

# COMMISSION FINANCE COMMITTEE MEETING MINUTES October 15, 2019

PRESENT: Commissioners Elofson, Lakdawala, Levenston, Lynch, and Rodriguez.

#### 1. SC&H Internal Audit Update

Mr. Matthew Simmons and Mr. Ryan Kohan, of SC&H Group, presented the <u>internal audit</u> update including audit impact, audits in progress, completed audit summaries, management action plan progress, and upcoming audits as listed below.

#### **Completed Audits:**

- Customer Care
- Safety
- Permitting Function (audit and report complete, management action plan development in progress)

#### Audit in progress

Payroll and Timekeeping in the fieldwork phase

#### **Upcoming Audits:**

- · Payroll and Timekeeping
- Pollution Source Control
- SWIFT
- Fleet Management
- Risk Assessment Refresh
- Management Action Plan Evaluation
- Follow-up audits to review implementation of recommendations for previously completed audits

The Commissioners had several questions about whether HRSD staff were cooperating with SC&H and responding well to the audit findings and recommendations. SC&H indicated the work was going well and of the 81 recommendations made to date, 46 have been closed. The Commission recommended SC&H focus on determining which of the remaining 35 are most significant.



# COMMISSION FINANCE COMMITTEE MEETING MINUTES October 15, 2019

#### 2. Introduction of Cherry Bekaert LLC External Audit Team

The Director of Finance introduced representatives from Cherry Bekaert: Krista N. Edoff, CPA, Partner, Government Services Group; Tracy Bedgood, CPA, Senior Manager; and Katelyn Lydens, CPA, Senior Accountant. Cherry Bekaert is a regional firm with offices as far west as Texas. They have a strong commitment to the Virginia public sector. Local clients include several of the same cities and localities served by HRSD

Cherry Bekaert's Partner reviewed the timing of the field work currently ongoing and the deadline for completing the Comprehensive Annual Financial Report (CAFR). The CAFR will be provided to the Commission at the November meeting.

#### 3. CAFR 2019 REVIEW

The Director of Finance provided a <u>comprehensive update</u> of the regional economy and the impact on HRSD's operations. In addition, he provided insight on the draft financial statements and key financial policy indications. Overall, HRSD's financial health is strong. The Commission asked about the amount of time required to implement new reporting requirements and staff told them for the next major implementation hours will be tracked as part of a national study. The following items were also reviewed:

- BLUF (Bottom-Line Up Front)
- Revenues & Water Consumption
- Virginia Retirement System Pension
- Retiree Health Trust [Other Post-Employment Benefits (OPEB)]



#### COMMISSION FINANCE COMMITTEE MEETING MINUTES October 15, 2019

#### 4. PFM Investment Update

Biagio Manieri, PhD., CFA, Managing Director, and Khalid Yasim, Director of PFM Asset Management presented the <u>economic and market update</u> for the third quarter of 2019. Topics included:

- Executive Summary
- Economic Data on Manufacturing
- Labor market and retail sales do not show signs of an impending recession
- Housing market is expected to continue to recover
- Household financial conditions are relatively healthy
- Banks are not tightening lending standards
- Corporate profits may have bottomed and are showing signs of recovery
- Presidential election next year is a possible risk

PFM's general assessment indicated that the majority of economic factors do not indicate a recession in the near term, with some factors stabilizing both in the US and globally, but the 2020 election results will be a factor in the future. PFM also presented the <a href="OPEB">OPEB</a> Fund investment performance for the quarter ending June 30, 2019.

<u>Attachments</u>: <u>Internal Audit Report</u>, <u>FY2019 CAFR overview</u>, <u>OPEB Fund Performance Review</u> and <u>PFM Economic Update</u>

Public Comment: None

Next Committee Meeting Date: Tuesday, November 26, 2019 at 8:30 am

Meeting Adjourned: 11:45 am

SUBMITTED:

Jennifer L. Cascio

\$ecretary

APPROVED:

Stephen Rodriguez

Committee Chair



# **Hampton Roads Sanitation District**

Internal Audit Update

### **Internal Audit Team Present**

- Matthew Simons: CPA, CIA, CGAP Engagement Principal
- Ryan Kohan: CPAManager, Team Lead



01 Internal Audit Impact 05 Internal Audit Plan: Upcoming Audits

02 Internal Audit Progress Update 06 Discussion and Questions

**03** Internal Audit Summaries

**04** Management Action Plan Progress



# **Internal Audit Impact**

#### **Statistics**

- 5 risk assessment exercises through FY2020
- 14 of 17 audits through FY2020 completed or in-process
- 16 of 29 high risk functions to be assessed (55%)
- 24 of 58 total functions to be assessed (41%)
- 46 closed management action items (57%)

# **Internal Audit Progress Update**

Audit/Task	Department	Status
Customer Care	Finance	Completed
Safety	Talent Management	Completed
Permitting Function	Water Quality/Operations	Completed*
Payroll and Timekeeping	Finance/Accounts Payable	Fieldwork Phase
Risk Assessment Refresh	Organization-Wide	Planned: Q4 CY19 (Q2 FY20)
Management Action Plan Evaluation	Organization-Wide	Ongoing

### **Customer Care: Objectives**

- Assess the bill creation and distribution components of the standard billing process to ensure customers are appropriately charged for services rendered.
- Assess the billing adjustment process to ensure billing adjustments are appropriately identified, calculated, and applied to a customer account.
- Evaluate the payments work center's cashiering and electronic payment components to ensure payments are appropriately handled and applied to respective customer accounts in a timely manner.
- Ensure customer payment plans and payment arrangements are appropriately created, reviewed, and monitored.
- Ensure delinquent accounts are appropriately identified and placed into severance until payment is received and service is restored.

#### **Customer Care: Results**

- Observation 1: Performance of billing reconciliations between system data
- Observation 2: Formalization of payment plan procedures

### Safety: Objectives

- Evaluate inspections documentation to ensure complete and timely performance and that appropriate resolution/ follow-up occurs.
- Assess the training process to ensure that employees receive the required training in the expected intervals, monitoring is appropriately performed, and documentation of attendance is maintained.
- Evaluate the regulatory reporting process for SARA Title III, OSHA 300, and MOM and ensure a process is in place to provide complete and accurate figures.
- Assess the accident investigations process and ensure appropriate documentation is prepared and resolution/ follow-up occurs.

### Safety: Results

- Observation 1: Formal communication of discrepancy and corrective action resolution following inspections and investigations
- Observation 2: Monitoring and administering employee safety training and medical monitoring

### Permitting Function\*: Objectives

- Confirm that operators performing VPDES sampling are receiving and passing the appropriate testing requirements, and documentation is maintained, in accordance with the Sample Analysis Proficiency (SAP) Program.
- Identify opportunities for efficiency and risk coverage, including the DMR/ Regulatory reporting process, to ensure the accuracy of the data reported to DEQ.
- Ensure data integrity within DCS, EDS, LIMS, and critical spreadsheets.
- \* Audit in process of finalization; results to be communicated with final report



### Permitting Function: Methodology

- Examined operator proficiency testing for existence and completeness
- Traced final DMR data to supporting documentation
- Assessed review and approval procedures, documentation, and reporting control points
- Observed and tested the data entry controls in place for EDS users
- Analyzed data flow and controls over critical reporting

# Management Action Plan Progress

			Recommendations		
Audit (Non-confidential)	Report Date	Next Follow-up	Closed	Open	Total
D&C: CIP Project Management	5/11/2016	February 2020	11	2	13
Biosolids Recycling	10/8/2016	Pending Permit	7	1	8
HR Benefits	11/22/2016	Closed	15	0	15
Inventory	4/20/2017	February 2020	1	4	5
Procurement/ ProCard	8/23/2017	October 2019	8	3	11
Engineering Procurement	4/20/2018	February 2020	4	4	8
Corporate Governance: Ethics Function*	3/21/18	October 2019	0	5	5
Treatment Plant Operations*	10/15/18	November 2019	0	9	9
Customer Care Division*	7/26/19	August 2020	0	4	4
Safety Division*	9/12/19	September 2020	0	3	3
		Totals	46	35	81

<sup>\*</sup>SC&H has not yet performed formal follow-up procedures for the implementation status of these MAPs. Actual status may vary within the associated process areas and will be updated upon follow-up.

# **Internal Audit Plan: Upcoming Audits**

Audit/Task	Department	Status
Pollution Source Control	Water Quality	Q4 CY19 (Q2 FY20)
SWIFT	Engineering	Q1 CY20 (Q3 FY20)
Fleet Management	Operations	Q2 CY20 (Q4 FY20)
Risk Assessment Refresh	Organization-Wide	Q4 CY19 (Q2 FY20)
Management Action Plan Evaluation	Organization-Wide	Ongoing

# **Discussion and Questions**

# **Contact Information**

Matthew Simons

Principal 410-403-1561 msimons@schgroup.com

Ryan Kohan

Manager 703-287-5971 rkohan@schgroup.com



# Fiscal Year - 2019 Comprehensive Annual Financial Report (CAFR) Unaudited

Finance Committee October 15, 2019

### Acknowledgements

- Lee Acors Chief of Accounting
- Kathy Stephanitsis Accounting Manager
- Ramona Bradshaw Accounting Manger
- Kassandra Pagan Accounting Manager
- Helen Mayhue Financial Analyst
- Andrew Drumheller Financial Analyst
- Donna Stinson Business Analyst
- Anisea Burl Accounts Payable Supervisor
- Toni Archer Accounts Receivable Specialist
- Charmaine Simmons Accounts Payable Associate
- Ingrid Conde Accounts Payable Associate
- Theresa Black Accounts Payable Associate
- Danielle Raleigh Accounting Coordinator
- Cay Warren Accounts Receivable Technician
- Cherry Bekaert



36 Consecutive Years



### Agenda

- SC&H Audit Update
- Cherry Bekaert Introduction
- Fiscal Year 2019 CAFR
  - BLUF (Bottom-Line Up Front)
  - Regional Economy
  - Revenues & Water Consumption
  - Pension
  - Retiree Health Trust (OPEB)
  - Financial Statement Overview
  - Key Financial Policy Indicators
  - Conclusion
- PFM Investment Update



#### FY2019 CAFR Highlights - Bottom Line Up Front (BLUF)

- WIFIA/Clean Water Loans
- Water consumption almost flat YOY (Year over Year)
- Revenues exceeded Expenses
- Total Debt Service Coverage = 2.62x
- Days Cash on Hand = 655 days
- Investment Income (Yield Optimization Strategy) = up 3.8x
   YOY
- VRS Pension Funded Ratio = 91%
- OPEB Funded Ratio = 79%-94%

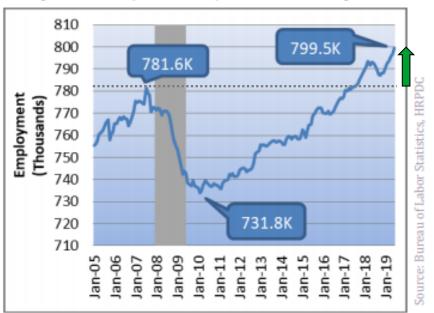


# Regional Economy

### Employment is strong – Unemployment remains low

#### Civilian Employment, Seasonally Adjusted

Hampton Roads, Jan 2005 - Jun 2019, Monthly

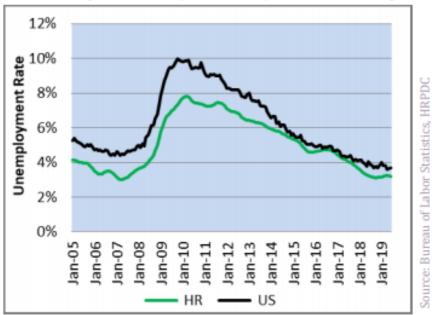


HR employment has surpassed its prerecession

high by 17,900 jobs

#### Unemployment Rate, Seasonally Adjusted

U.S. & Hampton Roads, Jan 2005 - Jul 2019, Monthly



Fourth lowest monthly total in the past 35 years

#### Hampton Roads Retail Sales, Seasonally Adjusted



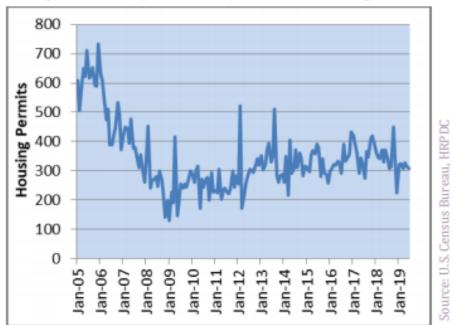
Consumer spending strong



### New accounts offset water consumption declines

#### Single Family Housing Permits, Seasonally Adjusted

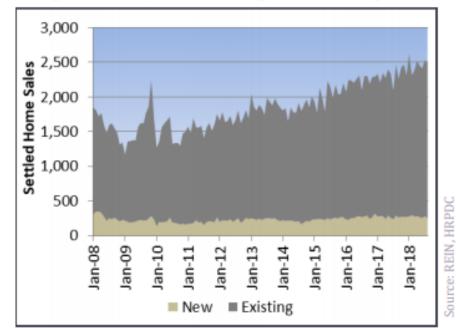
Hampton Roads, Jan 2005 - Jun 2019, Monthly



Surprising that single family permitting has failed to accelerate. New construction accounts for 10% of total sales vs 15% in 2005.

#### Number of Homes Sold, Seasonally Adjusted

Hampton Roads, Jan 2007 - Aug 2018, Monthly



Strong existing home sales, which are at the same level as 2005 during the housing boom.



# Virginia Retirement System (VRS) GASB 68 - Net Pension Liability

GASB - Government Accounting Standards Board

### GASB 68 – Pension Reporting Background

- Purpose
  - Assess pension promise made to employees
  - Ensure future financial viability
- Shows as long-term liability
- Virginia Retirement System (VRS) performs the calculations
- VRS Fast Facts Fiscal Year 2019
  - \$82.3 billion in assets serving 722,000 members
  - 19th largest public or private pension fund in the US
  - 43<sup>rd</sup> largest in the world



#### **HRSD VRS Fast Facts**

#### Membership as of June 30, 2017 (valuation date)



**780**(-1) Actively Employed

**369**<sub>(+14)</sub> Retired Members and Beneficiaries

**323**<sub>(-5)</sub> Inactive Members

**1,472** Total (+8)

### Assets (Fiduciary Net Position - FNP) as of June 30, 2018



**\$207.4 million** 

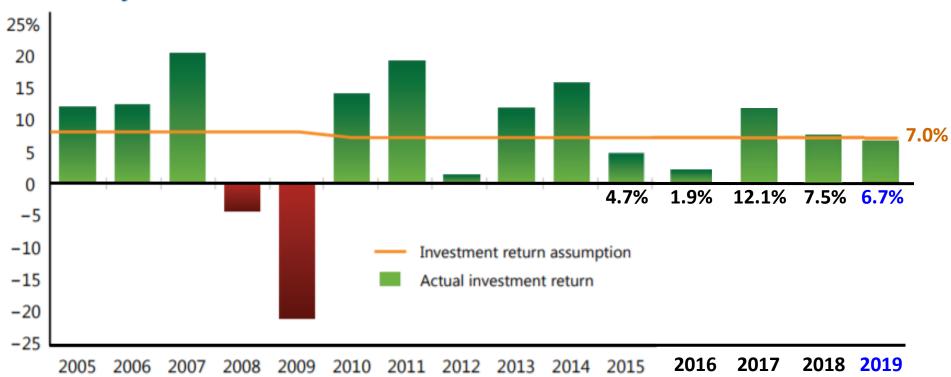
(up \$11.2 million from previous year)

Total HRSD VRS trust fund assets



### VRS Investment Returns (2005-2019)

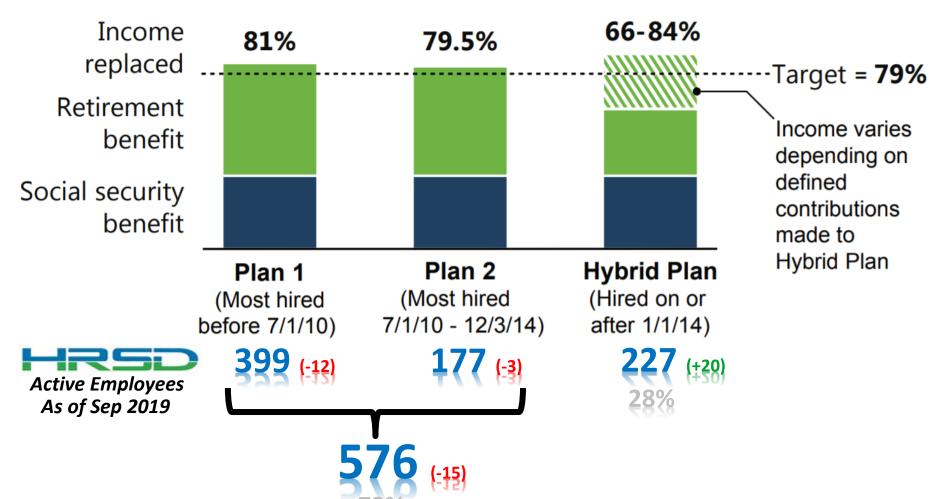
#### VRS fiscal year investment returns



SOURCE: VRS annual reports and investment department data. NOTE: Investment return assumption was reduced from 7.5 percent in FY 2009 to 7.0 percent in FY 2010.



### Retirement Income Replacement by Benefit Group



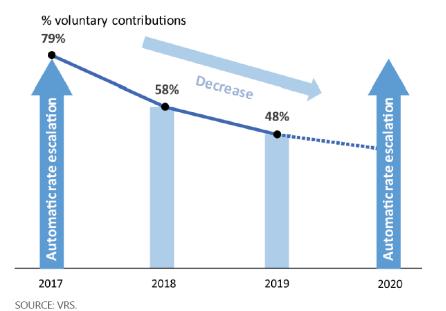


### July 2019 JLARC VRS Oversight Report

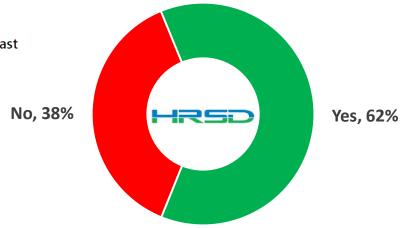
 Hybrid members voluntary contributions continue to decline – partly due to turnover

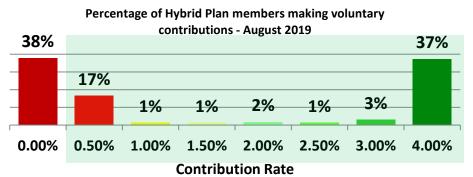
 Only 3% opted out of the 2017 auto escalation, next one is Jan 2020

Percentage of hybrid plan members making voluntary contributions since last automatic rate escalation in 2017



NOTE: Data as of March 31 in 2017, 2018, and 2019.





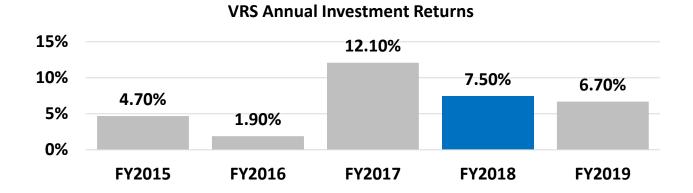
### Net Pension Liability and Funded Ratio

Total Pension Liability = \$227.7 million

Investment Value (Assets) = \$207.4 million

Net Pension Liability (NPL) = \$20.3 million (down \$2M) FY2018 Funded Ratio = 91.1% (up 1.2%)

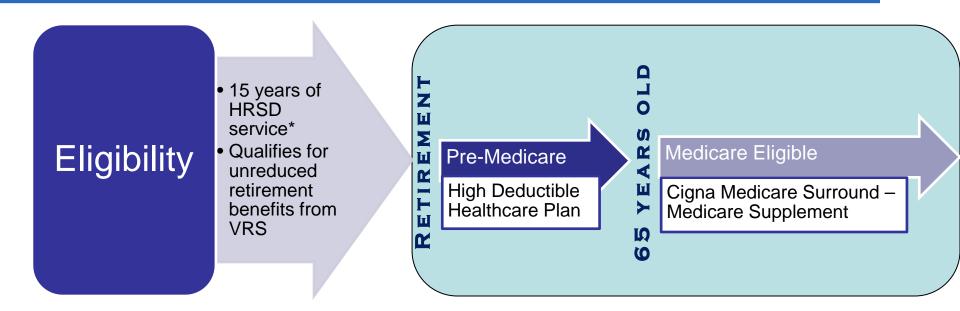
\* VRS assumed rate of return = 7.0%



\*VRS is considering reducing this rate to 6.5%, Funded Ratio would drop to 85% and this would increase HRSD's required contributions

# Retiree Health Plan Trust Other Post-Employment Benefits (OPEB)

#### Retiree Health Plan

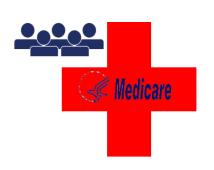


- Retiree responsible for:
  - Deductibles
  - Co-payments
  - Retiree Premiums (Spousal rate higher)
    - Less than 65 = \$120/month (High Deductible Plan)
    - Greater than 65 = \$45/month (Medicare Supplement)



# Retiree Health Plan (Other Post-Employment Benefits - OPEB)

#### Membership as of June 30, 2019 (valuation date)



719(+11) Actively Employed

**82** (+10) Retirees Less Than Age 65

**81** (+1) Retirees Age 65 or Greater

**882** (+22) Total

### Assets (Fiduciary Net Position - FNP) as of June 30, 2019



\$52.0 million

(up \$4.9 million from previous year)

Total OPEB Retiree Health Trust fund assets



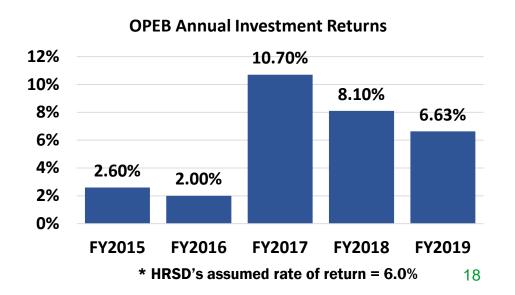
### Net OPEB Liability and Funded Ratio

Total OPEB Liability = \$65.7 million + \$5.4

Investment Value (Assets) = \$52.0 million +\$4.9)

Net OPEB Liability (NPL) = \$13.7 million

FY2019 Funded Ratio = 79.2% (+1.0%)



#### **ACTUARIAL LIABILITY METHODS**

Projected Unit Credit Funding Method

OLD = 94.0%

Entry Age Normal Funding Method **NEW = 79.2%** 





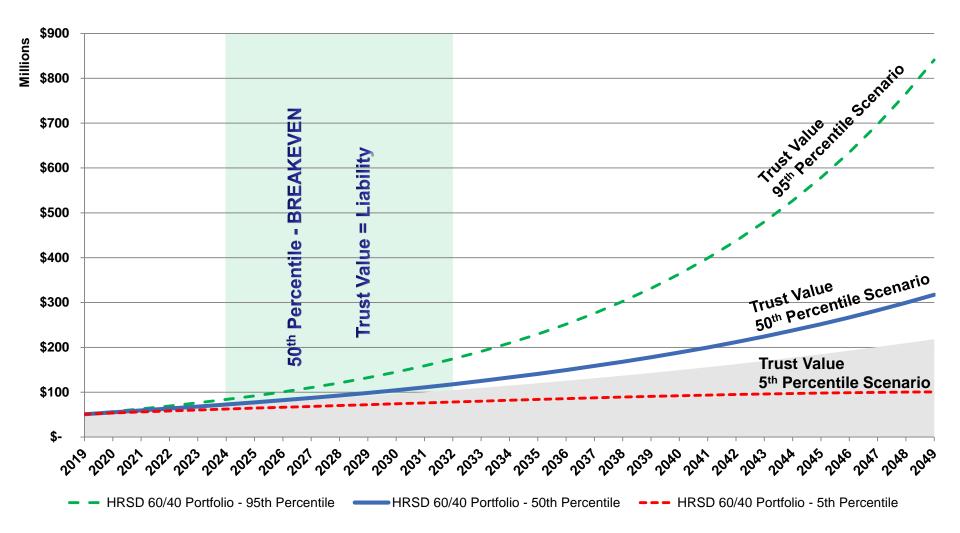
## EXAMPLE - Difference related to Discount Rate and Attrition

Projected Unit Credit (OLD)		Entry Age Normal (NEW)				
		PV of Benefit	\$90,000			
		<b>Discount Rate</b>	7.0%			
		<b>Probability of Attrition</b>	5.0%			
PV of Benefit	\$90,000	PV of Benefit	\$101,115			
Service at retirement	30 yrs	Service at retirement	30 yrs			
Normal Cost (Value of the benefit in the current year)	\$3,000	Normal Cost	\$3,371			
Liability @ Year 10	\$30,000	Liability @ Year 10	\$33,705			
Liability @ Year 11	\$33,000	Liability @ Year 11	\$37,076			

Year X = PV of Benefit (\$) divided by Service at Retirement (years) x Service at valuation date (years)



### Projection – Trust Value vs Liability (Risk Analysis)





### **Financial Statement Overview**

# GASB No. 89 -Accounting for Interest Cost Incurred before the End of a Construction Period

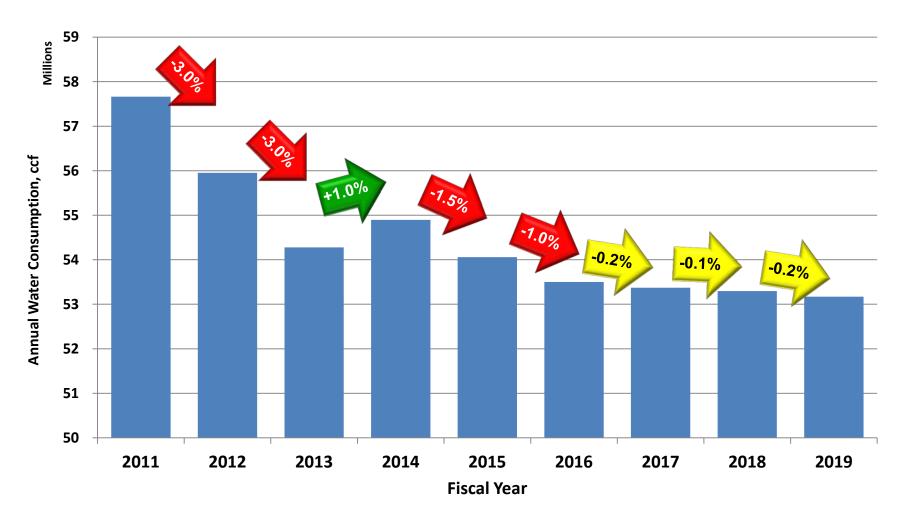
### GASB No. 89 – Capitalized Interest

- BEFORE Capitalize interest costs (record construction period interest as part of the historical cost of the asset)
- AFTER Expense the interest cost
- Impacts
  - Simplified reporting, saves staff time
  - Reduces net position (reduces net assets)
- HRSD is adopting this standard early



### Water Consumption (Revenues)

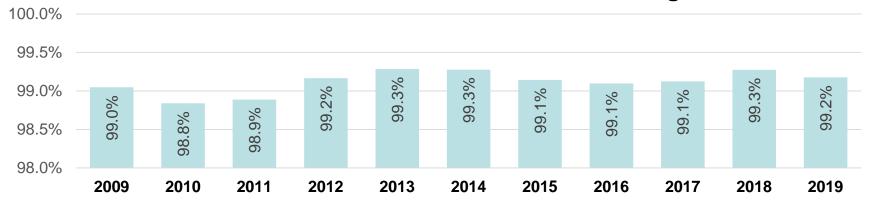
## Billed Water Consumption continues to decline...slower??





#### **Collection Ratio**

#### **Uncollectible Amount as % WW Treatment Charges**



#### Average Monthly Bill @ 5.6 CCF



### Summary Statements of Net Position, (,000s)

Net Property, Plant and Equipment				2019 vs	s. 2018
(in thousands)		2019	2018	Variance	Percent
Capital assets	<b>\</b> \$	1,358,327	\$ 1,321,644	\$ 36,683	2.8%
Current assets and noncurrent assets		399,840	357,699	42,141	11.8%
Total assets	\$	1,758,167	\$ 1,679,343	\$ 78,824	4.7%
Deferred Outflows (Refunding/Pension/OPEB)	\$	21,442	\$ 20,762	\$ 680	3.3%
Long-term liabilities Bonds, Pension and	<b>\</b> \$	847,930	\$ 850,928	\$ (2,998)	-0.4%
Current liabilities OPEB Liability	J	140,562	139,914	648	0.5%
Total liabilities	\$	988,492	\$ 990,842	\$ (2,350)	-0.2%
Deferred Inflows (Pension/OPEB)	\$	9,412	\$ 11,634	\$ (2,222)	-19.1%
Total net position +1	\$	781,705	\$ 697,629	\$ 84,076	12.1%



#### Summary Statements of Revenues (,000s)

				201	9 vs. 20	)18
(in thousands)	2019	2	 018	Varia		Percent
Operating revenues	\$ 303,121	\$	279,043	\$ 24	,078	8.6%
Facility charge revenues	6,662		6,673		(11)	-0.2%
Investment income, net	8,719		2,272	6	,447	283.8%
Bond interest subsidy	2,308		2,330		(22)	-0.9%
Total revenues	\$ 320,810	\$	290,318	\$ 30	,492	10.5%

Y19 Forecast

+\$10.5M (+3.4%)

Investment Income

+\$6.1M

Wastewater service charges

+\$2M

Non-Operating Revenue

+1M

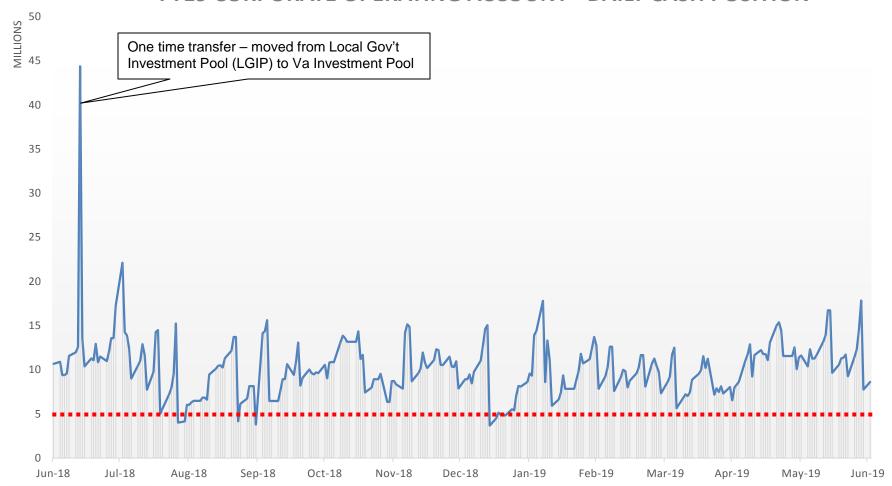
- Worker's Comp Reimbursement
- Pipeline Break Insurance Claim
- Facility Charges

+\$600K

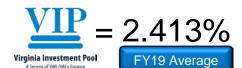


#### Yield Optimization Strategy – Transfer excess funds to higher yielding accts

#### **FY19 CORPORATE OPERATING ACCOUNT - DAILY CASH POSITION**









### Summary Statements of Expenses (,000s)

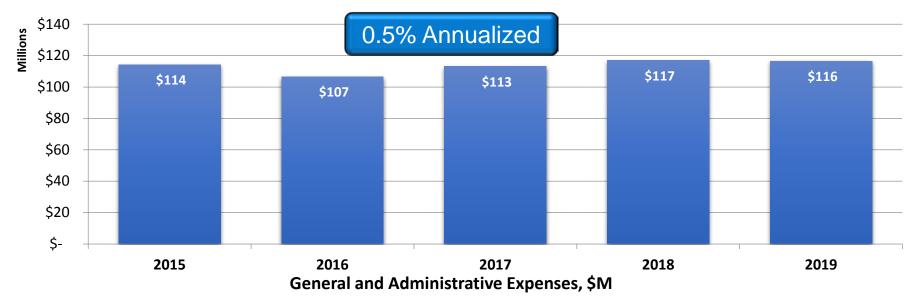
				_	2019 vs. 20	018
(in thousands)		2019	2	018	Variance	Percent
Operating expenses:						1
Wastewater treatment	\$	116,365	\$	116,982	\$ (617)	-0.5%
General and administrative		41,945		40,480	1,465	3.6%
Depreciation and amortization	on	53,225		52,349	876	1.7%
Total operating expenses	GASB 89	211,535		209,811	1,724	0.8%
Non-operating expenses:	FY18 \$7.6M Cap					
Bond issuance costs	Interest	53	\$	1,061	\$ (1,008)	-95.0%
Capital distributions to localit	iies 🔪	0		311	(311)	-100.0%
Interest expense		27,964		20,226	7,738	38.3%
Total non-operating expen	ses	28,017		21,598	6,419	29.7%
Total expenses	<u>\$</u>	239,552	\$	231,409	\$ 8,143	3.5%

Compared to FY19 Forecast (\	<b>NW+G&amp;A)</b> -\$7.8M (-4.7%)
<ul> <li>Retirement</li> </ul>	-\$4.2M
<ul> <li>Hospitalization</li> </ul>	-\$1.0M
<ul> <li>Post Retirement Health</li> </ul>	-\$700k
<ul> <li>Chemicals</li> </ul>	-\$1.5M



### Expenses – 5-Year Trend

#### Wastewater Treatment Expenses, \$M





### **Key Financial Policy Indicators**

### Debt Service Coverage Ratio (DSCR)

# Debt Service REVENUES - EXPENSES Coverage Ratio Principal + Interest

- How much income will you have to pay Debt Service (principal + interest)?
- Quantifies RISK Likelihood bond investors get paid back?
- Higher ratio is better



### Debt Service Coverage Ratio (DSCR) by Trust

<u>Agreement</u>

SENIOR TRUST AGREEMENT					
Total Debt Service Coverage Requirement	FY 2019				
Total Debt Service Coverage Ratio – Max Annual DS (Year 2023)*	2.50x				
Legal Coverage Requirement  Debt Service Reserve Fund Test	1.00x 1.35x				

Fitch 2019 Medians	DSCR
AAA	3.6
AA	2.5
А	1.8
All	2.4
Large	1.9

FY19 Forecast =

2.29x

#### SUBORDINATE TRUST AGREEMENT/FINANCIAL POLICY

Total Debt Service Coverage Requirement

FY 2019

Total Debt Service Coverage Ratio – GAAP

2.62x <

Total Debt Service Coverage Ratio – Adjusted Cash Basis

2.62x

Financial Policy Requirement Legal Coverage Requirement



1.40x

1.20x



### **Total Debt Service Coverage Trend**





### Liquidity (HRSD's Unrestricted Savings Account)

- Liquidity indicates financial flexibility to pay near-term obligations and margin of safety
- Days Cash on Hand (DCOH)
- How many days can you operate with available cash if no revenue is coming in?
- Includes Capital Reserve funds

DCOH = Unrestricted Cash and Investments

Operating Expenses ÷ 365 days

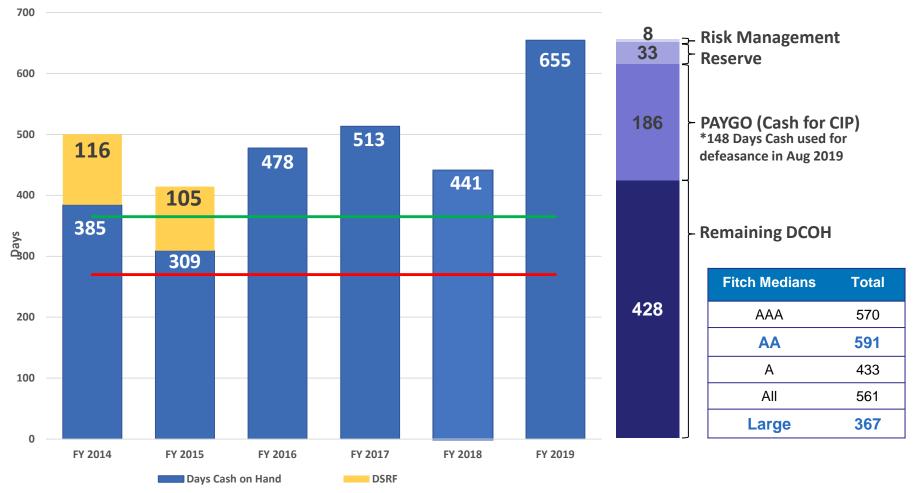
HRSD POLICY

Min = 270 DCOH

Max = 365 DCOH



### Total Days Cash on Hand (DCOH) = days



Max Policy = 365 Days Min Policy = 270 Days



#### Conclusion

#### Financial health is sound

- Continue to execute on our Financial Plan
- Pension and Retiree Health plans have high funded ratios
- Expenses are stable
- Debt Service Coverage is increasing
- On the Horizon
  - WIFIA and Clean Water Revolving Loan Funds
  - Consent Decree negotiations



#### **Next Steps**

- October 15, 2019 Finance Committee
   Detailed Briefing
- October 22, 2019 Commission Accepts the Finance Committee's Report regarding the CAFR
- November 26, 2019 Final CAFR sent to the Commission
- November 27, 2019 (150 days after Fiscal Year End) – CAFR must be posted



### Questions?



# Economic and Market Update Third Quarter 2019

Presented by:

Biagio Manieri, PhD., CFA, Managing Director



#### **Executive Summary**

- Despite some weak data (notably manufacturing PMIs), we do not expect a recession over the next six months.
  - Fed research shows that the unemployment rate typically rises 40-50 bps prior to a recession;
     currently, unemployment and underemployment are both falling and initial jobless claims remain low
- Manufacturing has weakened both in the US and globally due to trade frictions
  - Manufacturing also weakened in 2016 without the US experiencing a recession
  - Recently global manufacturing PMI slightly improved and a divergence developed between Markit and ISM US manufacturing PMI
- Credit markets, notably high yield (HY) spreads, do not indicate the US is falling into a recession; HY spreads have typically widened to appx. 800 bps prior to a recession vs the current 430 bps
  - Yield curve has recently steepened as economic data has stabilized
- Banks are not tightening lending standards, which typically happens before a recession
  - According to NFIB: "Credit conditions are about as supportive as they have ever been in the 46year survey history"



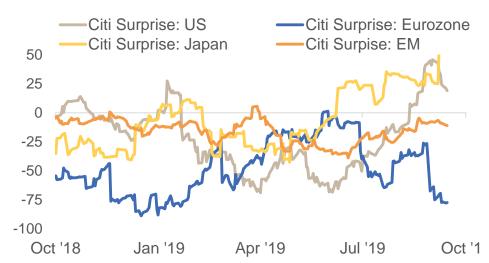
#### **Executive Summary (cont'd.)**

- Eurozone may be bottoming with credit growth showing signs of improvement
  - Eurozone would benefit if Germany implemented fiscal stimulus
- Central banks have become more accommodative
  - If the economy does not fall into a recession, the Fed cutting rates should support equity prices
  - Twelve months post first Fed cut: equity returns average 18% if there is no recession and -12% if the economy enters a recession (1973, '76, '80-81, '01, '07).
  - Household financial conditions are relatively healthy
- Corporate profits may have bottomed and showing signs of recovery
- While we do not expected a recession in the near term, risks remain elevated including: presidential election in 2020 and possibly higher taxes and regulation, falling CEO/corporate confidence and falling corporate profit margins
- Investor sentiment seems to be cautious, which may be a contrary indicator



#### **Economic Data on Manufacturing Remains Positive in US**

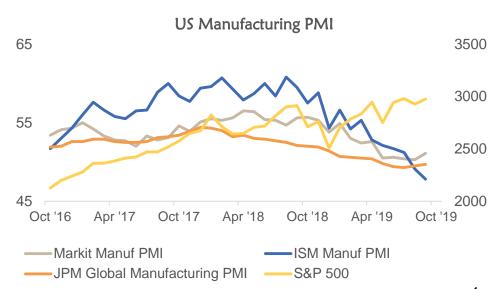
- Economic data has improved relative to expectations for the US, Japan and EM while it continues to weaken for Eurozone
- Global, US and EM manufacturing may be stabilizing
- If manufacturing improves, equities should make further gains in 2020



### 53 52 51 50 49

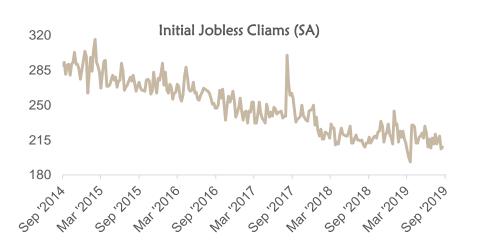
Oct '16 Apr '17 Oct '17 Apr '18 Oct '18 Apr '19 Oct '19

**Emerging Markets Manufacturing PMI** 

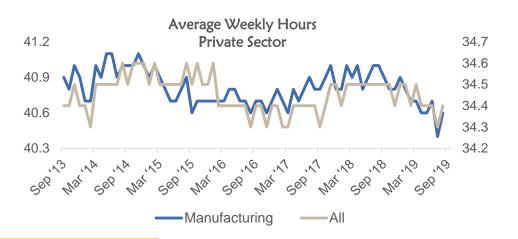


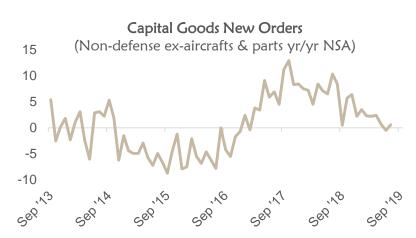


- Labor market and retail sales do not show signs of impending recession
- Core capital goods, a proxy for corporate cap-ex, may be bottoming



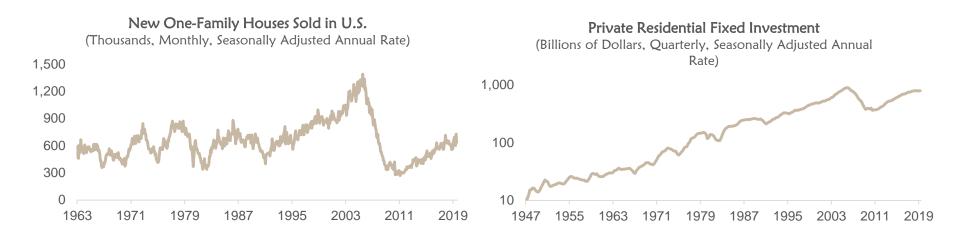


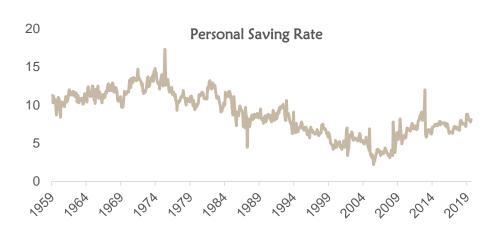






- Housing market is expected to continue to recover helped by lower rates
- Household financial conditions are relatively healthy





6

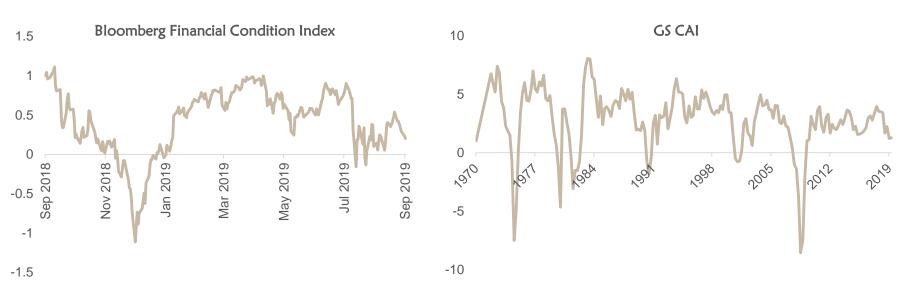


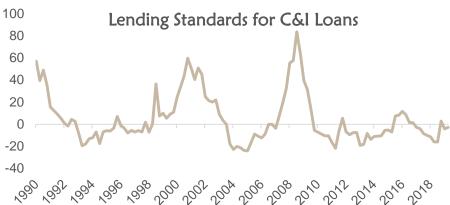
- Yield curve has recently steepened and other capital markets indicators are not predicting an impending recession
- Chicago Fed National Activity Index (NAI) has also improved





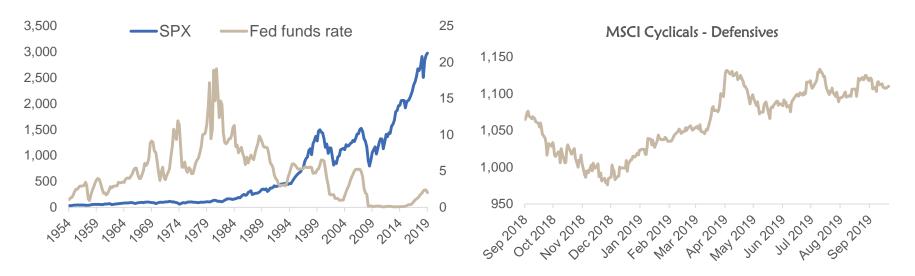
- Financial conditions indicators suggest modest growth in the near term
- Banks are not tightening lending standards, which usually precedes a recession

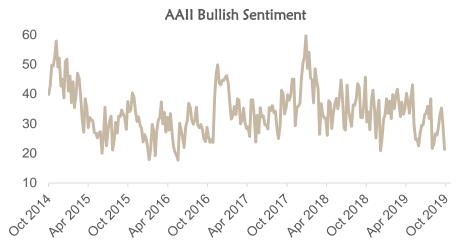






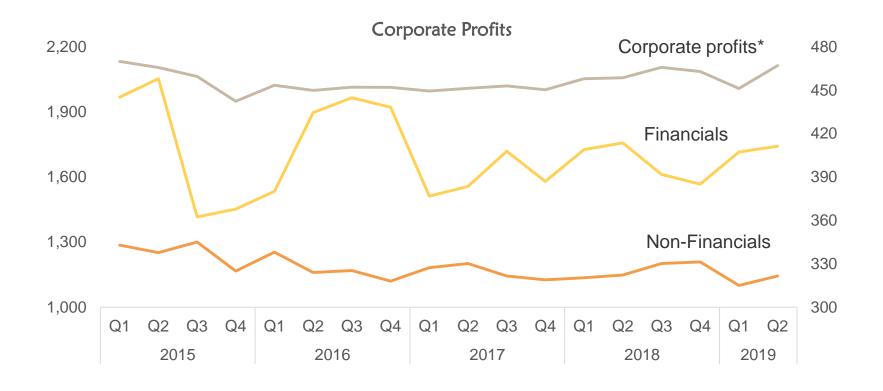
- Fed cutting rates is a positive for equities provided the economy does not fall into a recession
- Cyclical sectors' momentum has slowed but not rolling over vs defensive sectors
- Investors' sentiment remains cautious







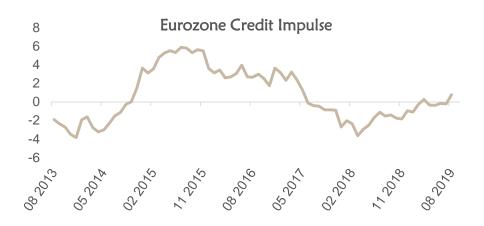
#### **Corporate Profits May Have Bottomed and Showing Signs of Recovery**

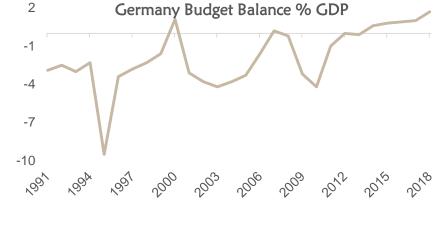


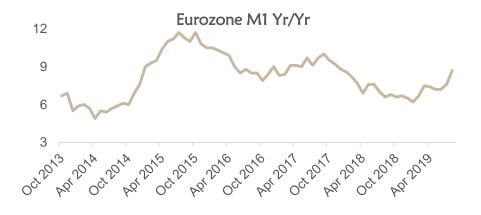
<sup>\*</sup> Corporate profits with inventory valuation and capital consumption adjustments



- While sentiment continues to be weak in the Eurozone, money supply and credit growth have improved
- Eurozone would benefit if Germany implemented fiscal stimulus



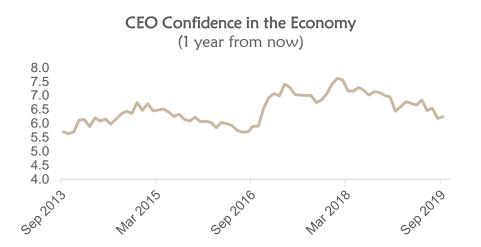


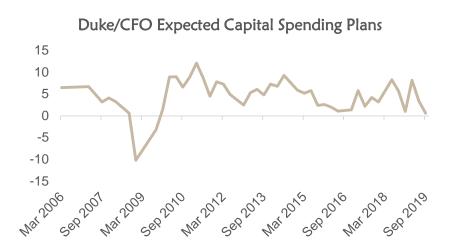






 While fundaments do not suggest a pending recession, risks remain including: falling CEO/corporate confidence, falling corporate profit margins and possibly rising wages



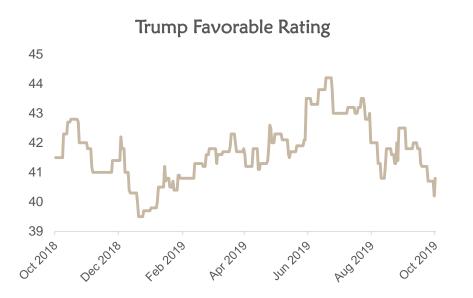


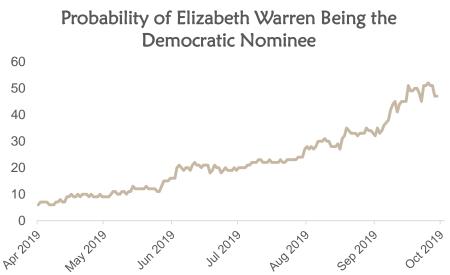






- Presidential election next year is also a possible risk
- A democratic win may lead to higher taxes and more regulation







#### **Disclosures**

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# **Questions?**





## Hampton Roads Sanitation District OPEB Fund



## Investment Performance Review For the Quarter Ended June 30, 2019

## Client Management Team

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4350 North Fairfax Drive Suite 580 Arlington, VA 22203 703.741.0175 703.516.0283 fax **Financial Markets Review** 



## **Market Index Performance**

As of June 30, 2019

P 500 ssell 3000 Index ssell 1000 Value Index	4.30% 4.10% 3.84% 4.64%	18.54% 18.71% 16.24%	10.42% 8.98%	14.19% 14.02%	10.71%	13.98%	14.70%
ssell 3000 Index	4.10% 3.84%	18.71%	8.98%		10.71%	13 98%	14 700/
	3.84%			14 000/		10.0070	14.70%
so all 1000 Value Index		16.24%		14.02%	10.19%	13.79%	14.67%
ssell 1000 value index	4.64%		8.46%	10.19%	7.46%	12.09%	13.19%
ssell 1000 Growth Index		21.49%	11.56%	18.07%	13.39%	15.76%	16.28%
ssell Midcap Index	4.13%	21.35%	7.83%	12.16%	8.63%	13.37%	15.16%
ssell 2500 Index	2.96%	19.25%	1.77%	12.34%	7.66%	12.51%	14.44%
ssell 2000 Value Index	1.38%	13.47%	-6.24%	9.81%	5.39%	10.31%	12.40%
ssell 2000 Index	2.10%	16.98%	-3.31%	12.30%	7.06%	11.63%	13.45%
ssell 2000 Growth Index	2.75%	20.36%	-0.49%	14.69%	8.63%	12.87%	14.41%
RNATIONAL EQUITY							
CIEAFE (Net)	3.68%	14.03%	1.08%	9.11%	2.25%	7.31%	6.90%
CI AC World Index (Net)	3.61%	16.23%	5.74%	11.62%	6.16%	9.87%	10.15%
CI AC World ex USA (Net)	2.98%	13.60%	1.29%	9.39%	2.16%	6.36%	6.54%
CI AC World ex USA Small Cap (Net)	1.21%	11.60%	-5.94%	7.76%	2.77%	7.66%	8.48%
CI EM (Net)	0.61%	10.59%	1.21%	10.66%	2.49%	4.15%	5.81%
RNATIVES							
SE NAREIT Equity REIT Index	1.24%	17.78%	11.21%	4.20%	7.92%	8.88%	15.46%
SE EPRA/NAREIT Developed Index	0.20%	15.09%	8.64%	5.45%	5.79%	8.16%	11.45%
omberg Commodity Index Total Return	-1.19%	5.06%	-6.75%	-2.18%	-9.15%	-6.69%	-3.74%
DINCOME							
bg. Barc. U.S. Aggregate	3.08%	6.11%	7.87%	2.31%	2.95%	2.62%	3.90%
bg. Barc. U.S. Government/Credit	3.53%	6.90%	8.52%	2.41%	3.11%	2.73%	4.09%
bg. Barc. Intermed. U.S. Government/Credit	2.59%	4.97%	6.93%	1.99%	2.39%	2.15%	3.24%
ibg. Barc. U.S. Treasury: 1-3 Year	1.47%	2.47%	4.02%	1.29%	1.22%	1.02%	1.20%
bg. Barc. U.S. Corp: High Yield	2.50%	9.94%	7.48%	7.52%	4.70%	6.35%	9.24%
dit Suisse Leveraged Loan index	1.58%	5.42%	4.15%	5.43%	3.85%	4.71%	6.29%
BofAML Global High Yield Constrained (USD)	2.87%	9.57%	7.52%	7.25%	3.91%	6.27%	9.03%
bg. Barc. Global Aggregate Ex USD	3.42%	4.99%	4.10%	0.97%	-0.12%	0.71%	2.10%
M EMBI Global Diversified	4.08%	11.31%	12.45%	5.47%	5.30%	5.57%	7.79%
I EQUIVALENT							
Day U.S. Treasury Bill	0.64%	1.24%	2.31%	1.37%	0.85%	0.63%	0.47%

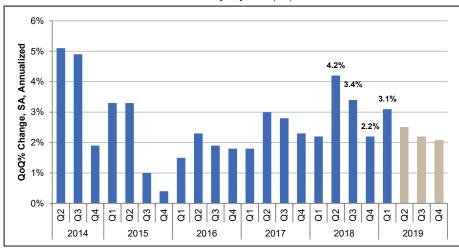
Source: Investment Metrics. Returns are expressed as percentages. Please refer to the last page of this document for important disclosures relating to this material.



#### THE ECONOMY

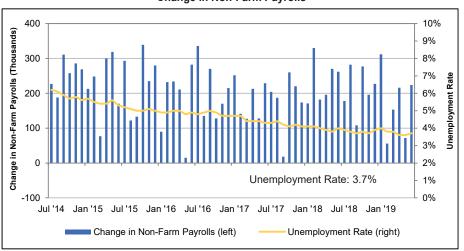
- In line with slowing growth expectations, U.S. Gross Domestic Product (GDP) for the second quarter of 2019 is projected to grow at an annual rate of 1.5% according to the Federal Reserve Bank of Atlanta GDPNow Forecast. This is down from 3.1% in the first quarter of 2019. The International Monetary Fund (IMF) also recently cut its global growth forecasts to 3.3% from 3.5% for 2019.
- While the June unemployment rate ticked up slightly to 3.7%, labor markets still continue to be strong. The U.S. labor market added an average of 170,000 jobs per month in the second quarter, down slightly from 180,000 a month in the first quarter of 2019. Average hourly earnings rose 3.1% in the quarter, nearly matching the 3.2% growth in the first quarter. The labor force participation rate edged up slightly from 62.8% in May to 62.9% in June.
- U.S. manufacturing activity slowed to near a three-year low in June according
  to the Institute for Supply Management (ISM). The ISM Manufacturing Index
  dropped to 51.7 from 52.1 in May, a third straight monthly decline largely
  attributed to uncertainty stemming from trade tensions between the U.S. and
  China. However, the reading surpassed expectations of 51 for the month of
  June. A reading of 50 or more indicates expansion in the manufacturing sector.
  Construction spending also fell unexpectedly as private construction projects
  declined.
- The core personal consumption expenditures (PCE) price index, the Federal Reserve's (Fed) preferred measure of inflation, rose 1.5% over the 12 months ended in May 2019. Inflation rates have consistently fallen below the Fed's target of 2% and Fed officials have warned that weaker inflation readings could persist, strengthening the case for more accommodative monetary policy.
- Globally, major central banks remain ready to ease monetary policy as risks to global growth, such as trade uncertainty and weakening manufacturing activity, continue to mount. Labor market strength continues in most major economies, with the global unemployment rate near a 40-year low, but manufacturing continues to deteriorate according to the latest purchasing managers' index (PMI) data. Leading economies including the Eurozone, the UK, China and Japan have seen PMIs fall below 50. Readings below 50 indicate a slow-down in manufacturing.

U.S. Real GDP Growth
Seasonally Adjusted (SA)



Source: Bloomberg. Blue bars indicate actual numbers; taupe bars indicate forecasted estimates.

#### Change in Non-Farm Payrolls



Source: Bloomberg.



#### WHAT WE'RE WATCHING

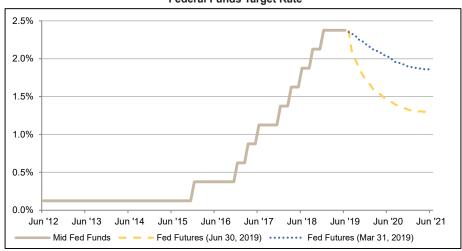
- After the Federal Open Market Committee (FOMC) met in June, Federal Reserve Chairman, Jerome Powell, signaled that the Fed would consider cutting its target interest rate if economic data continued to fall short of expectations. The news sent market indices to all-time highs at the prospect of more accommodative monetary policy. A strong June jobs report posed a threat to easing monetary policy, and turned investors' attention to pending inflation data. However, Chairman Powell's testimony on Capitol Hill in early July again signaled that a rate cut later in the month is possible. The FOMC will meet again from July 30 July 31.
- Trade tensions between the U.S. and China escalated once again in the second quarter of 2019 after the U.S. ceased negotiations and threatened tariffs on an additional \$300 billion of Chinese goods. Trade talks resumed after President Trump and President Xi met at the G-20 summit in June and called a truce. The two sides did not outline a path forward. The IMF lowered its 2019 growth forecast for China to 6.2% from 6.3% citing significant, but contained, impacts from trade tensions.
- International Monetary Fund Chief, Christine Lagarde, was nominated to lead the European Central Bank (ECB). She would be taking the reins from outgoing ECB president Mario Draghi. Markets are betting that they will see an easing of monetary policy under her leadership over the next eight years, as evidenced by a drop in benchmark yields across the Eurozone.
- Tensions in the Middle East intensified in June leading to oil prices spiking nearly 10%. Attacks on two tankers in the Gulf of Oman and a U.S. drone have led to uncertainty about global oil supply. During the month, the Organization of Petroleum Exporting Countries (OPEC) also agreed to extend production cuts until March 2020, providing another boost to oil prices.

#### ISM Manufacturing & Services PMI



Source: Bloomberg.

#### **Federal Funds Target Rate**



Source: Bloomberg.

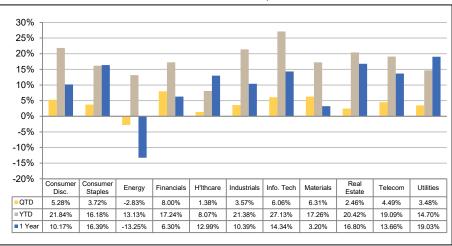


#### DOMESTIC EQUITY

- The S&P 500 Index posted a return of 4.30% for the quarter, in a quarter marked by an intra-quarter drawdown of 6.62%. The markets reacted negatively in May to concerns of slowing growth coupled with an increase in rhetoric around trade talks. The Fed's dovish stance has led market participants to expect three rate cuts this year, and progress on U.S.-China trade talks at the G-20 summit in Japan led to a strong return of 7.05% in June.
- Within the S&P 500, Financials was the best performing sector, returning 8.00%, followed by Materials and Information Technology at 6.31% and 6.06%, respectively. Energy was the worst performing sector, returning -2.83%.
- Value stocks, as represented by the Russell 1000 Value Index, returned 3.84%, and underperformed growth stocks, as represented by the Russell 1000 Growth Index, which returned 4.64%. Growth outperformed value across all market capitalizations.
- Small-caps, as represented by the Russell 2000 Index, returned 2.10% during the quarter and lagged mid- and large-caps. Large-caps were the best performers for the quarter, returning 4.25%, as represented by Russell 1000 Index, followed by mid-caps which returned 4.13%, as represented by the Russell Mid-Cap Index.
- For the quarter, according to FactSet Earnings Insight (as of July 3, 2019), the
  expected second quarter earnings growth for the S&P 500 is -2.6%. This marks
  another quarter of expected decline in earnings growth following the -0.3%
  decline reported for the first quarter. Looking ahead, analysts expect another
  quarter of earnings decline in the third quarter followed by mid-single-digit
  earnings growth expectations in the fourth quarter.

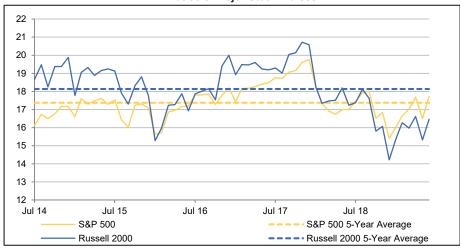
#### S&P 500 Index Performance by Sector

Periods Ended June 30, 2019



Source: Bloomberg.

#### P/E Ratios of Major Stock Indices\*



Source: Bloomberg

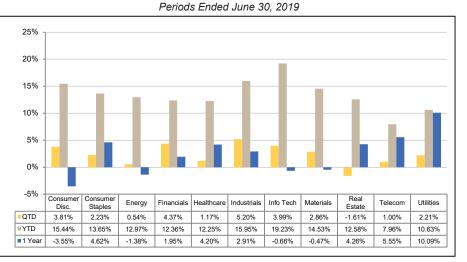
\*P/E ratios are calculated based on one-year forward estimates and adjusted to include only positive earnings results for consistency.



#### NON-U.S. EQUITY

- Markets outside of the United States, as measured by the MSCI ACWI ex U.S. Index, lagged their domestic equity counterparts and returned 2.98% for the second quarter. The Industrials sector delivered the strongest results, up 5.20%, followed by Financials and Information Technology with returns of 4.37% and 3.99%, respectively. Real Estate was the worst performing sector in the quarter, with a return of -1.61%, followed by Energy at 0.54%.
- Emerging markets (EM), as represented by MSCI Emerging Market Index, lagged behind developed markets for the quarter, returning 0.61%. Emerging Market EMEA (Europe, Middle East and Africa) led the way with a return of 7.15%, while EM Asia performed the worst, returning -1.25%.
- The trade talks between the U.S. and China continued to weigh on the sentiment toward international equities during the quarter, which led to positive returns in April and June, with a negative return in May reflecting the souring market sentiment.
- The ECB reiterated a dovish stance on monetary policy, with stated intentions
  to restart the stimulus program, if necessary, to support the falling inflation
  outlook. The quagmire surrounding Brexit continued as the Conservative
  Party heads into voting to elect a new leader to replace Theresa May, who
  announced her resignation in May.

## MSCI ACWI ex-U.S. Sectors



Source: Bloomberg.

### P/E Ratios of MSCI Equity Indices\*



Source: Bloomberg.

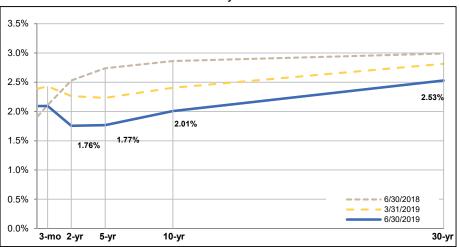
\*P/E ratios are calculated based on one-year forward estimates and adjusted to include only positive earnings results for consistency.



#### FIXED INCOME

- The U.S. bond market, represented by the Bloomberg Barclays U.S. Aggregate (Aggregate) Index, rose 3.08% in the second quarter.
- Rates fell again during the quarter with the front end and 30-year both falling about 30 basis points (bps). Short and intermediate rates represented by the 2- and 10-year Treasury had the largest moves, decreasing 52 bps and 41 bps, respectively.
- Long-term Treasury yields also fell during the quarter, with the 30-year bond ending June at a yield of 2.53%. Rates generally fell on weaker economic data and a view of a more dovish Fed as the market implied multiple rate cuts before year-end.
- Investment-grade (IG) corporate spreads slightly tightened during the quarter. The Bloomberg Barclays U.S. Corporate Index rose sharply at 4.48%, bringing a year-to-date (YTD) return of just less than 10%. High yield bonds, as represented by the Bloomberg Barclays U.S. Corporate High Yield Index also performed well at 2.50% but lagged IG counterparts as CCC-rated dragged on returns.
- The fixed-rate mortgage market, as measured by the Bloomberg Barclays U.S. Mortgage-Backed Securities (MBS) Index, gained 1.96%, while the Bloomberg Barclays U.S. Agency CMBS Index (measuring commercial MBS) gained 3.14%.
- · Global bond markets were generally positive during the quarter with much of the gains coming from emerging markets. Emerging market USD sovereign bonds, as represented by the JP Morgan EMBI index, rose 4.08%.

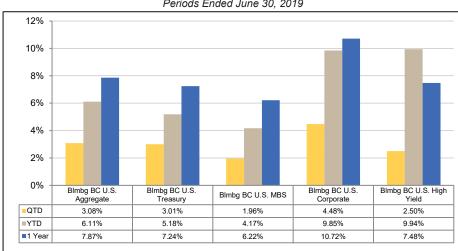
#### U.S. Treasury Yield Curve



Source: Bloomberg.

#### **Returns for Fixed-Income Segments**

Periods Ended June 30, 2019



Source: Bloomberg. "Blmbg BC" is Bloomberg Barclays.

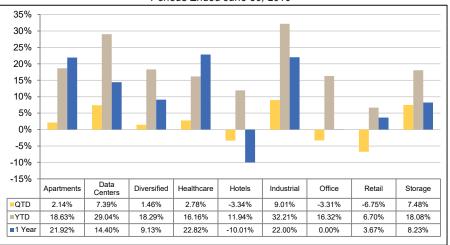


#### **ALTERNATIVES**

- REITs, as measured by the FTSE NAREIT Equity REITs Index, returned 1.24% in the second quarter, extending YTD gains after a strong return of 16.33% the previous quarter. Sector returns were mixed with six of the nine sectors posting gains. Industrial, Self-Storage, and Data Centers generated the strongest returns of 9.01%, 7.48%, and 7.39%, respectively. Office, Lodging/Resorts, and Retail returned -3.31%, -3.34%, and -6.75%, respectively.
- Private real estate, as measured by the NCREIF Property Index, generated a total return of 1.80% in the first quarter, up from the 1.37% return generated during the fourth quarter. Industrial properties continue to be the top performing sector with a return of 3.02% for the quarter. Retail rebounded during the quarter from -0.43% last quarter to a positive 1.74%.
- Hedge funds generated positive returns in the second quarter with the HFRI Fund Weighted Composite Index returning 2.02%. The HFRI Equity Hedge (Total) Index returned 1.72% during the second quarter, while the HFRI Macro (Total) Index returned 2.88% and the HFRI Fund of Funds Index returned 1.59%.
- In 2018, private capital funds raised \$757 billion, down from a record \$925 billion raised in 2017. In 2018, private capital dry powder, the capital available for fund managers to deploy, surpassed the \$2 trillion mark to reach \$2.19 trillion. Private equity dry powder, which accounts for the bulk of private capital dry powder, has reached \$1.20 trillion. As of September 2018, private equity funds generated an average 1-year internal rate of return (IRR) of 18.2% IRR and a 5-year IRR of 15.5%. Over those same time periods, private debt generated 7.9% and 7.7%, respectively.
- Commodity futures, represented by the Bloomberg Commodity Index Total Return, returned -1.19% in the second quarter, down from 5.70% in the first quarter. The U.S. Dollar Index (DXY) posted a 1.20% loss in the second quarter, following a gain of 1.15% in first quarter. Gold spot price ended the quarter at \$1,409 per ounce, up from \$1,292 per ounce at the end of the first quarter. West Texas Intermediate (WTI) Crude Oil spot price ended the quarter at \$58.20, down from \$60.14 at the end of the first quarter.

#### **FTSE NAREIT Sectors**

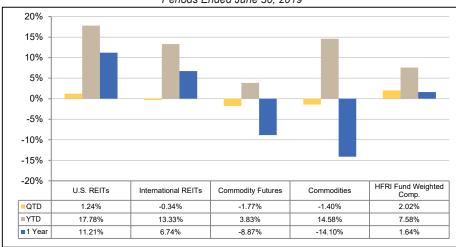
Periods Ended June 30, 2019



Source: Bloomberg.

#### **Returns for Alternative Assets**

Periods Ended June 30, 2019



Sources: Bloomberg and Hedge Fund Research, Inc.



## **Investment Strategy Overview**

For the Third Quarter 2019

Asset Class	Our Investment Preferences	Comments
U.S. EQUITIES  Large-Caps  Mid-Caps  Small-Caps		<ul> <li>Dovish stance by Federal Reserve has the market expecting three rate cuts this year. While global growth expectations are slowing, accommodative monetary policy will be supportive of equity valuations. U.S. – China trade talk progress continues to impact near-term sentiment.</li> <li>Lesser exposure to international economies and more favorable valuations support our overweight of U.S. mid- and small-cap equities.</li> </ul>
NON-U.S. EQUITIES  Developed Markets  Emerging Markets  International Small-Caps		<ul> <li>International equities continue to trade at a discount to U.S. equities. We believe this discount is warranted due to slower growth expectations and higher risks.</li> <li>Trade tensions, slowing China economic growth and higher risks coupled with attractive valuations leads us to retain neutral view on emerging market equities.</li> </ul>
FIXED INCOME  Long Duration, Interest- Rate-Sensitive Sectors  Credit-Sensitive Sectors		<ul> <li>Fed's recent change in guidance to possible rate cuts from no rate cuts in 2019 has been supportive of longer duration assets. Globally too, major central banks continue to align with accommodative monetary policy stance.</li> <li>After a strong first quarter, credit spreads were range-bound during the quarter. We continue to overweight credit in the context of continued economic growth and good credit fundamentals.</li> </ul>
ALTERNATIVES  Real Estate  Private Equity  Private Debt  Hedge Funds		<ul> <li>Lower level of interest rates and more favorable valuations are positives for REITs while slowing economy is a headwind.</li> <li>Private equity funds carefully selected may provide higher returns relative to public markets, but the overall PE industry faces headwinds from the significant growth in assets under management and number of firms.</li> <li>Select private debt strategies look attractive as they provide income with lower risk than private equity, while floating rates hedge against rising rates.</li> <li>Select hedge fund strategies managed by talented managers may provide some benefit in a market environment of higher overall valuations and volatility. We remain cautious on the overall hedge fund universe.</li> </ul>



Slightly Positive

Positive

Slightly Negative

Negative

Current outlook

Outlook one quarter ago

**Plan Performance Summary** 



## **Account Reconciliation**

## QTR

	Market Value As of 04/01/2019	Net Transfers	Contributions	Distributions	Return On Investment	Market Value As of 06/30/2019
Total Fund - Investment Assets Total Fund - Liquidity Assets	49,770,992 175,097	406,532 (406,532)	- 392,652	(3,413) (9)	1,689,646 320	51,863,757 161,528
Combined OPEB Trust Assets	49,946,089	-	392,652	(3,422)	1,689,965	52,025,285

## YTD

	Market Value As of 01/01/2019	Net Transfers	Contributions	Distributions	Return On Investment	Market Value As of 06/30/2019
Total Fund - Investment Assets	45,303,820	629,558	-	(6,554)	5,936,934	51,863,757
Total Fund - Liquidity Assets	3,770	(629,558)	786,865	(12)	462	161,528
Combined OPEB Trust Assets	45,307,589	-	786,865	(6,566)	5,937,396	52,025,285

## Fiscal YTD

	Market Value As of 07/01/2018	Net Transfers	Contributions	Distributions	Return On Investment	Market Value As of 06/30/2019
Total Fund - Investment Assets	47,081,121	1,585,353	-	(12,962)	3,210,245	51,863,757
Total Fund - Liquidity Assets	22,127	(1,585,353)	1,724,093	(16)	677	161,528
Combined OPEB Trust Assets	47,103,248	-	1,724,093	(12,978)	3,210,922	52,025,285

## 1 Year

	Market Value As of 07/01/2018	Net Transfers	Contributions	Distributions	Return On Investment	Market Value As of 06/30/2019
Total Fund - Investment Assets Total Fund - Liquidity Assets	47,081,121 22,127	1,585,353 (1,585,353)	- 1.724.093	(12,962) (16)	3,210,245 677	51,863,757 161,528
Combined OPEB Trust Assets	47,103,248	-	1,724,093	(12,978)	3,210,922	52,025,285



## **Comparative Performance**

	1 Quarter	Year To Date	Jul-2018 To Jun-2019	1 Year	3 Years	5 Years	Apr-2013 To Jun-2019	Since Inception	Inception Date
Total Fund - Combined Assets	3.37	13.05	6.63	6.63	8.47	5.97	7.19	8.04	09/01/2009
Blended Benchmark	3.59	12.68	7.34	7.34	8.03	5.33	6.43	7.88	09/01/2009



## **Asset Allocation & Performance**

	Allocat	ion					Perfori	mance(%	5)		
	Market Value (\$)	%	1 Quarter	Year To Date	Fiscal Year To Date	1 Year	3 Years	5 Years	Apr-2013 To Jun-2019*	Since Inception	Inception Date
Total Fund - Investment Assets	51,863,757	100.00	3.37	13.05	6.63	6.63	8.47	5.97	7.19	8.12	09/01/2009
Blended Benchmark			3.59	12.68	7.34	7.34	8.03	5.33	6.43	7.88	09/01/2009
Domestic Equity	20,355,522	39.25									
Vanguard Total Stock Market Index	15,921,923	30.70	4.09	18.71	8.99	8.99	14.03	10.17	12.50	13.68	09/01/2009
Russell 3000 Index			4.10	18.71	8.98	8.98	14.02	10.19	12.51	13.65	09/01/2009
Jensen Quality Growth Fund	1,830,260	3.53	2.56	17.39	14.78	14.78	15.60	13.23	14.04	2.56	04/01/2019
S&P 500			4.30	18.54	10.42	10.42	14.19	10.71	12.88	4.30	04/01/2019
iShares Core S&P Mid-Cap ETF	1,660,534	3.20	3.03	17.93	1.25	1.25	10.83	7.94	10.36	3.03	04/01/2019
S&P MidCap 400			3.05	17.97	1.36	1.36	10.90	8.02	10.44	3.05	04/01/2019
iShares Core S&P Small-Cap ETF	942,804	1.82	1.87	13.68	-4.85	-4.85	11.96	8.39	11.29	2.05	05/01/2018
S&P SmallCap 600			1.87	13.69	-4.88	-4.88	11.97	8.41	11.31	2.06	05/01/2018
International Equity	10,895,935	21.01									
Vanguard Total International Stock Index Fund	3,496,157	6.74	2.75	13.27	0.57	0.57	8.94	2.31	4.65	7.25	10/01/2016
MSCI AC World ex USA (Net)			2.98	13.60	1.29	1.29	9.39	2.16	4.45	7.63	10/01/2016
Vanguard International Value	2,270,642	4.38	2.42	12.09	-0.39	-0.39	8.74	1.27	4.76	7.45	05/01/2016
MSCI AC World ex USA (Net)			2.98	13.60	1.29	1.29	9.39	2.16	4.45	7.76	05/01/2016
J. O. Hambro International Select	2,742,269	5.29	2.58	15.22	0.90	0.90	9.36	5.51	8.85	9.32	01/01/2016
MSCI AC World ex USA (Net)			2.98	13.60	1.29	1.29	9.39	2.16	4.45	7.68	01/01/2016
Invesco Oppenheimer Int'l Small-Mid Company	1,299,165	2.50	4.28	18.98	1.62	1.62	14.95	10.17	14.14	11.86	04/01/2015
MSCI AC World ex USA Smid Cap Index (Net)			2.14	12.61	-3.81	-3.81	8.15	2.80	5.24	4.74	04/01/2015
Hartford Schroders Emerging Markets Equity	1,087,702	2.10	2.15	12.82	1.55	1.55	12.02	3.55	3.49	-5.69	03/01/2018
MSCI EM (net)			0.61	10.59	1.21	1.21	10.66	2.49	2.80	-6.51	03/01/2018
Fixed Income	19,427,560	37.46									
Baird Core Plus	5,634,672	10.86	3.23	7.05	8.39	8.39	3.23	3.52	3.31	3.70	05/01/2014
Blmbg. Barc. U.S. Aggregate			3.08	6.11	7.87	7.87	2.31	2.95	2.67	3.09	05/01/2014
DoubleLine Core Fixed Income	5,639,950	10.87	3.02	6.07	7.04	7.04	3.12	3.40	3.26	3.31	09/01/2017
PGIM Total Return Bond Fund	4,646,420	8.96	3.68	7.85	9.23	9.23	4.00	4.12	3.89	4.28	09/01/2017
Blmbg. Barc. U.S. Aggregate			3.08	6.11	7.87	7.87	2.31	2.95	2.67	3.25	09/01/2017
Vanguard Interm-Term Invest. Grade	2,324,908	4.48	3.64	7.74	9.62	9.62	3.07	3.64	3.37	3.37	04/01/2013
Blmbg. Barc. U.S. Credit 5-10 Year Index			4.36	9.85	11.35	11.35	3.79	4.15	3.87	3.87	04/01/2013
Vanguard High Yield Corporate	1,181,609	2.28	3.15	10.98	8.98	8.98	6.71	4.80	5.11	7.27	04/01/2016
Blmbg. Barc. U.S. Corp: High Yield			2.50	9.94	7.48	7.48	7.52	4.70	5.35	8.70	04/01/2016

Returns are net of mutual fund fees. Returns are expressed as percentages.



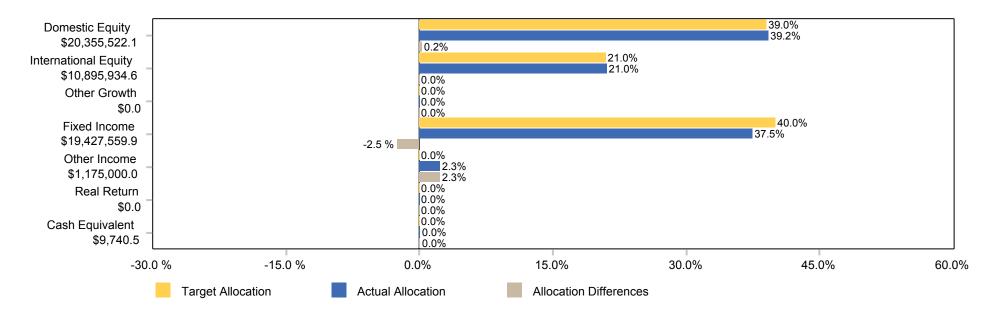
## **Asset Allocation & Performance**

	Allocation		Performance(%)								
	Market Value (\$)	%	1 Quarter	Year To Date	Fiscal Year To Date	1 Year	3 Years	5 Years	Apr-2013 To Jun-2019*	Since Inception	Inception Date
Other Income	1,175,000	2.27									
Boyd Watterson	1,175,000	2.27	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	07/01/2019
NCREIF Property Income			1.12	2.25	4.53	4.53	4.62	4.79	4.93	N/A	07/01/2019
Cash Equivalent	9,741	0.02									
First American Government Obligation - Z	9,741	0.02	0.57	1.14	2.14	2.14	1.24	0.77	0.61	1.33	01/01/2004



## **Asset Allocation Compliance - Total Fund - Investment Assets**

	Asset Allocation (%)	Target Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Differences (%)
Total Fund - Investment Assets	100.0	100.0	N/A	N/A	0.0
Domestic Equity	39.2	39.0	19.0	59.0	0.2
International Equity	21.0	21.0	1.0	41.0	0.0
Other Growth	0.0	0.0	0.0	10.0	0.0
Fixed Income	37.5	40.0	20.0	60.0	-2.5
Other Income	2.3	0.0	0.0	10.0	2.3
Real Return	0.0	0.0	0.0	20.0	0.0
Cash Equivalent	0.0	0.0	0.0	20.0	0.0





## **Comparative Performance**

	2018	2017	2016	2015	2014
Total Fund - Investment Assets	-5.22	15.72	6.73	0.81	5.48
Blended Benchmark	-4.86	14.33	6.99	-1.27	5.95
Domestic Equity					
Vanguard Total Stock Market Index	-5.17	21.17	12.66	0.39	12.56
Russell 3000 Index	-5.24	21.13	12.74	0.48	12.56
Jensen Quality Growth Fund	2.44	23.56	12.29	1.80	11.98
S&P 500	-4.38	21.83	11.96	1.38	13.69
iShares Core S&P Mid-Cap ETF	-11.14	16.19	20.63	-2.23	9.64
S&P MidCap 400	-11.08	16.24	20.74	-2.18	9.77
iShares Core S&P Small-Cap ETF	-8.43	13.20	26.49	-2.00	5.67
S&P SmallCap 600	-8.48	13.23	26.56	-1.97	5.76
International Equity					
Vanguard Total International Stock Index Fund	-14.43	27.55	4.67	-4.26	-4.17
Vanguard International Value	-14.52	27.96	4.46	-6.44	-6.69
J. O. Hambro International Select	-8.27	22.89	5.20	-4.05	5.35
MSCI AC World ex USA (Net)	-14.20	27.19	4.50	-5.66	-3.87
Invesco Oppenheimer Int'l Small-Mid Company	-9.25	38.30	-0.24	15.15	0.38
MSCI AC World ex USA Smid Cap Index (Net)	-17.06	30.35	3.57	0.44	-3.05
Hartford Schroders Emerging Markets Equity	-15.56	40.87	10.41	-12.68	-4.61
MSCI EM (net)	-14.58	37.28	11.19	-14.92	-2.19
Fixed Income					
Baird Core Plus	-0.51	4.65	4.73	0.14	6.59
DoubleLine Core Fixed Income	-0.02	4.66	4.11	0.63	6.86
PGIM Total Return Bond Fund	-0.63	6.71	4.83	0.09	7.25
Blmbg. Barc. U.S. Aggregate	0.01	3.54	2.65	0.55	5.97
Vanguard Interm-Term Invest. Grade	-0.47	4.26	3.93	1.63	5.91
Blmbg. Barc. U.S. Credit 5-10 Year Index	-1.55	5.57	5.23	0.69	7.38
Vanguard High Yield Corporate	-2.87	7.13	11.30	-1.30	4.69
Blmbg. Barc. U.S. Corp: High Yield	-2.08	7.50	17.13	-4.47	2.45
Other Income					
Boyd Watterson	N/A	N/A	N/A	N/A	N/A
NCREIF Property Income	4.56	4.68	4.76	5.01	5.36

Returns are net of mutual fund fees. Returns are expressed as percentages.

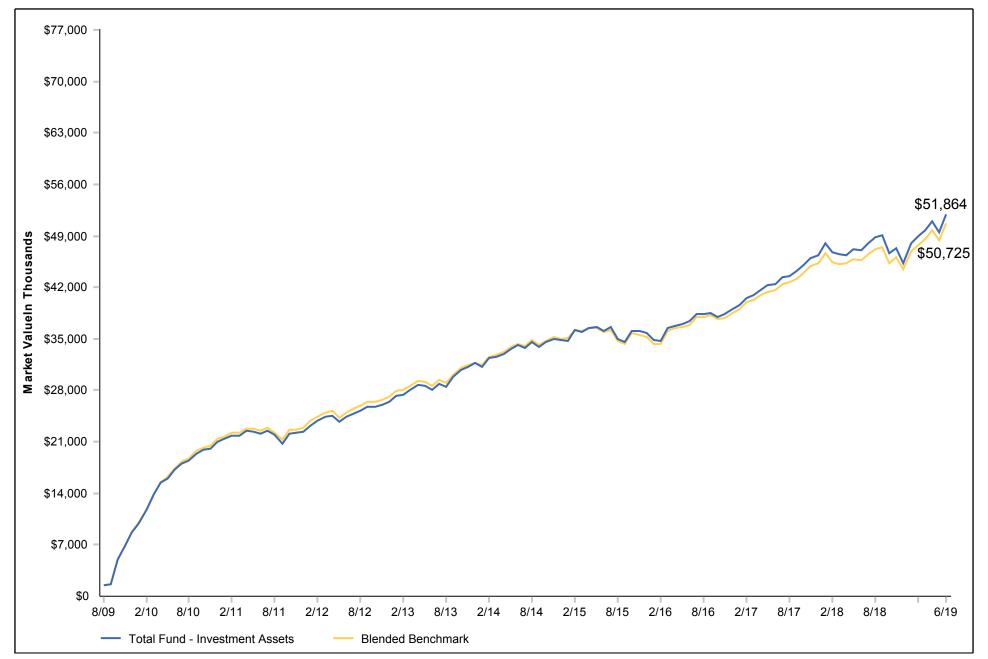


## **Historical Hybrid Composition - Blended Benchmark**

Allocation Mandate	Weight (%)
Aug-2009	
Russell 3000 Index	33.0
MSCI AC World ex USA (Net)	21.0
FTSE NAREIT Equity REIT Index	6.0
Blmbg. Barc. U.S. Aggregate	40.0
Apr-2013	
Russell 3000 Index	33.0
MSCI AC World ex USA (Net)	21.0
FTSE NAREIT Equity REIT Index	3.0
Bloomberg Commodity Index Total Return	3.0
Blmbg. Barc. U.S. Aggregate	40.0
Jul-2017	
Russell 3000 Index	39.0
MSCI AC World ex USA (Net)	21.0
Blmbg. Barc. U.S. Aggregate	40.0



## **Growth of Invested Assets - Actual vs Benchmark**





## **Historical Statistics**

1 Year										
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	Tracking Error	Information Ratio	Up Market Capture	Down Market Capture	Maximum Drawdown
Total Fund - Investment Assets	6.63	11.18	0.43	-1.15	1.08	1.03	-0.56	103.56	110.74	-8.71
Blended Benchmark	7.34	10.37	0.52	0.00	1.00	0.00	N/A	100.00	100.00	-7.53
90 Day U.S. Treasury Bill	2.31	0.08	N/A	2.30	0.00	10.35	-0.52	7.98	-6.27	0.00
3 Years									_	
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	Tracking Error	Information Ratio	Up Market Capture	Down Market Capture	Maximum Drawdown
Total Fund - Investment Assets	8.47	7.42	0.95	-0.12	1.07	0.85	0.53	107.02	108.97	-8.71
Blended Benchmark	8.03	6.89	0.96	0.00	1.00	0.00	N/A	100.00	100.00	-7.53
90 Day U.S. Treasury Bill	1.37	0.23	N/A	1.37	0.00	6.89	-0.96	7.12	-6.73	0.00
5 Years										
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	Tracking Error	Information Ratio	Up Market Capture	Down Market Capture	Maximum Drawdown
Total Fund - Investment Assets	5.97	7.43	0.71	0.35	1.05	1.00	0.64	107.75	104.53	-8.71
Blended Benchmark	5.33	6.99	0.66	0.00	1.00	0.00	N/A	100.00	100.00	-7.53
90 Day U.S. Treasury Bill	0.85	0.26	N/A	0.83	0.00	6.97	-0.66	4.92	-3.59	-0.03
7 Years										
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	Tracking Error	Information Ratio	Up Market Capture	Down Market Capture	Maximum Drawdown
Total Fund - Investment Assets	8.00	6.97	1.05	0.24	1.06	0.98	0.71	108.01	106.00	-8.71
Blended Benchmark	7.29	6.51	1.02	0.00	1.00	0.00	N/A	100.00	100.00	-7.53
90 Day U.S. Treasury Bill	0.63	0.24	N/A	0.62	0.00	6.50	-1.02	3.42	-3.13	-0.03
September 1, 2009 To June 30, 2	2019									
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	Tracking Error	Information Ratio	Up Market Capture	Down Market Capture	Maximum Drawdown
Total Fund - Investment Assets	8.12	8.06	0.95	-0.01	1.03	1.06	0.24	104.01	104.87	-10.82
Blended Benchmark	7.88	7.73	0.96	0.00	1.00	0.00	N/A	100.00	100.00	-10.34
90 Day U.S. Treasury Bill	0.47	0.22	N/A	0.47	0.00	7.74	-0.96	2.25	-1.97	-0.03



**Investment Manager Review** 



## Vanguard Total Stock Market Index

- Management: Gerard C. O'Reilly has managed the Fund since its inception in 1994. Walter Nejman is now a co-portfolio manager for the fund. They have been in the investment management industry since 1992 and 2008, respectively.
- Objective: The Fund seeks to track the performance of a benchmark index that measures the investment return of the overall stock market.
- **Strategy:** The Fund employs a "passive management" or indexing investment approach designed to track the performance and characteristics of the CRSP US Total Market Index. These key characteristics include industry weightings and market capitalization, as well as certain financial measures, such as price/earnings ratio and dividend yield.

## Jensen Quality Growth Fund

- **Management:** The fund is managed by an investment committee comprised of Eric Shoenstein, Rob McIver, Allen Bond, Kurt Havnaer, Kevin Walkush, and Adam Calamar. All members of the investment committee have been working together for over 10 years.
- Objective: The Fund seeks outperformance relative to the S&P 500 through a concentrated, fundamental, bottom-up portfolio.
- **Strategy:** The team invests in companies that have strong competitive advantages, high quality balance sheets, and are trading at a discount to the team's assessment of fair value. The key characteristic within the strategy is the initial screen. The team screens for companies that are able to generate ROE of greater than 15% for each of the last 10 years.

## iShares Core S&P Mid-Cap ETF

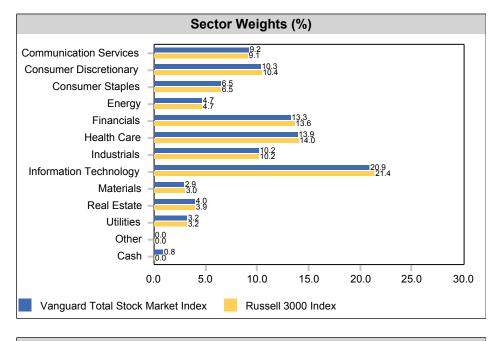
- Management: BlackRock Fund Advisors: Rachel Aguirre (2018), Diane Hsiung (2008), Jennifer Hsui (2012), Alan Mason (2016), Greg Savage (2008), and Amy Whitelaw (2018)
- **Objective:** The Fund seeks to replicate the performance of the S&P MidCap 400 Index.
- Strategy: The Fund employs a "passive management" or indexing investment approach designed to track the performance and characteristics of the S&P MidCap 400 Index. These key characteristics include industry weightings and market capitalization, as well as certain financial measures, such as price/earnings ratio and dividend yield. S&P MidCap 400 Index is a float adjusted market cap weighted index consisting of US midcapitalization companies.

## iShares Core S&P Small Cap ETF

- Management: BlackRock Fund Advisors: Diane Hsiung (since 2008), Jennifer Hsui (since 2012), Alan Mason (since 2016) and Greg Savage (since 2008)
- Objective: The Fund seeks to replicate the performance of S&P SmallCap 600 Index.
- Strategy: The Fund employs a "passive management" or indexing investment approach designed to track the performance and characteristics of
  the S&P SmallCap 600 Index. These key characteristics include industry weightings and market capitalization, as well as certain financial measures,
  such as price/earnings ratio and dividend yield. S&P SmallCap 600 Index is a float adjusted market cap weighted index consisting of US smaller
  capitalization companies.

Vanguard Total Stock Market Index vs. Russell 3000 Index

Portfolio Characteristics					
	Portfolio	Benchmark			
Wtd. Avg. Mkt. Cap (\$M)	197,110	202,131			
Median Mkt. Cap (\$M)	1,053	1,670			
Price/Earnings ratio	20.43	20.34			
Price/Book ratio	3.39	3.39			
5 Yr. EPS Growth Rate (%)	15.38	15.35			
Current Yield (%)	1.87	1.88			
Number of Stocks	3,601	2,954			



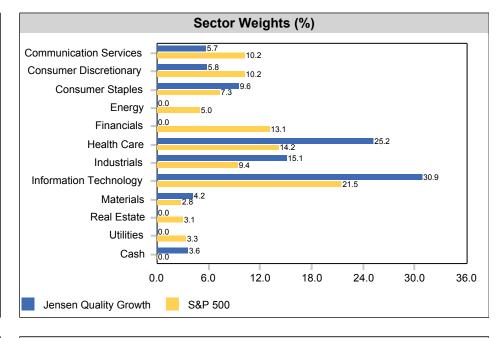
Top Ten Holdings					
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)	
Microsoft Corp	3.48	3.46	0.02	14.00	
Apple Inc	2.78	3.20	-0.42	4.60	
Amazon.com Inc	2.68	2.65	0.03	6.34	
Facebook Inc	1.57	1.56	0.01	15.78	
Berkshire Hathaway Inc	1.37	1.41	-0.04	6.11	
Johnson & Johnson	1.25	1.27	-0.02	0.32	
JPMorgan Chase & Co	1.17	1.26	-0.09	11.28	
Exxon Mobil Corp	1.10	1.11	-0.01	-4.08	
Alphabet Inc	1.09	1.10	-0.01	-8.00	
Alphabet Inc	1.09	1.12	-0.03	-7.88	
% of Portfolio	17.58	18.14	-0.56		

	Ten Best Pe	<u>rformers</u>		
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Provention Bio Inc	0.00	0.00	0.00	426.09
Workhorse Group Inc	0.00	0.00	0.00	378.05
Orion Energy Systems Inc	0.00	0.00	0.00	235.40
DGSE Cos Inc	0.00	0.00	0.00	203.74
Novan Inc	0.00	0.00	0.00	182.72
Aspen Aerogels Inc	0.00	0.00	0.00	179.61
Rekor Systems Inc	0.00	0.00	0.00	167.14
HF Foods Group Inc	0.00	0.00	0.00	162.72
Iovance Biotherapeutics Inc	0.01	0.01	0.00	157.83
Zynerba Pharmaceuticals Inc	0.00	0.00	0.00	150.00
% of Portfolio	0.01	0.01	0.00	



Jensen Quality Growth vs. S&P 500

	Portfolio Characteristics					
	Portfolio	Benchmark				
Wtd. Avg. Mkt. Cap (\$M)	232,108	238,882				
Median Mkt. Cap (\$M)	102,710	22,707				
Price/Earnings ratio	22.93	20.41				
Price/Book ratio	6.19	3.52				
5 Yr. EPS Growth Rate (%)	9.17	15.46				
Current Yield (%)	1.89	1.97				
Number of Stocks	29	505				



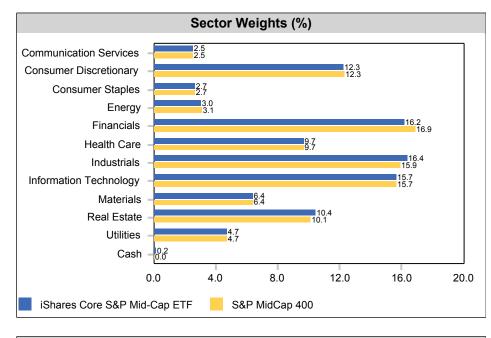
<u>Top Ten Holdings</u>					
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)	
Microsoft Corp	6.78	4.20	2.58	14.00	
Becton Dickinson and Co	6.55	0.28	6.27	1.24	
PepsiCo Inc	6.46	0.75	5.71	7.78	
United Technologies Corp	5.84	0.43	5.41	1.57	
Oracle Corp	5.12	0.57	4.55	6.54	
Unitedhealth Group Inc	5.11	0.95	4.16	-0.88	
Johnson & Johnson	4.69	1.51	3.18	0.32	
Stryker Corp	4.67	0.26	4.41	4.35	
3М Со	4.36	0.41	3.95	-15.85	
Ecolab Inc.	4.24	0.21	4.03	12.11	
% of Portfolio	53.82	9.57	44.25		

<u>Ten Best Performers</u>					
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)	
Broadridge Financial Solutions Inc	1.71	0.06	1.65	23.59	
Microsoft Corp	6.78	4.20	2.58	14.00	
Omnicom Group Inc.	2.99	0.07	2.92	13.19	
Mastercard Inc	2.35	0.97	1.38	12.51	
Ecolab Inc.	4.24	0.21	4.03	12.11	
Texas Instruments Inc	1.04	0.44	0.60	8.90	
PepsiCo Inc	6.46	0.75	5.71	7.78	
V.F. Corp	1.68	0.12	1.56	7.21	
Oracle Corp	5.12	0.57	4.55	6.54	
Procter & Gamble Co (The)	3.11	1.13	1.98	6.12	
% of Portfolio	35.48	8.52	26.96		



iShares Core S&P Mid-Cap ETF vs. S&P MidCap 400

Portfolio Characteristics					
	Portfolio	Benchmark			
Wtd. Avg. Mkt. Cap (\$M)	5,794	5,855			
Median Mkt. Cap (\$M)	4,102	4,095			
Price/Earnings ratio	19.10	19.15			
Price/Book ratio	2.54	2.55			
5 Yr. EPS Growth Rate (%)	13.29	12.96			
Current Yield (%)	1.71	1.70			
Number of Stocks	403	400			



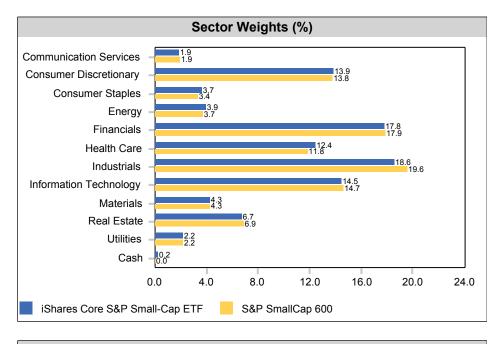
	Top Ten Ho	ldings		
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
IDEX Corp	0.76	0.76	0.00	13.81
Steris Plc	0.73	0.73	0.00	16.57
Leidos Holdings Inc	0.67	0.67	0.00	25.10
Domino's Pizza Inc	0.67	0.67	0.00	8.07
NVR Inc.	0.66	0.66	0.00	21.80
Trimble Inc	0.66	0.66	0.00	11.66
Zebra Technologies Corp.	0.66	0.66	0.00	-0.02
FactSet Research Systems Inc.	0.64	0.64	0.00	15.72
Camden Property Trust	0.59	0.59	0.00	3.64
Teledyne Technologies Inc.	0.58	0.58	0.00	15.55
% of Portfolio	6.62	6.62	0.00	

<u>Ten Best Performers</u>					
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)	
Adient Plc	0.12	0.12	0.00	87.27	
Sotheby's	0.11	0.11	0.00	53.99	
Cypress Semiconductor Corp	0.47	0.47	0.00	49.80	
Legg Mason Inc	0.19	0.19	0.00	39.86	
Haemonetics Corp	0.36	0.36	0.00	37.56	
Caesars Entertainment Corp	0.40	0.40	0.00	36.02	
Catalent Inc	0.46	0.46	0.00	33.55	
Tetra Tech Inc	0.25	0.00	0.25	32.12	
KBR Inc	0.21	0.21	0.00	31.08	
McDermott International Inc.	0.10	0.10	0.00	29.84	
% of Portfolio	2.67	2.42	0.25		



iShares Core S&P Small-Cap ETF vs. S&P SmallCap 600

Portfolio Characteristics					
	Portfolio	Benchmark			
Wtd. Avg. Mkt. Cap (\$M)	1,894	1,921			
Median Mkt. Cap (\$M)	1,128	1,125			
Price/Earnings ratio	19.49	19.48			
Price/Book ratio	2.25	2.26			
5 Yr. EPS Growth Rate (%)	8.68	9.53			
Current Yield (%)	1.58	1.56			
Number of Stocks	604	601			



	Top Ten Ho	<u>ldings</u>		
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Selective Insurance Group Inc	0.59	0.60	-0.01	18.68
FirstCash Inc	0.58	0.58	0.00	15.94
Strategic Education Inc	0.53	0.53	0.00	35.93
Mercury Systems Inc	0.53	0.53	0.00	9.78
John Bean Technologies Corp	0.52	0.52	0.00	31.94
Repligen Corp	0.49	0.49	0.00	45.48
Omnicell Inc	0.48	0.48	0.00	6.42
LHC Group Inc	0.47	0.47	0.00	7.87
Glacier Bancorp Inc	0.46	0.46	0.00	1.83
RLI Corp	0.46	0.45	0.01	19.78
% of Portfolio	5.11	5.11	0.00	

<u>Ten Best Performers</u>				
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
SolarEdge Technologies Inc	0.38	0.38	0.00	65.76
Sonic Automotive Inc.	0.08	0.08	0.00	58.34
Innovative Industrial Properties Inc	0.19	0.16	0.03	52.01
iStar Inc	0.11	0.11	0.00	49.21
Akorn Inc	0.07	0.07	0.00	46.31
GMS Inc	0.10	0.10	0.00	45.50
Repligen Corp	0.49	0.49	0.00	45.48
Arrowhead Pharmaceuticals Inc	0.34	0.34	0.00	44.41
Powell Industries Inc	0.05	0.04	0.01	44.15
Meta Financial Group Inc	0.11	0.10	0.01	42.79
% of Portfolio	1.92	1.87	0.05	



## Vanguard Total International Stock Index

- Management: The Fund is co-managed by Michael Perre and Michelle Louie. Mr. Perre has advised the Fund since 2008 and Ms. Louie has advised the fund since 2016. They have been in the investment industry since 1990 and 2011, respectively.
- **Objective:** The Fund seeks to track the performance of a benchmark index that measures the investment return of stocks across all market capitalizations issued by companies domiciled in both emerging markets and developed markets outside the United States.
- **Strategy:** The Fund employs a "passive management" or indexing investment approach that seeks to track the investment performance of the FTSE Global All Cap ex U.S. Index, an unmanaged benchmark representing stocks from global developed and emerging markets, excluding the United States, across the market capitalization spectrum.

## Vanguard International Value

- Management: Sub-advised by ARGA, Edinburgh Partners, and Lazard since 2012, 2008, and 2010, respectively.
- Objective: The Fund seeks capital appreciation
- **Strategy:** By combining elements of deep value, traditional value, and relative value investing, the Fund is expected to temper some of the cyclicality that is inherent in value investing, while retaining exposure to the alpha generation capabilities of all three sub-styles. In addition, the Fund provides access to the three underlying strategies that are otherwise not available to mutual fund investors. The Fund is designed to give total international equity exposure, including both developed and emerging markets.

#### J O Hambro International Select

- **Management:** The fund is co-managed by Christopher Lees and Nudgem Richyal. Both the senior fund managers joined the firm in 2008, having previously worked together at Baring Asset Management.
- **Objective:** The fund managers aim to exploit market anomalies via an investment process that combines both top-down and bottom-up research.
- Strategy: The fund managers target multiple sources of performance, looking for stocks, sectors, and countries with rising earnings estimates, rising or high and sustainable return on equity, appropriate valuation, and attractive mean reversion and momentum characteristics. They evaluate the correlation between each stock and its sector or country in order to avoid buying "good stocks in bad neighborhoods". A ruthless sell discipline is employed, whereby a stock is immediately sold to zero weight when its fundamentals or technicals deteriorate, or when there is contagion from deteriorating fundamentals or technicals in a stock's sector or country.



## Invesco Oppenheimer International Small-Mid Company Fund

- **Management:** Frank Jennings has taken over as portfolio manager for this fund effective the end of September, 2018. Mr. Jennings has managed a global small-mid cap strategy at Oppenheimer since 1995, and has on two previous occasions held portfolio management responsibilities for the International Small-Mid Company fund. He has over forty years of experience in the investment management industry.
- Objective: The Fund seeks capital appreciation.
- **Strategy:** The Fund invests primarily in small- and mid-cap companies domiciled outside the U.S. that offer opportunities for growth. Rigorous, fundamental analysis is employed to identify future leaders that operate in industries driven by structural growth and high barriers to entry. The Fund seeks companies with meaningful competitive advantages such as technological leadership, intellectual property, strong brands, or industries favoring natural monopolies. Oppenheimer's Global Equity Team uses several secular growth themes as a way to focus attention on certain segments of the global marketplace, which they refer to as MANTRA (Mass Affluence, New Technology, Restructuring and Aging).

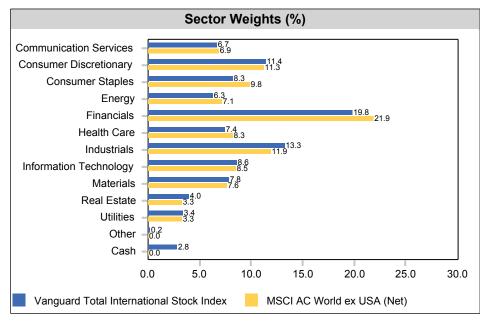
## Hartford Schroders Emerging Markets Equity

- Management: The fund is managed by a team of five portfolio managers led by Tom Wilson, Schroders' Head of Emerging Markets Equity. He has worked at Schroders since 2001 and has been involved with emerging markets equities at Schroders since 2004.
- Objective: The Fund seeks capital appreciation.
- Strategy: The Fund employs an actively managed approach that combines fundamental, bottom-up stock research with a quantitative country allocation process. Country rankings are prepared through evaluation of valuation, growth, currency, momentum, and interest rates. Stock level research targets a core universe of the most liquid stocks in the emerging markets universe, utilizing a relative value approach for stocks across the growth/value spectrum without any systematic style bias. Comprehensive risk controls are employed to keep factor exposures in check and constrain strategy-level tracking error to moderate levels.

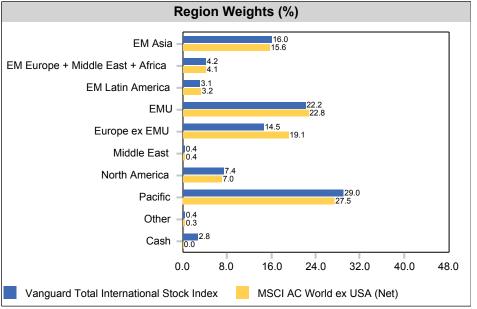


Vanguard Total International Stock Index vs. MSCI AC World ex USA (Net)

Portfolio Characteristics					
	Portfolio	Benchmark			
Wtd. Avg. Mkt. Cap (\$M)	55,438	67,766			
Median Mkt. Cap (\$M)	1,566	7,982			
Price/Earnings ratio	13.83	13.96			
Price/Book ratio	2.20	2.23			
5 Yr. EPS Growth Rate (%)	10.07	9.73			
Current Yield (%)	3.25	3.40			
Number of Stocks	7,034	2,206			



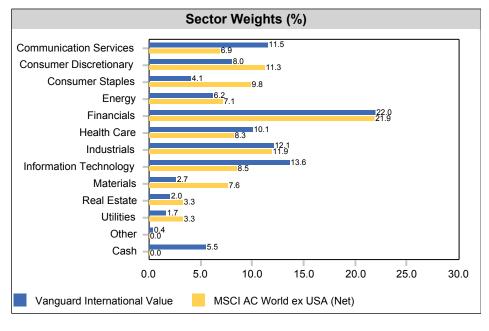
<u>Toj</u>	Ten Hold	<u>ings</u>		
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
CASH	2.80	0.00	2.80	N/A
Nestle SA, Cham Und Vevey	1.32	1.52	-0.20	11.47
Tencent Holdings LTD	1.10	1.23	-0.13	-1.56
Alibaba Group Holding Ltd	0.87	1.15	-0.28	-7.13
Novartis AG	0.85	0.95	-0.10	7.34
Roche Holding AG	0.84	0.95	-0.11	2.14
Samsung Electronics Co Ltd	0.82	0.93	-0.11	4.24
Taiwan Semicon Manufctrg Co Ltd	0.79	0.91	-0.12	0.12
Toyota Motor Corp	0.66	0.68	-0.02	5.99
Royal Dutch Shell PLC	0.61	0.69	-0.08	5.53
% of Portfolio	10.66	9.01	1.65	



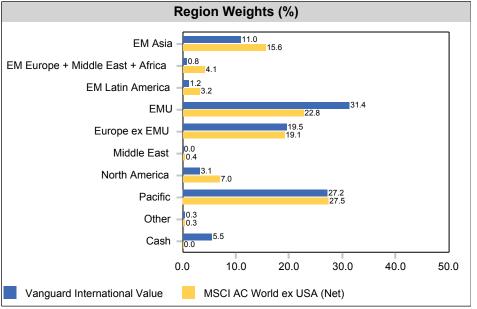


Vanguard International Value vs. MSCI AC World ex USA (Net)

Portfolio Characteristics					
	Portfolio	Benchmark			
Wtd. Avg. Mkt. Cap (\$M)	60,713	67,766			
Median Mkt. Cap (\$M)	24,191	7,982			
Price/Earnings ratio	13.94	13.96			
Price/Book ratio	2.10	2.23			
5 Yr. EPS Growth Rate (%)	7.17	9.73			
Current Yield (%)	3.44	3.40			
Number of Stocks	146	2,206			



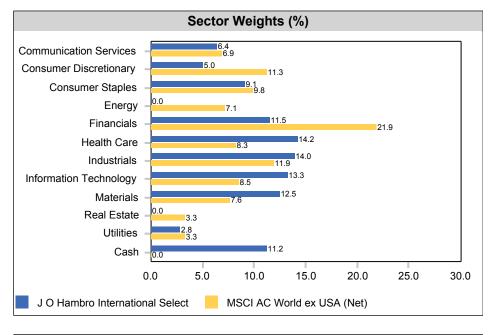
<u>Top Ten Holdings</u>				
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
CASH	5.51	0.00	5.51	N/A
Novartis AG	2.43	0.95	1.48	7.34
Sanofi	2.12	0.46	1.66	1.84
Royal Dutch Shell PLC	2.04	0.69	1.35	4.04
Icici Bank Ltd	1.93	0.07	1.86	9.86
Roche Holding AG	1.91	0.95	0.96	2.14
Samsung Electronics Co Ltd	1.74	0.93	0.81	4.24
DBS Group Holdings Ltd	1.63	0.16	1.47	6.47
SAP SE	1.53	0.65	0.88	20.41
Sumitomo Mitsui Financial Group Inc	1.48	0.22	1.26	0.95
% of Portfolio	22.32	5.08	17.24	



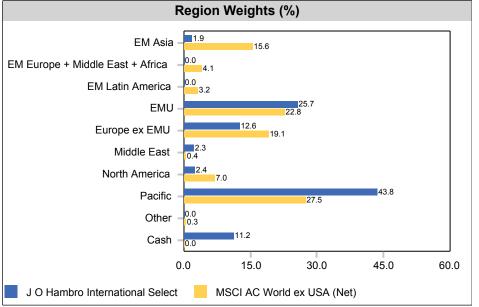


## J O Hambro International Select vs. MSCI AC World ex USA (Net)

Portfolio Characteristics					
	Portfolio	Benchmark			
Wtd. Avg. Mkt. Cap (\$M)	37,239	67,766			
Median Mkt. Cap (\$M)	25,139	7,982			
Price/Earnings ratio	19.19	13.96			
Price/Book ratio	2.74	2.23			
5 Yr. EPS Growth Rate (%)	14.73	9.73			
Current Yield (%)	2.07	3.40			
Number of Stocks	39	2,206			



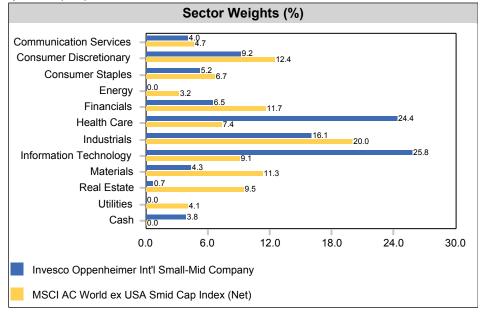
<u>Top Ten Holdings</u>					
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)	
CASH	11.24	0.00	11.24	N/A	
Newcrest Mining Ltd	2.85	0.08	2.77	23.70	
SAP SE	2.84	0.65	2.19	20.41	
Orsted A/S	2.81	0.08	2.73	14.12	
Rakuten Inc	2.74	0.05	2.69	25.57	
Lonza Group AG, Zuerich	2.58	0.12	2.46	9.81	
SBI Holdings Inc	2.49	0.03	2.46	11.19	
Recruit Holdings Co Ltd	2.48	0.19	2.29	16.89	
Rio Tinto Group	2.46	0.34	2.12	6.76	
IHS Markit Ltd	2.44	0.00	2.44	17.18	
% of Portfolio	34.93	1.54	33.39		



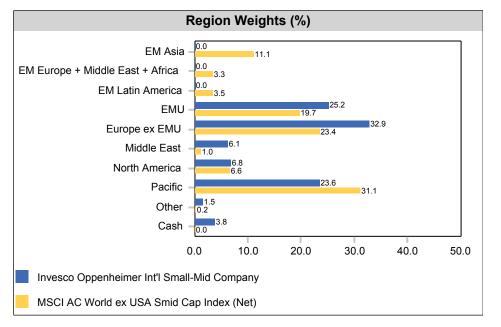


Invesco Oppenheimer Int'l Small-Mid Company vs. MSCI AC World ex USA Smid Cap Index (Net)

Portfolio Characteristics						
	Portfolio	Benchmark				
Wtd. Avg. Mkt. Cap (\$M)	4,949	5,931				
Median Mkt. Cap (\$M)	3,476	1,107				
Price/Earnings ratio	22.81	14.77				
Price/Book ratio	3.39	2.27				
5 Yr. EPS Growth Rate (%)	14.54	10.95				
Current Yield (%)	1.38	2.90				
Number of Stocks	128	5,176				



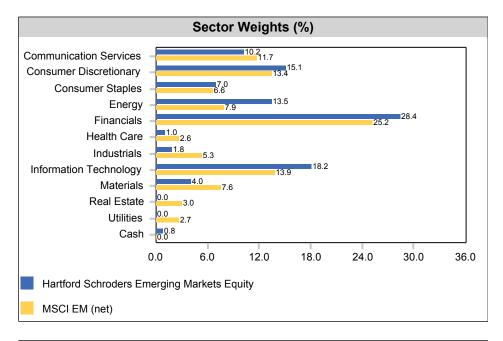
	Top Ten Ho	oldings		
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
NICE Ltd	3.86	0.12	3.74	11.83
CASH	3.83	0.00	3.83	N/A
Carl Zeiss Meditec AG, Jena	2.40	0.05	2.35	18.14
Obic Co Ltd	2.27	0.10	2.17	12.39
Tecan Group AG, Maennedorf	1.92	0.04	1.88	11.07
Amarin Corp PLC	1.71	0.00	1.71	-6.60
CAE Inc.	1.65	0.10	1.55	21.87
Xing SE	1.60	0.02	1.58	25.36
Nektar Therapeutics	1.54	0.00	1.54	5.89
Ocado Group PLC	1.51	0.09	1.42	-16.91
% of Portfolio	22.29	0.52	21.77	



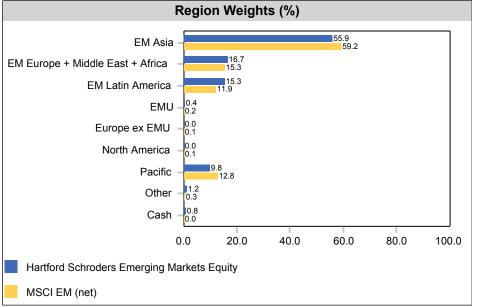


Hartford Schroders Emerging Markets Equity vs. MSCI EM (net)

Portfolio Characteristics					
	Portfolio	Benchmark			
Wtd. Avg. Mkt. Cap (\$M)	107,087	81,469			
Median Mkt. Cap (\$M)	14,101	5,440			
Price/Earnings ratio	15.11	12.00			
Price/Book ratio	2.27	2.28			
5 Yr. EPS Growth Rate (%)	19.50	14.02			
Current Yield (%)	2.42	3.01			
Number of Stocks	105	1,194			



Top Ten Holdings				
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Samsung Electronics Co Ltd	7.15	3.51	3.64	4.24
TENCENT HOLDINGS LTD	6.71	0.00	6.71	N/A
Taiwan Semicon Manufctrg Co Ltd	5.67	3.44	2.23	0.12
Alibaba Group Holding Ltd	5.44	4.36	1.08	-7.13
PING AN INSURANCE GROUP	2.84	0.00	2.84	N/A
Sberbank of Russia OJSC	2.79	0.74	2.05	21.90
AIA Group Ltd	2.76	0.00	2.76	9.71
Naspers Ltd	2.47	1.92	0.55	4.73
Itau Unibanco Holding SA	2.38	0.83	1.55	7.06
Oil Co LUKOIL PJSC	2.25	0.63	1.62	-6.45
% of Portfolio	40.46	15.43	25.03	





### Baird Core Plus

- **Management:** The Fund has been managed by a team of six portfolio managers since its inception in 2000. The most senior trio of the management team has been working together for over 30 years.
- Objective: The Fund seeks to maximize long-term total return and achieve an annual return that exceeds its benchmark.
- **Strategy:** The Fund normally invests at least 80% of assets in the following types of U.S. dollar-denominated debt securities: U.S. government, U.S. government agencies, asset-backed and mortgage-backed obligations of U.S. issuers and corporate debt of U.S. and foreign issuers. It invests primarily in investment-grade debt securities, but can invest up to 20% of net assets in non-investment grade securities.

#### DoubleLine Core Fixed

- Management: Jeff Gundlach, CEO/CIO of DoubleLine Capital has been managing the Fund since 2010. Jeff Sherman, Deputy CIO, has co-managed the Fund since 2016.
- **Objective:** The Fund seeks to maximize current income and total return.
- Strategy: The Fund may invest in fixed income securities of any credit quality including up to a third of its net assets in junk bonds, bank loans and assignments rated below investment grade or unrated but determined by the Adviser to be of comparable quality, and credit default swaps of companies in the high yield universe. The Fund may also invest a portion of its net assets in fixed income instruments issued or guaranteed by companies, financial institutions and government entities in emerging market countries. The Fund may pursue its investment objective and obtain exposures to some or all of the asset classes described above by investing in other investment companies, including, ETFs and investment companies sponsored or managed by the Adviser and its affiliates. In managing the Fund's investments, under normal market conditions, the portfolio manager intends to seek to construct an investment portfolio with a weighted average effective duration of no less than two years and no more than eight years.

#### PGIM Total Return

- Management: Senior portfolio managers Michael Collins (since 2009), Rich Piccirillo (2012) and Greg Peters (2014) have managed the Fund joined by Chief Investment Strategist Robert Tipp (2002). PGIM Fixed Income is the primary public fixed-income asset management unit of PGIM, a whollyowned subsidiary of Prudential Financial, Inc.
- **Objective:** The Fund seeks total return by investing in a diversified portfolio of bonds from multiple fixed income sectors.
- Strategy: The Fund allocates assets among different debt securities, including (but not limited to) US Government securities, mortgage-related and asset-backed securities, corporate debt securities and foreign securities. The Fund may invest up to 30% of its investable assets in high risk, below investment-grade securities having a rating of not lower than CCC. The Fund may invest up to 30% of its investable assets in foreign debt securities. The Fund has the flexibility to allocate its investments across different sectors of the fixed-income securities markets at varying duration. Up to 25% may be expressed through various derivative strategies.



### Vanguard Intermediate-Term Investment Grade

- Management: The Fund is managed by Samuel Martinez and Daniel Shaykevich (since 2018).
- Objective: The Fund seeks to provide a moderate and sustainable level of current income.
- Strategy: The Fund invests in a variety of high-quality and, to a lesser extent, medium-quality fixed income securities, at least 80% of which will be short- and intermediate-term investment-grade securities. High-quality fixed income securities are those rated the equivalent of A3 or better by Moody's Investors Service, Inc., or another independent rating agency; medium-quality fixed income securities are those rated the equivalent of Baa1, Baa2, or Baa3 by Moody's, or another independent rating agency. Investment-grade fixed income securities are those rated the equivalent of Baa3 and above by Moody's. The fund is expected to maintain a dollar-weighted average maturity of 5 to 10 years.

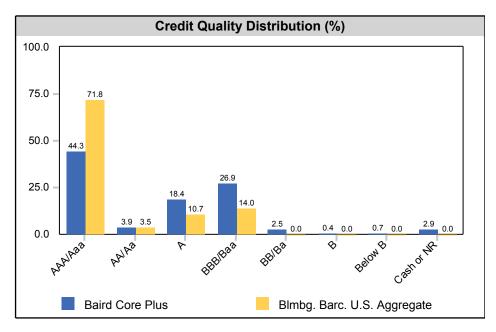
## Vanguard High-Yield Corporate Fund

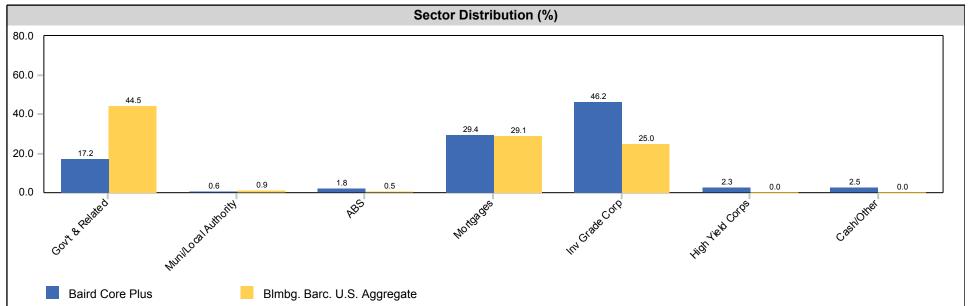
- **Management:** The Fund is managed by Michael L. Hong, CFA, Vice President and Portfolio Manager of Wellington Management Company, LLP. Mr. Hong, CFA, leads the firm's high-yield credit research team and has worked in investment management with Wellington since 1997.
- **Objective:** The Fund seeks to provide a high level of current income.
- Strategy: The Vanguard High-Yield Corporate Fund invests in a diversified portfolio of medium- and lower-quality corporate bonds, often referred to as "junk bonds." Created in 1978, this fund seeks to purchase what the advisor considers higher-rated junk bonds. This approach aims to capture consistent income and minimize defaults and principal loss. Although this is a bond fund, high-yield bonds tend to have volatility similar to that of the stock market. The Fund's internal benchmark includes a 5% target to shorter maturity treasuries to aid in liquidity.



Baird Core Plus vs. Blmbg. Barc. U.S. Aggregate

Portfolio Characteristics			
	Portfolio	Benchmark	
Effective Duration	5.56	5.73	
Yield To Maturity (%)	2.90	2.50	
Avg. Maturity	7.42	7.87	
Avg. Quality	AA	AA	
Coupon Rate (%)	3.70	3.23	

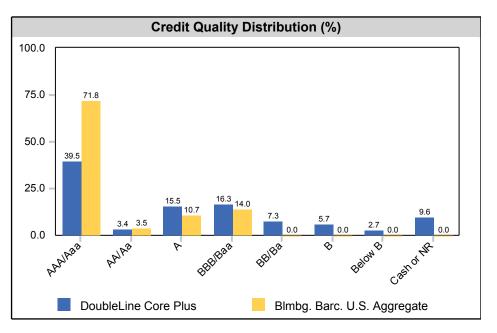


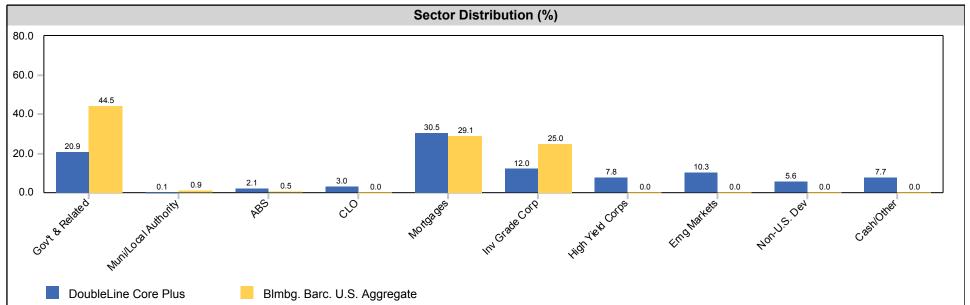




DoubleLine Core Plus vs. Blmbg. Barc. U.S. Aggregate

Portfolio Characteristics			
	Portfolio	Benchmark	
Effective Duration	4.57	5.73	
Yield To Maturity (%)	3.24	2.50	
Avg. Maturity	6.56	7.87	
Avg. Quality	Α	AA	
Coupon Rate (%)	3.82	3.23	

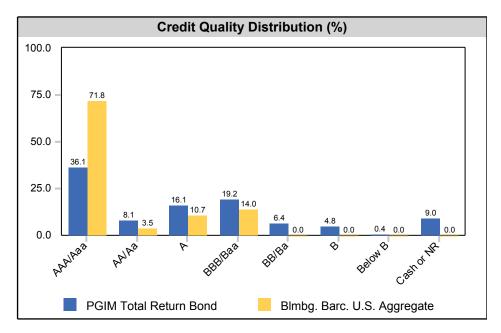


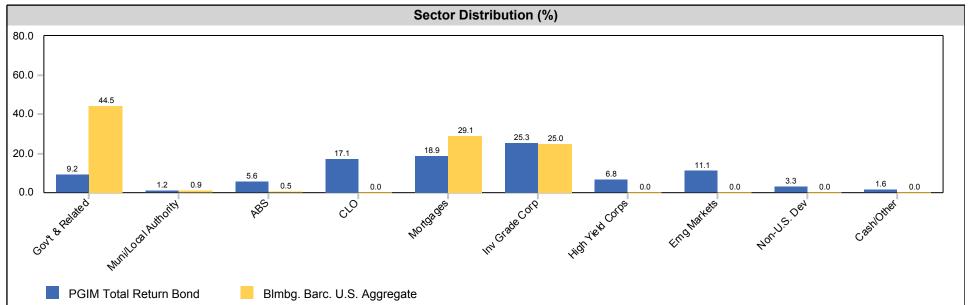




PGIM Total Return Bond vs. Blmbg. Barc. U.S. Aggregate

Portfolio Characteristics		
	Portfolio	Benchmark
Effective Duration	6.20	5.73
Yield To Maturity (%)	3.11	2.50
Avg. Maturity	7.02	7.87
Avg. Quality	Α	AA
Coupon Rate (%)	3.71	3.23

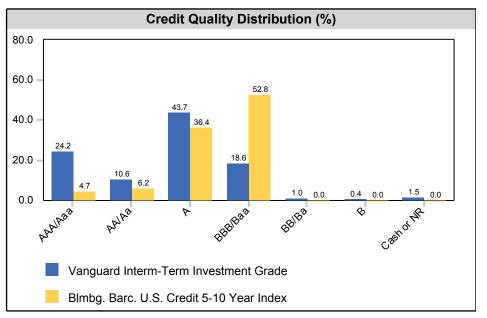


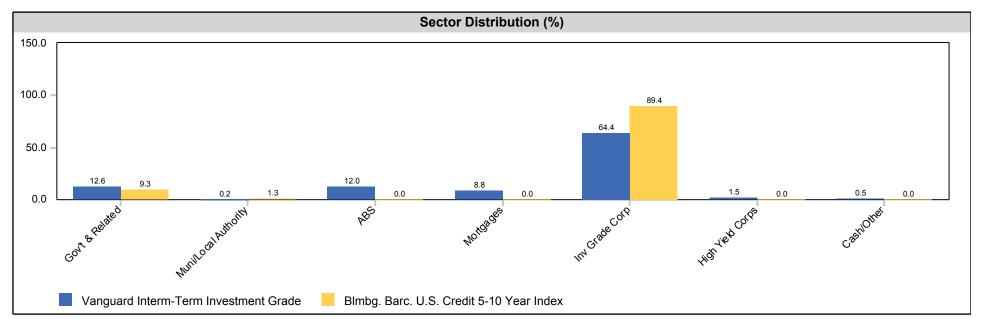




Vanguard Interm-Term Investment Grade vs. Blmbg. Barc. U.S. Credit 5-10 Year Index

Portfolio Characteristics		
Portfolio	Benchmark	
5.40	6.27	
2.70	3.05	
5.60	7.39	
Α	Α	
3.20	3.82	
	Portfolio 5.40 2.70 5.60 A	

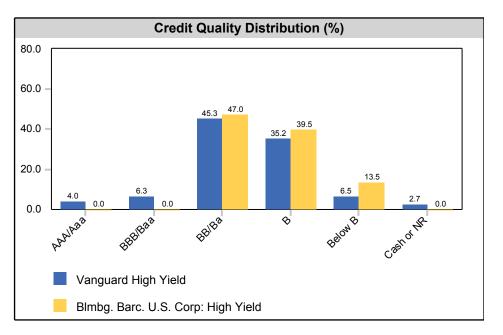


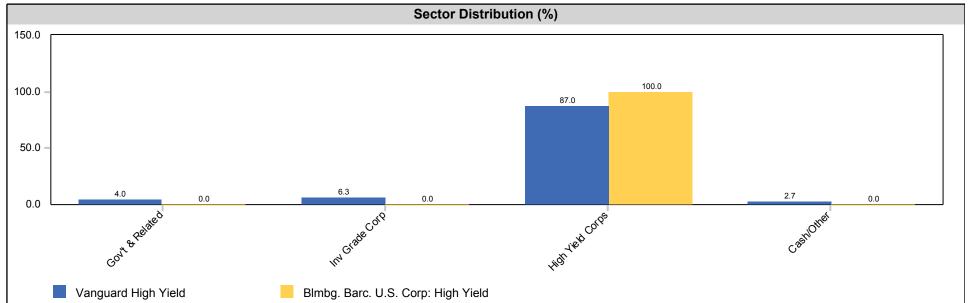




Vanguard High Yield vs. Blmbg. Barc. U.S. Corp: High Yield

Portfolio Characteristics		
	Portfolio	Benchmark
Effective Duration	3.30	3.23
Yield To Maturity (%)	5.40	6.34
Avg. Maturity	4.10	5.78
Avg. Quality	BB	В
Coupon Rate (%)	5.65	6.37







## Boyd Watterson GSA Fund, LP

- Management: Brian L. Gevry, CFA, serves as the CEO. The co-Portfolio Manager on the team is Robert Law, who is the CIO of Real Estate. Another key team member is EVP Steven Perry, who joined the firm in 2014. Mr. Perry is a former Administrator of the GSA and brings deep knowledge into their leasing strategies and practices.
- Objective: The Fund seeks to provide a high level of income and moderate risk below equities and real estate but higher than fixed income.
- Strategy: The team seeks properties delivering high current income, which is distributed quarterly. As valuations for secure, GSA occupied properties are less volatile than even core traditional real estate, the strategy is able to take advantage of the current attractive cost of capital and high spread between operating yield and financing costs to further enhance income generation / cash on cash yield. The team focuses on properties in the small to mid-sized market of \$5-\$25 million which offer more attractive attributes.



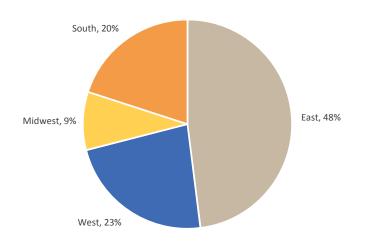
Portfolio Characteristics
Boyd Watterson GSA Fund As of June 30, 2019

Portfolio Characteristics	
Net Assets (\$ millions)	1,756
Gross Assets (\$ millions)	2,809
Number of Investors	287
Number of Properties	134
Portfolio Size (sq. ft. millions)	10.18
Occupancy Rate	94%
Average Lease Term (years)	6.87
Average Cost of Debt	3.64%
Fund Leverage Ratio	32.95%

Acquisitions				
Location	US Agency	Investment Cost	Square Footage	Cap Rate
San Bernardino, CA	Department of Homeland Security	\$18,400,000	60,630	8.03
Mauldin, SC	Social Security Administration	\$6,058,824	18,333	6.79
Asheville, NC	U.S. Probation and Pretrial Services System	\$5,200,000	13,430	7.02
Sacramento, CA	State - Justice	\$103,541,584	399,636	7.09
Chula Vista, CA	Department of Homeland Security	\$20,200,000	59,322	6.75
Lincoln, NE	Department of Homeland Security	\$30,500,000	140,127	10.98
Buffalo, NY	Department of Justice	\$16,900,000	121,711	4.60
Dispositions				
Location	US Agency	Investment Cost	Square Footage	Cap Rate

None

## **Diversification by Region**



Fund Diversification by Agency vs. GSA Market			
U.S. Department	GSA Fund	GSA Market	Difference
Department of Homeland Security (DHS)	18.3%	10.5%	7.7%
Department of Defense	10.0%	6.5%	3.5%
Department of Justice	7.2%	12.6%	-5.4%
U.S. Department of Health and Human Services (HHS)	11.0%	4.3%	6.7%
State Agency	8.2%	-	8.2%
U.S. International Trade Commission	3.6%	0.2%	3.4%
U.S. Department of Agriculture (USDA)	4.1%	4.6%	-0.5%
U.S. Department of the Treasury	6.0%	5.4%	0.6%
Social Security Administration (SSA)	4.0%	6.3%	-2.2%
Federal Maritime Commission	1.2%	0.0%	1.2%



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