at which time that issue is sold and rolled into a newly selected issue. The issue selected each month is that having a maturity date closest to, but not beyond 90 days from the rebalance date.
- 3. The Ibbotson Associates US 30-Day T-Bill Index measures the performance of a single issue of outstanding Treasury bill which matures closest to, but not beyond, one month from the rebalancing date. The issue is purchased at the beginning of the month and held for a full month; at the end of the month that issue is sold and rolled into a newly selected issue.
- 4. The Crane Government Retail Money Market Fund Index is a simple average of government retail money market mutual funds tracked by Crane Data.
- 5. The Bloomberg Barclays U.S. Aggregate Bond Index consists of investment-grade U.S. fixed income securities.
- 6. The Morningstar category represents the average return for a category of funds with similar investment objectives and strategies. The average is calculated and funds are assigned to a category by Morningstar.
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- 8. The Intercontinental Exchange Bank of America ("ICE BofA") US High Yield BB-B Constrained Index tracks the performance of BB- and B-rated fixed income securities, with total index allocation to an individual issuer limited to 2%.
- 9. The VT Retirement IncomeAdvantage custom benchmark is comprised of the market indexes of the funds in which the VT Retirement IncomeAdvantage Fund invests, in weighted percentages that correspond to the historical target allocation to those funds and the historical market indexes. Should the target allocations for the VT Retirement IncomeAdvantage Fund or the market indexes of the funds change, the percentage allocations to the corresponding indexes or the market indexes will also change.
- 10. The S&P Target Date Indexes reflect exposure to various asset classes included in target date funds driven by a survey of such funds for each particular target date.
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- 12. The MSCI All Country World Index (Net) is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of large and mid cap segments of developed and emerging markets. The net version of this index reinvests dividends after the deduction of withholding taxes, using a tax rate applicable to non-resident institutional investors who do not benefit from double taxation treaties.
- 13. The S&P 500 Index consists of 500 companies representing larger capitalization stocks traded in the U.S.
- 14. The Russell 1000[®] Value Index measures the performance of the large-cap value segment of the U.S. equity universe. It includes those Russell 1000[®] Index companies with lower price-to-book ratios and lower expected growth values.
- 15. The Russell 3000[®] Index includes, and measures the performance of, the largest 3,000 U.S. publicly traded companies based on market capitalization, representing a substantial portion of the investable U.S. equity market.

- 16. The Russell 1000[®] Growth Index measures the performance of the large-cap growth segment of the U.S. equity universe. It includes those Russell 1000[®] Index companies with higher price-to-book ratios and higher forecasted growth values.
- 17. The Russell Midcap® Value Index measures the performance of the mid-cap value segment of the U.S. equity universe. It includes those Russell Midcap® Index companies with lower price-to-book ratios and lower forecasted growth values.
- 18. The Russell 2500[™] measures the performance of the small to mid-cap segment of the U.S. equity universe, commonly referred to as "smid" cap. The Russell 2500[™] Index is a subset of the Russell 3000[®] Index, and includes approximately 2,500 of the smallest securities in the Russell 3000[®] Index, based on a combination of their market capitalization and current index membership.
- 19. The Russell Midcap® Growth Index measures the performance of the mid-cap growth segment of the U.S. equity universe. It includes those Russell Midcap® Index companies with higher price-to-book ratios and higher forecasted growth values.
- 20. The Russell 2000® Value Index measures the performance of those Russell 2000 companies with lower price-to-book ratios and lower forecasted growth values.
- 21. The Russell 2000[®] Index measures the performance of the small-cap segment of the U.S. equity universe. The Russell 2000[®] Index is a subset of the Russell 3000[®] Index, and includes approximately 2,000 of the smallest securities based on a combination of their market cap and current index membership.
- 22. The Russell 2000® Growth Index measures the performance of those Russell 2000® companies with higher price-to-book ratios and higher forecasted growth values.
- 23. The MSCI All Country World ex USA Index (Net) is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of large and mid cap segments of developed and emerging markets, excluding the U.S. The net version of this index reinvests dividends after the deduction of withholding taxes, using a tax rate applicable to non-resident institutional investors who do not benefit from double taxation treaties.
- 24. The MSCI Europe Australasia Far East (EAFE) Index (Net) is a free float-adjusted market capitalization index of equity securities that is designed to measure the equity market performance of developed markets, excluding the U.S. and Canada. The net version of this index reinvests dividends after the deduction of withholding taxes, using a tax rate applicable to non-resident institutional investors who do not benefit from double taxation treaties.
- 25. The MSCI Emerging Markets Index (Net) is a free float-adjusted market capitalization index of equity securities that is designed to measure the equity market performance of emerging markets. The net version of this index reinvests dividends after the deduction of withholding taxes, using a tax rate applicable to non-resident institutional investors who do not benefit from double taxation treaties.
- 26. The MSCI US REIT Index reflects the aggregate common stock performance of REIT's (Real Estate Investment Trusts) that own, develop, and manage properties.

ICMA-RC Visual Analytics - Client View

Creation Date: Monday, October 12, 2020 10:12:52 AM

Author: Fortin, Raymond

City of Troy DC Retirement Review October 14, 2020





CITY OF TROY

DEFINED CONTRIBUTION INVESTMENT COMMITTEE MEETING

October 14, 2020



AGENDA



ICMA-RC City of Troy Field Service Team

- Raymond Fortin, Vice President, Relationship Management
- Rola Ismail, Retirement Plans Specialist
- 1. Education Activity Update
- 2. Expanded CFP Services
- 3. Investment Review
- 4. Plan Analytics/Trends



ICMA-RC EMPLOYEE EDUCATION ACTIVITY

RPS	January - August 2020
One-on-one Cor	nsultations 294 Total 161 on-site/in person 133 phone/virtual
Group Presenta	tions 11 (2 in person/9 WebEx) with 84 attendees

CFP	January - August 2020
One-on-one	22 Participant Meetings/
Consultations	Financial Reviews

OVERVIEW OF RECENT EDUCATIONAL ACTIVITY



- Introduction of ICMA-RC's Realize Retirement
- COVID 19: Online Resource Reminder
- Guided Pathways Advisory Services
- We're here to help Financial Assistance Information
- October National Retirement Security Month

COMING SOON

Target Marketing Campaign – Guided Pathways Webinar tailored to the City of Troy

Additional scheduled CFP webinars for the month of October:

- Do You Have a Tailored Financial Plan in Place?
- Are You Thinking About Investing in a Roth IRA?
- Your 457 Deferred Compensation Plan
- Spend Like There IS a Tomorrow

10/15/2020 10/20/2020 10/22/2020 10/28/2020



ICMA-RC IS EXPANDING GUIDED PATHWAYS SERVICES

- Building on lessons learned from enhanced remote capabilities
- Expanding delivery of our CFP[®] services to increase participants' access to our CFP[®] professionals
- Enhances and Expands Financial Planning Services to Reach More Working and Retired Participants
- Better meet participants' needs and market demand
- Meet participants where they live, virtually, and at the times that are most convenient for them



ICMA-RC Visual Analytics







Asset Allocation Trends Asset Allocation Trend Start Date 12/31/2018 \checkmark 100% 80% **End Date** 60% 09/30/2020 \checkmark 40% 20% Plan 0% 401 (109851) CITY OF T \checkmark 02/2019 07/2019 03/2019 04/2019 05/2019 08/2019 01/2019 08/2019 09/2019 10/2010 07/2020 01/1010 03/2020 04/1010 05/2020 00/2020 01/2020 08/2020 12/2018 77/2019 12/2019 09/2020 401 (299851) CITY OF T [\checkmark 457 (300995) CITY OF T IRA (705915) CITY OF T Asset Class RHS (801317) CITY OF 1 Balanced/Asset Allocation Guaranteed Lifetime Income International/Global Stock Bond Stable Value/Cash Management U.S. Stock RHS (881317) CITY OF 1 Specialty $\left[\right]$ **Contribution Allocation Trend** 100% 80% 60% Asset Class 40% Balanced/Asset Allocatic 20% Bond **Guaranteed Lifetime Inc** \square 0% International/Global Sto \bigcap 01/12/1010 06/30/2019 01/31/2019 08/37/2019 09/30/2019 06/30/1010 01/31/2020 03/37/2020 04/30/2020 01/3/12020 07/37/2019 03/37/2019 04/30/2019 05/37/2019 01/19/1010 05/31/2020 09/30/2020 1213112018 10/31/2019 11/30/2019 12/31/2019 08/31/2020 Specialty Stable Value/Cash Mana (U.S. Stock Asset Class Balanced/Asset Allocation Guaranteed Lifetime Income International/Global Stock Bond Stable Value/Cash Management U.S. Stock Specialty

Fund Allocation

Click Here for Detailed Fund Listing

As of Date

09/30/2020

 \checkmark

Fund Assets vs. Participant Count



Asset Class

YTD Contributions vs. Participant Count

Asse	t Class								VT AMG				Amount
	Balanced/Asset Allocatic Bond Guaranteed Lifetime Inc International/Global Sto Specialty Stable Value/Cash Mana U.S. Stock		Vantagepoint 500 Stock Index Fund	American Funds Capital World Growth &	VT Diversifie Internationa	d Milestone	Vantagepoint Milestone 2055 Fund		sSquare Mid Growth Fund			ΤË	\$309,236
		Vantagepoint Milestone 2050 Fund		Income Fund	Eund		Vantagepoint		/T Victory Sycamore blished Value	VT Cash			\$160
						Growth Fund			Fund	Management Fund	pun.		Participants
				VT Contrafund®	VT T Rowe Price [®] Grow Stock Func	Vantagepoint Over Equity Index Fur		eas Mi	tagepoint ilestone 25 Fund	VT Invesc	Street F		- 150
		Vantagepoint PLUS Fund					g i	-	epoint stone Fund	Vantagepoint Milestone 2030		Vantagepoint Equity Income	
				Vantagepoint Mo	antagepoint Model			Discovery Fund	D % D	Fund		Fund	- 100
				Portfolio Traditio Growth Fund		Vantagepoint Milestone		Dis	Vanta Milo 203	VT Nuveen Real Estate Securities Fund			
Gen	der				Asse Core	ex t		т г	ity el	Vantagepoint		Vantagepoint	
			/antagepoint Model Portfolio		Plus	epoin Ind	agepoint Bond Index Fund		epoint Model Global Equity wth Fund	Broad Market Index Fund	® Fund	Growth & Income Fund	-50
		Long-Term Growth Fund		Vantagepoin Milestone 2040 F		Vantagepo Core Bond I	2	Vantagepoint Milestone 2045 Fund	Vantagepo Portfolio Glc Growth	VT MFS® Value Fund	VT Puritar	American Funds The Growth Fund of America	





Contributions and Disbursements





Important Note - Cash Flow is shown here in two different ways:

1. Cash Flow (Normal) : Excluding Conversion In/Out

2. Cash Flow (All): Including Conversion In/Out



Plan Rate of Return **Plan Annualized Return** 7.1% **End Date** 6.7% 09/30/2020 \checkmark 6% Plan 4% 401 (109851) CITY OF T \checkmark 401 (299851) CITY OF T \Box \checkmark 457 (300995) CITY OF T IRA (705915) CITY OF T \Box 2% RHS (801317) CITY OF 1 \bigcap 0% 109851 300995 **Plan Cumulative Return** 20.9% 20% 19.5% 15% 10% 5% 0% 109851 300995