



# MICHIGAN COUNTY ROAD COMMISSION SELF-INSURANCE POOL

## *Board of Directors*

**Chairman**  
**Alan D Cooper**  
*Wexford CRC*

**Vice Chairman**  
**Dennis J Stanek**  
*Delta CRC*

**Douglas E Fuller**  
*Washtenaw CRC*

**Brian Gutowski**  
*Emmet CRC*

**Timothy J Haagsma**  
*Kent CRC*

**Lester R Livermore**  
*Mackinac CRC*

**Dorothy G Pohl**  
*Ionia CRC*

**John S Rogers**  
*Kalkaska CRC*

**Joseph F Valente**  
*Marquette CRC*

**Administrator**  
**Gayle A Cummings**

**Assistant Administrator-CFO**  
**Board Treasurer**  
**Kristi Peña**

**Executive Assistant**  
**Board Secretary**

**Assistant Administrator-**  
**Director of Loss Control**  
**Michael E Shultz**

417 N Seymour Ave  
Suite 2  
Lansing MI 48933

www.mcrcsip.org  
(517) 482-9166  
(800) 842-4971  
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## BOARD OF DIRECTORS MEETING AGENDA Comfort Inn – Mt. Pleasant – Conference Room “C” December 5, 2018 8:00 a.m.

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8:00 a.m. – 9:30 a.m. (estimated) Conference Room “C”  
Administrator’s Evaluation – Board & Administrator Only

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1. Call to Order
2. Pledge of Allegiance
3. Additions to Agenda
4. Chairman’s Remarks
5. Approval of Minutes
  - a. August 23, 2018
6. Administrator’s Report
7. Treasurer’s Report
  - a. Approval of Payment Vouchers
  - b. Review and Acceptance of Financial Reports
8. Investment Consultant Report
  - a. Brian Brice, The Brice Group – Graystone Consulting
9. Approval of Engagement Letters
  - a. Milliman
  - b. Plante Moran
  - c. Sedgwick
10. Claims Update and Authorizations
11. Loss Control Report
12. Unfinished Business
13. New Business
14. Adjourn



**2018/2019  
REGULAR BOARD MEETING SCHEDULE**

**Wednesday  
December 5, 2018**

Comfort Inn  
Mt. Pleasant

September Quarterly Investment Reports  
Finalize Goals & Objectives  
Finalize Administrator's Evaluation  
Approve Annual Engagement Letters  
(Audit, Claims Review, Actuarial, etc.)

Thursday  
February 28, 2019

**Soaring Eagle  
Mt. Pleasant**

December Quarterly Investment Reports  
2017-2018 Budget  
Actuary's Reports  
Approval of Renewal Package

Thursday & Friday  
May 23 & 24, 2019

MCRC SIP Office  
Lansing

March Quarterly Investment Reports  
(Investment Managers)

Thursday  
June 27, 2019

**Stafford's Perry Hotel  
Petoskey**

Annual Meeting Planning  
Actuaries, Investment Consultant,  
TPA, Auditors

Wednesday & Thursday  
July 17-18, 2019

Soaring Eagle Resort  
Mt. Pleasant

Annual Workshop &  
Membership Meeting

Thursday  
August 29, 2019

**Ramada Inn  
Marquette**

June Quarterly Investment Reports  
Organizational – Committee &  
Meeting Schedules  
Begin Administrator's Evaluation  
Begin Goals & Objectives  
Board Policy Review



# MICHIGAN COUNTY ROAD COMMISSION SELF-INSURANCE POOL

## BOARD OF DIRECTORS' MEETING MINUTES Bay Mills Casino & Resort – Brimley August 23, 2018

### *Board of Directors*

#### **Chairman**

**Alan D Cooper**  
*Wexford CRC*

#### **Vice Chairman**

**Dennis J Stanek**  
*Delta CRC*

#### **Douglas E Fuller**

*Washtenaw CRC*

#### **Brian Gutowski**

*Emmet CRC*

#### **Timothy J Haagsma**

*Kent CRC*

#### **Lester R Livermore**

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*Kalkaska CRC*

#### **Joseph F Valente**

*Marquette CRC*

#### **Administrator**

**Gayle A Cummings**

#### **Assistant Administrator-CFO**

**Board Treasurer**  
**Kristi Peña**

#### **Executive Assistant**

**Board Secretary**  
**Nicole Markle**

#### **Assistant Administrator-**

**Director of Loss Control**  
**Michael E Shultz**

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### **Board Members Present:**

A. Cooper, D. Fuller, B. Gutowski, T. Haagsma,  
L. Livermore, D. Pohl, J. Rogers, D. Stanek; J. Valente

### **Staff Present:**

G. Cummings, K. Peña, N. Markle, M. Shultz

### **Guests Present:**

B. Brice, The Brice Group/Graystone Consulting;  
G. Nemmers, Hylant

Chairman Cooper called the meeting to order at 8:00 a.m.

The Pledge of Allegiance was recited.

Chairman Cooper asked for any additions to the agenda. A short planning session was added to the end of the agenda.

The proposed regular Board Meeting Schedule for 2018/19 was reviewed. There was discussion and a change made to the May 2019 date. A final schedule with locations will be approved at the next meeting, December 5, 2018.

A list of directors and committee assignments were provided to the Board. The 2018/19 Committee List is attached to these minutes.

Chairman Cooper led the entire Board in signing the 2018/2019 Code of Ethics to be placed on file.

It was moved by Tim Haagsma, seconded by Doug Fuller, **to approve the Board of Directors' Meeting Minutes for June 28, 2018, as presented.** The motion carried unanimously.

It was moved by Lester Livermore, seconded by Tim Haagsma, **to approve a draft of the Annual Meeting Minutes to be adopted by the membership July 18, 2019.** The motion carried unanimously.

It was moved by Dennis Stanek, seconded by Tim Haagsma, **to approve the Board of Directors' Meeting Minutes for July 19, 2018, as presented.** The motion carried unanimously.

Gayle presented the Administrator's report.

It was moved by Brian Gutowski, seconded by Tim Haagsma **to approve the Sedgwick contract and authorized the Administrator to execute the document.** The motion carried unanimously.

It was moved by Joe Valente, seconded by Dorothy Pohl **to move forward with contacting space planners and make strides to move the entire team to the second floor as requested in the Administrator's Report.** Motion carried unanimously.

Kristi Peña presented the June – July payment vouchers.

It was moved by Tim Haagsma, seconded by Joe Valente, **to approve the June and July 2018 payment vouchers as presented.** Motion carried unanimously.

Kristi Peña presented the July 2018 financial reports.

It was moved by Joe Valente, seconded by Brian Gutowski, **to approve the July 2018 financial report as presented.** Motion carried unanimously.

*There was a break at 9:32 a.m.*

*The meeting reconvened at 9:46 a.m.*

Brian Brice, The Brice Group – Graystone Consulting, presented and reviewed the Investment Performance Analysis for quarter ending June 30, 2018. The Investment Policy Statement changes were reviewed. It was moved by Dorothy Pohl, seconded by Lester Livermore, **to approve the removal of the Investment Manager section on page 19 and then execute.** Motion carried unanimously.

Mike Shultz presented his Loss Control Report for June – July 2018.

Gayle presented the Open On-Notice update:

Crawford v. County Road Commission for Montcalm – **pending**; Dunkel v. Mecosta County Road Commission – **closed**; Graves v. Clare County Road Commission – **pending**; Grewette v. Genesee County Road Commission – **pending**; Hatmaker v. Branch County Road Commission – **pending**; Hayley v. Leelanau County Road Commission – **pending**; Hickonbottom v. Washtenaw County Road Commission – **pending**; Hill v. Road Commission of Kalamazoo County – **pending**; Johnson v. Chippewa County Road Commission – **pending**; Kole v. Antrim County Road Commission – **closed**; Macdonald v. Lapeer County Road Commission – **pending**; McClane v. Genesee County Road Commission – **pending**; McDaniel v. Berrien County Road Commission – **pending**; Rhodes v. Mecosta County Road Commission – **closed**; Vandenbosch v. Ottawa County Road Commission – **pending**; Vandermolen v. Barry County Road Commission – **pending**; Wilson v. Emmet County Road Commission – **pending**; Zettle v. Ogemaw County Road Commission – **pending**.

Gayle presented the Open Litigated update.

Ann Arbor/Chelsea v. Washtenaw County Road Commission – **pending**; Beck Blue, Dunn, Ross v. Genesee County Road Commission – **pending**; Brugger v. Midland County Road Commission – **pending**; D'Agostini & Sons KWA Water Auth. v. Lapeer County Road Commission – **pending**; Eyerly v. Berrien County Road Commission – **pending**; Flanagan v. Kalkaska County Road Commission – **pending**; Grinage, Harston, Musser, Pearce v. Eaton County Road Commission – **pending**; Jackson v. Genesee County Road Commission – **pending**; Kruck v. Kalkaska County Road Commission – **pending**; Nelms v. Kent County Road Commission – **pending**; Quinn v. Sanilac County Road Commission – **pending**;

Shrock v. Genesee County Road Commission – **pending**; Tomaszekwski v. Manistee County Road Commission – **pending**; Tooles Contracting v. Washtenaw County Road Commission – **pending**.

Brian Brice, The Brice Group – Graystone Consulting discussed the current structure of the MEP Retirement Program and will look into other options for this program. At this time there has been no interest from any members.

*There was a break at 11:56 a.m.*

*The meeting reconvened at 12:46 p.m.*

Brian Brice left the meeting.

For our 2019 Planning Session, Greg Nemmers from Hylant presented new coverage options to the Board and other coverages offered through Hylant that may benefit Road Commissions. The current structure versus what Hylant has to offer was presented. Greg will follow up with rates/pricing for presented programs. Discussion ensued.

*There was a break at 2:34 p.m.*

Greg Nemmers left the meeting.

*The meeting reconvened at 2:50 p.m.*

The Board reviewed the 2018 Strategic Planning goals. They discussed what goals were met, what is still outstanding and what will be moved forward for 2019. A draft of the 2019 goals and objectives will be approved at our December meeting.

Creating a committee for the Annual Meeting was discussed regarding the agenda, training topics, etc. This was tabled and will be a topic of the December meeting.

A memo was created by Bill Henn of Henn Lesperance in response to the CRASIF coordination of workers compensation and no fault benefits. Bill asked for a two week discovery period to determine Pool risk and will keep the Board updated. Bill will then advise the Pool of what is best to protect its members.

At 3:22 p.m. Kristi Peña, Nickie Markle and Mike Shultz left the meeting. The Board continued with a short planning session.

At 4:15 p.m. the meeting was adjourned.

Respectfully submitted,



Nicole Markle  
Board Secretary



## Administrator's Report December 5, 2018

### Administrative/ Financial/ Building

We are asking that you appoint Robin Tidwell as Board Secretary. **We will need a motion.**

2018-19 Financial results are good. Investments have been interesting. We are looking forward to Brian's report.

Our new short term investment account (invested in Federated Institutional Prime Funds) has added \$83,000 of new income to our bottom line. So far.

Kristi has updated the Board's Accounting Policies and Procedures to add an Escheatment Procedure as directed by our DIFS auditors. She has also made changes to incorporate our new banking accounts and new software. The revised Policy is incorporated in this report. **We will need a motion.**

DIFS has sent over a memo with three issues they would like us to address. I am currently working with Hylant to develop a draft response, and should have that for this meeting. **We will need a motion.**

Your new Investment Policy is in place.

Attached are the building entrance and second floor office designs that we have received from the architect/design firm. The contractor now has them to develop price estimates. Our goal is to have the prices for you to review (and approve?) at this meeting. **We will need a motion.**

I spent time with Adam Tountas this week to discuss Treasury's requirement that we report our OPEB liabilities under PA 202 – Protecting Local Government Retirement and Benefits Act, and Treasury's mis-classification of MCRCSIP as a unit of government (an Agency created by Ingham County!), and we are going to try one more time to unwind the mis-classification before filing the report. Our concern is that this report will put our balance sheet on the record as a municipal asset, and that is not a good thing. The latest communication from Treasury gives me 60 days.

We have a new job description for you to review and approve. Because we do not have much work at the level of Administrative Assistant anymore, we are asking you to approve an upgrade to that position to Accounting Clerk/Member Services Assistant. The new Job Description is attached to this report. The change will not require a budget adjustment. **We will need a motion.**

### Annual Meeting

Smith Haughey Rice & Roegge (Adam and Cathy) have offered to do a program for next year's Annual Meeting Workshop. We will be considering their offer, as well as other speakers and topics over the next month or two. Please share any ideas you have regarding the meeting and the workshop. The meeting is scheduled for July 17-18, 2019.

It has been suggested that we have the meeting and workshop all on one day.

### \*Contributions/Coverage

Our Liability Contribution formula appears to be allocating more of the cost than I think looks appropriate when we increase the Frequency component for low value claims. There are a couple of ways we can fix this – 1) set a minimum expenditure amount before increasing a Member's frequency count; 2) eliminate the frequency component; 3) adjust the amount of the indicated premium assigned to frequency; 4) another solution I haven't

***Administrator's Report***  
***December 5, 2018***

thought of yet! I think **we should schedule a committee meeting** before renewals are calculated in February to review the formula, and possibly examine all of the components and weights used to allocate the costs. I test it annually, but it has been about 10 years since our Committee discussed it. The refund formula will also need to be reviewed in conjunction with the contribution formula. The Contribution Committee is Lester, Dorothy and Joe.

My renewal planning meeting with Hylant went very well. As we discussed in August, Genesis has offered to change the Pool's underlying insurance coverage for General and Auto Liability from Excess Coverage (we follow their "form") to Reinsurance (they insure our agreement with our Members). Genesis' offer is to underwrite our existing agreements at this time. That gives us time to carefully develop new coverage documents that might better meet our Members' needs. We also discussed combining the EPLI/Public Officials E&O into the Genesis program so that it becomes simpler to cover issues that crossover coverage types. We need more time to review that, but it may be an option. The overall cost is expected to remain flat, but I did have to raise my eyebrows once or twice and ask if they had low balled us last year.....

We are planning to add Cyber coverage.

Ps... Hylant's market update indicated that WC coverage costs are down 3% this year which could be good news for your Road Commission and CRASIF.

**\*Claims/Loss Control**

Sedgwick sent over a new one-year contract for their services. This version incorporates many of the process improvements we have developed over the past three years, but does show a slight increase for cola. Kristi will be asking you to approve that contract.

Origami implementation started May 8. The Claims portion went live in our office on November 1. Jennifer is doing an excellent job of keeping the programmers on task and customizing the software for our purposes. Both Jennifer and Shanda are entering all of our claims information in both Origami and Riskmaster for the next few months.

We expect to make significant changes in our Loss Control program over the next year. I will be working with Mike and Mike to add a new staff person, and make some changes to better integrate our Claim Reporting with Loss Control, redesign our Member training/inspection service model and to start making an Annual Plan for each member. With the feedback we have been receiving from our Members and the implementation of our Origami software, it is time to make some changes.

Claim payments this year are about \$164,000 higher than last year (8.5%).

We are planning to look for a new Claims staff person in January. We need one more person but with the upcoming remodeling and the Origami implementation, we think it best to wait.

**AGRIP**

The Spring Governance and Leadership Conference is scheduled for March 3 – 6 at the St. Louis Union Station Hotel. We have not received an agenda or registration for that yet, but will let you know when we get more information.

The Fall Educational Forum is scheduled for October 6 – 9 in Cleveland.

The CEO Institute is scheduled for August 4 – 7 in Grand Rapids.

We still need to renew our Accreditation. It is on my list.

## **CRA/CRASIF**

The Commissioners' Seminar is March 10-12 and the Highway Conference is March 12-14. We are supposed to have rooms set aside for all of our Board and staff that want them. Robin was surveying your room requirements so we would be ready when reservations open on December 6.

The final "How we do business" meeting between the Chairs/Vice Chairs of CRA, CRASIF and MCRCSIP is scheduled for December 14.

As we all know by now, the CRASIF Board Chairman sent an email back to Bill Henn to dispute his explanation of the law with respect to coverage for the vehicle accidents in RC vehicles while travelling to work. While Bill and I were both amazed at the content of her email, he has recommended that we not respond and I agree. We believe that any attempt at rational discussion is simply providing an opportunity for her to write another letter disparaging your Administrator. MCRCSIP will do our best to support our Members should this claim situation occur again, but we will not offer coverage over and above our obligation. We will explain the law and our coverage and rights to our Members and support them in their efforts to take care of their employee. It is possible that our attempts to discuss this will give CRASIF incentive to provide support without problems the next time it occurs. It was much easier to get them to approve coverage for the two other claims (accidents during work) that we received since the letter writing extravaganza began.

## **Other Matters**

Member building appraisals are finished. Invoicing is substantially complete and we have net increase in contributions of \$45,000. The appraisal program costs about \$30,000 a year.

We still have 2 open EPL claims in Berrien County. Wendy Hardt has one of the files, and Adam is working on one with our new attorney Raechel Badalamenti. Adam is also overseeing our Pool's relationship with the County Administrator's office.

The legislation that removed our ability to permit driveways (SB 706, 707 and 708) is still causing problems. We still think RCs may need to use the encroachment law to remove some of these driveways for safety. Ed was reporting at Council meetings that no further fix is expected and that the members should just tear out problem driveways. I asked them to call us first if they are Pool Members.

Council Meeting discussions have been on the impacts of the legalization of recreational marijuana and trees. There is a lot of interest in Trees. One idea that we have had is to address dead/dangerous trees in the ROW with encroachment removal orders. Clinton CRC is trying that approach.

The 457(b) Marketplace as designed does not appear to be viable. Brian has proposed dropping the Fitzgerald Group's involvement and having his office handle the entire matter. I have given him permission to contact all of our Member Managers to gauge interest/needs. Wayne is assisting him.

HB 6384 and HB 6426 were introduced by Rep Roger Victory on Sept 26 and Oct 2. Adam Tountas and Bill Henn wrote the drafted changes and approved the final version. CRA strongly supports passage of these bills.

## **Jackson, Calhoun, Ingham Lawsuit**

Nothing new. Still waiting for the MSC to decide. We do need to begin working on our Bylaws and Intergovernmental Agreements to make sure we are ready to adjust our coverages when the time comes. Committee??

Thank you again for this opportunity.....  
Respectfully Submitted

Gayle Cummings, Administrator



# **MICHIGAN COUNTY ROAD COMMISSION SELF-INSURANCE POOL**



## **ACCOUNTING POLICIES AND PROCEDURES**

Revised December 5, 2018

## **INTRODUCTION**

The purpose of these Accounting Policies and Procedures is to provide a framework for the accounting operations of the Michigan County Road Commission Self-Insurance Pool (the MCRCSIP). Topics included within may be amended or expanded as practical applications dictate. The following set forth guidelines adopted by the Board of Directors of the MCRCSIP.

## **ACCOUNTING POLICIES & PROCEDURES**

The Pool will establish accounting procedures and books of original entry utilizing the double entry bookkeeping method in accordance with the requirements of the Department of Insurance and Financial Services (DIFS) and the Financial Accounting Standards Board (FASB) pronouncements, and in conjunction with the "Accounting Procedures and Uniform Reporting Format for Municipal Group Self-Insurance Pools in Michigan as promulgated by Michigan Department of Treasury and contained in their Bureau of Local Government Services directive of October 1983. The Treasurer will be responsible to ensure books of original entry have been maintained to a current status and entries made to properly record all assets, liabilities, revenues and expenditures of the fund.

### **Budget**

The Board will adopt an annual budget in February for the next fiscal year beginning April 1.

### **Annual Audit**

An annual audit of the Pool's financial records will be conducted by a qualified independent certified public accountant that issues a signed opinion regarding the financial statements. A copy of the audit report will be provided to each member within 120 days of the fiscal year end in compliance with Statutory requirements.

### **Accrual Method of Accounting**

To provide for a proper match of revenues and expenditures, the fund will utilize the accrual method of accounting. All liabilities will be recorded as of the financial reporting date. Amounts billed and not collected as of the reporting date, will be classified as fund assets. Prepaid expenses will also be accounted for and recognized as assets and expenses in accordance with the authoritative documentation cited above and DIFS requirements.

### **Reserves for Claims**

The Pool office will obtain from the ~~Third Party Administrator~~ **Claims Department** annually, a computation of estimated claims and will receive from the actuary claims incurred but not reported losses. This estimate will be accrued in accordance with the authoritative publications cited above. Adjustments to the reserve as determined by the Pool Administrator will be reflected as current year increases or decreases.

### **Billing Procedures**

All outgoing invoices are prepared at the Pool office, and are posted to the General Ledger Accounts Receivable as generated.

### **Cash Receipts Procedures**

All cash receipts shall be mailed to a lock box established in the name of the Pool. The selected depository shall daily collect and deposit to the General Checking account. Daily registers, and duplicate deposit tickets shall be forwarded to the Pool office. The Treasurer shall be responsible to ensure the cash receipts journal has been posted and accounts receivable accounts for participating members have also been brought up to date.

### **Cash Disbursements Procedures**

There will be ~~three~~ **two** checking accounts owned by the Pool. The General Account will be the depository account for all cash receipts and the primary account, linked to the ~~Operating and~~ Claims Accounts. The Claims Account will be used to pay those disbursements authorized by the ~~Third Party Administrator~~ **Adjuster** for claims and legal defense. The ~~Operating~~ **General** Account will be used to pay all other expenses for the Pool. The Claims Account ~~and the Operating Account~~ will be maintained as "Controlled Disbursement" accounts and funded through automatic transfers from the General Account.

All claims payments and legal defense fees shall be authorized by the ~~Pool Third Party Administrator~~ **Claims Department** and paid from the claims management system (~~Riskmaster~~ **Origami**) at the Pool office.

Wire transfers may be authorized by any one of the following individuals:

- (1) The Pool Administrator
- (2) The Treasurer

Other organization expenses shall be reviewed and processed by the Treasurer. A check will be prepared and must be signed by any one of the following individuals:

- (1) The Pool Administrator
- (2) The Treasurer

### **Escheatment of Unclaimed Property – NEW Section**

At the end of each month, the CFO will determine the status of any outstanding vendor checks or claim checks. The CFO will work with the vendor or attorney to determine the reason for the uncashed check to void and/or reissue the check. At the end of each quarter, if there are any checks over 90 days old, the information will be forwarded to the tax department. This information should be completed no later than 30 days after the quarter.

### **HSA Account**

An Account to fund HSA transfers shall be established in accordance with the Pool's agreement with Chase Bank.

### **Preparation of Interim Financial Statements**

Reports of cash and investment balances shall be prepared on a monthly basis. This report will be reviewed by the Directors at each regular Board meeting.

### **Allocation of Administrative Expenses**

Whenever possible, administrative expenses of the fund shall be allocated to the accounting cycle in which the administrative expense occurs. Annual C.P.A. audit fees shall be charged to current year expenses in accordance with DIFS rules.

### **Allocation of Investment Income**

Investment income includes accrued investment income, and shall be allocated based on the average cash and investment balance of each policy year during the period in which the income has occurred. The allocation methodology will determine each year's percentage of the total by comparing each year's percentage of Total Excess of Revenue Over (Under) Expenses after eliminating any effect of the remaining estimate for IBNR and case reserves. The percentage of total for each year is then applied to the total investment income for that fiscal year to allocate.

### **Investment Policy**

Separate document

## **GENERAL POLICY**

### **Actuarial Study Requirements**

As required by the State of Michigan, DIFS, the Pool will annually engage a qualified, independent Actuarial firm to certify the Pool's IBNR reserves and assess the capital adequacy of our loss fund. A qualified Actuarial firm is defined as one that is a member of the American Academy of Actuaries or is a fellow of the Casualty Actuarial Society.

### **Timeliness of Member Deposit Premiums**

As determined by the Board of Directors, the Pool will bill member counties for contributions as established by the Board. Participating member counties shall have a thirty (30) day period in which to make deposits with the Pool, subject to rules as established by the Board of Directors. Member counties will receive a finance charge notice if such deposit is not forwarded by the due date. Finance charges will be assessed on all payments received after the thirty day period at the rate of 1% per month (12% per year).

### **Refund Policy**

Regularly, the Board of Directors will review the method and amounts for distributing member refunds from surplus accumulations. Accumulated equities or accumulated funding deficiencies of withdrawing members and members not in good standing shall be in accordance with procedures established by the Pool Board of Directors.

Members who have contribution deposit amounts outstanding as of the date the refund checks are issued, will have those amounts deducted from refund amounts due to them and credited toward their outstanding balance. If the refund amount is greater than the contribution deposit amounts due, the refund check will be issued for the balance.

### **Indemnification of Officers and Employees**

The Pool shall indemnify officers and employees as set forth in Article 9 of the Michigan County Road Commission Self Insurance Pool by-laws as amended.

### **Fidelity Bonding Policy**

The Administrator of the Fund will be responsible for purchasing fidelity bonding for all individuals who have a fiduciary responsibility. This fidelity bonding would provide coverage in the event of dishonesty. Fidelity bonding coverage in the amount of \$1,000,000 will be purchased for the Administrator, office staff, the service organization, and all Directors.



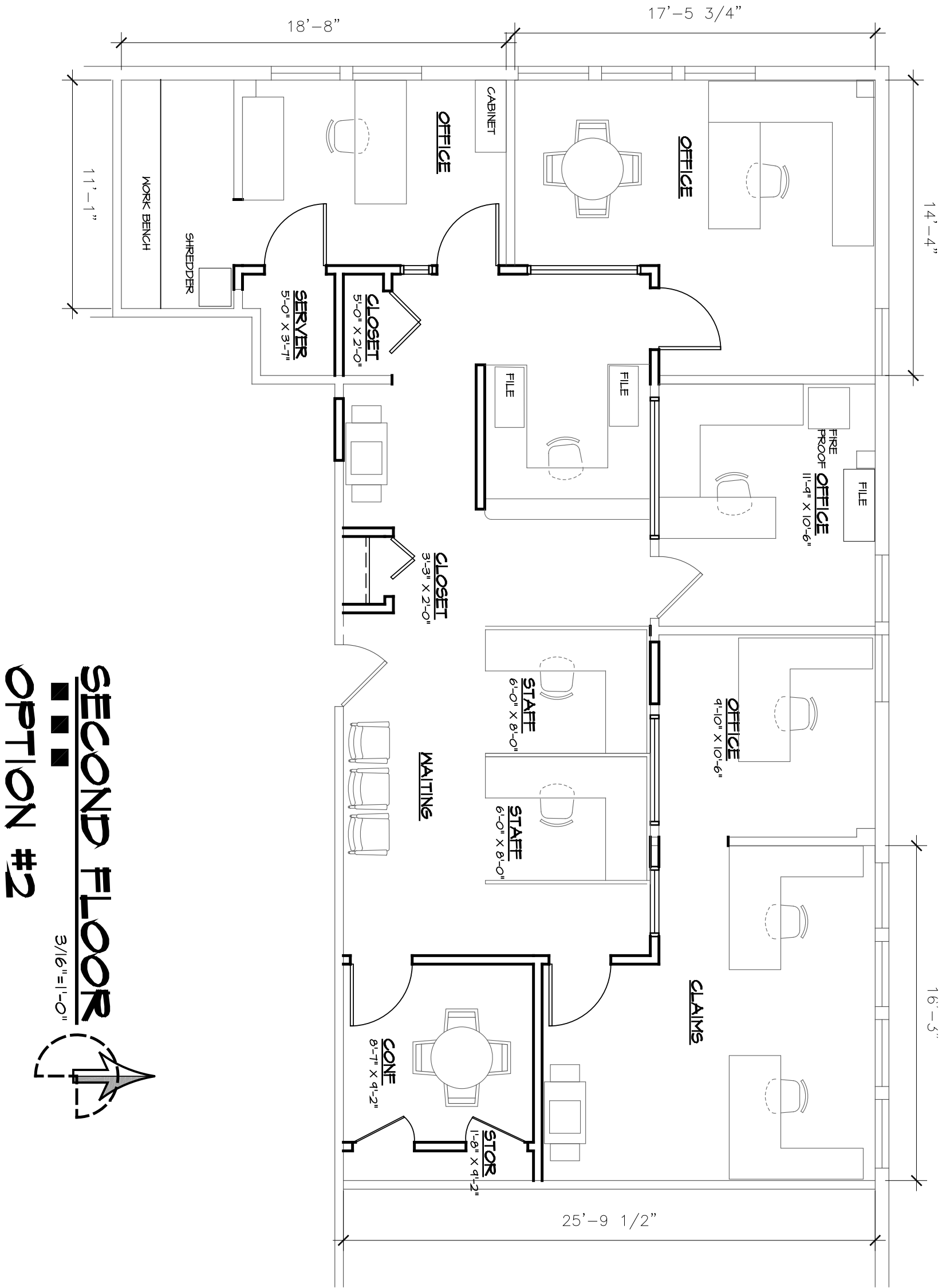
studio  
[Intrigue]  
ARCHITECTS

417 N. CAPITOL VIEW - PROPOSED ENTRANCE

OPTION C #18.158 10/12/2018

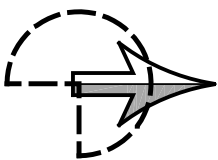






SECOND FLOOR  
OPTION #2

3/16" = 1'-0"



**PRELIMINARY  
NOT FOR  
CONSTRUCTION**

PRELIM\_DATE

**FOR ILLUSTRATIVE PURPOSES ONLY**

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WALL LEGEND	
	EXISTING
	NEW CONSTRUCTION
	TO BE DEMOLISHED

1114 S. WASHINGTON AVE. #100  
LANSING, MI 48210  
313.728.004 PHONE  
313.728.005 FAX  
WWW.STUDIOINTRIQUE.COM

18.158  
10.29.18  
11.02.18  
11.06.18





**Michigan County Road Commission Self-Insurance Pool  
Accounting Clerk/Member Services Assistant  
Lansing, Michigan**

**Job Description**

Under the supervision of the Assistant Administrator-Chief Financial Officer this position will provide assistance to the CFO in accounting functions utilizing QuickBooks. This person will also assist in supporting members and other general office functions.

**Primary Duties and Responsibilities:**

- Assist the CFO with entering invoices and processing claims/operating checks into QuickBooks. Monitor daily deposits.
- Assist with monthly reconciliation.
- Assist with other accounting functions as assigned.
- Support members in their use of equipment/building inventory software.
- Maintain data files of building and contents in order to coordinate and schedule annual building appraisals.
- Provide quotes for property and crime coverage.
- Assist with member communications as needed.
- Review and process loss control reports.
- Answer telephones, greet visitors and distribute mail.
- Assist with the annual membership meeting.
- Perform related or additional work as required.

**Knowledge, Skills, Experience Required:**

- High school diploma minimum, some college preferred.
- Advanced level computer skills; proficiency with Microsoft Office and Outlook.
- Strong organizational skills.
- Excellent writing skills.
- Superior communication skills.
- Professional demeanor with excellent customer service skills.
- Bookkeeping and data entry experience.
- Ability to accept and follow directions.
- Commitment to teamwork.

The typical duties stated herein are intended to describe the general nature and level of work to be performed by a person in this classification. It is not to be construed as an exhaustive list of all duties and responsibilities of a person so classified.

# HOUSE BILL No. 6384

September 26, 2018, Introduced by Rep. Victory and referred to the Committee on Transportation and Infrastructure.

A bill to amend 1964 PA 170, entitled

"An act to make uniform the liability of municipal corporations, political subdivisions, and the state, its agencies and departments, officers, employees, and volunteers thereof, and members of certain boards, councils, and task forces when engaged in the exercise or discharge of a governmental function, for injuries to property and persons; to define and limit this liability; to define and limit the liability of the state when engaged in a proprietary function; to authorize the purchase of liability insurance to protect against loss arising out of this liability; to provide for defending certain claims made against public officers, employees, and volunteers and for paying damages sought or awarded against them; to provide for the legal defense of public officers, employees, and volunteers; to provide for reimbursement of public officers and employees for certain legal expenses; and to repeal acts and parts of acts,"

by amending section 2 (MCL 691.1402), as amended by 2012 PA 50.

## THE PEOPLE OF THE STATE OF MICHIGAN ENACT:

1           Sec. 2. (1) ~~Each~~ **A** governmental agency ~~having~~ **THAT HAS**  
2 jurisdiction over a highway shall maintain the highway in  
3 reasonable repair so that it is reasonably safe and convenient for  
4 public travel. A person who sustains bodily injury or damage to his

1 or her property by reason of failure of a governmental agency to  
2 keep a highway under its jurisdiction in reasonable repair and in a  
3 condition reasonably safe and fit for travel may recover the  
4 damages suffered by him or her from the governmental agency. ~~The~~  
5 ~~liability, procedure, and remedy as to county roads under the~~  
6 ~~jurisdiction of a county road commission shall be as provided in~~  
7 ~~section 21 of chapter IV of 1909 PA 283, MCL 224.21.~~ Except as  
8 provided in section 2a, the duty of a governmental agency to repair  
9 and maintain highways, and the liability for that duty, extends  
10 only to the improved portion of the highway designed for vehicular  
11 travel and does not include sidewalks, trailways, crosswalks, or  
12 any other installation outside of the improved portion of the  
13 highway designed for vehicular travel. A judgment against ~~the~~ **THIS**  
14 state based on a claim arising under this section from acts or  
15 omissions of the state transportation department is payable only  
16 from restricted funds appropriated to the state transportation  
17 department or funds provided by its insurer.

18 (2) A municipal corporation has no duty to repair or maintain,  
19 and is not liable for injuries or damages arising from, a portion  
20 of a county or state highway.

21 (3) If the state transportation department contracts with  
22 another governmental agency to perform work on a state trunk line  
23 highway, an action brought under this section for tort liability  
24 arising out of the performance of that work ~~shall~~ **MUST** be brought  
25 only against the state transportation department under the same  
26 circumstances and to the same extent as if the work had been  
27 performed by employees of the state transportation department. The

1 state transportation department has the same defenses to the action  
2 as it would have had if the work had been performed by its own  
3 employees. If an action described in this subsection could have  
4 been maintained against the state transportation department, it  
5 ~~shall~~**MAY** not be maintained against the governmental agency that  
6 performed the work for the state transportation department. The  
7 governmental agency also has the same defenses that could have been  
8 asserted by the state transportation department had the action been  
9 brought against the state transportation department.

10 (4) The contractual undertaking of a governmental agency to  
11 maintain a state trunk line highway confers contractual rights only  
12 on the state transportation department and does not confer third  
13 party beneficiary or other contractual rights in any other person  
14 to recover damages to person or property from that governmental  
15 agency. This subsection does not relieve the state transportation  
16 department of liability it may have, under this section, regarding  
17 that highway.

18 (5) The duty imposed by this section on a governmental agency  
19 is limited by sections 81131 and 82124 of the natural resources and  
20 environmental protection act, 1994 PA 451, MCL 324.81131 and  
21 324.82124.

22 Enacting section 1. This amendatory act takes effect 90 days  
23 after the date it is enacted into law.

24 Enacting section 2. This amendatory act does not take effect  
25 unless Senate Bill No. \_\_\_\_ or House Bill No. \_\_\_\_ (request no.  
26 05736'18) of the 99th Legislature is enacted into law.

# HOUSE BILL No. 6426

October 3, 2018, Introduced by Rep. Victory and referred to the Committee on  
Transportation and Infrastructure.

A bill to amend 1909 PA 283, entitled

"An act to revise, consolidate, and add to the laws relating to the establishment, opening, discontinuing, vacating, closing, altering, improvement, maintenance, and use of the public highways and private roads; the condemnation of property and gravel therefor; the building, repairing and preservation of bridges; maintaining public access to waterways under certain conditions; setting and protecting shade trees, drainage, and cutting weeds and brush within this state; providing for the election or appointment and defining the powers, duties, and compensation of state, county, township, and district highway officials; and to prescribe penalties and provide remedies,"

by amending section 21 (MCL 224.21), as amended by 1996 PA 23.

## THE PEOPLE OF THE STATE OF MICHIGAN ENACT:

1       Sec. 21. (1) A board of county road commissioners shall not  
2       contract indebtedness for an amount in excess of the money credited  
3       to the board and received by the county treasurer. However, the  
4       board may incur liability to complete roads under construction and  
5       upon contracts, after a tax is voted, to an amount not exceeding

1 3/4 of the tax.

2 (2) ~~A-SUBJECT TO SECTIONS 81131 AND 82124 OF THE NATURAL~~  
 3 ~~RESOURCES AND ENVIRONMENTAL PROTECTION ACT, 1994 PA 451, MCL~~  
 4 ~~324.81131 AND 324.82124, A county ROAD COMMISSION OR, IF NO COUNTY~~  
 5 ~~ROAD COMMISSION EXISTS, A COUNTY~~ shall keep in reasonable repair,  
 6 so that they are reasonably safe and convenient for public travel,  
 7 all **HIGHWAYS THAT ARE WITHIN THE** county ~~roads, bridges, and~~  
 8 ~~eulverts that are within the ROAD COMMISSION'S OR~~ county's  
 9 jurisdiction, are under its care and control, and are open to  
 10 public travel. ~~The provisions of law respecting the liability of~~  
 11 ~~townships, cities, villages, and corporations for damages for~~  
 12 ~~injuries resulting from a failure in the performance of the same~~  
 13 ~~duty respecting roads under their control apply to counties~~  
 14 ~~adopting the county road system. This subsection is subject to~~  
 15 ~~section 82124 of part 821 (snowmobiles) of the natural resources~~  
 16 ~~and environmental protection act, Act No. 451 of the Public Acts of~~  
 17 ~~1994, being section 321.82124 of the Michigan Compiled Laws, and~~  
 18 ~~section 81131 of part 811 (off-road recreation vehicles) of Act No.~~  
 19 ~~451 of the Public Acts of 1994, being section 324.81131 of the~~  
 20 ~~Michigan Compiled Laws.~~

21 (3) ~~An action arising under subsection (2) shall be brought~~  
 22 ~~against the board of county road commissioners of the county and~~  
 23 ~~service shall be made upon the clerk and upon the chairperson of~~  
 24 ~~the board. The board shall be named in the process as the "board of~~  
 25 ~~county road commissioners of the county of~~  
 26 ~~.....". Any judgment obtained against the board~~  
 27 ~~of county road commissioners in the action shall be audited and~~

~~paid from the county road fund as are other claims against the board of county road commissioners. However, a board of county road commissioners is not liable for damages to person or property sustained by a person upon a county road because of a defective county road, bridge, or culvert under the jurisdiction of the board of county road commissioners, unless the person serves or causes to be served within 60 days after the occurrence of the injury a notice in writing upon the clerk and upon the chairperson of the board of county road commissioners. The notice shall set forth substantially the time when and place where the injury took place, the manner in which it occurred, the known extent of the injury, the names of any witnesses to the accident, and that the person receiving the injury intends to hold the county liable for damages. This section applies to all county roads whether they become county roads under this chapter or under Act No. 59 of the Public Acts of 1915, being sections 247.418 to 247.481 of the Michigan Compiled Laws.~~

**THE LIABILITY OF A COUNTY ROAD COMMISSION OR A COUNTY FOR FAILURE TO COMPLY WITH SUBSECTION (2) AND THE PROCEDURE AND REMEDIES IN AN ACTION AGAINST THE COUNTY OR COUNTY ROAD COMMISSION ARE AS PROVIDED IN 1964 PA 170, MCL 691.1401 TO 691.1419.**

Enacting section 1. This amendatory act takes effect 90 days after the date it is enacted into law.

Enacting section 2. This amendatory act does not take effect unless Senate Bill No. \_\_\_\_ or House Bill No. 6384 (request no. 05735'18) of the 99th Legislature is enacted into law.



**VOUCHERS \***  
**August to October 2018**

Operating Account  
General Account  
Claims Account

Effective August 15, 2018

Per approval at the June 2018 Board Meeting, a sweep account for Claims was added and the Operating account was closed as advised by Chase Bank.

*\* For BOARD APPROVAL*



**General Account**  
**August - October 2018**

<b>Date</b>	<b>Num</b>	<b>Name</b>	<b>Memo</b>	<b>Amount</b>
<b>Operating &amp; General Account</b>				
08/01/2018	13934	Soaring Eagle Casino & Resort	Annual Meeting - MSI001	-25,904.84
08/01/2018	13935	Jennifer Pappas	Annual Meeting	-78.48
08/01/2018	13936	BRD Printing, Inc.	34th Annual Meeting Books	-3,130.56
08/01/2018	13937	County Road Assoc of Michigan	NMARC/ASMCRA	-155.00
08/01/2018	13938	Association of County Road Superintende	Superintendents' Seminar Registration	-100.00
08/01/2018	13939	Plante & Moran	Audit of March 31, 2018 Financials	-2,400.00
08/01/2018	13940	Comcast	Internet- 08/02 - 09/01/2018	-164.85
08/01/2018	13941	Verizon Wireless	Cell Phone - June-July 2018	-333.91
08/01/2018	13942	Cardmember Services	June/July 2018 Credit Card Charges	-4,927.77
08/06/2018	JE2837	Chase	Wire Transfer from STF	1,000,000.00
08/07/2018	13943	Staples	Paper, Kitchen Supplies, Annual Meeting Suppli	-540.50
08/07/2018	13944	Federal Express	Express Mail	-31.45
08/07/2018	13945	DeCook Governmental Policy & Strategic	Legislative Consulting	-1,500.00
08/07/2018	JE8718	City of Lansing Treasurer	38-2490168 July 2018	-218.81
08/07/2018	13946	Comcast	Internet-Claims 08/10 - 09/09/18	-104.85
08/07/2018	13947	County Road Assoc of Michigan	Postage June & July 2018/Meter Rental	-405.36
08/07/2018	13948	Michigan Catastrophic Claims Assoc	Preliminary Assessment Invoice YE 6/30/19	-993,408.00
08/08/2018	QB	QuickBooks Payroll Service	Created by Payroll Service on 08/07/2018	-16,988.54
08/08/2018	Echeck8818	Aflac	July 2018	-271.26
08/08/2018	Echeck8818	State of Michigan	38-2490168 July 2018	-1,822.59
08/10/2018	JE2845	ASPIre	PPE 8-10-18 457 withholdings	-1,653.22
08/13/2018	E-pay	Internal Revenue Service	38-2490168 PPE 8/10/18 QB Tracking # 169312	-6,291.56
08/13/2018	Echeck81318	HSA Bank	PPE 8/10/18	-250.00
08/14/2018	13949	The SBAM Plan	Medical/Dental Sept 2018	-12,286.60
08/14/2018	13950	Benistar	Express Scripts Coverage Sept 2018	-964.00
08/14/2018	13951	ASPIre	401a/457b Recording Base Fee	-487.50
08/14/2018	13952	Merchants Benefit Administration	Retiree Benefits-Sept 2018	-896.98
08/14/2018	13953	Association of County Road Superintende	Superintendents' Seminar Registration	-200.00
08/14/2018	13954	Michigan Information & Research Service	MIRS Subscriptions	-4,150.00
08/16/2018	JE2853	Chase	Fee for returned check	-50.00
08/21/2018	JE2853	Chase	Wire Transfer from STF	3,000,000.00
<b>Operating Closed 8/15/18</b>				
<b>General Account Only</b>				
08/21/2018	23250	Mackinac Bridge Authority	Account #82629	-80.00
08/21/2018	23251	Emmet County Road Commission	Physical Damage-Building & Contents	-766.00
08/21/2018	23252	Benzie County Road Commission	Physical Damage-Building & Contents	-303.00
08/21/2018	23253	Friedland Industries, Inc.	Document Destruction	-40.00
08/21/2018	23254	Thatch Computer Consulting	IT Services	-1,467.08
08/21/2018	23255	Sedgwick	Monthly Billing September 2018	-8,291.67
08/22/2018	QB	QuickBooks Payroll Service	Created by Payroll Service on 08/21/2018	-16,424.83
08/24/2018	JE2851	ASPIre	PPE 8-24-18 457 withholdings	-1,653.22
08/27/2018	Echeck82718	Internal Revenue Service	38-2490168 PPE 8/24/18 QB Tracking # -77641	-6,104.32
08/27/2018	Echeck82718	HSA Bank	PPE 8/24/18	-325.00
08/28/2018	23256	Alcona County Road Commission	VOID: Printer Error	0.00

**General Account**  
**August - October 2018**

08/28/2018	23257	Allegan County Road Commission	VOID: Printer Error	0.00
08/28/2018	23258	Antrim County Road Commission	VOID: Printer Error	0.00
08/28/2018	23259	Baraga County Road Commission	VOID:Printer Error	0.00
08/28/2018	23260	Alcona County Road Commission	2018 Liability Refund	-22,946.00
08/28/2018	23261	Alger County Road Commission	2018 Liability Refund	-14,421.00
08/28/2018	23262	Allegan County Road Commission	2018 Liability Refund	-70,901.00
08/28/2018	23263	Alpena County Road Commission	2018 Liability Refund	-20,151.00
08/28/2018	23264	Antrim County Road Commission	2018 Liability Refund	-25,686.00
08/28/2018	23265	Arenac County Road Commission	2018 Liability Refund	-9,794.00
08/28/2018	23266	Baraga County Road Commission	2018 Liability Refund	-13,751.00
08/28/2018	23267	Barry County Road Commission	2018 Liability Refund	-47,025.00
08/28/2018	23268	Bay County Road Commission	2018 Liability Refund	-64,597.00
08/28/2018	23269	Bay County Water & Sewer	2018 Liability Refund	-14,247.00
08/28/2018	23270	Benzie County Road Commission	2018 Liability Refund	-23,426.00
08/28/2018	23271	Cass County Road Commission	2018 Liability Refund	-35,425.00
08/28/2018	23272	Charlevoix County Road Commission	2018 Liability Refund	-21,070.00
08/28/2018	23273	Cheboygan County Road Commission	2018 Liability Refund	-13,262.00
08/28/2018	23274	Chippewa County Road Commission	2018 Liability Refund	-31,338.00
08/28/2018	23275	Clare County Road Commission	2018 Liability Refund	-18,857.00
08/28/2018	23276	Clinton County Road Commission	2018 Liability Refund	-43,649.00
08/28/2018	23277	Crawford County Road Commission	2018 Liability Refund	-24,317.00
08/28/2018	23278	Delta County Road Commission	2018 Liability Refund	-22,040.00
08/28/2018	23279	Dickinson County Road Commission	2018 Refund Liability	-22,352.00
08/28/2018	23280	Eaton County Road Commission	2018 Liability Refund	-70,619.00
08/28/2018	23281	Emmet County Road Commission	2018 Liability Refund	-16,632.00
08/28/2018	23282	Genesee County Road Commission	2018 Liability Refund	-162,227.00
08/28/2018	23283	Gladwin County Road Commission	2018 Liability Refund	-26,423.00
08/28/2018	23284	Gogebic County Road Commission	2018 Liability Refund	-17,893.00
08/28/2018	23285	Grand Traverse County Road Commission	2018 Liability Refund	-42,644.00
08/28/2018	23286	Gratiot County Road Commission	2018 Liability Refund	-44,863.00
08/28/2018	23287	Hillsdale County Road Commission	2018 Liability Refund	-27,919.00
08/28/2018	23288	Houghton County Road Commission	2018 Liability Refund	-25,014.00
08/28/2018	23289	Huron County Road Commission	2018 Liability Refund	-48,275.00
08/28/2018	23290	Ionia County Road Commission	2018 Liability Refund	-34,591.00
08/28/2018	23291	Iosco County Road Commission	2018 Liability Refund	-29,713.00
08/28/2018	23292	Iron County Road Commission	2018 Liability Refund	-17,794.00
08/28/2018	23293	Isabella County Road Commission	2018 Liability Refund	-48,401.00
08/28/2018	23294	Kalamazoo County Road Commission	2018 Liability Refund	-27,014.00
08/28/2018	23295	Kalkaska County Road Commission	2018 Liability Refund	-14,950.00
08/28/2018	23296	Kent County Road Commission	2018 Liability Refund	-134,113.00
08/28/2018	23297	Keweenaw County Road Commission	2018 Liability Refund	-6,698.00
08/28/2018	23298	Lake County Road Commission	2018 Liabiltiy Refund	-26,673.00
08/28/2018	23299	Leelanau County Road Commission	2018 Liability Refund	-13,795.00
08/28/2018	23300	Lenawee County Road Commission	2018 Liability Refund	-44,537.00
08/28/2018	23301	Livingston County Road Commission	2018 Liability Refund	-102,767.00
08/28/2018	23302	Luce County Road Commission	2018 Liability Refund	-14,707.00
08/28/2018	23303	Mackinac County Road Commission	2018 Liability Refund	-20,800.00

**General Account**  
**August - October 2018**

08/28/2018	23304	Manistee County Road Commission	2018 Liability Refund	-18,251.00
08/28/2018	23305	Marquette County Road Commission	2018 Liability Refund	-30,538.00
08/28/2018	23306	Mason County Road Commission	2018 Liability Refund	-24,217.00
08/28/2018	23307	Mecosta County Road Commission	2018 Liability Refund	-35,749.00
08/28/2018	23308	Menominee County Road Commission	2018 Liability Refund	-28,304.00
08/28/2018	23309	Midland County Road Commission	2018 Liability Refund	-40,824.00
08/28/2018	23310	Missaukee County Road Commission	2018 Liability Refund	-12,955.00
08/28/2018	23311	Monroe County Road Commission	2018 Liability Refund	-99,919.00
08/28/2018	23312	Montcalm County Road Commission	2018 Liability Refund	-23,159.00
08/28/2018	23313	Montmorency County Road Commission	2018 Liability Refund	-11,508.00
08/28/2018	23314	Muskegon County Road Commission	2018 Liability Refund	-65,845.00
08/28/2018	23315	Newaygo County Road Commission	2018 Liability Refund	-47,287.00
08/28/2018	23316	Oceana County Road Commission	2018 Liability Refund	-35,712.00
08/28/2018	23317	Ogemaw County Road Commission	2018 Liability Refund	-33,334.00
08/28/2018	23318	Ontonagon County Road Commission	2018 Liability Refund	-18,198.00
08/28/2018	23319	Osceola County Road Commission	2018 Liability Refund	-21,090.00
08/28/2018	23320	Oscoda County Road Commission	2018 Liability Refund	-15,643.00
08/28/2018	23321	Otsego County Road Commission	2018 Liability Refund	-16,120.00
08/28/2018	23322	Ottawa County Road Commission	2018 Liability Refund	-86,000.00
08/28/2018	23323	Presque Isle County Road Commission	2018 Liability Refund	-21,586.00
08/28/2018	23324	Roscommon County Road Commission	2018 Liability Refund	-22,874.00
08/28/2018	23325	Saginaw County Road Commission	2018 Liability Refund	-73,463.00
08/28/2018	23326	Sanilac County Road Commission	2018 Liability Refund	-50,176.00
08/28/2018	23327	Schoolcraft County Road Commission	2018 Liability Refund	-12,529.00
08/28/2018	23328	Shiawassee County Road Commission	2018 Liability Refund	-52,444.00
08/28/2018	23329	St. Clair County Road Commission	2018 Liability Refund	-55,151.00
08/28/2018	23330	St. Joseph County Road Commission	2018 Liability Refund	-56,332.00
08/28/2018	23331	Tuscola County Road Commission	2018 Liability Refund	-66,565.00
08/28/2018	23332	Van Buren County Road Commission	2018 Liability Refund	-61,894.00
08/28/2018	23333	Washtenaw County Road Commission	2018 Liability Refund	-56,938.00
08/28/2018	23334	Wexford County Road Commission	2018 Liability Refund	-31,114.00
08/28/2018	23335	State of Michigan - Department of Transp	2018 Liability Refund	-195,964.00
08/31/2018	JE2852	Chase Bank	August 2018 Funding Transfers	-1,451,438.91
08/31/2018	JE2854	Chase Bank	August 2018 HSA Monthly fees	-28.00
08/31/2018	JE2855	ASPIRE	August 2018 Monthly Pension Contribution	-3,029.62
09/05/2018	QB	QuickBooks Payroll Service	Created by Payroll Service on 09/04/2018	-16,988.31
09/06/2018	23336	Smith, Haughey, Rice & RoeggeCD	Professional Fees	-1,655.15
09/06/2018	23337	Henn Lesperance PLC	Professional Fees	-11,309.64
09/06/2018	23338	Kristi Pena	BrdMtgAugust 2018 Expense	-309.56
09/06/2018	23339	Antrim County Road Commission	Physical Damage-Building & Contents	-41.00
09/06/2018	23340	Manistee County Road Commission	Physical Damage-Building & Contents	-2,642.00
09/06/2018	23341	Emmet County Road Commission	August 2018 Expense	-31.30
09/06/2018	23342	Friedland Industries, Inc.	Document Destruction	-40.00
09/06/2018	23343	DeCook Governmental Policy & Strategie	August 2018 Legislative Consulting	-1,500.00
09/06/2018	23344	Verizon Wireless	Cell phones 08/20 - 09/19/18	-367.60
09/06/2018	23345	Tim Haagsma	August 2018 Expenses	-438.62
09/06/2018	23346	Comcast	Internet- 09/02 - 10/01/2018	-164.85

**General Account**  
**August - October 2018**

09/06/2018	23347	Kimberly's Creations	Shirts with Logo #16206	-872.00
09/06/2018	23348	CB Richard Ellis/Martin	September 2018 Office Rent	-3,226.00
09/06/2018	23349	Konica Minolta	Claims-BW/Color Copies	-36.28
09/06/2018	23350	Comcast Business	Telephone - 08-15-18 - 09-14-18	-469.93
09/06/2018	23351	Cardmember Services	July/August 2018 Credit Card Charges	-5,240.64
09/07/2018	JE2856	ASPIre	PPE 9-7-18 457 withholdings	-1,653.22
09/07/2018	JE9718	HSA Bank	PPE 9-7-18 W/H	-325.00
09/10/2018	E-pay	Internal Revenue Service	38-2490168 PPE 9/7/18 QB Tracking # -341611	-6,292.00
09/11/2018	Echeck91118	Aflac	August 2018	-381.54
09/11/2018	23352	St. Joseph County Road Commission	Physical Damage - Building & Contents Refund	-1,124.00
09/11/2018	23353	CTT-MTU	Winter Operations Conference-MP	-160.00
09/11/2018	23354	Smith, Haughey, Rice & RoeggeCD	Professional Fees	-1,371.65
09/11/2018	23355	Benistar	Express Scripts Coverage Oct 2018	-964.00
09/11/2018	23356	Milliman, Inc.	July Professional Fees	-32,638.93
09/11/2018	23357	Petty Cash Check	Petty Cash - August 2018	-55.77
09/11/2018	23358	County Road Assoc of Michigan	Postage August 2018/Meter Rental/NMARC/AS	-671.17
09/11/2018	23359	Dennis Stanek	August Expenses	-215.68
09/11/2018	23360	Comcast	Claims-Internet 0910 - 10/09/18	-104.85
09/12/2018	Echeck	City of Lansing Treasurer	38-2490168 August 2018	-219.37
09/13/2018	91318	State of Michigan	38-2490168 August 2018	-1,820.72
09/19/2018	QB	QuickBooks Payroll Service	Created by Payroll Service on 09/18/2018	-16,656.36
09/21/2018	JE2907	ASPIre	PPE 9-21-18 457 withholdings	-1,653.22
09/24/2018	E-pay	Internal Revenue Service	VOID: 38-2490168 PPE 9/21/18 QB Tracking #	0.00
09/24/2018	92418	HSA Bank	PPE 9/21/18	-325.00
09/26/2018	23361	Michigan Insurance Company	Commerical Policy Insurance	-8,907.00
09/26/2018	23362	Cardmember Services	August/September 2018 Credit Card Charges	-5,290.82
09/26/2018	23363	CB Richard Ellis/Martin	October 2018 Office Rent	-3,226.00
09/26/2018	23364	Konica Minolta	BW/Color Copies- Claims	-942.24
09/26/2018	23365	Comcast Business	Telephone - 09-15-18 - 10-14-18	-444.56
09/26/2018	23366	The SBAM Plan	Medical/Dental Oct 2018	-10,563.90
09/26/2018	23367	Luce County Road Commission	Physical Damage - Building & Contents Refund	-280.00
09/26/2018	23368	Joseph F. Valente	July 2018 Expense Board Meeting	-166.78
09/26/2018	23369	Merchants Benefit Administration	Retiree Benefits-Oct 2018	-896.98
09/26/2018	23370	Thatch Computer Consulting	IT Services	-2,193.37
09/26/2018	23371	Sedgwick	Monthly Billing October 2018	-8,291.67
09/26/2018	23372	Plante & Moran	Professional Services	-312.00
09/26/2018	23373	Staples	Toner, Paper, Kitchen Supplies	-242.60
09/26/2018	23374	SBAM	Renewal 2018-19	-229.00
09/30/2018	JE2867	Chase Bank	September 2018 HSA Monthly fees	-24.50
09/30/2018	JE2908	Chase Bank	September 2018 Funding Transfers	-334,459.01
09/30/2018	JE2911	ASPIre	July 2018 Monthly Pension Contribution	-3,029.62
10/01/2018	100118	Michigan Dept. of Labor Emp. Security	0997587 September 2018	-226.39
10/02/2018	10022018	Aflac	September 2018	-406.02
10/02/2018	JE2910	Payroll Expense	Expense Aflac for NM error/kp	-8.16
10/02/2018	Echeck1022018	City of Lansing Treasurer	38-2490168 September 2018	-220.82
10/02/2018	Echeck100220	State of Michigan	38-2490168 September 2018	-1,833.05
10/02/2018	23375	Friedland Industries, Inc.	Document Destruction	-40.00

**General Account**  
**August - October 2018**

10/02/2018	23376	DeCook Governmental Policy & Strategie	Legislative Consulting	-1,500.00
10/02/2018	23377	Comcast	Internet- 10/02 - 11/01/2018	-164.85
10/02/2018	23378	Verizon Wireless	Cell phones	-331.29
10/02/2018	23379	Ionia County Road Commission	Physical Damage-Building & Contents Refund	-54.00
10/02/2018	23380	County Road Assoc of Michigan	Postage September 2018	-95.75
10/02/2018	23381	Smith, Haughey, Rice & RoeggeCD	Professional Fees	-273.45
10/02/2018	23382	Henn Lesperance PLC	Professional Fees	-515.40
10/03/2018	QB	QuickBooks Payroll Service	Created by Payroll Service on 10/02/2018	-15,975.64
10/04/2018	E-pay	Internal Revenue Service	38-2490168 PPE 9/21/18 QB Tracking # -18645	-6,172.82
10/05/2018	2913	ASPIre	PPE 3-9-18 457 withholdings	-1,606.22
10/08/2018	100818	HSA Bank	PPE 10/5/18	-275.00
10/09/2018	E-pay	Internal Revenue Service	38-2490168 PPE 10/5/18 QB Tracking # -19428	-5,970.16
10/11/2018	23383	Plante & Moran	Professional Services	-1,110.00
10/11/2018	23384	Alan Cooper	August/October 2018 Expenses	-628.40
10/11/2018	23385	Tim Haagsma	October 2018 Expenses	-1,588.10
10/11/2018	23386	Brian Gutowski	October 2018 Expenses	-2,058.49
10/11/2018	23387	Petty Cash Check	Petty Cash - September 2018	-81.37
10/11/2018	23388	Comcast	Internet-Claims 10/10 - 11/09/18	-104.85
10/11/2018	23389	Benistar	Express Scripts Coverage Nov 2018	-964.00
10/11/2018	23390	Dennis Stanek	October 2018 Expenses	-2,027.27
10/11/2018	23391	Web Ascender	Website Design	-4,972.67
10/11/2018	23392	Staples	Water, Report Covers, Batteries	-140.28
10/16/2018	JE2936	Transfer from STF	Wire transfer-cash flow	1,000,000.00
10/17/2018	QB	QuickBooks Payroll Service	Created by Payroll Service on 10/16/2018	-16,794.17
10/17/2018	23393	Guardian Life Insurance Company	Life & LTD 00 529982	-4,998.34
10/17/2018	23394	Thatch Computer Consulting	IT Services	-3,409.24
10/17/2018	23395	Michael Kluck	Professional Fees	-115.50
10/17/2018	23396	Studio Intrigue Architects	Building Deposits	-1,000.00
10/17/2018	23397	Merchants Benefit Administration	Retiree Benefits-Nov 2018	-896.98
10/17/2018	23398	Joseph F. Valente	October 2018 Expense Reimbursement	-2,175.93
10/19/2018	2937	ASPIre	PPE 10-19-18 457 withholdings	-1,606.22
10/22/2018	E-pay	Internal Revenue Service	38-2490168 PPE 10/19/18 QB Tracking # 90682	-6,166.22
10/22/2018	102218	HSA Bank	PPE 10/19/18	-275.00
10/23/2018	23399	The SBAM Plan	Medical/Dental Nov 2018	-7,917.08
10/23/2018	23400	Sedgwick	Monthly Billing - October 2018	-8,291.67
10/23/2018	23401	CB Richard Ellis/Martin	November 2018 Office Rent	-3,226.00
10/23/2018	23402	CDW Government	Barracuda Virtual App	-977.94
10/23/2018	23403	County Road Assoc of Michigan	Legal Issues Symposium	-130.00
10/23/2018	23404	Smith, Haughey, Rice & RoeggeCD	Professional Fees	-2,297.00
10/23/2018	23405	Henn Lesperance PLC	Professional Fees	-5,454.94
10/26/2018	2935	Chase Bank	HSA October 2018 Monthly fees	-24.50
10/31/2018	QB	QuickBooks Payroll Service	Created by Payroll Service on 10/30/2018	-16,782.36
10/31/2018	2942	Chase Bank	October 2018 Funding Transfers	-315,684.60
10/31/2018	2942	Chase Bank	October 2018 Dividend Payment	1,844.80
10/31/2018	2939	ASPIre	October 2018 Monthly Pension Contribution	-3,029.62
				<b><u>-1,509,886.65</u></b>

**MICHIGAN COUNTY ROAD COMMISSION  
SELF-INSURANCE POOL  
CLAIM CHECK SUMMARY**

**August - October 2018**

<b>RISKMASTER BATCH</b>	<b>CHECK DATE</b>	<b>CHECK NUMBERS FROM TO</b>	<b>TOTAL BATCH AMOUNT</b>
1045	08/07/18	20315 - 20327	\$31,172.33
1046	08/14/18	20328 - 20346	\$234,860.72
			New Checks for Claims 8/15/18
1047	8/21/2018	30901 - 30926	\$152,739.56
1048	09/11/18	30927 - 30956	\$75,191.23
1049	09/12/18	30957 - 30958	\$2,058.12
Void	9/20/2018	30959 - 30961	Used for Origami check templates
1050	9/25/2018	30962 - 30983	\$124,730.71
1051	9/27/2018	30984 - 31003	\$39,332.94
1052	10/18/18	31005 - 31020	\$141,329.80
1053	10/22/18	31021 - 31034	\$65,974.78
1054	10/24/2018	31035 - 31052	\$73,764.03

Total Payments

**\$941,154.22**

Total Payments	\$	941,154.22
Void Checks /Reconciling	Batch 1046/Check 20346 \$	1,000.00
Salvage/Subrogation/Recovery		
-Members	\$	26,656.31
-Others	\$	5,025.00
Mini-Tort	\$	500.00
Reimbursements	\$	987.53
Excess Insurance		
Hartford		
Deductibles	\$	24,057.79
Settlement		
Net Paid Claims (Agrees with TB)	<b>\$</b>	<b>882,927.59</b>

MI County Road Commission Self-Insurance Pool  
Bank Account: Claims Account  
Batch: 1045    Run Date: 8/7/2018

Control Number	Check Number	Check Date	Claim Number	Department Code	Payee Name	Payment Type	Payment Amount	Check Total
0047328	20315	8/7/2018	NF0002017008340	7000	Dawn VandenBosch	NF Wage Loss	\$2,966.84	\$2,966.84
0047329	20316	8/7/2018	E&O81002017008446	8100	Michael R. Kluck & Associates	Legal Fees	\$346.50	\$352.93
"	"	"	"	"	"	General Expense	\$6.43	"
0047330	20317	8/7/2018	E&O25002015008104	2500	Michael R. Kluck & Associates	Legal Fees	\$676.50	\$731.00
"	"	"	"	"	"	General Expense	\$54.50	"
0047331	20318	8/7/2018	E&O81002014007512	8100	Michael R. Kluck & Associates	Legal Fees	\$5,775.00	\$6,308.30
"	"	"	"	"	"	General Expense	\$115.70	"
"	"	"	"	"	"	Legal Fees	\$396.00	"
"	"	"	"	"	"	General Expense	\$21.60	"
0047332	20319	8/7/2018	E&O11002017008346	1100	Michael R. Kluck & Associates	Legal Fees	\$2,145.00	\$2,199.71
"	"	"	"	"	"	General Expense	\$54.71	"
0047333	20320	8/7/2018	E&O11002017008346	1100	Kirk, Huth, Lange & Badalamenti, PLC	Legal Fees	\$341.25	\$341.25
0047334	20321	8/7/2018	E&O25002016008307	2500	Kirk, Huth, Lange & Badalamenti, PLC	Legal Fees	\$3,047.50	\$3,047.50
0047335	20322	8/7/2018	AL40002013007251	4000	Joseph Auffrey Ph.D.	General Expense	\$175.00	\$175.00
0047336	20323	8/7/2018	AL40002013007251	4000	RESEARCH NORTH, INC.	General Expense	\$7,048.80	\$7,048.80
0047337	20324	8/7/2018	AL40002013007251	4000	Julie Gronek, M.D.	General Expense	\$500.00	\$500.00
0047338	20325	8/7/2018	EPD08002018008578	0800	Barry County Road Commission	Property Damage	\$7,233.00	\$7,233.00
0047341	20326	8/7/2018	EPD08002018008578	0800	Damage Appraisers of North America	General Expense	\$143.00	\$143.00
0047345	20327	8/7/2018	EPD75002018008589	7500	Damage Appraisers of North America	General Expense	\$125.00	\$125.00

Total for this report: \$31,172.33

MI County Road Commission Self-Insurance Pool  
Bank Account: Claims Account  
Batch: 1046 Run Date: 8/14/2018

Control Number	Check Number	Check Date	Claim Number	Department Code	Payee Name	Payment Type	Payment Amount	Check Total
0047347	20328	8/14/2018	EPD75002018008589	7500	Schoolcraft County Road Commission	Property Damage	\$175,216.00	\$175,216.00
0047350	20329	8/14/2018	EPD74002018008598	7400	Damage Appraisers of North America	General Expense	\$160.00	\$160.00
0047351	20330	8/14/2018	AL81002018008601	8100	Element Fleet Management	Indemnity Property Da	\$3,033.08	\$3,033.08
0047352	20331	8/14/2018	GL56002013007594	5600	Smith, Haughey, Rice & Roegge, P.C.	Legal Fees	\$2,409.00	\$2,557.15
"	"	"	"	"	"	General Expense	\$148.15	"
0047353	20332	8/14/2018	GL23002014007742	2300	Smith, Haughey, Rice & Roegge, P.C.	Legal Fees	\$1,595.00	\$1,619.60
"	"	"	"	"	"	General Expense	\$24.60	"
0047354	20333	8/14/2018	GL24002015007937	2400	Smith, Haughey, Rice & Roegge, P.C.	Legal Fees	\$13,875.00	\$19,775.45
"	"	"	"	"	"	General Expense	\$5,900.45	"
0047355	20334	8/14/2018	E&O11002017008346	1100	Smith, Haughey, Rice & Roegge, P.C.	Legal Fees	\$1,525.00	\$1,536.22
"	"	"	"	"	"	General Expense	\$11.22	"
0047356	20335	8/14/2018	ALT41002015008465	4100	Smith, Haughey, Rice & Roegge, P.C.	Legal Fees	\$10,589.00	\$11,763.11
"	"	"	"	"	"	General Expense	\$1,174.11	"
0047357	20336	8/14/2018	E&O61002018008615	6100	Smith, Haughey, Rice & Roegge, P.C.	Legal Fees	\$2,758.00	\$2,768.81
"	"	"	"	"	"	General Expense	\$10.81	"
0047358	20337	8/14/2018	EPD28002018008577	2800	Smith, Haughey, Rice & Roegge, P.C.	Legal Fees	\$2,101.00	\$2,113.77
"	"	"	"	"	"	General Expense	\$12.77	"
0047360	20338	8/14/2018	E&O44002015007892	4400	BMJ Engineers and Surveyors, Inc.	General Expense	\$735.00	\$735.00
0047361	20339	8/14/2018	AL40002013007251	4000	David G Frye PC	General Expense	\$790.00	\$790.00
0047362	20340	8/14/2018	AL40002013007251	4000	Swogger, Bruce & Millar Law Firm, P.C.	Legal Fees	\$900.00	\$900.00
0047363	20341	8/14/2018	AL40002013007251	4000	Douglas R Albright	General Expense	\$360.00	\$360.00
0047364	20342	8/14/2018	AL40002013007251	4000	John L Pappas, MD	General Expense	\$3,875.00	\$3,875.00
0047365	20343	8/14/2018	AL40002013007251	4000	John Petroviich, M.A.	General Expense	\$2,292.80	\$2,292.80
0047366	20344	8/14/2018	AL40002013007251	4000	NETWORK REPORTING INC	General Expense	\$529.25	\$2,751.69
"	"	"	"	"	"	General Expense	\$1,051.78	"
"	"	"	"	"	"	General Expense	\$1,170.66	"
0047367	20345	8/14/2018	EPD14002018008600	1400	Cass County Road Commission	Property Damage	\$1,613.04	\$1,613.04
0047370	20346	8/14/2018	AL25002018008605	2500	Gallagher Bassett Services	Indemnity Property Da	\$1,000.00	\$1,000.00

Total for this report: \$234,860.72



MI County Road Commission Self-Insurance Pool  
Bank Account: Claims Account  
Batch: 1047 Run Date: 8/21/2018

Control Number	Check Number	Check Date	Claim Number	Department Code	Payee Name	Payment Type	Payment Amount	Check Total
0047372	30901	8/21/2018	EPD81002018008603	8100	Washtenaw County Road Commission	Salvage/Recovery - Pro	\$18,005.68	\$18,005.68
0047373	30902	8/21/2018	E&O57002018008618	5700	Henn Lesperance PLC	Legal Fees	\$286.00	\$286.00
0047374	30903	8/21/2018	GL16002018008616	1600	Henn Lesperance PLC	Legal Fees	\$222.00	\$708.00
"	"	"	"	"	"	Legal Fees	\$486.00	"
0047375	30904	8/21/2018	AL40002013007251	4000	Henn Lesperance PLC	Legal Fees	\$32,523.00	\$75,143.88
"	"	"	"	"	"	General Expense	\$3,875.90	"
"	"	"	"	"	"	Legal Fees	\$36,524.00	"
"	"	"	"	"	"	General Expense	\$2,220.98	"
0047376	30905	8/21/2018	AL39002016008205	3900	Henn Lesperance PLC	Legal Fees	\$1,044.00	\$1,044.00
0047377	30906	8/21/2018	E&O18002018008617	1800	Henn Lesperance PLC	Legal Fees	\$225.00	\$2,327.87
"	"	"	"	"	"	Legal Fees	\$2,102.00	"
"	"	"	"	"	"	General Expense	\$0.87	"
0047378	30907	8/21/2018	GL37002017008368	3700	Henn Lesperance PLC	Legal Fees	\$50.00	\$50.00
0047379	30908	8/21/2018	NF54002016008347	5400	Henn Lesperance PLC	Legal Fees	\$361.00	\$361.00
0047380	30909	8/21/2018	GL41002014007391	4100	Henn Lesperance PLC	Legal Fees	\$209.00	\$209.00
0047381	30910	8/21/2018	E&O16002017008411	1600	Henn Lesperance PLC	Legal Fees	\$200.00	\$200.00
0047382	30911	8/21/2018	E&O54002017008543	5400	Henn Lesperance PLC	Legal Fees	\$440.00	\$449.74
"	"	"	"	"	"	General Expense	\$9.74	"
0047383	30912	8/21/2018	GL65002017008537	6500	Henn Lesperance PLC	Legal Fees	\$238.00	\$309.87
"	"	"	"	"	"	Legal Fees	\$71.00	"
"	"	"	"	"	"	General Expense	\$0.87	"
0047384	30913	8/21/2018	GL39002016008226	3900	Henn Lesperance PLC	Legal Fees	\$225.00	\$225.00
0047385	30914	8/21/2018	E&O74002017008517	7400	Henn Lesperance PLC	Legal Fees	\$1,770.00	\$5,034.27
"	"	"	"	"	"	General Expense	\$34.43	"
"	"	"	"	"	"	Legal Fees	\$3,177.00	"
"	"	"	"	"	"	General Expense	\$52.84	"
0047386	30915	8/21/2018	E&O25002013008443	2500	Henn Lesperance PLC	Legal Fees	\$17.00	\$598.00
"	"	"	"	"	"	Legal Fees	\$581.00	"
0047387	30916	8/21/2018	GL49002016008245	4900	Henn Lesperance PLC	Legal Fees	\$225.00	\$375.00
"	"	"	"	"	"	Legal Fees	\$150.00	"
0047388	30917	8/21/2018	E&O45002017008408	4500	Henn Lesperance PLC	Legal Fees	\$486.00	\$542.10
"	"	"	"	"	"	General Expense	\$10.10	"
"	"	"	"	"	"	Legal Fees	\$46.00	"
0047389	30918	8/21/2018	E&O44002015007892	4400	Henn Lesperance PLC	Legal Fees	\$1,399.00	\$21,768.31
"	"	"	"	"	"	General Expense	\$1.21	"
"	"	"	"	"	"	Legal Fees	\$19,913.00	"
"	"	"	"	"	"	General Expense	\$455.10	"
0047390	30919	8/21/2018	GL43002016008309	4300	Henn Lesperance PLC	Legal Fees	\$75.00	\$75.00
0047391	30920	8/21/2018	AL40002016008211	4000	Henn Lesperance PLC	Legal Fees	\$272.00	\$2,627.80
"	"	"	"	"	"	General Expense	\$200.71	"
"	"	"	"	"	"	Legal Fees	\$2,150.00	"

MI County Road Commission Self-Insurance Pool  
Bank Account: Claims Account  
Batch: 1047 Run Date: 8/21/2018

Control Number	Check Number	Check Date	Claim Number	Department Code	Payee Name	Payment Type	Payment Amount	Check Total
0047391	30920	8/21/2018	AL40002016008211	4000	Henn Lesperance PLC	General Expense	\$5.09	\$2,627.80
0047392	30921	8/21/2018	GL05002017008369	0500	Henn Lesperance PLC	Legal Fees	\$92.00	\$372.67
"	"	"	"	"	"	General Expense	\$0.67	"
"	"	"	"	"	"	Legal Fees	\$280.00	"
0047393	30922	8/21/2018	E&O12002017008542	1200	Henn Lesperance PLC	Legal Fees	\$4,426.00	\$9,936.57
"	"	"	"	"	"	General Expense	\$123.17	"
"	"	"	"	"	"	Legal Fees	\$5,293.00	"
"	"	"	"	"	"	General Expense	\$94.40	"
0047395	30923	8/21/2018	GL19002017008555	1900	Dennis Perdue	Indemnity Property Da	\$1,800.00	\$1,800.00
0047396	30924	8/21/2018	EPD35002018008624	3500	Iosco County Road Commission	Property Damage	\$3,061.80	\$3,061.80
0047399	30925	8/21/2018	EPD74002018008598	7400	Sanilac County Road Commission	Property Damage	\$6,828.00	\$6,828.00
0047402	30926	8/21/2018	AL40002013007251	4000	DBMJ Rehabilitation Associates	General Expense	\$400.00	\$400.00

Total for this report: \$152,739.56

MI County Road Commission Self-Insurance Pool  
Bank Account: Claims Account  
Batch: 1048    Run Date: 9/11/2018

Control Number	Check Number	Check Date	Claim Number	Department Code	Payee Name	Payment Type	Payment Amount	Check Total
0047409	30927	9/11/2018	NF0002017008340	7000	Dawn VandenBosch	NF Wage Loss	\$2,966.84	\$2,966.84
0047410	30928	9/11/2018	GL70002018008612	7000	Sharon Hanba	Indemnity Property Da	\$508.54	\$508.54
0047411	30929	9/11/2018	GL24002018008611	2400	AT&T	Indemnity Property Da	\$600.38	\$600.38
0047412	30930	9/11/2018	GL30002018008606	3000	Angela Macey	Indemnity Property Da	\$2,141.33	\$2,141.33
0047413	30931	9/11/2018	GL39002018008627	3900	Richard and Brandi DeAnda	Indemnity Property Da	\$3,794.64	\$3,794.64
0047414	30932	9/11/2018	GL58002018008628	5800	Michigan Gas Utilities	Indemnity Property Da	\$1,600.00	\$1,600.00
0047415	30933	9/11/2018	GL08002018008619	0800	Ryan and Stephanie Meninga	Indemnity Property Da	\$2,934.92	\$2,934.92
0047416	30934	9/11/2018	PPD30002018008609	3000	Hillsdale County Road Commission	Property Damage	\$2,985.00	\$2,985.00
0047420	30935	9/11/2018	EPD76002018008594	7600	Shiawassee County Road Commission	Property Damage	\$2,442.77	\$2,442.77
0047423	30936	9/11/2018	EPD31002018008604	3100	Houghton County Road Commission	Property Damage	\$6,676.04	\$6,676.04
0047426	30937	9/11/2018	EPD20002018008585	2000	Crawford County Road Commission	Property Damage	\$1,550.93	\$1,550.93
0047429	30938	9/11/2018	EPD16002017008483	1600	Cheboygan County Road Commission	Property Damage	\$20,100.39	\$20,100.39
0047432	30939	9/11/2018	AL40002013007251	4000	David G Frye PC	General Expense	\$1,385.00	\$1,385.00
0047433	30940	9/11/2018	AL40002013007251	4000	NETWORK REPORTING INC	General Expense	\$490.67	\$490.67
0047434	30941	9/11/2018	AL40002013007251	4000	Rudny & Sallmann Forensics	General Expense	\$2,636.25	\$2,636.25
0047435	30942	9/11/2018	E&O81002014007512	8100	Michael R. Kluck & Associates	General Expense	\$36.60	\$2,693.10
"	"	"	"	"	"	Legal Fees	\$1,287.00	"
"	"	"	"	"	"	Legal Fees	\$1,369.50	"
0047436	30943	9/11/2018	E&O25002015008104	2500	Michael R. Kluck & Associates	Legal Fees	\$49.50	\$50.27
"	"	"	"	"	"	General Expense	\$0.77	"
0047437	30944	9/11/2018	E&O17002017008474	1700	Michael R. Kluck & Associates	Legal Fees	\$66.00	\$67.07
"	"	"	"	"	"	General Expense	\$1.07	"
0047438	30945	9/11/2018	E&O11002017008346	1100	Michael R. Kluck & Associates	Legal Fees	\$3,729.00	\$3,930.69
"	"	"	"	"	"	General Expense	\$201.69	"
0047439	30946	9/11/2018	E&O11002017008346	1100	Kirk, Huth, Lange & Badalamenti, PLC	Legal Fees	\$900.00	\$900.00
0047440	30947	9/11/2018	E&O25002016008307	2500	Kirk, Huth, Lange & Badalamenti, PLC	Legal Fees	\$3,176.25	\$3,176.25
0047441	30948	9/11/2018	E&O74002017008517	7400	Henn Lesperance PLC	Legal Fees	\$2,074.00	\$2,099.15
"	"	"	"	"	"	General Expense	\$25.15	"
0047443	30949	9/11/2018	EPD21002017008548	2100	Henn Lesperance PLC	Legal Fees	\$399.00	\$998.00
"	"	"	"	"	"	Legal Fees	\$599.00	"
0047445	30950	9/11/2018	AL76002018008602	7600	Heather Vondra	Indemnity Property Da	\$823.76	\$823.76
0047446	30951	9/11/2018	GL32002017008614	3200	Mark Hanlon	Indemnity Property Da	\$2,799.65	\$2,799.65
0047447	30952	9/11/2018	GL25002018008621	2500	Nycole Christopher	Indemnity Property Da	\$196.79	\$196.79
0047448	30953	9/11/2018	GL29002018008599	2900	Gerald Heppe	Indemnity Property Da	\$730.27	\$730.27
0047449	30954	9/11/2018	GL53002018008635	5300	Frontier Communications	Indemnity Property Da	\$351.91	\$351.91
0047450	30955	9/11/2018	EPD25002018008632	2500	Damage Appraisers of North America	General Expense	\$130.00	\$130.00
0047451	30956	9/11/2018	EPD19002018008625	1900	Clinton County Road Commission	Property Damage	\$3,430.62	\$3,430.62

Total for this report: \$75,191.23

MI County Road Commission Self-Insurance Pool  
 Bank Account: Claims Account  
 Batch: 1049 Run Date: 9/11/2018

Control Number	Check Number	Check Date	Claim Number	Department Code	Payee Name	Payment Type	Payment Amount	Check Total
0047454	30957	9/12/2018	EPD81002018008603	8100	Dept#77943 Michigan County Road Commission Self In	Salvage/Recovery - Pro	\$2,000.63	\$2,000.63
0047455	30958	9/12/2018	PPD24002017008351	2400	Dept#77943 Michigan County Road Commission Self In	Salvage/Recovery - Pro	\$57.49	\$57.49

Total for this report: \$2,058.12

MI County Road Commission Self-Insurance Pool  
Bank Account: Claims Account  
Batch: 1050 Run Date: 9/25/2018

Control Number	Check Number	Check Date	Claim Number	Department Code	Payee Name	Payment Type	Payment Amount	Check Total
0047456	30962	9/25/2018	AL25002018008605	2500	Gallagher Bassett Services	Indemnity Property Da	\$1,000.00	\$1,000.00
0047457	30963	9/25/2018	EPD05002018008608	0500	Antrim County Road Commission	Property Damage	\$614.80	\$614.80
0047460	30964	9/25/2018	GL21002018008613	2100	Gary Johnson	Indemnity Property Da	\$187.80	\$187.80
0047461	30965	9/25/2018	GL53002018008638	5300	MIDP1839329 Frontier Communications	Indemnity Property Da	\$249.38	\$249.38
0047462	30966	9/25/2018	GL77002018008637	7700	Mandy Rhadigan	Indemnity Property Da	\$1,596.67	\$1,596.67
0047474	30967	9/25/2018	GL08002017008450	0800	Kevin VanderMolen & Kirstin VanderMolen	Indemnity Property Da	\$3,000.00	\$3,000.00
0047475	30968	9/25/2018	AL81002018008607	8100	Jill Margenau	Indemnity Property Da	\$297.10	\$297.10
0047476	30969	9/25/2018	EPD14002018008630	1400	Cass County Road Commission	Property Damage	\$2,225.48	\$2,225.48
0047479	30970	9/25/2018	EPD25002018008632	2500	Genesee County Road Commission	Property Damage	\$5,852.00	\$5,852.00
0047482	30971	9/25/2018	GL04002018008647	0400	John Krawczak	Indemnity Property Da	\$250.00	\$250.00
0047483	30972	9/25/2018	EPD34002018008629	3400	Ionia County Road Commission	Property Damage	\$8,373.03	\$8,373.03
0047486	30973	9/25/2018	GL23002014007742	2300	Smith, Haughey, Rice & Roegge, P.C.	Legal Fees	\$964.00	\$980.50
"	"	"	"	"	"	General Expense	\$16.50	"
0047487	30974	9/25/2018	GL56002013007594	5600	Smith, Haughey, Rice & Roegge, P.C.	Legal Fees	\$168.00	\$591.10
"	"	"	"	"	"	General Expense	\$423.10	"
0047488	30975	9/25/2018	GL24002015007937	2400	Smith, Haughey, Rice & Roegge, P.C.	Legal Fees	\$59,541.00	\$62,067.42
"	"	"	"	"	"	General Expense	\$2,526.42	"
0047489	30976	9/25/2018	E&O11002017008346	1100	Smith, Haughey, Rice & Roegge, P.C.	Legal Fees	\$625.00	\$907.73
"	"	"	"	"	"	General Expense	\$282.73	"
0047490	30977	9/25/2018	ALT41002015008465	4100	Smith, Haughey, Rice & Roegge, P.C.	Legal Fees	\$22,282.00	\$24,282.64
"	"	"	"	"	"	General Expense	\$2,000.64	"
0047491	30978	9/25/2018	EPD28002018008577	2800	Smith, Haughey, Rice & Roegge, P.C.	Legal Fees	\$1,513.00	\$1,513.00
0047492	30979	9/25/2018	E&O25002016008307	2500	Kirk, Huth, Lange & Badalamenti, PLC	Legal Fees	\$8,357.50	\$8,478.30
"	"	"	"	"	"	General Expense	\$120.80	"
0047493	30980	9/25/2018	E&O11002017008346	1100	Kirk, Huth, Lange & Badalamenti, PLC	Legal Fees	\$910.09	\$910.09
0047494	30981	9/25/2018	GL32002013007657	3200	Garan Lucow Miller P.C.	Legal Fees	\$50.00	\$50.00
0047495	30982	9/25/2018	GL32002013007657	3200	Paul H. Gross, CCM	General Expense	\$600.00	\$600.00
0047496	30983	9/25/2018	E&O81002014007512	8100	US Legal Support	General Expense	\$703.67	\$703.67

Total for this report: \$124,730.71

MI County Road Commission Self-Insurance Pool  
Bank Account: Claims Account  
Batch: 1051 Run Date: 9/27/2018

Control Number	Check Number	Check Date	Claim Number	Department Code	Payee Name	Payment Type	Payment Amount	Check Total
0047497	30984	9/27/2018	E&O81002014007512	8100	Michael R. Kluck & Associates	Legal Fees	\$11,104.50	\$11,681.22
"	"	"	"	"	"	General Expense	\$312.72	"
"	"	"	"	"	"	Legal Fees	\$264.00	"
0047498	30985	9/27/2018	E&O11002017008346	1100	Michael R. Kluck & Associates	Legal Fees	\$1,567.50	\$1,606.60
"	"	"	"	"	"	General Expense	\$39.10	"
0047499	30986	9/27/2018	E&O25002012007094	2500	Michael R. Kluck & Associates	Legal Fees	\$3,712.50	\$3,779.96
"	"	"	"	"	"	General Expense	\$67.46	"
0047500	30987	9/27/2018	E&O25002015008104	2500	Michael R. Kluck & Associates	Legal Fees	\$214.50	\$214.80
"	"	"	"	"	"	General Expense	\$0.30	"
0047501	30988	9/27/2018	E&O12002017008542	1200	O'Brien & Bails	General Expense	\$569.40	\$569.40
0047502	30989	9/27/2018	E&O12002017008542	1200	Moretti Group	General Expense	\$580.20	\$580.20
0047503	30990	9/27/2018	E&O44002015007892	4400	BMJ Engineers and Surveyors, Inc.	General Expense	\$4,194.56	\$4,194.56
0047504	30991	9/27/2018	GL54002018008646	5400	Consumers Energy	Indemnity Property Da	\$2,650.16	\$2,650.16
0047505	30992	9/27/2018	AL59002018008641	5900	Janice Fyan	Indemnity Property Da	\$1,000.00	\$1,000.00
0047506	30993	9/27/2018	AL40002013007251	4000	David G Frye PC	General Expense	\$280.00	\$280.00
0047507	30994	9/27/2018	AL40002013007251	4000	Michigan CAT	General Expense	\$802.40	\$802.40
0047508	30995	9/27/2018	AL40002013007251	4000	Jennifer Boyer	General Expense	\$250.20	\$250.20
0047509	30996	9/27/2018	AL40002013007251	4000	NETWORK REPORTING INC	General Expense	\$208.08	\$208.08
0047510	30997	9/27/2018	AL40002013007251	4000	Roche Featherstone, MD	General Expense	\$175.00	\$175.00
0047511	30998	9/27/2018	AL40002013007251	4000	Munson Occupational Health and Medicine	General Expense	\$1,102.50	\$1,102.50
0047512	30999	9/27/2018	EPD08002018008622	0800	Barry County Road Commission	Property Damage	\$40.00	\$40.00
0047515	31000	9/27/2018	EPD08002018008639	0800	Barry County Road Commission	Property Damage	\$5,650.02	\$5,650.02
0047518	31001	9/27/2018	NF0002017008340	7000	Dawn VandenBosch	NF Wage Loss	\$2,966.84	\$2,966.84
0047519	31002	9/27/2018	GL24002018008643	2400	Denise Lemorie	Indemnity Property Da	\$215.42	\$215.42
0047520	31003	9/27/2018	GL15002018008645	1500	Leslie Surch	Indemnity Property Da	\$1,365.58	\$1,365.58

Total for this report: \$39,332.94

MI County Road Commission Self-Insurance Pool  
Bank Account: Claims Account  
Batch: 1052 Run Date: 10/18/2018

Control Number	Check Number	Check Date	Claim Number	Department Code	Payee Name	Payment Type	Payment Amount	Check Total
0047530	31005	10/18/2018	EPD19002018008626	1900	Clinton County Road Commission	Property Damage	\$2,463.60	\$2,463.60
0047533	31006	10/18/2018	EPD01002018008631	0100	Alcona County Road Commission	Property Damage	\$2,826.95	\$2,826.95
0047536	31007	10/18/2018	GL77002018008637	7700	Enterprise Rent-A-Car	General Expense	\$505.48	\$505.48
0047537	31008	10/18/2018	EPD35002018008651	3500	Damage Appraisers of North America	General Expense	\$679.31	\$679.31
0047538	31009	10/18/2018	GL17002018008597	1700	State Farm Subrogation Services	Indemnity Property Da	\$1,074.66	\$1,074.66
0047539	31010	10/18/2018	GL54002018008646	5400	Armato Electric Inc.	Indemnity Property Da	\$187.55	\$187.55
0047540	31011	10/18/2018	GL14002018008640	1400	Jon Fehland	Indemnity Property Da	\$955.54	\$955.54
0047541	31012	10/18/2018	GL77002018008637	7700	Dick Huvaeres Chrysler Dodge Ram Jeep	Indemnity Property Da	\$398.19	\$398.19
0047542	31013	10/18/2018	AL02002017008644	0200	Subrogation Services Latitude	Indemnity Property Da	\$2,705.86	\$2,705.86
0047543	31014	10/18/2018	GL62002018008642	6200	Jeffrey and Deborah Jenkinson	Indemnity Property Da	\$200.00	\$200.00
0047544	31015	10/18/2018	NF0002017008340	7000	Smith, Haughey, Rice & Roegge, P.C.	Legal Fees	\$135.00	\$135.00
0047545	31016	10/18/2018	E&O11002017008346	1100	Smith, Haughey, Rice & Roegge, P.C.	Legal Fees	\$300.00	\$300.00
0047546	31017	10/18/2018	ALT41002015008465	4100	Smith, Haughey, Rice & Roegge, P.C.	Legal Fees	\$17,530.00	\$20,877.49
"	"	"	"	"	"	General Expense	\$3,347.49	"
0047547	31018	10/18/2018	GL24002015007937	2400	Smith, Haughey, Rice & Roegge, P.C.	Legal Fees	\$84,185.00	\$107,295.17
"	"	"	"	"	"	General Expense	\$23,110.17	"
0047550	31019	10/18/2018	GL56002013007594	5600	Smith, Haughey, Rice & Roegge, P.C.	Legal Fees	\$225.00	\$225.00
0047551	31020	10/18/2018	EPD22002018008532	2200	Dickinson County Road Commission	RC Reimbursement - D	\$500.00	\$500.00

Total for this report: \$141,329.80

MI County Road Commission Self-Insurance Pool  
Bank Account: Claims Account  
Batch: 1053 Run Date: 10/22/2018

Control Number	Check Number	Check Date	Claim Number	Department Code	Payee Name	Payment Type	Payment Amount	Check Total
0047552	31021	10/22/2018	E&O11002017008346	1100	Kirk, Huth, Lange & Badalamenti, PLC	Legal Fees	\$2,949.39	\$2,949.39
0047553	31022	10/22/2018	E&O25002016008307	2500	Kirk, Huth, Lange & Badalamenti, PLC	Legal Fees	\$2,681.25	\$2,687.40
"	"	"	"	"	"	General Expense	\$6.15	"
0047554	31023	10/22/2018	E&O81002017008365	8100	Conlin, McKenney, Philbrick, P.C.	Legal Fees	\$15,361.00	\$15,396.00
"	"	"	"	"	"	General Expense	\$35.00	"
0047555	31024	10/22/2018	E&O81002014007512	8100	Veritext Corporate Services, Inc.	General Expense	\$1,372.70	\$3,361.60
"	"	"	"	"	"	General Expense	\$1,988.90	"
0047556	31025	10/22/2018	E&O12002017008542	1200	OBrien and Bails	General Expense	\$591.20	\$591.20
0047557	31026	10/22/2018	AL40002013007251	4000	NETWORK REPORTING INC	General Expense	\$837.29	\$837.29
0047558	31027	10/22/2018	AL40002013007251	4000	Rudny & Sallmann Forensics of Illinois, LLC	General Expense	\$16,248.76	\$16,248.76
0047559	31028	10/22/2018	E&O44002015007892	4400	BMJ Engineers and Surveyors, Inc.	General Expense	\$3,545.30	\$3,545.30
0047560	31029	10/22/2018	E&O81002014007512	8100	Michael R. Kluck & Associates	Legal Fees	\$8,283.00	\$8,514.04
"	"	"	"	"	"	General Expense	\$165.04	"
"	"	"	"	"	"	Legal Fees	\$66.00	"
0047561	31030	10/22/2018	E&O25002012007094	2500	Michael R. Kluck & Associates	General Expense	\$86.71	\$1,835.71
"	"	"	"	"	"	Legal Fees	\$1,749.00	"
0047562	31031	10/22/2018	E&O25002015008104	2500	Michael R. Kluck & Associates	Legal Fees	\$181.50	\$183.24
"	"	"	"	"	"	General Expense	\$1.74	"
0047563	31032	10/22/2018	E&O11002017008346	1100	Michael R. Kluck & Associates	Legal Fees	\$3,333.00	\$3,475.30
"	"	"	"	"	"	General Expense	\$142.30	"
0047564	31033	10/22/2018	AL40002016008211	4000	Rudny & Sallmann Forensics of Illinois, LLC	General Expense	\$3,797.63	\$3,910.13
"	"	"	"	"	"	General Expense	\$112.50	"
0047565	31034	10/22/2018	E&O44002015007892	4400	Richard H. Crannell, PE	General Expense	\$2,439.42	\$2,439.42

Total for this report: \$65,974.78



MI County Road Commission Self-Insurance Pool  
Bank Account: Claims Account  
Batch: 1054 Run Date: 10/24/2018

Control Number	Check Number	Check Date	Claim Number	Department Code	Payee Name	Payment Type	Payment Amount	Check Total
0047571	31035	10/24/2018	EPD21002017008548	2100	Henn Lesperance PLC	Legal Fees	\$1,296.00	\$2,261.34
"	"	"	"	"	"	General Expense	\$2.34	"
"	"	"	"	"	"	Legal Fees	\$963.00	"
0047572	31036	10/24/2018	AL39002016008205	3900	Henn Lesperance PLC	Legal Fees	\$89.00	\$89.00
0047573	31037	10/24/2018	GL41002014007391	4100	Henn Lesperance PLC	Legal Fees	\$4,060.00	\$4,061.67
"	"	"	"	"	"	General Expense	\$1.67	"
0047574	31038	10/24/2018	E&O57002018008618	5700	Henn Lesperance PLC	Legal Fees	\$912.00	\$918.68
"	"	"	"	"	"	General Expense	\$6.68	"
0047575	31039	10/24/2018	NF54002016008347	5400	Henn Lesperance PLC	Legal Fees	\$42.00	\$42.00
0047576	31040	10/24/2018	AL40002013007251	4000	Henn Lesperance PLC	Legal Fees	\$29,255.00	\$30,901.96
"	"	"	"	"	"	General Expense	\$1,646.96	"
0047577	31041	10/24/2018	E&O12002017008542	1200	Henn Lesperance PLC	Legal Fees	\$8,915.00	\$9,399.33
"	"	"	"	"	"	General Expense	\$484.33	"
0047578	31042	10/24/2018	GL05002017008369	0500	Henn Lesperance PLC	Legal Fees	\$122.00	\$122.00
0047579	31043	10/24/2018	AL40002016008211	4000	Henn Lesperance PLC	Legal Fees	\$5,151.00	\$5,395.87
"	"	"	"	"	"	General Expense	\$244.87	"
0047580	31044	10/24/2018	GL43002016008309	4300	Henn Lesperance PLC	Legal Fees	\$75.00	\$75.00
0047581	31045	10/24/2018	E&O44002015007892	4400	Henn Lesperance PLC	Legal Fees	\$8,553.00	\$8,831.20
"	"	"	"	"	"	General Expense	\$278.20	"
0047582	31046	10/24/2018	E&O45002017008408	4500	Henn Lesperance PLC	Legal Fees	\$844.00	\$848.36
"	"	"	"	"	"	General Expense	\$4.36	"
0047583	31047	10/24/2018	E&O25002013008443	2500	Henn Lesperance PLC	Legal Fees	\$432.00	\$436.47
"	"	"	"	"	"	General Expense	\$4.47	"
0047584	31048	10/24/2018	E&O74002017008517	7400	Henn Lesperance PLC	Legal Fees	\$6,360.00	\$6,415.08
"	"	"	"	"	"	General Expense	\$55.08	"
0047585	31049	10/24/2018	GL51002015007843	5100	Henn Lesperance PLC	Legal Fees	\$244.00	\$267.04
"	"	"	"	"	"	General Expense	\$23.04	"
0047586	31050	10/24/2018	GL39002016008226	3900	Henn Lesperance PLC	Legal Fees	\$2,101.00	\$2,159.06
"	"	"	"	"	"	General Expense	\$58.06	"
0047587	31051	10/24/2018	EPD43002018008633	4300	Lake County Road Commission	Property Damage	\$1,149.41	\$1,149.41
0047590	31052	10/24/2018	GL53002018008658	5300	ATT	Indemnity Property Da	\$390.56	\$390.56

Total for this report: \$73,764.03



**MICHIGAN COUNTY ROAD COMMISSION**  
**SELF-INSURANCE POOL**

**2018-19**  
**FINANCIAL REPORTS**  
**April 2018 - October 2018**

Balance Sheet  
Profit & Loss (Budget v Actual)  
Statement of Cash Flows

*\* For the Board to Receive and Place on File*

# Michigan County Road Commission Self Insurance Pool

## Balance Sheet

As of October 31, 2018

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	Oct 31, 18
<b>ASSETS</b>	
Current Assets	
Checking/Savings	
Cash	7,677,127
Investments	60,960,545
Total Checking/Savings	68,637,672
Accounts Receivable	
A/R	35,491
Total Accounts Receivable	35,491
Other Current Assets	
Due from Building Fund	5,205
Other Current Assets	77,058
Total Other Current Assets	82,262
Total Current Assets	68,755,426
Fixed Assets	
Fixed Assets	675,405
Total Fixed Assets	675,405
<b>TOTAL ASSETS</b>	<b>69,430,831</b>
<b>LIABILITIES &amp; EQUITY</b>	
Liabilities	
Current Liabilities	
Accounts Payable	
Accounts Payable	28,942
Total Accounts Payable	28,942
Other Current Liabilities	
Direct Deposit Liabilities	(16,764)
Other Current Liabilities	88,204
Total Other Current Liabilities	71,440
Total Current Liabilities	100,382
Long Term Liabilities	
IBNR-Net of Discount/Reserves	12,166,993
Net OPEB Obligation	640,695
Total Long Term Liabilities	12,807,688
Total Liabilities	12,908,070
Equity	
Membership Equity	53,754,788
Net Assets - Building	1,100,400
Net Assets - Building "Fund"	(810,472)
Net Income	2,478,045
Total Equity	56,522,761
<b>TOTAL LIABILITIES &amp; EQUITY</b>	<b>69,430,831</b>

# Michigan County Road Commission Self Insurance Pool

## Profit & Loss Budget vs. Actual

11/28/18

Accrual Basis

April through October 2018

	Apr - Oct 18	Budget	\$ Over Budget	% of Bu...
<b>Ordinary Income/Expense</b>				
Income				
<b>Assessments</b>	1,151,594.00	1,151,914.00	(320.00)	100.0%
<b>Contribution Income</b>	13,466,535.25	13,427,358.00	39,177.25	100.3%
<b>Investment Income</b>	(708,467.98)	4,000,000.00	(4,708,467.98)	(17.7)%
<b>Other Income.</b>	92,730.22	16,500.00	76,230.22	562.0%
<b>Total Income</b>	14,002,391.49	18,595,772.00	(4,593,380.51)	75.3%
<b>Gross Profit</b>	14,002,391.49	18,595,772.00	(4,593,380.51)	75.3%
Expense				
<b>Administrative Expenses</b>	787,433.68	1,545,951.00	(758,517.32)	50.9%
<b>Claims Administration</b>	193,798.92	828,275.00	(634,476.08)	23.4%
<b>Excess Insurance</b>	3,932,646.00	3,732,928.00	199,718.00	105.4%
<b>Investment Fees</b>	277,468.68	565,000.00	(287,531.32)	49.1%
<b>State Assessments</b>	1,244,444.08	1,151,914.00	92,530.08	108.0%
<b>Total Expense</b>	6,435,791.36	7,824,068.00	(1,388,276.64)	82.3%
<b>Net Ordinary Income</b>	7,566,600.13	10,771,704.00	(3,205,103.87)	70.2%
<b>Other Income/Expense</b>				
<b>Other Expense</b>				
<b>Claims</b>	2,088,554.93	0.00	2,088,554.93	100.0%
<b>Refund Allocations</b>	3,000,000.00	0.00	3,000,000.00	100.0%
<b>Total Other Expense</b>	5,088,554.93	0.00	5,088,554.93	100.0%
<b>Net Other Income</b>	(5,088,554.93)	0.00	(5,088,554.93)	100.0%
<b>Net Income</b>	<b>2,478,045.20</b>	<b>10,771,704.00</b>	<b>(8,293,658.80)</b>	<b>23.0%</b>

## Michigan County Road Commission Self Insurance Pool

## Statement of Cash Flows

April through October 2018

	<u>Apr - Oct 18</u>
<b>OPERATING ACTIVITIES</b>	
Net Income	2,478,045.20
Adjustments to reconcile Net Income to net cash provided by operations:	
A/R:Members	27,303.22
A/R:Other Receivables	237,065.64
Due from Building Fund	-886.81
Other Current Assets:Training Deposit Fees	15,250.00
Other Current Assets:Prepaid Expenses	-47,204.81
Accounts Payable	-78,617.54
Accounts Payable:Accrued Payables	-280,794.69
Direct Deposit Liabilities	-16,763.61
Other Current Liabilities:Pension Payable	-18,965.00
Other Current Liabilities:Payroll Liabilities	-3,308.06
Other Current Liabilities:Payroll Liabilities:Aflac-Taxable	-22.80
Other Current Liabilities:Payroll Liabilities:Aflac Pretax	-44.28
Net cash provided by Operating Activities	2,311,056.46
<b>INVESTING ACTIVITIES</b>	
Fixed Assets:Computer Hardware - A/D	58,991.00
Net cash provided by Investing Activities	58,991.00
<b>FINANCING ACTIVITIES</b>	
Membership Equity	-13,510.00
Net cash provided by Financing Activities	-13,510.00
Net cash increase for period	2,356,537.46
Cash at beginning of period	66,281,134.70
Cash at end of period	<u><u>68,637,672.16</u></u>



MICHIGAN COUNTY ROAD COMMISSION  
SELF-INSURANCE POOL

**2018-19**  
**Detail Reports**  
**April 2018 - October 2018**

Contributions & Claims  
Administrative & Loss Control  
Investment Income

*\* For the Board to Receive and Place on File*

**Michigan County Road Commission Self Insurance Pool**  
**Budget vs. Actual - Contributions & Claims**  
April through October 2018

	<u>Apr - Oct 18</u>	<u>Budget</u>	<u>\$ Over Budget</u>	<u>% of ...</u>
<b>Ordinary Income/Expense</b>				
<b>Income</b>				
<b>Contribution Income</b>	13,466,535.25	13,427,358.00	39,177.25	100.3%
<b>Assessments</b>	1,151,594.00	1,151,914.00	(320.00)	100.0%
<b>Other Income.</b>	6,741.64	0.00	6,741.64	100.0%
<b>Total Income</b>	<u>14,624,870.89</u>	<u>14,579,272.00</u>	<u>45,598.89</u>	<u>100.3%</u>
<b>Gross Profit</b>	14,624,870.89	14,579,272.00	45,598.89	100.3%
<b>Expense</b>				
<b>Excess Insurance</b>	3,932,646.00	3,732,928.00	199,718.00	105.4%
<b>State Assessments</b>	1,244,444.08	1,151,914.00	92,530.08	108.0%
<b>Claims Administration</b>	193,798.92	828,275.00	(634,476.08)	23.4%
<b>Total Expense</b>	<u>5,370,889.00</u>	<u>5,713,117.00</u>	<u>(342,228.00)</u>	<u>94.0%</u>
<b>Net Ordinary Income</b>	9,253,981.89	8,866,155.00	387,826.89	104.4%
<b>Other Income/Expense</b>				
<b>Other Expense</b>				
<b>Refund Allocations</b>	3,000,000.00	0.00	3,000,000.00	100.0%
<b>Claims</b>	2,088,554.93	0.00	2,088,554.93	100.0%
<b>Total Other Expense</b>	<u>5,088,554.93</u>	<u>0.00</u>	<u>5,088,554.93</u>	<u>100.0%</u>
<b>Net Other Income</b>	<u>(5,088,554.93)</u>	<u>0.00</u>	<u>(5,088,554.93)</u>	<u>100.0%</u>
<b>Net Income</b>	<u><b>4,165,426.96</b></u>	<u><b>8,866,155.00</b></u>	<u><b>(4,700,728.04)</b></u>	<u><b>47.0%</b></u>

**Michigan County Road Commission Self Insurance Pool**  
**Budget vs. Actual - Administrative, Bldg & Loss Control**  
**April through October 2018**

11/28/18

Accrual Basis

	Apr - Oct 18	Budget	\$ Over Bud...	% of Budget
<b>Ordinary Income/Expense</b>				
Income				
Other Income.				
Interest Income-ST Investment	83,509.65			
Other Income. - Other	2,478.93	16,500.00	(14,021.07)	15.0%
Total Other Income.	85,988.58	16,500.00	69,488.58	521.1%
Total Income	85,988.58	16,500.00	69,488.58	521.1%
Gross Profit	85,988.58	16,500.00	69,488.58	521.1%
Expense				
Administrative Expenses				
Payroll Expenses				
Wages	195,603.36	383,625.00	(188,021.64)	51.0%
Benefits	44,502.48	124,923.00	(80,420.52)	35.6%
Payroll Taxes	15,353.49	30,690.00	(15,336.51)	50.0%
Retiree Medical Insurance	13,026.86	24,000.00	(10,973.14)	54.3%
Payroll Expenses - Other	303.00	750.00	(447.00)	40.4%
Total Payroll Expenses	268,789.19	563,988.00	(295,198.81)	47.7%
Professional Fees				
Prof Fees-Admin	164,372.84	250,000.00	(85,627.16)	65.7%
Technology- IT	10,146.93	28,000.00	(17,853.07)	36.2%
Prof Fees-Guidelines	4,852.00	25,000.00	(20,148.00)	19.4%
Prof Fees-HR	1,487.50	25,000.00	(23,512.50)	6.0%
Lawsuit	1,353.70	65,000.00	(63,646.30)	2.1%
Technology-Cyber Security	498.75	4,000.00	(3,501.25)	12.5%
Total Professional Fees	182,711.72	397,000.00	(214,288.28)	46.0%
Loss Control				
LC Personnel Expenses				
LC Salaries	100,998.21	175,178.00	(74,179.79)	57.7%
LC Benefits	32,224.68	61,520.00	(29,295.32)	52.4%
LC Payroll Taxes	7,611.60	14,015.00	(6,403.40)	54.3%
Total LC Personnel Expenses	140,834.49	250,713.00	(109,878.51)	56.2%
LC Audits & Training	9,593.24	15,000.00	(5,406.76)	64.0%
LC Automotive	6,901.45	17,000.00	(10,098.55)	40.6%
LC Telephone	1,983.68	3,000.00	(1,016.32)	66.1%
LC Meetings & Training	738.23	4,000.00	(3,261.77)	18.5%
LC Office Expenses	459.40	2,600.00	(2,140.60)	17.7%
Total Loss Control	160,510.49	292,313.00	(131,802.51)	54.9%
Depreciation Expense	58,991.00	25,000.00	33,991.00	236.0%
Annual Meeting	29,791.99	30,000.00	(208.01)	99.3%
Meetings & Seminars	21,116.46	45,000.00	(23,883.54)	46.9%
Board Meetings	16,068.29	30,000.00	(13,931.71)	53.6%
Rent/Leases	11,968.00	18,000.00	(6,032.00)	66.5%
Office Supplies & Equipment				
Office Supplies & Equipment - Other	8,569.02	12,000.00	(3,430.98)	71.4%
Office Furniture	0.00	7,500.00	(7,500.00)	0.0%
Total Office Supplies & Equipment	8,569.02	19,500.00	(10,930.98)	43.9%
Dues, Fees & subscriptions	8,101.38	10,000.00	(1,898.62)	81.0%
Telephone & Internet	5,526.71	15,000.00	(9,473.29)	36.8%
Automobile Expense				
Automobile Expense - Other	3,801.25	7,500.00	(3,698.75)	50.7%
Vehicle	0.00	42,000.00	(42,000.00)	0.0%
Total Automobile Expense	3,801.25	49,500.00	(45,698.75)	7.7%



**Michigan County Road Commission Self Insurance Pool**  
**Budget vs. Actual - Administrative, Bldg & Loss Control**  
**April through October 2018**

11/28/18

Accrual Basis

	Apr - Oct 18	Budget	\$ Over Bud...	% of Budget
Bond & Workers' Comp Insurance	3,164.59	7,500.00	(4,335.41)	42.2%
Capital Outlay Expenses	2,687.94	14,150.00	(11,462.06)	19.0%
Printing & Duplication	2,013.62	10,000.00	(7,986.38)	20.1%
Insurance	1,674.44	3,500.00	(1,825.56)	47.8%
Postage and Express Mailings	1,601.00	4,500.00	(2,899.00)	35.6%
Bank Service Charges	346.59	500.00	(153.41)	69.3%
Administrative Expenses - Other	0.00	10,000.00	(10,000.00)	0.0%
Miscellaneous Expenses	0.00	500.00	(500.00)	0.0%
Total Administrative Expenses	787,433.68	1,545,951.00	(758,517.32)	50.9%
Total Expense	787,433.68	1,545,951.00	(758,517.32)	50.9%
Net Ordinary Income	(701,445.10)	(1,529,451.00)	828,005.90	45.9%
Net Income	<u>(701,445.10)</u>	<u>(1,529,451.00)</u>	<u>828,005.90</u>	<u>45.9%</u>

# Michigan County Road Commission Self Insurance Pool

## Budget vs. Actual - Investments

April through October 2018

11/28/18

Accrual Basis

	<u>Apr - Oct 18</u>	<u>Budget</u>	<u>\$ Over Budget</u>	<u>% of Budget</u>
Ordinary Income/Expense				
Income				
Investment Income				
Dividends	1,025,283.12	2,000,000.00	(974,716.88)	51.3%
Realized Gain/Loss	900,454.34	2,000,000.00	(1,099,545.66)	45.0%
Unrealized Gain/Loss	(2,634,205.44)	0.00	(2,634,205.44)	100.0%
Total Investment Income	(708,467.98)	4,000,000.00	(4,708,467.98)	(17.7)%
Total Income	(708,467.98)	4,000,000.00	(4,708,467.98)	(17.7)%
Gross Profit	(708,467.98)	4,000,000.00	(4,708,467.98)	(17.7)%
Expense				
Investment Fees				
Investment Fees - Other	274,347.85	550,000.00	(275,652.15)	49.9%
Custodial Fees	3,120.83	15,000.00	(11,879.17)	20.8%
Total Investment Fees	277,468.68	565,000.00	(287,531.32)	49.1%
Total Expense	277,468.68	565,000.00	(287,531.32)	49.1%
Net Ordinary Income	(985,936.66)	3,435,000.00	(4,420,936.66)	(28.7)%
Net Income	<u>(985,936.66)</u>	<u>3,435,000.00</u>	<u>(4,420,936.66)</u>	<u>(28.7)%</u>

11/28/18

# Michigan County Road Commission Self Insurance Pool Investment Income by Manager

Accrual Basis

April through October 2018

	AMI Asset Ma...	BlackRock	Clearbridge I...	Clearbridg...	Cushing	Delaware	Henderson...	INVESCO	Lazard	Lazard Eme...	London As...	Loomis Say...	NWQ Small ...	Wedge Cap ...	Western As...	TOTAL
Ordinary Income/Expense																
Income																
Investment Income																
Dividends	14,734.60	61,759.42	12,657.88	11,340.23	102,940.64	87,967.64	5,876.65	62,587.03	82,083.61	36,393.37	84,246.34	44,760.10	18,025.52	201,535.22	198,374.87	1,025,283.12
Realized Gain/Loss	9,248.32	(21.86)	130,043.36	748,133.29	(103,757.62)	76,018.63	129,099.89	32,916.37	30,222.52	(11,682.83)	16,013.73	176,006.25	149,507.83	(295,962.88)	(185,330.66)	900,454.34
Unrealized Gain/Loss	(790,959.18)	(75,457.72)	(298,846.90)	85,760.01	160,925.03	134,446.81	(7,394.27)	(438,286.51)	(638,313.81)	(363,747.40)	240,850.32	(156,004.80)	(308,696.29)	33,631.74	(212,112.47)	(2,634,205.44)
Total Investment Income	(766,976.26)	(13,720.16)	(156,145.66)	845,233.53	160,108.05	298,433.08	127,582.27	(342,783.11)	(526,007.68)	(339,036.86)	341,110.39	64,761.55	(141,162.94)	(60,795.92)	(199,068.26)	(708,467.98)
Total Income	(766,976.26)	(13,720.16)	(156,145.66)	845,233.53	160,108.05	298,433.08	127,582.27	(342,783.11)	(526,007.68)	(339,036.86)	341,110.39	64,761.55	(141,162.94)	(60,795.92)	(199,068.26)	(708,467.98)
Gross Profit	(766,976.26)	(13,720.16)	(156,145.66)	845,233.53	160,108.05	298,433.08	127,582.27	(342,783.11)	(526,007.68)	(339,036.86)	341,110.39	64,761.55	(141,162.94)	(60,795.92)	(199,068.26)	(708,467.98)
Expense																
Investment Fees																
Custodial Fees	204.22	0.00	0.00	0.00	149.01	295.12	142.91	223.82	244.50	75.28	252.81	296.49	135.08	540.43	561.16	3,120.83
Investment Fees - Other	9,470.33	8,617.36	9,355.66	8,903.75	12,567.69	25,042.74	14,375.56	10,130.84	21,395.40	7,191.86	21,758.25	30,516.65	14,353.99	37,061.78	43,605.99	274,347.85
Total Investment Fees	9,674.55	8,617.36	9,355.66	8,903.75	12,716.70	25,337.86	14,518.47	10,354.66	21,639.90	7,267.14	22,011.06	30,813.14	14,489.07	37,602.21	44,167.15	277,468.68
Total Expense	9,674.55	8,617.36	9,355.66	8,903.75	12,716.70	25,337.86	14,518.47	10,354.66	21,639.90	7,267.14	22,011.06	30,813.14	14,489.07	37,602.21	44,167.15	277,468.68
Net Ordinary Income	(776,650.81)	(22,337.52)	(165,501.32)	836,329.78	147,391.35	273,095.22	113,063.80	(353,137.77)	(547,647.58)	(346,304.00)	319,099.33	33,948.41	(155,652.01)	(98,398.13)	(243,235.41)	(985,936.66)
Net Income	(776,650.81)	(22,337.52)	(165,501.32)	836,329.78	147,391.35	273,095.22	113,063.80	(353,137.77)	(547,647.58)	(346,304.00)	319,099.33	33,948.41	(155,652.01)	(98,398.13)	(243,235.41)	(985,936.66)



**2018-19**  
**Building Reports**  
**April 2018 - October 2018**

Balance Sheet  
Budget v Actual Expenses

*\* For the Board to Receive and Place on File*

# North Capital View Building

## Balance Sheet

As of October 31, 2018

Oct 31, 18

**ASSETS****Current Assets****Checking/Savings**

Building Checking -240224278201

5,765.61

**Total Checking/Savings**

5,765.61

**Total Current Assets**

5,765.61

**Fixed Assets****Building**

484,327.00

**Building - A/D**

-442,790.00

**Building Improvements**

452,158.68

**Building Improvements - A/D**

-404,171.27

**Land**

245,167.00

**Land Improvements**

113,244.75

**Land Improvements-AD**

-10,248.00

**Total Fixed Assets**

437,688.16

**TOTAL ASSETS****443,453.77****LIABILITIES & EQUITY****Liabilities****Current Liabilities****Other Current Liabilities**

Paid from Operating

111,432.21

**Total Other Current Liabilities**

111,432.21

**Total Current Liabilities**

111,432.21

**Total Liabilities**

111,432.21

**Equity****Net Assets**

Net Assets - Building

1,293,652.68

**Total Net Assets**

1,293,652.68

**Retained Earnings**

-938,447.08

**Net Income**

-23,184.04

**Total Equity**

332,021.56

**TOTAL LIABILITIES & EQUITY****443,453.77**

**North Capital View Building**  
**Budget vs. Actual**  
**April through October 2018**

	Apr - Oct ...	Budget	\$ Over B...	% of Bud...
<b>Ordinary Income/Expense</b>				
Income				
Rental Income	60,067.14	103,208.00	-43,140.86	58.2%
<b>Total Income</b>	60,067.14	103,208.00	-43,140.86	58.2%
Expense				
Administrative Fees	3,500.00	6,000.00	-2,500.00	58.3%
Capital Improvements	1,212.00	51,343.00	-50,131.00	2.4%
Janitorial	7,010.50	11,120.00	-4,109.50	63.0%
Maintenance & Repair	20,738.18	27,128.00	-6,389.82	76.4%
Services	6,061.43	11,436.00	-5,374.57	53.0%
Taxes & Fees	13,058.86	14,740.00	-1,681.14	88.6%
Utilities	12,468.81	23,760.00	-11,291.19	52.5%
<b>Total Expense</b>	64,049.78	145,527.00	-81,477.22	44.0%
Net Ordinary Income	-3,982.64	-42,319.00	38,336.36	9.4%
<b>Other Income/Expense</b>				
Other Expense				
Building Insurance	886.81	1,500.00	-613.19	59.1%
Depreciation	18,314.59	45,500.00	-27,185.41	40.3%
Remodeling Expense	0.00	2,000.00	-2,000.00	0.0%
<b>Total Other Expense</b>	19,201.40	49,000.00	-29,798.60	39.2%
Net Other Income	-19,201.40	-49,000.00	29,798.60	39.2%
<b>Net Income</b>	<b>-23,184.04</b>	<b>-91,319.00</b>	<b>68,134.96</b>	<b>25.4%</b>

**MORGAN STANLEY GRAYSTONE CONSULTING  
THE BRICE GROUP**



**INVESTMENT PERFORMANCE  
ANALYSIS FOR**

**MICHIGAN COUNTY ROAD COMMISSION  
SELF-INSURANCE POOL**

**QUARTER ENDING SEPTEMBER 30, 2018**

**THE BRICE GROUP  
GRAYSTONE CONSULTING**

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BIRMINGHAM MI 48009  
248-593-2474**

***Presented by:***

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**Corporate Retirement Director**  
**Institutional Consultant**  
**brian.brice@msggraystone.com**

**Meeting Date: December 5, 2018**

**Graystone  
Consulting<sup>SM</sup>**

A business of Morgan Stanley

# MORGAN STANLEY GRAYSTONE CONSULTING THE BRICE GROUP

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Investment Performance Results Summary	II
Market Values	III





## 3Q18 Market Slides

Prepared on October 15, 2018

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# Asset Class Index Performance

## Capital Market Returns

As of September 28, 2018; Private Real Estate as of August 31, 2018

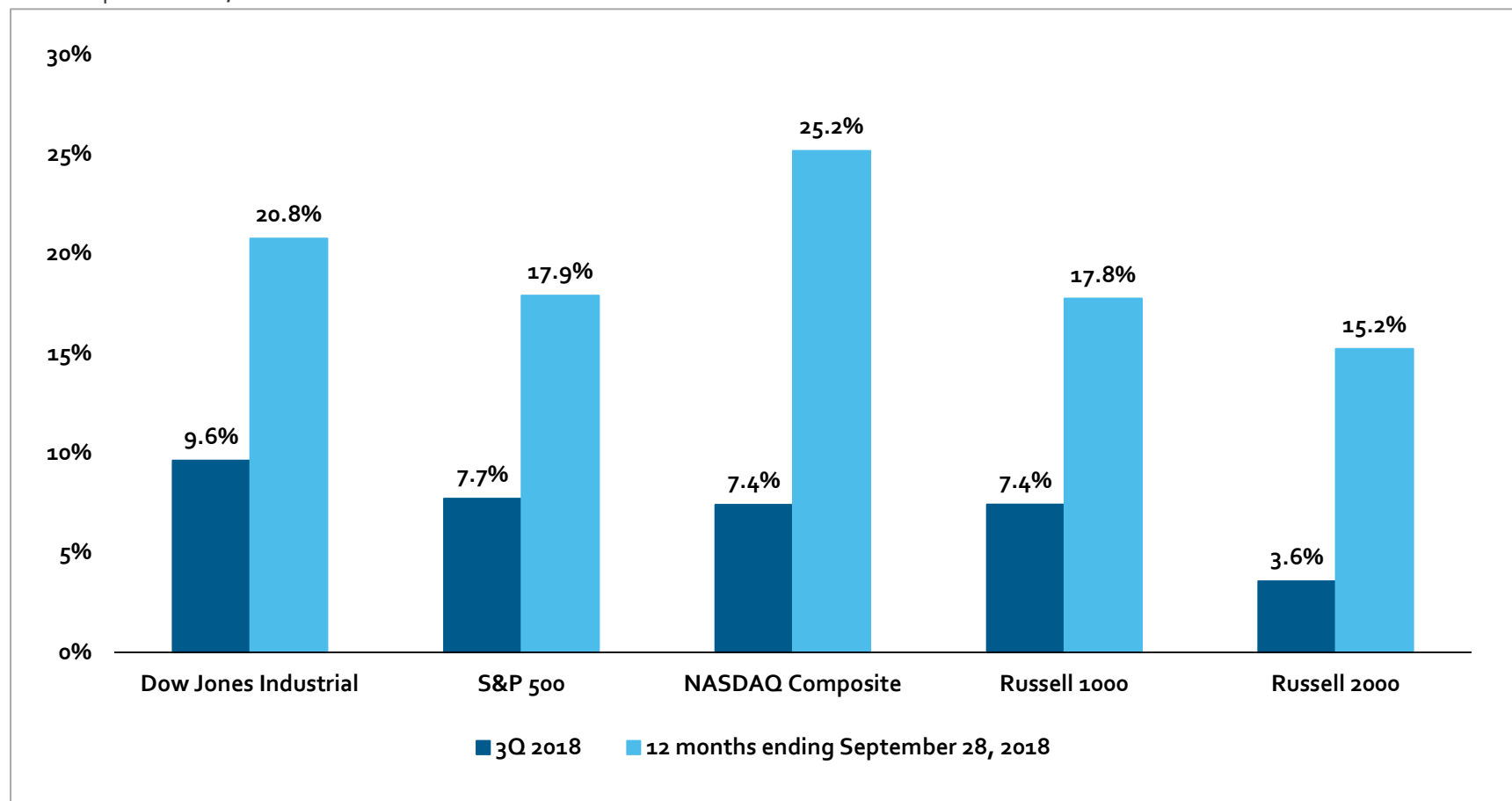
ASSET CLASS	INDEX IN USD	1-MONTH	YTD	1-YR	3-YR ANN	5-YR ANN
<b>Global Equity</b>						
Global Equity	MSCI All Country World	0.5%	4.3%	10.3%	13.8%	9.1%
US Equity	S&P 500	0.6%	10.6%	17.9%	17.2%	13.8%
International Equity	MSCI All Country World ex US	0.5%	-2.7%	2.3%	10.2%	4.5%
Emerging Markets Equity	MSCI Emerging Markets	-0.5%	-7.4%	-0.4%	12.5%	3.8%
<b>Global Fixed Income</b>						
Investment Grade Fixed Income	Barclays Global Aggregate (H)	-0.4%	0.0%	0.8%	2.3%	3.1%
Inflation-Linked Securities	Barclays Universal Govt Inflation-Linked	-0.7%	-0.4%	2.2%	3.8%	4.1%
High Yield	Barclays Global High Yield (H)	1.4%	0.4%	1.1%	7.8%	5.8%
Emerging Markets Fixed Income	JP Morgan EM Bonds (UH in USD)	2.6%	-8.1%	-7.4%	2.5%	-1.5%
<b>Alternative Investments</b>						
Global REITs	FTSE EPRA/NAREIT Global REITs	-2.4%	-0.8%	2.9%	7.5%	6.0%
Commodities	Bloomberg Commodities	1.9%	-2.0%	2.6%	0.3%	-7.0%
MLPs	Alerian MLP	-1.6%	5.9%	4.9%	3.3%	-2.7%
Hedged Strategies	HFRX Global Hedge Fund Index	-0.8%	-1.3%	0.2%	2.1%	1.0%
Managed Futures	HFRX Macro/CTA Index	-1.3%	-1.8%	0.7%	-0.9%	0.3%
Private Real Estate	NCREIF Private Real Estate	-	-	6.9%	9.8%	10.3%
<b>Global Cash</b>						
Cash	Citigroup 3-month Treasury Bill	0.2%	1.3%	1.6%	0.8%	0.5%
<b>Other Fixed Income</b>						
Municipal Fixed Income	Barclays Municipal Bond	-0.6%	-0.4%	0.3%	2.2%	3.5%

Source: FactSet, Morgan Stanley Wealth Management GIC. For more information about the risks to Master Limited Partnerships (MLPs), please refer to the Risk Considerations section at the end of this material.

Past performance is no guarantee of future results. Estimates of future performance are based on assumptions that may not be realized. This material is not a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy. Please refer to important information, disclosures and qualifications at the end of this material. This slide sourced from Market Performance section.

# Total Returns on Major US Stock Market Indices

As of September 28, 2018

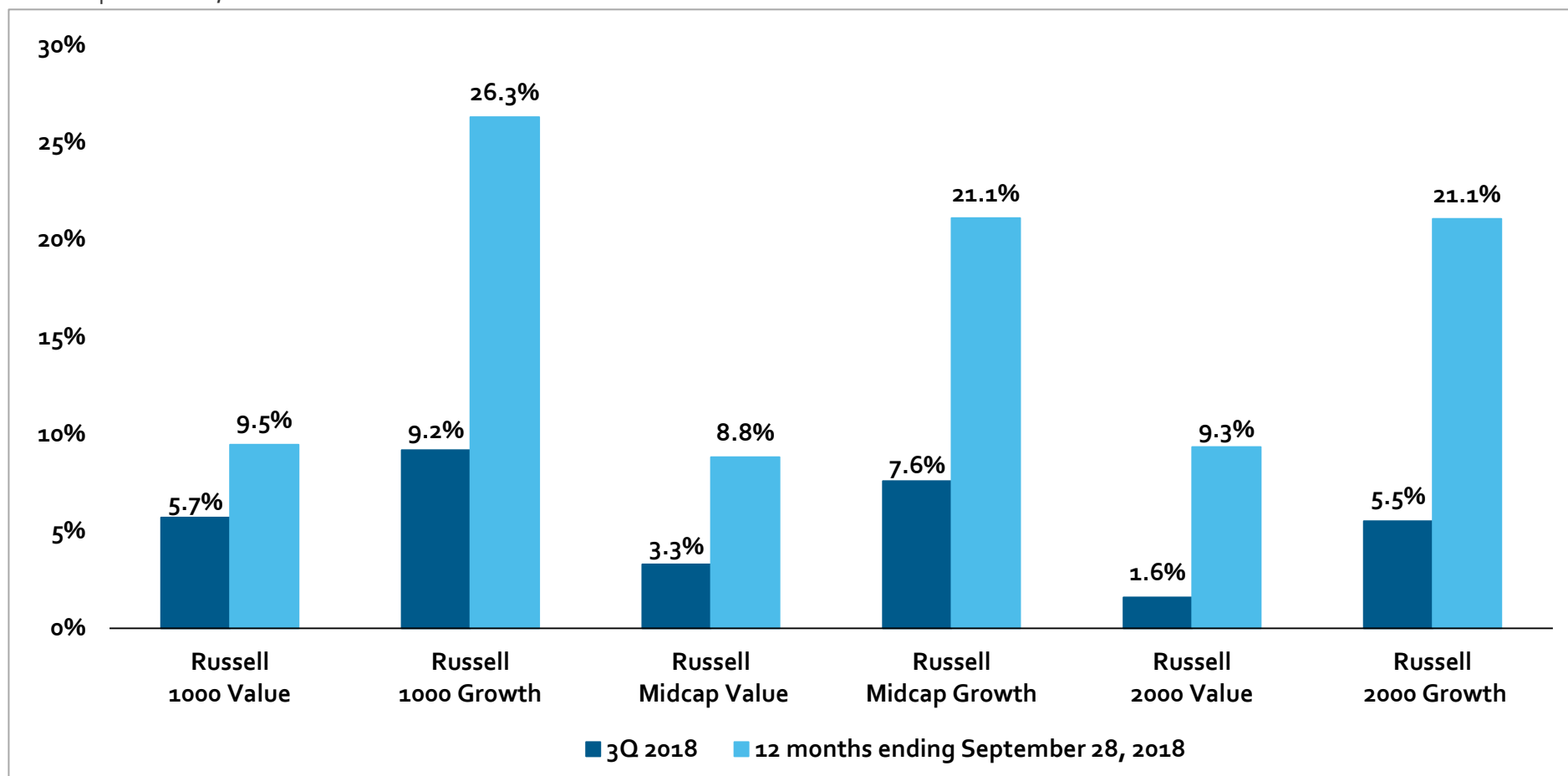


Source: Bloomberg

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# Russell Style and Market Capitalization Indices

As of September 28, 2018

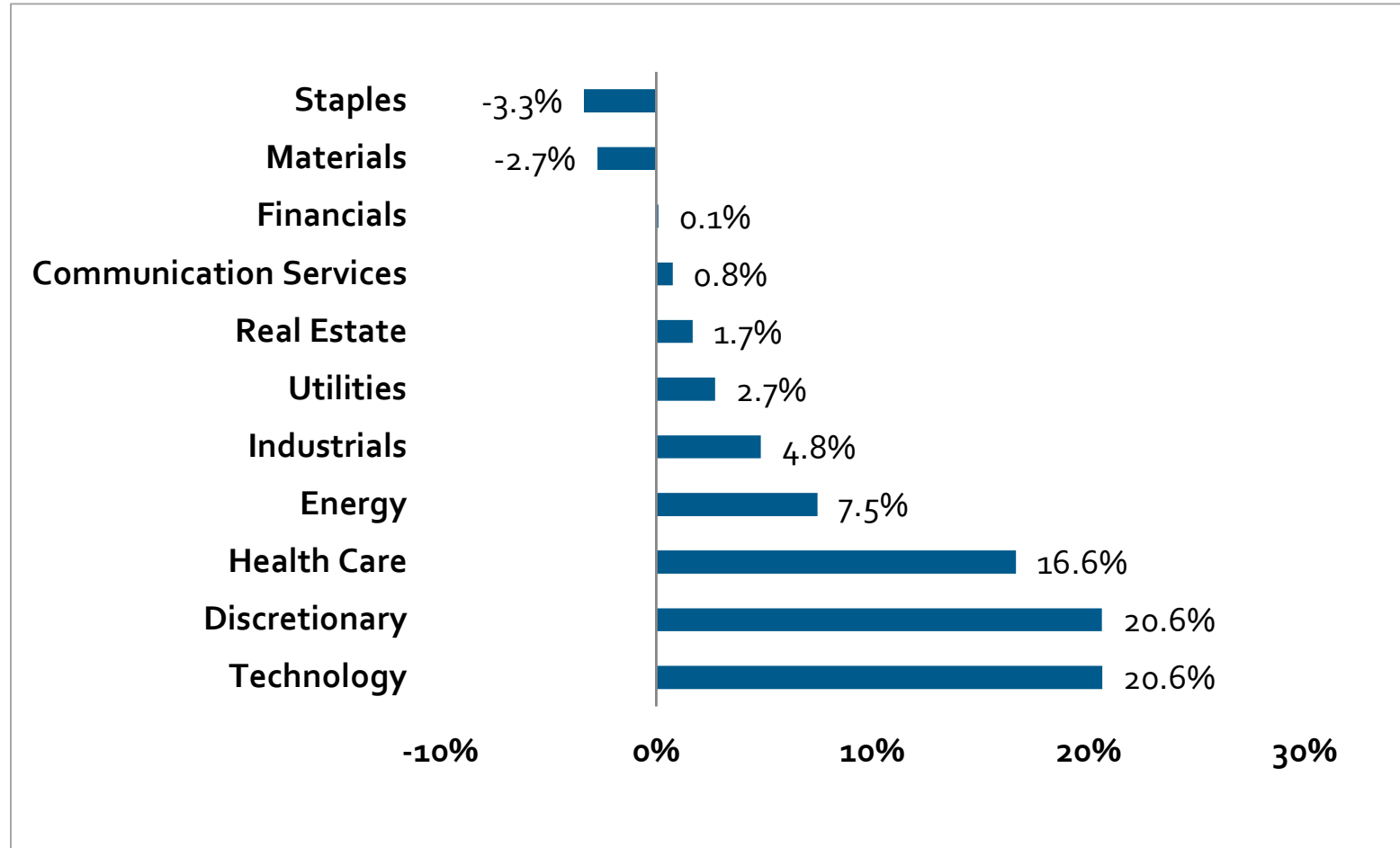


Source: Bloomberg

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# S&P 500 Sectors

YTD 2018 Total Return  
As of September 28, 2018

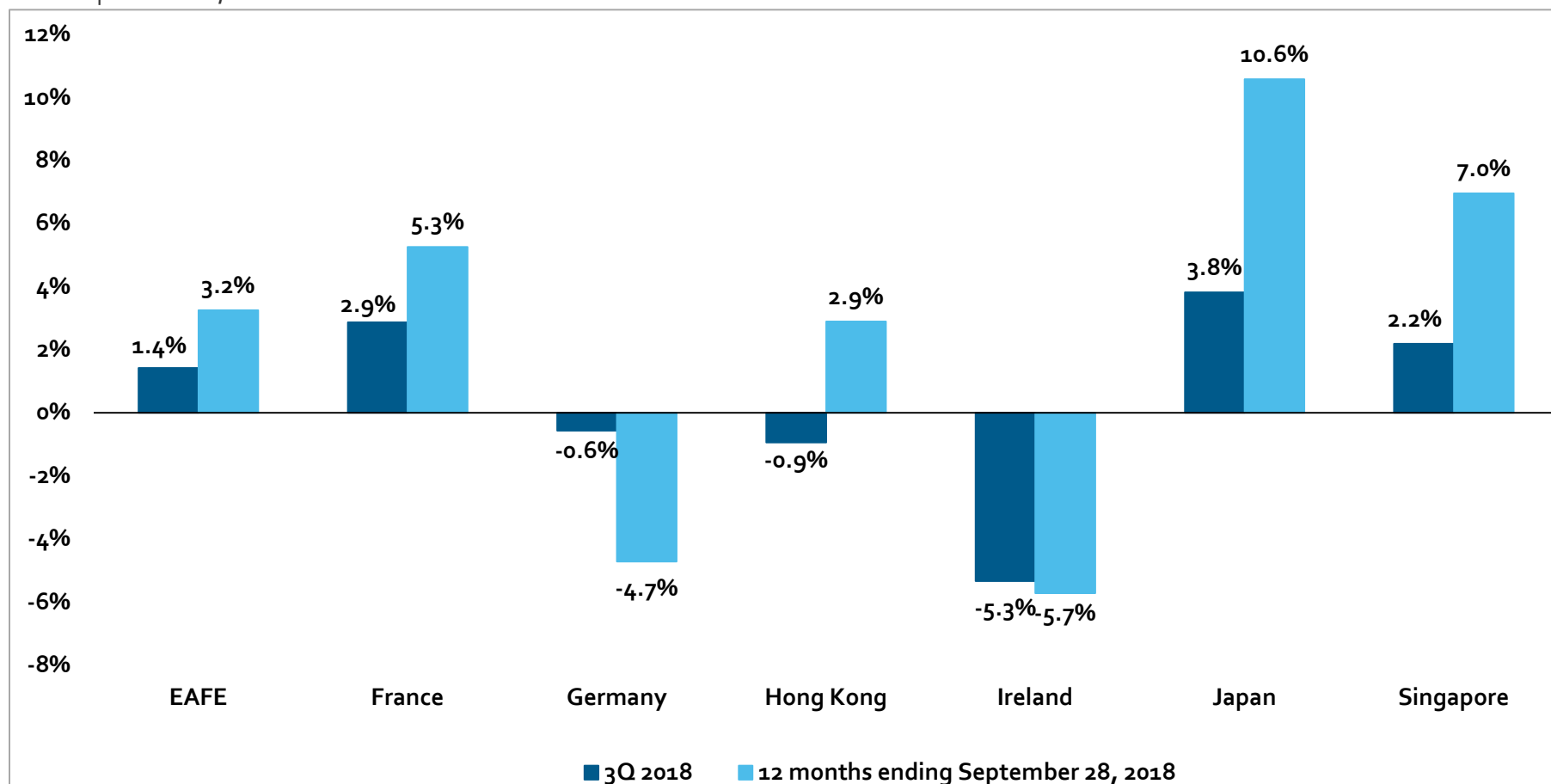


Source: Bloomberg

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# MSCI Developed Market Returns for USD Investors

As of September 28, 2018



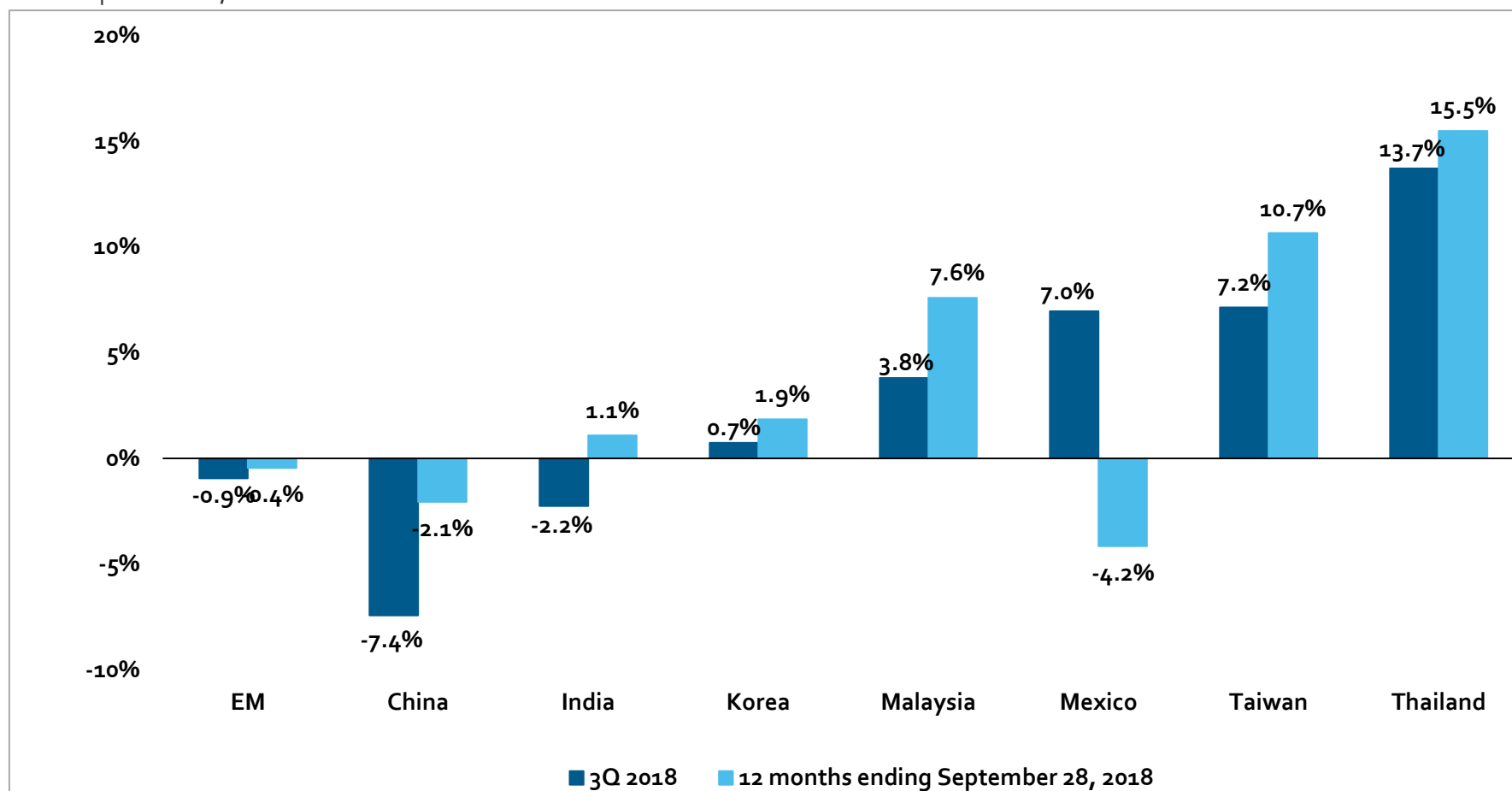
Source: Bloomberg. Returns are in USD (unhedged).

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# MSCI Emerging Markets Returns for USD Investors

As of September 28, 2018



Source: Bloomberg

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# US Equity Market Capitalization and Style Returns

As of September 28, 2018

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018 YTD	10-Years ('08-'17) Ann.
Small-Cap Value -28.9%	Mid-Cap Growth 46.3%	Small-Cap Growth 29.1%	Large-Cap Growth 2.6%	Mid-Cap Value 18.5%	Small-Cap Growth 43.3%	Mid-Cap Value 14.7%	Large-Cap Growth 5.7%	Small-Cap Value 31.7%	Large-Cap Growth 30.2%	Large-Cap Growth 17.1%	Large-Cap Growth 10.0%
Large-Cap Value -36.8%	Large-Cap Growth 37.2%	Mid-Cap Growth 26.4%	S&P 500 2.1%	Small-Cap Value 18.1%	Mid-Cap Growth 35.7%	S&P 500 13.7%	S&P 500 1.4%	Mid-Cap Value 20.0%	Mid-Cap Growth 25.3%	Small-Cap Growth 15.8%	Small-Cap Growth 9.2%
S&P 500 -37.0%	Small-Cap Growth 34.5%	Mid-Cap Value 24.8%	Large-Cap Value 0.4%	Large-Cap Value 17.5%	Small-Cap Value 34.5%	Large-Cap Value 13.5%	Mid-Cap Growth -0.2%	Large-Cap Value 17.3%	Small-Cap Growth 22.2%	Mid-Cap Growth 13.4%	Mid-Cap Growth 9.1%
Large-Cap Growth -38.4%	Mid-Cap Value 34.2%	Small-Cap Value 24.5%	Mid-Cap Value -1.4%	S&P 500 16.0%	Large-Cap Growth 33.5%	Large-Cap Growth 13.0%	Small-Cap Growth -1.4%	S&P 500 12.0%	S&P 500 21.8%	S&P 500 10.6%	Mid-Cap Value 9.1%
Mid-Cap Value -38.4%	S&P 500 26.5%	Large-Cap Growth 16.7%	Mid-Cap Growth -1.7%	Mid-Cap Growth 15.8%	Mid-Cap Value 33.5%	Mid-Cap Growth 11.9%	Large-Cap Value -3.8%	Small-Cap Growth 11.3%	Large-Cap Value 13.7%	Small-Cap Value 7.1%	S&P 500 8.5%
Small-Cap Growth -38.5%	Small-Cap Value 20.6%	Large-Cap Value 15.5%	Small-Cap Growth -2.9%	Large-Cap Growth 15.3%	Large-Cap Value 32.5%	Small-Cap Growth 5.6%	Mid-Cap Value -4.8%	Mid-Cap Growth 7.3%	Mid-Cap Value 13.3%	Large-Cap Value 3.9%	Small-Cap Value 8.2%
Mid-Cap Growth -44.3%	Large-Cap Value 19.7%	S&P 500 15.1%	Small-Cap Value -5.5%	Small-Cap Growth 14.6%	S&P 500 32.4%	Small-Cap Value 4.2%	Small-Cap Value -7.5%	Large-Cap Growth 7.1%	Small-Cap Value 7.8%	Mid-Cap Value 3.1%	Large-Cap Value 7.1%

Source: FactSet, Morgan Stanley Wealth Management GIC. Indices used for this analysis include: Russell Midcap Value, Russell 2000 Value, Russell 1000 Value, Russell Midcap Growth, Russell 2000 Growth, Russell 1000 Growth, and S&P 500.

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# Asset Class Returns

As of September 28, 2018

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018 YTD	10-Yrs (‘08-‘17) Ann. Return	10-Yrs (‘08-‘17) Volatility
Managed Futures 13.6%	EM Equities 82.9%	MLPs <sup>1</sup> 35.9%	MLPs <sup>1</sup> 13.9%	REITs 29.8%	US Equities 32.4%	REITs 14.7%	US Equities 1.4%	MLPs <sup>1</sup> 18.3%	EM Equities 37.3%	US Equities 10.6%	US Equities 8.5%	MLPs <sup>1</sup> 18.9%
DM Int'l Debt 11.7%	MLPs <sup>1</sup> 76.4%	EM Equities 20.2%	Inflation-Linked 13.6%	High Yield 19.6%	MLPs <sup>1</sup> 27.6%	US Equities 13.7%	DM Int'l Equities 0.9%	High Yield 14.3%	DM Int'l Equities 26.7%	MLPs <sup>1</sup> 5.9%	High Yield 8.1%	REITs 17.8%
US Debt 5.2%	High Yield 59.4%	REITs 20.0%	US Debt 7.8%	EM Equities 19.1%	DM Int'l Equities 24.0%	Managed Futures 12.3%	US Debt 0.5%	US Equities 12.0%	US Equities 21.8%	Diversified Portfolio 3.0%	MLPs <sup>1</sup> 6.0%	Commod. 17.6%
Inflation-Linked -2.4%	REITs 41.3%	Commod. 16.8%	DM Int'l Debt 6.0%	DM Int'l Equities 18.2%	Diversified Portfolio 15.1%	US Debt 6.0%	REITs -0.4%	Commod. 11.8%	EMD 15.2%	Managed Futures 0.0%	Diversified Portfolio 5.2%	EM Equities 17.0%
EMD -5.2%	DM Int'l Equities 33.9%	EMD 15.7%	High Yield 3.1%	EMD 16.8%	Hedged Strategies 8.8%	MLPs <sup>1</sup> 4.8%	Inflation-Linked -1.4%	EM Equities 10.3%	REITs 15.0%	High Yield -0.6%	US Debt 4.7%	US Equities 15.0%
Hedged Strategies -21.4%	US Equities 26.5%	US Equities 15.1%	US Equities 2.1%	US Equities 16.0%	High Yield 7.3%	Diversified Portfolio 4.7%	Diversified Portfolio -1.9%	EMD 9.9%	Diversified Portfolio 14.9%	REITs -0.8%	REITs 3.8%	DM Int'l Equities 14.9%
Diversified Portfolio -25.7%	Diversified Portfolio 23.6%	High Yield 14.8%	EMD -1.8%	Diversified Portfolio 12.0%	REITs 2.2%	Inflation-Linked 3.6%	Managed Futures -2.0%	Diversified Portfolio 7.5%	High Yield 10.4%	Inflation-Linked -0.8%	EMD 3.6%	High Yield 11.2%
High Yield -26.9%	EMD 22.0%	Diversified Portfolio 12.7%	Diversified Portfolio -2.1%	Inflation-Linked 7.0%	Managed Futures 0.7%	Hedged Strategies 3.4%	High Yield -2.7%	Inflation-Linked 4.7%	DM Int'l Debt 8.8%	DM Int'l Equities -1.1%	Inflation-Linked 3.5%	Diversified Portfolio 9.8%
Commod. -35.6%	Commod. 18.9%	DM Int'l Equities 9.8%	Managed Futures -4.3%	MLPs <sup>2</sup> 4.8%	EM Equities -1.9%	High Yield 0.0%	Hedged Strategies -3.6%	REITs 4.6%	Hedged Strategies 6.0%	Hedged Strategies -1.3%	DM Int'l Equities 2.9%	DM Int'l Debt 8.2%
MLPs <sup>1</sup> -36.9%	Hedged Strategies 11.5%	DM Int'l Debt 7.0%	Hedged Strategies -5.7%	Hedged Strategies 4.8%	US Debt -2.0%	EM Equities -1.4%	DM Int'l Debt -4.4%	US Debt 2.6%	US Debt 3.5%	US Debt -1.6%	DM Int'l Debt 2.5%	Inflation-Linked 6.1%
US Equities -37.0%	Inflation-Linked 11.4%	US Debt 6.5%	REITs -8.1%	US Debt 4.2%	DM Int'l Debt -5.6%	DM Int'l Debt -3.0%	EM Equities -13.5%	Hedged Strategies 2.5%	Inflation-Linked 3.0%	Commod. -2.0%	EM Equities 2.2%	Managed Futures 5.7%
DM Int'l Equities -43.4%	US Debt 5.9%	Managed Futures 6.4%	DM Int'l Equities -12.2%	DM Int'l Debt 0.5%	Inflation-Linked -8.6%	DM Int'l Equities -4.5%	EMD -14.9%	DM Int'l Debt 2.1%	Managed Futures 2.5%	DM Int'l Debt -2.9%	Hedged Strategies -0.4%	Hedged Strategies 5.6%
REITs -48.9%	DM Int'l Debt 3.7%	Inflation-Linked 6.3%	Commod. -13.3%	Commod. -1.1%	EMD -9.0%	EMD -5.7%	Commod. -24.7%	DM Int'l Equities 1.6%	Commod. 1.7%	EM Equities -7.9%	Managed Futures -1.1%	EMD 4.8%
EM Equities -53.6%	Managed Futures -4.8%	Hedged Strategies 4.2%	EM Equities -19.2%	Managed Futures -1.8%	Commod. -9.5%	Commod. -17.0%	MLPs <sup>1</sup> -32.6%	Managed Futures -3.1%	MLPs <sup>1</sup> -6.5%	EMD -8.1%	Commod. -6.8%	US Debt 3.2%

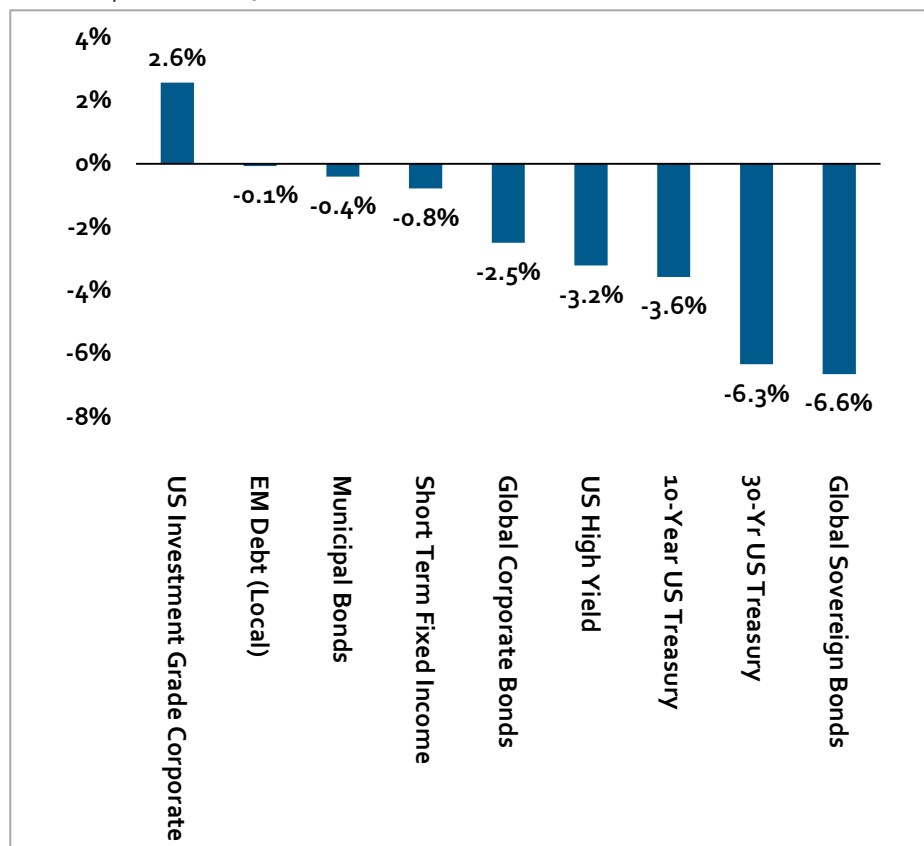
Source: FactSet, Morgan Stanley Wealth Management GIC; Indices used: Bloomberg Barclays Capital US Aggregate for US Bonds. Citi 3M Treasury Bill for cash, Bloomberg Barclays US Aggregate for US Bonds, Bloomberg Barclays Global Majors ex US for DM Int'l Bonds, Bloomberg Barclays US TIPS for Inflation-linked securities, Bloomberg Barclays Global High Yield for global high yield, JP Morgan EMBI for EM Bonds, S&P 500 for US Stocks, MSCI EAFE IMI for Int'l Stocks, MSCI EM IMI for Emerging Market Stocks, FTSE EPRA/NAREIT Global for REITs, Bloomberg Commodity Index for commodities, HFRX Macro/CTA Index for Managed Futures, Alerian MLP Index for MLPs, and HFRX Global hedge Funds for hedged strategies. Diversified portfolio is comprised of 25% S&P 500, 10% Russell 2000, 15% MSCI EAFE, 5% MSCI EME, 25% Bloomberg Barclays US Aggregate, 5% 3 mo. T-Bills, 5% HFRX Global Hedge Funds, 5% Bloomberg Commodity Index, and 5% FTSE EPRA/NAREIT Global Index. MLP data begins on January 1, 2007. Standard deviation (volatility) is a measure of the dispersion of a set of data from its mean.

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# Fixed Income Performance and Spreads

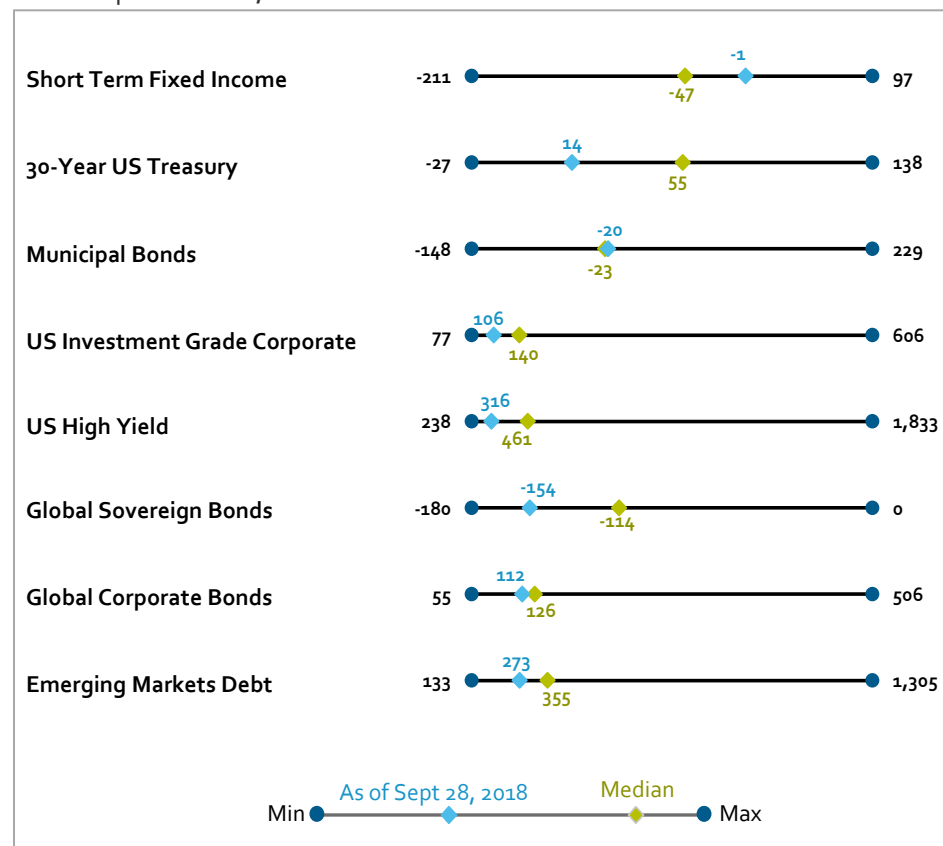
## YTD Total Return <sup>1</sup>

As of September 28, 2018



## Yield Spreads Vs. Past 20 Years <sup>2</sup>

As of September 28, 2018

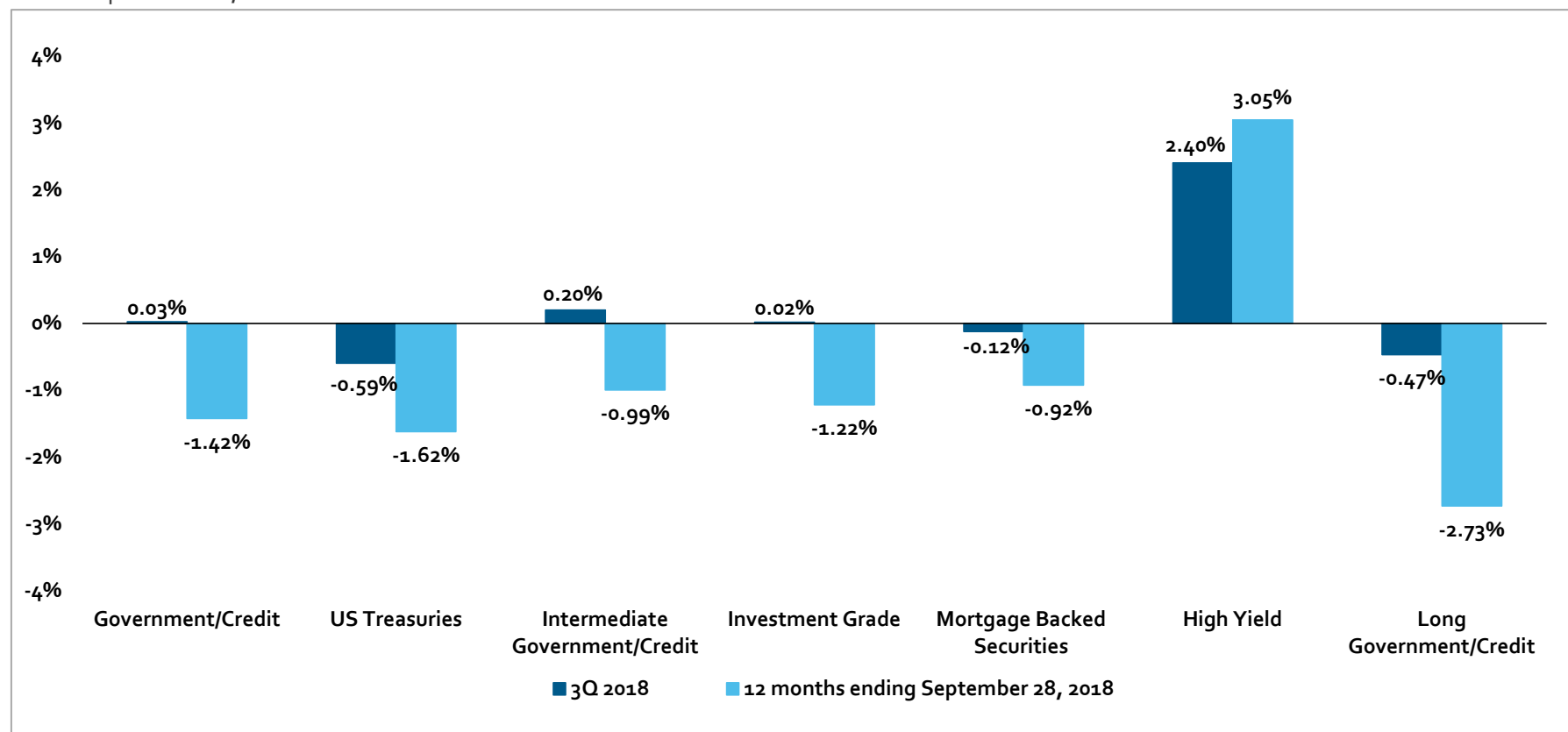


Source: FactSet, Bloomberg, Morgan Stanley Wealth Management GIC. (1) Indices used for this analysis include: Bloomberg Barclays US High Yield, Bloomberg Barclays US Gov/Credit Float Adjusted 1-5Y Bond (short duration), Bloomberg Barclays Global Aggregate Credit-Corporate, JP Morgan GBI-EM Global Diversified (EM debt), Bloomberg Barclays US Investment Grade Corporate, Bloomberg Barclays Muni Bond, and Bloomberg Barclays Global Aggregate Government (global sovereign). (2) Yield spread ranges are based on 20 years of data.

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# US Bond Market Indices<sup>1</sup>

As of September 28, 2018



Source: FactSet. (1) Represented by Bloomberg Barclays fixed income indices.

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# Summary of GIC Tactical Advice: Global Equities

As of July 19, 2018

Global Equities	Relative Weight Within Equities	Rationale
US	Equal Weight	US equities have done exceptionally well since the global financial crisis, but they are now in the latter stages of a cyclical bull market. While the acceleration of the Trump/Republican pro-growth agenda has created a booming economy and outlook, it may also be sowing the seeds for the end of the cycle as the Fed is forced to tighten policy. With the strong run in growth and small-cap stocks, we recently reduced positions in both and favor large-cap stocks.
International Equities (Developed Markets)	Overweight	We maintain a positive bias for Japanese and European equity markets. The populist movements around the world are now spreading to Italy which may spur further fiscal support from Germany and France. This would be a potential positive catalyst but not likely to develop until September.
Emerging Markets	Overweight	Emerging market (EM) equities have been the strongest-performing region over the past 24 months but are underperforming so far in 2018. Some of this is simply the result of a market that needs to consolidate strong gains the past few years. However, it is also directly related to the Fed's tightening campaign. We expect EM to find support not far from current levels and have a strong finish to the year.

Source: Morgan Stanley Wealth Management GIC.

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# Summary of GIC Tactical Advice: Global Fixed Income

As of July 19, 2018

Global Fixed Income	Relative Weight Within Bonds	Rationale
US Fixed Income (Investment Grade)	Underweight	We have recommended shorter-duration* (maturities) since March 2013 given the extremely low yields and potential capital losses associated with rising interest rates from such low levels. While interest rates have remained exceptionally low, US economic data have been very strong recently and the Fed is now raising rates at an accelerating pace. Adding some longer duration when 10-year Treasury yields are above 3% makes sense.
International Investment Grade	Underweight	Yields are even lower outside the US, leaving very little value in international fixed income, particularly as the global economy begins to recover more broadly. While interest rates are likely to stay low, the offsetting diversification benefits do not warrant much, if any, position, in our view.
Inflation-Protected Securities	Overweight	With deflationary fears having become extreme in 2015 and early 2016, these securities still offer relative value in the context of our forecasted acceleration in global growth, and expectations for oil prices and the US dollar's year-over-year rate of change to revert back toward 0%. That view played out in 2016 and 2017 but has not yet run its course.
US High Yield	Underweight	High yield has performed exceptionally well since early 2016 with the stabilization in oil prices and retrenchment by the weaker players. We recently took our remaining high yield positions to zero as we prepare for deterioration in earnings quality in the US led by lower operating margins. Credit spreads have likely neared a low for this cycle.

\* For more information about the risks to Duration please refer to the Risk Considerations section at the end of this material.

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# Summary of GIC Tactical Advice: Alternative Investments

As of July 19, 2018

Alternative Investments	Relative Weight Within Alts	Rationale
REITs	Underweight	Real estate investment trusts (REITs) have underperformed global equities since mid-2016 when interest rates bottomed. We think it is still too early to reconsider our underweight zero allocation given the further rise in rates we expect and deteriorating fundamentals for the industry. Non-US REITs should be favored relative to domestic REITs.
Master Limited Partnerships*	Overweight	Master limited partnerships (MLPs) have traded better since their capitulation in March around the FERC regulatory announcement. With oil prices much more stable and on an upward path, MLPs have garnered more interest given their 8%-to-10% yields.
Hedged Strategies (Hedge Funds and Managed Futures)	Equal Weight	This asset category can provide uncorrelated exposure to traditional risk-asset markets. It tends to outperform when traditional asset categories are challenged by growth scares and/or interest rate volatility spikes. As volatility becomes more persistent in 2018, these strategies should do better than in recent years.

For more information about the risks to Master Limited Partnerships (MLPs) please refer to the Risk Considerations section at the end of this material.

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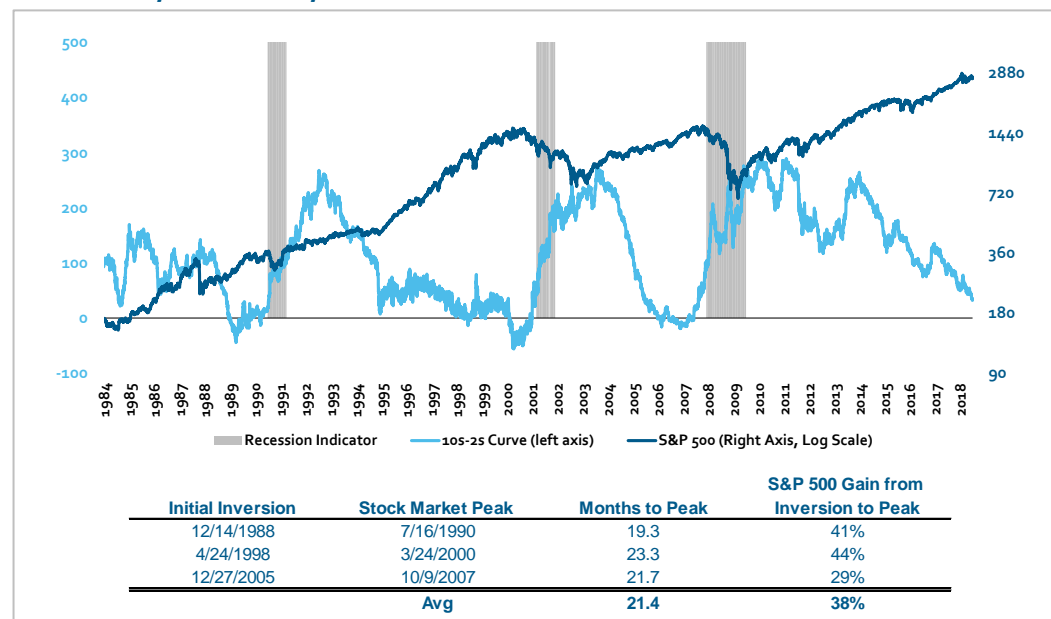


# Curve Flattening has Continued in 3Q, What Does it Mean?

As of October 3, 2018

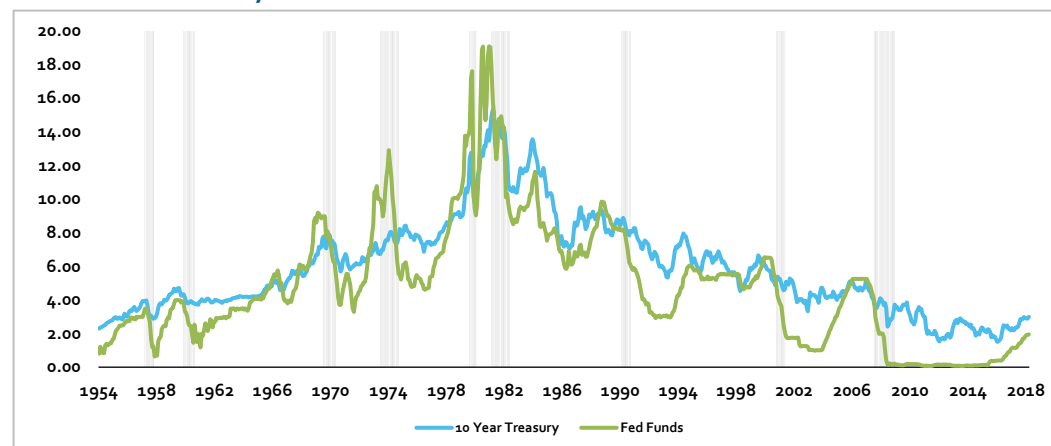
- What does the shape of the yield curve tell us? Interest rates are driven by a number of factors including the market's expectation for economic growth and inflation, supply and demand dynamics, currency market fluctuations and geopolitical risk. The slope of the curve tends to change over an economic cycle. The curve inverts when investors believe that monetary policymakers have raised interest rates too far for economic growth to continue. At this point, investors are willing to take less compensation for longer dated investments. This is the rationale behind an inverted curve as a harbinger of recession.
- Historically, an inverted curve has been a good leading indicator for recessions. However, the yield curve has inverted well before recessions (or stock market peaks for that matter) -> in each of the last three economic cycles, the yield curve has inverted nearly 2 years before the economy went into recession (and on average, the S&P 500 did not peak until 1.75 years following the initial point of inversion, with an average return of 38% during that time frame).
- Many point to recent curve flattening as a sign of a maturing cycle, but also acknowledge that in historical context, the yield curve is not yet flashing a warning sign (or a sell signal), and that even after inversion stocks tend to do well and the economy still has 1.5-2 years before faltering. While recent history says this is the case, if one looks back farther, we can find precedent where the yield curve did NOT invert before a recession.
- The yield curve, as measured by 10-yr vs Fed Funds rates (this data set goes back farthest for fed funds rates on the front-end), has inverted prior to 7 of the last 9 recessions. Perhaps not coincidentally, the 7 instances are the last 7 recessions, which is likely the reason why forecasters pay so much attention to the curve as a recession indicator.
- It's notable to us, however, that in those 2 instances (1950s-60s) that the curve failed to invert prior to a recession, the 10 year treasury yield was already sub 4% and starting a long term trend where rates were rising. Sound familiar? In a low interest rate environment, it is possible that the curve may not invert as it has in recent history, and further, the signal may not carry the same lead time as has become conventional wisdom.
- As a result, while we continue to view the curve as in healthy territory, and a host of other signals we watch are not flashing concern (e.g. tight credit spreads), we would not rely solely on the yield curve as giving the "all clear" for risk assets – the time to get defensive could be prior to curve inversion or soon after, which would be a departure from recent history. This also would support the GIC's call of getting more defensive this year.

## Yield Curve, Recessions, and Stock Market Peaks



Source: Bloomberg, Morgan Stanley Wealth Management Market Strategy as of 9/28/2018

## US 10 Year Treasury vs. Effective Funds Rate



Source: Fed Reserve Bank St. Louis, Morgan Stanley Wealth Management Market Strategy as of 9/28/2018

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# Rates Have Likely Troughed in the Long-Term Context, but....

10-Year Treasury Yields 1978-Present

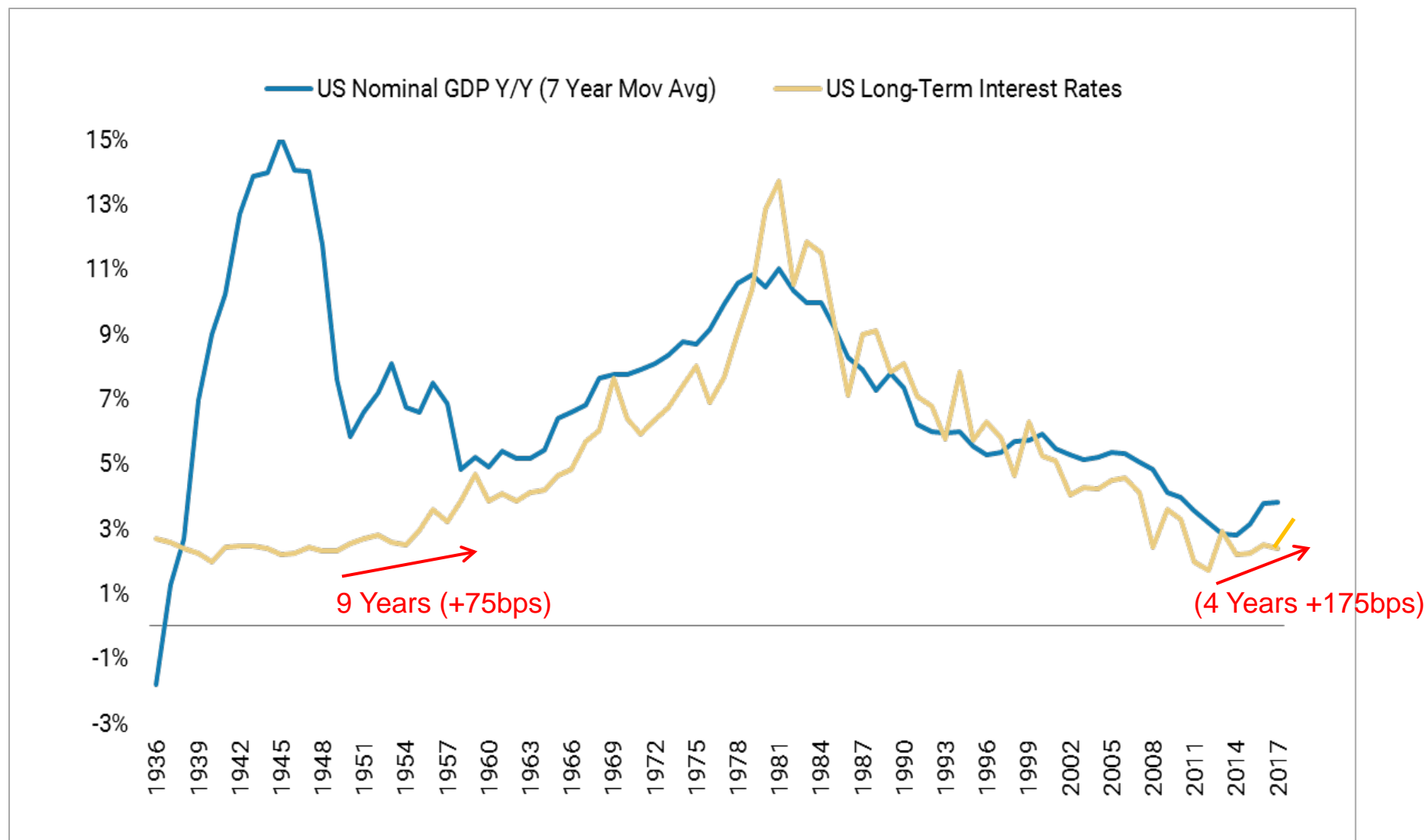


Source: Bloomberg, Morgan Stanley & Co. Research as of October 4, 2018. Values for 2018-2019 represent forecasts based on the relationship of the series shown.

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# Interest Rate “Normalization” Is Likely to Take Longer Than Expected

US 10-year Treasury Yield vs Nominal GDP



Source: Bloomberg, Morgan Stanley & Co. Research as of September 30, 2018

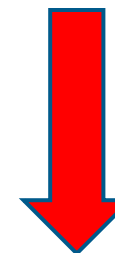
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# It's Remarkable How Bad This Year Has been for Global Markets

Red Boxes are Asset Classes Underperforming CPI; Green Boxes Outperforming CPI

Ranking	2004	2005	2006	2007	2008	2009	2010
1	REITS	MSCI EM	MSCI China	MSCI China	US 10Yr	MSCI EM	REITS
2	MSCI EM	Commodities	REITS	MSCI EM	US 2Yr	MSCI China	Russell 2000
3	MSCI Europe	MSCI Japan	MSCI Europe	Commodities	US Agg. Bond	Global HY	Commodities
4	Russell 2000	MSCI China	MSCI EM	MSCI Europe	EM Local Debt	US HY	MSCI EM
5	MSCI Japan	EM \$ Sov Credit	Russell 2000	Inflation Bonds	US IG	Commodities	MSCI Japan
6	Inflation Bonds	REITS	S&P 500	US 10Yr	Inflation Bonds	MSCI Europe	US HY
7	Global HY	MSCI Europe	Commodities	US 2Yr	EM \$ Sov Credit	EM \$ Sov Credit	S&P 500
8	Commodities	S&P 500	Global HY	US Agg. Bond	US HY	REITS	Global HY
9	EM \$ Sov Credit	Russell 2000	US HY	EM \$ Sov Credit	Global HY	Russell 2000	EM Local Debt
10	US HY	Global HY	EM \$ Sov Credit	S&P 500	Commodities	S&P 500	EM \$ Sov Credit
11	S&P 500	EM Local Debt	Inflation Bonds	US IG	MSCI Japan	US IG	US 10Yr
12	US IG	US HY	MSCI Japan	EM Local Debt	Russell 2000	EM Local Debt	US IG
13	US 10Yr	US Agg. Bond	US Agg. Bond	Global HY	S&P 500	Inflation Bonds	US Agg. Bond
14	US Agg. Bond	US 10Yr	US IG	US HY	REITS	MSCI Japan	MSCI China
15	EM Local Debt	US IG	US 2Yr	Russell 2000	MSCI Europe	US Agg. Bond	MSCI Europe
16	MSCI China	US 2Yr	US 10Yr	MSCI Japan	MSCI China	US 2Yr	Inflation Bonds
17	US 2Yr	Inflation Bonds	EM Local Debt	REITS	MSCI EM	US 10Yr	US 2Yr

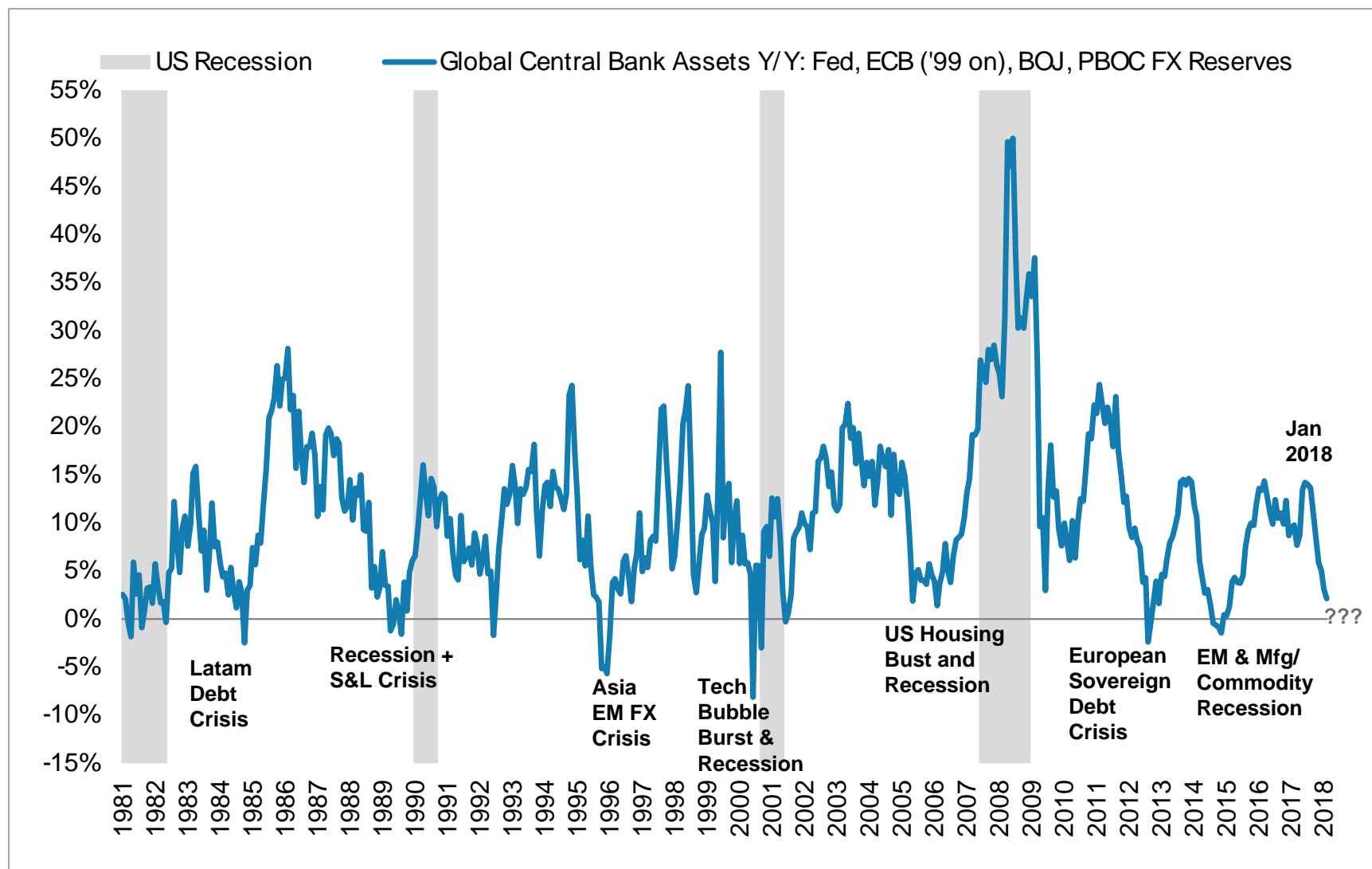


Ranking	2011	2012	2013	2014	2015	2016	2017	2018
1	US 10Yr	MSCI China	Russell 2000	REITS	MSCI Japan	Commodities	MSCI China	Russell 2000
2	Inflation Bonds	MSCI Europe	S&P 500	S&P 500	REITS	Russell 2000	MSCI EM	S&P 500
3	EM \$ Sov Credit	Global HY	MSCI Japan	US 10Yr	US 10Yr	US HY	MSCI Europe	REITS
4	US IG	REITS	MSCI Europe	MSCI China	EM \$ Sov Credit	Global HY	MSCI Japan	US HY
5	US Agg. Bond	MSCI EM	US HY	US IG	S&P 500	S&P 500	S&P 500	US 2Yr
6	REITS	EM \$ Sov Credit	Global HY	EM \$ Sov Credit	US 2Yr	MSCI EM	Russell 2000	US Agg. Bond
7	US HY	Russell 2000	MSCI China	US Agg. Bond	US Agg. Bond	EM \$ Sov Credit	EM Local Debt	MSCI Japan
8	Global HY	S&P 500	REITS	Russell 2000	US IG	REITS	Global HY	US 10Yr
9	S&P 500	US HY	US 2Yr	Inflation Bonds	MSCI Europe	US IG	EM \$ Sov Credit	Global HY
10	US 2Yr	EM Local Debt	US IG	US HY	Global HY	EM Local Debt	REITS	US IG
11	EM Local Debt	US IG	US Agg. Bond	US 2Yr	Russell 2000	Inflation Bonds	Inflation Bonds	MSCI Europe
12	Russell 2000	Inflation Bonds	MSCI EM	Global HY	US HY	MSCI Japan	Commodities	Inflation Bonds
13	Commodities	MSCI Japan	Inflation Bonds	MSCI EM	Inflation Bonds	US Agg. Bond	US HY	Commodities
14	MSCI Europe	US Agg. Bond	EM Local Debt	EM Local Debt	MSCI China	MSCI China	US IG	EM \$ Sov Credit
15	MSCI Japan	US 10Yr	EM \$ Sov Credit	MSCI Japan	EM Local Debt	US 10Yr	US Agg. Bond	MSCI EM
16	MSCI EM	Commodities	US 10Yr	MSCI Europe	MSCI EM	US 2Yr	US 10Yr	EM Local Debt
17	MSCI China	US 2Yr	Commodities	Commodities	Commodities	MSCI Europe	US 2Yr	MSCI China

Source: Morgan Stanley & Co. Research as of August 31, 2018

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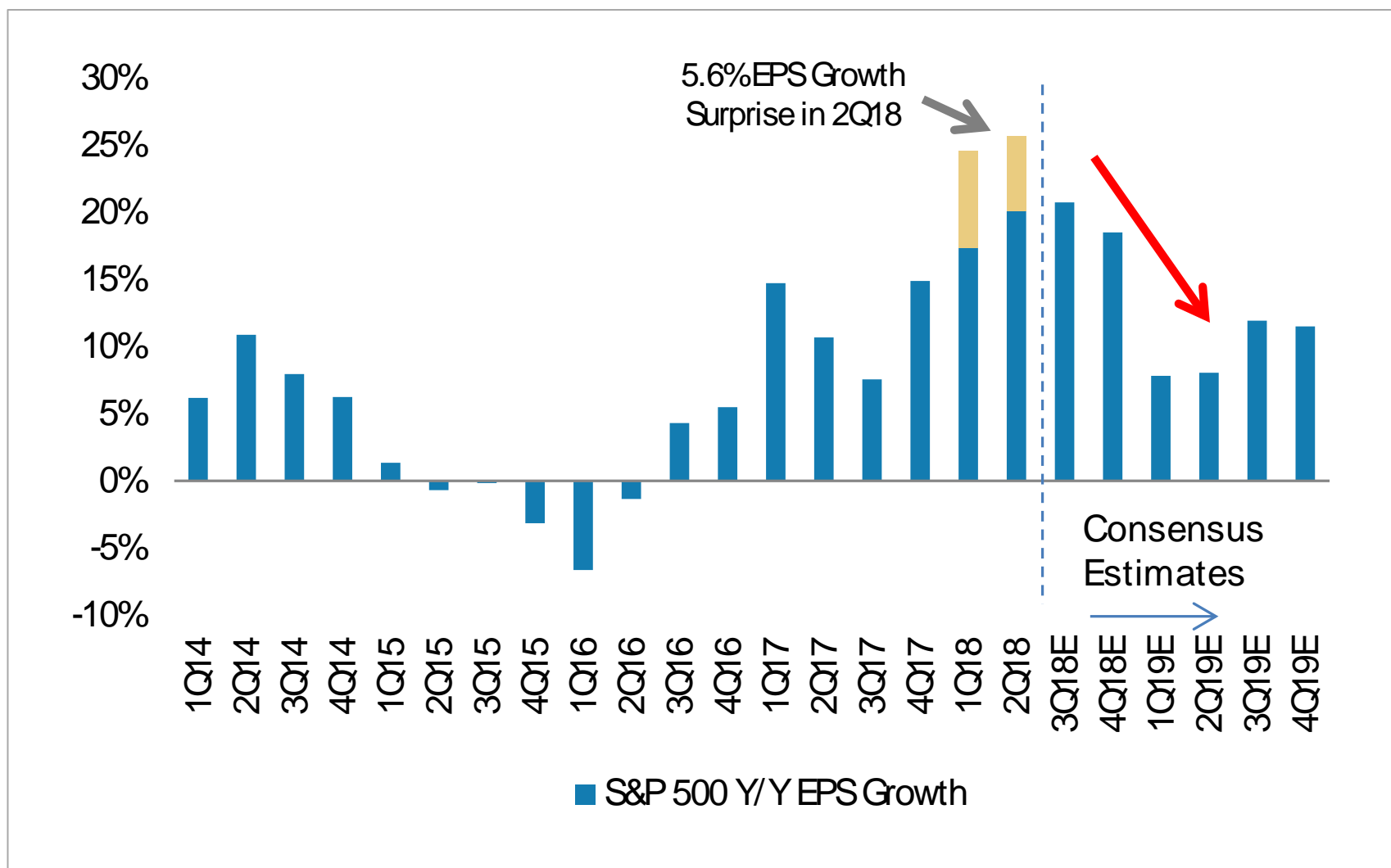
# Rolling Bear Market Driven by Tightening Financial Conditions



Source: Bloomberg, Morgan Stanley & Co. Research as of August 2018

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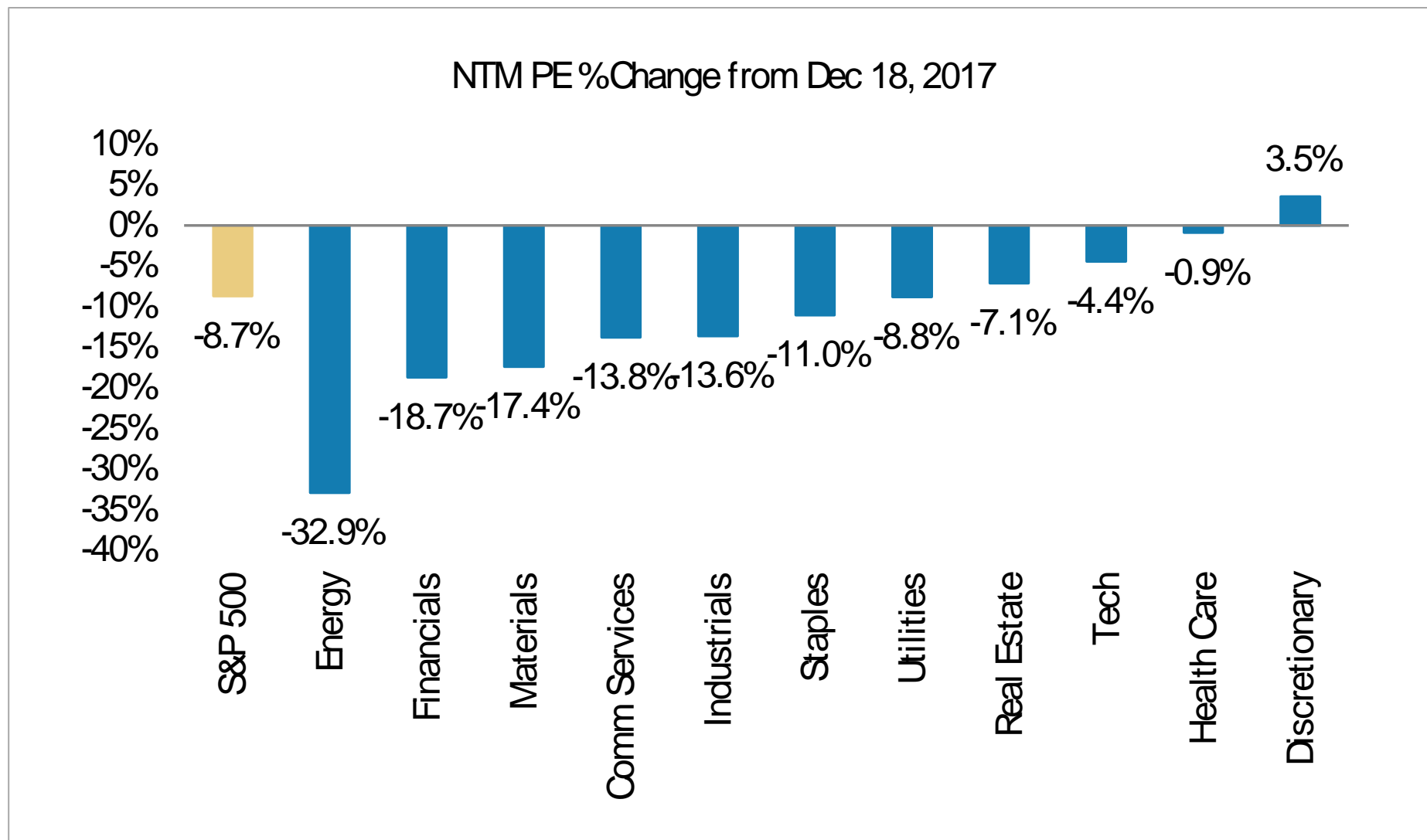
## ...And Peaking Growth—S&P 500 EPS Y/Y Growth Peak Is Here



Source: Thomson Financial, Morgan Stanley & Co. Research as of September 28, 2018

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# US Growth Stocks Remain Strong Outperformers in this Rolling Bear Market

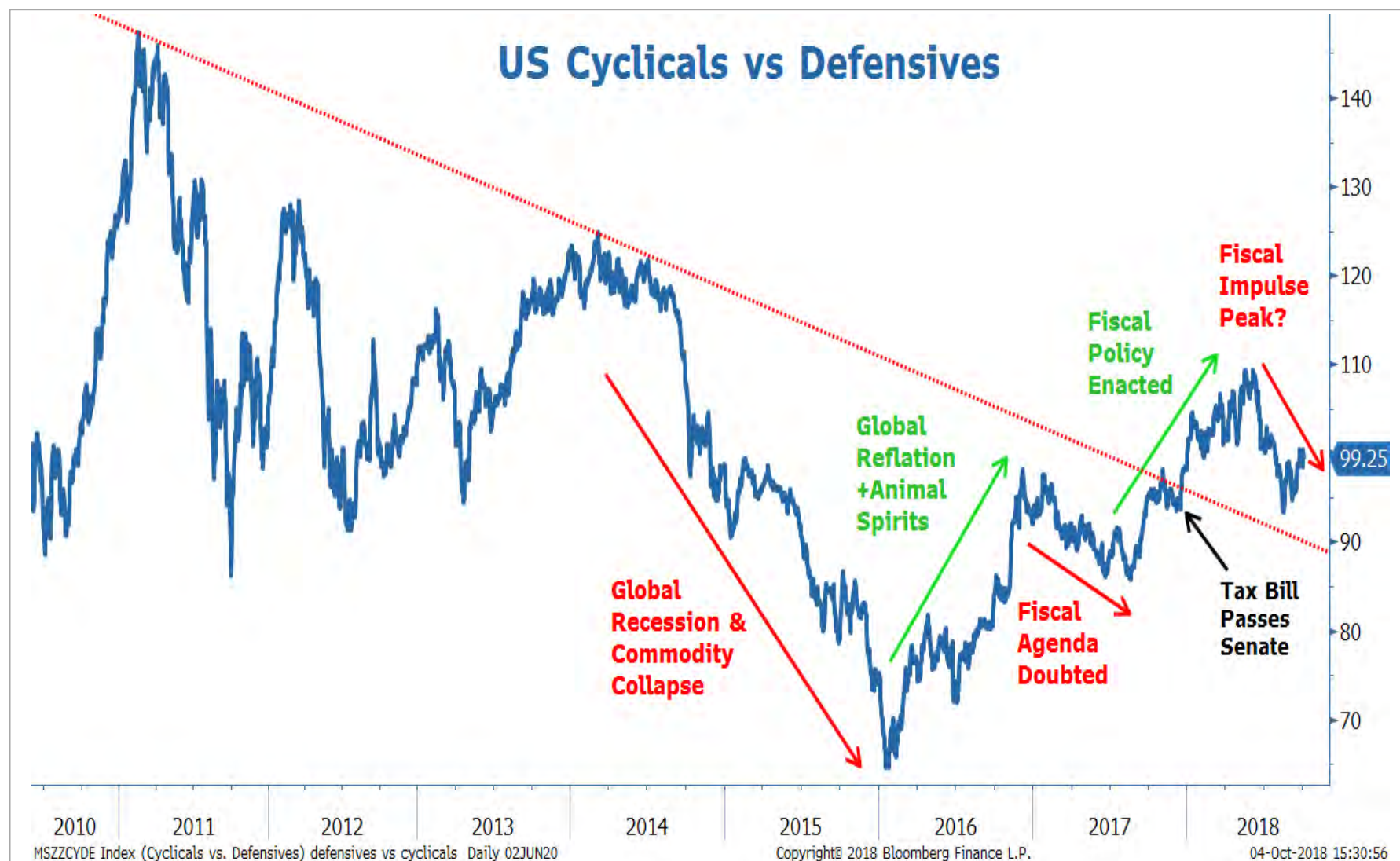


Source: Bloomberg, Morgan Stanley & Co. Research as of October 3, 2018

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# Dramatic Defensive Rotation Since June—What's the Message?

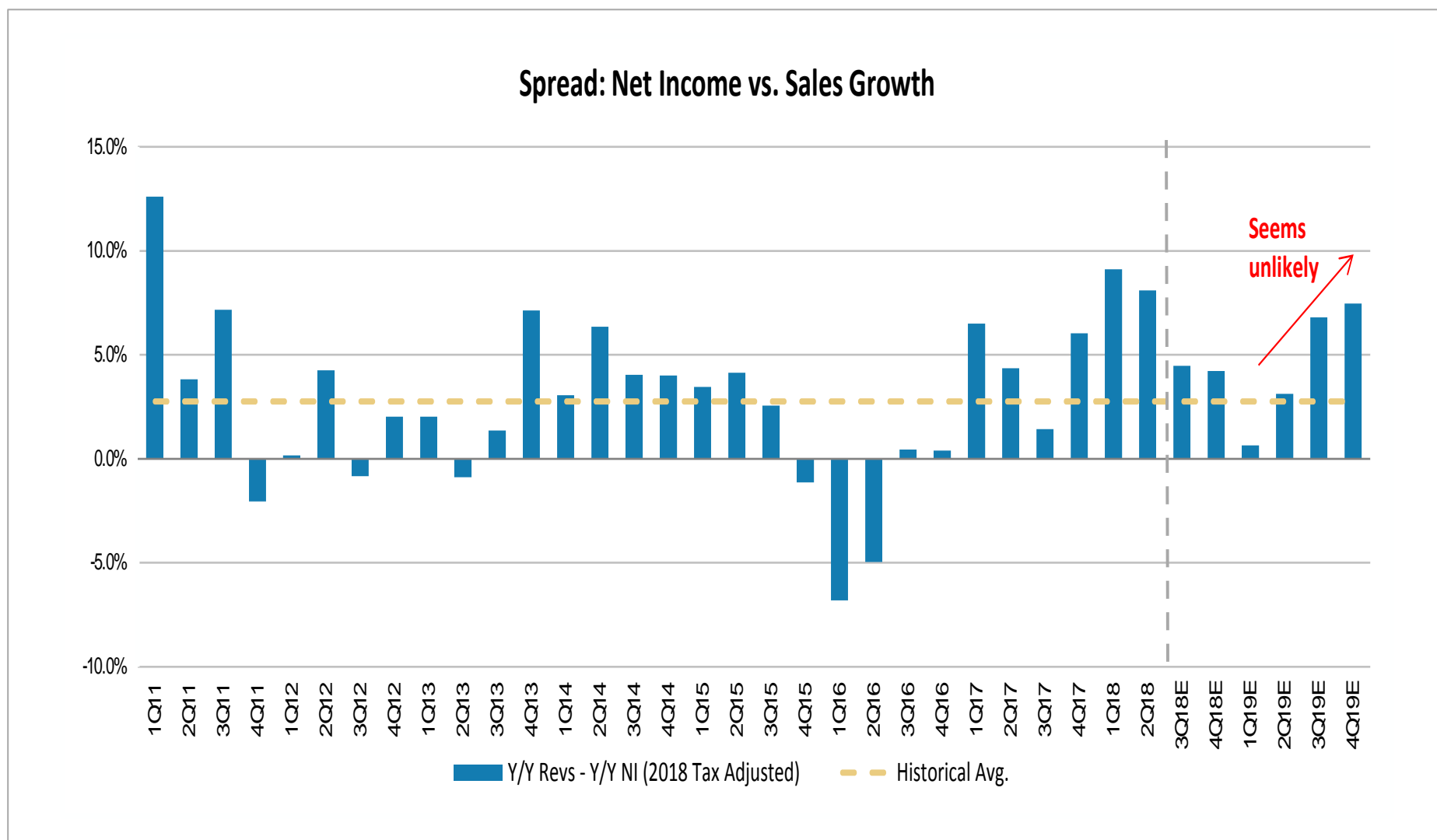


Source: Bloomberg, Morgan Stanley & Co. Research as of October 4, 2018

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## Primary Issue for US Equities in 2019 Is Margin *Expectations*



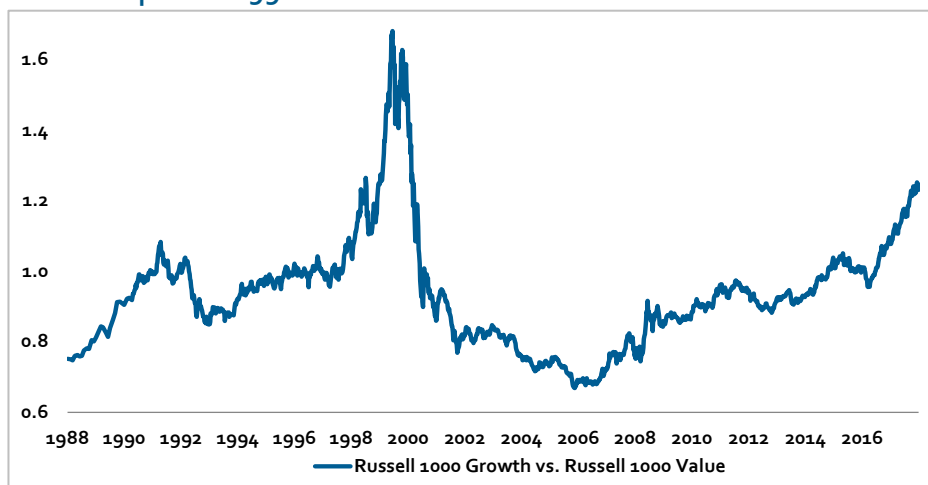
Source: Thomson Reuters, Morgan Stanley & Co. Research as of September 30, 2018

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# Examining the Current Bull Market in a Historical Context

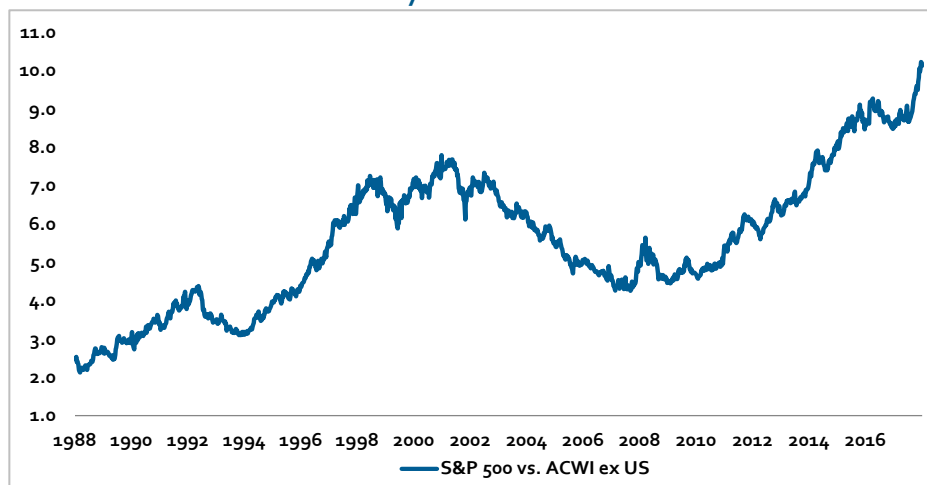
As of September 26, 2018

## Russell 1000 Growth vs. Value – Growth is the Most Extended Than Any Time Except Late 1990's



Source: Bloomberg, Morgan Stanley Wealth Management Market Strategy as of 9/21/18

## S&P 500 vs. MSCI ACWI ex. US – US Equities Relative to Rest of World is at Most Extreme Level in History



Source: Bloomberg, Morgan Stanley Wealth Management Market Strategy as of 9/21/18

## Annual Total Real Returns in USD Since 2000 – Only US Equities have Achieved Positive Real Returns so far in 2018

Asset/Index	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
S&P 500	-12.1%	-13.3%	-23.9%	26.3%	7.3%	1.5%	13.0%	1.3%	-37.1%	23.1%	13.4%	-0.9%	14.1%	30.4%	12.8%	0.7%	9.7%	19.3%	7.5%
Russell 1000 Growth	-25.0%	-21.7%	-29.6%	27.3%	2.9%	1.8%	6.4%	7.4%	-38.5%	33.6%	15.0%	-0.3%	13.3%	31.5%	12.2%	4.9%	4.9%	27.5%	13.8%
Russell 1000 Value	3.5%	-7.1%	-17.5%	27.6%	12.8%	3.5%	19.3%	-4.1%	-36.9%	16.5%	13.8%	-2.5%	15.5%	30.6%	12.6%	-4.5%	14.9%	11.3%	1.4%
Russell 2000	-6.2%	0.9%	-22.3%	44.5%	14.5%	1.1%	15.5%	-5.4%	-33.9%	23.8%	25.0%	-7.0%	14.4%	36.8%	4.1%	-5.1%	18.8%	12.3%	11.7%
MSCI Europe	-11.2%	-20.9%	-20.0%	36.5%	17.5%	6.3%	31.1%	9.9%	-46.1%	33.2%	2.9%	-13.1%	17.9%	24.1%	-6.4%	-3.0%	-1.8%	23.6%	-4.4%
MSCI Japan	-30.4%	-30.4%	-12.2%	33.6%	12.2%	21.5%	3.7%	-7.9%	-29.2%	3.6%	13.9%	-16.7%	6.6%	25.5%	-4.5%	9.1%	0.6%	21.8%	-3.4%
MSCI China	-32.8%	-25.9%	-16.1%	84.1%	-1.4%	15.8%	78.4%	59.7%	-50.9%	58.4%	3.3%	-20.6%	21.0%	2.4%	7.4%	-8.3%	-1.0%	51.2%	-9.8%
MSCI EM	-32.9%	-3.9%	-8.2%	53.4%	21.9%	30.1%	29.3%	34.3%	-53.2%	74.3%	17.4%	-20.6%	16.6%	-3.7%	-2.6%	-15.2%	9.3%	34.9%	-9.0%
US 10 Yr Treasuries	10.7%	2.9%	13.1%	-0.5%	1.7%	-0.6%	-0.8%	5.7%	22.1%	-12.8%	7.0%	13.6%	2.5%	-9.1%	9.9%	-0.2%	-2.2%	0.0%	-4.5%
US TIPS	9.5%	6.2%	13.8%	6.4%	5.0%	-0.5%	-2.0%	7.2%	-2.4%	8.5%	4.7%	10.3%	5.2%	-10.0%	2.8%	-2.1%	2.5%	0.9%	-2.0%
US IG	5.5%	8.6%	7.5%	6.2%	2.0%	-1.7%	1.8%	0.4%	-5.0%	15.6%	7.4%	5.0%	8.0%	-3.0%	6.6%	-1.4%	3.9%	4.2%	-4.2%
US HY	-8.8%	3.6%	-3.7%	26.6%	7.6%	-0.6%	9.1%	-2.1%	-26.2%	54.0%	13.4%	1.9%	13.9%	5.9%	1.6%	-5.1%	14.7%	5.3%	-0.3%
Commodities	27.5%	-20.8%	23.0%	21.6%	5.7%	17.4%	-0.4%	11.7%	-35.7%	15.8%	15.1%	-15.8%	-2.7%	-10.9%	-17.7%	-25.2%	9.5%	-0.4%	-6.0%

Source: FactSet, Bloomberg, Morgan Stanley Wealth Management Market Strategy as of 8/31/18; Note: returns are calculated on a total return basis in USD and deflated using annual US CPI inflation rates; returns shown are annual with the exception of 2018 which reflect year to date returns

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# 90's Redux? How the Dot-Com Era Compares to Today

As of September 26, 2018

With the current economic expansion and bull-market now one of the longest on record, it's natural to consider how this cycle could end. Given many of the storylines dominating markets this year (Tech leadership and crowding, EM currency crises, outperformance of US vs International), parallels to the '90s seem clear. While there are many differences between the '90s cycle and today, there are also notable similarities worth reflecting on. In today's note, we review how equity market performance this cycle has compared to the '90s, and what the post-dot-com experience suggests about how today's cycle may play out.

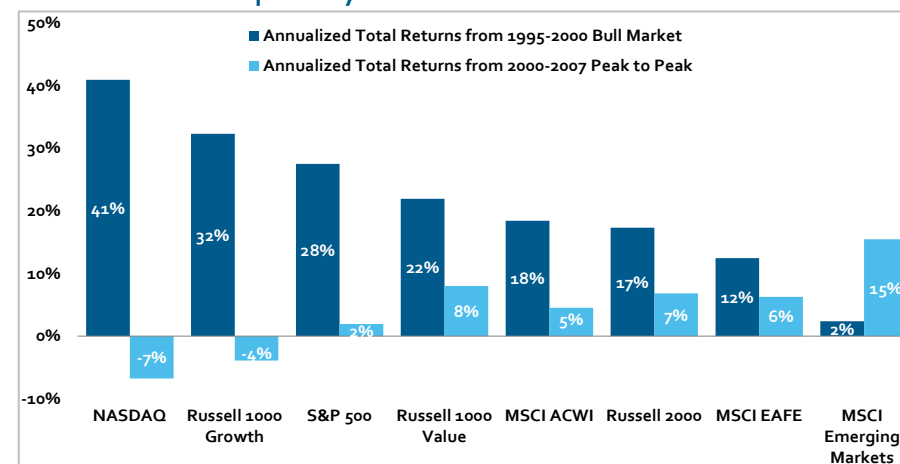
- **The Current Bull-Market is not as Extreme as the '90s:** First off, the current bull market is not as extreme as the dot-com bubble: from '95-'00, the S&P gained 28% and the NASDAQ 41% on an annualized basis, versus "only" 16% and 19% respectively this cycle. What's more, today's bull market has been driven by earnings growth to a much larger extent than the dot-com era when the rally was largely sentiment driven (multiple expansion). In the dot-com era, the forward estimated P/E on the S&P went from 12x in '95 to 25x in '00 – far more extreme than this cycle's expansion from 13x in '13 to 17x today.
- **Therefore, the Absolute Return Picture may likely be Different in the Future:** We are not calling for a repeat of the '00s, when we would be looking ahead to a sustained period of negative or very low returns (NASDAQ returned an annualized -7% from '00 peak to '07 peak) – this was a consequence of the dramatic overvaluation that does not exist today.
- **However, on a Relative Basis the Dot-Com Parallels are Convincing:** Leadership this cycle ('13-'18) looks remarkably similar to that during the dot-com ('95-'00) period – in both periods the NASDAQ dramatically outperformed the broader market, Growth dramatically outperformed Value, and US dramatically outperformed International. The notable difference this cycle relative to the dot-com era is that small-caps have broadly performed in-line with the S&P (versus the '90s when they underperformed large-cap). Also noteworthy is that US equities are among the only assets to produce positive real returns so far in 2018 which has made asset allocation especially difficult year to date.
- **Could Current Leaders Turn to Laggards? That's what Happened in '00:** While Tech, Growth, and US dramatically outperformed in the '90s, the '00s saw a sharp reversal of these trends, with the '90s leaders turning into the following cycle's laggards. The story holds whether you look at the subsequent performance from peak to trough ('00-'02) or the full cycle from peak to peak ('00-'07). Looking ahead, we think the relative picture could be similar, with those out of favor areas of the market reversing in the coming year.
- **Bottom-Line:** While performance this cycle has not been as extreme in absolute terms and has been backed by stronger fundamentals, on a relative basis the extremes in leadership appear similar to the run-up in the dot-com era. History suggests chasing these hot corners of the market is unwise for investors with intermediate or long-term horizons – as a result we advocate allocating to value over growth in the US and diversifying internationally.

## Annualized Total Returns for Select Asset Classes by Period

Asset/Index	1995-2000 Bull Market	2013-2018 Bull Market	2000-2002 Peak to Trough	2000-2007 Peak to Peak
NASDAQ*	41.0%	19.0%	-42.0%	-6.8%
Russell 1000 Growth	32.3%	18.3%	-31.5%	-3.9%
S&P 500	27.5%	15.7%	-20.6%	1.9%
Russell 1000 Value	22.0%	13.0%	-9.6%	8.0%
MSCI ACWI	18.4%	10.7%	-22.0%	4.5%
Russell 2000	17.3%	15.0%	-13.5%	6.8%
MSCI EAFE	12.5%	7.0%	-22.0%	6.3%
MSCI Emerging Markets	2.4%	2.8%	-20.4%	15.5%

Source: FactSet, Bloomberg, Morgan Stanley Wealth Management Market Strategy as of 8/31/18; Note: NASDAQ returns presented above represent price returns only

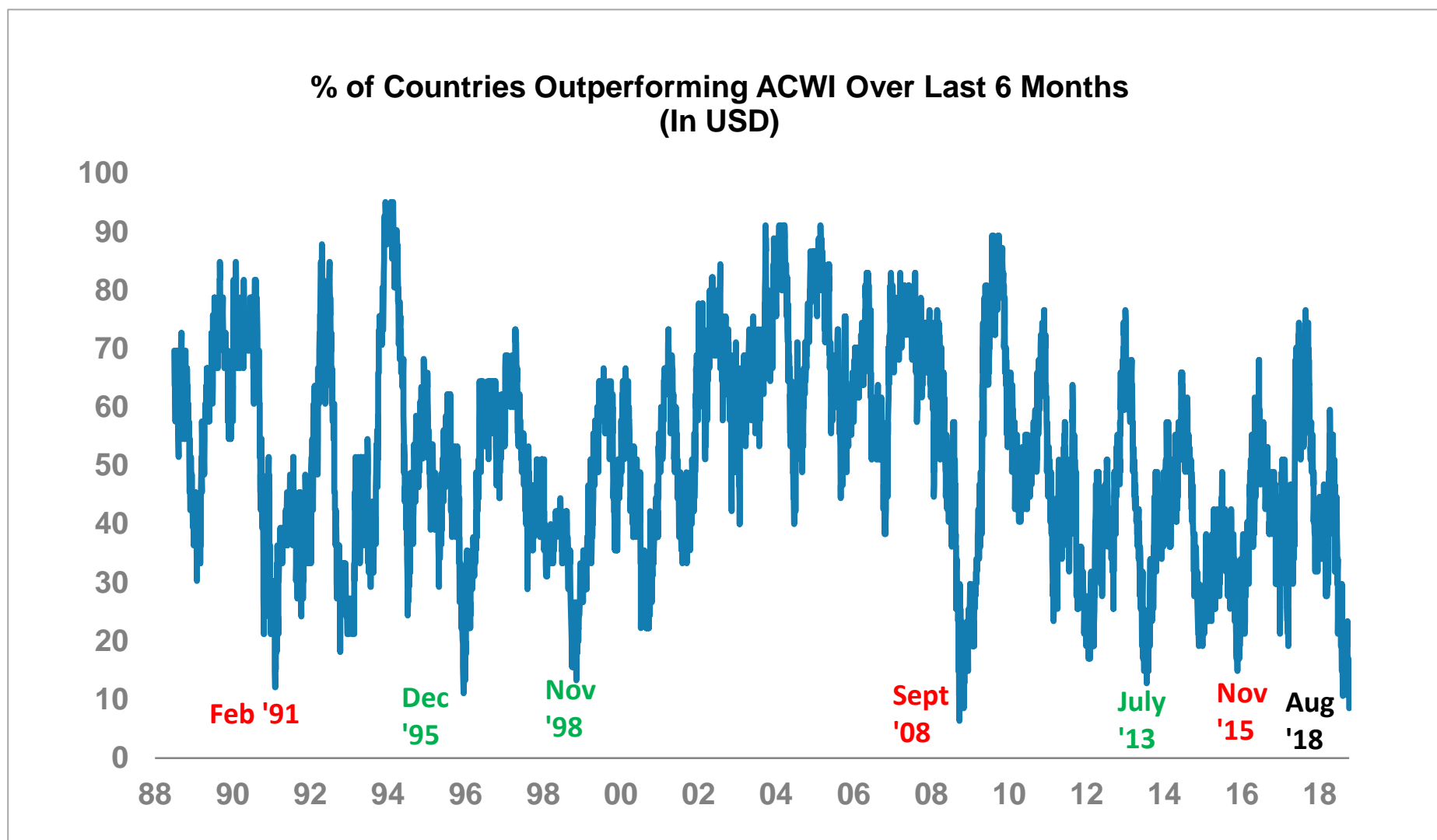
## Annualized Total Returns for Select Asset Classes During 1990's Bull Market and Subsequent Cycle



Source: FactSet, Bloomberg, Morgan Stanley Wealth Management Market Strategy as of 8/31/18; Note: NASDAQ returns presented above represent price returns only

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## Performance Between Int'l and US Equity Markets Is Extreme and Likely to Be Reconciled Soon—Positively or Negatively



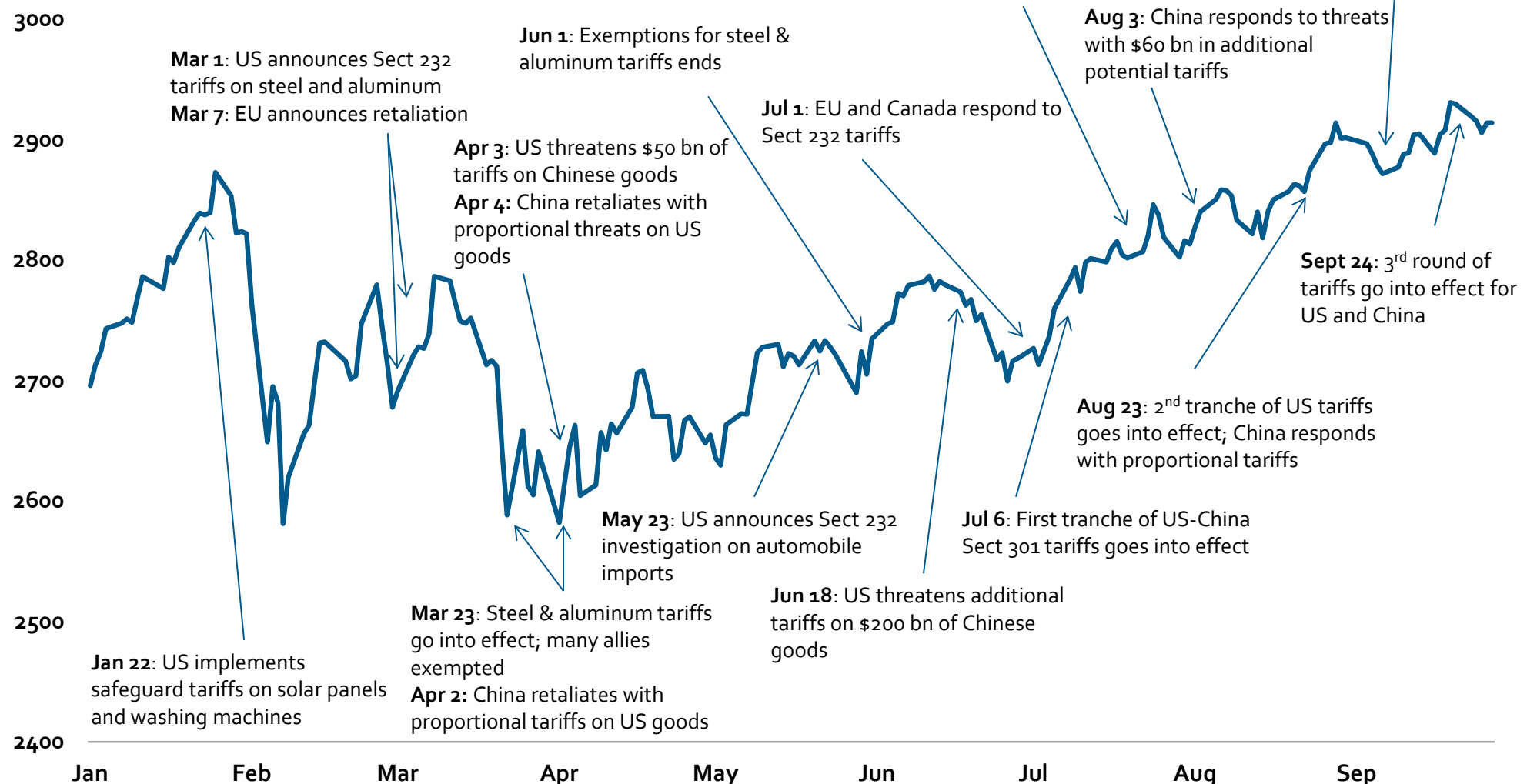
Source: Bloomberg, Morgan Stanley & Co. Research as of October 3, 2018

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# Timeline of Tensions

## S&P 500 Price Level and Key Trade Events

As of September 28, 2018



Source: Bloomberg, Morgan Stanley Wealth Management Investment Resources, United States International Trade Commission

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# More Tariffs Have Been Threatened Than Implemented

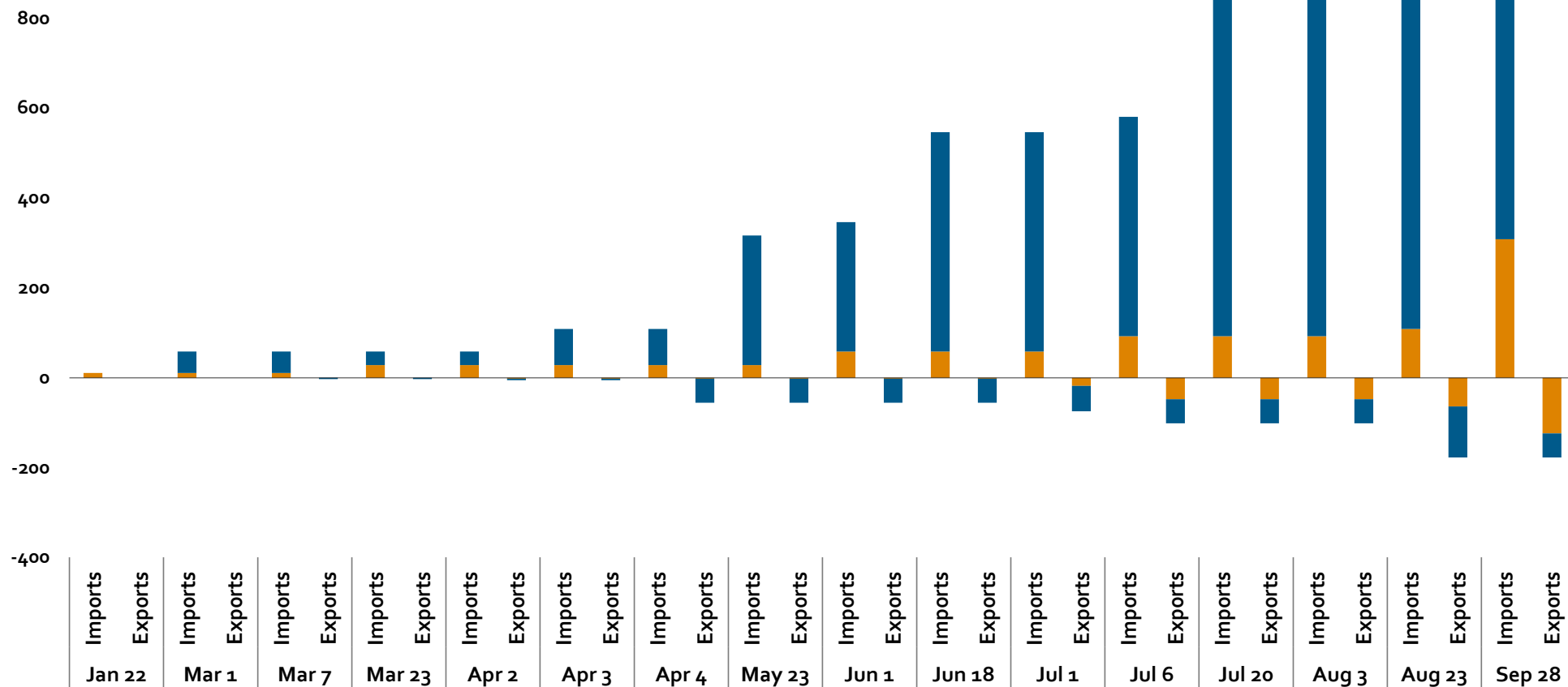
Though the implementation of tariffs has thus far remained symmetric, the US has leveraged its large trade imbalance with most countries as a tool to threaten higher tariffs and import barriers during negotiations.

## Tariffs on Imports/Exports from US Perspective (\$ Billions)

As of September 28, 2018

\$1000

■ Tariff Threatened ■ Tariff Implemented



Source: Peterson Institute of International Economics, Morgan Stanley Wealth Management Investment Resources

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# Composition of US Trade by Partner

## Imports/Exports for the United States' 5 largest trading partners (\$ Billions)

As of December 31, 2017

\$600

500

400

300

200

100

Largest  
Imports from  
China are  
Capital and  
Consumer  
goods



■ Capital goods, except automotive  
■ Consumer goods  
■ Foods, feeds, and beverages

■ Industrial supplies and materials  
■ Automotive vehicles, parts, and engines  
■ Other goods

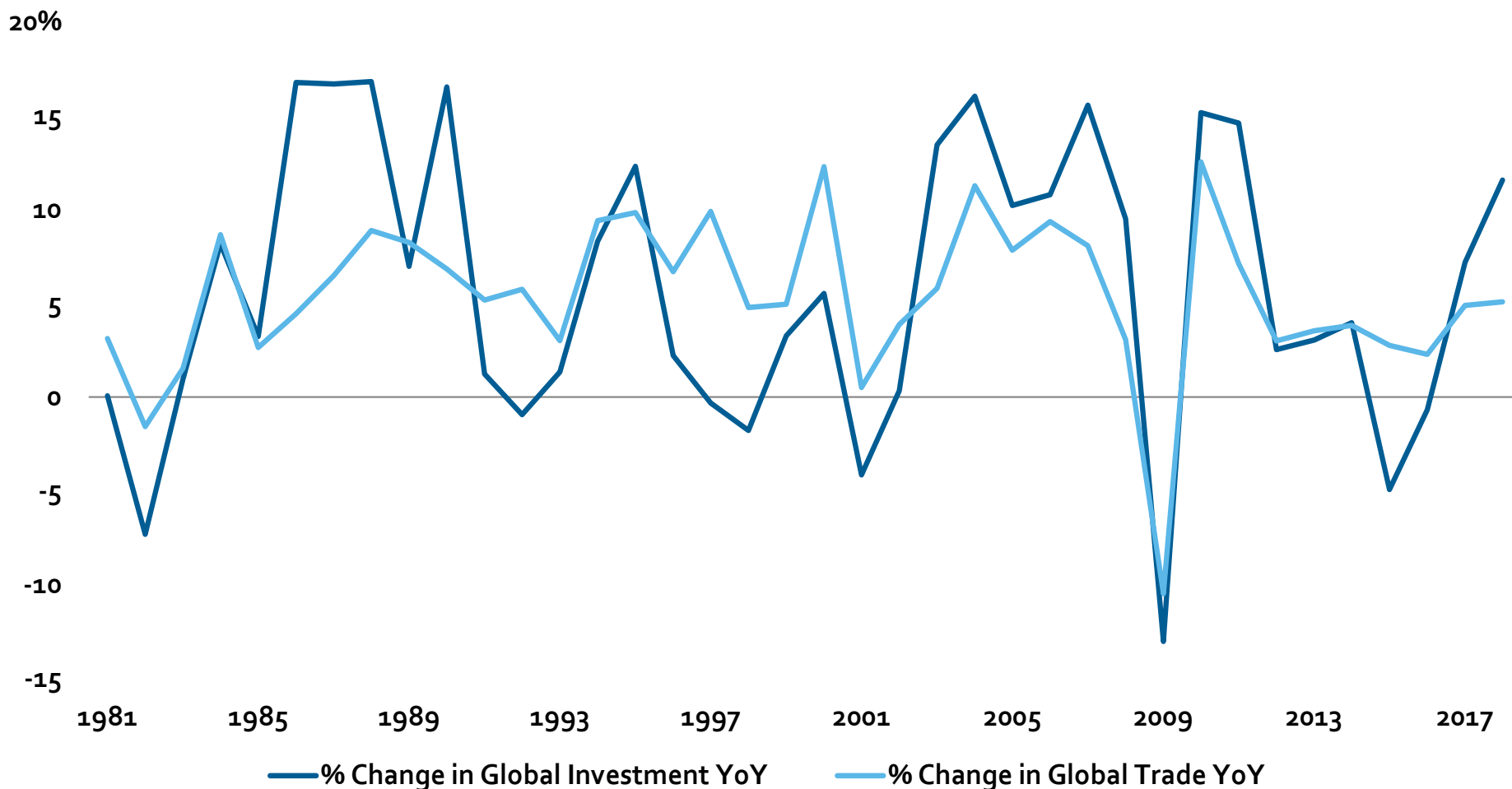
Source: Haver Analytics, United States International Trade Commission, Morgan Stanley Wealth Management Investment Resources, World Trade Organization

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# Global Investment Has Historically Tracked Global Trade

Companies have invested more as trade opportunities have opened up. A marked downturn in global trade could lead to dampened investment worldwide.

As of September 28, 2018



Source: Morgan Stanley Wealth Management Investment Resources, World Bank

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The **Global Investment Committee** is a group of seasoned investment professionals who meet regularly to discuss the global economy and markets. The committee determines the investment outlook that guides our advice to clients. They continually monitor developing economic and market conditions, review tactical outlooks and recommend model portfolio weightings, as well as produce a suite of strategy, analysis, commentary, portfolio positioning suggestions and other reports and broadcasts.

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is that Adverse Active Alpha is a good starting point and should be used in conjunction with other information. Morgan Stanley Wealth Management's qualitative and quantitative investment manager due diligence process are equally important factors for investors when considering managers for use through an investment advisory program. Factors including, but not limited to, manager turnover and changes to investment process can partially or fully negate a positive Adverse Active Alpha ranking. Additionally, highly ranked managers can have differing risk profiles that might not be suitable for all investors. For more information on AAA, please see the Adverse Active Alpha Ranking Model and Selecting Managers with Adverse Active Alpha whitepapers. The whitepaper are available from your Financial Advisor or Private Wealth Advisor. ADVERSE ACTIVE ALPHA is a registered service mark of Morgan Stanley and/or its affiliates. U.S. Pat. No. 8,756,098 applies to the Adverse Active Alpha system and/or methodology.

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Nontraditional investment options and strategies are often employed by a portfolio manager to further a fund’s investment objective and to help offset market risks. However, these features may be complex, making it more difficult to understand the fund’s essential characteristics and risks, and how it will perform in different market environments and over various periods of time. They may also expose the fund to increased volatility and unanticipated risks particularly when used in complex combinations and/or accompanied by the use of borrowing or “leverage.”

## KEY ASSET CLASS CONSIDERATIONS AND OTHER RISKS

Investing in the markets entails the risk of market volatility. The value of all types of investments, including stocks, mutual funds, exchange-traded funds (“ETFs”), closed-end funds, and unit investment trusts, may increase or decrease over varying time periods. To the extent the investments depicted herein represent **international securities**, you should be aware that there may be additional risks associated with international investing, including foreign economic, political, monetary and/or legal factors, changing currency exchange rates, foreign taxes, and differences in financial and accounting standards. These risks may be magnified in **emerging markets and frontier markets**. **Small- and mid-capitalization companies** may lack the financial resources, product diversification and competitive strengths of larger companies. In addition, the securities of small- and mid-capitalization companies may not trade as readily as, and be subject to higher volatility than, those of larger, more established companies. The value of **fixed income securities** will fluctuate and, upon a sale, may be worth more or less than their original cost or maturity value. Bonds are subject to interest rate risk, call risk, reinvestment risk, liquidity risk, and credit risk of the issuer. **High yield bonds** are subject to additional risks such as increased risk of default and greater volatility because of the lower credit quality of the issues. In the case of **municipal bonds**, income is generally exempt from federal income taxes. Some income may be subject to state and local taxes and to the federal alternative minimum tax. Capital gains, if any, are subject to tax. **Treasury Inflation Protection Securities’ (TIPS)** coupon payments and underlying principal are automatically increased to compensate for inflation by tracking the consumer price index (CPI). While the real rate of return is guaranteed, TIPS tend to offer a low return. Because the return of TIPS is linked to inflation, TIPS may significantly underperform versus conventional U.S. Treasuries in times of low inflation. There is no guarantee that investors will receive par if TIPS are sold prior to maturity. The returns on a portfolio consisting primarily of **environmental, social, and governance-aware investments (“ESG”)** may be lower or higher than a portfolio that is more diversified or where decisions are based solely on investment considerations. Because ESG criteria exclude some investments, investors may not be able to take advantage of the same opportunities or market trends as investors that do not use such criteria. The companies identified and investment examples are for illustrative purposes only and should not be deemed a recommendation to purchase, hold or sell any securities or investment products. They are intended to demonstrate the approaches taken by managers who focus on ESG criteria in their investment strategy. There can be no guarantee that a client’s account will be managed as described herein. **Options** and margin trading involve substantial risk and are not suitable for all investors. Besides the general investment risk of holding securities that may decline in value and the possible loss of principal invested, **closed-end funds** may have additional risks related to declining market prices relative to net asset values (NAVs), active manager underperformance and potential leverage. Closed-end funds, unlike open-end funds, are not continuously offered. There is a one-time public offering and once issued, shares of closed-end funds are sold in the open market through a stock exchange. NAV is total assets less total liabilities divided by the number of shares outstanding. At the time an investor purchases shares of a closed-end fund, shares may have a market price that is above or below NAV. Portfolios that invest a large percentage of assets in only one industry **sector** (or in only a few sectors) are more vulnerable to price fluctuation than those that diversify among a broad range of sectors.

**Alternative investments** often are speculative and include a high degree of risk. Investors could lose all or a substantial amount of their investment. Alternative investments are suitable only for eligible, long-term investors who are willing to forgo liquidity and put capital at risk for an indefinite period of time. They may be highly illiquid and can engage in leverage and other speculative practices that may increase the volatility and risk of loss. Alternative Investments typically have higher fees than traditional investments. Investors should carefully review and consider potential risks before investing. Certain of these risks may include but are not limited to: Loss of all or a substantial portion of the investment due to leveraging, short-selling, or other speculative practices; Lack of liquidity in that there may be no secondary market for a fund; Volatility of returns; Restrictions on transferring interests in a fund; Potential lack of diversification and resulting higher risk due to concentration of trading authority when a single advisor is utilized; Absence of information regarding valuations and pricing; Complex tax structures and delays in tax reporting; Less regulation and higher fees than mutual funds; and Risks associated with the operations, personnel, and processes of the manager. As a diversified global financial services firm, Morgan Stanley Wealth Management engages in a broad spectrum of activities

including financial advisory services, investment management activities, sponsoring and managing private investment funds, engaging in broker-dealer transactions and principal securities, commodities and foreign exchange transactions, research publication, and other activities. In the ordinary course of its business, Morgan Stanley Wealth Management therefore engages in activities where Morgan Stanley Wealth Management's interests may conflict with the interests of its clients, including the private investment funds it manages. Morgan Stanley Wealth Management can give no assurance that conflicts of interest will be resolved in favor of its clients or any such fund. All expressions of opinion are subject to change without notice and are not intended to be a forecast of future events or results. 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These limitations include survivorship bias (the returns of the indices may not be representative of all the hedge funds in the universe because of the tendency of lower performing funds to leave the index); heterogeneity (not all hedge funds are alike or comparable to one another, and the index may not accurately reflect the performance of a described style); and limited data (many hedge funds do not report to indices, and the index may omit funds, the inclusion of which might significantly affect the performance shown. The HFRI indices are based on information self-reported by hedge fund managers that decide on their own, at any time, whether or not they want to provide, or continue to provide, information to HFR Asset Management, L.L.C. Results for funds that go out of business are included in the index until the date that they cease operations. Therefore, these indices may not be complete or accurate representations of the hedge fund universe, and may be biased in several ways. Composite index results are shown for illustrative purposes and do not represent the performance of a specific investment. Individual funds have specific tax risks related to their investment programs that will vary from fund to fund. Clients should consult their own tax and legal advisors as Morgan Stanley Wealth Management does not provide tax or legal advice. Interests in alternative investment products are offered pursuant to the terms of the applicable offering memorandum, are distributed by Morgan Stanley Smith Barney LLC and certain of its affiliates, and (1) are not FDIC-insured, (2) are not deposits or other obligations of Morgan Stanley or any of its affiliates, (3) are not guaranteed by Morgan Stanley and its affiliates, and (4) involve investment risks, including possible loss of principal. Morgan Stanley Smith Barney LLC is a registered broker-dealer, not a bank. 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As a diversified global financial services firm, Morgan Stanley Wealth Management engages in a broad spectrum of activities including financial advisory services, investment management activities, sponsoring and managing private investment funds, engaging in broker-dealer transactions and principal securities, commodities and foreign exchange transactions, research publication, and other activities. In the ordinary course of its business, Morgan Stanley Wealth Management therefore engages in activities where Morgan Stanley Wealth Management's interests may conflict with the interests of its clients, including the private investment funds it manages. Morgan Stanley Wealth Management can give no assurance that conflicts of interest will be resolved in favor of its clients or any such fund. Alternative investments involve complex tax structures, tax inefficient investing, and delays in distributing important tax information. Individual funds have specific risks related to their investment programs that will vary from fund to fund. Clients should consult their own tax and legal advisors as Morgan Stanley Wealth Management does not provide tax or legal advice.

While the HFRI indices are frequently used, they have limitations (some of which are typical of other widely used indices). These limitations include survivorship bias (the returns of the indices may not be representative of all the hedge funds in the universe because of the tendency of lower performing funds to leave the index); heterogeneity (not all hedge funds are alike or comparable to one another, and the index may not accurately reflect the performance of a described style); and limited data (many hedge funds do not report to indices, and the index may omit funds, the inclusion of which might significantly affect the performance shown. The HFRI indices are based on information self-reported by hedge fund managers that decide on their own, at any time, whether or not they want to provide, or continue to provide, information to HFR Asset Management, L.L.C. Results for funds that go out of business are included in the index until the date that they cease operations. Therefore, these indices may not be complete or accurate representations of the hedge fund universe, and may be biased in several ways.

It should be noted that the majority of hedge fund indexes are comprised of hedge fund manager returns. This is in contrast to traditional indexes, which are comprised of individual securities in the various market segments they represent and offer complete transparency as to membership and construction methodology. As such, some believe that hedge fund index returns have certain biases that are not present in traditional indexes. Some of these biases inflate index performance, while others may skew performance negatively. However, many studies indicate that overall hedge fund index performance

has been biased to the upside. Some studies suggest performance has been inflated by up to 260 basis points or more annually depending on the types of biases included and the time period studied. Although there are numerous potential biases that could affect hedge fund returns, we identify some of the more common ones throughout this paper.

Self-selection bias results when certain manager returns are not included in the index returns and may result in performance being skewed up or down. Because hedge funds are private placements, hedge fund managers are able to decide which fund returns they want to report and are able to opt out of reporting to the various databases. Certain hedge fund managers may choose only to report returns for funds with strong returns and opt out of reporting returns for weak performers. Other hedge funds that close may decide to stop reporting in order to retain secrecy, which may cause a downward bias in returns.

Survivorship bias results when certain constituents are removed from an index. This often results from the closure of funds due to poor performance, “blow ups,” or other such events. As such, this bias typically results in performance being skewed higher. As noted, hedge fund index performance biases can result in positive or negative skew. However, it would appear that the skew is more often positive. While it is difficult to quantify the effects precisely, investors should be aware that idiosyncratic factors may be giving hedge fund index returns an artificial “lift” or upwards bias.

**Hedge Funds of Funds** and many funds of funds are private investment vehicles restricted to certain qualified private and institutional investors. They are often speculative and include a high degree of risk. Investors can lose all or a substantial amount of their investment. They may be highly illiquid, can engage in leverage and other speculative practices that may increase volatility and the risk of loss, and may be subject to large investment minimums and initial lockups. They involve complex tax structures, tax-inefficient investing and delays in distributing important tax information. Categorically, hedge funds and funds of funds have higher fees and expenses than traditional investments, and such fees and expenses can lower the returns achieved by investors. Funds of funds have an additional layer of fees over and above hedge fund fees that will offset returns. An investment in an **exchange-traded fund** involves risks similar to those of investing in a broadly based portfolio of equity securities traded on an exchange in the relevant securities market, such as market fluctuations caused by such factors as economic and political developments, changes in interest rates and perceived trends in stock and bond prices. An investment in a **target date portfolio** is subject to the risks attendant to the underlying funds in which it invests, in these portfolios the funds are the Consulting Group Capital Market funds. A target date portfolio is geared to investors who will retire and/or require income at an approximate year. The portfolio is managed to meet the investor’s goals by the pre-established year or “target date.” A target date portfolio will transition its invested assets from a more aggressive portfolio to a more conservative portfolio as the target date draws closer. An investment in the target date portfolio is not guaranteed at any time, including, before or after the target date is reached. **Managed futures** investments are speculative, involve a high degree of risk, use significant leverage, are generally illiquid, have substantial charges, subject investors to conflicts of interest, and are suitable only for the risk capital portion of an investor’s portfolio. Managed futures investments do not replace equities or bonds but rather may act as a complement in a well diversified portfolio. Managed Futures are complex and not appropriate for all investors. **Rebalancing** does not protect against a loss in declining financial markets. There may be a potential tax implication with a rebalancing strategy. **Asset allocation and diversification** do not assure a profit or protect against loss in declining financial markets. Past performance is no guarantee of future results. Actual results may vary.

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**Indices** are unmanaged. An investor cannot invest directly in an index. They are shown for illustration purposes only and do not show the performance of any specific investment. Reference to an index does not imply that the portfolio will achieve return, volatility or other results similar to the index. The composition of an index may not reflect the manner in which a portfolio is constructed in relation to expected or achieved returns, portfolio guidelines, restrictions, sectors, correlations, concentrations, volatility, or tracking error target, all of which are subject to change over time.

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We may act in the capacity of a broker or that of an advisor. As your broker, we are not your fiduciary and our interests may not always be identical to yours. Please consult with your Private Wealth Advisor to discuss our obligations to disclose to you any conflicts we may from time to time have and our duty to act in your best interest. We may be paid both by you and by others who compensate us based on what you buy. Our compensation, including that of your Private Wealth Advisor, may vary by product and over time.

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*For index, indicator and survey definitions referenced in this report please visit the following: <http://www.morganstanleyfa.com/public/projectfiles/id.pdf> (<http://www.morganstanleyfa.com/public/projectfiles/id.pdf>)*

Graystone Consulting is a business of Morgan Stanley.

**GLOBAL INVESTMENT COMMITTEE (GIC) ASSET ALLOCATION MODELS:** The Asset Allocation Models are created by Morgan Stanley Wealth Management's GIC.

**HYPOTHETICAL MODEL PERFORMANCE (GROSS):** Hypothetical model performance results do not reflect the investment or performance of an actual portfolio following a GIC Strategy, but simply reflect actual historical performance of selected indices on a real-time basis over the specified period of time representing the GIC's strategic and tactical allocations as of the date of this report. The past performance shown here is simulated performance based on benchmark indices, not investment results from an actual portfolio or actual trading. There can be large differences between hypothetical and actual performance results achieved by a particular asset allocation or trading strategy. Hypothetical performance results do not represent actual trading and are generally designed with the benefit of hindsight. Actual performance results of accounts vary due to, for example, market factors (such as liquidity) and client-specific factors (such as investment vehicle selection, timing of contributions and withdrawals, restrictions and rebalancing schedules). Clients would not necessarily have obtained the performance results shown here if they had invested in accordance with any GIC Asset Allocation Model for the periods indicated. Despite the limitations of hypothetical performance, these hypothetical performance results allow clients and Financial Advisors to obtain a sense of the risk/return trade-off of different asset allocation constructs. The hypothetical performance results in this report are calculated using the returns of benchmark indices for the asset classes, and not the returns of securities, fund or other investment products. Models may contain allocations to Hedge Funds, Private Equity and Private Real Estate. The benchmark indices for these asset classes are not issued on a daily basis. When calculating model performance on a day for which no benchmark index data is issued, we have assumed straight line growth between the index levels issued before and after that date.

**FEES REDUCE THE PERFORMANCE OF ACTUAL ACCOUNTS:** None of the fees or other expenses (e.g. commissions, mark-ups, mark-downs, fees) associated with actual trading or accounts are reflected in the GIC Asset Allocation Models. The GIC Asset Allocation Models and any model performance included in this presentation are intended as educational materials. Were a client to use these models in connection with investing, any investment decisions made would be subject to transaction and other costs which, when compounded over a period of years, would decrease returns. Information regarding Morgan Stanley's standard advisory fees is available in the Form ADV Part 2, which is available at [www.morganstanley.com/adv](http://www.morganstanley.com/adv). The following hypothetical illustrates the compound effect fees have on investment returns: For example, if a portfolio's annual rate of return is 15% for 5 years and the account pays 50 basis points in fees per annum, the gross cumulative five-year return would be 101.1% and the five-year return net of fees would be 96.8%. Fees and/or expenses would apply to clients who invest in investments in an account based on these asset allocations, and would reduce clients' returns. The impact of fees and/or expenses can be material.

**Variable annuities** are long-term investments designed for retirement purposes and may be subject to market fluctuations, investment risk, and possible loss of principal. All guarantees, including optional benefits, are based on the financial strength and claims-paying ability of the issuing insurance company and do not apply to the underlying investment options. Optional riders may not be able to be purchased in combination and are available at an additional cost. Some optional riders must be elected at time of purchase. Optional riders may be subject to specific limitations, restrictions, holding periods, costs, and expenses as specified by the insurance company in the annuity contract. If you are investing in a **variable annuity** through a tax-advantaged retirement plan such as an IRA, you will get no additional tax advantage from the variable annuity. Under these circumstances, you should only consider buying a variable annuity because of its other features, such as lifetime income payments and death benefits protection. Taxable distributions (and certain deemed distributions) are subject to ordinary income tax and, if taken prior to age 59½, may be subject to a 10% federal income tax penalty. Early withdrawals will reduce the death benefit and cash surrender value.



**Equity securities** may fluctuate in response to news on companies, industries, market conditions and general economic environment. **Ultrashort-term fixed income** asset class is comprised of fixed income securities with high quality, very short maturities. They are therefore subject to the risks associated with debt securities such as credit and interest rate risk.

**Master Limited Partnerships (MLPs)** are limited partnerships or limited liability companies that are taxed as partnerships and whose interests (limited partnership units or limited liability company units) are traded on securities exchanges like shares of common stock. Currently, most MLPs operate in the energy, natural resources or real estate sectors. Investments in MLP interests are subject to the risks generally applicable to companies in the energy and natural resources sectors, including commodity pricing risk, supply and demand risk, depletion risk and exploration risk. Individual MLPs are publicly traded partnerships that have unique risks related to their structure. These include, but are not limited to, their reliance on the capital markets to fund growth, adverse ruling on the current tax treatment of distributions (typically mostly tax deferred), and commodity volume risk. The potential tax benefits from investing in MLPs depend on their being treated as partnerships for federal income tax purposes and, if the MLP is deemed to be a corporation, then its income would be subject to federal taxation at the entity level, reducing the amount of cash available for distribution to the fund which could result in a reduction of the fund's value. MLPs carry interest rate risk and may underperform in a rising interest rate environment. MLP funds accrue deferred income taxes for future tax liabilities associated with the portion of MLP distributions considered to be a tax-deferred return of capital and for any net operating gains as well as capital appreciation of its investments; this deferred tax liability is reflected in the daily NAV, and, as a result, the MLP fund's after-tax performance could differ significantly from the underlying assets even if the pre-tax performance is closely tracked.

**Investing in commodities** entails significant risks. Commodity prices may be affected by a variety of factors at any time, including but not limited to, (i) changes in supply and demand relationships, (ii) governmental programs and policies, (iii) national and international political and economic events, war and terrorist events, (iv) changes in interest and exchange rates, (v) trading activities in commodities and related contracts, (vi) pestilence, technological change and weather, and (vii) the price volatility of a commodity. In addition, the commodities markets are subject to temporary distortions or other disruptions due to various factors, including lack of liquidity, participation of speculators and government intervention. **Physical precious metals** are non-regulated products. Precious metals are speculative investments, which may experience short-term and long term price volatility. The value of precious metals investments may fluctuate and may appreciate or decline, depending on market conditions. Unlike bonds and stocks, precious metals do not make interest or dividend payments. Therefore, precious metals may not be suitable for investors who require current income. Precious metals are commodities that should be safely stored, which may impose additional costs on the investor.

**REITs** investing risks are similar to those associated with direct investments in real estate: property value fluctuations, lack of liquidity, limited diversification and sensitivity to economic factors such as interest rate changes and market recessions. Risks of **private real estate** include: illiquidity; a long-term investment horizon with a limited or nonexistent secondary market; lack of transparency; volatility (risk of loss); and leverage. Principal is returned on a monthly basis over the life of a **mortgage-backed security**. Principal prepayment can significantly affect the monthly income stream and the maturity of any type of MBS, including standard MBS, CMOs and Lottery Bonds. **Asset-backed securities** generally decrease in value as a result of interest rate increases, but may benefit less than other fixed-income securities from declining interest rates, principally because of prepayments.

**Yields** are subject to change with economic conditions. Yield is only one factor that should be considered when making an investment decision. **Credit ratings** are subject to change. **Duration**, the most commonly used measure of bond risk, quantifies the effect of changes in interest rates on the price of a bond or bond portfolio. The longer the duration, the more sensitive the bond or portfolio would be to changes in interest rates. The majority of \$25 and \$1000 par **preferred securities** are "callable" meaning that the issuer may retire the securities at specific prices and dates prior to maturity. Interest/dividend payments on certain preferred issues may be deferred by the issuer for periods of up to 5 to 10 years, depending on the particular issue. The investor would still have income tax liability even though payments would not have been received. Price quoted is per \$25 or \$1,000 share, unless otherwise specified. Current yield is calculated by multiplying the coupon by par value divided by the market price. The initial interest rate on a **floating-rate security** may be lower than that of a fixed-rate security of the same maturity because investors expect to receive additional income due to future increases in the floating security's underlying reference rate. The reference rate could be an index or an interest rate. However, there can be no assurance that the reference rate will increase. Some floating-rate securities may be subject to call risk. The market value of **convertible bonds** and the underlying common stock(s) will fluctuate and after purchase may be worth more or less than original cost. If sold prior to maturity, investors may receive more or less than their original purchase price or maturity value, depending on market conditions. Callable bonds may be redeemed by the issuer prior to maturity. Additional call features may exist that could affect yield. Some \$25 or \$1000 par **preferred securities** are QDI (Qualified Dividend Income) eligible. Information on QDI eligibility is obtained from third party sources. The dividend income on QDI eligible preferreds qualifies for a reduced tax rate. Many traditional 'dividend paying' perpetual preferred securities (traditional preferreds with no maturity date) are QDI eligible. In order to qualify for the preferential tax treatment all qualifying preferred securities must be held by investors for a minimum period – 91 days during a 180 day window period, beginning 90 days before the ex-dividend date.

Companies paying **dividends** can reduce or cut payouts at any time.

**Nondiversification:** For a portfolio that holds a concentrated or limited number of securities, a decline in the value of these investments would cause the portfolio's overall value to decline to a greater degree than a less concentrated portfolio. The **indices selected by Morgan Stanley Wealth Management** to measure performance are representative of broad asset classes. Morgan Stanley Wealth Management retains the right to change representative indices at any time. Because of their narrow focus, **sector investments** tend to be more volatile than investments that diversify across many sectors and companies.

**Growth investing** does not guarantee a profit or eliminate risk. The stocks of these companies can have relatively high valuations. Because of these high valuations, an investment in a growth stock can be more risky than an investment in a company with more modest growth expectations. **Value investing** does not guarantee a profit or eliminate risk. Not all companies whose stocks are considered to be value stocks are able to turn their business around or successfully employ corrective strategies which would result in stock prices that do not rise as initially expected.

Any type of **continuous or periodic investment plan** does not assure a profit and does not protect against loss in declining markets. Since such a plan involves continuous investment in securities regardless of fluctuating price levels of such securities, the investor should consider his financial ability to continue his purchases through periods of low price levels.

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# Michigan County Road Commission Self-Insurance Pool

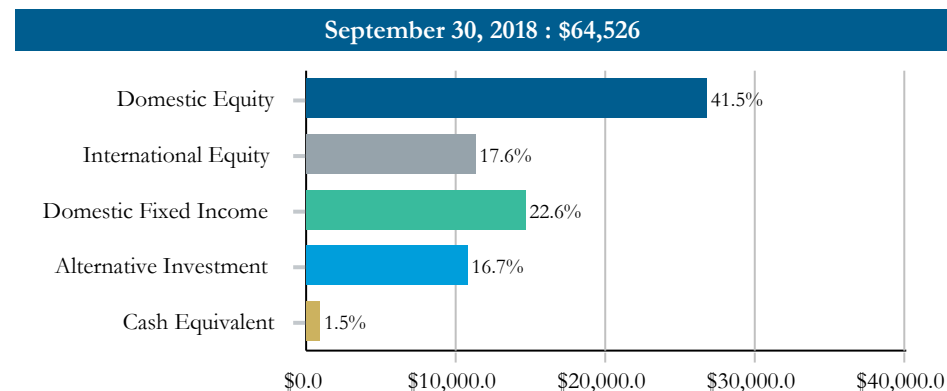
Graystone Quarterly  
September 30, 2018

# Michigan County Road Commission Self-Insurance Pool

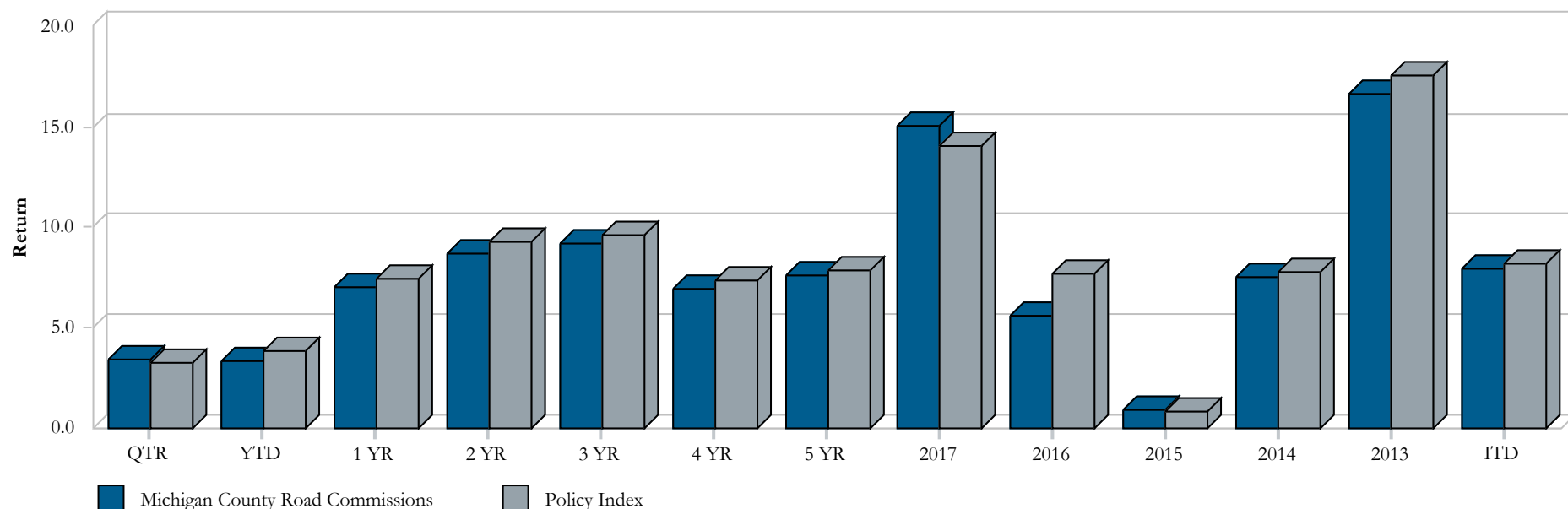
## Portfolio Summary

As of September 30, 2018

Market Valuation				
	1 Quarter	YTD	Since Inception	Inception Date
Total Fund Composite				03/31/1987
Beginning Market Value	\$62,468,520	\$66,920,583	\$6,922,230	
Net Contributions	\$116,267	(\$3,767,311)	(\$14,998,219)	
Gain/Loss	\$1,940,792	\$1,372,307	\$72,601,568	
Ending Market Value	\$64,525,579	\$64,525,579	\$64,525,579	



### Total Portfolio Performance (%)



	QTR	YTD	1 YR	2 YR	3 YR	4 YR	5 YR	2017	2016	2015	2014	2013	ITD	Inception Date
Michigan County Road Commissions	3.45	3.36	6.99	8.73	9.24	6.91	7.63	15.08	5.63	0.93	7.55	16.67	7.97	03/31/1987
Policy Index	3.22	3.85	7.41	9.30	9.65	7.35	7.88	14.02	7.72	0.82	7.74	17.56	8.00	01/01/1976

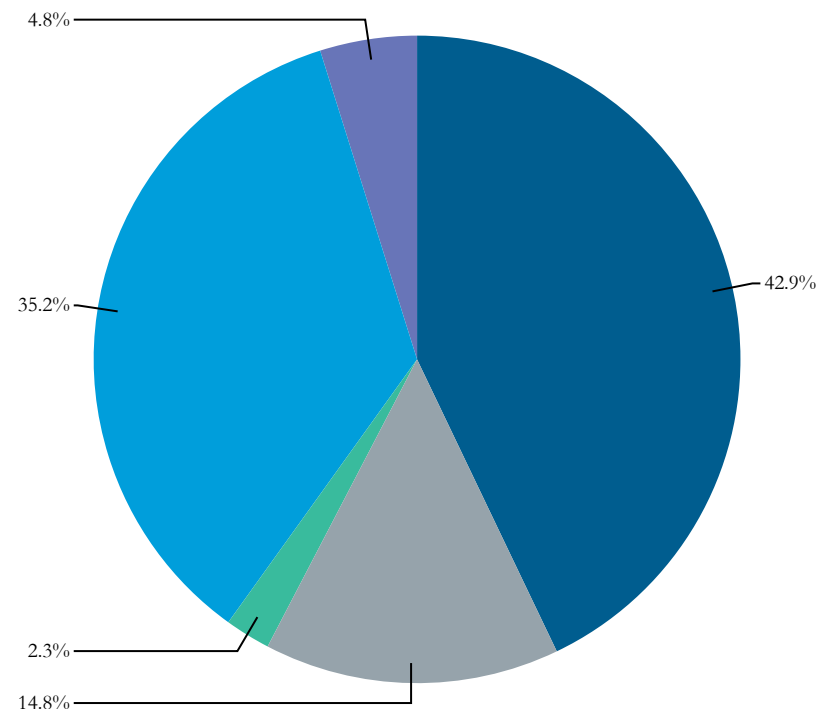
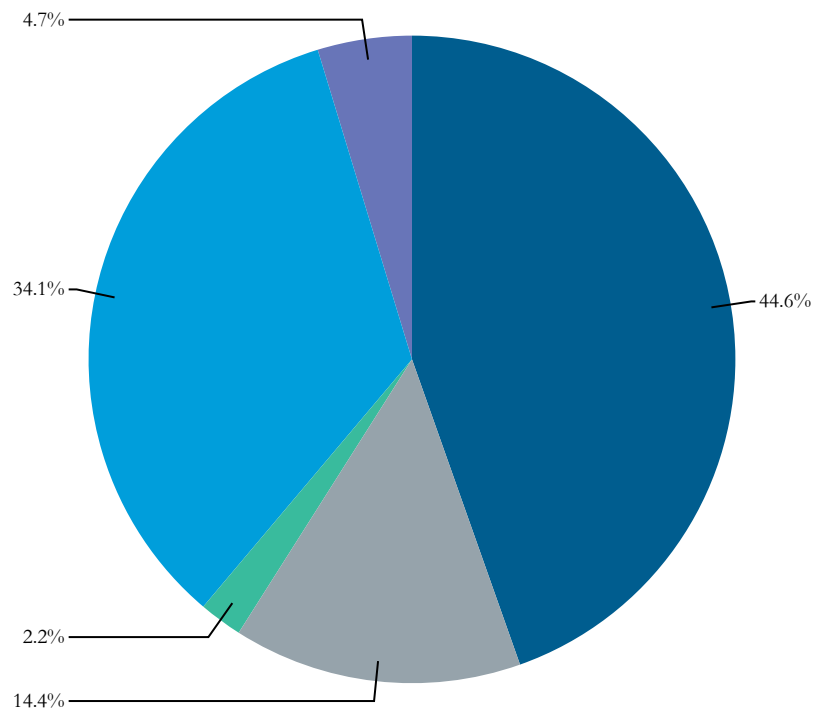
# Michigan County Road Commission Self-Insurance Pool

## Portfolio Asset Allocation Summary

As of September 30, 2018

September 30, 2018 : \$64,525,579

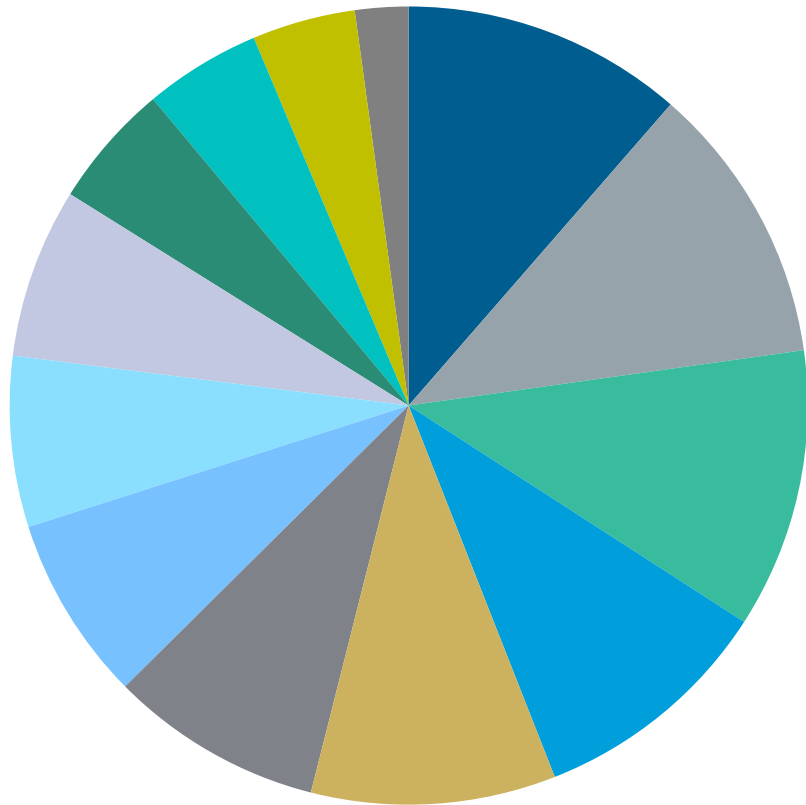
June 30, 2018 : \$62,468,520



	Market Value (\$)	Allocation (%)		Market Value (\$)	Allocation (%)
US Equity	28,767,044.39	44.58	US Equity	26,792,940.99	42.89
International Equity	9,306,429.70	14.42	International Equity	9,220,450.15	14.76
International-Emerging Equity	1,395,776.73	2.16	International-Emerging Equity	1,419,900.03	2.27
US Fixed Income	22,013,533.30	34.12	US Fixed Income	22,006,772.04	35.23
US Real Return	3,042,795.21	4.72	US Real Return	3,028,456.58	4.85

**Michigan County Road Commission Self-Insurance Pool**  
**Asset Allocation By Manager**  
**As of September 30, 2018**

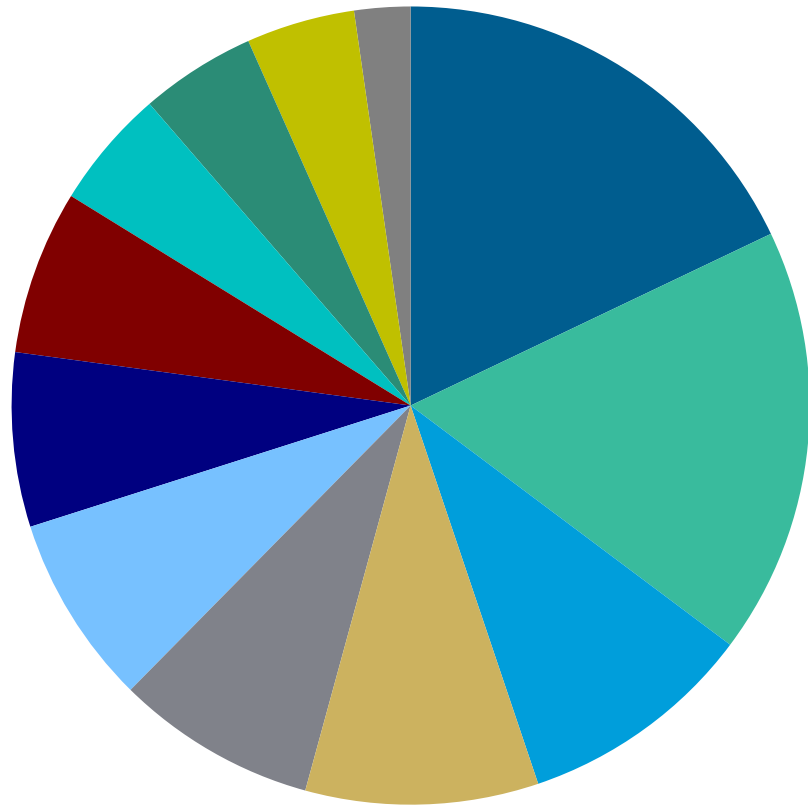
September 30, 2018 : \$64,525,579



	Market Value (\$)	Allocation (%)
Western Asset - Core Plus -SMASH	7,353,804.45	11.40
Blackrock Strategic Inc Opps Fund	7,345,501.12	11.38
Wedge Capital Management	7,314,227.73	11.34
Loomis Sayles/Natixis	6,400,867.42	9.92
Delaware	6,390,479.62	9.90
London Company	5,571,961.48	8.64
Lazard	4,841,454.39	7.50
Clearbridge INTL	4,464,975.31	6.92
Clearbridge Large Growth	4,444,593.22	6.89
Henderson Geneva	3,259,492.42	5.05
Cushing MLP	3,042,795.21	4.72
NWQ Investment Management	2,699,650.23	4.18
Lazard Emerging Markets	1,395,776.73	2.16
AMI	-	0.00
Invesco	-	0.00

**Michigan County Road Commission Self-Insurance Pool**  
**Asset Allocation By Manager**  
**As of September 30, 2018**

June 30, 2018 : \$62,468,520



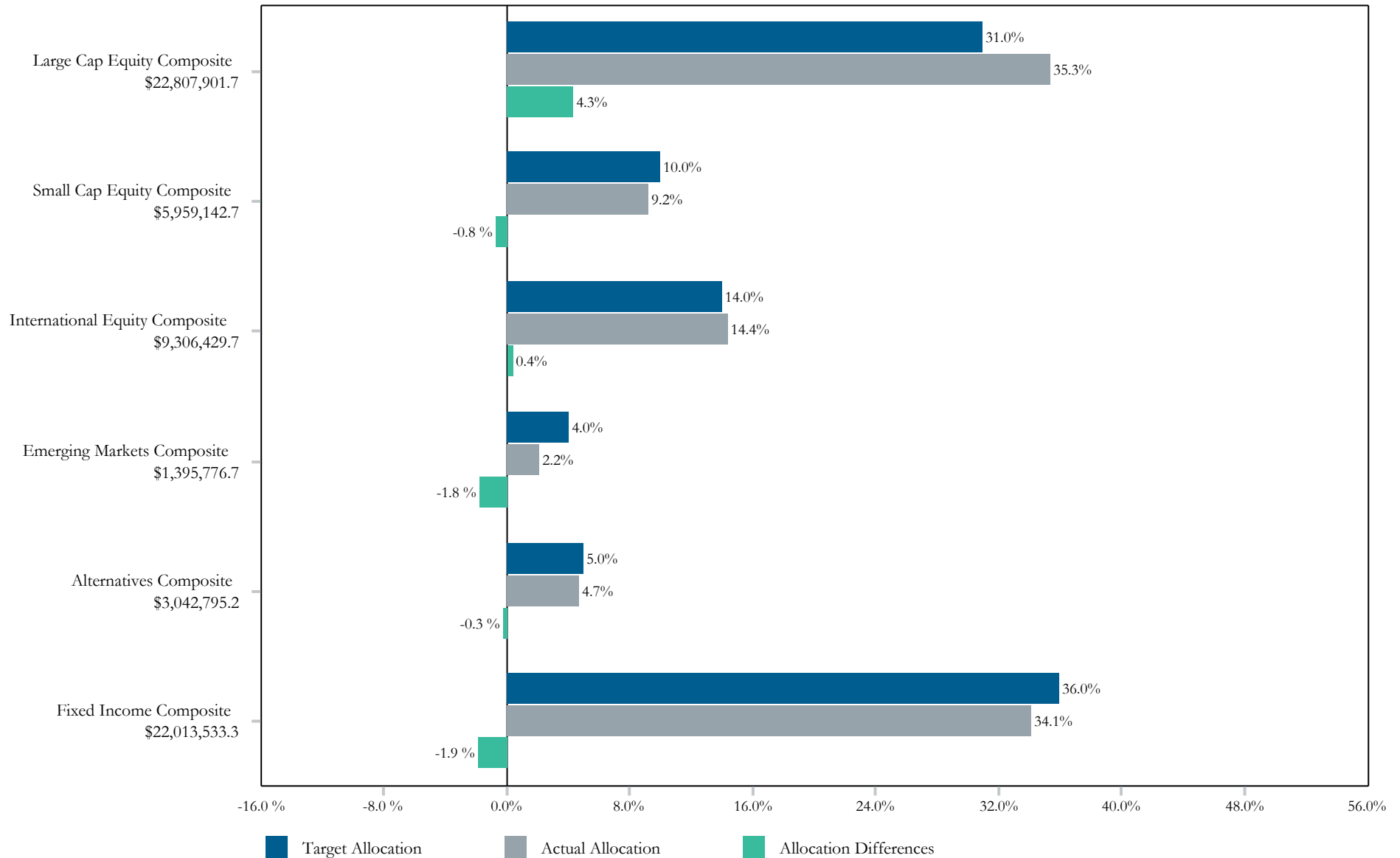
	Market Value (\$)	Allocation (%)
Western Asset - Core Plus -SMASH	11,194,539.22	17.92
Wedge Capital Management	10,812,232.82	17.31
Loomis Sayles/Natixis	5,992,221.63	9.59
Delaware	5,892,369.54	9.43
London Company	5,078,643.02	8.13
Lazard	4,815,652.47	7.71
Invesco	4,404,797.68	7.05
AMI	4,156,582.93	6.65
Cushing MLP	3,028,456.58	4.85
Henderson Geneva	2,926,043.68	4.68
NWQ Investment Management	2,747,080.19	4.40
Lazard Emerging Markets	1,419,900.03	2.27
Clearbridge Large Growth	-	0.00
Clearbridge INTL	-	0.00
Blackrock Strategic Inc Opps Fund	-	0.00

# Michigan County Road Commission Self-Insurance Pool

## Portfolio Asset Allocation Summary

As of September 30, 2018

As of September 30, 2018



# Michigan County Road Commission Self-Insurance Pool

## Portfolio Asset Allocation Summary

As of September 30, 2018

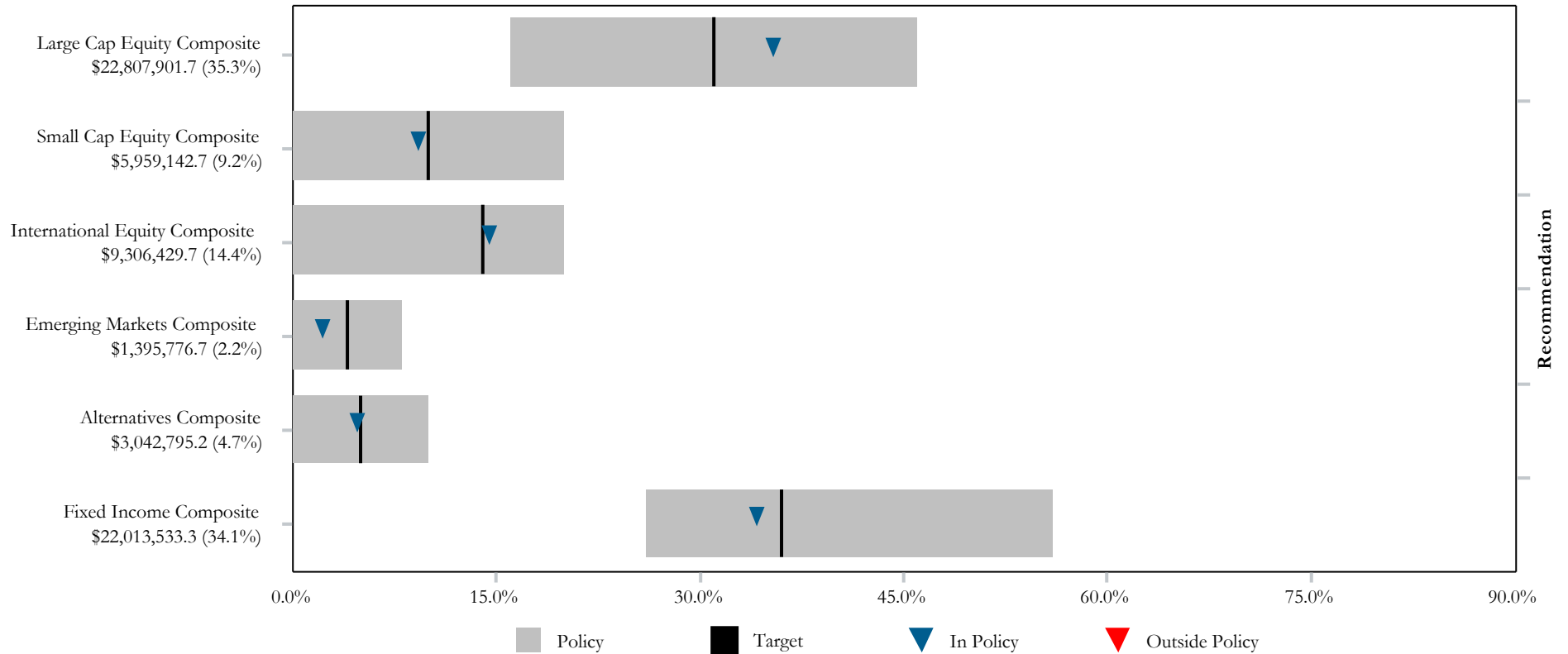
Asset Allocation vs. Target as of September 30, 2018						
	Asset Allocation (\$)	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Differences (%)
<b>Michigan County Road Commissions</b>	<b>64,525,579.33</b>	<b>100.00</b>	-	-	<b>100.00</b>	<b>0.00</b>
<b>Equity Composite</b>	<b>39,469,250.82</b>	<b>61.17</b>	-	-	<b>59.00</b>	<b>2.17</b>
<b>Large Cap Equity Composite</b>	<b>22,807,901.74</b>	<b>35.35</b>	<b>16.00</b>	<b>46.00</b>	<b>31.00</b>	<b>4.35</b>
Loomis Sayles/Natixis	6,400,867.42	9.92	-	-	-	-
London Company	5,571,961.48	8.64	-	-	-	-
Delaware	6,390,479.62	9.90	-	-	-	-
Clearbridge Large Growth	4,444,593.22	6.89	-	-	-	-
<b>Small Cap Equity Composite</b>	<b>5,959,142.65</b>	<b>9.24</b>	<b>0.00</b>	<b>20.00</b>	<b>10.00</b>	<b>-0.76</b>
NWQ Investment Management	2,699,650.23	4.18	-	-	-	-
Henderson Geneva	3,259,492.42	5.05	-	-	-	-
<b>International Equity Composite</b>	<b>9,306,429.70</b>	<b>14.42</b>	<b>0.00</b>	<b>20.00</b>	<b>14.00</b>	<b>0.42</b>
Lazard	4,841,454.39	7.50	-	-	-	-
Clearbridge INTL	4,464,975.31	6.92	-	-	-	-
<b>Emerging Markets Composite</b>	<b>1,395,776.73</b>	<b>2.16</b>	<b>0.00</b>	<b>8.00</b>	<b>4.00</b>	<b>-1.84</b>
Lazard Emerging Markets	1,395,776.73	2.16	-	-	-	-
<b>Alternatives Composite</b>	<b>3,042,795.21</b>	<b>4.72</b>	<b>0.00</b>	<b>10.00</b>	<b>5.00</b>	<b>-0.28</b>
Cushing MLP	3,042,795.21	4.72	-	-	-	-
<b>Fixed Income Composite</b>	<b>22,013,533.30</b>	<b>34.12</b>	<b>26.00</b>	<b>56.00</b>	<b>36.00</b>	<b>-1.88</b>
Western Asset - Core Plus -SMASH	7,353,804.45	11.40	-	-	-	-
Wedge Capital Management	7,314,227.73	11.34	-	-	-	-
Blackrock Strategic Inc Opps Fund	7,345,501.12	11.38	-	-	-	-

# Michigan County Road Commission Self-Insurance Pool

## Compliance Monitor

As of September 30, 2018

### Executive Summary



	Asset Allocation (\$)	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)
Michigan County Road Commissions	64,525,579.33	100.00	-	-	100.00
Large Cap Equity Composite	22,807,901.74	35.35	16.00	46.00	31.00
Small Cap Equity Composite	5,959,142.65	9.24	0.00	20.00	10.00
International Equity Composite	9,306,429.70	14.42	0.00	20.00	14.00
Emerging Markets Composite	1,395,776.73	2.16	0.00	8.00	4.00
Alternatives Composite	3,042,795.21	4.72	0.00	10.00	5.00
Fixed Income Composite	22,013,533.30	34.12	26.00	56.00	36.00



**Michigan County Road Commission Self-Insurance Pool**  
**Annualized Performance Summary**  
**As of September 30, 2018**

	Allocation		Performance(%)												
	Market Value (\$)	%	Current Quarter	FYTD 4/1-9/30	YTD	1 Year	3 Years	5 Years	7 Years	Since Inception	2017	2016	2015	2014	Inception Date
<b>TOTAL POOL</b>															
<b>Composite</b>	<b>64,525,579.33</b>	<b>100.00</b>	<b>3.45</b>	<b>4.41</b>	<b>3.36</b>	<b>6.99</b>	<b>9.24</b>	<b>7.63</b>	<b>9.43</b>	<b>7.97</b>	<b>15.08</b>	<b>5.63</b>	<b>0.93</b>	<b>7.55</b>	<b>03/31/1987</b>
<i>Policy Index</i>			<i>3.22</i>	<i>5.29</i>	<i>3.85</i>	<i>7.41</i>	<i>9.65</i>	<i>7.88</i>	<i>9.99</i>	<i>8.14</i>	<i>14.02</i>	<i>7.72</i>	<i>0.82</i>	<i>7.74</i>	
<i>50% MSCI World Gr / 50% BC Aggregate Bond</i>			<i>2.95</i>	<i>4.76</i>	<i>4.43</i>	<i>7.99</i>	<i>8.56</i>	<i>7.03</i>	<i>8.27</i>	<i>6.89</i>	<i>15.42</i>	<i>3.10</i>	<i>2.26</i>	<i>6.35</i>	
<b>DOMESTIC TAXABLE FIXED INCOME</b>															
<b>Total Pool</b>	<b>22,013,533.30</b>	<b>34.12</b>	<b>0.28</b>	<b>-0.02</b>	<b>-1.57</b>	<b>-1.16</b>	<b>2.47</b>	<b>3.39</b>	<b>2.95</b>	<b>4.54</b>	<b>5.01</b>	<b>4.22</b>	<b>1.12</b>	<b>8.55</b>	<b>11/01/2004</b>
<i>Barclays Aggregate</i>			<i>0.02</i>	<i>-0.14</i>	<i>-1.60</i>	<i>-1.22</i>	<i>1.31</i>	<i>2.16</i>	<i>2.02</i>	<i>3.74</i>	<i>3.54</i>	<i>2.65</i>	<i>0.55</i>	<i>5.97</i>	
Wedge Capital Management	7,314,227.73	11.34	-0.06	-0.31	-1.57	-1.11	1.84			2.62	4.14	3.49	1.05		08/01/2014
<i>Barclays Aggregate</i>			<i>0.02</i>	<i>-0.14</i>	<i>-1.60</i>	<i>-1.22</i>	<i>1.31</i>			<i>1.75</i>	<i>3.54</i>	<i>2.65</i>	<i>0.55</i>		
IM U.S. Broad Market Fixed Income (SA+CF)			93	93	81	83	64			23	60	57	22		
Western Asset	7,353,804.45	11.40	0.22	-0.84	-1.94	-1.59	2.96			2.63	5.87	4.94	1.18		01/01/2015
<i>Barclays Aggregate</i>			<i>0.02</i>	<i>-0.14</i>	<i>-1.60</i>	<i>-1.22</i>	<i>1.31</i>			<i>1.35</i>	<i>3.54</i>	<i>2.65</i>	<i>0.55</i>		
IM U.S. Broad Market Core Fixed Income (SA+CF)			40	100	99	99	7			7	3	9	19		
Blackrock Strategic Inc Opps Fund BSIIX	7,345,501.12	11.38								0.10					08/01/2018
<i>BC Universal</i>										<i>0.06</i>					
IM Alternative Credit Focus (MF)										57					
<b>EQUITY - TOTAL POOL</b>															
<b>Total Pool</b>	<b>39,469,250.82</b>	<b>61.17</b>	<b>5.57</b>	<b>6.32</b>	<b>5.67</b>	<b>11.58</b>	<b>13.40</b>	<b>10.51</b>	<b>14.07</b>	<b>7.66</b>	<b>22.10</b>	<b>6.13</b>	<b>0.79</b>	<b>8.65</b>	<b>11/01/2004</b>
<i>MSCI World Gross</i>			<i>5.10</i>	<i>7.13</i>	<i>5.89</i>	<i>11.84</i>	<i>14.19</i>	<i>9.89</i>	<i>13.12</i>	<i>7.98</i>	<i>23.07</i>	<i>8.15</i>	<i>-0.32</i>	<i>5.51</i>	
<b>DOMESTIC LARGE CAP EQUITY</b>															
<b>Total Pool</b>	<b>22,807,901.74</b>	<b>35.35</b>	<b>8.20</b>	<b>11.11</b>	<b>10.52</b>	<b>17.26</b>	<b>14.90</b>	<b>12.52</b>	<b>15.37</b>	<b>12.92</b>	<b>22.01</b>	<b>5.13</b>	<b>2.29</b>	<b>12.41</b>	<b>11/01/2009</b>
<i>S&amp;P 500 Total Return</i>			<i>7.71</i>	<i>11.41</i>	<i>10.56</i>	<i>17.91</i>	<i>17.31</i>	<i>13.95</i>	<i>16.91</i>	<i>14.67</i>	<i>21.83</i>	<i>11.96</i>	<i>1.38</i>	<i>13.69</i>	

AMI and Invesco were terminated and Clearbridge LG, Clearbridge International, and BlackRock Strategic Income were retained during the quarter. Performance is included in the composite.

As of 8/1/2018 the policy index is comprised of 8% S&P 500, 14% Russell 1000 Growth, 9% Russell 1000 Value, 5% Russell 2000 Growth, 5% Russell 2000 Value, 18% MSCI AC World ex US Net, 5% Alerian MLP, and 36% Barclays Aggregate Bond indices.

Historical performance prior to the transition to Morgan Stanley has been provided by the previous financial services provider.

**Michigan County Road Commission Self-Insurance Pool**  
**Annualized Performance Summary**  
**As of September 30, 2018**

	Allocation		Performance(%)												
	Market Value (\$)	%	Current Quarter	FYTD 4/1-9/30	YTD	1 Year	3 Years	5 Years	7 Years	Since Inception	2017	2016	2015	2014	Inception Date
<b>DOMESTIC LARGE CAP VALUE EQUITY</b>															
Delaware	6,390,479.62	9.90	8.65	11.95	11.19	17.29				16.44	13.96				11/01/2016
<i>Russell 1000 Value</i>			<i>5.70</i>	<i>6.95</i>	<i>3.92</i>	<i>9.45</i>				<i>13.79</i>	<i>13.66</i>				
IM U.S. Large Cap Value Equity (SA+CF)			5	4	5	11				51	87				
<b>DOMESTIC LARGE CAP CORE EQUITY</b>															
London Company	5,571,961.48	8.64	9.91	11.52	8.58	15.11				11.45	14.71				08/01/2016
<i>S&amp;P 500 Total Return</i>			<i>7.71</i>	<i>11.41</i>	<i>10.56</i>	<i>17.91</i>				<i>16.83</i>	<i>21.83</i>				
IM U.S. Large Cap Core Equity (SA+CF)			2	25	67	68				89	93				
<b>DOMESTIC LARGE CAP GROWTH EQUITY</b>															
Loomis Sayles/Natixis	6,400,867.42	9.92	7.07	10.20	11.46	18.69	20.63	17.07		17.26	34.14	6.44	10.78	11.77	03/01/2013
<i>Russell 1000 Growth</i>			<i>9.17</i>	<i>15.46</i>	<i>17.09</i>	<i>26.30</i>	<i>20.55</i>	<i>16.58</i>		<i>17.54</i>	<i>30.21</i>	<i>7.08</i>	<i>5.67</i>	<i>13.05</i>	
IM U.S. Large Cap Growth Equity (SA+CF)			73	84	81	78	21	20		41	14	34	12	54	
Clearbridge	4,444,593.22	6.89								3.33					08/01/2018
<i>Russell 1000 Growth</i>										<i>6.06</i>					
IM U.S. Large Cap Growth Equity (SA+CF)										88					
<b>DOMESTIC SMALL CAP EQUITY</b>															
Small Cap Equity Composite	5,959,142.65	9.24	5.28	12.34	15.19	20.45	19.20	12.85	17.99	8.51	18.77	16.64	-2.35	7.00	11/01/2007
<i>Russell 2000</i>			<i>3.58</i>	<i>11.61</i>	<i>11.51</i>	<i>15.24</i>	<i>17.12</i>	<i>11.07</i>	<i>16.43</i>	<i>8.29</i>	<i>14.65</i>	<i>21.31</i>	<i>-4.41</i>	<i>4.90</i>	
<b>DOMESTIC SMALL CAP VALUE EQUITY</b>															
NWQ Investment Management	2,699,650.23	4.18	-1.48	5.43	4.47	10.67	16.47	11.58	17.40	9.54	14.32	22.44	-2.63	8.24	04/01/2005
<i>Russell 2000 Value</i>			<i>1.61</i>	<i>10.04</i>	<i>7.14</i>	<i>9.33</i>	<i>16.12</i>	<i>9.92</i>	<i>15.26</i>	<i>8.08</i>	<i>7.84</i>	<i>31.74</i>	<i>-7.47</i>	<i>4.22</i>	
IM U.S. Small Cap Value Equity (SA+CF)			95	83	63	39	32	29	26	63	27	71	36	22	
<b>DOMESTIC SMALL CAP GROWTH EQUITY</b>															
Henderson Geneva	3,259,492.42	5.05	11.64	18.76	25.90	29.97				26.71	24.20				08/01/2016
<i>Russell 2000 Growth</i>			<i>5.52</i>	<i>13.16</i>	<i>15.76</i>	<i>21.06</i>				<i>20.63</i>	<i>22.17</i>				
IM U.S. Small Cap Growth Equity (SA+CF)			12	37	27	38				29	48				

AMI and Invesco were terminated and Clearbridge LG, Clearbridge International, and BlackRock Strategic Income were retained during the quarter. Performance is included in the composite.

As of 8/1/2018 the policy index is comprised of 8% S&P 500, 14% Russell 1000 Growth, 9% Russell 1000 Value, 5% Russell 2000 Growth, 5% Russell 2000 Value, 18% MSCI AC World ex US Net, 5% Alerian MLP, and 36% Barclays Aggregate Bond indices.

Historical performance prior to the transition to Morgan Stanley has been provided by the previous financial services provider.

**Michigan County Road Commission Self-Insurance Pool**  
**Annualized Performance Summary**  
**As of September 30, 2018**

	Allocation		Performance(%)												
	Market Value (\$)	%	Current Quarter	FYTD 4/1-9/30	YTD	1 Year	3 Years	5 Years	7 Years	Since Inception	2017	2016	2015	2014	Inception Date
<b>INTERNATIONAL EQUITY</b>															
<b>Total Pool</b>	<b>9,306,429.70</b>	<b>14.42</b>	<b>0.81</b>	<b>-3.22</b>	<b>-3.29</b>	<b>1.70</b>	<b>7.92</b>	<b>3.66</b>	<b>7.50</b>	<b>5.89</b>	<b>26.17</b>	<b>-1.36</b>	<b>-2.71</b>	<b>-4.39</b>	<b>11/01/2009</b>
<i>MSCI AC World ex US Net</i>			<i>0.71</i>	<i>-1.93</i>	<i>-3.09</i>	<i>1.76</i>	<i>9.97</i>	<i>4.12</i>	<i>7.25</i>	<i>5.30</i>	<i>27.19</i>	<i>4.49</i>	<i>-5.66</i>	<i>-3.87</i>	
<b>INTERNATIONAL VALUE EQUITY</b>															
Lazard	4,841,454.39	7.50	0.73	-3.14	-3.04	2.27	8.79	4.40		7.88	28.86	-0.62	-2.79	-4.18	01/01/2012
<i>MSCI AC World ex US Net</i>			<i>0.71</i>	<i>-1.93</i>	<i>-3.09</i>	<i>1.76</i>	<i>9.97</i>	<i>4.12</i>		<i>6.94</i>	<i>27.19</i>	<i>4.49</i>	<i>-5.66</i>	<i>-3.87</i>	
<i>MSCI AC World ex US Value Net</i>			<i>1.72</i>	<i>-2.19</i>	<i>-3.66</i>	<i>0.42</i>	<i>9.30</i>	<i>2.87</i>		<i>5.96</i>	<i>22.66</i>	<i>8.92</i>	<i>-10.06</i>	<i>-5.10</i>	
IM International Equity (SA+CF)			39	55	50	43	79	74		67	58	80	56	67	
Clearbridge	4,464,975.31	6.92								-0.77					08/01/2018
<i>MSCI EAFE Net</i>										<i>-1.08</i>					
<i>MSCI EAFE Gr Net</i>										<i>-0.53</i>					
IM International Equity Developed Markets (SA+CF)										29					
<b>EMERGING MARKETS</b>															
Lazard	1,395,776.73	2.16	-1.50	-16.67	-14.14	-6.64				-3.72					08/01/2017
<i>MSCI EM Net</i>			<i>-1.09</i>	<i>-8.97</i>	<i>-7.68</i>	<i>-0.81</i>				<i>0.86</i>					
<i>MSCI EM VL Net</i>			<i>3.44</i>	<i>-5.81</i>	<i>-4.28</i>	<i>2.26</i>				<i>2.10</i>					
IM Emerging Markets Equity (SA+CF)			41	96	93	87				86					
<b>ALTERNATIVES</b>															
<b>Total Pool</b>	<b>3,042,795.21</b>	<b>4.72</b>	<b>0.68</b>	<b>14.90</b>	<b>1.23</b>	<b>3.30</b>				<b>1.13</b>					<b>08/01/2017</b>
<i>Alerian MLP Index</i>			<i>6.57</i>	<i>19.15</i>	<i>5.90</i>	<i>4.89</i>				<i>0.34</i>					
Cushing MLP	3,042,795.21	4.72	0.68	14.91	1.24	3.31				1.13					08/01/2017
<i>Alerian MLP Index</i>			<i>6.57</i>	<i>19.15</i>	<i>5.90</i>	<i>4.89</i>				<i>0.34</i>					
IM U.S. Other Equity (SA+CF)			88	25	83	81				87					

AMI and Invesco were terminated and Clearbridge LG, Clearbridge International, and BlackRock Strategic Income were retained during the quarter. Performance is included in the composite.

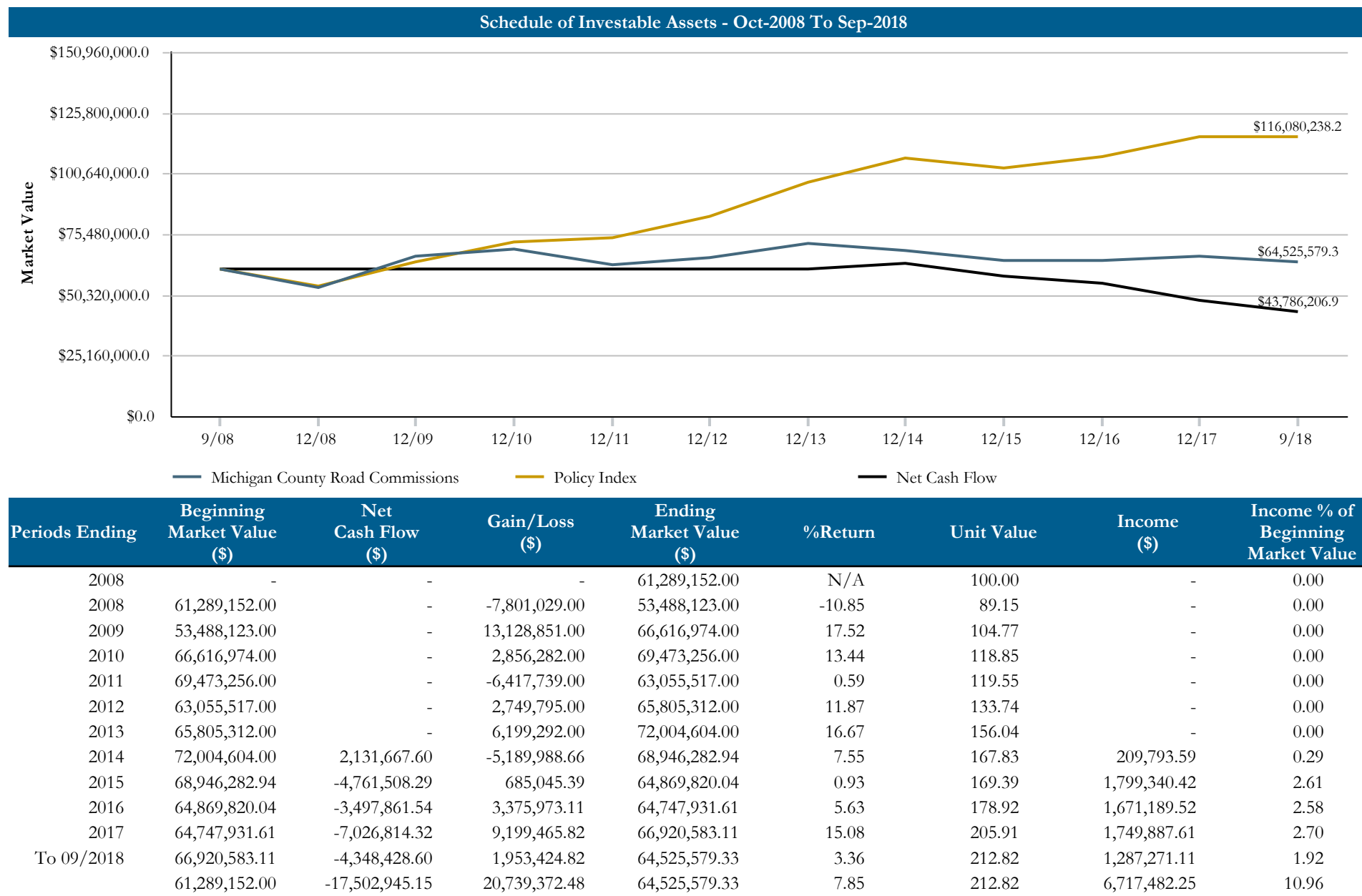
As of 8/1/2018 the policy index is comprised of 8% S&P 500, 14% Russell 1000 Growth, 9% Russell 1000 Value, 5% Russell 2000 Growth, 5% Russell 2000 Value, 18% MSCI AC World ex US Net, 5% Alerian MLP, and 36% Barclays Aggregate Bond indices.

Historical performance prior to the transition to Morgan Stanley has been provided by the previous financial services provider.

# Michigan County Road Commission Self-Insurance Pool

## Michigan County Road Commissions vs. Policy Index

October 1, 2008 To September 30, 2018

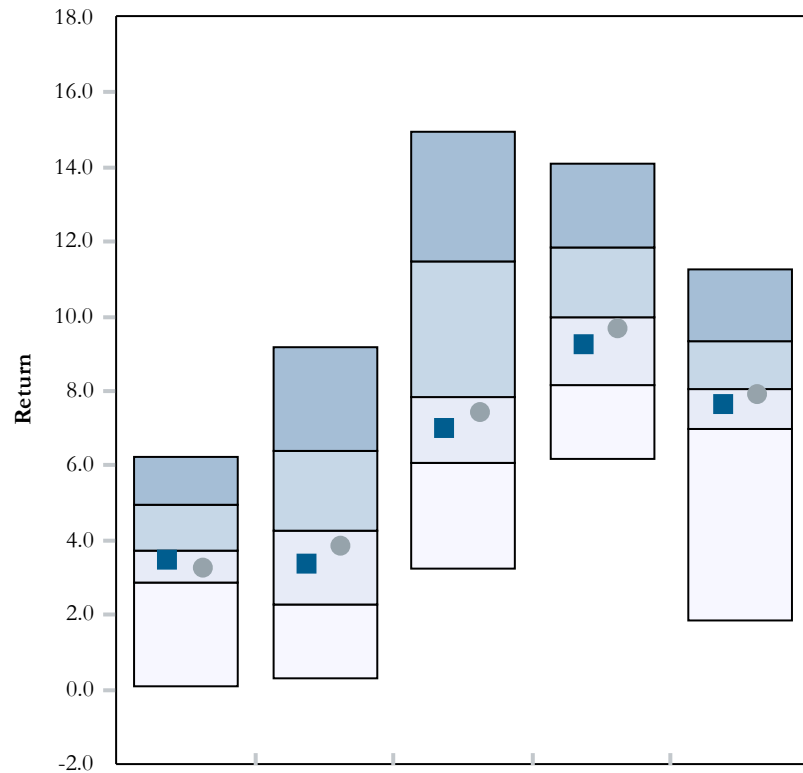


# Michigan County Road Commission Self-Insurance Pool

## Michigan County Road Commissions vs. Policy Index

As of September 30, 2018

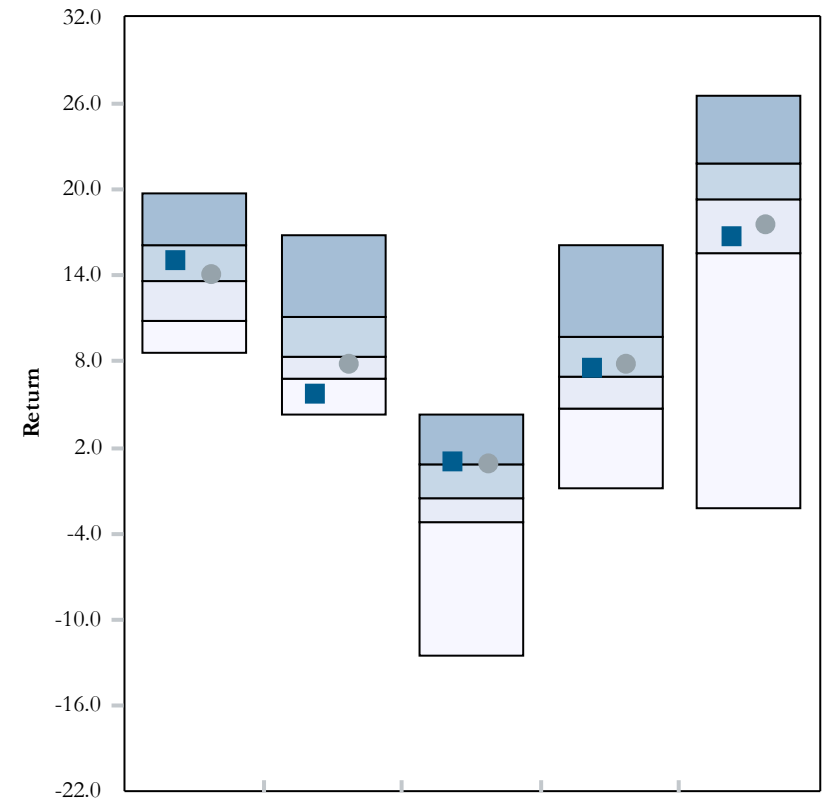
Peer Group: IM U.S. Balanced (SA+CF)



	1 Quarter	YTD	1 Year	3 Years	5 Years
Fund	3.45 (60)	3.36 (67)	6.99 (61)	9.24 (62)	7.63 (59)
Benchmark	3.22 (68)	3.85 (60)	7.41 (58)	9.65 (58)	7.88 (56)

5th Percentile	6.26	9.19	14.96	14.12	11.25
1st Quartile	4.96	6.40	11.46	11.85	9.34
Median	3.74	4.24	7.84	10.00	8.08
3rd Quartile	2.88	2.29	6.09	8.18	6.99
95th Percentile	0.10	0.33	3.24	6.16	1.84

Population	57	57	57	57	50
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	2017	2016	2015	2014	2013
Fund	15.08 (37)	5.63 (86)	0.93 (25)	7.55 (43)	16.67 (71)
Benchmark	14.02 (41)	7.72 (59)	0.82 (25)	7.74 (41)	17.56 (65)

5th Percentile	19.81	16.83	4.26	16.19	26.53
1st Quartile	16.07	11.16	0.81	9.72	21.87
Median	13.69	8.33	-1.51	6.97	19.28
3rd Quartile	10.84	6.74	-3.23	4.71	15.63
95th Percentile	8.58	4.34	-12.48	-0.81	-2.30

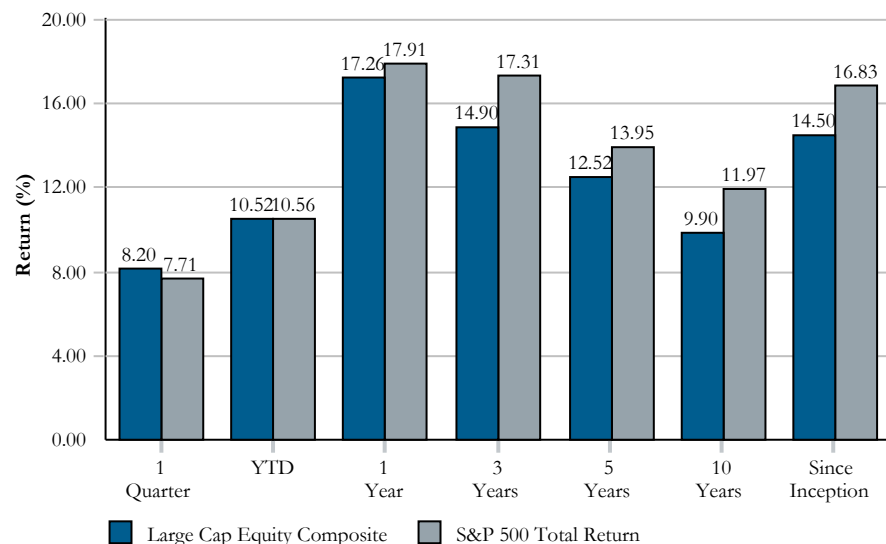
Population	61	68	88	86	90
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# Michigan County Road Commission Self-Insurance Pool

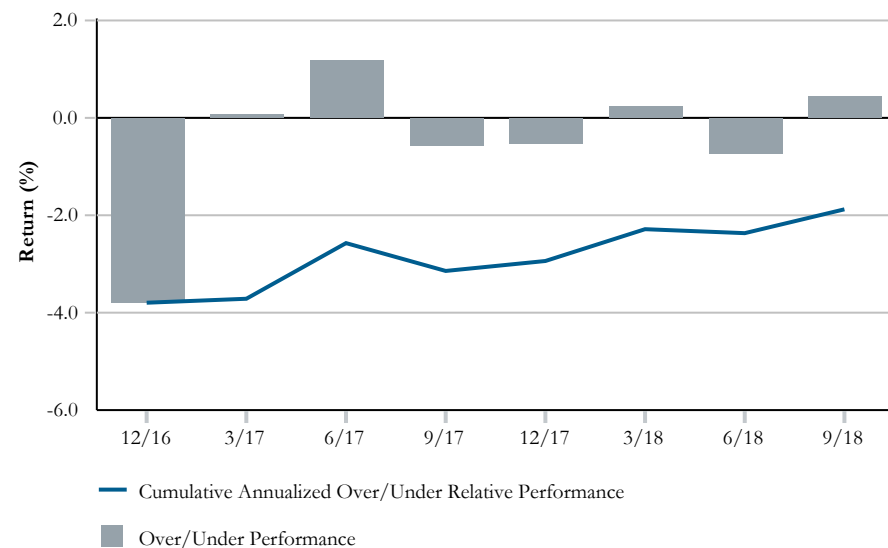
## Large Cap Equity Composite Performance Summary

As of September 30, 2018

### Trailing Performance Returns (%)



### Manager Over/Under Performance



### Calendar Year Returns (%)

	2017	2016	2015	2014	2013
Fund	22.01	5.13	2.29	12.41	31.80
Benchmark	21.83	11.96	1.38	13.69	32.39

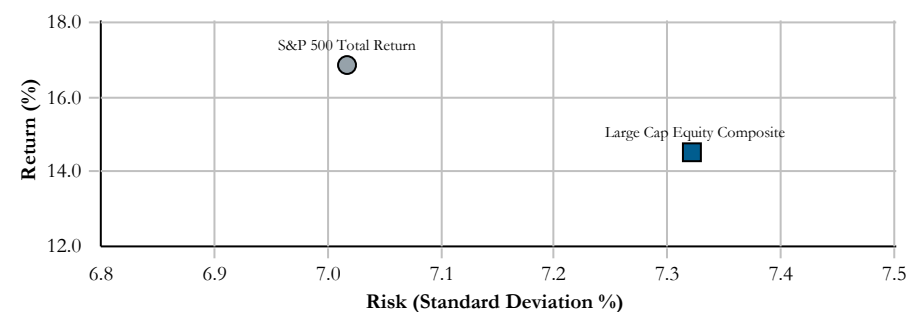
### Portfolio Characteristics

	Return	Standard Deviation	Beta	Jensen Alpha	R-Squared	Inception Date
Fund	14.50	7.32	1.00	-2.04	0.93	08/01/2016
Benchmark	10.02	14.64	1.00	N/A	1.00	01/01/1962

### Asset Growth (\$000)

	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Large Cap Equity Composite							08/01/2016
Beginning Market Value	21,120	22,126	21,664	26,227	-	28,523	
Net Contributions	-42	-1,480	-2,303	-13,761	-	-12,685	
Income	99	311	418	1,441	-	1,006	
Gain/Loss	1,631	1,850	3,029	8,901	-	5,964	
Ending Market Value	22,808	22,808	22,808	22,808	-	22,808	

### Risk / Return

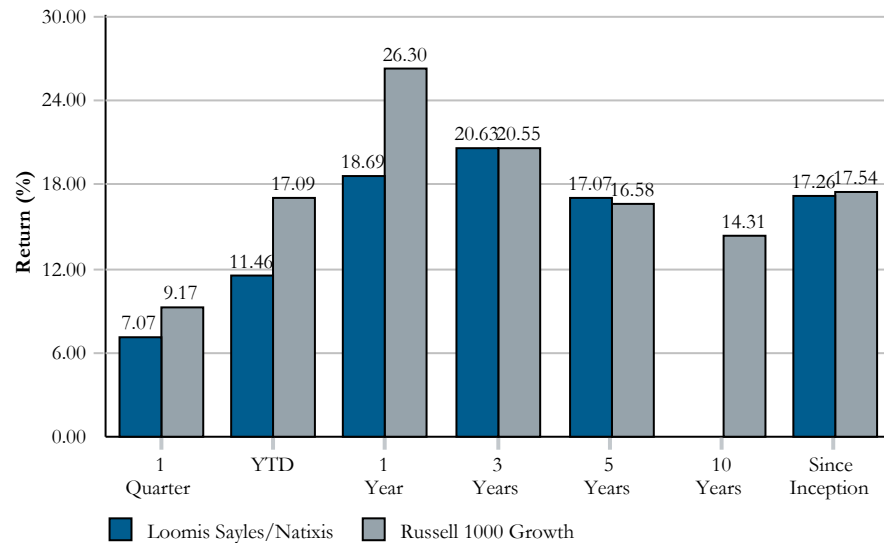


# Michigan County Road Commission Self-Insurance Pool

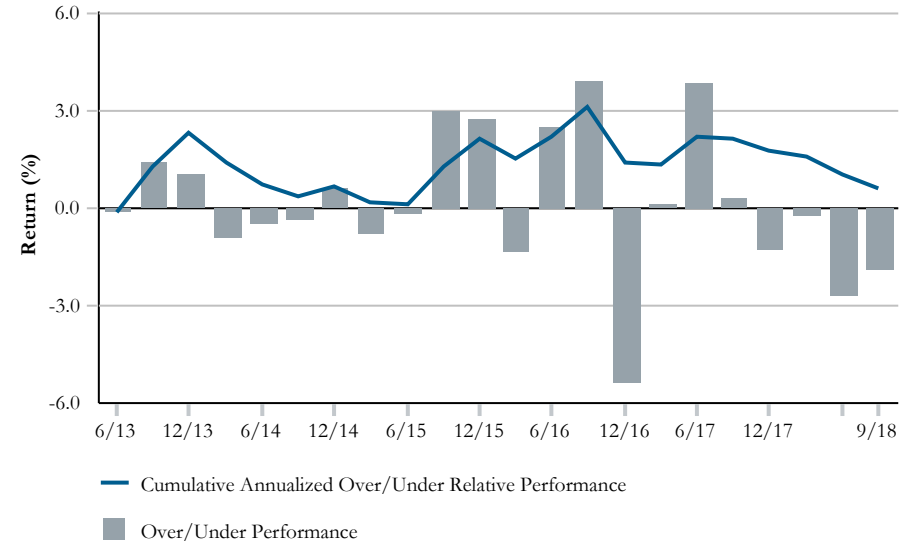
## Loomis Sayles/Natixis Performance Summary

### As of September 30, 2018

Trailing Performance Returns (%)



Manager Over/Under Performance



Calendar Year Returns (%)

	2017	2016	2015	2014	2013
Fund	34.14	6.44	10.78	11.77	N/A
Benchmark	30.21	7.08	5.67	13.05	33.48

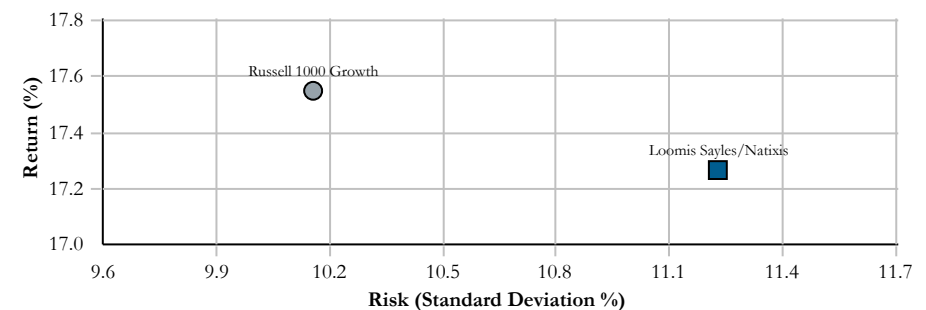
Portfolio Characteristics

	Return	Standard Deviation	Beta	Jensen Alpha	R-Squared	Inception Date
Fund	17.26	11.23	1.03	-0.62	0.87	03/01/2013
Benchmark	17.54	10.16	1.00	0.00	1.00	03/01/2013

Asset Growth (\$000)

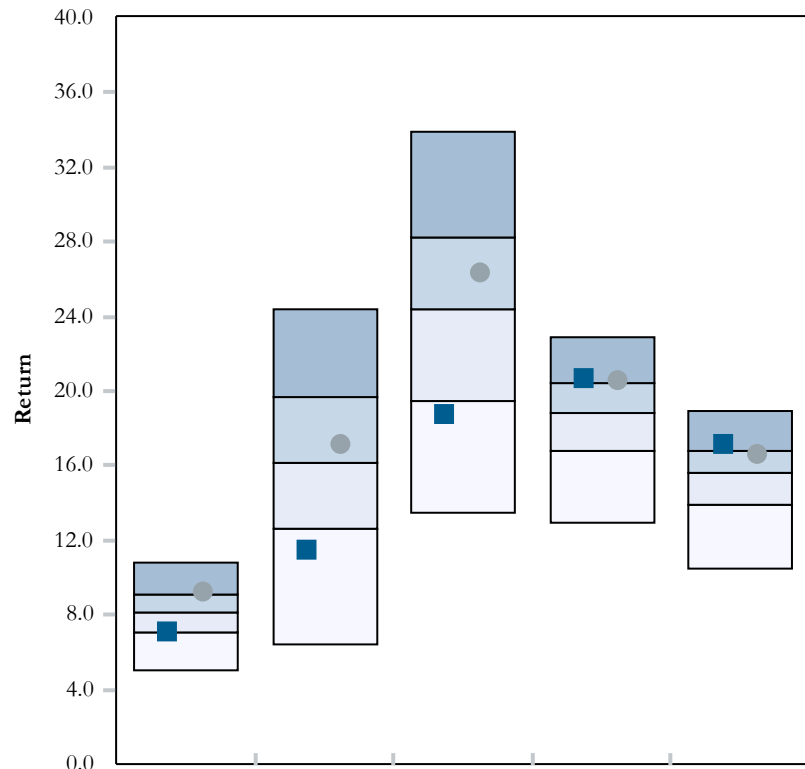
	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Loomis Sayles/Natixis							03/01/2013
Beginning Market Value	5,992	6,168	5,978	7,260	-	-	
Net Contributions	-15	-434	-626	-4,848	-	-	
Income	17	57	74	287	-	-	
Gain/Loss	407	610	975	3,703	-	-	
Ending Market Value	6,401	6,401	6,401	6,401	-	-	

Risk / Return



**Michigan County Road Commission Self-Insurance Pool**  
**Loomis Sayles/Natixis vs. Russell 1000 Gr**  
**As of September 30, 2018**

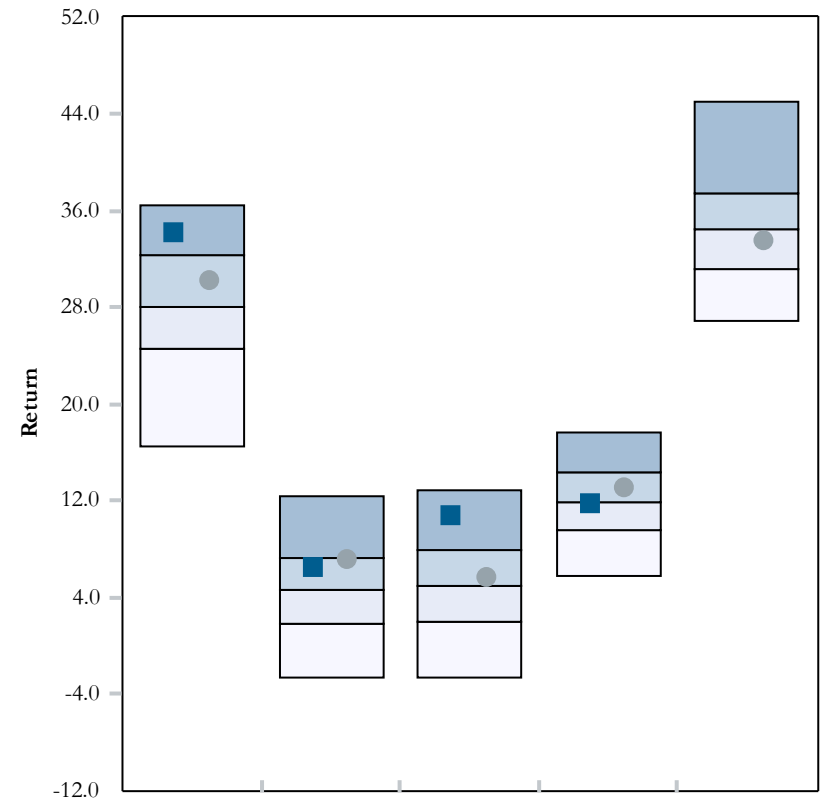
Peer Group: IM U.S. Large Cap Growth Equity (SA+CF)



■ Fund	7.07 (73)	11.46 (81)	18.69 (78)	20.63 (21)	17.07 (20)
● Benchmark	9.17 (23)	17.09 (45)	26.30 (36)	20.55 (22)	16.58 (32)

5th Percentile	10.77	24.35	33.88	22.93	18.91
1st Quartile	9.05	19.66	28.21	20.47	16.83
Median	8.17	16.17	24.42	18.85	15.59
3rd Quartile	7.02	12.60	19.49	16.83	13.95
95th Percentile	4.99	6.38	13.45	12.91	10.49

Population	273	272	270	259	251
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■ Fund	34.14 (14)	6.44 (34)	10.78 (12)	11.77 (54)	N/A
● Benchmark	30.21 (38)	7.08 (26)	5.67 (45)	13.05 (39)	33.48 (59)

5th Percentile	36.55	12.44	12.96	17.67	45.10
1st Quartile	32.31	7.23	8.04	14.37	37.44
Median	28.11	4.65	5.02	11.91	34.52
3rd Quartile	24.65	1.80	2.01	9.63	31.24
95th Percentile	16.48	-2.63	-2.63	5.89	26.93

Population	283	308	336	347	353
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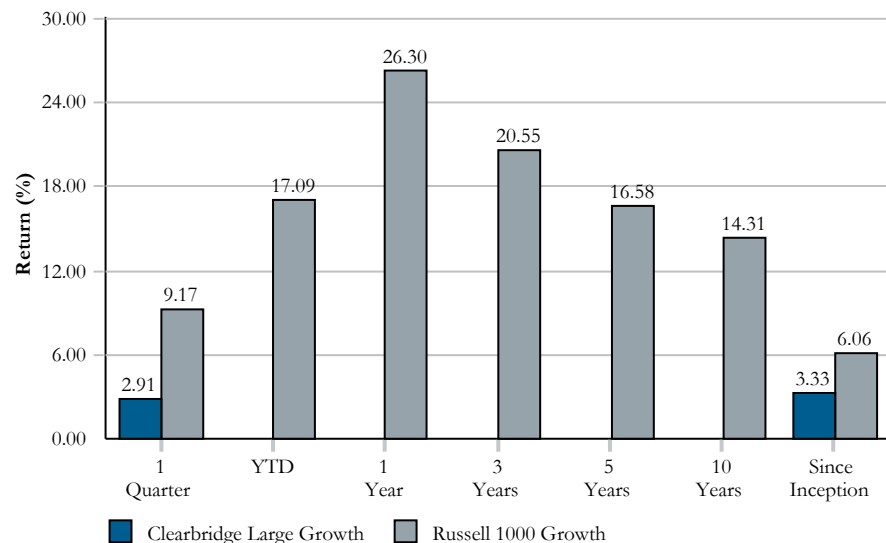


# Michigan County Road Commission Self-Insurance Pool

## Clearbridge Large Growth Performance Summary

### As of September 30, 2018

#### Trailing Performance Returns (%)



#### Manager Over/Under Performance

No data found.

#### Calendar Year Returns (%)

	2017	2016	2015	2014	2013
Fund	N/A	N/A	N/A	N/A	N/A
Benchmark	30.21	7.08	5.67	13.05	33.48

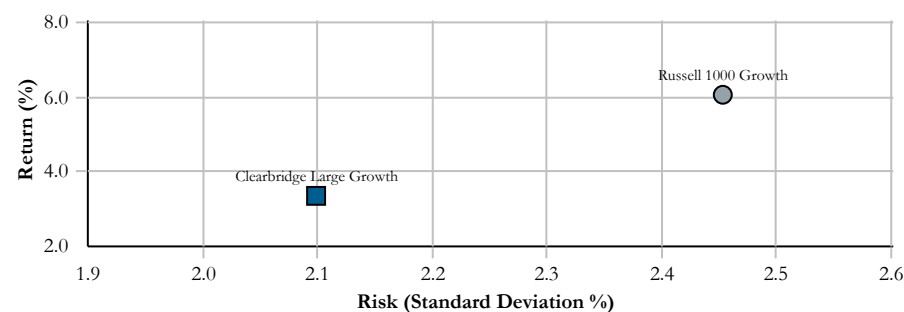
#### Portfolio Characteristics

	Return	Standard Deviation	Beta	Jensen Alpha	R-Squared	Inception Date
Fund	3.33	2.10	0.86	-0.93	1.00	08/01/2018
Benchmark	6.06	2.45	1.00	0.00	1.00	08/01/2018

#### Asset Growth (\$000)

	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Clearbridge Large Growth							08/01/2018
Beginning Market Value	4,339	-	-	-	-	4,309	
Net Contributions	-20	-	-	-	-	-7	
Income	7	-	-	-	-	7	
Gain/Loss	118	-	-	-	-	136	
Ending Market Value	4,445	-	-	-	-	4,445	

#### Risk / Return

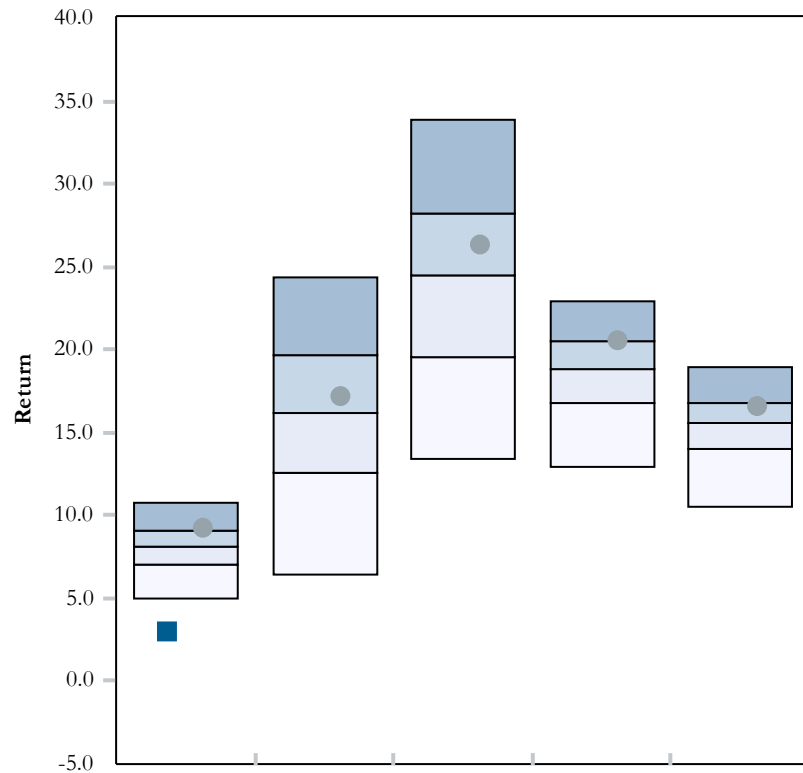


# Michigan County Road Commission Self-Insurance Pool

## Clearbridge Large Growth vs. Russell 1000 Growth

As of September 30, 2018

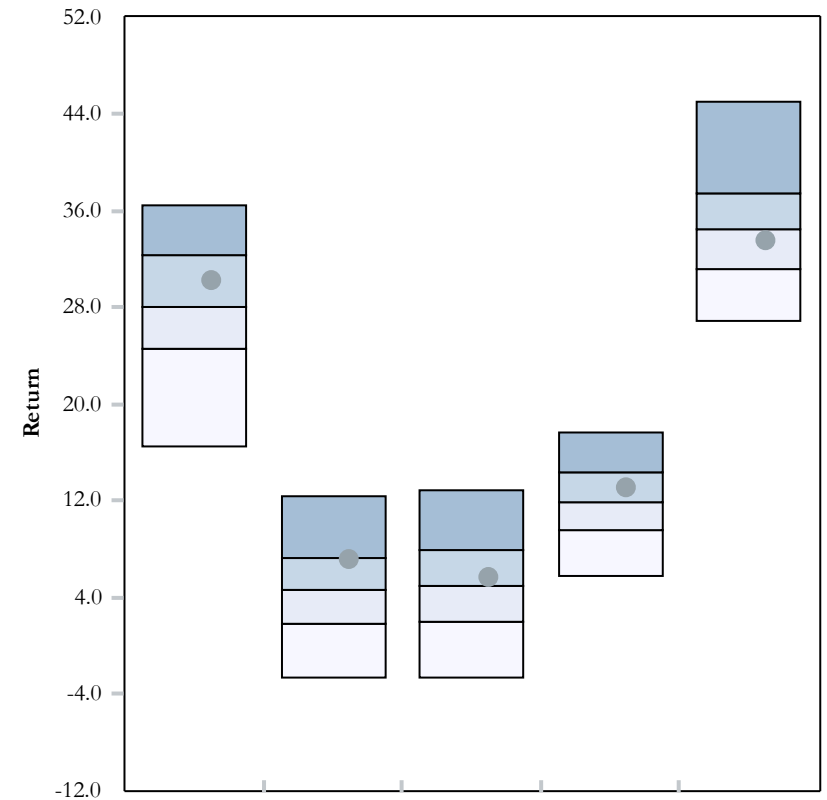
### Peer Group: IM U.S. Large Cap Growth Equity (SA+CF)



	1 Quarter	YTD	1 Year	3 Years	5 Years
■ Fund	2.91 (100)	N/A	N/A	N/A	N/A
● Benchmark	9.17 (23)	17.09 (45)	26.30 (36)	20.55 (22)	16.58 (32)

5th Percentile	10.77	24.35	33.88	22.93	18.91
1st Quartile	9.05	19.66	28.21	20.47	16.83
Median	8.17	16.17	24.42	18.85	15.59
3rd Quartile	7.02	12.60	19.49	16.83	13.95
95th Percentile	4.99	6.38	13.45	12.91	10.49

Population	273	272	270	259	251
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	2017	2016	2015	2014	2013
■ Fund	N/A	N/A	N/A	N/A	N/A
● Benchmark	30.21 (38)	7.08 (26)	5.67 (45)	13.05 (39)	33.48 (59)

5th Percentile	36.55	12.44	12.96	17.67	45.10
1st Quartile	32.31	7.23	8.04	14.37	37.44
Median	28.11	4.65	5.02	11.91	34.52
3rd Quartile	24.65	1.80	2.01	9.63	31.24
95th Percentile	16.48	-2.63	-2.63	5.89	26.93

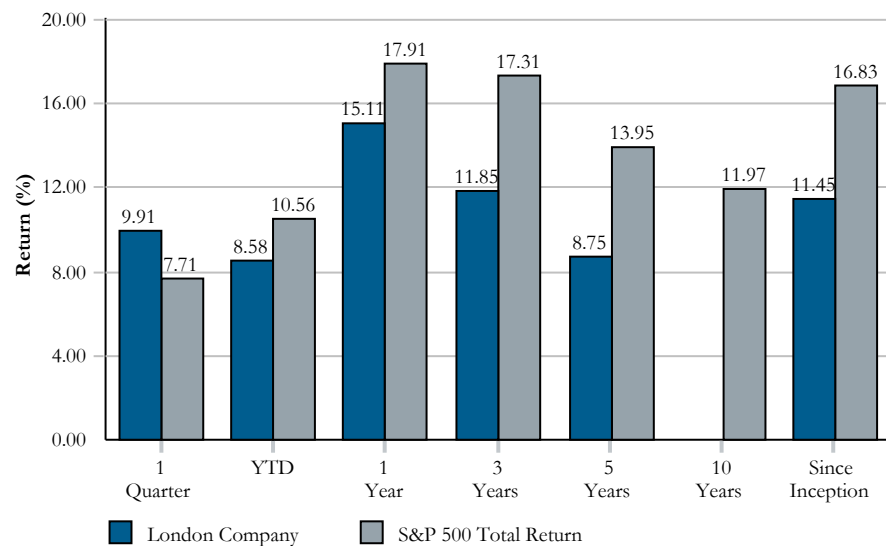
Population	283	308	336	347	353
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# Michigan County Road Commission Self-Insurance Pool

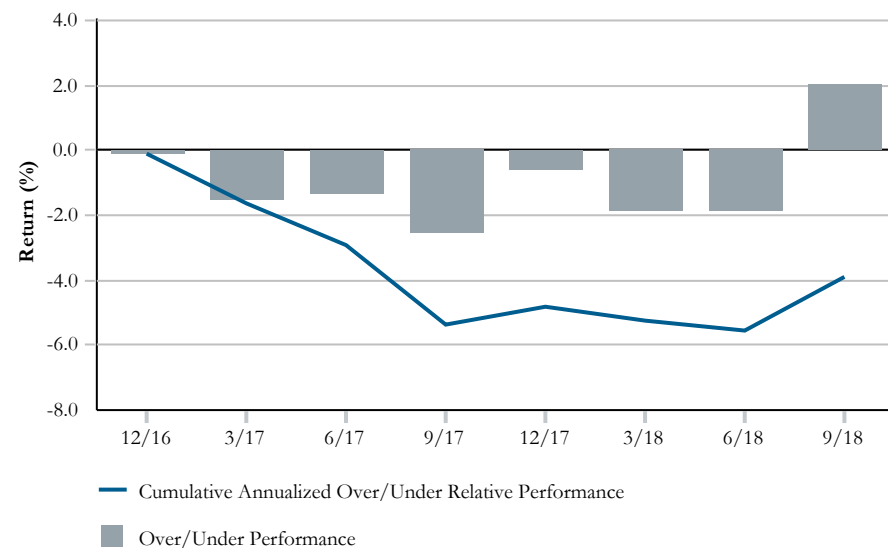
## London Company Performance Summary

As of September 30, 2018

### Trailing Performance Returns (%)



### Manager Over/Under Performance



### Calendar Year Returns (%)

	2017	2016	2015	2014	2013
Fund	14.71	6.51	-2.78	8.38	N/A
Benchmark	21.83	11.96	1.38	13.69	32.39

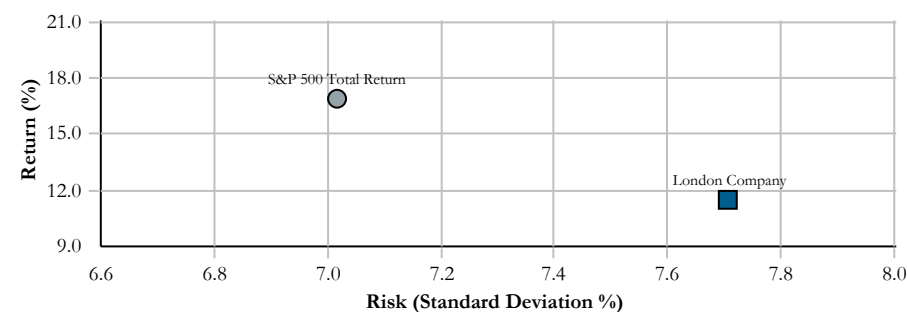
### Portfolio Characteristics

	Return	Standard Deviation	Beta	Jensen Alpha	R-Squared	Inception Date
Fund	11.45	7.71	1.01	-4.68	0.84	08/01/2016
Benchmark	16.83	7.02	1.00	0.00	1.00	08/01/2016

### Asset Growth (\$000)

	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
London Company							08/01/2016
Beginning Market Value	5,079	5,499	5,397	6,014	-	6,441	
Net Contributions	-10	-356	-567	-2,411	-	-2,205	
Income	36	110	153	489	-	360	
Gain/Loss	467	319	589	1,480	-	976	
Ending Market Value	5,572	5,572	5,572	5,572	-	5,572	

### Risk / Return

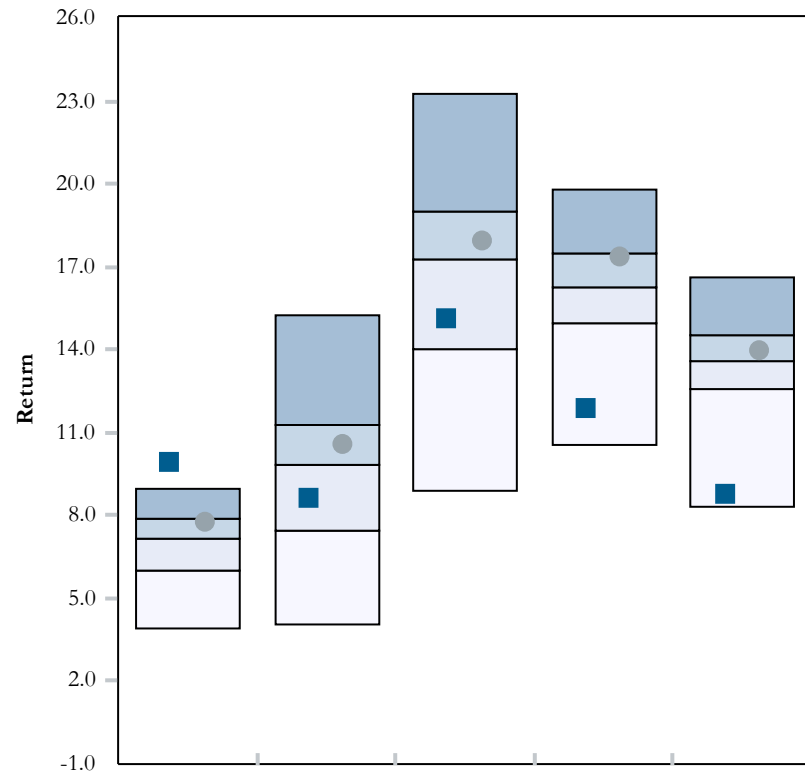


# Michigan County Road Commission Self-Insurance Pool

## London Company vs. S&P 500 Total Return

As of September 30, 2018

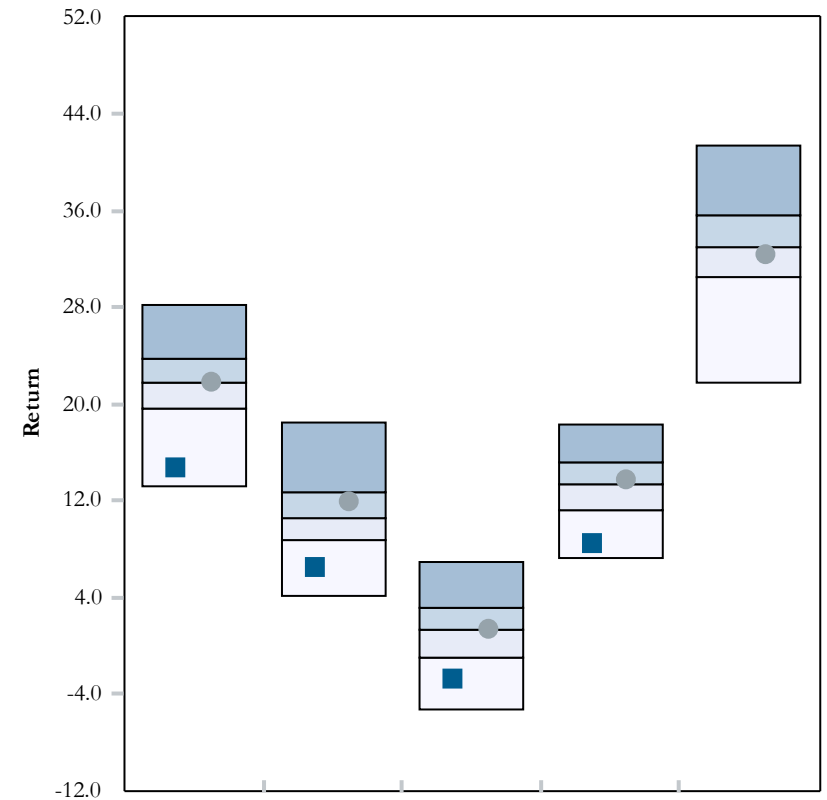
Peer Group: IM U.S. Large Cap Core Equity (SA+CF)



	1 Quarter	YTD	1 Year	3 Years	5 Years
Fund	9.91 (2)	8.58 (67)	15.11 (68)	11.85 (94)	8.75 (94)
Benchmark	7.71 (34)	10.56 (37)	17.91 (39)	17.31 (30)	13.95 (41)

5th Percentile	8.96	15.23	23.26	19.82	16.60
1st Quartile	7.89	11.29	18.99	17.49	14.50
Median	7.13	9.83	17.25	16.23	13.55
3rd Quartile	5.98	7.41	14.01	14.97	12.56
95th Percentile	3.92	4.04	8.87	10.57	8.30

Population	257	257	257	251	242
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	2017	2016	2015	2014	2013
Fund	14.71 (93)	6.51 (87)	-2.78 (86)	8.38 (93)	N/A
Benchmark	21.83 (50)	11.96 (34)	1.38 (51)	13.69 (44)	32.39 (59)

5th Percentile	28.17	18.44	6.90	18.33	41.43
1st Quartile	23.84	12.67	3.23	15.19	35.70
Median	21.82	10.52	1.41	13.42	32.98
3rd Quartile	19.73	8.74	-0.91	11.32	30.63
95th Percentile	13.21	4.14	-5.28	7.31	21.85

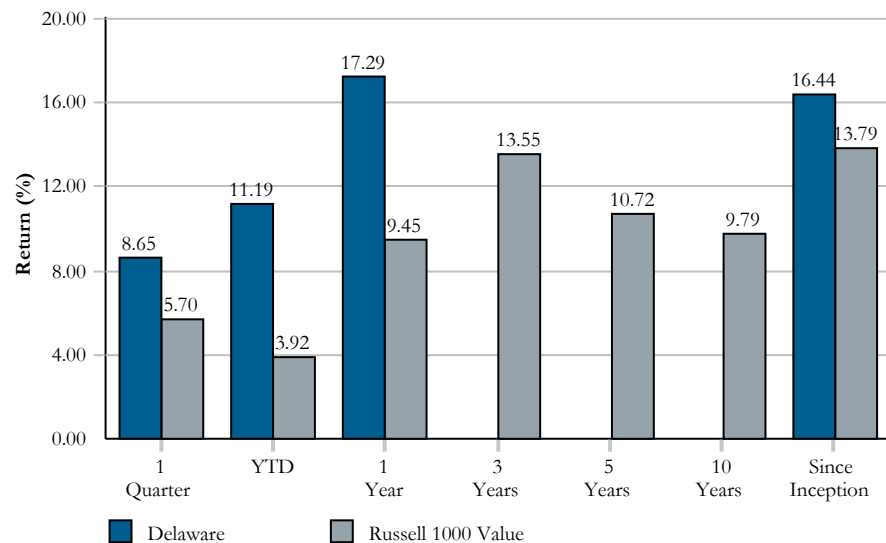
Population	281	305	323	343	361
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# Michigan County Road Commission Self-Insurance Pool

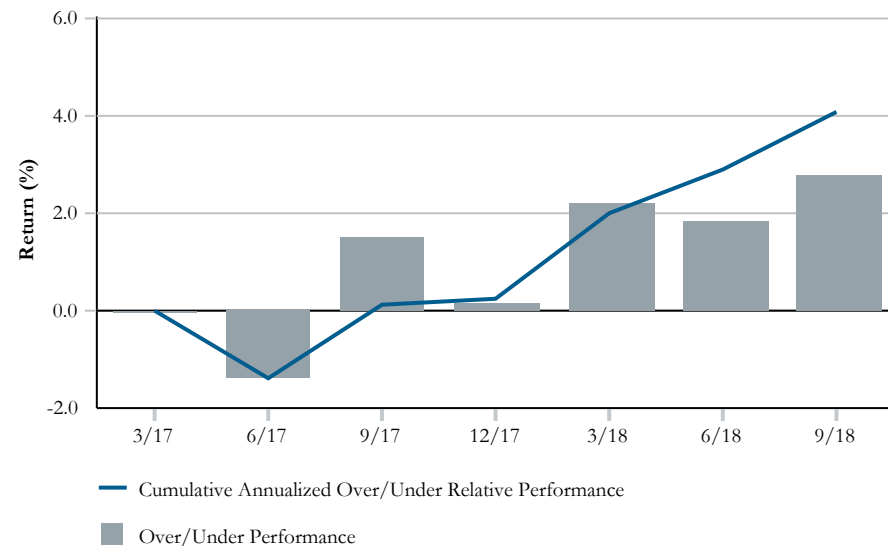
## Delaware Performance Summary

### As of September 30, 2018

Trailing Performance Returns (%)



Manager Over/Under Performance



Calendar Year Returns (%)

	2017	2016	2015	2014	2013
Fund	13.96	N/A	N/A	N/A	N/A
Benchmark	13.66	17.34	-3.83	13.45	32.53

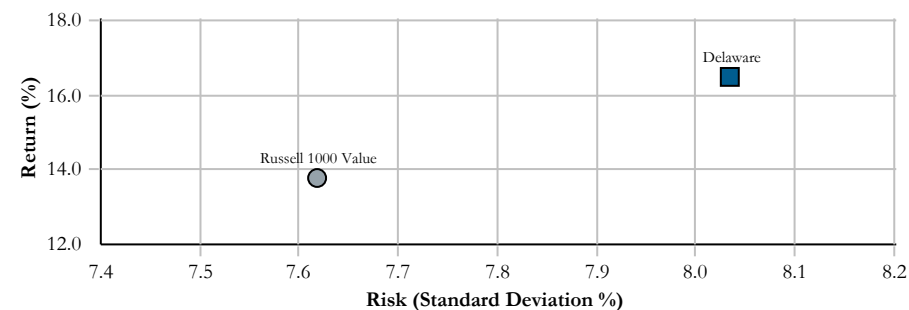
Portfolio Characteristics

	Return	Standard Deviation	Beta	Jensen Alpha	R-Squared	Inception Date
Fund	16.44	8.04	0.96	3.02	0.82	11/01/2016
Benchmark	13.74	7.62	1.00	0.00	1.00	11/01/2016

Asset Growth (\$000)

	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Delaware							11/01/2016
Beginning Market Value	5,892	6,155	6,071	-	-	6,667	
Net Contributions	-11	-404	-640	-	-	-2,108	
Income	37	111	147	-	-	293	
Gain/Loss	473	528	813	-	-	1,538	
Ending Market Value	6,390	6,390	6,390	-	-	6,390	

Risk / Return

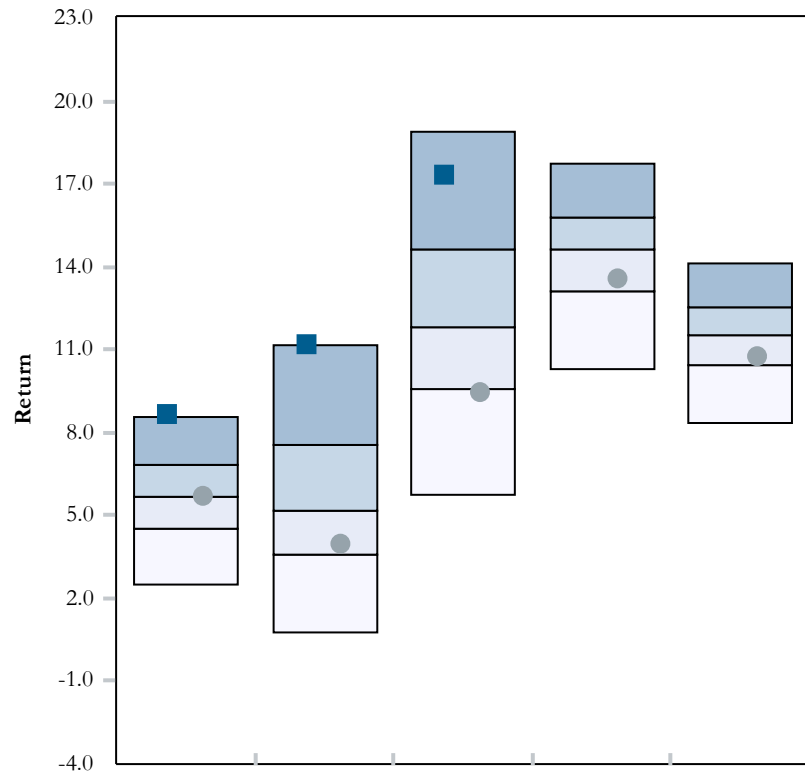


# Michigan County Road Commission Self-Insurance Pool

## Delaware vs. Russell 1000 VL

### As of September 30, 2018

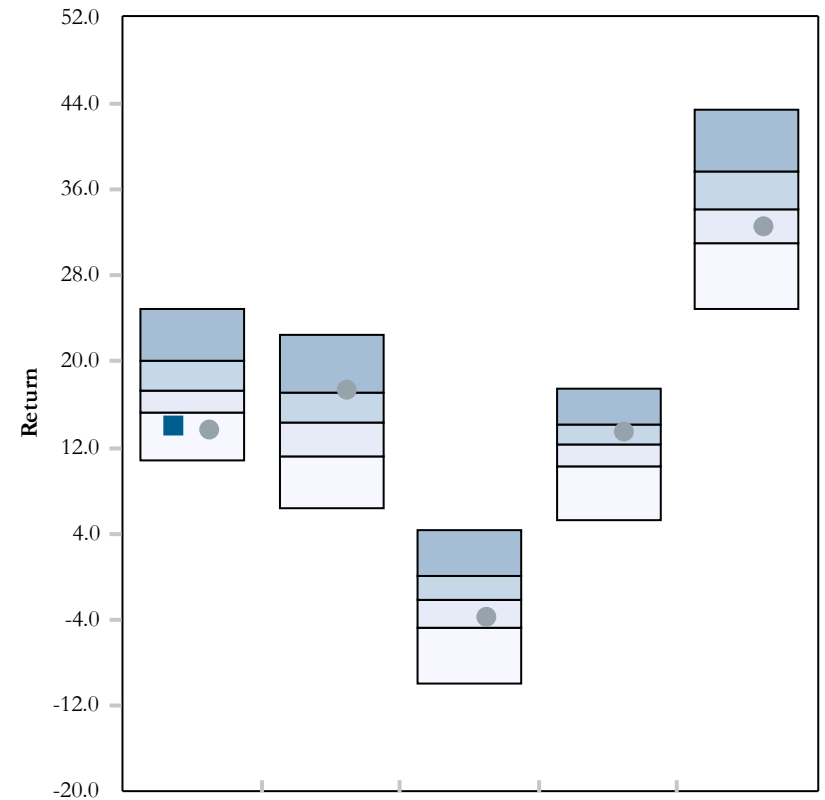
Peer Group: IM U.S. Large Cap Value Equity (SA+CF)



	1 Quarter	YTD	1 Year	3 Years	5 Years
Fund	8.65 (5)	11.19 (5)	17.29 (11)	N/A	N/A
Benchmark	5.70 (49)	3.92 (70)	9.45 (77)	13.55 (71)	10.72 (71)

5th Percentile	8.57	11.13	18.90	17.72	14.15
1st Quartile	6.81	7.55	14.62	15.78	12.57
Median	5.65	5.14	11.82	14.61	11.55
3rd Quartile	4.51	3.55	9.54	13.08	10.42
95th Percentile	2.47	0.75	5.72	10.30	8.37

Population	317	317	317	312	303
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	2017	2016	2015	2014	2013
Fund	13.96 (87)	N/A	N/A	N/A	N/A
Benchmark	13.66 (89)	17.34 (25)	-3.83 (70)	13.45 (35)	32.53 (62)

5th Percentile	24.95	22.43	4.36	17.49	43.54
1st Quartile	20.00	17.15	0.12	14.08	37.72
Median	17.22	14.35	-2.22	12.24	34.26
3rd Quartile	15.18	11.13	-4.73	10.32	31.08
95th Percentile	10.80	6.36	-9.89	5.18	24.82

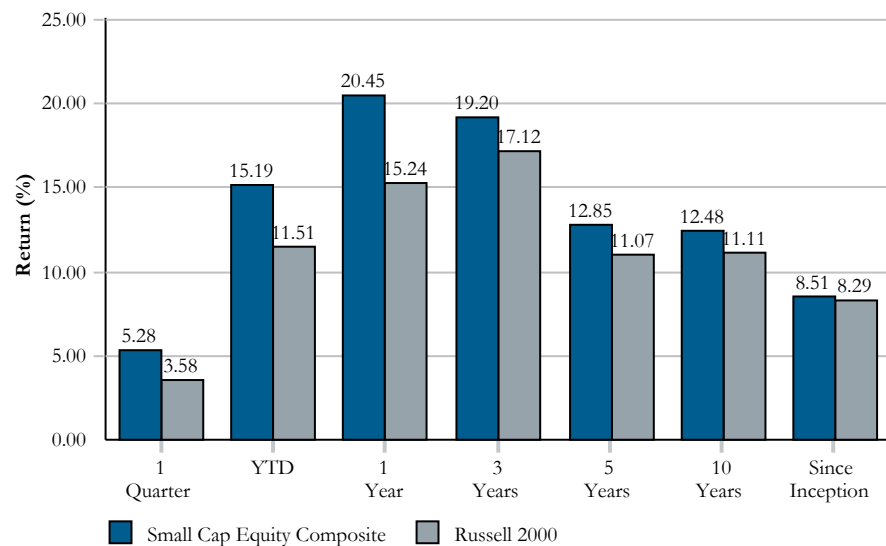
Population	340	368	386	410	409
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# Michigan County Road Commission Self-Insurance Pool

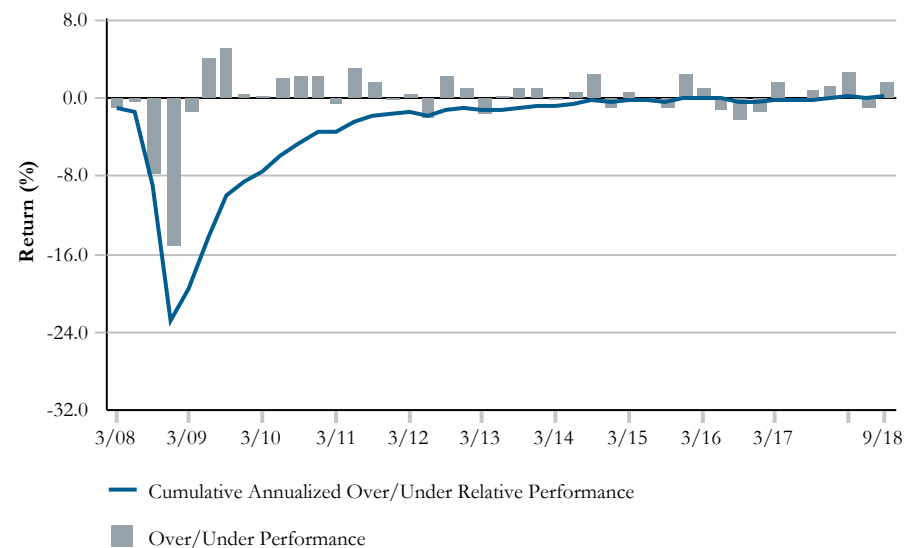
## Small Cap Equity Composite Performance Summary

### As of September 30, 2018

Trailing Performance Returns (%)



Manager Over/Under Performance



Calendar Year Returns (%)

	2017	2016	2015	2014	2013
Fund	18.77	16.64	-2.35	7.00	40.01
Benchmark	14.65	21.31	-4.41	4.90	38.82

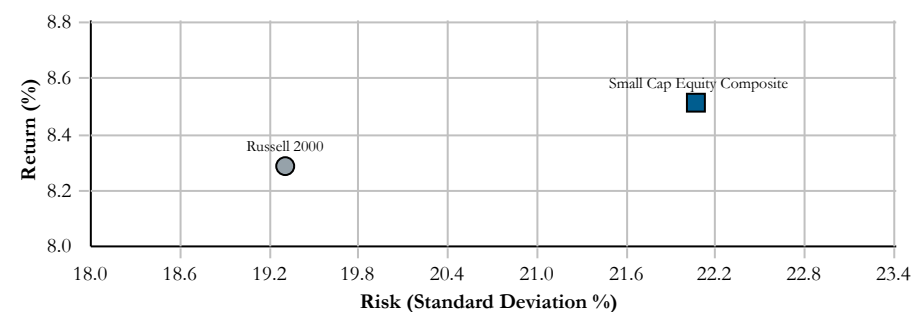
Portfolio Characteristics

	Return	Standard Deviation	Beta	Jensen Alpha	R-Squared	Inception Date
Fund	8.51	22.07	1.11	-0.12	0.94	11/01/2007
Benchmark	11.80	19.10	1.00	0.00	1.00	01/01/1979

Asset Growth (\$000)

	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Small Cap Equity Composite							11/01/2007
Beginning Market Value	5,673	5,544	5,560	6,147	-	-	
Net Contributions	-13	-384	-646	-3,451	-	-	
Income	11	30	38	143	-	-	
Gain/Loss	289	769	1,007	3,121	-	-	
Ending Market Value	5,959	5,959	5,959	5,959	-	-	

Risk / Return

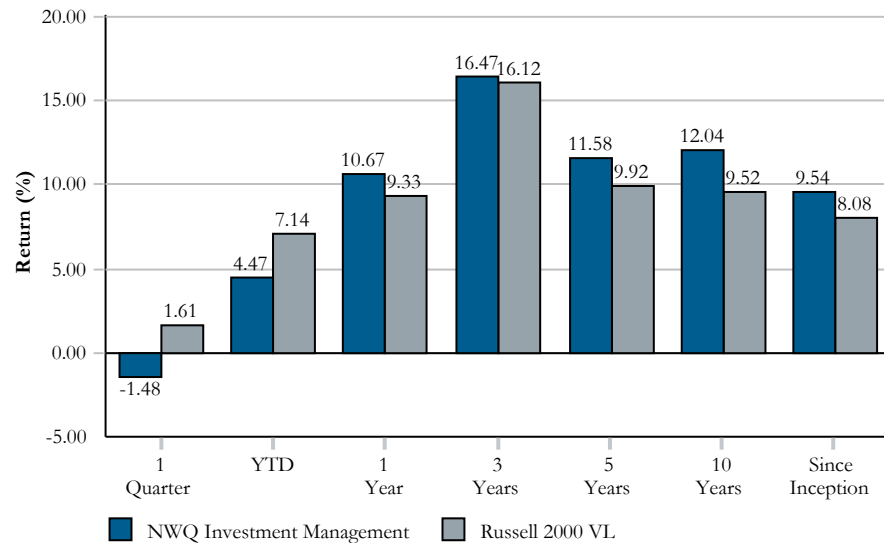


# Michigan County Road Commission Self-Insurance Pool

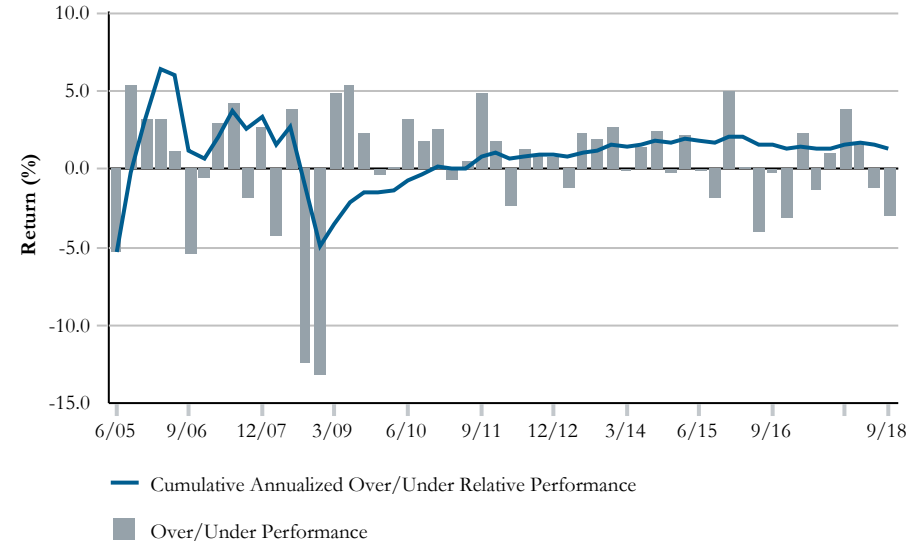
## NWQ Investment Management Performance Summary

### As of September 30, 2018

Trailing Performance Returns (%)



Manager Over/Under Performance



Calendar Year Returns (%)

	2017	2016	2015	2014	2013
Fund	14.32	22.44	-2.63	8.24	42.34
Benchmark	7.84	31.74	-7.47	4.22	34.52

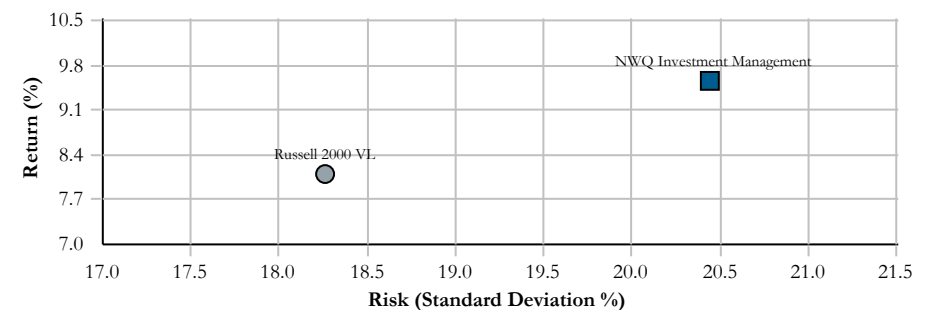
Portfolio Characteristics

	Return	Standard Deviation	Beta	Jensen Alpha	R-Squared	Inception Date
Fund	9.54	20.44	1.06	1.34	0.90	04/01/2005
Benchmark	8.08	18.27	1.00	0.00	1.00	04/01/2005

Asset Growth (\$000)

	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
NWQ Investment Management							04/01/2005
Beginning Market Value	2,747	2,770	2,744	3,120	-	-	
Net Contributions	-7	-188	-319	-1,894	-	-	
Income	8	21	27	102	-	-	
Gain/Loss	-48	96	248	1,372	-	-	
Ending Market Value	2,700	2,700	2,700	2,700	-	-	

Risk / Return



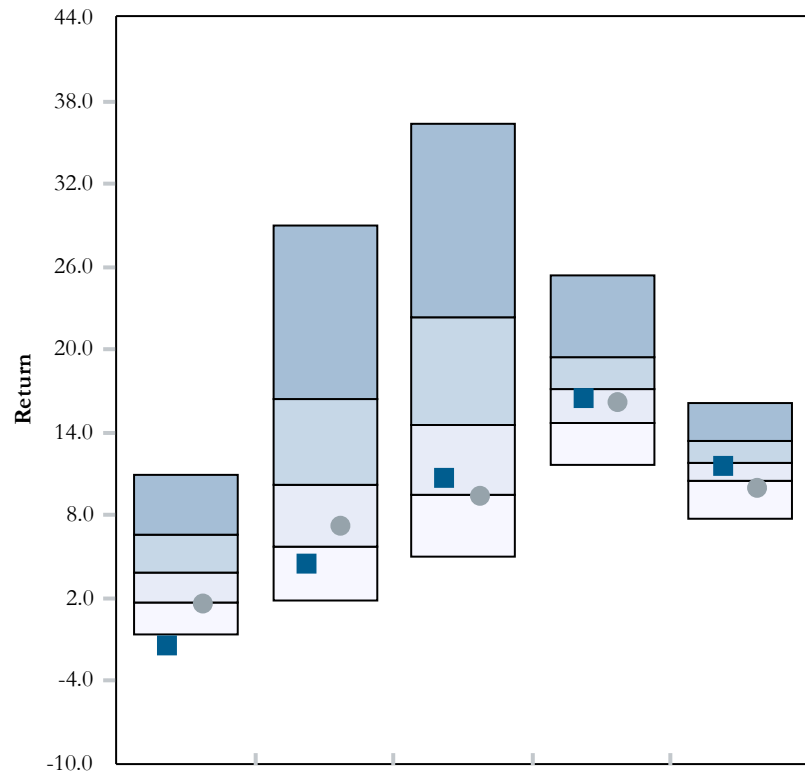


# Michigan County Road Commission Self-Insurance Pool

## NWQ Investment Management vs. Russell 2000 VL

As of September 30, 2018

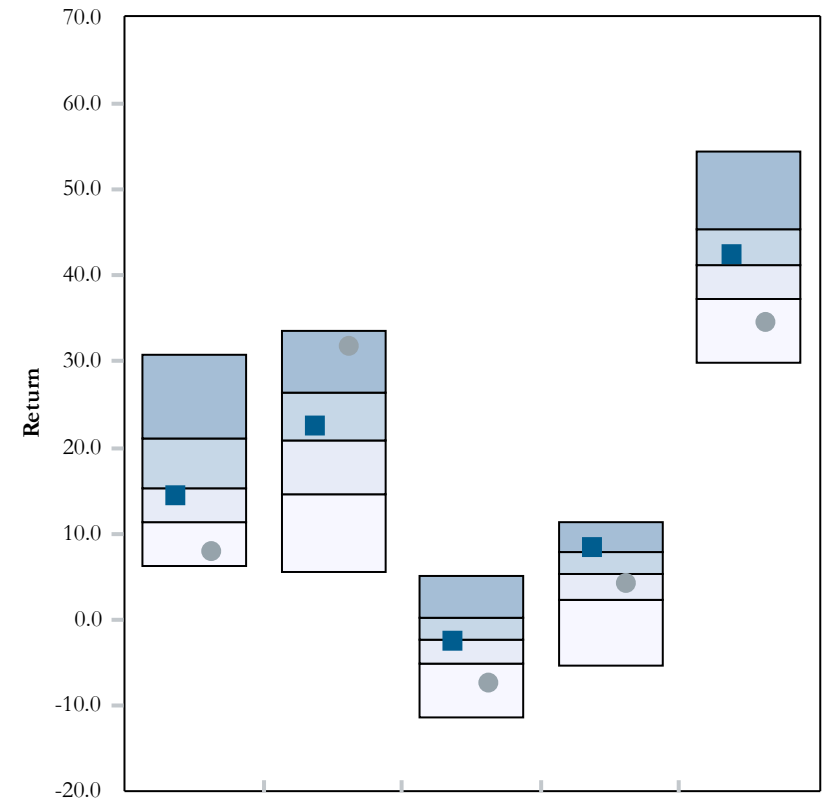
Peer Group: IM U.S. Small Cap Equity (SA+CF)



	1 Quarter	YTD	1 Year	3 Years	5 Years
Fund	-1.48 (97)	4.47 (83)	10.67 (71)	16.47 (56)	11.58 (55)
Benchmark	1.61 (77)	7.14 (69)	9.33 (76)	16.12 (60)	9.92 (82)

5th Percentile	10.87	28.99	36.41	25.42	16.08
1st Quartile	6.54	16.48	22.38	19.40	13.37
Median	3.86	10.24	14.49	17.13	11.81
3rd Quartile	1.70	5.69	9.47	14.63	10.52
95th Percentile	-0.68	1.83	4.98	11.63	7.81

Population	570	569	567	561	538
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	2017	2016	2015	2014	2013
Fund	14.32 (56)	22.44 (40)	-2.63 (54)	8.24 (22)	42.34 (44)
Benchmark	7.84 (89)	31.74 (9)	-7.47 (88)	4.22 (65)	34.52 (87)

5th Percentile	30.73	33.50	5.08	11.28	54.44
1st Quartile	21.04	26.38	0.27	7.76	45.49
Median	15.14	20.87	-2.32	5.36	41.32
3rd Quartile	11.21	14.46	-5.19	2.18	37.23
95th Percentile	6.15	5.47	-11.31	-5.50	29.83

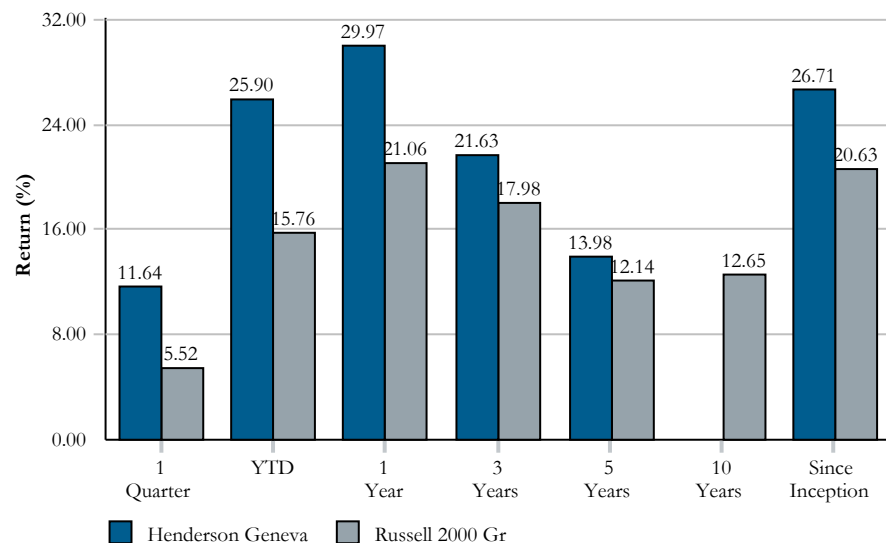
Population	588	612	648	670	676
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# Michigan County Road Commission Self-Insurance Pool

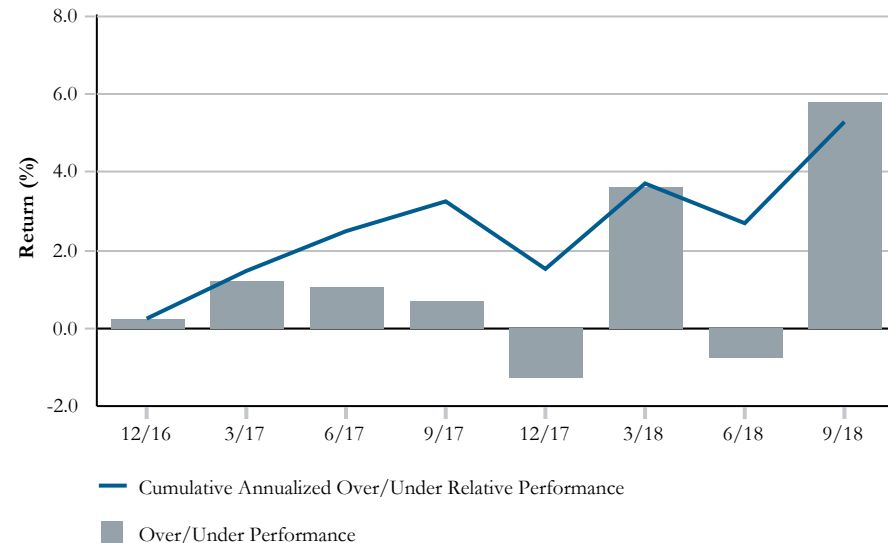
## Henderson Geneva Performance Summary

As of September 30, 2018

Trailing Performance Returns (%)



Manager Over/Under Performance



Calendar Year Returns (%)

	2017	2016	2015	2014	2013
Fund	24.20	10.44	-2.05	6.55	34.39
Benchmark	22.17	11.32	-1.38	5.60	43.30

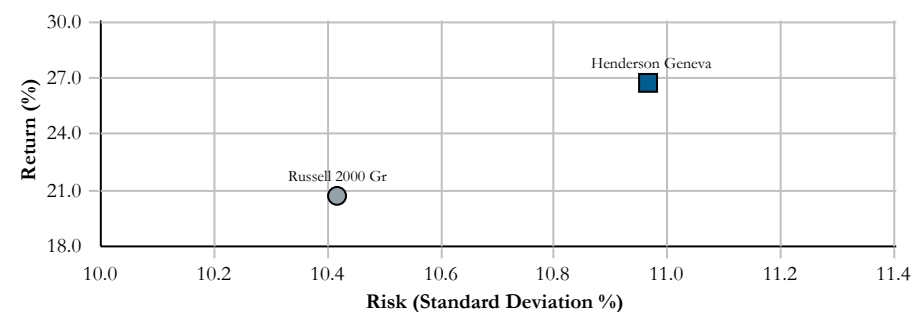
Portfolio Characteristics

	Return	Standard Deviation	Beta	Jensen Alpha	R-Squared	Inception Date
Fund	26.71	10.97	0.97	5.83	0.84	08/01/2016
Benchmark	20.64	10.42	1.00	0.00	1.00	08/01/2016

Asset Growth (\$000)

	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Henderson Geneva							08/01/2016
Beginning Market Value	2,926	2,774	2,816	3,027	-	3,154	
Net Contributions	-6	-196	-327	-1,557	-	-1,452	
Income	3	9	11	41	-	27	
Gain/Loss	337	674	759	1,748	-	1,531	
Ending Market Value	3,259	3,259	3,259	3,259	-	3,259	

Risk / Return

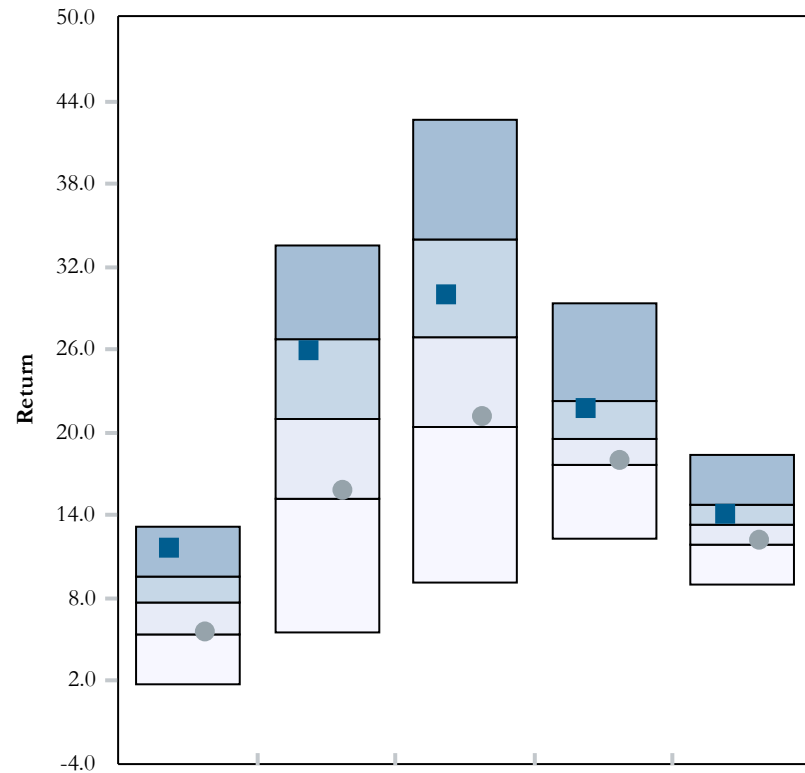


# Michigan County Road Commission Self-Insurance Pool

## Henderson Geneva vs. Russell 2000 Gr

### As of September 30, 2018

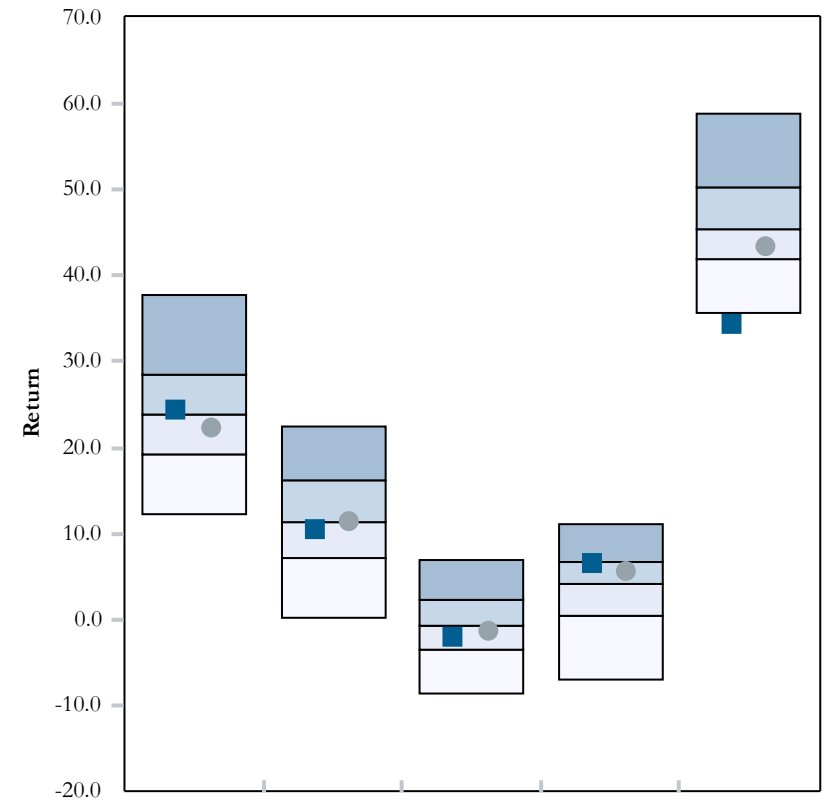
Peer Group: IM U.S. Small Cap Growth Equity (SA+CF)



	1 Quarter	YTD	1 Year	3 Years	5 Years
■ Fund	11.64 (12)	25.90 (27)	29.97 (38)	21.63 (30)	13.98 (39)
● Benchmark	5.52 (73)	15.76 (74)	21.06 (74)	17.98 (72)	12.14 (70)

5th Percentile	13.18	33.57	42.59	29.29	18.32
1st Quartile	9.59	26.81	33.92	22.26	14.80
Median	7.71	20.97	26.92	19.56	13.35
3rd Quartile	5.32	15.16	20.45	17.63	11.93
95th Percentile	1.82	5.56	9.13	12.36	8.94

Population	169	169	168	166	159
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	2017	2016	2015	2014	2013
■ Fund	24.20 (48)	10.44 (55)	-2.05 (62)	6.55 (27)	34.39 (98)
● Benchmark	22.17 (58)	11.32 (52)	-1.38 (56)	5.60 (35)	43.30 (67)

5th Percentile	37.81	22.47	6.83	11.06	58.85
1st Quartile	28.56	16.07	2.27	6.68	50.26
Median	23.91	11.40	-0.74	4.13	45.47
3rd Quartile	19.10	7.18	-3.64	0.36	41.98
95th Percentile	12.36	0.14	-8.52	-7.03	35.61

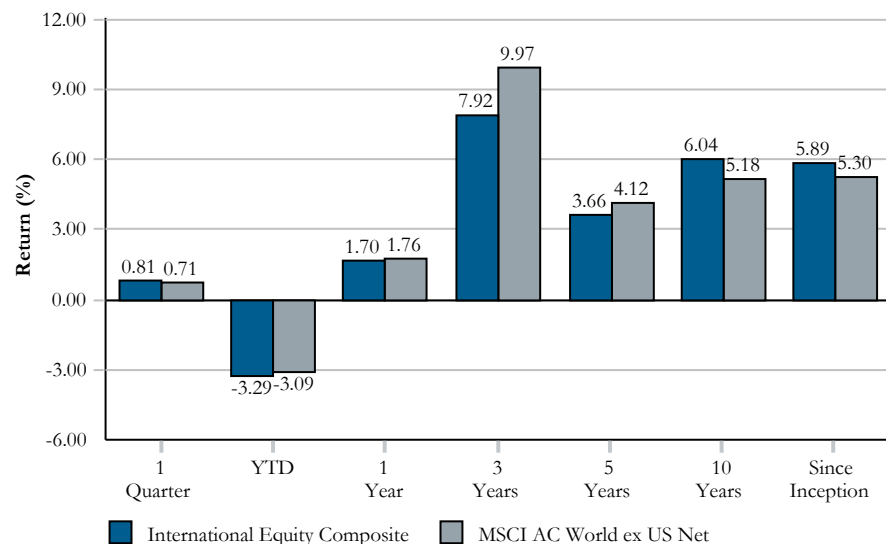
Population	175	185	203	213	219
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# Michigan County Road Commission Self-Insurance Pool

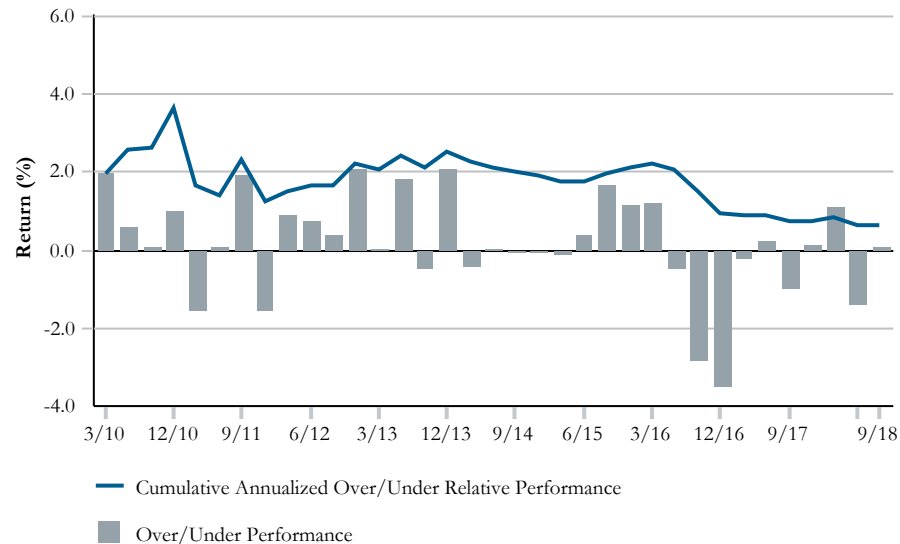
## International Equity Composite Performance Summary

### As of September 30, 2018

Trailing Performance Returns (%)



Manager Over/Under Performance



Calendar Year Returns (%)

	2017	2016	2015	2014	2013
Fund	26.17	-1.36	-2.71	-4.39	19.24
Benchmark	27.19	4.49	-5.66	-3.87	15.29

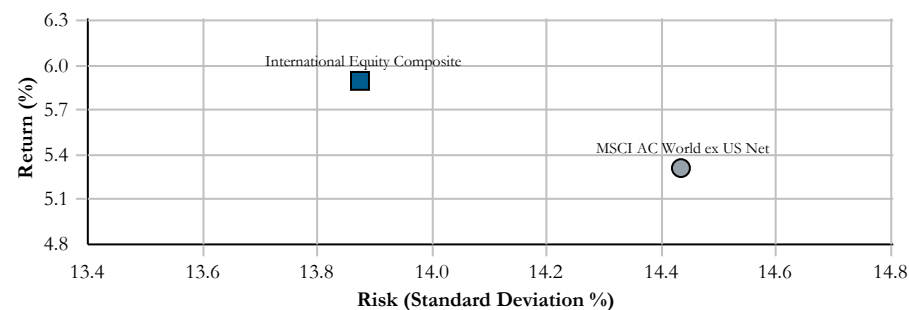
Portfolio Characteristics

	Return	Standard Deviation	Beta	Jensen Alpha	R-Squared	Inception Date
Fund	5.89	13.88	0.94	0.85	0.95	11/01/2009
Benchmark	5.78	16.75	1.00	0.00	1.00	01/01/1988

Asset Growth (\$000)

	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
International Equity Composite							11/01/2009
Beginning Market Value	9,220	10,356	10,267	5,328	-	-	
Net Contributions	11	-648	-1,018	2,545	-	-	
Income	38	167	210	461	-	-	
Gain/Loss	36	-569	-153	972	-	-	
Ending Market Value	9,306	9,306	9,306	9,306	-	-	

Risk / Return

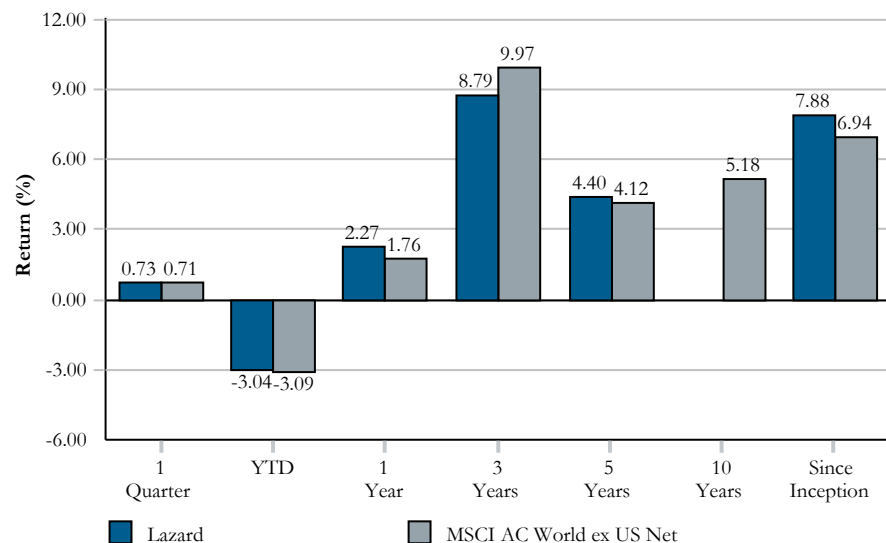


# Michigan County Road Commission Self-Insurance Pool

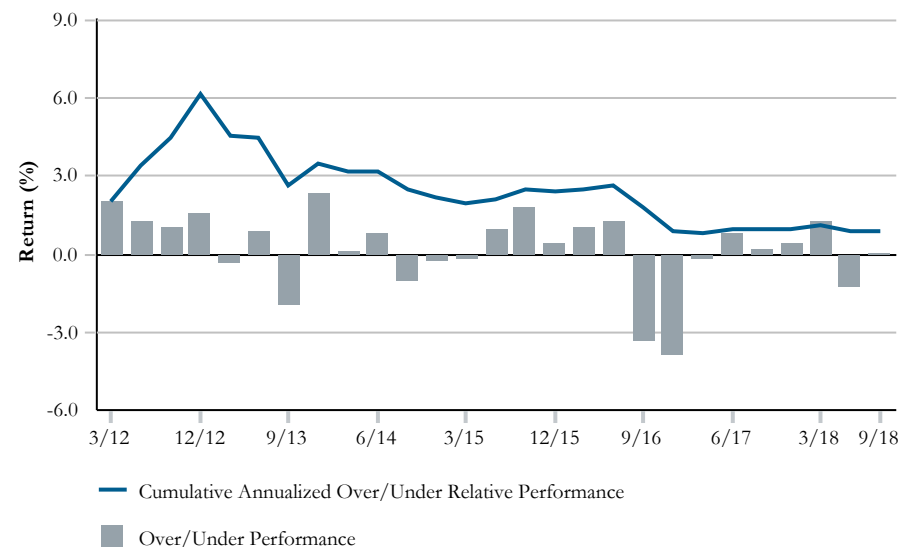
## Lazard Performance Summary

As of September 30, 2018

Trailing Performance Returns (%)



Manager Over/Under Performance



Calendar Year Returns (%)

	2017	2016	2015	2014	2013
Fund	28.86	-0.62	-2.79	-4.18	16.37
Benchmark	27.19	4.49	-5.66	-3.87	15.29

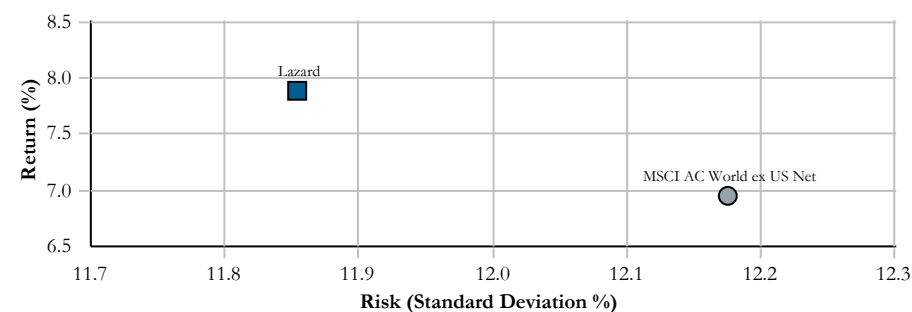
Portfolio Characteristics

	Return	Standard Deviation	Beta	Jensen Alpha	R-Squared	Inception Date
Fund	7.88	11.86	0.93	1.31	0.92	01/01/2012
Benchmark	6.94	12.18	1.00	0.00	1.00	01/01/2012

Asset Growth (\$000)

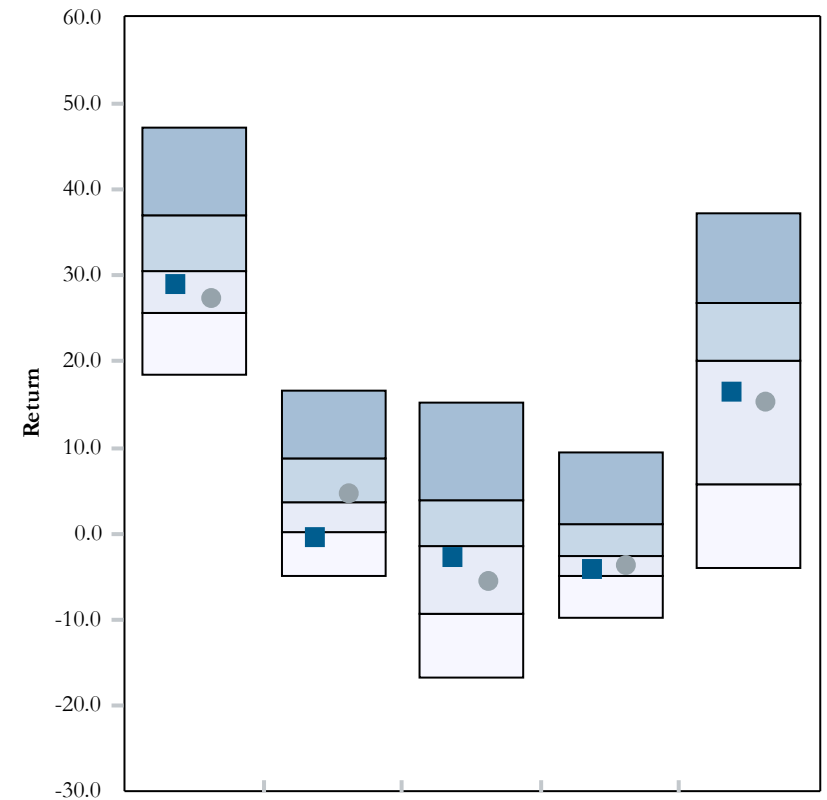
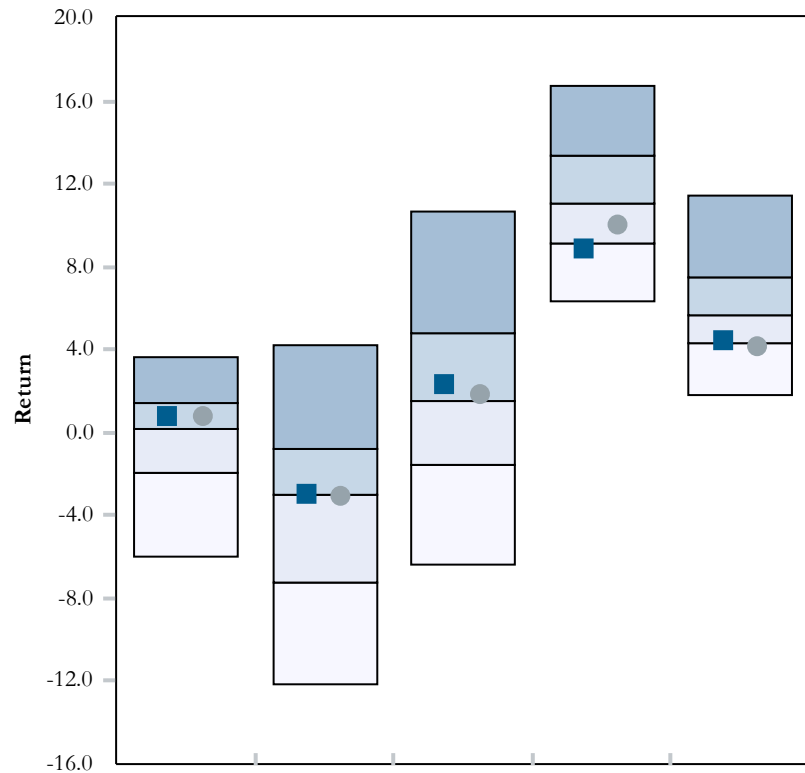
	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Lazard							01/01/2012
Beginning Market Value	4,816	5,349	5,253	2,678	-	-	
Net Contributions	-9	-352	-538	1,243	-	-	
Income	29	91	115	244	-	-	
Gain/Loss	7	-246	11	675	-	-	
Ending Market Value	4,841	4,841	4,841	4,841	-	-	

Risk / Return



**Michigan County Road Commission Self-Insurance Pool**  
**Lazard vs. MSCI AC World ex US Net**  
**As of September 30, 2018**

**Peer Group: IM International Equity (SA+CF)**

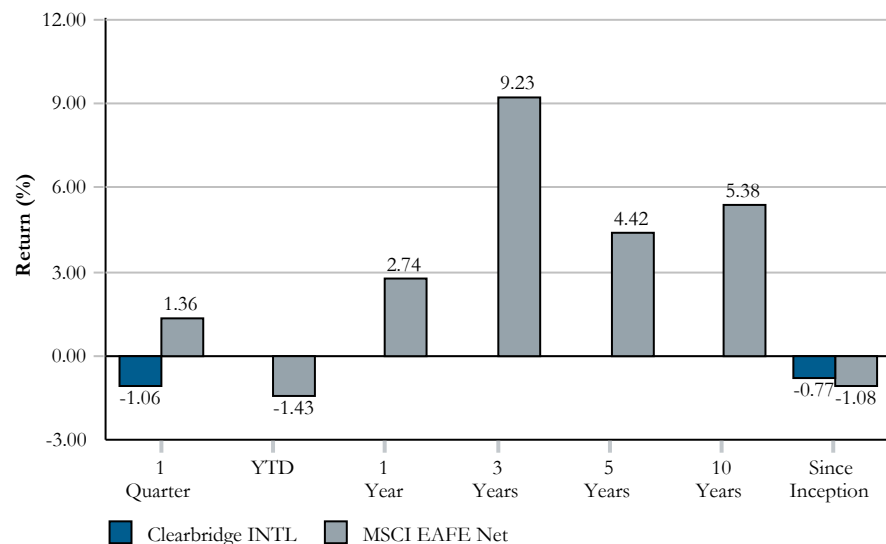


# Michigan County Road Commission Self-Insurance Pool

## Clearbridge INTL Performance Summary

As of September 30, 2018

### Trailing Performance Returns (%)



### Manager Over/Under Performance

No data found.

### Calendar Year Returns (%)

	2017	2016	2015	2014	2013
Fund	N/A	N/A	N/A	N/A	N/A
Benchmark	25.03	1.00	-0.81	-4.90	22.78

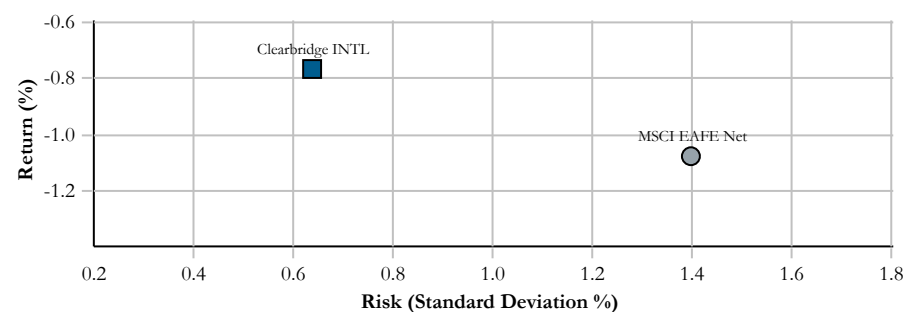
### Portfolio Characteristics

	Return	Standard Deviation	Beta	Jensen Alpha	R-Squared	Inception Date
Fund	-0.77	0.64	0.46	-0.23	1.00	08/01/2018
Benchmark	-1.08	1.40	1.00	0.00	1.00	08/01/2018

### Asset Growth (\$000)

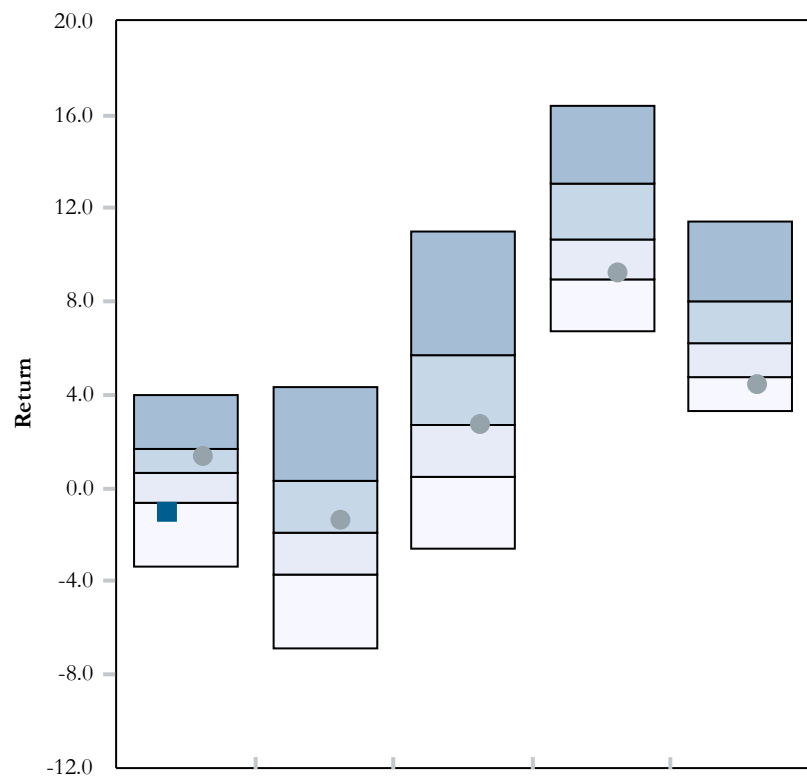
	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Clearbridge INTL							08/01/2018
Beginning Market Value	4,532	-	-	-	-	4,505	
Net Contributions	-19	-	-	-	-	-6	
Income	5	-	-	-	-	5	
Gain/Loss	-53	-	-	-	-	-39	
Ending Market Value	4,465	-	-	-	-	4,465	

### Risk / Return



**Michigan County Road Commission Self-Insurance Pool**  
**Clearbridge INTL vs. MSCI EAFE Net**  
**As of September 30, 2018**

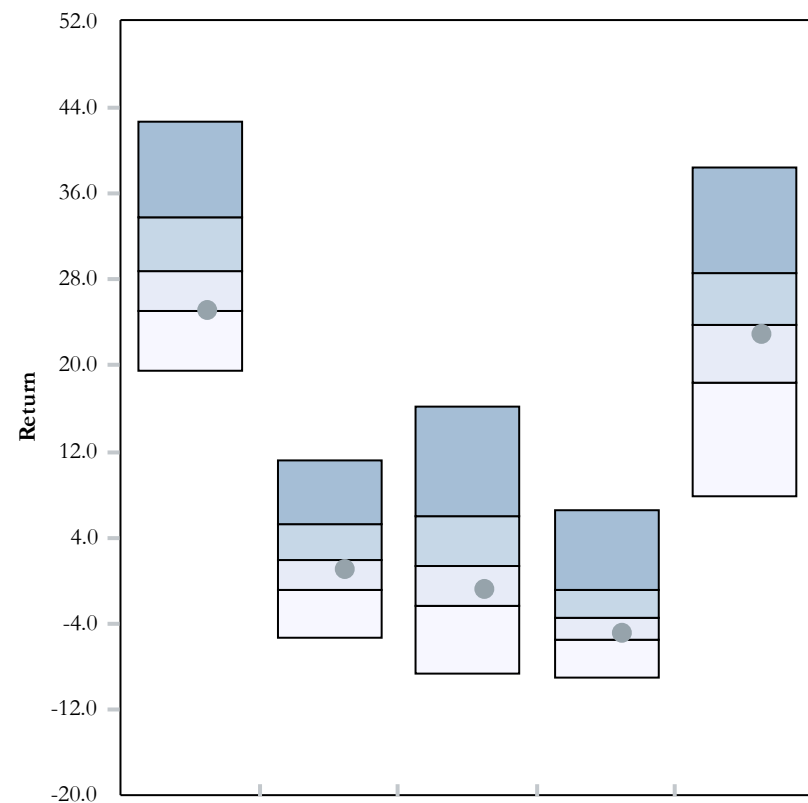
Peer Group: IM International Equity Developed Markets (SA+CF)



	1 Quarter	YTD	1 Year	3 Years	5 Years
Fund	-1.06 (80)	N/A	N/A	N/A	N/A
Benchmark	1.36 (33)	-1.43 (45)	2.74 (51)	9.23 (73)	4.42 (86)

5th Percentile	3.99	4.36	10.97	16.44	11.49
1st Quartile	1.71	0.31	5.72	13.09	8.06
Median	0.69	-1.91	2.75	10.67	6.23
3rd Quartile	-0.64	-3.70	0.52	8.96	4.81
95th Percentile	-3.34	-6.84	-2.57	6.73	3.29

Population	668	664	661	628	585
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	2017	2016	2015	2014	2013
Fund	N/A	N/A	N/A	N/A	N/A
Benchmark	25.03 (77)	1.00 (60)	-0.81 (67)	-4.90 (68)	22.78 (58)

5th Percentile	42.64	11.19	16.16	6.51	38.53
1st Quartile	33.83	5.32	5.92	-0.93	28.63
Median	28.87	1.91	1.43	-3.57	23.88
3rd Quartile	25.16	-0.82	-2.38	-5.61	18.49
95th Percentile	19.54	-5.29	-8.62	-9.13	7.88

Population	704	732	764	773	781
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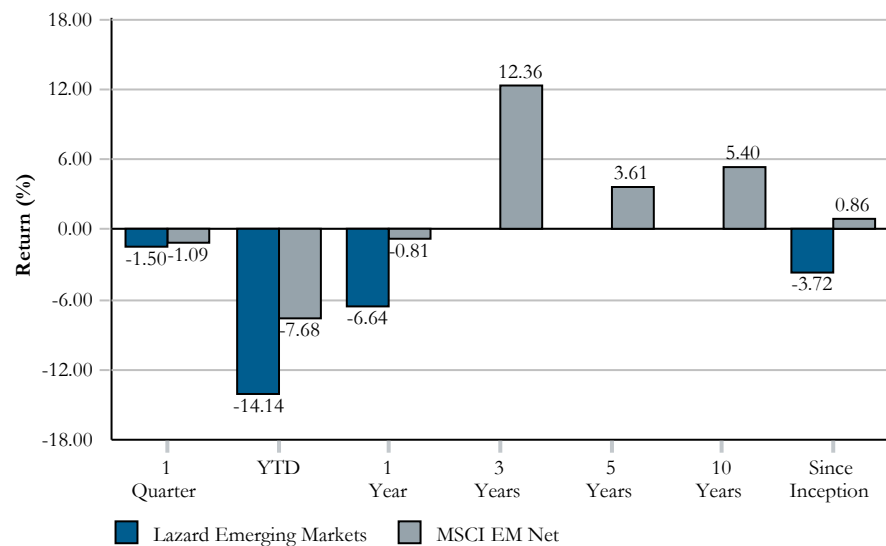


# Michigan County Road Commission Self-Insurance Pool

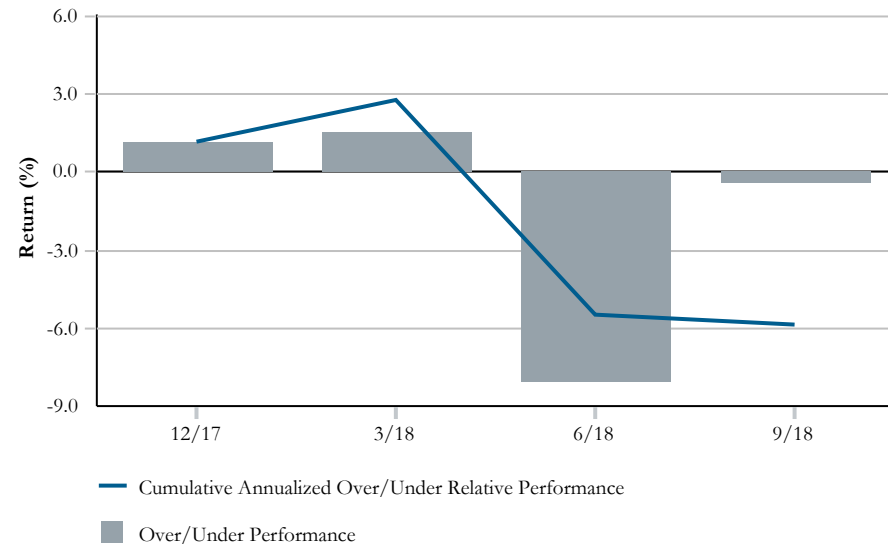
## Lazard Emerging Markets Performance Summary

### As of September 30, 2018

Trailing Performance Returns (%)



Manager Over/Under Performance



Calendar Year Returns (%)

	2017	2016	2015	2014	2013
Fund	N/A	N/A	N/A	N/A	N/A
Benchmark	37.28	11.19	-14.92	-2.19	-2.60

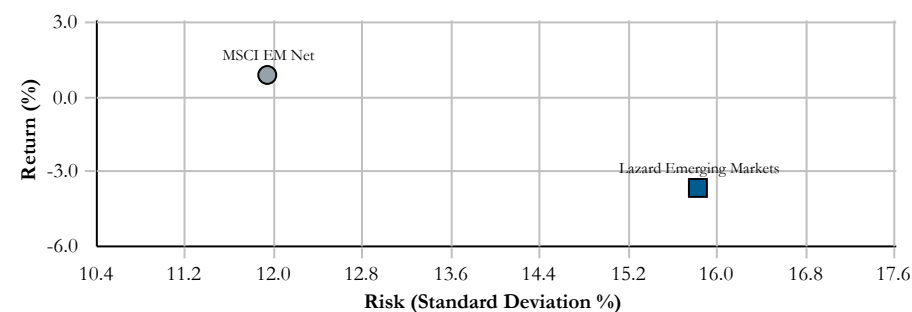
Portfolio Characteristics

	Return	Standard Deviation	Beta	Jensen Alpha	R-Squared	Inception Date
Fund	-3.72	15.83	1.16	-4.03	0.77	08/01/2017
Benchmark	0.86	11.96	1.00	0.00	1.00	08/01/2017

Asset Growth (\$000)

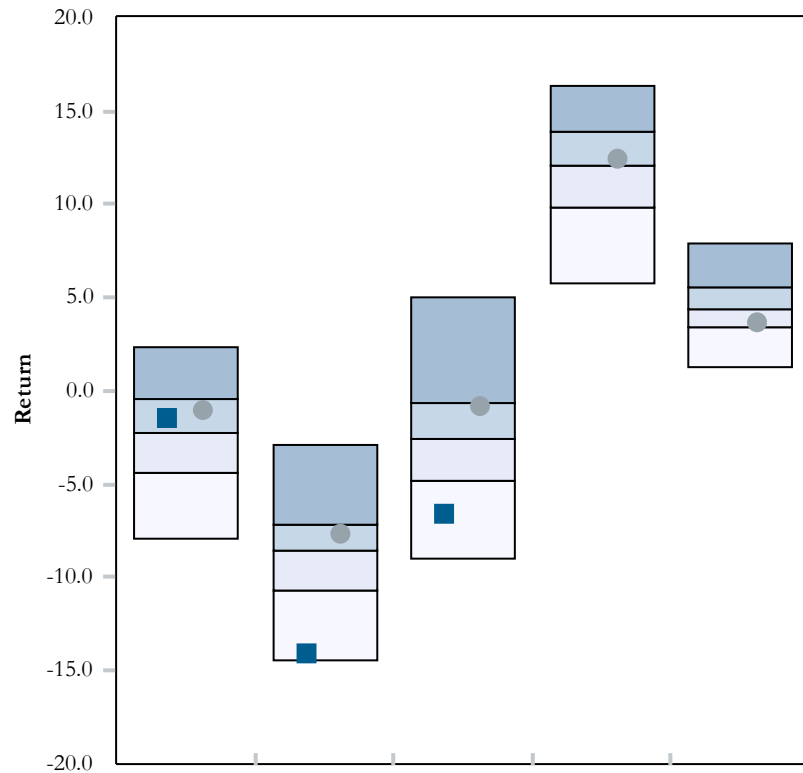
	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Lazard Emerging Markets							08/01/2017
Beginning Market Value	1,420	1,742	1,703	-	-	1,665	
Net Contributions	-3	-120	-223	-	-	-226	
Income	20	36	45	-	-	49	
Gain/Loss	-41	-262	-129	-	-	-92	
Ending Market Value	1,396	1,396	1,396	-	-	1,396	

Risk / Return



**Michigan County Road Commission Self-Insurance Pool**  
**Lazard Emerging Markets vs. MSCI EM Net**  
**As of September 30, 2018**

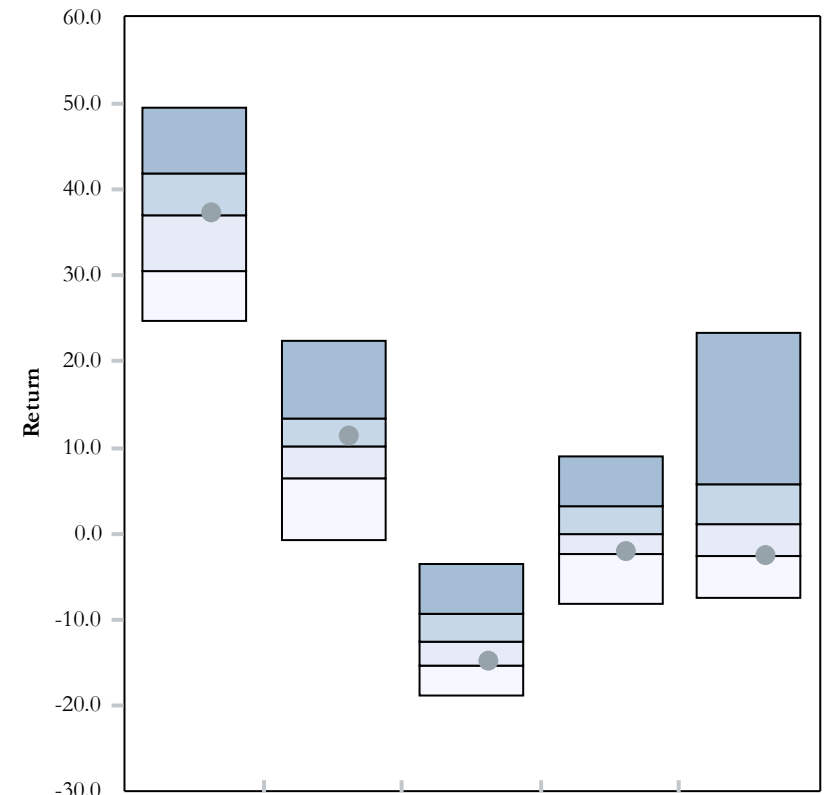
Peer Group: IM Emerging Markets Equity (SA+CF)



	1 Quarter	YTD	1 Year	3 Years	5 Years
■ Fund	-1.50 (41)	-14.14 (93)	-6.64 (87)	N/A	N/A
● Benchmark	-1.09 (38)	-7.68 (34)	-0.81 (29)	12.36 (46)	3.61 (68)

5th Percentile	2.31	-2.90	5.00	16.40	7.87
1st Quartile	-0.39	-7.16	-0.62	13.88	5.55
Median	-2.21	-8.54	-2.53	12.04	4.33
3rd Quartile	-4.33	-10.66	-4.80	9.84	3.38
95th Percentile	-7.96	-14.48	-8.99	5.79	1.26

Population	285	279	279	268	236
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	2017	2016	2015	2014	2013
■ Fund	N/A	N/A	N/A	N/A	N/A
● Benchmark	37.28 (47)	11.19 (43)	-14.92 (69)	-2.19 (73)	-2.60 (76)

5th Percentile	49.50	22.33	-3.50	8.91	23.43
1st Quartile	41.91	13.42	-9.29	3.12	5.66
Median	36.95	10.09	-12.62	-0.09	0.98
3rd Quartile	30.63	6.32	-15.32	-2.44	-2.58
95th Percentile	24.72	-0.87	-18.88	-8.17	-7.40

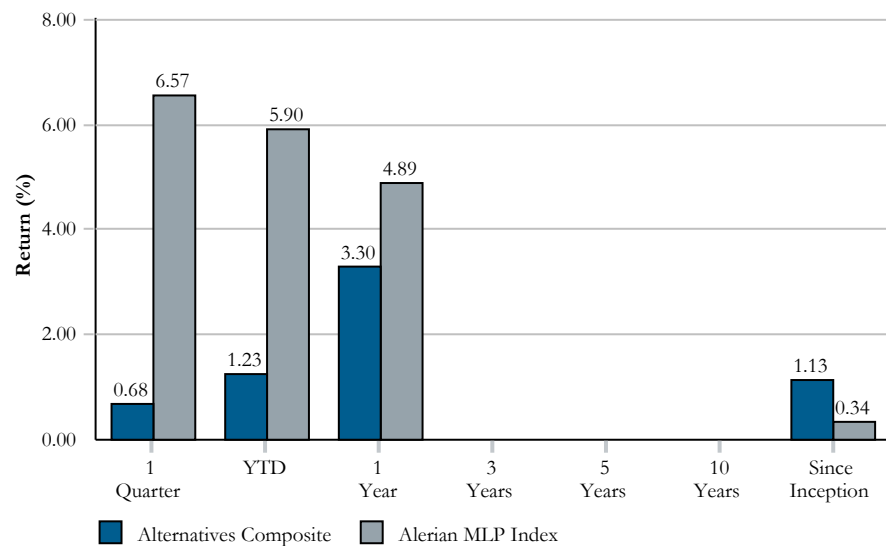
Population	303	317	331	326	310
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# Michigan County Road Commission Self-Insurance Pool

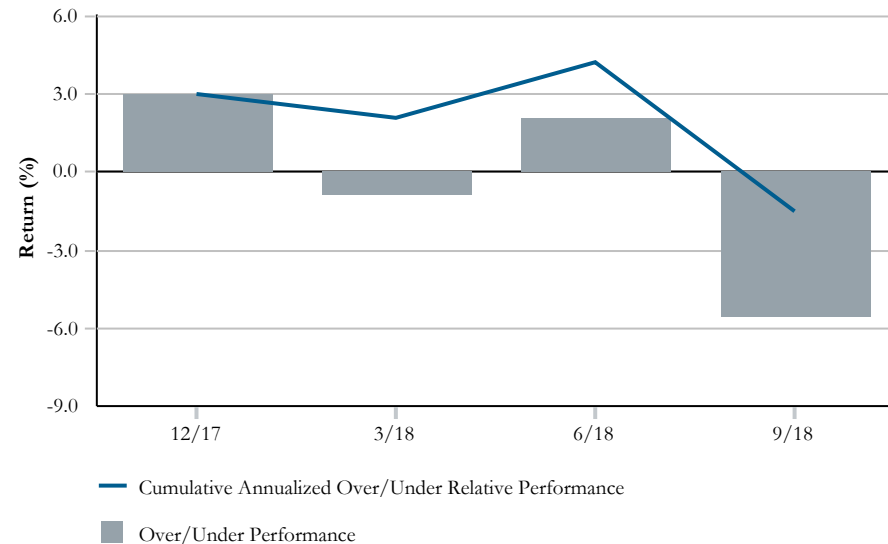
## Alternatives Composite Performance Summary

### As of September 30, 2018

Trailing Performance Returns (%)



Manager Over/Under Performance



Calendar Year Returns (%)

	2017	2016	2015	2014	2013
Fund	N/A	N/A	N/A	N/A	N/A
Benchmark	-6.52	N/A	N/A	N/A	N/A

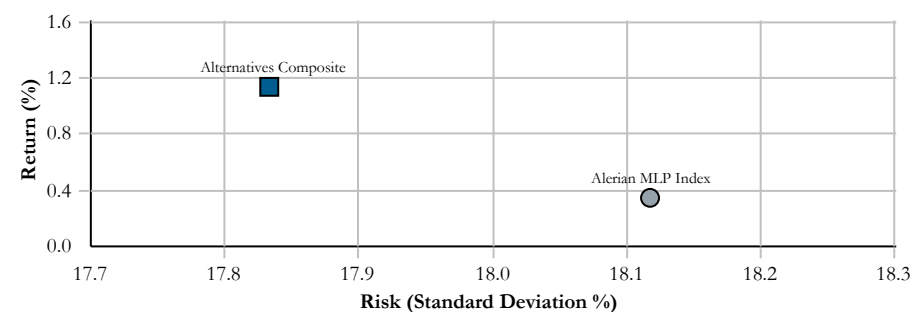
Portfolio Characteristics

	Return	Standard Deviation	Beta	Jensen Alpha	R-Squared	Inception Date
Fund	1.13	17.83	0.95	0.77	0.92	08/01/2017
Benchmark	8.35	15.75	1.00	0.00	1.00	04/01/2016

Asset Growth (\$000)

	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Alternatives Composite							08/01/2017
Beginning Market Value	3,028	3,224	3,297	-	-	3,368	
Net Contributions	-6	-196	-327	-	-	-334	
Income	46	138	182	-	-	228	
Gain/Loss	-25	-123	-109	-	-	-219	
Ending Market Value	3,043	3,043	3,043	-	-	3,043	

Risk / Return

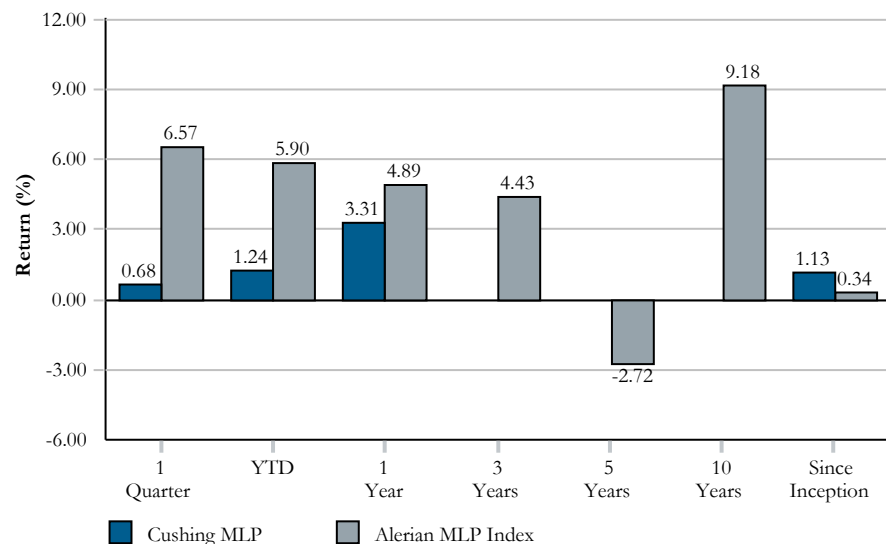


# Michigan County Road Commission Self-Insurance Pool

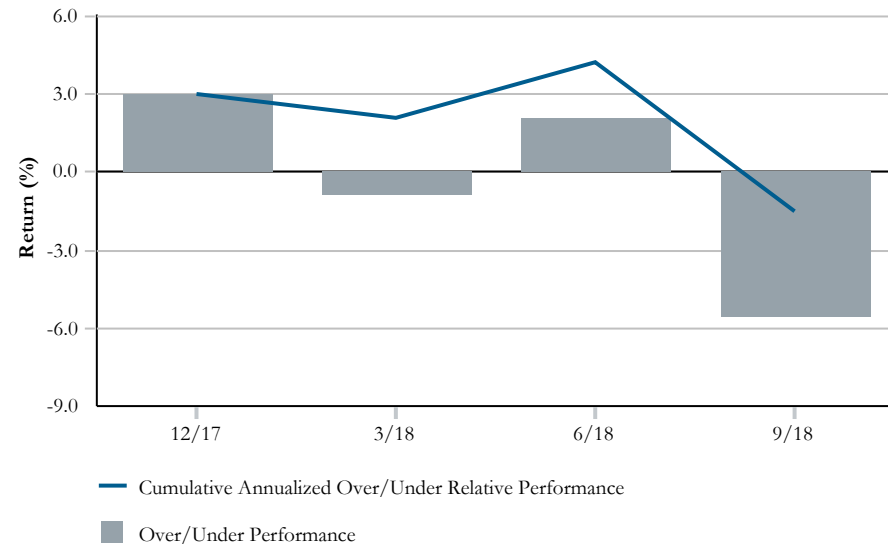
## Cushing MLP Performance Summary

As of September 30, 2018

Trailing Performance Returns (%)



Manager Over/Under Performance



Calendar Year Returns (%)

	2017	2016	2015	2014	2013
Fund	N/A	N/A	N/A	N/A	N/A
Benchmark	-6.52	18.30	-32.59	4.80	27.58

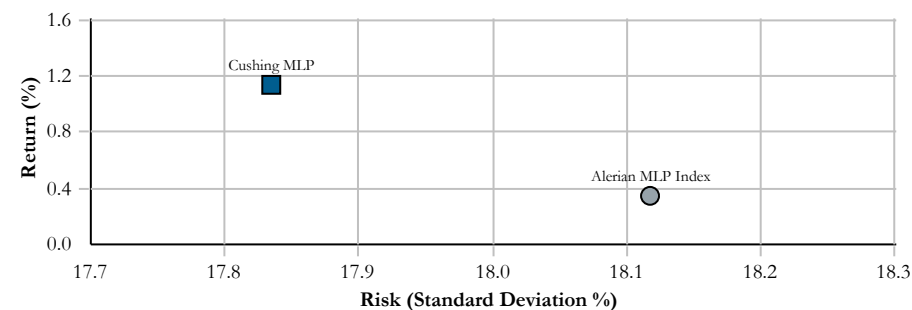
Portfolio Characteristics

	Return	Standard Deviation	Beta	Jensen Alpha	R-Squared	Inception Date
Fund	1.13	17.84	0.95	0.78	0.92	08/01/2017
Benchmark	0.34	18.12	1.00	0.00	1.00	08/01/2017

Asset Growth (\$000)

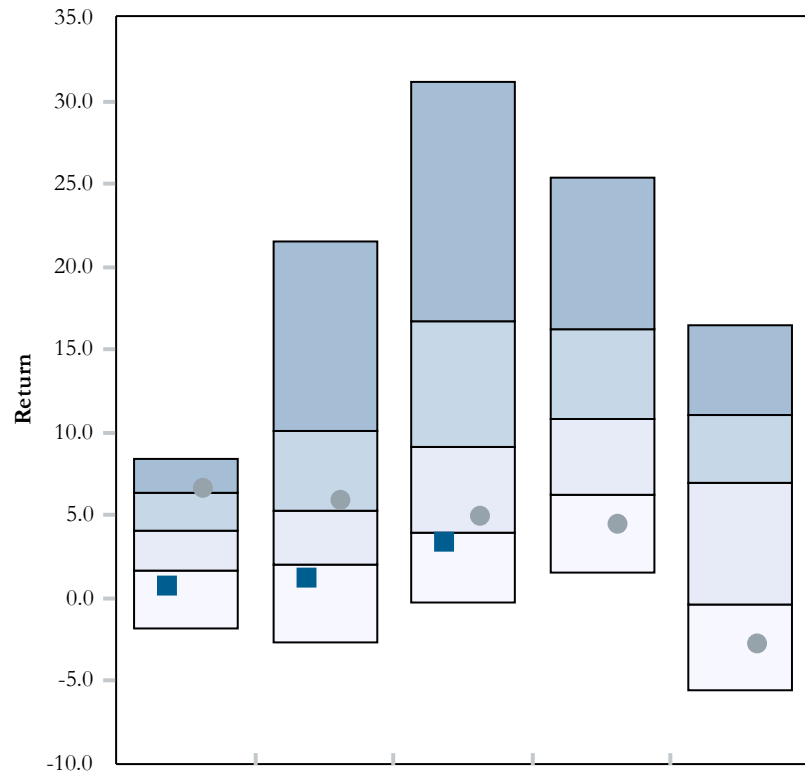
	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Cushing MLP							08/01/2017
Beginning Market Value	3,028	3,224	3,297	-	-	3,368	
Net Contributions	-6	-196	-327	-	-	-334	
Income	46	138	182	-	-	228	
Gain/Loss	-25	-123	-109	-	-	-219	
Ending Market Value	3,043	3,043	3,043	-	-	3,043	

Risk / Return



**Michigan County Road Commission Self-Insurance Pool**  
**Cushing MLP vs. Alerian MLP Index**  
**As of September 30, 2018**

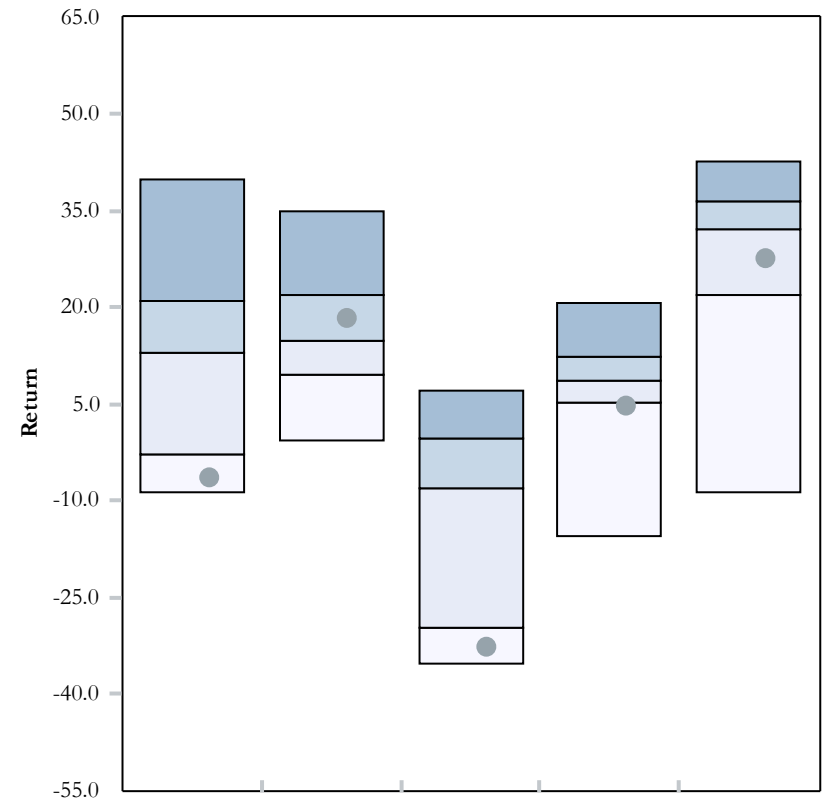
Peer Group: IM U.S. Other Equity (SA+CF)



	1 Quarter	YTD	1 Year	3 Years	5 Years
Fund	0.68 (88)	1.24 (83)	3.31 (81)	N/A	N/A
Benchmark	6.57 (25)	5.90 (47)	4.89 (72)	4.43 (83)	-2.72 (89)

5th Percentile	8.41	21.57	31.10	25.36	16.44
1st Quartile	6.40	10.11	16.66	16.24	11.00
Median	4.02	5.31	9.08	10.87	6.96
3rd Quartile	1.62	2.00	3.90	6.24	-0.40
95th Percentile	-1.84	-2.65	-0.31	1.56	-5.58

Population	123	122	122	116	91
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	2017	2016	2015	2014	2013
Fund	N/A	N/A	N/A	N/A	N/A
Benchmark	-6.52 (91)	18.30 (35)	-32.59 (88)	4.80 (78)	27.58 (69)

5th Percentile	39.94	34.85	7.19	20.71	42.64
1st Quartile	21.15	22.15	-0.27	12.54	36.45
Median	13.11	14.99	-7.91	8.73	32.27
3rd Quartile	-2.80	9.66	-29.49	5.19	21.98
95th Percentile	-8.75	-0.55	-35.23	-15.40	-8.51

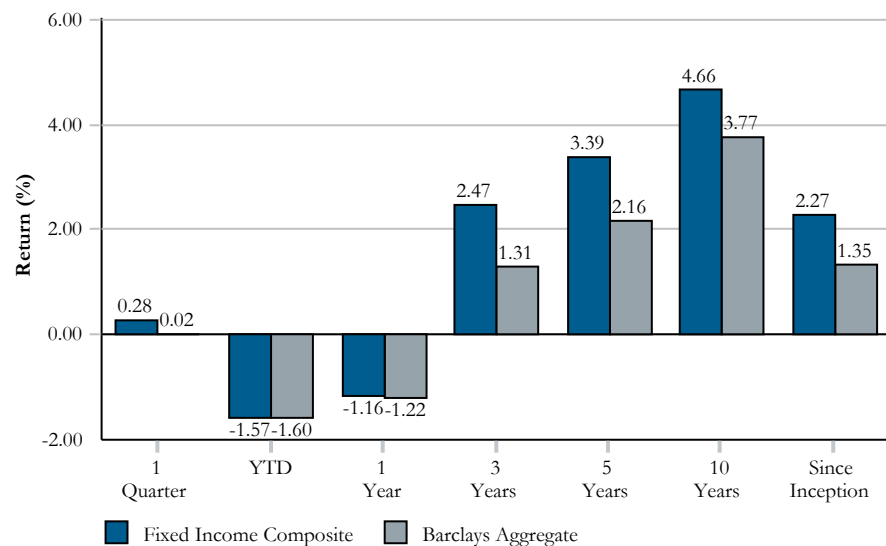
Population	125	132	130	126	108
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# Michigan County Road Commission Self-Insurance Pool

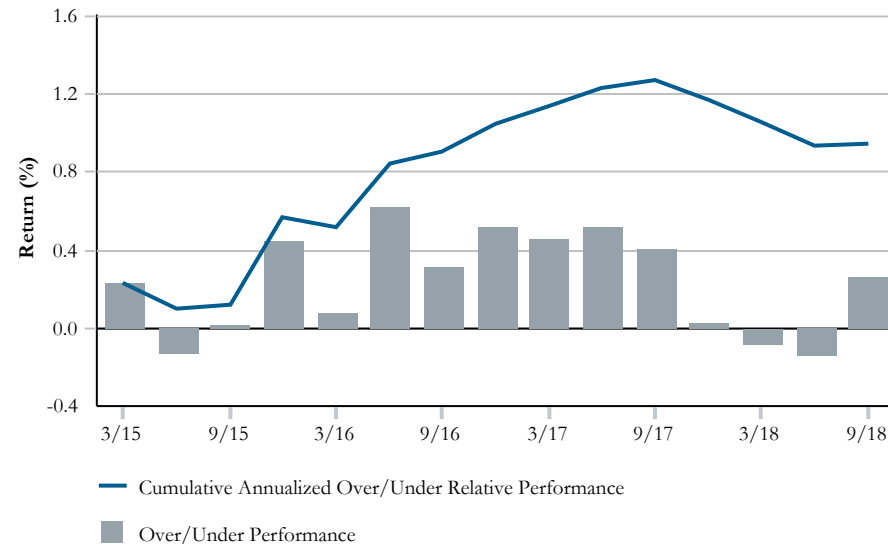
## Fixed Income Composite Performance Summary

### As of September 30, 2018

Trailing Performance Returns (%)



Manager Over/Under Performance



Calendar Year Returns (%)

	2017	2016	2015	2014	2013
Fund	5.01	4.22	1.12	8.55	-2.25
Benchmark	3.54	2.65	0.55	5.97	-2.02

Portfolio Characteristics

	Return	Standard Deviation	Beta	Jensen Alpha	R-Squared	Inception Date
Fund	2.27	2.80	0.97	0.93	0.89	12/01/2014
Benchmark	7.28	5.30	1.00	N/A	1.00	01/01/1976

Asset Growth (\$000)

	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Fixed Income Composite							12/01/2014
Beginning Market Value	22,007	23,928	24,774	26,459	-	24,599	
Net Contributions	-46	-1,521	-2,467	-6,229	-	-4,709	
Income	194	606	878	2,888	-	3,776	
Gain/Loss	-142	-1,000	-1,172	-1,104	-	-1,653	
Ending Market Value	22,014	22,014	22,014	22,014	-	22,014	

Risk / Return

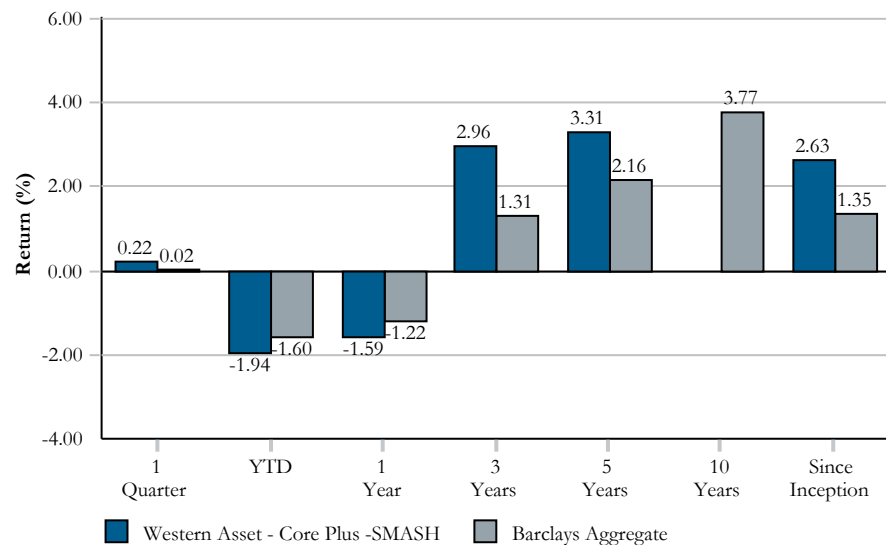


# Michigan County Road Commission Self-Insurance Pool

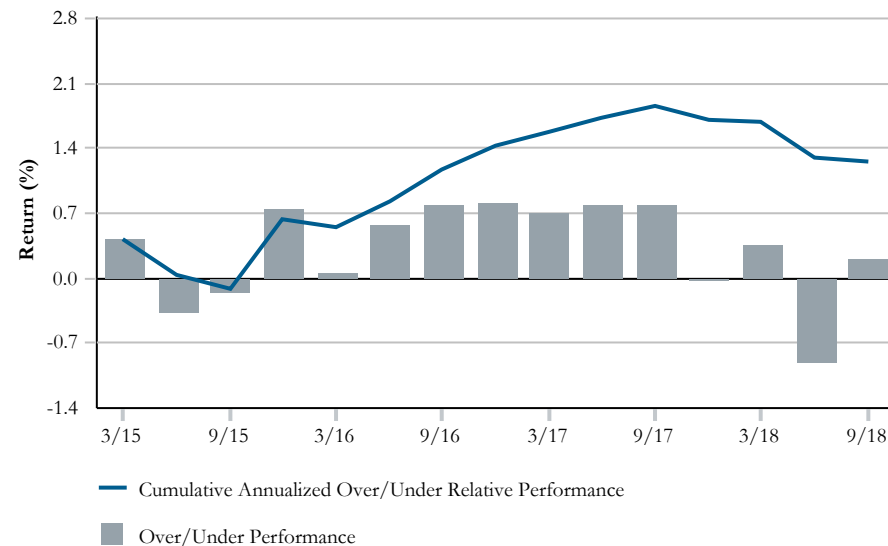
## Western Asset - Core Plus -SMASH Performance Summary

### As of September 30, 2018

Trailing Performance Returns (%)



Manager Over/Under Performance



Calendar Year Returns (%)

	2017	2016	2015	2014	2013
Fund	5.87	4.94	1.18	6.77	-2.27
Benchmark	3.54	2.65	0.55	5.97	-2.02

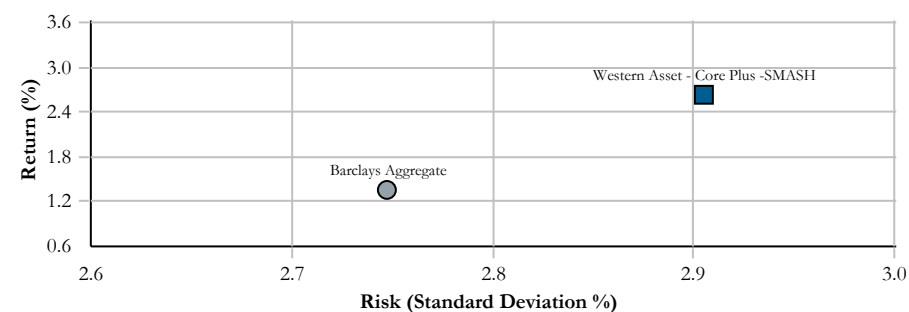
Portfolio Characteristics

	Return	Standard Deviation	Beta	Jensen Alpha	R-Squared	Inception Date
Fund	2.63	2.91	0.97	1.29	0.84	01/01/2015
Benchmark	1.35	2.75	1.00	0.00	1.00	01/01/2015

Asset Growth (\$000)

	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Western Asset - Core Plus -SMASH							01/01/2015
Beginning Market Value	11,195	12,213	12,643	13,149	-	13,348	
Net Contributions	-3,876	-4,633	-5,108	-6,886	-	-7,218	
Income	77	277	442	1,533	-	1,900	
Gain/Loss	-42	-502	-623	-443	-	-676	
Ending Market Value	7,354	7,354	7,354	7,354	-	7,354	

Risk / Return

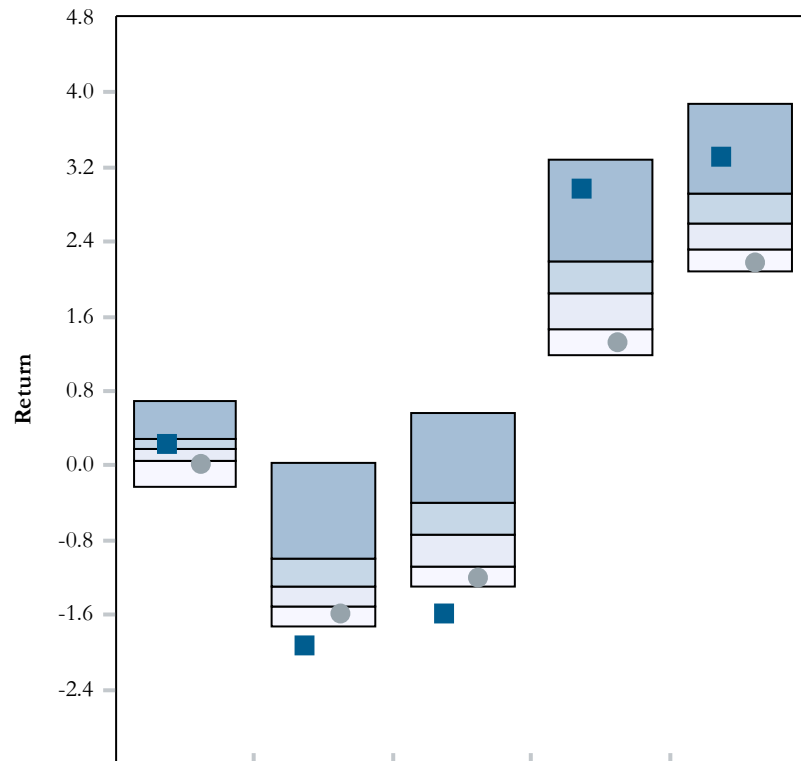


# Michigan County Road Commission Self-Insurance Pool

## Western Asset - Core Plus -SMASH vs. Barclays Aggregate

As of September 30, 2018

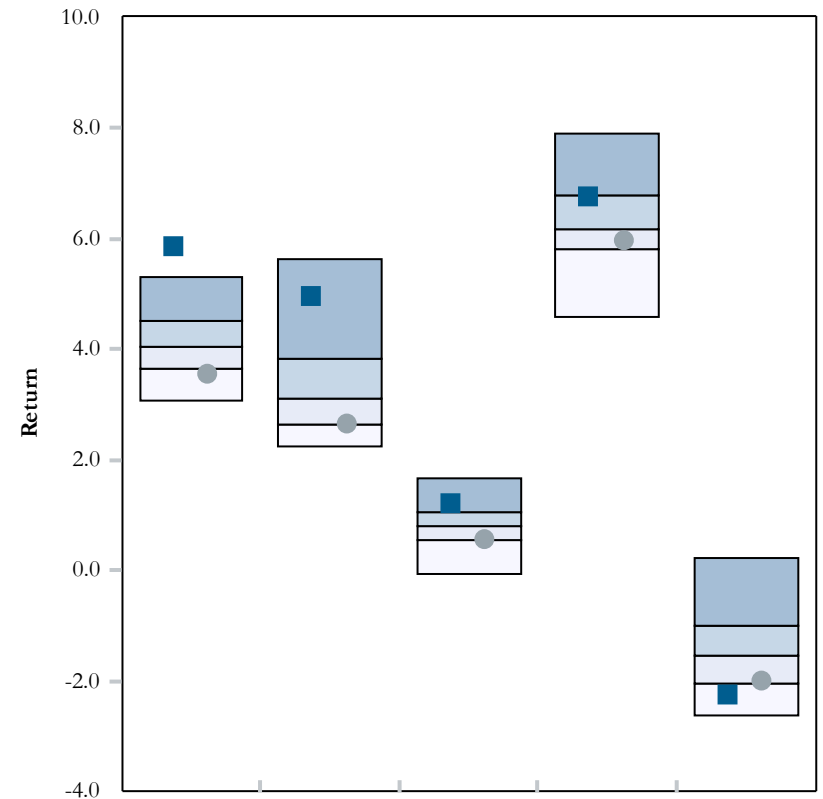
Peer Group: IM U.S. Broad Market Core Fixed Income (SA+CF)



	1 Quarter	YTD	1 Year	3 Years	5 Years
Fund	0.22 (40)	-1.94 (99)	-1.59 (99)	2.96 (7)	3.31 (11)
Benchmark	0.02 (83)	-1.60 (86)	-1.22 (90)	1.31 (89)	2.16 (90)

5th Percentile	0.70	0.03	0.57	3.28	3.88
1st Quartile	0.28	-0.99	-0.40	2.19	2.92
Median	0.18	-1.29	-0.74	1.84	2.61
3rd Quartile	0.06	-1.50	-1.08	1.47	2.33
95th Percentile	-0.22	-1.72	-1.30	1.18	2.09

Population	145	145	145	141	137
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	2017	2016	2015	2014	2013
Fund	5.87 (3)	4.94 (9)	1.18 (19)	6.77 (26)	-2.27 (90)
Benchmark	3.54 (84)	2.65 (76)	0.55 (74)	5.97 (68)	-2.02 (74)

5th Percentile	5.30	5.63	1.67	7.91	0.23
1st Quartile	4.52	3.83	1.06	6.80	-1.00
Median	4.06	3.10	0.82	6.17	-1.56
3rd Quartile	3.65	2.65	0.53	5.82	-2.04
95th Percentile	3.05	2.23	-0.07	4.59	-2.63

Population	151	161	164	178	189
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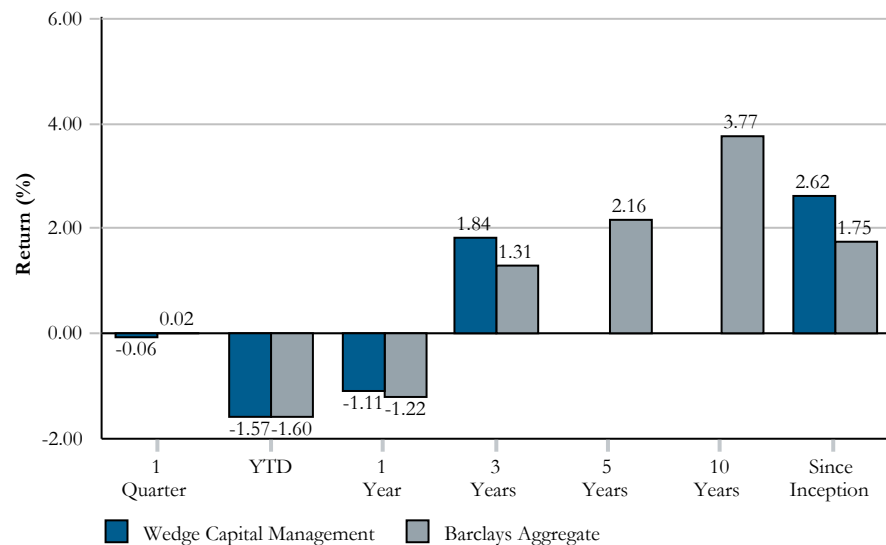


# Michigan County Road Commission Self-Insurance Pool

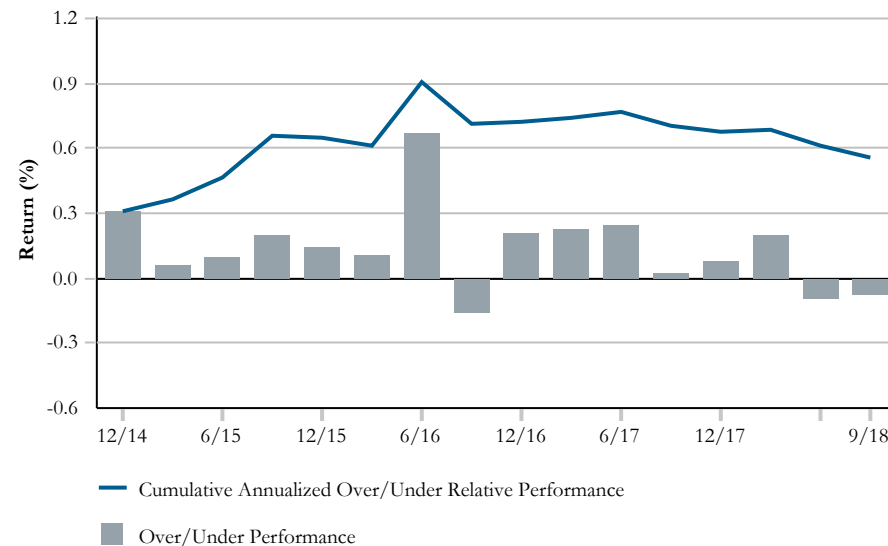
## Wedge Capital Management Performance Summary

### As of September 30, 2018

#### Trailing Performance Returns (%)



#### Manager Over/Under Performance



#### Calendar Year Returns (%)

	2017	2016	2015	2014	2013
Fund	4.14	3.49	1.05	N/A	N/A
Benchmark	3.54	2.65	0.55	5.97	-2.02

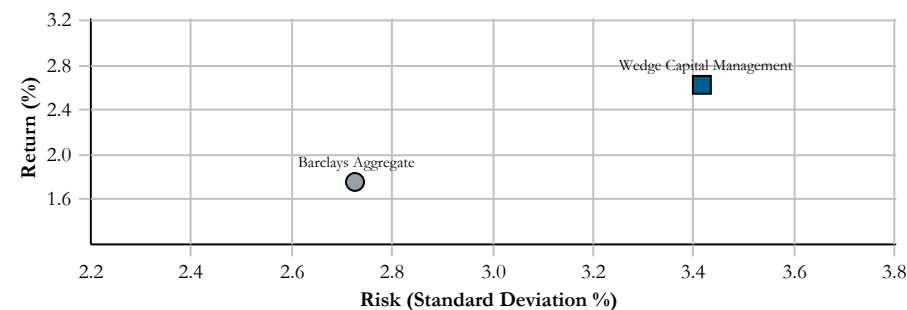
#### Portfolio Characteristics

	Return	Standard Deviation	Beta	Jensen Alpha	R-Squared	Inception Date
Fund	2.62	3.42	1.09	0.77	0.76	08/01/2014
Benchmark	1.75	2.73	1.00	0.00	1.00	08/01/2014

#### Asset Growth (\$000)

	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Wedge Capital Management							08/01/2014
Beginning Market Value	10,812	11,715	12,131	13,310	-	-	
Net Contributions	-3,502	-4,221	-4,692	-6,676	-	-	
Income	75	287	394	1,312	-	-	
Gain/Loss	-70	-467	-518	-631	-	-	
Ending Market Value	7,314	7,314	7,314	7,314	-	-	

#### Risk / Return

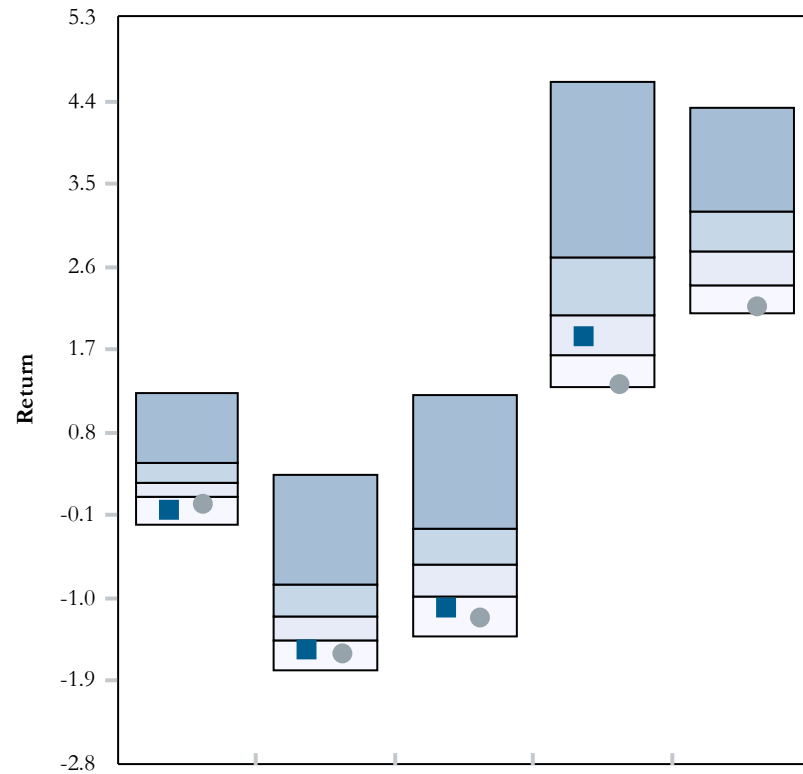


# Michigan County Road Commission Self-Insurance Pool

## Wedge Capital Management vs. Barclays Aggregate

As of September 30, 2018

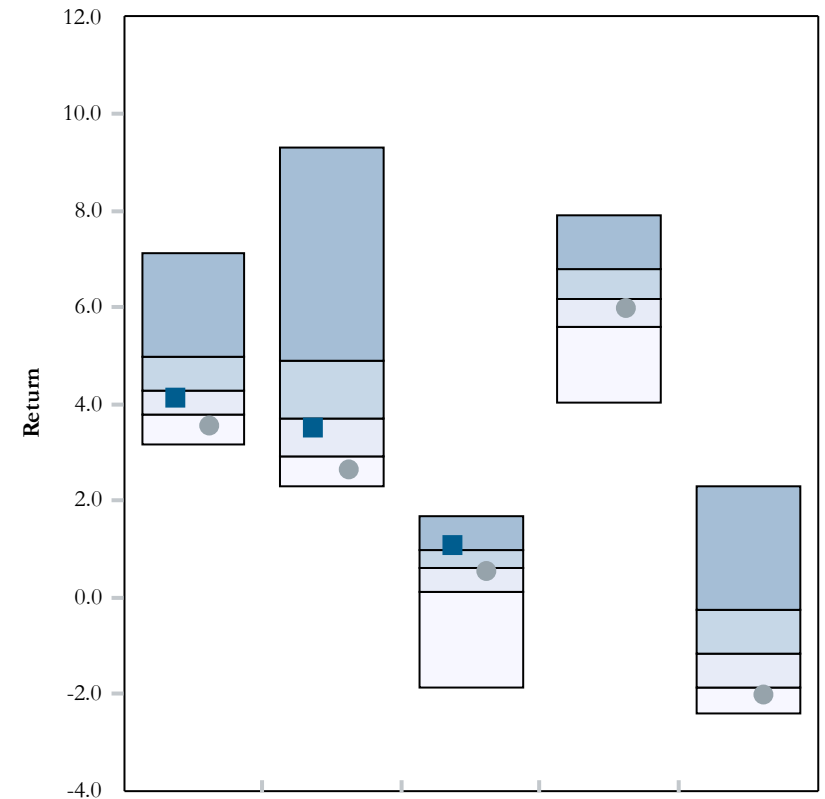
Peer Group: IM U.S. Broad Market Fixed Income (SA+CF)



	1 Quarter	YTD	1 Year	3 Years	5 Years
Fund	-0.06 (93)	-1.57 (81)	-1.11 (83)	1.84 (64)	N/A
Benchmark	0.02 (88)	-1.60 (84)	-1.22 (90)	1.31 (94)	2.16 (92)

5th Percentile	1.23	0.35	1.20	4.60	4.33
1st Quartile	0.47	-0.85	-0.25	2.70	3.21
Median	0.25	-1.20	-0.63	2.08	2.77
3rd Quartile	0.10	-1.46	-0.98	1.63	2.41
95th Percentile	-0.20	-1.79	-1.41	1.29	2.09

Population	324	324	324	317	310
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	2017	2016	2015	2014	2013
Fund	4.14 (60)	3.49 (57)	1.05 (22)	N/A	N/A
Benchmark	3.54 (89)	2.65 (86)	0.55 (57)	5.97 (63)	-2.02 (82)

5th Percentile	7.14	9.34	1.68	7.91	2.30
1st Quartile	5.00	4.89	1.00	6.79	-0.26
Median	4.30	3.72	0.63	6.17	-1.14
3rd Quartile	3.80	2.95	0.11	5.62	-1.84
95th Percentile	3.19	2.32	-1.86	4.06	-2.38

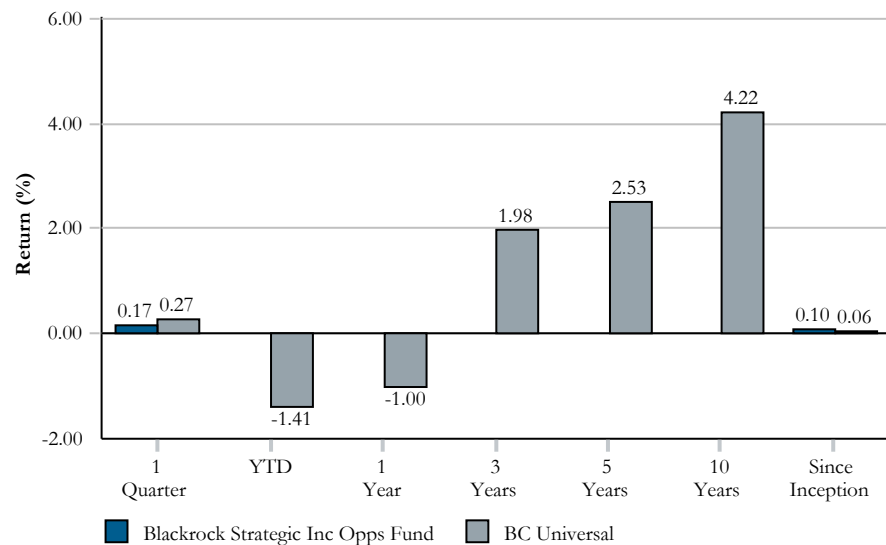
Population	339	354	368	392	410
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# Michigan County Road Commission Self-Insurance Pool

## Blackrock Strategic Inc Opps Fund Performance Summary

### As of September 30, 2018

#### Trailing Performance Returns (%)



#### Manager Over/Under Performance

No data found.

#### Calendar Year Returns (%)

	2017	2016	2015	2014	2013
Fund	N/A	N/A	N/A	N/A	N/A
Benchmark	4.09	3.91	0.43	5.56	-1.34

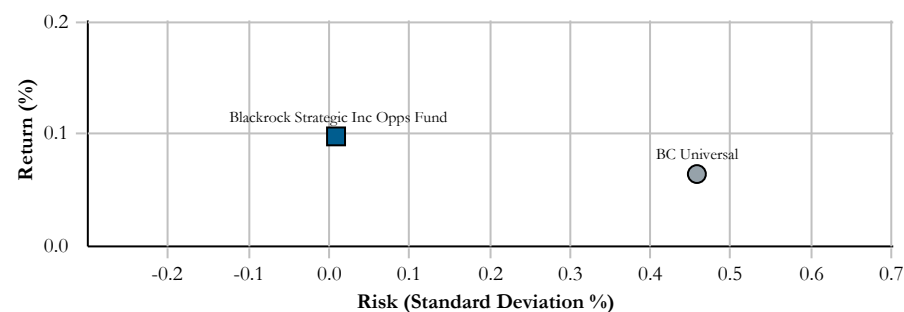
#### Portfolio Characteristics

	Return	Standard Deviation	Beta	Jensen Alpha	R-Squared	Inception Date
Fund	0.10	0.01	0.02	-0.12	1.00	08/01/2018
Benchmark	0.06	0.46	1.00	0.00	1.00	08/01/2018

#### Asset Growth (\$000)

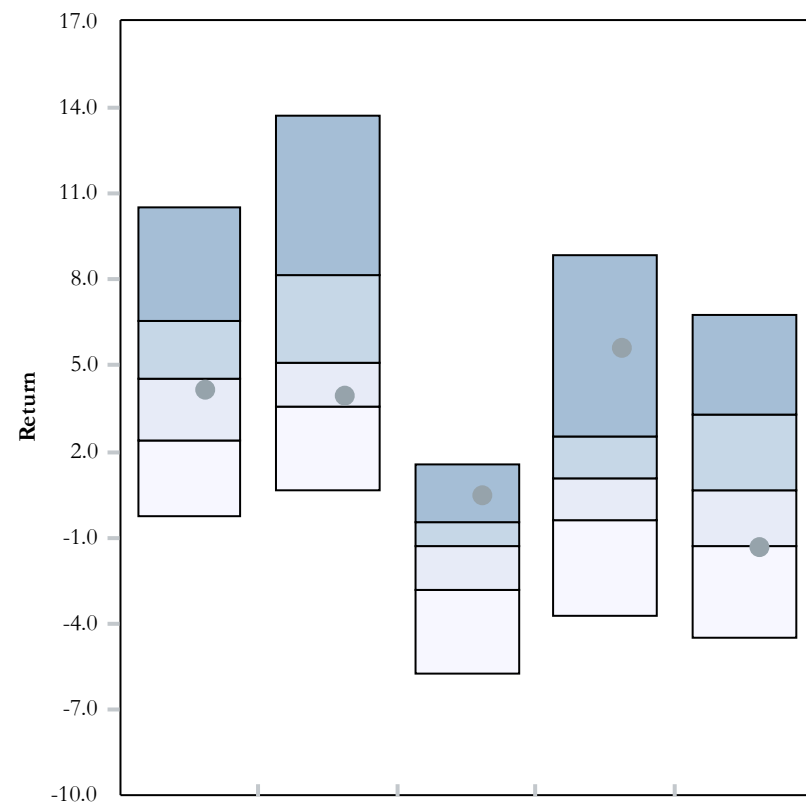
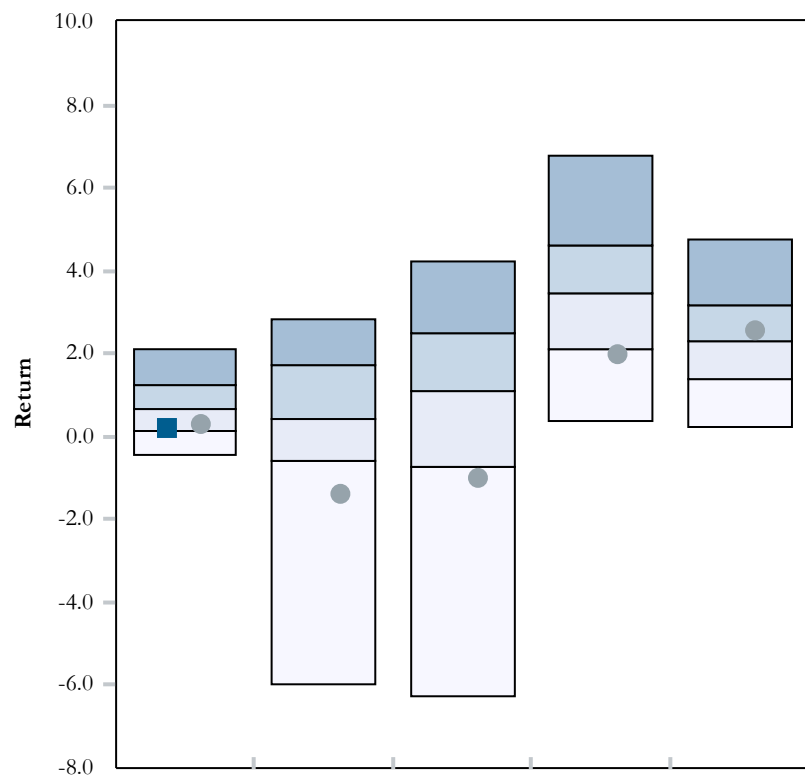
	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Blackrock Strategic Inc Opps Fund							08/01/2018
Beginning Market Value	7,345	-	-	-	-	7,345	
Net Contributions	-12	-	-	-	-	-6	
Income	42	-	-	-	-	37	
Gain/Loss	-30	-	-	-	-	-30	
Ending Market Value	7,346	-	-	-	-	7,346	

#### Risk / Return



**Michigan County Road Commission Self-Insurance Pool**  
**Blackrock Strategic Inc Opps Fund vs. BC Universal**  
**As of September 30, 2018**

**Peer Group: IM Alternative Credit Focus (MF)**



## Performance Appendix

Portfolio Name	QTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Blackrock Strategic Inc Opps Fund	0.09	--	--	--	--	--	0.09	07/01/2018
Clearbridge INTL	-1.35	--	--	--	--	--	-1.35	07/01/2018
Clearbridge Large Growth	2.62	--	--	--	--	--	2.62	07/01/2018
Cushing MLP	0.27	0.14	1.62	--	--	--	1.65	07/01/2017
Delaware	8.27	10.03	15.65	--	--	--	12.80	10/01/2016
Henderson Geneva	11.17	24.37	27.85	19.89	--	--	14.00	11/01/2014
Lazard	0.35	-4.09	0.79	7.40	--	--	2.47	11/01/2014
Lazard Emerging Markets	-1.89	-15.16	-8.25	--	--	--	-0.66	07/01/2017
London Company	9.52	7.44	13.49	10.45	--	--	5.52	11/01/2014
Loomis Sayles/Natixis	6.97	11.14	18.22	20.11	--	--	15.93	11/01/2014
NWQ Investment Management	-1.58	4.16	10.23	15.96	--	--	10.02	11/01/2014
Wedge Capital Management	-0.16	-1.87	-1.51	1.40	--	--	1.84	10/01/2014
Western Asset - Core Plus -SMASH	-0.15	-2.99	-3.00	1.67	--	--	1.69	11/01/2014

## Glossary of Terms

**Active Contribution Return:** The gain or loss percentage of an investment relative to the performance of the investment benchmark.

**Active Exposure:** The percentage difference in weight of the portfolio compared to its policy benchmark.

**Active Return:** Arithmetic difference between the manager's return and the benchmark's return over a specified time period.

**Actual Correlation:** A measure of the correlation (linear dependence) between two variables X and Y, with a value between +1 and -1 inclusive. This is also referred to as coefficient of correlation.

**Alpha:** A measure of a portfolio's time weighted return in excess of the market's return, both adjusted for risk. A positive alpha indicates that the portfolio outperformed the market on a risk-adjusted basis, and a negative alpha indicates the portfolio did worse than the market.

**Best Quarter:** The highest quarterly return for a certain time period.

**Beta:** A measure of the sensitivity of a portfolio's time weighted return (net of fees) against that of the market. A beta greater than 1.00 indicates volatility greater than the market.

**Consistency:** The percentage of quarters that a product achieved a rate of return higher than that of its benchmark. The higher the consistency figure, the more value a manager has contributed to the product's performance.

**Core:** Refers to an investment strategy mandate that is blend of growth and value styles without a pronounced tilt toward either style.

**Cumulative Selection Return (*Cumulative Return*):** Cumulative investment performance over a specified period of time.

**Distribution Rate:** The most recent distribution paid, annualized, and then divided by the current market price. Distribution rate may consist of investment income, short-term capital gains, long-term capital gains, and/or return of capital.

**Down Market Capture:** The ratio of average portfolio returns over the benchmark during periods of negative benchmark return. Lower values indicate better product performance.

**Downside Risk:** A measure similar to standard deviation, but focuses only on the negative movements of the return series. It is calculated by taking the standard deviation of the negative quarterly set of returns. The higher the value, the more risk the product has.

**Downside Semi Deviation:** A statistical calculation that measures the volatility of returns below a minimum acceptable return. This return measure isolates the negative portion of volatility: the larger the number, the greater the volatility.

**Drawdown:** A drawdown is the peak-to-trough decline during a specific period of an investment, fund or commodity.

**Excess over Benchmark:** The percentage gain or loss of an investment relative to the investment's benchmark.

**Excess Return:** Arithmetic difference between the manager's return and the risk-free return over a specified time period.

**Growth:** A diversified investment strategy which includes investment selections that have capital appreciation as the primary goal, with little or no dividend payouts. These strategies can include reinvestment in expansion, acquisitions, and/or research and development opportunities.

**Growth of Dollar:** The aggregate amount an investment has gained or lost over a certain time period, also referred to as Cumulative Return, stated in terms of the amount to which an initial dollar investment would have grown over the given time period.

**Investment Decision Process (IDP):** A model for structuring the investment process and implementing the correct attribution methodologies. The IDP includes every decision made concerning the division of the assets under management over the various asset categories. To analyze each decision's contribution to the total return, a modeling approach must measure the marginal value of every individual decision. In this respect, the hierarchy of the decisions becomes very important. We therefore use the IDP model, which serves as a proper foundation for registering the decisions and relating them to each other.

**Information Ratio:** Measured by dividing the active rate of return by the tracking error. The higher the Information Ratio, the more value-added contribution by the manager.

**Jensen's Alpha:** The Jensen's alpha measure is a risk-adjusted performance measure that represents the average return on a portfolio or investment above or below that predicted by the capital asset pricing model (CAPM) given the portfolio's or investment's beta and the average market return. This metric is also commonly referred to as alpha.

**Kurtosis:** A statistical measure that is used to describe the distribution, or skewness, of observed data around the mean, sometimes referred to as the volatility of volatility.

**Maximum Drawdown:** The drawdown is defined as the percent retrenchment from a fund's peak to the fund's trough value. It is in effect from the time the fund's retrenchment begins until a new fund high is reached. The maximum drawdown encompasses both the period from the fund's peak to the fund's valley (length), and the time from the fund's valley to a new fund high (recovery). It measures the largest percentage drawdown that has occurred in any fund's data record.

**Modern Portfolio Theory (MPT):** An investment analysis theory on how risk-averse investors can construct portfolios to optimize or maximize expected return based on a given level of market risk, emphasizing that risk is an inherent part of higher reward.

**Mutual Fund (MF):** An investment program funded by shareholders that trade in diversified holdings and is professionally managed.

**Peer Group:** A combination of funds that share the same investment style combined as a group for comparison purposes.

**Peer/ Plan Sponsor Universe:** A combination of asset pools of total plan investments by specific sponsor and plan types for comparison purposes.

**Performance Ineligible Assets:** Performance returns are not calculated for certain assets because accurate valuations and transaction data for these assets are not processed or maintained.

these include life insurance, some annuities and some assets held externally.

**Performance Statistics:** A generic term for various measures of investment performance measurement terms.

**Portfolio Characteristics:** A generic term for various measures of investment portfolio characteristics.

**Preferred Return:** A term used in the private equity (PE) world, and also referred to as a “Hurdle Rate.” It refers to the threshold return that the limited partners of a private equity fund must receive, prior to the PE firm receiving its carried interest or “carry.”

**Ratio of Cumulative Wealth:** A defined ratio of the Cumulative Return of the portfolio divided by the Cumulative Return of the benchmark for a certain time period.

**Regression Based Analysis:** A statistical process for estimating the relationships among variables. It includes many techniques for modeling and analyzing several variables, when the focus is on the relationship between a dependent variable and one or more independent variables

**Residual Correlation:** Within returns-based style analysis, residual correlation refers to the portion of a strategy’s return pattern that cannot be explained by its correlation to the asset-class benchmarks to which it is being compared.

**Return:** A rate of investment performance for the specified period.

**Rolling Percentile Ranking:** A measure of an investment portfolio’s ranking versus a peer group for a specific rolling time period (i.e. Last 3 Years, Last 5 years, etc.).

**R-Squared:** The percentage of a portfolio’s performance explained by the behavior of the appropriate benchmark. High R-Squared means a higher correlation of the portfolio’s performance to the appropriate benchmark.

**SA/CF (Separate Account/Comingled Fund):** Represents an acronym for Separate Account and Commingled Fund investment vehicles.

**Sector Benchmark:** A market index that serves as a proxy for a sector within an asset class.

**Sharpe Ratio:** Represents the excess rate of return over the risk free return divided by the standard deviation of the excess return. The result is the absolute rate of return per unit of risk. The higher the value, the better the product’s historical risk-adjusted performance results in.

**Standard Deviation:** A statistical measure of the range of a portfolio’s performance; the variability of a return around its average return over a specified time period.

**Total Fund Benchmark:** The policy benchmark for a complete asset pool that could consist of multiple investment mandates.

**Total Fund Composite:** The aggregate of multiple portfolios within an asset pool or household.

**Tracking Error:** A measure of standard deviation for a portfolio’s investment performance, relative to the performance of an appropriate market benchmark.

**Treynor Ratio:** A ratio that divides the excess return (above the risk free rate) by the portfolio’s beta to arrive at a unified measure of risk adjusted return. It is generally used to rank portfolios, funds and benchmarks. A higher ratio is indicative of higher returns per unit of market risk. This measurement can help determine if the portfolio is reaching its goal of increasing returns while managing market risk.

**Up Market Capture:** The ratio of average portfolio returns over the benchmark during periods of positive benchmark return. Higher values indicate better product performance.

**Upside Semi Deviation:** A statistical calculation that measures the volatility of returns above an acceptable return. This return measure isolates the positive portion of volatility: the larger the number, the greater the volatility.

**Value:** A diversified investment strategy that includes investment selections which tend to trade at a lower price relative to its dividends, earnings, and sales. Common attributes are stocks that include high dividend, low price-to-book ratio, and/or low price-to-earnings ratio.

**Worst Quarter:** The lowest rolling quarterly return for a certain time period.

## Information Disclosures

*The performance data shown reflects past performance, which does not guarantee future results. Investment return and principal will fluctuate so that an investor’s shares when redeemed may be worth more or less than original cost. Please note, current performance may be higher or lower than the performance data shown. For up to date month-end performance information, please contact your Financial Advisor or visit the funds’ company website.*

*Investors should carefully consider the fund’s investment objectives, risks, charges and expenses before investing. The prospectus and, if available the summary prospectus, contains this and other information that should be read carefully before investing. Investors should review the information in the prospectus carefully. To obtain a prospectus, please contact your Financial Advisor or visit the funds’ company website.*

Past performance is no guarantee of future results.

Investing involves market risk, including possible loss of principal. **Growth investing** does not guarantee a profit or eliminate risk. The stocks of these companies can have relatively high valuations. Because of these high valuations, an investment in a growth stock can be more risky than an investment in a company with more modest growth expectations. **Value investing** involves the risk that the market may not recognize that securities are undervalued and they may not appreciate as anticipated. **Small and mid-capitalization companies** may lack the financial resources, product diversification and competitive strengths of larger companies. The securities of small capitalization companies may not trade as readily as, and be subject to higher volatility than those of larger, more established companies. **Bond funds** and bond holdings have the same interest rate, inflation and credit risks that are associated with the underlying bonds owned by the funds. The return of principal in bond funds, and in funds with significant bond holdings, is not guaranteed. **International securities’** prices may carry additional risks, including foreign economic, political, monetary and/or legal factors, changing currency exchange rates, foreign taxes and differences in financial and accounting standards. International investing may not be for everyone. These risks may be magnified in emerging markets. **Alternative investments**, including private equity funds, real estate funds, hedge funds, managed futures funds, and funds of hedge funds, private equity, and managed futures funds, are speculative and entail significant risks that can include losses due to leveraging or/other speculative investment practices, lack of liquidity, volatility of returns, restrictions on transferring interests in a fund, potential lack of diversification, absence and/or delay of information regarding valuations and pricing, complex tax structures and delays in tax reporting, less regulation and higher fees than mutual funds and risks associated with the operations, personnel and processes of the advisor. **Master Limited Partnerships (MLPs)** are limited partnerships or limited liability companies that are taxed as partnerships and whose interests (limited partnership units or limited liability company units) are traded on securities exchanges like shares of common stock. Currently, most MLPs operate in the energy, natural resources or real estate

sectors. Investments in MLP interests are subject to the risks generally applicable to companies in the energy and natural resources sectors, including commodity pricing risk, supply and demand risk, depletion risk and exploration risk; and MLP interests in the real estate sector are subject to special risks, including interest rate and property value fluctuations, as well as risks related to general and economic conditions. Because of their narrow focus, MLPs maintain exposure to price volatility of commodities and/or underlying assets and tend to be more volatile than investments that diversify across many sectors and companies. MLPs are also subject to additional risks including: investors having limited control and rights to vote on matters affecting the MLP, limited access to capital, cash flow risk, lack of liquidity, dilution risk, conflict of interests, and limited call rights related to acquisitions.

**Mortgage backed securities** also involve prepayment risk, in that faster or slower prepayments than expected on underlying mortgage loans can dramatically alter the yield-to-maturity of a mortgage-backed security and prepayment risk includes the possibility that a fund may invest the proceeds at generally lower interest rates.

**Tax managed funds** may not meet their objective of being tax-efficient.

**Real estate** investments are subject to special risks, including interest rate and property value fluctuations, as well as risks related to general and economic conditions. **High yield** fixed income securities, also known as “junk bonds”, are considered speculative, involve greater risk of default and tend to be more volatile than investment grade fixed income securities.

Credit quality is a measure of a bond issuer’s creditworthiness, or ability to repay interest and principal to bondholders in a timely manner. The credit ratings shown are based on security rating as provided by Standard & Poor’s, Moody’s and/or Fitch, as applicable. Credit ratings are issued by the rating agencies for the underlying securities in the fund and not the fund itself, and the credit quality of the securities in the fund does not represent the stability or safety of the fund. Credit ratings shown range from AAA, being the highest, to D, being the lowest based on S&P and Fitch’s classification (the equivalent of Aaa and C, respectively, by Moody’s). Ratings of BBB or higher by S&P and Fitch (Baa or higher by Moody’s) are considered to be investment grade-quality securities. If two or more of the agencies have assigned different ratings to a security, the highest rating is applied. Securities that are not rated by all three agencies are listed as “NR”.

“**Alpha tilt strategies** comprise a core holding of stocks that mimic a benchmark type index such as the S&P 500 to which additional securities are added to help tilt the fund toward potentially outperforming the market in an effort to enhance overall investment returns. Tilt strategies are subject to significant timing risk and could potentially expose investors to extended periods of underperformance.”

**Custom Account Index:** The Custom Account Index is an investment benchmark based on your historical target allocations and/or manager selection that you may use to evaluate the performance of your account. The Custom Account index does take into consideration certain changes that may have occurred in your portfolio since the inception of your account, i.e., asset class and/or manager changes. However, in some circumstances, it may not be an appropriate benchmark for use with your specific account composition. For detailed report of the historical composition of this blend please contact your Financial Advisor.

## Peer Groups

Peer Groups are a collection of similar investment strategies that essentially group investment products that share the same investment approach. Peer Groups are used for comparison purposes to compare and illustrate a client’s investment portfolio versus its peer across various quantitative metrics like performance and risk. Peer Group comparison is conceptually another form of benchmark comparison whereby the

actual investment can be ranked versus its peer across various quantitative metrics.

All Peer Group data are provided by Investment Metrics, LLC.

The URL below provides all the definitions and methodology about the various Peer Groups

<https://www.invmetrics.com/style-peer-groups>

## Peer Group Ranking Methodology

A percentile rank denotes the value of a product in which a certain percent of observations fall within a peer group. The range of percentile rankings is between 1 and 100, where 1 represents a high statistical value and 100 represents a low statistical value.

The 30th percentile, for example, is the value in which 30% of the highest observations may be found, the 65th percentile is the value in which 65% of the highest observations may be found, and so on.

Percentile rankings are calculated based on a normalized distribution ranging from 1 to 100 for all products in each peer group, where a ranking of 1 denotes a high statistical value and a ranking of 100 denotes a low statistical value. It is important to note that the same ranking methodology applies to all statistics, implying that a ranking of 1 will always mean highest value across all statistics.

For example, consider a risk/return assessment using standard deviation as a measure of risk. A percentile ranking equal to 1 for return denotes highest return, whereas a percentile ranking of 1 for standard deviation denotes highest risk among peers.

In addition, values may be used to demonstrate quartile rankings. For example, the third quartile is also known as the 75th percentile, and the median is the 50th percentile.

## Alternatives

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Traditional alternative investment vehicles are illiquid and usually are not valued daily. The estimated valuation provided will be as of the most recent date available and will be included in summaries of your assets. Such valuation may not be the most recent provided by the fund in which you are invested. No representation is made that the valuation is a market value or that the interest could be liquidated at this value. We are not required to take any action with respect to your investment unless valid instructions are received from you in a timely manner. Some positions reflected herein may not represent interests in the fund, but rather redemption proceeds withheld by the issuer pending final valuations which are not subject to the investment performance of the fund and may or may not accrue interest for the length of the withholding. Morgan Stanley does not engage in an independent valuation of your alternative investment assets. Morgan Stanley provides periodic information to you including the market value of an alternative investment vehicle based on information received from the management entity of the alternative investment vehicle or another service provider.

Traditional alternative investment vehicles often are speculative and include a high degree of risk. Investors should carefully review and consider potential risks before investing. Certain of these risks may include but are not limited to: • Loss of all or a substantial portion of the investment due to leveraging, short-selling, or other speculative practices; • Lack of liquidity in that there may be no secondary market for a fund; • Volatility of returns; • Restrictions on transferring interests in a fund; • Potential lack of diversification and resulting higher risk due to concentration of trading authority when a single advisor is utilized; • Absence of information regarding valuations and pricing; • Complex tax structures and delays in tax reporting; • Less regulation and higher fees than mutual funds; and • Risks associated with the operations, personnel, and processes of the manager. As a diversified global financial services firm, Morgan Stanley Wealth Management engages in a broad spectrum of activities including financial advisory services, investment management activities, sponsoring and managing private investment funds, engaging in broker-dealer transactions and principal securities, commodities and foreign exchange transactions, research publication, and other activities. In the ordinary course of its business, Morgan Stanley Wealth Management therefore engages in activities where Morgan Stanley Wealth Management's interests may conflict with the interests of its clients, including the private investment funds it manages. Morgan Stanley Wealth Management can give no assurance that conflicts of interest will be resolved in favor of its clients or any such fund.

Indices are unmanaged and investors cannot directly invest in them. Composite index results are shown for illustrative purposes and do not represent the performance of a specific investment. Past performance is no guarantee of future results. Actual results may vary. Diversification does not assure a profit or protect against loss in a declining market. Any performance or related information presented has not been adjusted to reflect the impact of the additional fees paid to a placement agent by an investor (for Morgan Stanley placement clients, a one-time upfront Placement Fee of up to 3%, and for Morgan Stanley investment

advisory clients, an annual advisory fee of up to 2.5%), which would result in a substantial reduction in the returns if such fees were incorporated.

For most investment advisory clients, the program account will be charged an asset-based wrap fee every quarter ("the Fee"). In general, the Fee covers investment advisory services and reporting. In addition to the Fee, clients will pay the fees and expenses of any funds in which their account is invested. Fund fees and expenses are charged directly to the pool of assets the fund invests in and impact the valuations. Clients must understand that these fees and expenses are an additional cost and will not be included in the Fee amount in the account statements.

As fees are deducted quarterly, the compounding effect will be to increase the impact of the fees by an amount directly related to the gross account performance. For example, for an account with an initial value of \$100,000 and a 2.5% annual fee, if the gross performance is 5% per year over a three year period, the compounding effect of the fees will result in a net annual compound rate of return of approximately 2.40% per year over a three year period, and the total value of the client's portfolio at the end of the three year period would be approximately \$115,762.50 without the fees and \$107,372.63 with the fees. Please see the applicable Morgan Stanley Smith Barney LLC Form ADV Part 2A for more information including a description of the fee schedule. It is available at [www.morganstanley.com/ADV](http://www.morganstanley.com/ADV) <<http://www.morganstanley.com/ADV>> or from your Financial Advisor/Private Wealth Advisor.

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### Money Market Funds

You could lose money in Money Market Funds. Although MMFs classified as government funds (i.e., MMFs that invest 99.5% of total assets in cash and/or securities backed by the U.S government) and retail funds (i.e., MMFs open to natural person investors only) seek to preserve value at \$1.00 per share, they cannot guarantee they will do so. The price of other MMFs will fluctuate and when you sell shares they may be worth more or less than originally paid. MMFs may impose a fee upon sale or temporarily suspend sales if liquidity falls below required minimums. During suspensions, shares would not be available for purchases, withdrawals, check writing or ATM debits. A MMF investment is not insured or guaranteed by the Federal Deposit Insurance Corporation or other government agency.

# Michigan County Road Commission Self-Insurance Pool

November 21, 2018

	Mandate	Current Value	% of Portfolio	Policy Target	Value at Policy Target	Recommended Rebalance	Value after Rebalance	% After Rebalance	% Over (Under) vs. Policy	\$ Value Over (Under) vs. Policy
<b>Domestic Equities (16 - 66%)</b>		<b>\$26,212,004.80</b>	<b>43.31%</b>	<b>41.00%</b>	<b>\$24,815,838.52</b>	<b>\$0.00</b>	<b>\$26,212,004.80</b>	<b>43.31%</b>	<b>2.31%</b>	<b>\$1,396,166.28</b>
<b>Domestic Large Cap Core</b>		<b>\$5,268,359.60</b>	<b>8.70%</b>	<b>8.00%</b>	<b>\$4,842,114.83</b>	<b>\$0.00</b>	<b>\$5,268,359.60</b>	<b>8.70%</b>	<b>0.70%</b>	<b>\$426,244.77</b>
	The London Company	\$5,268,359.60	8.70%	8.00%	\$4,842,114.83	\$0.00	\$5,268,359.60	8.70%		
<b>Domestic Large Cap Growth</b>		<b>\$9,818,804.92</b>	<b>16.22%</b>	<b>14.00%</b>	<b>\$8,473,700.96</b>	<b>\$0.00</b>	<b>\$9,818,804.92</b>	<b>16.22%</b>	<b>2.22%</b>	<b>\$1,345,103.96</b>
	Loomis Sayles	\$5,841,256.51	9.65%	7.00%	\$4,236,850.48	\$0.00	\$5,841,256.51	9.65%		
	Clearbridge	\$3,977,548.41	6.57%	7.00%	\$4,236,850.48	\$0.00	\$3,977,548.41	6.57%		
<b>Domestic Large Cap Value</b>		<b>\$5,943,871.52</b>	<b>9.82%</b>	<b>9.00%</b>	<b>\$5,447,379.19</b>	<b>\$0.00</b>	<b>\$5,943,871.52</b>	<b>9.82%</b>	<b>0.82%</b>	<b>\$496,492.33</b>
	Delaware	\$5,943,871.52	9.82%	9.00%	\$5,447,379.19	\$0.00	\$5,943,871.52	9.82%		
<b>Domestic Small Cap Growth</b>		<b>\$2,803,022.58</b>	<b>4.63%</b>	<b>5.00%</b>	<b>\$3,026,321.77</b>	<b>\$0.00</b>	<b>\$2,803,022.58</b>	<b>4.63%</b>	<b>-0.37%</b>	<b>(\$223,299.19)</b>
	Henderson Geneva	\$2,803,022.58	4.63%	5.00%	\$3,026,321.77	\$0.00	\$2,803,022.58	4.63%		
<b>Domestic Small Cap Value</b>		<b>\$2,377,946.18</b>	<b>3.93%</b>	<b>5.00%</b>	<b>\$3,026,321.77</b>	<b>\$0.00</b>	<b>\$2,377,946.18</b>	<b>3.93%</b>	<b>-1.07%</b>	<b>(\$648,375.59)</b>
	NWQ	\$2,377,946.18	3.93%	5.00%	\$3,026,321.77	\$0.00	\$2,377,946.18	3.93%		
<b>International Equities (0 - 20%)</b>		<b>\$7,272,885.71</b>	<b>12.02%</b>	<b>14.00%</b>	<b>\$8,473,700.96</b>	<b>\$0.00</b>	<b>\$7,272,885.71</b>	<b>12.02%</b>	<b>-1.98%</b>	<b>(\$1,200,815.24)</b>
	Clearbridge	\$3,627,419.92	5.99%	7.00%	\$4,236,850.48	\$0.00	\$3,627,419.92	5.99%		
	Lazard w/Emerging	\$3,645,465.79	6.02%	7.00%	\$4,236,850.48	\$0.00	\$3,645,465.79	6.02%		
<b>Emerging Markets (0 - 8%)</b>		<b>\$2,473,341.46</b>	<b>4.09%</b>	<b>4.00%</b>	<b>\$2,421,057.42</b>	<b>\$0.00</b>	<b>\$2,473,341.46</b>	<b>4.09%</b>	<b>0.09%</b>	<b>\$52,284.04</b>
	Lazard	\$1,341,124.06	2.22%	2.00%	\$1,210,528.71	\$0.00	\$1,341,124.06	2.22%		
	Clearbridge	\$383,438.02	0.63%	1.00%	\$605,264.35	\$0.00	\$383,438.02	0.63%		
	Lazard w/Emerging	\$748,779.38	1.24%	1.00%	\$605,264.35	\$0.00	\$748,779.38	1.24%		
<b>Fixed Income (26 - 56%)</b>		<b>\$21,836,208.84</b>	<b>36.08%</b>	<b>36.00%</b>	<b>\$21,789,516.75</b>	<b>\$0.00</b>	<b>\$21,836,208.84</b>	<b>36.08%</b>	<b>0.08%</b>	<b>\$46,692.09</b>
	Wedge	\$7,300,336.69	12.06%	12.00%	\$7,263,172.25	\$0.00	\$7,300,336.69	12.06%		
	WAMCO	\$7,246,693.09	11.97%	12.00%	\$7,263,172.25	\$0.00	\$7,246,693.09	11.97%		
	Blackrock Strategic Inc Opp	\$7,289,179.06	12.04%	12.00%	\$7,263,172.25	\$0.00	\$7,289,179.06	12.04%		
<b>Alternative Investments (0- 10%)</b>		<b>\$2,731,737.41</b>	<b>4.51%</b>	<b>5.00%</b>	<b>\$3,026,321.77</b>	<b>\$0.00</b>	<b>\$2,731,737.41</b>	<b>4.51%</b>	<b>-0.49%</b>	<b>(\$294,584.36)</b>
	Cushing - MLPs	\$2,731,737.41	4.51%	5.00%	\$3,026,321.77	\$0.00	\$2,731,737.41	4.51%		
<b>Cash (0 - 10%)</b>		<b>\$257.20</b>	<b>0.00%</b>	<b>0.00%</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$257.20</b>	<b>0.00%</b>	<b>0.00%</b>	<b>\$257.20</b>
<b>Combined Accounts</b>		<b>\$60,526,435.42</b>	<b>100.00%</b>	<b>100.00%</b>	<b>\$60,526,435.42</b>	<b>\$0.00</b>	<b>\$60,526,435.42</b>	<b>100.00%</b>		

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## Alternative Investments & Hedge Funds

Prepared on November 26, 2018

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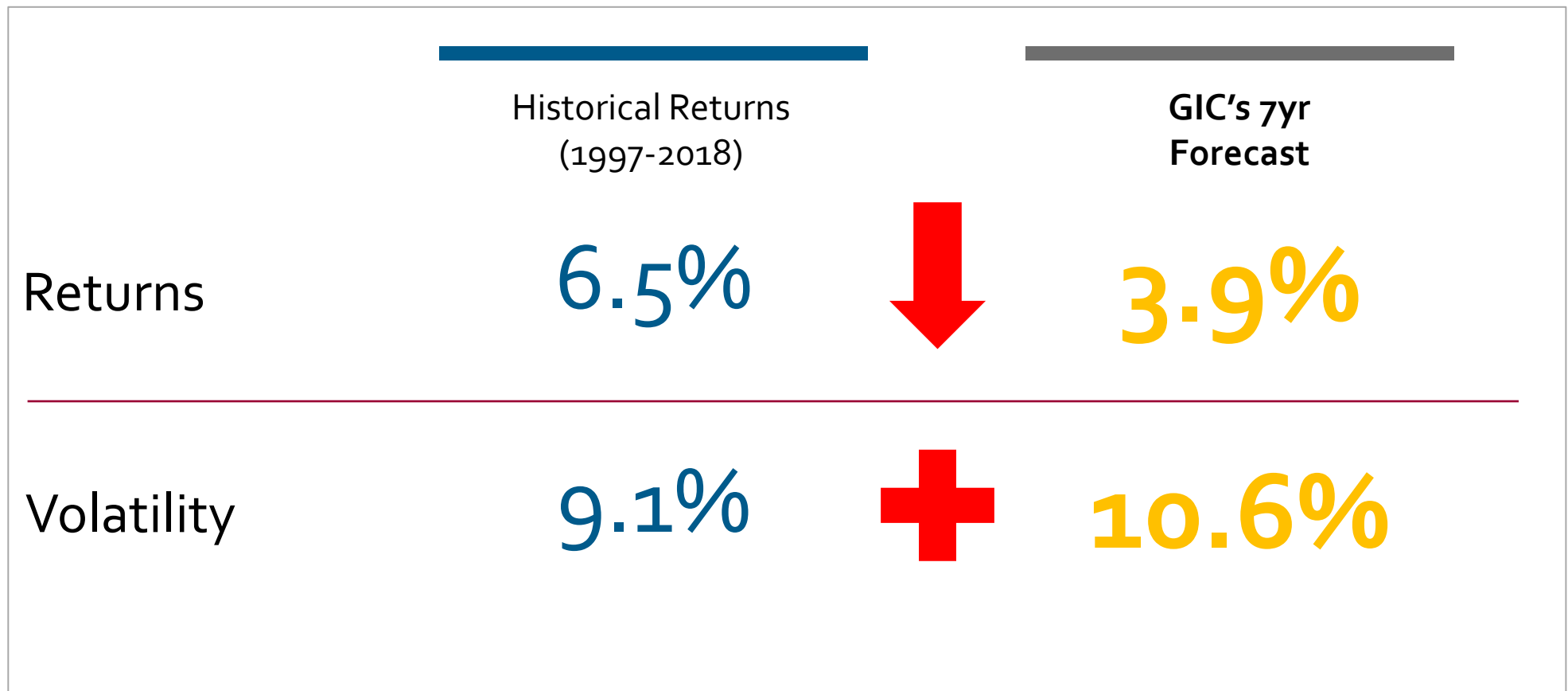
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Please review the disclosures and definitions throughout this Document.  
Various sub-sections of this Document may not contain information on all accounts/positions covered in this Document.

# The GIC Expects More Muted Returns Over the Next 7 Yrs

60%/40% Equity/Bond Portfolio

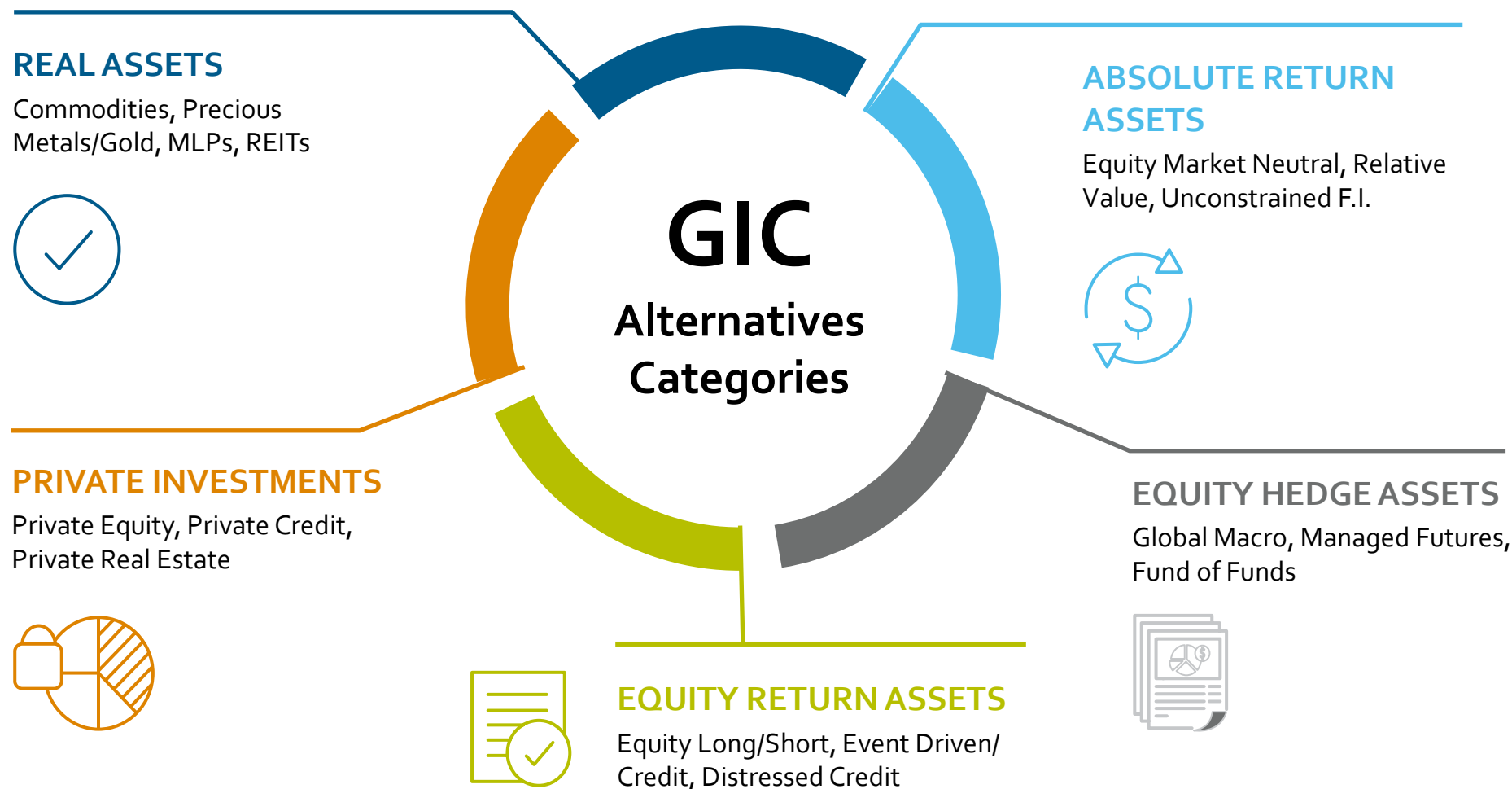
As of March 30, 2018



Source: Morgan Stanley Wealth Management GIC. Returns and Volatility are annualized numbers; GIC Forecast is a 7-year forecast based on strategic return assumptions in the *Inputs for GIC Asset Allocation: Annual Update of Capital Market Assumptions*, March 2018; equities represented by the Russell 1000 Index and bonds by the Bloomberg Barclays Capital US Aggregate Index.

Past performance is no guarantee of future results. Estimates of future performance are based on assumptions that may not be realized. This material is not a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy. Please refer to important information, disclosures and qualifications at the end of this material.

# The GIC Categorizes Alternatives Into Five Buckets



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# Alternatives Offer a Wide and Varying Degree of Liquidity



Source: Morgan Stanley Wealth Management GIC. Different investment vehicles may offer different degrees of liquidity, even within the same sector.

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# There Are Three Categories of Hedge Funds

## Absolute Return



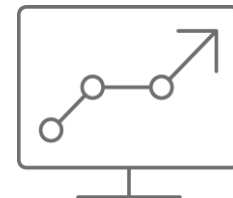
Attempts to provide a consistent return regardless of market conditions

## Equity Hedge



Provides uncorrelated exposure to traditional risk-asset markets

## Equity Return



Seeks superior returns with greater dispersion and higher volatility

Source: Morgan Stanley Wealth Management GIC

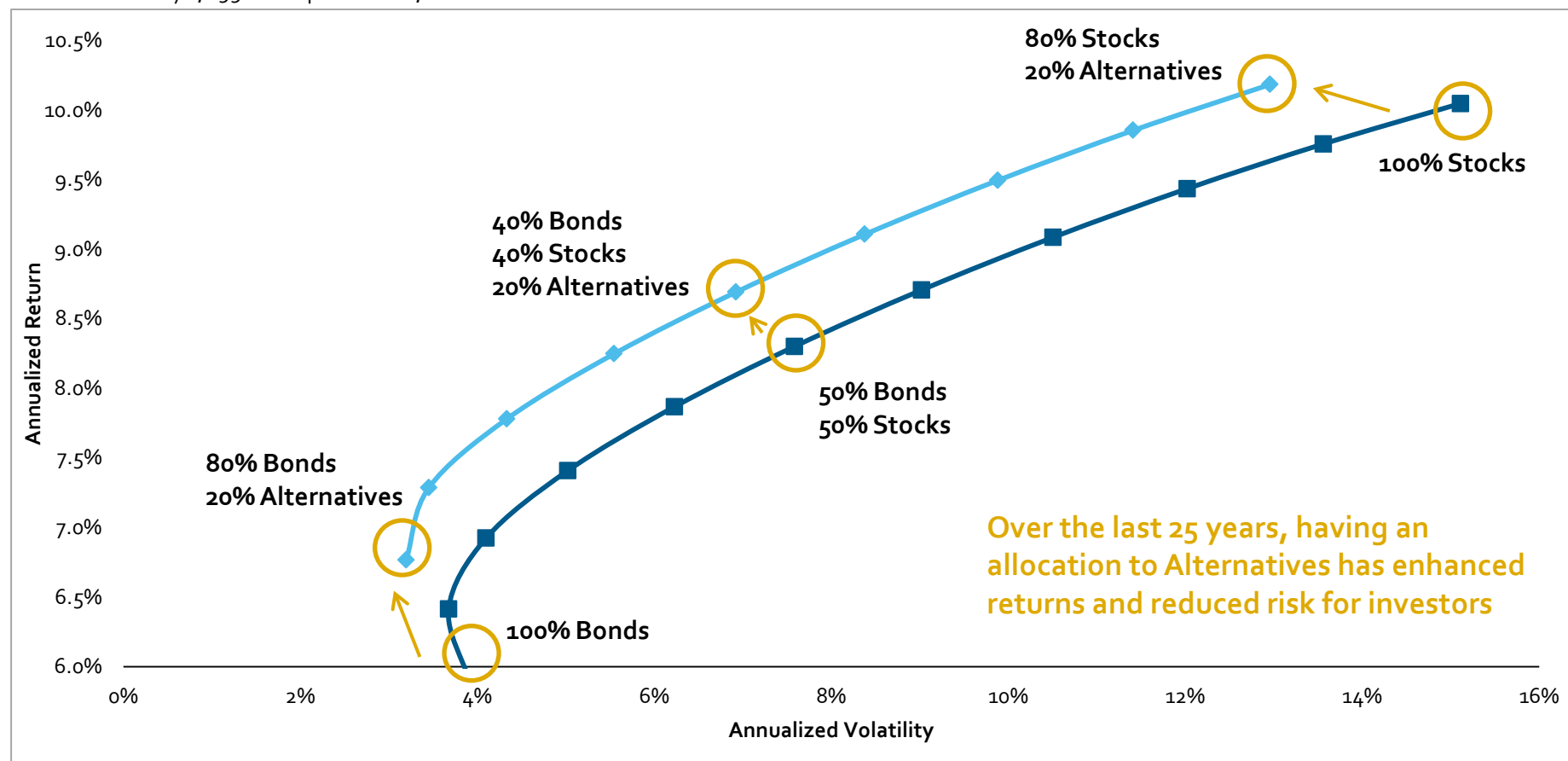
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# Adding Alternatives Exposure to a Portfolio May Reduce Volatility and Potentially Increase Returns

## Risk and Return Trade-Off With and Without Alternatives

Data as of January 1, 1990 to September 28, 2018



Source: Bloomberg, Morgan Stanley Wealth Management GIC, Thomson ONE. Private equity index data sourced from Thomson ONE's Cambridge Associates benchmarking database and is represented by Buyout, Distressed, Growth Equity, Mezzanine, Private Equity Energy, Upstream Energy & Royalties and Venture Capital. Private Equity data subject to 5-month lag; therefore, all asset classes are depicted as of 4Q 2016 for consistency. Private equity returns are net to limited partners. Stocks are represented by the S&P 500 Total Return Index. Bonds are represented by Barclays US Aggregate. Alternatives Investment are composed of 16.6% Equity Hedge (HFRI Equity Hedge Index), 16.6% Equity Neutral (HFRI Equity Market Neutral Index), 33% Private Equity, and 33% Real Estate (National Council of Real Estate Investment Fiduciaries Property Index -NCREIF). Alternatives investments are not suitable for all investors.

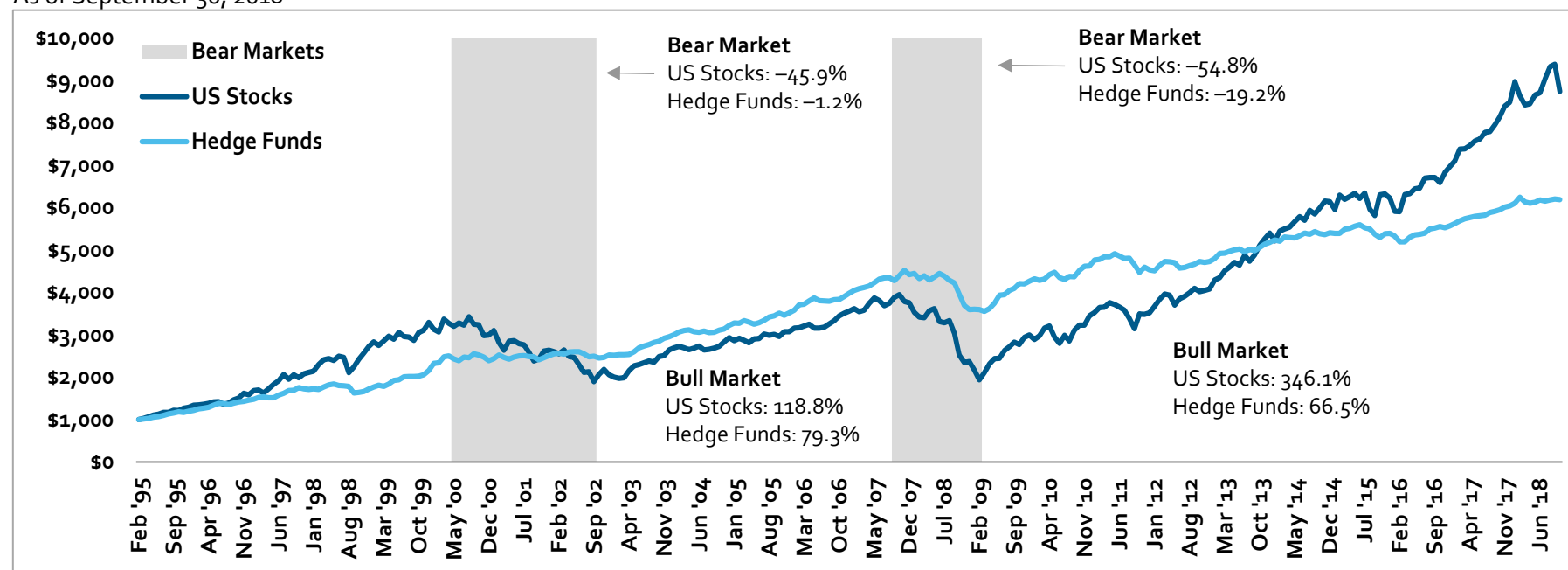
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# Hedge Fund Performance in Bear and Bull Markets

The case study below shows an example of what would have happened to a hypothetical \$1,000 investment in hedge funds and traditional US stocks, respectively, over a 25-year period. Hedge funds can help reduce portfolio volatility and add important diversification that can enhance performance while reducing risk.

## Hypothetical Investment in Hedge Funds and US Stocks Over 25 Years

As of September 30, 2018



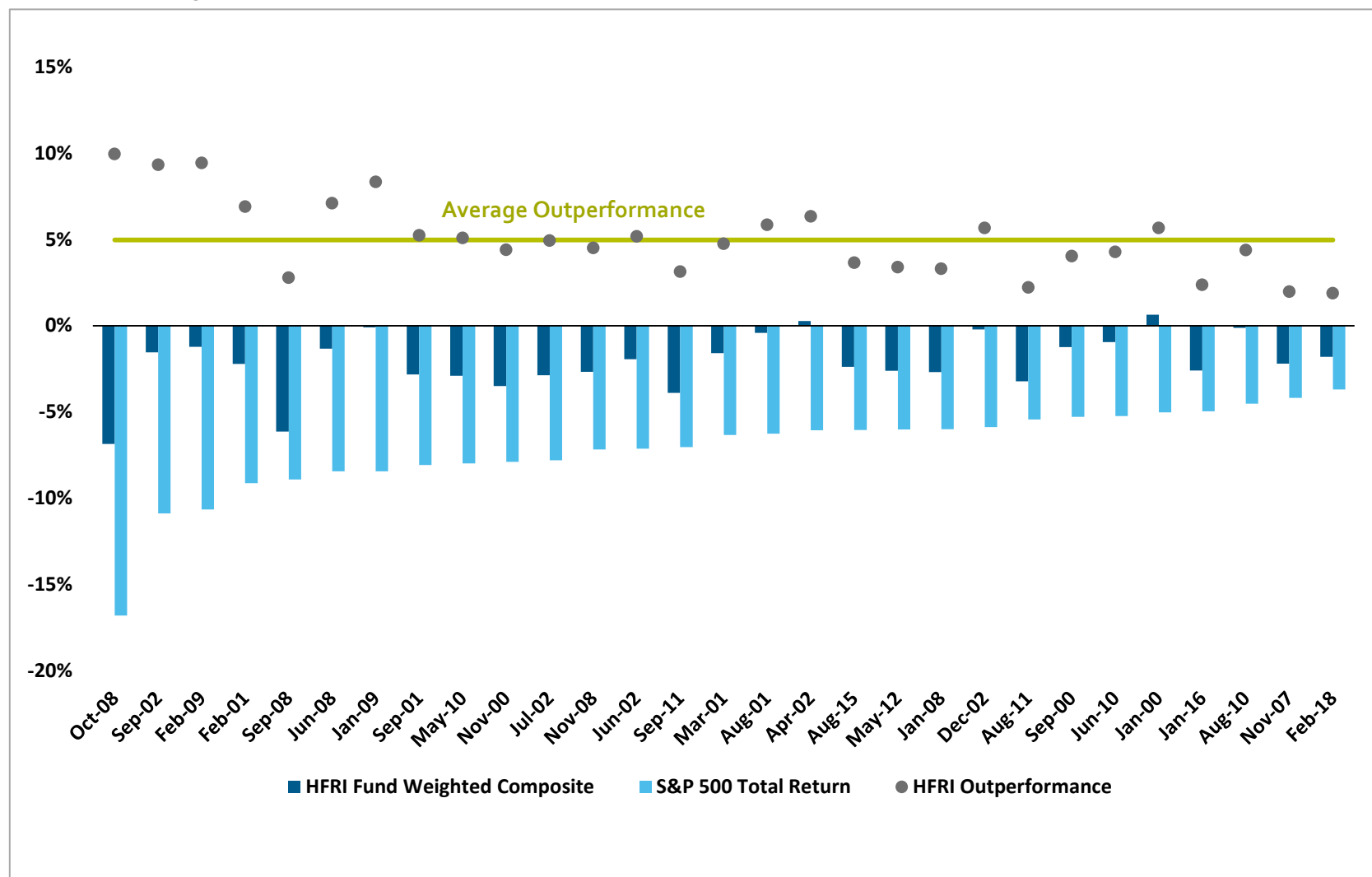
Source: Morgan Stanley Wealth Management Investment Resources, Bloomberg. Hedge funds represented by the HFRI Fund Weighted Composite Index, which is reported net of all fees; US stocks represented by the S&P 500 Index gross dividends. The hypothetical \$1,000 investment is shown for illustrative purposes only. Cumulative index returns specified. Index results are shown for illustrative purposes only and do not represent the performance of any specific investment. Index returns reflect reinvestment of any dividends and capital gains. Hypothetical performance should not be considered a guarantee of future performance or a guarantee of achieving overall financial objectives. Asset allocation and diversification do not assure a profit or protect against loss in declining financial markets. **For more information about the risks to hypothetical performance please refer to the Risk Considerations section at the end of this material.**

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# Hedged Strategies Performance During Market Downturns

HFRI Fund Weighted Composite Performance During Worst 30 Months for S&P 500

January 2000 – August 2018



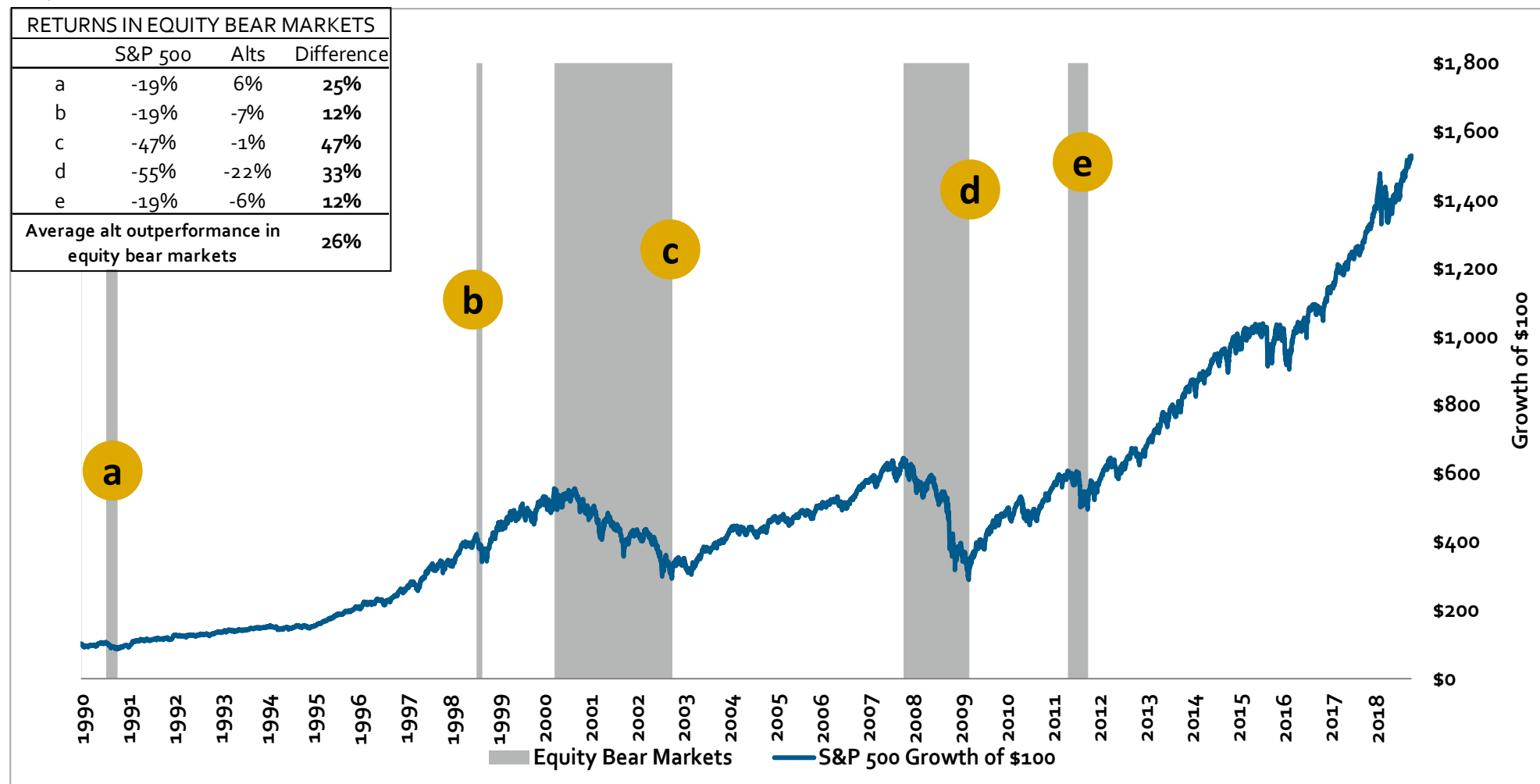
Source: Bloomberg, Morgan Stanley Wealth Management GIC.

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# Alternative Investments May Outperform in Challenging Equity Environments

## Equity Bear Markets Since 1990

Daily Data As of October 3, 2018

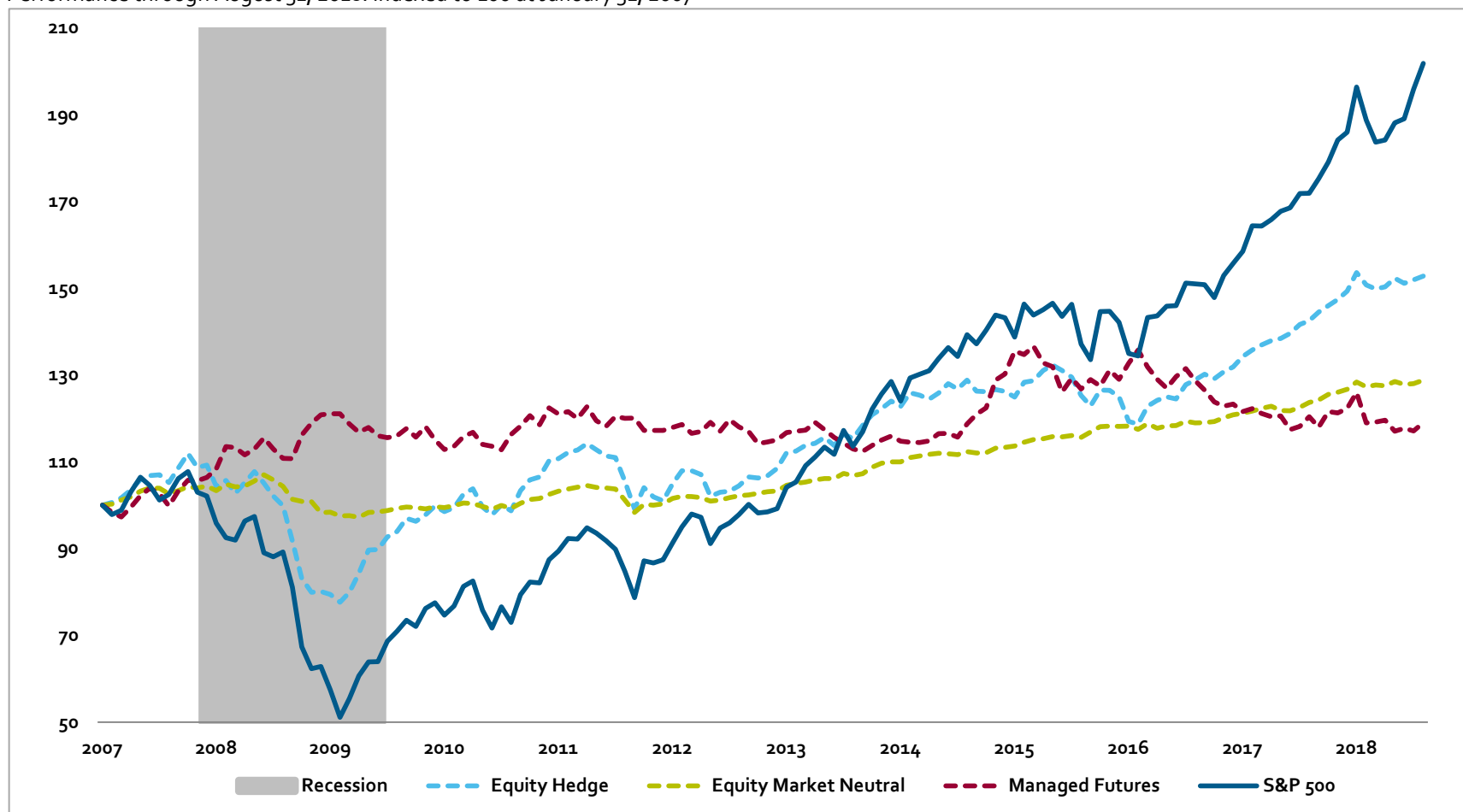


Source: Bloomberg, Goldman Sachs Asset Management, Morgan Stanley Wealth Management GIMA. Alternatives are represented by the HFRI FOF Index.

Past performance is no guarantee of future results. Estimates of future performance are based on assumptions that may not be realized. This material is not a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy. Please refer to important information, disclosures and qualifications at the end of this material.

# Hedged Strategy Performance Since Crisis

Performance through August 31, 2018. Indexed to 100 at January 31, 2007

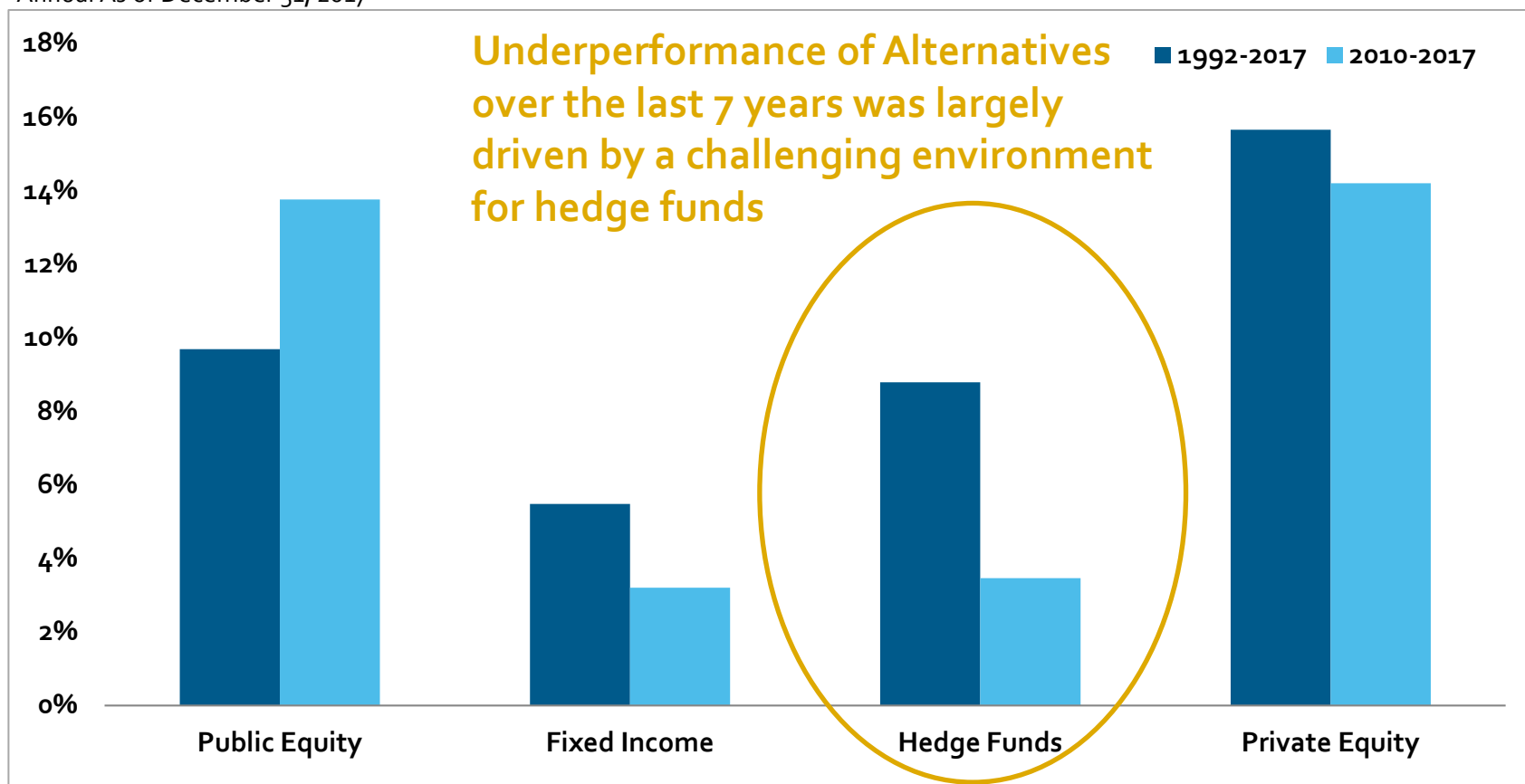


Source: HFRI Indices from Bloomberg, Morgan Stanley Wealth Management GIC. Indices used for this analysis include: BarclayHedge BTOP50 Index for managed futures; HFRI Equity Market Neutral Index for equity market neutral, and HFRI Equity Hedge Index for Equity Hedge. Standard deviation (volatility) is a measure of the dispersion of a set of data from its mean. For illustrative purposes only.

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# Alternatives' Contribution Has Been Muted in the Last Seven Years

US Public vs. Private Investments  
Annual As of December 31, 2017



Source: Bloomberg, Thomson One Cambridge Associates, Morgan Stanley Wealth Management Investment Resources. Public equity is represented by the S&P 500 Total Return Index, fixed income by the Bloomberg Barclays US Aggregate Bond Index, hedge funds by the HFRI Fund Weighted Composite Index. US private equity data sourced from Thomson ONE's Cambridge Associates benchmarking database and is represented by Buyout, Growth Equity, Mezzanine, Private Equity Energy, and Venture Capital within the United States. Private Equity data subject to 5-month lag; therefore, all asset classes are depicted as of latest reported PE data for consistency. Private equity returns are net to limited partners. Performance illustrated does not reflect fees or expenses, actual investor returns would be lower if these were deducted.

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# Hedged Strategies Correlation and Performance

Monthly Data As of August 31, 2018

Alternative Strategies	Annualized Performance since 1990	Annual Volatility, 25 Year Average	Long Run Correlations			
			Correlation to S&P	Correlation to Global Bonds	25-Year Sharpe Ratio	Maximum Drawdown
Equity Long/Short	11.4%	7.6%	0.73	0.03	0.98	(30.6%)
Event Driven	10.5%	5.5%	0.69	0.10	1.18	(24.8%)
Hedge Fund of Funds Composite	6.5%	4.6%	0.54	0.06	0.65	(22.2%)
Relative Value	9.0%	3.1%	0.51	0.19	1.46	(18.0%)
Equity Market Neutral	6.2%	2.5%	0.28	0.03	1.04	(9.2%)
Convertible Arbitrage	8.0%	3.9%	0.47	0.21	0.81	(35.3%)
Global Macro	9.9%	6.1%	0.31	0.07	0.97	(10.7%)
Distressed Credit	10.5%	5.1%	0.52	0.13	1.19	(27.4%)
Managed Futures <sup>1</sup>	8.8%	7.6%	0.38	0.01	0.78	(11.8%)
S&P 500	10.2%	12.8%			0.51	-50.9%
Barclays Capital Global Aggregate Bond Index	5.7%	5.1%			0.50	-10.1%

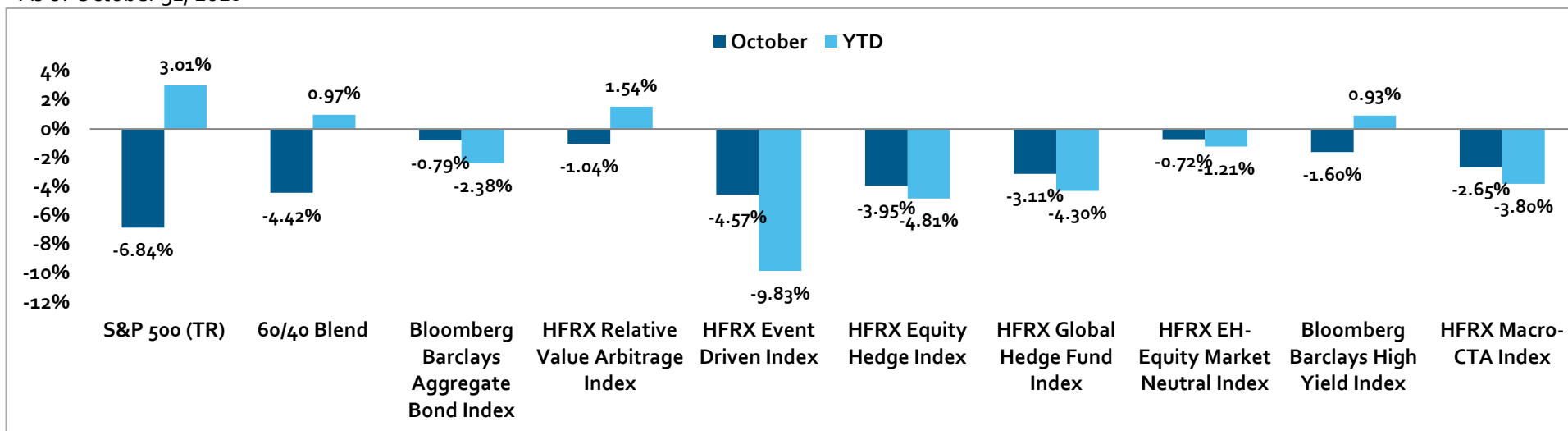
Source: Bloomberg. Morgan Stanley Wealth Management GIC. Calculated by Morgan Stanley Wealth Management. For illustrative purposes only. Sharpe ratio is calculated by subtracting the risk-free rate—such as that of the 3-month US Treasury bill—from the rate of return for a portfolio and dividing the result by the standard deviation of the portfolio returns. Standard deviation (volatility) is a measure of the dispersion of a set of data from its mean. Max Drawdown: The peak-to-trough decline during a specific period. Indices used for this analysis include: HFRI Equity Hedge (Total) Index for equity long/short, HFRI Event-Driven (Total) Index for event-driven, HFRI Fund of Funds Composite Index for fund of funds, HFRI Relative Value (Total) Index for relative value, HFRI Equity Market Neutral Index for equity market neutral, HFRI RV: Fixed Income-Convertible Arbitrage Index for convertible arbitrage, HFRI Macro (Total) Index for global macro, HFRI ED: Distressed/Restructuring Index for distressed credit, and HFRI Macro: Systematic Diversified Index for managed futures. Hedged strategies consist of hedge funds and managed futures. Note: (1) Managed futures data inception in April 30, 2007. All hedge fund indices have a one month lag in data.

Past performance is no guarantee of future results. Estimates of future performance are based on assumptions that may not be realized. This material is not a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy. Please refer to important information, disclosures and qualifications at the end of this material.

# Hedge Funds Risk and Return

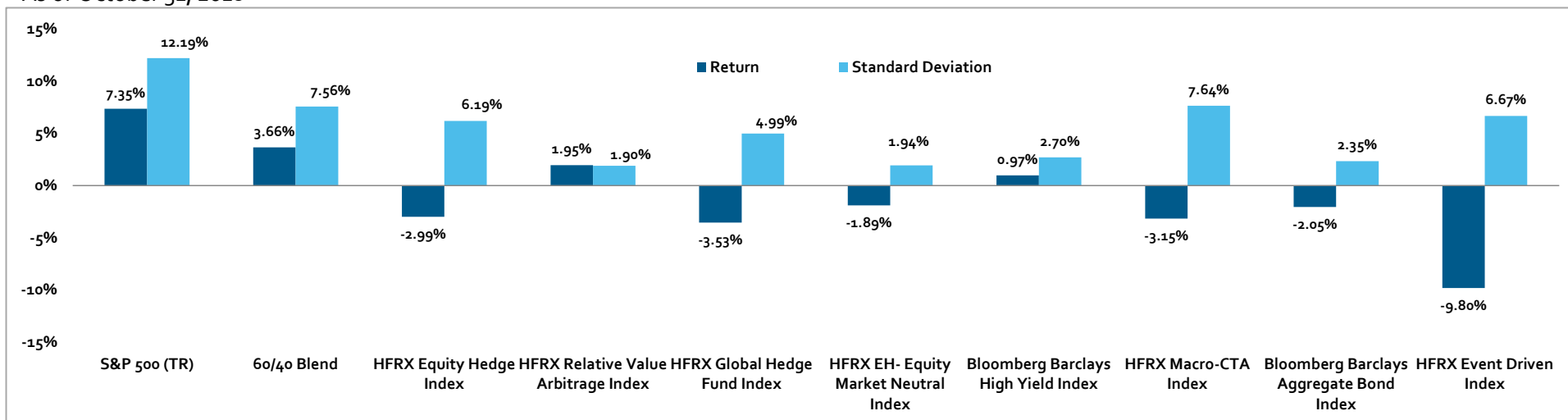
Monthly & YTD 2018 Returns

As of October 31, 2018



## Last Twelve Months Return & Standard Deviations

As of October 31, 2018



Source: Bloomberg, Morgan Stanley Wealth Management GIC.

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The **Global Investment Committee** is a group of seasoned investment professionals who meet regularly to discuss the global economy and markets. The committee determines the investment outlook that guides our advice to clients. They continually monitor developing economic and market conditions, review tactical outlooks and recommend model portfolio weightings, as well as produce a suite of strategy, analysis, commentary, portfolio positioning suggestions and other reports and broadcasts.

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is that Adverse Active Alpha is a good starting point and should be used in conjunction with other information. Morgan Stanley Wealth Management's qualitative and quantitative investment manager due diligence process are equally important factors for investors when considering managers for use through an investment advisory program. Factors including, but not limited to, manager turnover and changes to investment process can partially or fully negate a positive Adverse Active Alpha ranking. Additionally, highly ranked managers can have differing risk profiles that might not be suitable for all investors. For more information on AAA, please see the Adverse Active Alpha Ranking Model and Selecting Managers with Adverse Active Alpha whitepapers. The whitepaper are available from your Financial Advisor or Private Wealth Advisor. ADVERSE ACTIVE ALPHA is a registered service mark of Morgan Stanley and/or its affiliates. U.S. Pat. No. 8,756,098 applies to the Adverse Active Alpha system and/or methodology.

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***An investment in a money market fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. Although the Fund seeks to preserve the value of your investment at \$1.00 per share, it is possible to lose money by investing in the fund.***

The type of mutual funds and ETFs discussed in this presentation utilizes nontraditional or complex investment strategies and/or derivatives. Examples of these types of funds include those that utilize one or more of the below noted investment strategies or categories or which seek exposure to the following markets: (1) commodities (e.g., agricultural, energy and metals), currency, precious metals; (2) managed futures; (3) leveraged, inverse or inverse leveraged; (4) bear market, hedging, long-short equity, market neutral; (5) real estate; (6) volatility (seeking exposure to the CBOE VIX Index). Investors should keep in mind that while mutual funds and ETFs may, at times, utilize nontraditional investment options and strategies, they should not be equated with unregistered privately offered alternative investments. Because of regulatory limitations, mutual funds and ETFs that seek alternative-like investment exposure must utilize a more limited investment universe. As a result, investment returns and portfolio characteristics of alternative mutual funds and ETFs may vary from traditional hedge funds pursuing similar investment objectives. Moreover, traditional hedge funds have limited liquidity with long “lock-up” periods allowing them to pursue investment strategies without having to factor in the need to meet client redemptions and ETFs trade on an exchange. On the other hand, mutual funds typically must meet daily client redemptions. This differing liquidity profile can have a material impact on the investment returns generated by a mutual or ETF pursuing an alternative investing strategy compared with a traditional hedge fund pursuing the same strategy.

Nontraditional investment options and strategies are often employed by a portfolio manager to further a fund’s investment objective and to help offset market risks. However, these features may be complex, making it more difficult to understand the fund’s essential characteristics and risks, and how it will perform in different market environments and over various periods of time. They may also expose the fund to increased volatility and unanticipated risks particularly when used in complex combinations and/or accompanied by the use of borrowing or “leverage.”

## KEY ASSET CLASS CONSIDERATIONS AND OTHER RISKS

Investing in the markets entails the risk of market volatility. The value of all types of investments, including stocks, mutual funds, exchange-traded funds (“ETFs”), closed-end funds, and unit investment trusts, may increase or decrease over varying time periods. To the extent the investments depicted herein represent **international securities**, you should be aware that there may be additional risks associated with international investing, including foreign economic, political, monetary and/or legal factors, changing currency exchange rates, foreign taxes, and differences in financial and accounting standards. These risks may be magnified in **emerging markets and frontier markets**. **Small- and mid-capitalization companies** may lack the financial resources, product diversification and competitive strengths of larger companies. In addition, the securities of small- and mid-capitalization companies may not trade as readily as, and be subject to higher volatility than, those of larger, more established companies. The value of **fixed income securities** will fluctuate and, upon a sale, may be worth more or less than their original cost or maturity value. Bonds are subject to interest rate risk, call risk, reinvestment risk, liquidity risk, and credit risk of the issuer. **High yield bonds** are subject to additional risks such as increased risk of default and greater volatility because of the lower credit quality of the issues. In the case of **municipal bonds**, income is generally exempt from federal income taxes. Some income may be subject to state and local taxes and to the federal alternative minimum tax. Capital gains, if any, are subject to tax. **Treasury Inflation Protection Securities’ (TIPS)** coupon payments and underlying principal are automatically increased to compensate for inflation by tracking the consumer price index (CPI). While the real rate of return is guaranteed, TIPS tend to offer a low return. Because the return of TIPS is linked to inflation, TIPS may significantly underperform versus conventional U.S. Treasuries in times of low inflation. There is no guarantee that investors will receive par if TIPS are sold prior to maturity. The returns on a portfolio consisting primarily of **environmental, social, and governance-aware investments (“ESG”)** may be lower or higher than a portfolio that is more diversified or where decisions are based solely on investment considerations. Because ESG criteria exclude some investments, investors may not be able to take advantage of the same opportunities or market trends as investors that do not use such criteria. The companies identified and investment examples are for illustrative purposes only and should not be deemed a recommendation to purchase, hold or sell any securities or investment products. They are intended to demonstrate the approaches taken by managers who focus on ESG criteria in their investment strategy. There can be no guarantee that a client’s account will be managed as described herein. **Options** and margin trading involve substantial risk and are not suitable for all investors. Besides the general investment risk of holding securities that may decline in value and the possible loss of principal invested, **closed-end funds** may have additional risks related to declining market prices relative to net asset values (NAVs), active manager underperformance and potential leverage. Closed-end funds, unlike open-end funds, are not continuously offered. There is a one-time public offering and once issued, shares of closed-end funds are sold in the open market through a stock exchange. NAV is total assets less total liabilities divided by the number of shares outstanding. At the time an investor purchases shares of a closed-end fund, shares may have a market price that is above or below NAV. Portfolios that invest a large percentage of assets in only one industry **sector** (or in only a few sectors) are more vulnerable to price fluctuation than those that diversify among a broad range of sectors.

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Individual funds have specific risks related to their investment programs that will vary from fund to fund. Clients should consult their own tax and legal advisors as Morgan Stanley Wealth Management does not provide tax or legal advice.

While the HFRI indices are frequently used, they have limitations (some of which are typical of other widely used indices). These limitations include survivorship bias (the returns of the indices may not be representative of all the hedge funds in the universe because of the tendency of lower performing funds to leave the index); heterogeneity (not all hedge funds are alike or comparable to one another, and the index may not accurately reflect the performance of a described style); and limited data (many hedge funds do not report to indices, and the index may omit funds, the inclusion of which might significantly affect the performance shown. The HFRI indices are based on information self-reported by hedge fund managers that decide on their own, at any time, whether or not they want to provide, or continue to provide, information to HFR Asset Management, L.L.C. Results for funds that go out of business are included in the index until the date that they cease operations. Therefore, these indices may not be complete or accurate representations of the hedge fund universe, and may be biased in several ways.

It should be noted that the majority of hedge fund indexes are comprised of hedge fund manager returns. This is in contrast to traditional indexes, which are comprised of individual securities in the various market segments they represent and offer complete transparency as to membership and construction methodology. As such, some believe that hedge fund index returns have certain biases that are not present in traditional indexes. Some of these biases inflate index performance, while others may skew performance negatively. However, many studies indicate that overall hedge fund index performance

has been biased to the upside. Some studies suggest performance has been inflated by up to 260 basis points or more annually depending on the types of biases included and the time period studied. Although there are numerous potential biases that could affect hedge fund returns, we identify some of the more common ones throughout this paper.

Self-selection bias results when certain manager returns are not included in the index returns and may result in performance being skewed up or down. Because hedge funds are private placements, hedge fund managers are able to decide which fund returns they want to report and are able to opt out of reporting to the various databases. Certain hedge fund managers may choose only to report returns for funds with strong returns and opt out of reporting returns for weak performers. Other hedge funds that close may decide to stop reporting in order to retain secrecy, which may cause a downward bias in returns.

Survivorship bias results when certain constituents are removed from an index. This often results from the closure of funds due to poor performance, “blow ups,” or other such events. As such, this bias typically results in performance being skewed higher. As noted, hedge fund index performance biases can result in positive or negative skew. However, it would appear that the skew is more often positive. While it is difficult to quantify the effects precisely, investors should be aware that idiosyncratic factors may be giving hedge fund index returns an artificial “lift” or upwards bias.

**Hedge Funds of Funds** and many funds of funds are private investment vehicles restricted to certain qualified private and institutional investors. They are often speculative and include a high degree of risk. Investors can lose all or a substantial amount of their investment. They may be highly illiquid, can engage in leverage and other speculative practices that may increase volatility and the risk of loss, and may be subject to large investment minimums and initial lockups. They involve complex tax structures, tax-inefficient investing and delays in distributing important tax information. Categorically, hedge funds and funds of funds have higher fees and expenses than traditional investments, and such fees and expenses can lower the returns achieved by investors. Funds of funds have an additional layer of fees over and above hedge fund fees that will offset returns. An investment in an **exchange-traded fund** involves risks similar to those of investing in a broadly based portfolio of equity securities traded on an exchange in the relevant securities market, such as market fluctuations caused by such factors as economic and political developments, changes in interest rates and perceived trends in stock and bond prices. An investment in a **target date portfolio** is subject to the risks attendant to the underlying funds in which it invests, in these portfolios the funds are the Consulting Group Capital Market funds. A target date portfolio is geared to investors who will retire and/or require income at an approximate year. The portfolio is managed to meet the investor’s goals by the pre-established year or “target date.” A target date portfolio will transition its invested assets from a more aggressive portfolio to a more conservative portfolio as the target date draws closer. An investment in the target date portfolio is not guaranteed at any time, including, before or after the target date is reached. **Managed futures** investments are speculative, involve a high degree of risk, use significant leverage, are generally illiquid, have substantial charges, subject investors to conflicts of interest, and are suitable only for the risk capital portion of an investor’s portfolio. Managed futures investments do not replace equities or bonds but rather may act as a complement in a well diversified portfolio. Managed Futures are complex and not appropriate for all investors. **Rebalancing** does not protect against a loss in declining financial markets. There may be a potential tax implication with a rebalancing strategy. **Asset allocation and diversification** do not assure a profit or protect against loss in declining financial markets. Past performance is no guarantee of future results. Actual results may vary.

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**Indices** are unmanaged. An investor cannot invest directly in an index. They are shown for illustration purposes only and do not show the performance of any specific investment. Reference to an index does not imply that the portfolio will achieve return, volatility or other results similar to the index. The composition of an index may not reflect the manner in which a portfolio is constructed in relation to expected or achieved returns, portfolio guidelines, restrictions, sectors, correlations, concentrations, volatility, or tracking error target, all of which are subject to change over time.

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*For index, indicator and survey definitions referenced in this report please visit the following: <http://www.morganstanleyfa.com/public/projectfiles/id.pdf> (<http://www.morganstanleyfa.com/public/projectfiles/id.pdf>)*

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**GLOBAL INVESTMENT COMMITTEE (GIC) ASSET ALLOCATION MODELS:** The Asset Allocation Models are created by Morgan Stanley Wealth Management's GIC.

**HYPOTHETICAL MODEL PERFORMANCE (GROSS):** Hypothetical model performance results do not reflect the investment or performance of an actual portfolio following a GIC Strategy, but simply reflect actual historical performance of selected indices on a real-time basis over the specified period of time representing the GIC's strategic and tactical allocations as of the date of this report. The past performance shown here is simulated performance based on benchmark indices, not investment results from an actual portfolio or actual trading. There can be large differences between hypothetical and actual performance results achieved by a particular asset allocation or trading strategy. Hypothetical performance results do not represent actual trading and are generally designed with the benefit of hindsight. Actual performance results of accounts vary due to, for example, market factors (such as liquidity) and client-specific factors (such as investment vehicle selection, timing of contributions and withdrawals, restrictions and rebalancing schedules). Clients would not necessarily have obtained the performance results shown here if they had invested in accordance with any GIC Asset Allocation Model for the periods indicated. Despite the limitations of hypothetical performance, these hypothetical performance results allow clients and Financial Advisors to obtain a sense of the risk/return trade-off of different asset allocation constructs. The hypothetical performance results in this report are calculated using the returns of benchmark indices for the asset classes, and not the returns of securities, fund or other investment products. Models may contain allocations to Hedge Funds, Private Equity and Private Real Estate. The benchmark indices for these asset classes are not issued on a daily basis. When calculating model performance on a day for which no benchmark index data is issued, we have assumed straight line growth between the index levels issued before and after that date.

**FEES REDUCE THE PERFORMANCE OF ACTUAL ACCOUNTS:** None of the fees or other expenses (e.g. commissions, mark-ups, mark-downs, fees) associated with actual trading or accounts are reflected in the GIC Asset Allocation Models. The GIC Asset Allocation Models and any model performance included in this presentation are intended as educational materials. Were a client to use these models in connection with investing, any investment decisions made would be subject to transaction and other costs which, when compounded over a period of years, would decrease returns. Information regarding Morgan Stanley's standard advisory fees is available in the Form ADV Part 2, which is available at [www.morganstanley.com/adv](http://www.morganstanley.com/adv). The following hypothetical illustrates the compound effect fees have on investment returns: For example, if a portfolio's annual rate of return is 15% for 5 years and the account pays 50 basis points in fees per annum, the gross cumulative five-year return would be 101.1% and the five-year return net of fees would be 96.8%. Fees and/or expenses would apply to clients who invest in investments in an account based on these asset allocations, and would reduce clients' returns. The impact of fees and/or expenses can be material.

**Variable annuities** are long-term investments designed for retirement purposes and may be subject to market fluctuations, investment risk, and possible loss of principal. All guarantees, including optional benefits, are based on the financial strength and claims-paying ability of the issuing insurance company and do not apply to the underlying investment options. Optional riders may not be able to be purchased in combination and are available at an additional cost. Some optional riders must be elected at time of purchase. Optional riders may be subject to specific limitations, restrictions, holding periods, costs, and expenses as specified by the insurance company in the annuity contract. If you are investing in a **variable annuity** through a tax-advantaged retirement plan such as an IRA, you will get no additional tax advantage from the variable annuity. Under these circumstances, you should only consider buying a variable annuity because of its other features, such as lifetime income payments and death benefits protection. Taxable distributions (and certain deemed distributions) are subject to ordinary income tax and, if taken prior to age 59½, may be subject to a 10% federal income tax penalty. Early withdrawals will reduce the death benefit and cash surrender value.



**Equity securities** may fluctuate in response to news on companies, industries, market conditions and general economic environment. **Ultrashort-term fixed income** asset class is comprised of fixed income securities with high quality, very short maturities. They are therefore subject to the risks associated with debt securities such as credit and interest rate risk.

**Master Limited Partnerships (MLPs)** are limited partnerships or limited liability companies that are taxed as partnerships and whose interests (limited partnership units or limited liability company units) are traded on securities exchanges like shares of common stock. Currently, most MLPs operate in the energy, natural resources or real estate sectors. Investments in MLP interests are subject to the risks generally applicable to companies in the energy and natural resources sectors, including commodity pricing risk, supply and demand risk, depletion risk and exploration risk. Individual MLPs are publicly traded partnerships that have unique risks related to their structure. These include, but are not limited to, their reliance on the capital markets to fund growth, adverse ruling on the current tax treatment of distributions (typically mostly tax deferred), and commodity volume risk. The potential tax benefits from investing in MLPs depend on their being treated as partnerships for federal income tax purposes and, if the MLP is deemed to be a corporation, then its income would be subject to federal taxation at the entity level, reducing the amount of cash available for distribution to the fund which could result in a reduction of the fund's value. MLPs carry interest rate risk and may underperform in a rising interest rate environment. MLP funds accrue deferred income taxes for future tax liabilities associated with the portion of MLP distributions considered to be a tax-deferred return of capital and for any net operating gains as well as capital appreciation of its investments; this deferred tax liability is reflected in the daily NAV, and, as a result, the MLP fund's after-tax performance could differ significantly from the underlying assets even if the pre-tax performance is closely tracked.

**Investing in commodities** entails significant risks. Commodity prices may be affected by a variety of factors at any time, including but not limited to, (i) changes in supply and demand relationships, (ii) governmental programs and policies, (iii) national and international political and economic events, war and terrorist events, (iv) changes in interest and exchange rates, (v) trading activities in commodities and related contracts, (vi) pestilence, technological change and weather, and (vii) the price volatility of a commodity. In addition, the commodities markets are subject to temporary distortions or other disruptions due to various factors, including lack of liquidity, participation of speculators and government intervention. **Physical precious metals** are non-regulated products. Precious metals are speculative investments, which may experience short-term and long term price volatility. The value of precious metals investments may fluctuate and may appreciate or decline, depending on market conditions. Unlike bonds and stocks, precious metals do not make interest or dividend payments. Therefore, precious metals may not be suitable for investors who require current income. Precious metals are commodities that should be safely stored, which may impose additional costs on the investor.

**REITs** investing risks are similar to those associated with direct investments in real estate: property value fluctuations, lack of liquidity, limited diversification and sensitivity to economic factors such as interest rate changes and market recessions. Risks of **private real estate** include: illiquidity; a long-term investment horizon with a limited or nonexistent secondary market; lack of transparency; volatility (risk of loss); and leverage. Principal is returned on a monthly basis over the life of a **mortgage-backed security**. Principal prepayment can significantly affect the monthly income stream and the maturity of any type of MBS, including standard MBS, CMOs and Lottery Bonds. **Asset-backed securities** generally decrease in value as a result of interest rate increases, but may benefit less than other fixed-income securities from declining interest rates, principally because of prepayments.

**Yields** are subject to change with economic conditions. Yield is only one factor that should be considered when making an investment decision. **Credit ratings** are subject to change. **Duration**, the most commonly used measure of bond risk, quantifies the effect of changes in interest rates on the price of a bond or bond portfolio. The longer the duration, the more sensitive the bond or portfolio would be to changes in interest rates. The majority of \$25 and \$1000 par **preferred securities** are "callable" meaning that the issuer may retire the securities at specific prices and dates prior to maturity. Interest/dividend payments on certain preferred issues may be deferred by the issuer for periods of up to 5 to 10 years, depending on the particular issue. The investor would still have income tax liability even though payments would not have been received. Price quoted is per \$25 or \$1,000 share, unless otherwise specified. Current yield is calculated by multiplying the coupon by par value divided by the market price. The initial interest rate on a **floating-rate security** may be lower than that of a fixed-rate security of the same maturity because investors expect to receive additional income due to future increases in the floating security's underlying reference rate. The reference rate could be an index or an interest rate. However, there can be no assurance that the reference rate will increase. Some floating-rate securities may be subject to call risk. The market value of **convertible bonds** and the underlying common stock(s) will fluctuate and after purchase may be worth more or less than original cost. If sold prior to maturity, investors may receive more or less than their original purchase price or maturity value, depending on market conditions. Callable bonds may be redeemed by the issuer prior to maturity. Additional call features may exist that could affect yield. Some \$25 or \$1000 par **preferred securities** are QDI (Qualified Dividend Income) eligible. Information on QDI eligibility is obtained from third party sources. The dividend income on QDI eligible preferreds qualifies for a reduced tax rate. Many traditional 'dividend paying' perpetual preferred securities (traditional preferreds with no maturity date) are QDI eligible. In order to qualify for the preferential tax treatment all qualifying preferred securities must be held by investors for a minimum period – 91 days during a 180 day window period, beginning 90 days before the ex-dividend date.

Companies paying **dividends** can reduce or cut payouts at any time.

**Nondiversification:** For a portfolio that holds a concentrated or limited number of securities, a decline in the value of these investments would cause the portfolio's overall value to decline to a greater degree than a less concentrated portfolio. The **indices selected by Morgan Stanley Wealth Management** to measure performance are representative of broad asset classes. Morgan Stanley Wealth Management retains the right to change representative indices at any time. Because of their narrow focus, **sector investments** tend to be more volatile than investments that diversify across many sectors and companies.

**Growth investing** does not guarantee a profit or eliminate risk. The stocks of these companies can have relatively high valuations. Because of these high valuations, an investment in a growth stock can be more risky than an investment in a company with more modest growth expectations. **Value investing** does not guarantee a profit or eliminate risk. Not all companies whose stocks are considered to be value stocks are able to turn their business around or successfully employ corrective strategies which would result in stock prices that do not rise as initially expected.

Any type of **continuous or periodic investment plan** does not assure a profit and does not protect against loss in declining markets. Since such a plan involves continuous investment in securities regardless of fluctuating price levels of such securities, the investor should consider his financial ability to continue his purchases through periods of low price levels.

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milliman.com

September 27, 2018

Ms. Gayle Cummings  
Administrator  
Michigan County Road Commission Self-Insurance Pool  
417 North Seymour Street  
P.O. Box 14119  
Lansing, MI 48901

**Re: Milliman Engagement Letter for 2018-19 Actuarial Services**

Dear Gayle:

Milliman, Inc. (Milliman) is pleased to be of service once again to the Michigan County Road Commission Self-Insurance Pool (the "Pool"). We value our working relationship and the trust you put into our work and are excited to continue our long-standing relationship with the Pool.

We have prepared this engagement letter to outline our consulting objectives for the September 2018 through August 2019 period, our proposed approach to these objectives, and finally, our costs of performing the outlined assignments.

***Consulting Objectives***

The Pool is seeking an estimate of its projected ultimate retained loss and ALAE (a funding estimate) for the April 1, 2019 to March 31, 2020 fiscal year. In addition, the Pool requires an independent estimate of the Pool's total liability for unpaid claims (including incurred but not reported, or IBNR) as of March 31, 2019. Like prior engagements, as a subset of this analysis, we will provide a separate funding estimate for the Pool's auto liability claims with trunkline exposure.

Our funding and reserving estimates will reflect the specific characteristics of the Pool's exposure, such as the number of participating members, the deductibles by coverage by member, the coverages and limits provided, and the Pool's reinsurance. As in past years, we will provide both discounted and undiscounted estimates with respect to the time value of money.

The results of our estimates for the Pool's unpaid claim liabilities and IBNR will permit us to prepare the Reserve Certification/Statement of Actuarial Opinion that the Pool is required to file with the state of Michigan. In addition, we will perform a dividend analysis for the Pool, which will utilize A.M. Best's updated Capital Adequacy Ratio (BCAR) model and MCRCSIP financial data as of March 31, 2019. In addition to performing the above tasks, we agree to attend certain meetings (as in the past), as requested, to discuss our analyses with the Pool's staff and Board of Directors.

### ***Approach***

Our approach to evaluating the Pool's funding and reserve position will be consistent with the approach we utilized last year. A step-by-step layout of our work is as follows:

- 1) As soon as we receive the September 30, 2018 data, we will begin our funding analysis. Verbal results and/or summary exhibits will be provided to you in early January.
- 2) We will present our funding results at the February Board meeting.
- 3) As soon as we receive the March 31, 2019 data, we will begin our reserving analysis. Draft exhibits will be provided to the Pool's auditors in June prior to the June Board meeting. A draft report will be provided in July; a final copy will be available by the end of July.
- 4) A BCAR analysis will be performed utilizing March 31, 2019 data, and results will be provided in June.
- 5) We will present the results of our reserve and BCAR analyses at the June and July Board meetings.
- 6) A Statement of Actuarial Opinion (Reserve Certification Letter) will be provided prior to July 31.

Note: the current year engagement will also involve assistance in evaluating reinsurance structure and strategic proposals for the Pool. The timing of this work will be performed prior to year-end 2018.

### ***Costs***

Milliman bills strictly for hourly charges and for the reimbursement of out-of-pocket expenses. Fees are billed monthly and are payable upon receipt.

Based on our understanding of the work as outlined above, we estimate that the cost of this year's engagement will be approximately \$85,000. This fee estimate assumes that we will be making three trips to present results to the Pool's Board. Any services requested by the Pool that fall outside the scope of services outlined above would be billed at our standard hourly rates.

### ***Other Considerations***

In our analysis, we will be relying upon data provided to us by the Pool. As with other similar projects, we will not perform an independent audit or verification of the accuracy of this data.

The Pool cedes parts of its exposure to loss to limit its liability for losses. We will not review the various contracts which affect the Pool's unpaid claim liabilities, and in our analysis, we will be relying upon the accuracy of the summary of these provisions provided by the Pool to determine the extent of reinsurance recoverable. Contingent liability exists with respect to ceded reinsurance, which would become an actual liability to the Pool in the event that the reinsuring companies might be unable to meet their obligations under existing reinsurance agreements.

Milliman's work will be prepared solely for the internal use of the Pool. No portion of Milliman's work may be provided to any other party without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work. Milliman's work may not be filed with the SEC or other securities regulatory bodies. In addition, references to Milliman or its estimates in communication with third parties are not authorized.

Ms. Gayle Cummings  
September 27, 2018  
Page 3

The Pool agrees that it shall not use Milliman's name, trademarks or service marks, or refer to Milliman directly or indirectly in any media release, public announcement or public disclosure, including in any promotional or marketing materials, customer lists, referral lists, websites or business presentations without Milliman's prior written consent for each such use or release, which consent shall be given in Milliman's sole discretion.

If you accept the terms of engagement as outlined above, please sign the attached Project Acceptance Form and return it to us at your convenience.

This engagement falls under the Consulting Services Agreement signed December 9, 2014.

If you have any questions on any of the above items, please do not hesitate to contact me at (262) 796-3319.

♦ ♦ ♦ ♦ ♦

Gayle, we look forward to working with you again this year, and thank you for your attention to this matter.

Sincerely,



Travis J. Grulkowski, FCAS, MAAA  
Principal and Consulting Actuary

TJG/klr

cc: Carrie Sanford

J:\1. CLIENT\MRD\2018\9Sept\Milliman 2018-19 Engagement Letter.docx

## PROJECT ACCEPTANCE FORM

MILLIMAN, INC.

**Proposed Services:** 2018-19 Milliman Engagement Letter for Actuarial Services

**Proposal Dated:** September 27, 2018

**Cost Quoted:** \$85,000

Milliman, Inc. will perform the consulting services indicated within the accompanying engagement letter. Michigan County Road Commission Self-Insurance Pool (the "Pool") agrees to the terms and conditions within the accompanying engagement letter and the Consulting Services Agreement signed on December 9, 2014. The Pool also agrees that any work performed beyond the scope of this engagement letter will be billed at our standard hourly rates. The terms and conditions of this engagement letter and the Consulting Services Agreement signed on December 9, 2014 will apply to the additional work.

We request return of this signed Project Acceptance Form prior to commencing the project. The project fees will be invoiced at the conclusion of the project and payments are due within 30 days from date of bill.

**On Behalf of:** \_\_\_\_\_

**Accepted by:** \_\_\_\_\_

(Signature)

\_\_\_\_\_  
(Print name and title)

**Date:** \_\_\_\_\_

November 14, 2018

Ms. Gayle Cummings, Administrator  
Michigan County Road Commission  
Self-Insurance Pool  
417 Seymour Street, Suite 2  
Lansing, MI 48933

Dear Gayle:

Thank you for your selection of Plante & Moran, PLLC to assist you. We are sending this letter and the accompanying Professional Services Agreement, which is hereby incorporated as part of this engagement letter, to confirm our understanding of the nature, limitations, and terms of the services we will provide to Michigan County Road Commission Self-Insurance Pool ("MCRCSIP").

### **Scope of Services**

We will audit MCRCSIP's financial statements as of and for the year ended March 31, 2019.

In addition, the supplemental information accompanying the financial statements, consisting of the schedule of changes in net position by policy year for all open years from April 1, 2006 through March 31, 2019, the schedule of changes in net position by policy year - fiscal year ended March 31, 2019, and the budget-to-actual table - for the twelve-month period ended March 31, 2019, will be subjected to the auditing procedures applied in our audit of the financial statements.

In connection with our audit engagement, we will assist you in drafting your financial statements, supplementary information, and related notes. This assistance is considered a non-audit service; you agree to the contemporaneous provision of these audit and non-audit services.

If you determine that you need additional services, including accounting, consulting, or tax assistance, Plante Moran can be available to provide such additional services if and to the extent provided for in a separate, signed engagement agreement.

### **Timing of Services**

We expect to begin fieldwork for this engagement at your offices on May 13, 2019. We anticipate that our on-site audit work will end on approximately May 24, 2019 and that a draft of the financial statements and our audit report will be issued on or about June 7, 2019. At the time this draft is issued, we will provide you with a list of issues to be resolved before issuance of a final report and we will work with you to issue the final report in advance of the July 2019 annual meeting audit presentation.

### **Fees and Payment Terms**

Our fee for this engagement will be based on the value of the services provided, which is primarily a function of the time that Plante Moran staff expend at our current hourly rates. Our fee for this engagement will be \$37,000. In addition, MCRCSIP will be required to implement GASB No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions*, and



November 14, 2018

GASB No. 85, *Omnibus 2017*, for the year ended March 31, 2019. The requirements will significantly increase the accounting and financial statement disclosure requirements for MCRCSIP related to MCRCSIP's OPEB plan. As a result, additional professional time will be required to audit and complete the disclosures required under these new GASB pronouncements. MCRCSIP will incur additional professional fees (one-time charge) of \$1,800 to implement these new GASB requirements.

Invoices for audit services will be rendered as services are provided and are due when received. In the event an invoice is not paid timely, a late charge in the amount of 1.25 percent per month will be added, beginning 30 days after the date of the invoice.

If you are in agreement with our understanding of this engagement, as set forth in this engagement letter and the accompanying Professional Services Agreement, please sign the enclosed copy of this letter and return it to us with the accompanying Professional Services Agreement.

Thank you for the opportunity to serve you.

Very truly yours,

**Plante & Moran, PLLC**



Michelle M. Goss, CPA  
Partner

**Agreed and Accepted**

**We accept this engagement letter and the accompanying Professional Services Agreement, which set forth the entire agreement between Michigan County Road Commission Self-Insurance Pool and Plante & Moran, PLLC with respect to the services specified in the Scope of Services section of this engagement letter.**

Michigan County Road Commission Self-Insurance Pool

\_\_\_\_\_  
Ms. Gayle Cummings

\_\_\_\_\_  
Date

\_\_\_\_\_  
Administrator  
Title

## **Professional Services Agreement – Audit Services Addendum to Plante & Moran, PLLC Engagement Letter**

This Professional Services Agreement is part of the engagement letter for audit services dated November 14, 2018 between Plante & Moran, PLLC (referred to herein as “PM”) and Michigan County Road Commission Self-Insurance Pool (referred to herein as “MCRCSIP”).

1. **Financial Statements** – The financial statements of MCRCSIP being audited by PM are to be presented in accordance with accounting principles generally accepted in the United States of America (GAAP).
2. **Management Responsibilities** – MCRCSIP management is responsible for the preparation and fair presentation of these financial statements in accordance with the applicable financial reporting framework, including compliance with the requirements of accounting principles generally accepted in the United States of America and the completeness and accuracy of the information presented and disclosed therein. Management is also responsible for the capability and integrity of MCRCSIP personnel responsible for MCRCSIP's underlying accounting and financial records.

MCRCSIP personnel will provide PM, in a timely and orderly manner, with access to all information of which management is aware that is relevant to the preparation and fair presentation of the financial statements, such as records, documentation, and other matters and additional information that the auditor may request from management for the purpose of the audit.

This includes providing assistance and information PM requests during the course of its audit, including retrieval of records and preparation of schedules, analyses of accounts, and confirmations. A written request for information to be provided will be submitted under separate cover and supplemented by additional written and oral requests as necessary during the course of PM's audit. In addition, MCRCSIP will provide PM with all information in its possession that has a material impact on any material transaction and that information will be complete, truthful, and accurate. MCRCSIP will allow PM unrestricted access to personnel within MCRCSIP from whom PM determines it necessary to obtain audit evidence.

MCRCSIP represents and warrants that any and all information that it transmits to Plante Moran will be done so in full compliance with all applicable federal, state, and foreign privacy and data protection laws, as well as all other applicable regulations and directives, as may be amended from time to time (collectively, “Data Privacy Laws”). MCRCSIP shall not disclose personal data of data subjects who are entitled to certain rights and protections afforded by applicable federal, state, and foreign privacy and data protection laws (“Personal Data”) to PM without prior notification to PM. MCRCSIP shall make reasonable efforts to limit the disclosure of Personal Data to PM to the minimum necessary to accomplish the intended purpose of the disclosure to PM.

Management is responsible for making all management decisions and performing all management functions relating to the financial statements, supplementary financial information, and related notes and for accepting full responsibility for such decisions, even if PM provides advice as to the application of accounting principles or assists in drafting the financial statements, supplementary financial information, and related notes. MCRCSIP has designated Ms. Kristi Pena to oversee financial statement related services PM provides. Management will be required to acknowledge in the management representation letter that it has reviewed and approved the financial statements, supplementary financial information, and related notes prior to their issuance and have accepted responsibility for the adequacy of the financial statements.

Management is responsible for the design and implementation of programs and controls to prevent and detect fraud, and for informing PM about all known or suspected fraud affecting MCRCSIP involving (a) management, (b) employees who have significant roles in internal control, and (c) others where the fraud could have a material effect on the financial statements. Management's responsibilities include informing PM of its knowledge of any allegations of fraud or suspected fraud affecting MCRCSIP received in communications from employees, former employees, regulators, or others. In addition, management is responsible for identifying and ensuring that the entity complies with applicable laws and regulations.

3. **Objective of an Audit of Financial Statements** – The objective of PM's audit is the expression of an opinion on the MCRCSIP financial statements specified in the accompanying engagement letter. PM offers no guarantee, express or implied, that its opinion will be unmodified or that it will be able to form an opinion about these financial statements in the event that MCRCSIP's internal controls or accounting and financial records prove to be unreliable or otherwise not auditable. If PM's opinion is to be modified, PM will discuss the reasons with MCRCSIP management in advance of the issuance of its audit report. If, for any reason, PM is prevented from completing its audit or is unable to form an opinion on these financial statements, PM may terminate the engagement and decline to issue a report.

4. **Supplementary Information** – In any document that contains supplementary information to the basic financial statements that indicates that the auditor has reported on such supplementary information, management agrees to include the auditor's report on that supplementary information. In addition, management agrees to present the supplementary information with the audited financial statements or to make the audited financial statements readily available no later than the date of issuance by MCRCSIP of the supplementary information and the auditor's report thereon.
5. **Internal Controls** – MCRCSIP is responsible for the design, implementation, and maintenance of internal controls relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error, including controls established for the purpose of preventing or detecting errors in financial reporting, preventing fraud or misappropriation of assets, and identifying and complying with applicable laws and regulations. PM, in making its risk assessments, will consider internal control relevant to MCRCSIP's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances. PM's audit will not be designed to provide assurance on the design or operating effectiveness of MCRCSIP's internal controls or to identify all conditions that represent significant deficiencies in those internal controls. PM will communicate all significant deficiencies and material weaknesses in internal controls relevant to the audit of the financial statements, instances of fraud, or misappropriation of assets that come to PM's attention.
6. **Audit Procedures and Limitations** – PM's audit will be conducted in accordance with auditing standards generally accepted in the United States of America (GAAS) and will include examination, on a test basis, of evidence supporting the amounts and disclosures in the MCRCSIP financial statements specified in this engagement letter. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements. An audit in accordance with GAAS involves judgment about the number of transactions to be tested and the overall approach to testing in each area. As a result, PM's audit can only be designed to provide reasonable rather than absolute assurance that these financial statements are free from material misstatement. In addition, an audit in accordance with GAAS is not designed to detect errors or fraud that are immaterial to the financial statements. Because of the inherent limitations of an audit, together with the inherent limitations of internal control, an unavoidable risk that some material misstatements may not be detected always exists, even in an audit properly planned and performed in accordance with GAAS. In recognition of these limitations, MCRCSIP acknowledges that PM's audit cannot guarantee that all instances of error or fraud will be identified.
7. **Auditor Communications** – PM is obligated to communicate certain matters related to the audit to those responsible for governance of MCRCSIP, including instances of error or fraud and significant deficiencies and material weaknesses in internal control that PM identifies during its audit. PM will communicate these matters to the members of MCRCSIP's governing board, and MCRCSIP acknowledges and agrees that communication in this manner is sufficient for MCRCSIP's purposes.

Communication to Group Auditor – In instances where PM has been engaged as a component auditor for the purposes of a Group Audit, the terms of the engagement may include communication of certain matters related to the audit to the Group Auditor. MCRCSIP permits such communication. PM will discuss matters being communicated with those responsible for governance of MCRCSIP.

8. **Accounting and Financial Records** – MCRCSIP agrees that it is responsible for providing PM with accounting and financial records that are closed, complete, accurate, and in conformity with the requirements of GAAP, for providing schedules and analyses of accounts that PM requests, and for making all MCRCSIP financial records and related information available to PM for purposes of PM's audit. Where PM has provided estimates of the timing of its work and completion of PM's engagement and issuance of PM's report, those estimates are dependent on MCRCSIP providing PM with all such accounting and financial records, schedules, and analyses on the date PM's work commences. PM will assess the condition of MCRCSIP's accounting and financial records, schedules, and analyses of accounts prior to commencing its work. In the event that such records, schedules, and analyses are not closed, complete, accurate, or in conformity with GAAP, PM may have to reschedule its work, including the dates on which PM expects to complete its on-site procedures and issue its audit report.

In any circumstance where PM's work is rescheduled due to MCRCSIP's failure to provide information as described in the preceding paragraph, PM offers no guarantee, express or implied, that PM will be able to meet any previously established deadlines related to the completion of the audit work or issuance of its audit report. Because rescheduling audit work imposes additional costs on PM, in any circumstance where PM has provided estimated fees, those estimated fees may be adjusted for the additional time PM incurs as a result of rescheduling its work. These fee adjustments will be determined in accordance with the Fee Adjustments provision of this agreement.



**9. Audit Adjustments** – PM will recommend adjustments to MCRCSIP's accounting records that PM believes are appropriate. MCRCSIP management is responsible for adjusting MCRCSIP accounting records and financial statements to correct material misstatements and for affirming to PM in writing that the effects of any unrecorded adjustments identified during PM's audit are immaterial, both individually and in the aggregate, to the MCRCSIP financial statements specified in this agreement.

**10. Management Representations** – MCRCSIP is responsible for the financial statements being audited and the implicit and explicit representations and assertions regarding the recognition, measurement, presentation, and disclosure of information therein. During the course of the audit, PM will request information and explanations from MCRCSIP officers, management, and other personnel regarding accounting and financial matters, including information regarding internal controls, operations, future plans, and the nature and purpose of specific transactions. PM will also require that management make certain representations to PM in writing as a precondition to issuance of PM's report.

PM's audit procedures will be significantly affected by the representations and assertions PM receives from management and, accordingly, false representations could cause material error or fraud to go undetected by PM's procedures. Accordingly, MCRCSIP acknowledges and agrees that it will instruct each person providing information, explanations, or representations to an auditor to provide true and complete information, to the best of his or her knowledge and belief. It is also agreed that any deliberate misrepresentation by any director, officer, or member of management, or any other person acting under the direction thereof ("Client Personnel"), intended to influence, coerce, manipulate, or mislead PM in the conduct of its audit of the financial statements will be considered a material breach of this agreement.

**11. Use of Report** – PM's report on the financial statements must be associated only with the financial statements that were the subject of PM's audit engagement. MCRCSIP may make copies of the audit report, but only if the entire financial statements (including related footnotes and supplemental information, as appropriate) are reproduced and distributed with that report. MCRCSIP agrees not to reproduce or associate PM's audit report with any other financial statements, or portions thereof, that are not the subject of this engagement.

If PM's report on the financial statements being audited is to be published in any manner or if MCRCSIP intends to make reference to PM in a publication of any type, MCRCSIP agrees to submit proofs of the publication to PM for review prior to such publication and cooperate with PM in PM's performance of any additional audit procedures PM deems necessary in the circumstances, the nature and extent of which will be at PM's sole discretion. MCRCSIP acknowledges and agrees that additional fees for such work will be determined in accordance with the Fee Adjustments provision of this agreement. With regard to the electronic dissemination of audited financial statements, including financial statements published electronically on MCRCSIP's Internet website, MCRCSIP understands that electronic sites are a means to distribute information and, therefore, PM is not required to read the information contained in these sites or to consider the consistency of other information in the electronic site with the original document.

**12. Securities Offerings** – PM's audit does not contemplate, and does not include, any services in connection with any offering of securities, whether registered or exempt from registration. In the event MCRCSIP elects to incorporate or make reference to PM's report in connection with any offering of debt or equity securities and requests PM's consent to such incorporation or reference, MCRCSIP understands that additional procedures will need to be performed. In the event PM agrees in writing to perform such additional procedures, the nature and extent of which will be at PM's sole discretion, it is agreed and acknowledged that PM's performance of such additional procedures will be subject to all of the terms and conditions of this agreement. Additional fees for such work will be determined based on the actual time that PM staff expend at current hourly rates, plus all reasonable and necessary travel and out-of-pocket costs incurred, and that payment for all such additional fees will be made in accordance with the payment terms provided in this agreement.

If MCRCSIP incorporates or makes reference to PM's report in connection with any offering of debt or equity securities without obtaining consent from PM as described above, MCRCSIP agrees to include the following provision in the offering document:

Plante & Moran, PLLC, our independent auditor, has not performed or been engaged to perform any services in connection with the offering of securities. Nor has Plante & Moran, PLLC performed or been engaged to perform any procedures on the financial statements of MCRCSIP since the date of the Plante & Moran, PLLC report included herein. Plante & Moran, PLLC also has not performed any procedures relating to this offering document.

**13. Tax Return Preparation** – This engagement does not include preparation of any tax returns or filings. If MCRCSIP requires tax services, including tax consulting or preparation of tax returns, those services will be detailed in a separate engagement letter.

- 14. Confidentiality, Ownership, and Retention of Workpapers** – During the course of this engagement, PM and PM staff may have access to proprietary information of MCRCSIP, including, but not limited to, information regarding general ledger balances, financial transactions, trade secrets, business methods, plans, or projects. PM acknowledges that such information, regardless of its form, is confidential and proprietary to MCRCSIP. PM will comply with all applicable ethical standards, laws, and regulations as to the retention, protection, use and distribution of such confidential client information. Except to the extent set forth herein, PM will not disclose such information to any third party without the prior written consent of MCRCSIP.

In the interest of facilitating PM's services to MCRCSIP, PM may communicate or exchange data by internet, e-mail, facsimile transmission, or other electronic method. While PM will use its best efforts to keep such communications and transmissions secure in accordance with PM's obligations under applicable laws and professional standards, MCRCSIP recognizes and accepts that PM has no control over the unauthorized interception of these communications or transmissions once they have been sent, and consents to PM's use of these electronic devices during this engagement.

Professional standards require that PM create and retain certain workpapers for engagements of this nature. All workpapers created in the course of this engagement are and shall remain the property of PM. PM will maintain the confidentiality of all such workpapers as long as they remain in PM's possession.

Both MCRCSIP and PM acknowledge, however, that PM may be required to make its workpapers available to regulatory authorities or by court order or subpoena in a legal, administrative, arbitration, or similar proceeding in which we are not a party. Disclosure of confidential information in accordance with requirements of regulatory authorities or pursuant to court order or subpoena shall not constitute a breach of the provisions of this agreement. In the event that a request for any confidential information or workpapers covered by this agreement is made by regulatory authorities or pursuant to a court order or subpoena, PM agrees to inform MCRCSIP in a timely manner of such request and to cooperate with MCRCSIP should it attempt, at MCRCSIP's cost, to limit such access. This provision will survive the termination of this agreement. PM's efforts in complying with such requests will be deemed billable to MCRCSIP as a separate engagement. PM shall be entitled to compensation for its time and reasonable reimbursement of its expenses (including legal fees) in complying with the request.

PM reserves the right to destroy, and it is understood that PM will destroy, workpapers created in the course of this engagement in accordance with PM's record retention and destruction policies, which are designed to meet all relevant regulatory requirements for retention of workpapers. PM has no obligation to maintain workpapers other than for its own purposes or to meet those regulatory requirements.

Upon MCRCSIP's written request, PM may, at its sole discretion, allow others to view any workpapers remaining in its possession if there is a specific business purpose for such a review. PM will evaluate each written request independently. MCRCSIP acknowledges and agrees that PM will have no obligation to provide such access or to provide copies of PM's workpapers, without regard to whether access had been granted with respect to any prior requests.

- 15. Consent to Disclosures to Service Providers** – In some circumstances, PM may use third-party service providers to assist with its services. In those circumstances, PM will require any such third-party service provider to: (i) maintain the confidentiality of any information furnished; and (ii) not use any information for any purpose unrelated to assisting with PM's services for MCRCSIP. In order to enable these service providers to assist PM in this capacity, MCRCSIP, by its duly authorized signature on the accompanying engagement letter, consents to PM's disclosure of all or any portion of MCRCSIP's information to such service providers to the extent such information is relevant to the services such third-party service providers may provide and agrees that PM's disclosure of such information for such purposes shall not constitute a breach of the provisions of this agreement. MCRCSIP's consent shall be continuing until the services provided for this engagement agreement are completed.

- 16. Fee Quotes** – In any circumstance where PM has provided estimated fees, fixed fees, or not-to-exceed fees ("Fee Quotes"), these Fee Quotes are based on information provided by MCRCSIP regarding the nature and condition of its accounting, financial, and tax records; the nature and character of transactions reflected in those records; and the design and operating effectiveness of its internal controls. MCRCSIP acknowledges that the following circumstances may result in an increase in fees:

- Failure by MCRCSIP to prepare for the audit as evidenced by accounts and records that have not been subject to normal year-end closing and reconciliation procedures;
- Failure by MCRCSIP to complete the audit preparation work by the applicable due dates;
- Significant unanticipated or undisclosed transactions, audit issues, or other such unforeseeable circumstances;
- Delays by MCRCSIP causing scheduling changes or disruption of fieldwork;

## **Professional Services Agreement – Audit Services**

- After audit or post fieldwork circumstances requiring revisions to work previously completed or delays in resolution of issues that extend the period of time necessary to complete the audit;
- Issues with the prior audit firm, prior year account balances, or report disclosures that impact the current year engagement;
- An excessive number of audit adjustments.

PM will advise MCRCSIP in the event these circumstances occur, however it is acknowledged that the exact impact on the Fee Quote may not be determinable until the conclusion of the engagement. Such fee adjustments will be determined in accordance with the Fee Adjustments provision of this agreement.

- 17. Payment Terms** – PM's invoices for professional services are due upon receipt unless otherwise specified in the engagement letter. In the event any of PM's invoices are not paid in accordance with the terms of this agreement, PM may elect, at PM's sole discretion, to suspend work until PM receive payments in full for all amounts due or terminate this engagement. In the event that work is suspended, for nonpayment or other reasons, and subsequently resumed, PM offers no guarantee, express or implied, that PM will be able to meet any previously established deadlines related to the completion of PM's audit work or issuance of PM's audit report upon resumption of PM's work. MCRCSIP agrees that in the event PM stops work or terminates this Agreement as a result of MCRCSIP's failure to pay fees on a timely basis for services rendered by PM as provided in this Agreement, or if PM terminates this Agreement for any other reason, PM shall not be liable for any damages that occur as a result of PM ceasing to render services.
- 18. Fee Adjustments** – Any fee adjustments for reasons described elsewhere in this agreement will be determined based on the actual time expended by PM staff at PM's current hourly rates, plus all reasonable and necessary travel and out-of-pocket costs incurred, and included as an adjustment to PM's invoices related to this engagement. MCRCSIP acknowledges and agrees that payment for all such fee adjustments will be made in accordance with the payment terms provided in this agreement.
- 19. Receipt of Legal Process** – In the event PM is required to respond to a subpoena, court order, or other legal process (in a matter involving MCRCSIP but not PM) for the production of documents and/or testimony relative to information PM obtained and/or prepared during the course of this engagement, MCRCSIP agrees to compensate PM for the affected PM staff's time at such staff's current hourly rates, and to reimburse PM for all of PM's out-of-pocket costs incurred associated with PM's response unless otherwise reimbursed by a third party.
- 20. Subsequent Discovery of Facts** – After the date of PM's report on the financial statements, PM has no obligation to make any further or continuing inquiry or perform any other auditing procedures with respect to the audited financial statements covered by PM's report, unless new information that may affect the report comes to PM's attention. If PM becomes aware of information that relates to these financial statements but was not known to PM at the date of its report, and that is of such a nature and from such a source that PM would have investigated it had it come to PM's attention during the course of the audit, PM will, as soon as practicable, undertake to determine whether the information is reliable and whether the facts existed at the date of PM's report. In this connection, PM will discuss the matter with MCRCSIP and request cooperation in whatever investigation and modification of the financial statements that may be necessary. Additional fees for such work will be determined based on the actual time that PM staff expend at PM's current hourly rates, plus all reasonable and necessary travel and out-of-pocket costs incurred, and MCRCSIP acknowledges and agrees that payment for all such additional fees will be made in accordance with the payment terms provided in this agreement.
- 21. Termination of Engagement** – This agreement may be terminated by either party upon written notice. Upon notification of termination, PM's services will cease and PM's engagement will be deemed to have been completed. MCRCSIP will be obligated to compensate PM for all time expended and to reimburse PM for all out-of-pocket expenditures through the date of termination of this engagement.
- 22. Entire Agreement** – This engagement agreement is contractual in nature, and includes all of the relevant terms that will govern the engagement for which it has been prepared. The terms of this letter supersede any prior oral or written representations or commitments by or between the parties regarding the subject matter hereof. Any material changes or additions to the terms set forth in this letter will only become effective if evidenced by a written amendment to this agreement, signed by all of the parties.
- 23. Severability** – If any provision of this engagement agreement (in whole or part) is held to be invalid or otherwise unenforceable, the other provisions shall remain in full force and effect.
- 24. Force Majeure** – Neither party shall be deemed to be in breach of this engagement agreement as a result of any delays or non-performance directly or indirectly resulting from circumstances or causes beyond its reasonable control, including, without limitation, fire or other casualty, acts of God, war or other violence, or epidemic (each individually a "Force Majeure Event"). A Force Majeure Event shall not excuse any payment obligation relating to fees or costs incurred prior to any such Force Majeure Event.

***Professional Services Agreement – Audit Services***

- 25. Signatures** – Any electronic signature transmitted through DocuSign or manual signature on this engagement letter transmitted by facsimile or by electronic mail in portable document format may be considered an original signature.
- 26. Governing Law** – This agreement shall be governed by and construed in accordance with the laws of the State of Michigan, and jurisdiction over any action to enforce this agreement, or any dispute arising from or relating to this agreement shall reside exclusively within the State of Michigan.

**End of Professional Services Agreement – Audit Services**

## **ADDENDUM TO EXTEND THE AGREEMENT FOR AN ADDITIONAL PERIOD**

This Addendum to Extend the Agreement for an Additional Period ("Addendum") shall be attached to and made a part of the Service Agreement For Administration of A Claims Program that was effective January 1, 2018 between Michigan County Road Commission Self-Insurance Pool ("Client") and Sedgwick Claims Management Services, Inc. ("Sedgwick") (the "Agreement").

In consideration of the Agreement recitals and the mutual covenant and conditions contained herein, the Parties acknowledge that the Agreement is hereby amended as follows:

1. The Agreement shall be extended for an additional period commencing January 1, 2019 and ending December 31, 2019 ("Renewal Term").
2. After the Renewal Term, Client, at its sole option, may extend the Agreement for one additional year, commencing January 1, 2020 and ending December 31, 2020 (the "Optional Term"). Client shall notify Sedgwick of its intention to extend the Agreement for the Optional Term at least thirty (30) calendar days before the expiration of the Renewal Term. If Client fails to provide notice of its intention to extend the Agreement for the Optional Term within the timeframe provided herein, the Agreement shall automatically be extended for the Optional Term in accordance with the terms and conditions set forth herein.
3. Client shall pay Sedgwick the following fees on a life of contract basis for services provided during this additional period based upon current claim volumes and the estimated staffing to service those claims:

### **A. Annual Flat Fee:**

- i. January 1, 2019 and ending December 31, 2019 – Renewal Term:

\$102,485.

- ii. January 1, 2020 and ending December 31, 2020 – Optional Term:

If Client elects to extend the Agreement for the Optional Term, Client shall pay Sedgwick an annual flat fee of \$105,560.

### **B. SIU Service Fees:**

The charges set forth below are the current fees for the services listed, and these fees may change from time to time upon sixty days prior written notice to Client:

Service name	Price
<b>Research services</b>	
Comprehensive background	\$450
Social media investigation	\$250
Canvassing services	\$250
Skip tracing/individual locate	\$175

Service name	Price
Asset check	\$225
Criminal and civil check	\$135 plus cost of records Additional counties: \$35 (per county)
Records request	\$100 plus cost of records
Social media monitoring	Quote upon request
Other research services	Quote upon request
<b>Field services</b>	
Surveillance	\$85 per hour: All other states \$95 per hour: California, Hawaii and New York <u>Additional expenses to hourly rate:</u> <ul style="list-style-type: none"> <li>• Report writing (up to 1/2 hour per day at standard surveillance rates)</li> <li>• Pre-surveillance investigation: \$85</li> <li>• Travel: \$65 per hour (includes fuel and mileage).</li> <li>• License plate searches : \$10 (post prelim)</li> </ul>
Unmanned surveillance	\$700 per day (three-day minimum) Deployment and extraction of stationary device: \$85 per hour: All other states \$95 per hour: California, Hawaii and New York
Alive and well	\$250 flat rate: All other states \$275 flat rate: California, Hawaii and New York
Activity check	\$325 flat rate: All other states \$350 flat rate: California, Hawaii and New York
Field investigations	License plate searches: \$10 each \$85 per hour (portal to portal): All other states \$95 per hour (portal to portal): California, Hawaii and New York Mileage charged at IRS standard mileage rate
Trial/Deposition	\$85 per hour (portal to portal): All other states \$95 per hour (portal to portal): California, Hawaii and New York Mileage charged at IRS standard mileage rate
Video services	\$50 per additional copy plus shipping
Fuel surcharge/credit	2% if fuel cost is greater than \$3.75 for 30 consecutive days
International investigations	Quote upon request
Other field services	Quote upon request
<b>Assessment services</b>	
Suspect file review	\$95 per hour
Fraud investigation (includes state reporting when warranted)	\$95 per hour

Service name	Price
Comprehensive SIU intelligence program	Workers' compensation and general liability — \$150 per claim triggered (includes up to three claim triage reviews per claim triggered)
Other assessment services	Quote upon request

4. All terms and conditions of the Agreement shall otherwise remain the same, except those terms and conditions which have been added, deleted, or modified by the parties in writing.

IN WITNESS WHEREOF, the parties hereto have caused this Addendum to be executed on the dates shown below.

Michigan County Road Commission  
Self-Insurance Pool

By \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

Sedgwick Claims Management Services, Inc.

By  \_\_\_\_\_

Title Vice President

Date 11/12/2018

## SERVICE AGREEMENT FOR ADMINISTRATION OF A CLAIMS PROGRAM

This Agreement is entered into effective the 1<sup>st</sup> day of January, 2018, by and between Sedgwick Claims Management Services, Inc. ("Sedgwick") and Michigan County Road Commission Self-Insurance Pool ("Client").

### RECITALS

1. Client self-insures its claims administration program for general liability, automobile liability, property liability and property physical damage risks and desires to have Sedgwick provide the specific services set forth below in connection with such self-insured program (the "Program," as defined on Exhibit A, attached hereto).
2. Sedgwick is willing to provide such services on the terms and conditions hereinafter stated.

### AGREEMENT

1. Services to Be Performed by Sedgwick: Sedgwick agrees to perform the following services:
  - A. With regard to Claims Administration, Sedgwick shall:
    - (1) During the term of this Agreement, review all claim and loss reports received from Client that are required to be reviewed under the Program (a "Qualified Claim"), and process each such claim or loss report in accordance with applicable statutory and administrative regulations;
    - (2) Conduct an investigation of each Qualified Claim to the extent deemed necessary by Sedgwick in the performance of its obligations hereunder;
    - (3) Arrange for independent investigators, appraisers, or medical or other experts to the extent deemed necessary by Sedgwick in connection with processing any Qualified Claim;
    - (4) Issue a voucher statement to the Client with Sedgwick's recommended payment of benefits, expenses, or settlement based on information available to Sedgwick;
    - (5) Maintain a file for each Qualified Claim which shall be the property of Client and which shall be available for review by Client during normal business hours upon three (3) days prior written notice;



- (6) Maintain a current estimate of the expected total cost of each Qualified Claim which is based on facts known at the estimation date, but is not trended or actuarially developed;
  - (7) Use a proprietary data management system to furnish to Client agreed upon loss and information reports. These reports shall contain information such as each Qualified Claim date, condensed claim description, payments made, estimated future costs and total expected costs of all Qualified Claims, as well as summary and other data deemed relevant by Sedgwick, but not IBNR (incurred but not reported) claims or actuarially developed loss values; and
- B. Sedgwick shall provide the call center services as set forth in the attached Call Center Service Schedule.
  - C. Sedgwick shall provide the special investigative unit (SIU) services set forth in the attached SIU Service Schedule.

2. **Obligations of Client:**

- A. Client shall pay to Sedgwick a service fee which, in the initial term of this Agreement, shall be computed and payable as shown in Exhibit B, attached hereto and made a part of this Agreement, plus applicable taxes, if any.
- B. Client shall at all times be responsible for payment of Qualified Claims, including allocated loss adjustment expenses. For purposes of this Agreement, allocated loss adjustment expenses shall mean all costs, charges or expenses incurred by Sedgwick, its agents or its employees which are properly chargeable to a Qualified Claim including, without limitation, court costs; fees and expenses of attorneys; appeal bonds; independent adjusters; investigators; appraisers; vocational services; training or evaluation; medical expenses and medical cost containment service providers (including those provided by Sedgwick, if applicable); durable medical equipment; rehabilitation services; experts and witnesses; fees for obtaining statements, diagrams, reports, records, documents, transcripts, depositions, index bureau filings and re-filings, and photographs; cost of file retrieval; cost associated with the pursuit of subrogation and/or Special Injury Fund claims; hearing representation services; and travel fees and expenses incurred at Client's request.
- C. It is expressly understood that Sedgwick shall not be required to advance its own funds to pay losses or allocated loss adjustment expenses for any Qualified Claim hereunder. Client agrees to promptly pay any claim payments or allocated loss adjustment expense payments after receiving a voucher from Sedgwick timely and confirm to Sedgwick that Client has made payment within a reasonable time after making payment. The Client shall be responsible for any fines or penalties assessed if the Client is late in paying any claim payment or allocated loss adjustment expense payment, including any fines or penalties assessed against Sedgwick. Client shall immediately notify Sedgwick of any payment on a Qualified Claim that does not originate from a Sedgwick provided voucher. If the Client fails to notify

Sedgwick of any such payments, the Client shall assume all costs related to the failure, including any fines or penalties assessed against Sedgwick.

- D. Should Client fail to make timely payments of any service fees due Sedgwick or should Client in any other way breach a material term of this Agreement, Sedgwick shall then have the right to refuse to perform any further services. If Sedgwick elects to exercise its rights under this paragraph, in addition to all other legal or equitable remedies, Sedgwick will have the right to fees for services performed up to the date exercises its rights.

3. **Discontinuance of Operations:**

Should Client discontinue its business for any reason, all fees due Sedgwick shall be paid immediately. Sedgwick shall have no further obligation to continue to provide the services called for in this Agreement, and, at Sedgwick's option, this Agreement shall be considered terminated as of the date Client ceases operations or is subject to a bankruptcy or receivership filing, either voluntarily or involuntarily.

4. **Covered Jurisdictions:**

This Agreement shall cover all operations of Client in the state of Michigan.

5. **Term of Agreement and Termination:**

- A. The term of this Agreement shall be for the period commencing on January 1, 2018 and ending on December 31, 2018.
- B. This Agreement may be terminated by either party at any time, provided that at least sixty (60) days prior written notice of the effective date of termination is given to the other party.
- C. Sedgwick is providing services to Client on a life of contract basis. If requested by Client, Sedgwick will continue to process Client's Qualified Claims remaining open at the expiration or termination of this Agreement, if any, provided that Client shall continue to make adequate funds available for the payment of such Qualified Claims, including any allocated loss adjustment expenses and pay information technology fees, data tape fees, program management fees, and any other applicable fees. This provision shall not apply unless the additional fee for this service shall have been negotiated and agreed to in writing prior to the effective date of termination.

- D. Upon expiration or termination of this Agreement, Sedgwick shall deliver, at Client's sole cost, the hard copy and imaged files that Sedgwick has maintained for Qualified Claims (but not including any computer hardware, firmware, software or other proprietary information of Sedgwick), except those Sedgwick has agreed in writing to continue to process or files that are owned by Insurer; provided, however, that Sedgwick or its agents, employees or attorneys shall continue to be entitled to inspect all such files and make copies or extracts there from. Imaged files shall be transferred to Client in the same electronic format. If Client does not agree to accept such files, they will be retained or destroyed at Sedgwick's option and Client shall have no recourse against Sedgwick for failure to retain them. Upon request and for the prevailing fees at the time of termination, Sedgwick will also provide its standard tape(s) containing the computer data for the Qualified Claim files stored on Sedgwick's computer system(s).

6. **Practice of Law:**

It is understood and agreed that Sedgwick will not perform, and Client will not request performance of, any services which may constitute the unauthorized practice of law.

7. **Indemnification:**

- A. Sedgwick shall be fully responsible for exercising reasonable care at all times in the performance of its obligations hereunder. However, if Sedgwick is named as a party to any litigation or proceeding, or is the subject of any claim or demand because of its actions on behalf of Client, Client agrees to indemnify, defend, and hold Sedgwick, its officers, directors, employees and agents harmless from any and all losses, damages, costs, judgments and expenses (including attorneys fees and costs) with respect to any such litigation, proceeding, claim or demand, unless and until a finding is entered to the effect that Sedgwick failed to exercise such reasonable care in the performance of its obligations hereunder. Sedgwick agrees to indemnify, hold harmless and defend Client, its directors, officers, employees and agents from and against any and all liabilities, loss or damage that they may suffer as a result of any claim, demand, cost or judgment against them arising out of the negligence or willful misconduct of Sedgwick in connection with its performance under this Agreement, provided that such acts or omissions do not arise out of or relate to oral or written instructions, procedures or forms supplied by Client or to Client's internal management or adjustment of its claims. Each party agrees to keep the other fully informed of any matter for which it is defending, holding harmless or indemnifying the other party. Each party reserves the right to appoint its own counsel, at its own expense, regarding any matter defended hereunder and to approve any settlements of same.
- B. Notwithstanding anything to the contrary contained in the above paragraph, it is understood and agreed that if Client, directly or through a subcontractor or vendor of Client's choosing ("Client Subcontractor"), retains administration of a claim or performs any services for a claim Sedgwick administers, or if Client otherwise directs the administration of a claim, Client will indemnify, defend, and hold

Sedgwick, its officers, directors, employees and agents harmless from the losses, damages, costs, judgments and expenses (including attorneys fees and costs) as a result of any litigation or proceeding, fines, penalties, revocation of license, or any other state regulatory investigation or action arising against Sedgwick related to the acts or omissions of Client or the Client Subcontractor.

- C. If Client's access to claim data includes the ability to add and modify data, Sedgwick shall not be required to verify, or otherwise be responsible for, the accuracy of data added or modified by Client. Client shall indemnify, defend and hold Sedgwick, its officers, directors, employees and agents harmless for any loss, cost (including attorney's fees), claim or judgment which is attributable to Client's input or modification of data.
- D. The provisions of this section shall survive the expiration or termination of the Agreement.

8. **Network Security/Confidentiality:**

- A. If Client's access to the data management system requires a network connection (the "Network Connection") between Client's network and Sedgwick's network, Sedgwick and Client shall take reasonable and customary precautions to prevent unauthorized access to or use of the Network Connection through their respective networks. The parties agree, however, that each party is responsible for the security of its own network. Neither party shall be liable to the other for unauthorized access to the Network Connection, so long as the accused party shall have taken reasonable and customary precautions to prevent such unauthorized access.
- B. Whether or not marked as such, and without regard to the media in which such records are stored, "Confidential Information" shall mean:
  - (1) any business or technical information pertaining to the parties herein or to third parties, which is furnished, disclosed or made available by one party to the other, including, without limitation, specifications, prototypes, software, marketing plans, financial data and personnel statistics; and

- (2) Medical records, reports and information, as well as any other non-medical records, reports or information pertaining to claimants under the Program.

C. Each party agrees to protect Confidential Information received hereunder with the same degree of care that such party exercises with its own confidential information (but in no event less than reasonable care) and to limit access and disclosure of Confidential Information only to their employees, agents and contractors who have a "need to know," and who agree to maintain confidentiality in accordance with this section. Notwithstanding the foregoing, Client agrees to permit Sedgwick to compile and disseminate aggregate, de-identified information for benchmarking purposes or forward to a data collection facility data for Qualified Claims handled pursuant to this Agreement, provided that such facility agrees in writing to keep Client's data confidential. Further, Sedgwick shall be entitled, without violation of this section and without the prior consent of Client, to retain claims administration information and to forward claims administration information to government agencies to the extent required by law for the proper performance of the services set forth herein.

D. The provisions of this section shall survive the expiration or termination of the Agreement.

9. **Notices:**

Any notice required to be given under this Agreement shall be sent by certified or registered mail, postage prepaid, to General Counsel, Sedgwick Claims Management Services, Inc., 1100 Ridgeway Loop Road, Memphis, TN 38120, in the case of Sedgwick, and to Administrator, Michigan County Road Commission Self-Insurance Pool, 417 Seymour Avenue, Suite 2, Lansing, MI 48933 in the case of Client.

10. **Successors:**

This Agreement shall be binding upon and shall inure to the benefit of all transferees, assigns and successors in interest of any kind of the parties hereto, but no transfer or assignment may be made without the prior written permission of the other party.

11. **Entire Agreement and Modification or Amendment:**

This Agreement and its attached exhibits and schedules represents the full and final understanding of the parties with respect to the subject matter described herein and supersedes any and all prior agreements or understandings, written or oral, express or implied. This Agreement may be modified or amended only by a written statement signed by both parties.

12. **Applicable Law:**

The terms and conditions of this Agreement shall be governed by the laws of the State of Michigan without regard to conflicts of law principles.

13. **Force Majeure:**

Neither party shall be liable to the other party or be deemed to have breached this Agreement for any failure or delay in the performance of all or any portion of its obligations under this Agreement if such failure or delay is due to any contingency beyond its reasonable control (a "force majeure"). Without limiting the generality of the foregoing, such contingency includes, but is not limited to, acts of God, fires, floods, pandemics, storms, earthquakes, riots, boycotts, strikes, lock-outs, acts of terror, wars and war operations, restraints of government, power or communication line failure or other circumstance beyond such party's reasonable control, or by reason of the bankruptcy, receivership or other insolvency proceeding of any bank or other financial institution where funds to pay losses and allocated loss adjustment expenses are held, or by reason of a judgment, ruling or order of any court or agency of competent jurisdiction or change of law or regulation subsequent to the execution of this Agreement. Both parties are obligated to provide reasonable back-up capability to avoid the potential interruptions described above. If a force majeure occurs, the party delayed or unable to perform shall give immediate notice to the other party. Notwithstanding anything to the contrary in this Section 13, Client acknowledges that and force majeure incident will not relieve the Client's obligation to pay fees that are due Sedgwick for services Sedgwick has performed.

**14. Headings:**

Headings herein are for convenience of reference only and shall not be considered in any interpretation of this Agreement.

**15. Relationship of Parties; Expenses:**

Nothing contained in this Agreement shall be deemed to create a partnership or joint venture between the parties hereto; the only relationship among the parties shall be that of independent parties to a contract. Except as expressly provided herein, no party hereto shall have authority or shall hold itself out as having authority to act for or bind any other party hereto. Except as expressly set forth herein, each party shall bear all expenses it may incur in connection with the execution, delivery and performance of this Agreement.

**16. Waiver of Breach:**

Failure of either party hereto to require the performance by the other party hereto of any obligation under this Agreement shall not affect its right subsequently to require performance of that or any other obligation. Any waiver by any party hereto of any breach of any provision of this Agreement shall not be construed as a continuing waiver of any such provision or a waiver of any succeeding breach or modification of any other right under this Agreement.

17. **Subcontractor Disclosure:**

Through contractual arrangements with subcontractors, Sedgwick provides a full range of medical management and investigative services to its clients, as well as structured settlements, claim indexing services, imaging, auto-bill adjudication, and extra-territorial claims administration services. Medical management services include, but are not limited to, bill review, network access, pharmacy benefits management, peer review, field case management, electro-medical devices, bone growth stimulators, orthotics, prosthetics, translation and interpretation, transportation, medical supplies, IV and respiratory therapy, home health, and durable medical equipment. Client recognizes and agrees that delivery of some of these services is being provided pursuant to separate agreements between subcontractors and Sedgwick. Invoices for these services will be paid as allocated loss adjustment expenses on individual claims, unless otherwise agreed between Client and Sedgwick. Notwithstanding the foregoing, Client agrees and understands that Client is obligated to make payment to the subcontractors either directly or by remitting such payment to Sedgwick, for any money due for subcontracted services which have been provided under this Agreement. Client acknowledges that Sedgwick receives a portion of charges for subcontracted services as reimbursement for cost of program management, administration, and technological and service enhancements. In no event will charges to Client exceed the amount indicated in the Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed on the day and date first above written.

Michigan County Road Commission  
Self-Insurance Pool

By Bayle A. Cummings  
Title Administrator  
Date August 23, 2018

Sedgwick Claims Management Services, Inc.

By [Signature]  
Title Vice President  
Date 8/29/2018



## **EXHIBIT A**

### **SERVICE PROGRAM OVERVIEW**

#### **I. Introduction**

Sedgwick is administering the self-insured general liability, automobile liability, property liability and property physical damage claims for Client as follows:

**State Serviced:** Michigan

**Sedgwick Servicing Office:** Troy, Michigan

#### **II. Account Coordination**

On behalf of Client, this service program will be coordinated by:

Gayle Cummings, Administrator  
Michigan County Road Commission Self-Insurance Pool  
417 Seymour Avenue, Suite 2, Lansing, MI 48933  
Telephone # 517-482-9166  
Fax # 517-485-4809

On behalf of Sedgwick, this service program will be coordinated by:

Ann Marie Roberts  
Sedgwick Claims Management Services, Inc.  
2855 Coolidge, Ste 216  
Troy, MI 48084  
Telephone #248-637-4286  
Fax # 248-637-3150

Each party reserves the right to change its designated representative during the term of the Agreement.



**EXHIBIT B**  
**SERVICE FEES**

Client shall pay the following fees on a life of contract basis for services provided during the term of this Agreement.

**1. Flat Rate Fee**

A. Client shall pay the following fees for claims received by Sedgwick during the period beginning January 1, 2018 and ending December 31, 2018:

i. January 1, 2018 and ending December 31, 2018:

\$99,500

If acquisitions or divestitures by Client, changes in program requirements, or fluctuations in claim volume materially impact the staffing requirements, Sedgwick and Client shall discuss and agree on the appropriate staffing modifications. For purposes of this agreement, material impact shall be defined as if the reported claim volume fluctuates by 10% either way, the fee is subject to re-negotiation. After new staffing levels have been mutually agreed upon, Sedgwick shall submit to Client a revised budget that reflects such modifications. Sedgwick and the Client shall negotiate a mutually agreeable revised estimated annual Flat Fee based on the revised budget.

**2. Miscellaneous Charges**

Client shall pay the following fees for services provided during the period beginning on January 1, 2018 and ending on December 31, 2018:

A. viaOne access, which includes two (2) view users, is included in the Flat Rate Fee. Additional access is available for a fee of \$320 per view user per year and \$1,595 per query user per year.

B. Intake is included in the Flat Rate.

C. Client shall pay for storage of claim files which were closed at the time that Sedgwick obtained the Program. Sedgwick's liability for such files shall be subject to the same limitations as contained in its written agreements with storage service providers, if any.

**3. Invoicing**

Sedgwick shall bill Client monthly for 1/12 of the annual Flat Fee.

#### 4. SIU Service Fees

The charges set forth below are the current fees for the services listed, and these fees may change from time to time upon sixty days prior written notice to Client:

Service name	Price
<b>Research services</b>	
Comprehensive background	\$450
Social media investigation	\$250
Canvassing services	\$250
Skip tracing/individual locate	\$175
Asset check	\$225
Criminal and civil check	\$135 plus cost of records Additional counties: \$35 (per county)
Records request	\$100 plus cost of records
Social media monitoring	Quote upon request
Other research services	Quote upon request
<b>Field services</b>	
Surveillance	\$85 per hour: All other states \$95 per hour: California, Hawaii and New York <u>Additional expenses to hourly rate:</u> <ul style="list-style-type: none"> <li>• Report writing (up to 1/2 hour per day at standard surveillance rates)</li> <li>• Pre-surveillance investigation: \$85</li> <li>• Travel: \$65 per hour (includes fuel and mileage).</li> <li>• License plate searches : \$10 (post prelim)</li> </ul>
Unmanned surveillance	\$700 per day (three-day minimum) Deployment and extraction of stationary device: \$85 per hour: All other states \$95 per hour: California, Hawaii and New York
Alive and well	\$250 flat rate: All other states \$275 flat rate: California, Hawaii and New York
Activity check	\$325 flat rate: All other states \$350 flat rate: California, Hawaii and New York License plate searches: \$10 each
Field investigations	\$85 per hour (portal to portal): All other states \$95 per hour (portal to portal): California, Hawaii and New York Mileage charged at IRS standard mileage rate
Trial/Deposition	\$85 per hour (portal to portal): All other states \$95 per hour (portal to portal): California, Hawaii and New York Mileage charged at IRS standard mileage rate
Video services	\$50 per additional copy plus shipping
Fuel surcharge/credit	2% if fuel cost is greater than \$3.75 for 30 consecutive days

Service name	Price
International investigations	Quote upon request
Other field services	Quote upon request
Assessment services	
Suspect file review	\$95 per hour
Fraud investigation (includes state reporting when warranted)	\$95 per hour
Comprehensive SIU intelligence program	Workers' compensation and general liability — \$150 per claim triggered (includes up to three claim triage reviews per claim triggered)
Other assessment services	Quote upon request

## 5. Payment Terms

Client acknowledges that all fees set forth in the Agreement are due and payable within thirty (30) days of the invoice. Any and all past due fees will incur interest at the rate of 1.5% per month, unless otherwise prohibited by law. Client acknowledges that in the event Sedgwick undertakes collection proceedings for any outstanding fees, then Client will reimburse Sedgwick for all costs associated with such collection action, including a reasonable attorney fee and court cost.

All fees are contingent upon claim management from the JURIS system.

## CALL CENTER SERVICE SCHEDULE

1. Sedgwick will perform the following call center services:
  - A. Provide to the Client an email address owned by Sedgwick to be used by Client and its employees to access the Sedgwick claims intake center during the term of the Agreement between Client and Sedgwick regarding a claims administration program for Client's Program as defined in Exhibit A.
  - B. Shall fill out the appropriate form as required by an applicable program or statute.
  - C. Provide a copy of the form to Client via fax, mail, or electronically as agreed with Client.
  - D. Provide a copy of the form via fax, or electronically to the Sedgwick office responsible for managing the loss, as necessary.
2. Client agrees that:
  - A. Client shall provide Sedgwick in a timely manner information to facilitate distribution of report copies by Sedgwick.
  - B. Client shall pay to Sedgwick a service fee which, in the initial term of this Agreement, shall be computed and payable as shown in Exhibit B, attached hereto and made a part hereof, plus applicable taxes, if any.

## SIU SERVICE SCHEDULE

Sedgwick Special Investigations Unit ("Sedgwick SIU") will provide centralized management of investigative service vendors and will maintain a national vendor list of approved service providers based upon client or local Sedgwick office preference. Sedgwick SIU will establish quality benchmarking and ensure its vendors are properly licensed and maintain insurance coverage as mandated in vendor agreements with these firms.

Sedgwick SIU will serve as a central referral and coordination unit providing the following SIU services for the fees itemized in Exhibit B:

1. Assessment services including case review, consultation, action plan development, state fraud filing, claim file demand and fraud packaging.
2. Field services including surveillance, activity checks, alive and well checks, and on-site investigations including recorded statements, AOE/COE, and scene investigations.
3. Research services including comprehensive background checks, internet searches, facility canvasses public records, skip tracing, criminal, civil and asset checks.
4. SIU compliance services including carrier and state annual reporting and fraud awareness training.
5. And, other services as outlined in Exhibit B.



## MCRCSIP - Loss Control Service / Activities (August 1 – October 31, 2018)



*The following information is a summary of loss control service visits and activities that have occurred during the period referenced above. Any questions regarding this information can be directed toward Mike Shultz – Director of Loss Control / Training.*

**TOTAL NUMBER OF SERVICE VISITS / ACTIVITIES (Since April 1, 2018) = 184**

**TOTAL NUMBER OF SERVICE VISITS / ACTIVITIES (This period) = 95**

### **THIS PERIOD BREAKDOWN:**

- ✓ Member Visits with Audits, Training, Workshops, Seminars, Special Meetings (Note: Most training sessions are in-house and may include more than one subject) = 62
  - Audit Recommendations (i.e. Buildings, Work Sites, Road Surveillance) = 131
  - Road Surveillance (miles driven) = 1,795
  - Vehicle Miles Driven = 19,985
- ✓ Pool Cue Articles / Road Side Chats = 1
- ✓ MCRCSIP Loss Control Activities with related meetings (i.e. Board of Director, Staff, Department, Special Meeting or Training, CRA Show, Council), including conferences and seminar training = 33

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### **Comments / Information:**

- Fall 2018 training is nearing completion. Garage audits will occupy most of our time over the next five months.
- First of the year analysis of claim information to identify members' trends.
- Loss Control Focus areas for 2019 will include (but not limited to):
  - Preventing Harassment / Maintaining Appropriate Workplace Behavior
  - Victim Avoidance and Personal Safety in Office and Field Settings – Dealing with Furious and Aggressive Motorists or Residents
  - Battery Disconnect Switch Installations / Care / Maintenance / Usage
  - Trucks and Building Fires / Electrical / Housekeeping Safety Awareness
  - Chemical “GHS” Safety including Storage and Handling
  - Driver Safety Issues including Driver Behavior / Cell Phones and Safe Backing
  - Work Zone Safety including Positioning Vehicles, Truck / Equipment Lighting and Employees wearing PPE
  - Work with CRASIF Loss Control on similar safety subjects when possible or practical