Mount Penn Borough Municipal Authority

Proposal for Pension Fund Professional Services

CBIZ InR

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610.891.1677

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Low Cost. Transparent.
Predictable.

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APPLICATION FORM

A. Narrative Response to RFP

CBIZ InR is pleased to submit a proposal to provide Mount Penn Borough Municipal Authority with investment advisory custodial services related to the Non-Uniform plan being offered to the employees of the Authority. As an independent Registered Investment Advisory firm, CBIZ InR is committed to offering unbiased advice designed to assist our clients to discharge their fiduciary duties. Our fully transparent program is designed to assure no conflicts of interest and our focus on working with our clients to achieve a rate of return equal to the interest rate being used by the pension actuary.

CBIZ InR specializes in providing investment advisory services for governmental entities like Mount Penn Borough Municipal Authority. Since 1992, we have been fortunate to work with over 80 different municipalities in the Commonwealth of Pennsylvania, using the same low-cost passive approach featuring the Exchange Traded Funds (ETFs) from Vanguard® and Blackrock®. Our total market approach is designed to maximize the probability of achieving the required rate of return while minimizing the costs and volatility of the portfolio providing fiduciary comfort to the plan sponsor.

We have built an administrative support team to coordinate the needs of the plan sponsor and plan participants. We manage the process related to any cash flow needs like distributions and plan expense payments with the custodian and we work with a multitude of administrative firms and actuaries to assure they obtain the information they need to perform their duties.

We look forward to answering any questions you many have related to our response.

Sincerely,

Jeffrey M. Hugo AIF®, CLU, CEBS, ChFC
Executive Vice President
CBIZ InR
115 West State Street, Suite 300
Media, PA 19063
610.891.1677
jhugo@cbiz.com

B. Applicant's history, ownership and organization

1. List your organization's complete name, address, telephone and fax numbers. Briefly describe the organization, the year it was founded, location of its headquarters and other offices, its ownership structure and affiliation with other companies.

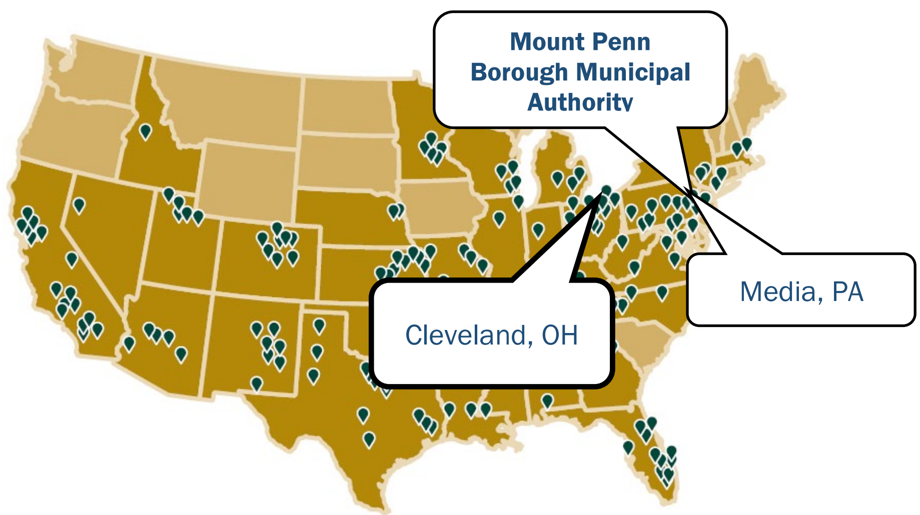
CBIZ INVESTMENT ADVISORY SERVICES, LLC DBA CBIZ INR

National Headquarters
CBIZ, Inc.
6050 Oak Tree Blvd., Suite 500
Independence, Ohio 44131

Primary Service Team Location:
CBIZ InR
115 West State St., Suite 300
Media, PA 19063

Name: ***Rich Ritzer, CFP®***
Phone: (610) 891-1677
Fax: (610) 891-1679
Email: rritzer@cbiz.com

**Additional offices located in downtown Philadelphia, PA, Plymouth Meeting, PA and Columbia, MD*



CBIZ Retirement Plan Services

Learn more at retirement.cbiz.com or call 866.560.2431.

2. **Provide a brief history of your organization and affiliated entities, if any.**

CBIZ InR has been providing investment advisory services to municipalities in the Commonwealth of Pennsylvania for over 26 years. We have developed the intellectual capital and infrastructure to deliver our services to over 100 municipalities, counties and municipal authorities. We have external advisors and internal support staff to meet the needs of both the plan sponsor and plan participants at a very high level.

We have been specializing in working with municipalities like Mount Penn Borough Municipal Authority for 26 years. This has allowed us to become well versed in strategically constructing portfolios to meet the assumed interest rate that is being used by the plan's actuary. Our overall investment philosophy and process is similar across all clients: using low-cost index funds to construct an asset allocation to meet the assumed interest rate. However, each particular client is different from a risk tolerance standpoint. We may implement a different asset allocation for a particular client that has a higher assumed rate than another if that client accepts that allocation.

With this client base, we have worked with all types of defined contribution plans (401(a), 457, and we even have grandfathered municipal 401(k) plans.) In each instance, we act as a fiduciary for the investment advice we provide, and we believe in full fee disclosure and transparency.

a. **What is the total asset base of the municipal pension funds on which you consult?**

CBIZ InR as an aggregate client base of 87 municipal defined benefit plans with assets in excess of $650 million and 76 municipal defined contribution plans with assets in excess of $100 million,

b. **How many plans do you provide administrative services for? Consultative services? Custodial services?**

We provide fiduciary investment advisory services to our 87 defined benefit plans and 76 defined contribution plans. We use TD Ameritrade to provide custodial services for these plans.

c. **Describe your organization's level of experience and knowledge of the particular elements of the Authority's pension program.**

CBIZ InR currently advises on 87 uniform, non-uniform and authority pension plans and 76 defined contribution plans in the Commonwealth of Pennsylvania and has been doing so since 1992. CBIZ InR has become extremely familiar with Pennsylvania's Act 600, 205 and 44 due to an extensive track record in dealing with these types of pensions. We work closely with the plan's actuary to consult on how changing the assumed interest, for example, may affect the plan funding provisions and minimum municipal obligation. Through the years, CBIZ InR has developed wonderful working relationships with the Pennsylvania Auditor General's Office and with various administrative firms in the Commonwealth.

d. Describe your level of experience in advising municipal authorities on defined contribution and defined benefit programs.

CBIZ InR currently advises on 87 uniform, non-uniform and authority pension plans and 76 defined contribution plans in the Commonwealth of Pennsylvania and has been doing so since 1992. CBIZ InR has become extremely familiar with Pennsylvania's Act 600, 205 and 44 due to an extensive track record in dealing with these types of pensions. We work closely with the plan's actuary to consult on how changing the assumed interest rate, for example, may affect the plan funding provisions and minimum municipal obligation. Through the years, CBIZ InR has developed wonderful working relationships with the Pennsylvania Auditor General's Office and with various administrative firms in the Commonwealth.

In addition to the defined benefit plans, we have been able to carry the knowledge we built in managing these plans over to our defined contribution accounts, so that non-uniform 401(a), DROP accounts and 457 participants can also access low cost passive investments from Vanguard®. We build risk based models that are used by our defined contribution plan participants. We have dedicated staff to meet with employees in these participant-directed accounts. We are proud to share that we work with Chester, Bucks, Berks and Delaware Counties, as well as many boroughs, townships, cities, and authorities in the Commonwealth of Pennsylvania to provide 457 and DROP services. **Please see Exhibit A for an overview of these services.**

3. Describe the range of activities of your organization and any affiliated entities.

CBIZ, Inc. Facts

- One of the top ten accounting services providers in the U.S. – CBIZ/Mayer Hoffman McCann
- One of the ten largest valuation firms in the U.S.
- Voted #1 benefits specialist in the U.S by Business Insurance Magazine (5+ consecutive years)
- Over 4,000 employees in more than 100 offices nationwide
- CBIZ does not manage money in the traditional sense, but does advise corporate retirement plan clients on their investment approach.

Benefits & Insurance

- Employee Benefits Consulting
- Human Capital Management/ Payroll
- Property & Casualty
- Retirement Plan Services
- Human Capital Services
- Executive Search
- Compensation Consulting
- Life Insurance

Financial & Accounting

- Accounting & Tax
- Government Health Care Consulting
- Financial Advisory
- Valuation
- Litigation Support
- Risk & Advisory Services
- Real Estate Advisory Services

4. **Within the last five (5) years has your organization or an officer or principal been involved in any business litigation or other legal proceedings relating to your professional activities? If so, provide an explanation and indicate the current status or disposition.**

From time to time and in the normal course of business, our corporation is involved in claims that involve issues related to our brokerage and consulting activities. At this time there are no claims that would negatively impact CBIZ RPS's or any of its employees' ability to perform its duties and obligations under this engagement for Mount Penn Borough Municipal Authority.

5. **Identify the consultants and other key staff who would be involved in serving our account. Provide resumes for these individuals.**

If CBIZ InR had the privilege to work with Mount Penn Borough Municipal Authority, Mike Glackin, CFP®, AIF®, Jeff Hugo AIF®, CLU, CEBS, ChFC, Rich Ritzer, CFP® and Jennifer Coale would be responsible for servicing the pension plan. Mike, Jeff and Rich would attend all review meetings. A brief overview of each employee is below:

Michael Glackin AIF®, CFP®
President

Michael Glackin is the President and co-founder of CBIZ InR, a Registered Investment Advisory Firm headquartered in Media, PA. A graduate of Widener University, Mike is an Accredited Investment Fiduciary (AIF®) and a Certified Financial Planner (CFP®). Mike has over 25 years of experience in the financial industry.

As President of CBIZ InR, Mike manages the firm. He handles the staffing, compliance, trading, and client management functions of the firm and is actively involved in the new business efforts. Mike is the Chairman of the Investment Committee.

Mike is actively involved in the public relations functions of CBIZ InR. He served as a panelist at the Fifth Annual World Series of Exchange Traded Funds. He was the guest speaker on FOX 29: Good Day Philadelphia Money Talk. Mike has been named a 5 Star Wealth Manager by Five Star Professional.

Jeffrey M. Hugo AIF®, CLU, CEBS, ChFC
Vice President

Jeffrey M. Hugo is a Vice President and co-founder of CBIZ InR, a Registered Investment Advisory Firm headquartered in Media, PA. Previous to joining CBIZ InR, Jeff spent 19 years with Nationwide Financial as a Regional Vice President. Jeff was in charge of the Mid-Atlantic Region for Nationwide. He also spent 7 years at AON subsidiaries consulting with plan sponsors.

Jeff is a graduate of the Wharton School of the University of Pennsylvania, where he received a B.S. in Economics. He is an Accredited Investment Fiduciary (AIF®). He has received the Chartered Life Underwriter Designation (CLU) and Chartered Financial Consultant (ChFC) designations from the American College. Jeff holds the designation Certified Employee Benefit Specialists (CEBS) awarded by the Wharton School and the International Foundation for

Employee Benefit Plans.

Jeff was a founding member and past president of the Philadelphia Chapter of the Certified Employee Benefits Specialists Program. Jeff has taught pension and asset management courses for the American College, Penn State University, and Neumann College.

Rich Ritzer, CFP®
Vice President

Rich is a Vice President at CBIZ InR. He began his working with the Vanguard Group in Malvern, PA and has a solid foundation in the benefits of indexed investing, financial planning, and working with employer sponsored retirement plans.

As a Vice President of CBIZ InR, Rich specializes in developing and managing retirement plan solutions for retirement plan clients by providing independent advice on fiduciary oversight, investment due diligence, fee transparency, as well as advice and education for individual plan participants.

Jennifer Coale
Account Executive

Jennifer Coale is an Account Executive at CBIZ InR. Jen oversees the day-to-day administrative functions necessary to keep our plans running smoothly. Her duties include managing the periodic payment and tax reporting needs of our municipal accounts and fielding the inquiries from the staff employees of our municipal clients. She is instrumental in obtaining information related to asset statements and other information related to inquiries related to plan audits and participant questions. She is in constant contact with representatives at TD Ameritrade Institutional and TD Ameritrade Trust Company. Jen graduated from Kent State University, with a Bachelor of Arts in Psychology. She has been with CBIZ InR since 2011.

C. Services.

1. Describe your proposal regarding custodial services

We custody the assets of our clients' pension plans at TD Ameritrade. TD provides custody of the plan assets, generates monthly custody statements that document all transactions, provides benefit payment services, and handles the associated tax reporting (Form 1099-R and Form 945).

In our biography section, you will see information on Jennifer Coale. Jen works directly with the plan sponsor and actuary to coordinate all administrative needs and she also interacts with plan participants/individual retirees to address any questions they may have.

Because we work with 87 municipal pension plans with assets over $650 million, TD has assigned dedicated personnel at who work directly with Jen to assure the administrative functions are performed promptly and accurately.

2. Describe your proposal regarding investment services

As a fiduciary to the Mount Penn Borough Municipal Authority pension fund, we will provide investment advisory services using low-cost ETF vehicles. We will develop, implement and monitor the investment policy statement along with constructing the appropriate asset allocation. We do not employ active managers in our process. We are strong proponents of indexing, also called passive management, and low cost investing. Using Vanguard and iShares, we incorporate a "total market" approach where we essentially have a position in all equities and fixed income securities across the globe. We believe that developing an appropriate long term strategy based on a portfolio's asset allocation is superior to analyzing and concentrating on a specific asset class or security. Thus, our investment portfolios are constructed based on our asset allocation process and information data gathered from the pension plan and committee.

We will develop asset class assumptions utilizing historical risk, return and correlation data obtained from our third party research platforms. For these forward looking assumptions, we use the index for each asset class as it is important for us to adhere to our passive investment management philosophy. Our process also includes forecasting various risk/return ranges for asset classes to develop expected rates or return for our risk-based model portfolios. From this research, along with the goals and objectives of the committee, we implement our target allocation for the portfolio.

3. Describe your proposal regarding administrative and consultative services

We will work closely with the plan actuary to deliver the administrative functions of the pension plan. CBIZ InR will "quarterback" the plan by providing the fiduciary investment advisory services, quarterly review meetings and managing the custodial relationship. Jennifer Coale will be the single point of contact working with the plan sponsor and coordinating all pension needs. She works directly with the custodian, TD Ameritrade as well as the plan participants.

D. Fees

1. Please provide a fee proposal for the services outlined in this request. Itemize separate charges for separate services where appropriate.

CBIZ InR is an independent Registered Investment Advisory firm that does not receive any form of compensation other than the stated wrap fee for its services that is deducted directly from plan assets. There are no indirect fees of any kind or are there front- or back-end loads.

We will manage the Mount Penn Borough Municipal Authority Pension Plan on a wrap fee basis. That wrap fee will be .40% of assets and deducted from plan assets.

Our wrap fee program will provide the following services:

- *Fiduciary Investment Management Services*
- *Custody of Assets through TD Ameritrade*
- *Trading Costs*
- *Costs for Periodic Payments and Tax Reporting related to pension payments to recipients*

ANNUAL FEES FOR MOUNT PENN BOROUGH MUNICIPAL AUTHORITY PENSION PLAN – INVESTMENT ADVISORY		
Description	**Fee**	**Explanation**
Custodian Direct cost for custodial services	0%	Included in Wrap Fee
Investment Advisory Direct cost for investment advisory services	0.40%	.40% of combined assets, assessed quarterly.
ETF Expenses Individual ETF fees	0.07%	This is the dollar weighted average expense ratio based on the assets that will be placed in ETFs.
Investment Expenses Fees for underlying investments outside of mutual funds (separate account manager fees, etc.)	N/A	This is the dollar weighted average expense based on the assets placed in separate accounts.
TOTAL ANNUAL FEES	**0.47%**	**This represents the total in all fees.**
Other Potential Fees	N/A	N/A

In the case where we have participant directed non-uniform plans, we have developed a program that can cost effectively handle employer contributions, voluntary employee 457 contributions and pre-Act 44 DROP contributions. In that program, we use the recordkeeping capabilities of Aspire Financial and the custody service of TD Ameritrade. This program also includes low-cost index funds from Vanguard®. **Please see Exhibit A for an overview of our defined contribution program.**

If the defined contribution program(s) will be utilized, the fees will be as follows:

ANNUAL FEES FOR MOUNT PENN BOROUGH MUNICIPAL AUTHORITY DEFINED CONTRIBUTION PLAN (if applicable)		
Description	**Fee**	**Explanation**
Custodian and Recordkeeping Direct cost for these services	0.15% & $20	Per participant per year
Investment Advisory Direct cost for investment advisory services	0.40%	.40% of combined assets, assessed quarterly.
Fund Expenses Individual ETF fees	0.07%	This is the dollar weighted average expense ratio based on the assets that will be placed in mutual funds.
Investment Expenses Fees for underlying investments outside of mutual funds (separate account manager fees, etc.)	N/A	This is the dollar weighted average expense based on the assets placed in separate accounts.
TOTAL ANNUAL FEES	**0..62% and $20 pear year**	**This represents the total in all fees.**
Other Potential Fees	N/A	N/A

2. Provide an hourly fee schedule for any additional services not included in the basic scope of services.

All fees were provided in the previous answer.

I. Investment policy, research and reporting

1. Describe your approach to investment research.

We draw on third party resources such as Vanguard, Morningstar, Bloomberg, Ibbotson, BlackRock and TD Ameritrade to obtain capital markets assumptions and forward looking projections based on asset allocation. Since we employ a passive investment philosophy, we focus on developing an asset allocation to achieve the desired rate of return while maximizing risk-adjusted returns. We also focus on the underlying fees and how closely the index fund tracks the benchmark.

2. How are investment managers evaluated?

CBIZ InR does not employ active managers in our process. We obtain Capital Markets Information from a variety of sources including those named in the previous response. We use each source to evaluate the current market environment as well as forecasting asset classes to develop a long term strategic allocation for our clients. The index funds that we use for our clients are evaluated based on overall expenses and how closely the fund tracks the associated benchmark.

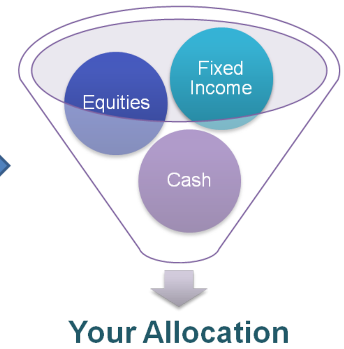
3. Describe your asset allocation process for pension investments, if the plan's investments are directed by the governing authority. Be sure to address the development of investment policies, portfolio structure, and guidelines for investment managers.

CBIZ InR's asset allocation process is outlined as follows:

Forecast return, risk and correlation for asset classes in equity, bond and international categories. This information is obtained from the various research sources we subscribe to and then integrated into the selection process.

The first step in CBIZ InR's asset allocation process is to work with Plan Fiduciaries to develop the Plan's investment policy. This is a multi-step process that first begins with understanding the goals, risk tolerance and financial objectives of the committee. We subsequently build risk-based asset allocation models using data that is derived from our passive investment management philosophy and forecasted allocation assumptions.

Once the investment policy is mutually agreed upon by Plan Fiduciaries and CBIZ InR; then additional data is gathered to develop the asset allocation models. The key financial data includes:



- *Investment return objective of the plan – (assumed interest rate used by plan actuary);*
- *Demographics of the plan;*
- *Funding ratio of the plan;*
- *Risk tolerance of the Plan Fiduciaries.*

CBIZ InR uses this information to develop a number of different asset allocation models. During the plan review with the Plan Fiduciaries, the differences in the risk/reward characteristics are discussed by comparing the proposed Portfolio Allocations. This is followed by fact based discussions and eventual agreement/consensus between CBIZ InR and Plan Fiduciaries.

Once the final decision is reached, it is documented in the investment policy Statement. **Please refer to Exhibit B for a sample of our allocation analysis and investment policy statement.** This allows us to project asset class returns, along with other risk/return analytics to construct our portfolios based on the objective of the plan.

Our process is such that we manage the program to comply with the Investment Policy Statement. In order to maintain our investment objective and implement risk control guidelines, we rebalance our portfolios to reset back to our desired asset allocation on a quarterly basis. Each year we revisit our assumptions and suggest any changes that we feel are necessary.

4. What is your firm's process for establishing the client's investment objectives?

Please see our response to the previous question for establishing our clients' objectives.

5. Describe the due diligence process utilized in the selection and monitoring of investment products.

We use third-party research platforms to obtain data to choose our index funds. They include:

- Vanguard
- Fi360
- Morningstar
- Bloomberg
- TD Ameritrade Institutional

Since we employ a passive investment philosophy, our due diligence focuses on underlying fund expense ratios (fees), performance relative to the benchmark, R-squared, Beta and tracking error. The goal is to make sure the manager is replicating benchmark as close as possible.

a. Do you receive any direct or indirect compensation from investment product providers?

We do not.

6. Comment on your philosophy regarding portfolio structure for municipal pension plans.

CBIZ InR does not employ active managers in our process. We are strong proponents of indexing, also called passive management. We utilize passive Exchange Traded Funds from firms like Vanguard® and BlackRock®. These investment products track the appropriate investment benchmark, are fully invested with no cash drag, are totally transparent and are extremely low cost. They are exceptionally liquid, have no style drift and are ideal for populating the asset classes in the asset allocation portfolios we design to meet the funding needs of the plan we consult with. This process produces no bias and it is totally objective. Studies show that actively managed investment vehicles frequently underperform their benchmarks.

Please note: CBIZ InR's investment philosophy is based on a number of well documented studies that have concluded that asset allocation decisions have the greatest impact on the overall long-term performance of a portfolio.

Asset allocation is based on the principle that individual asset classes have different investment characteristics and that these asset classes can be combined to optimize the objectives of the investment policy statement. For any given expected rate of return, an optimal mix of asset classes can be designed that will yield an expected rate of return with the least amount of volatility or risk.

Additionally, for any given level of assumed risk, a higher expected investment return may be obtained by mixing different asset classes as compared to investing in a single asset class.
Please see a research study in Exhibit C provided by Vanguard® that outlines the advantages of index investing.

7. Describe the educational services to participants and the governing authority which you expect to provide or make available within the quoted fee.

We take pride not only how strongly we embrace our approach, but the level of service and education we are able to provide to our clients. We treat every quarterly pension meeting as an education opportunity with trustees. We work closely with the plan's actuary to consult on how changing the assumed interest rate, for example, may affect the plan funding provisions and minimum municipal obligation. We are extremely well versed in DROP plans and convey how they ultimately affect the plan as well. Another important topic we discuss is how fees ultimately affect the plan over the long run. This is a topic that has come up at the state level through the Auditor General and Governor Wolf's Task Force Recommendations. **You may see a copy of these statements in Exhibit D.**

For example, we recently showed a client how it would be beneficial to deposit the minimum municipal obligation on a quarterly basis rather than as a lump sum. This allows for dollar cost averaging within the plan and can potentially help enhance returns over the long run.

For defined contribution plans, we act in a fiduciary capacity and we will provide investment advisory services using low-cost mutual funds through Vanguard®. We will develop, implement and monitor the investment policy statement along with constructing the appropriate model portfolios and investment lineups for plan participants. Participants will have the ability to choose from a pre-constructed risk-based model portfolio or create their own asset allocation by choosing from a diversified mutual fund lineup. Your plan representative will be available for on-site visits to meet with participants to help them with retirement planning and investment advice. It is important for us to meet with plan participants to provide education on how their savings, timeframe and risk tolerance will affect their retirement income. Another important topic we discuss is how fees ultimately affect the plan over the long run.

In constructing the risk-based models, we will develop asset class assumptions utilizing historical risk, return and correlation data obtained from our third party research platforms. For these forward looking assumptions, we use the index for each asset class as it is important for us to adhere to our passive investment management philosophy. Our process also includes forecasting various risk/return ranges for asset classes to develop expected rates or return for our risk-based model portfolios that are available to plan participants.

We partner with Aspire Financial services to provide recordkeeping and TD Ameritrade to provide custodial services. We essentially "quarterback" these functions while simultaneously working with plan sponsor and providing education and advice to plan participants. Through Aspire and TD Ameritrade, we will provide reporting on the participant and plan sponsor level. Participants can view their accounts online at any time in addition to receiving quarterly account statements. Plan sponsors can obtain plan-level reports through our recordkeeping system that contain features such as purchases, sales, gains, market values, etc. These reports can be obtained at any time.

From a compliance standpoint, we will provide plan documentation and fiduciary support. As a 3(38) investment manager, CBIZ InR acknowledges its fiduciary status in all client relationships. In this capacity the retirement plan committee is relieved of fiduciary liability as it relates to the selection, monitoring and replacing of the investment options in the plan. This, coupled with a low-cost indexed approach and unbiased advice, allows us to provide a unique service model that is different from many other providers in this space.

8. Describe your reporting procedures.

We use Albridge Solutions, Inc. web based accounting portfolio and performance software. Performance calculations are performed using the Internal Rate of Return (IRR) Calculation Method. The Internal Rate of Return (IRR) is used to calculate the true, money-weighted rate of return. Like the Modified Dietz calculation, the portfolio or asset is valued at the starting and ending points of the period. And, cash flows are included based on their timing.

The IRR is related to the time-value of money or present value formula. It calculates the discount rate which will take the starting value and all cash flows to result in the ending market value.
Performance returns for time periods longer than 365 days are annualized. Performance is also broken down by asset type over any period of time.

Data is also downloaded from Albridge Solutions to Morningstar® Office to deliver the following:

- *Portfolio Analysis*
- *Regional Exposure*
- *Sector Weightings*
- *Risk-Reward Characteristics*
- *Investment Style and Allocation Composition*
- *Fundamental Analysis*

The predominant vehicle for ensuring the accuracy of the account balances and returns-especially when there is incomplete or bad data delivered to the system-is through a daily account reconciliation process where the cumulative number of units of an asset in a given account is compared with a custodian provided position file for that same asset. If there is an imbalance, the system automatically reconciles that account balance to the number of units by generating a reconciled positive or negative transaction. We also back the Albridge data through the Morningstar Office platform. This allows us to have two platforms running side by side simultaneously to deliver the most accurate performance reporting data.

For defined contribution plans, participants have the ability to view their accounts online and receive quarterly statements via mail or can opt in to electronic delivery.

9. What methods and sources of data do you use in calculating investment performance of a pension portfolio? How often are performance reports produced and delivered to participants and to the governing authority? Include a sample performance evaluation report.

Please see refer to the previous answer for the first question.

CBIZ InR proprietary Investment Monitoring Reports can be delivered on an annual, semi-annual or quarterly frequency. CBIZ InR is able to customize specific performance reports through our Albridge platform as soon as one (1) day immediately following quarter end. We prefer to schedule our quarterly client meetings a week or so after the end of the calendar quarter so that we can gather other information such as quarterly market commentary to share with our clients. **Sample pension reports and defined contribution statements can be found in Exhibit E.**

10. Describe how participants, in a participant directed plan, can change investment allocations. Describe how the governing authority can change the plan's investment allocation in a plan that does not allow participant investment elections.

In the case of participant directed defined contribution plans, participants have the ability to change their investment allocations either online or by providing an updated enrollment form. Our program is built around providing participants with unbiased advice based on their individual situation. We run them through projections to show them how much income they can expect to receive in today's dollars based on their investment selection, contribution amount and timeframe.

The fiduciary investment manager, CBIZ InR, will have discretion regarding plan's that do not allow participant investment elections. This provides fiduciary comfort to the plan sponsor. CBIZ InR engages DALBAR, a third-party credentialing firm to review the firm's practices and issue a determination letter to confirm that the practices meet their stringent standards as a plan fiduciary. **Please see Exhibit F for this document.**

F. Scope of services: Please indicate whether your firm proposes to provide the following services within the quoted fee or if in the alternative you intend for a service to be provided by the plan's actuary.

1. Attendance participant and Board meetings upon request.

Yes.

2. All benefit calculations.

Provided by plan actuary on defined benefit plan.

3. Annual benefit statements for all active participants.

Provided by plan actuary on defined benefit plan and provided by CBIZ for defined contribution plan.

4. Maintenance of relevant records for all active, retired and terminated vested members of each plan.

Provided by plan actuary on defined benefit plan.

5. Timely updates on any changing legislation and regulations that are relevant to the administration of the pension plans.

Yes.

6. Copies of all files, correspondence, and records, at no cost to the Authority, within thirty (30) days upon termination of services.

Yes.

7. Consultative and participant communication services as needed.

Yes.

8. Plan documents (457, 401a, etc.) as required along with restatements as required.

In conjunction with the plan actuary.

9. Preparation of retirees' 1099-Rs

Yes.

10. Preparation on monthly and annual financial statements.

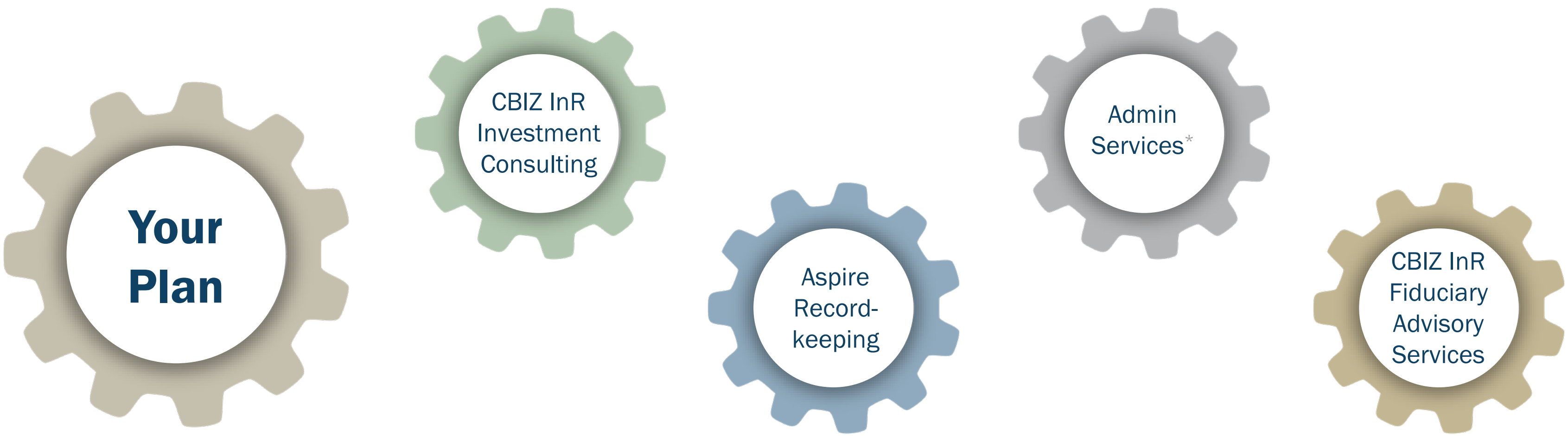
In conjunction with the plan actuary.

CBIZ InR

Fiduciary Investment Services

The Platform

- CBIZ InR offers a turnkey unbundled defined contribution platform consisting of strategic partnerships to provide independent recordkeeping, administration and fiduciary advisory services.
- This approach allows flexibility, predictability and transparency.



*Admin services may be provided by CBIZ RPS, DWC or TD Ameritrade depending on plan type

Fiduciary Comfort

Not only do we tailor each plan to accommodate risk tolerance, but we also help shoulder institutional risk.

We provide protection by sharing and absorbing fiduciary risk.

- CBIZ InR:
  - ✓ Serves as an Independent Financial Advisor
  - ✓ A Dalbar® Certified ERISA 3(38) Investment Manager
  - ✓ Selects Asset Classes Appropriate for Portfolios
  - ✓ Continually Monitors and Replaces Investments when Prudent
  - ✓ Maintains Highest Fiduciary Standards

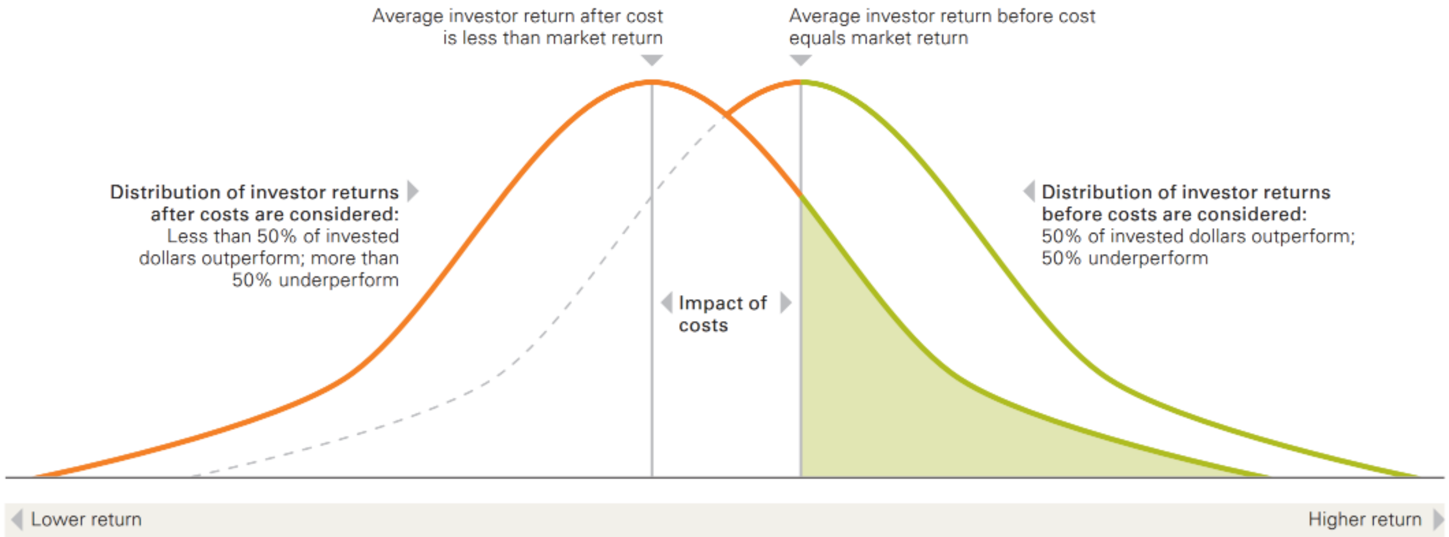
The DALBAR 3(38) Certification Program provides an independent assessment of an investment manager's ability to satisfy the requirements of ERISA section 3(38). CBIZ InR has met the requirements set forth by DALBAR to become a DALBAR Certified ERISA 3(38) Investment Manager

Investment Consulting

CBIZ InR utilizes a passive investment approach via Vanguard Index funds. Low fees, coupled with broad asset exposure, can help to provide competitive returns over the long run.

The impact of costs on overall investor returns

Hypothetical distributions of market returns before and after costs



Note: These distributions are theoretical and do not reflect any set of actual returns.

Source: Vanguard.

Past performance is no guarantee of future results.

Investment Offering

CBIZ InR provides a low-cost, broadly diversified investment menu.

All-in-one investment

- **Model** portfolios

Core investment

- Money market/ Stable value fund
- Total bond market index fund
- Total U.S. stock market index fund
- Total international stock market index fund

Supplemental investments

- Fixed income funds
- Domestic equity funds

Large Value	Large Blend	Large Growth
Mid Value	Mid Blend	Mid Growth
Small Value	Small Blend	Small Growth

- International funds

Investment Offering (continued)

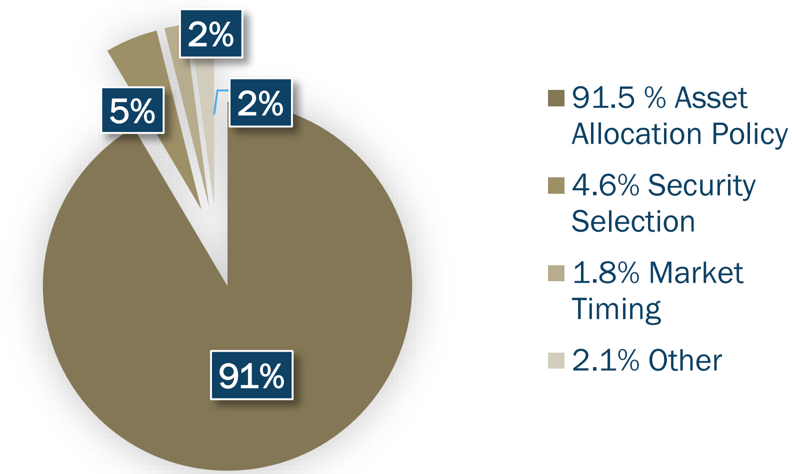
CBIZ InR provides a low-cost, broadly diversified investment menu.

TICKER	FUND NAME	DESCRIPTION
MF4470	MetLife GAC Series 25053 Class 0 Shares	Stable Value
VBTLX	Vanguard® Total Bond Market Index; Admiral	Intermediate Investment Bond
VAIPX	Vanguard® Inflation-Protected Securities; Admiral	Inflation Protected Bond
VBILX	Vanguard® Intermediate-Term Bond Index; Admiral	Intermediate Term Bond
VICSX	Vanguard® Intermediate-Term Corp Bond Index; Admiral	US Corp Bond
VBIRX	Vanguard® Short-Term Bond Index; Admiral	Short Term Bond
VTABX	Vanguard® Total International Bond; Admiral	World Bond
VIGAX	Vanguard® Growth Index; Admiral	Large-Cap Growth
VLCAX	Vanguard® Large-Cap Index; Admiral	Large-Cap Core
VTSAX	Vanguard® Total Stock Market Index; Admiral	Large-Cap
VVIAX	Vanguard® Value Index; Admiral	Large-Cap Value
VMGMX	Vanguard® Mid-Cap Growth Index; Admiral	Mid-Cap Growth
VIMAX	Vanguard® Mid-Cap Index; Admiral	Mid-Cap Core
VMVAX	Vanguard® Mid-Cap Value Index; Admiral	Mid-Cap Value
VSGAX	Vanguard® Small-Cap Growth Index; Admiral	Small-Cap Growth
VSMAX	Vanguard® Small-Cap Index; Admiral	Small-Cap Core
VSIAX	Vanguard® Small-Cap Value Index; Admiral	Small-Cap Value
VEMAX	Vanguard® Emerging Markets Index; Admiral	Emerging Markets
VEUSX	Vanguard® European Index; Admiral	European Region
VTIAX	Vanguard® Total International Index; Admiral	International Multi-Cap Core
VGSLX	Vanguard® REIT Index; Admiral	Real Estate
VGPMX	Vanguard® Global Capital Cycles Fund Investor	Precious Metals

Investment Philosophy

CBIZ InR believes in implementing an appropriate asset allocation for each investor.

The majority of variance in a portfolio's return is determined by long-term strategic asset allocation, rather than an investment manager.



Past performance is no guarantee of future results.

Source: "Determinants of Portfolio Performance", Brinson, Hood, Beebower, *Financial Analysts Journal*, July/August 1986. Updated in *Financial Analyst Journal*, May/June 1991 and "Abstract: Sources of Portfolio Performance – The enduring importance of Asset Allocation" Vanguard Investment Counseling & Research 2006.

CBIZ InR Model Portfolios

We develop model portfolios with different risk/reward characteristics for your retirement platform, allowing participants to make an appropriate selection based on their risk profile.

Lowest Potential Risk/Reward

Highest Potential Risk/Reward

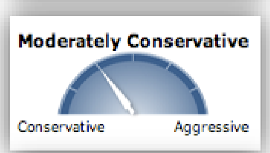
Conservative Portfolio

Target Return 10 Year

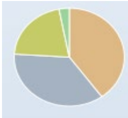
4.0%-4.5%

Moderately Conservative Portfolio

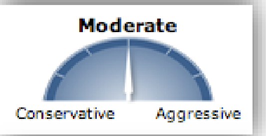
4.5%-5.0%



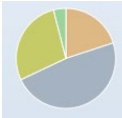
Moderate Portfolio



5.5%-6.0%

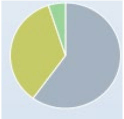


Moderately Aggressive Portfolio



6.5%-7.0%

Aggressive Portfolio



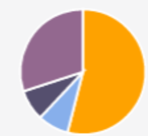
➢7.5%

- Fixed Income
- US Equity
- International Equity
- Alternatives

The models advertised here are not designed based upon the individual needs of any one specific client or investor. However, prior to opening an account using the advertised model, your advisor will consult with you to determine if your financial objectives are appropriate for investing in the model. You are also provided the opportunity to place reasonable restrictions on the securities held in your account.

Employee Education

Our goal is to provide employees retirement clarity. We develop projections to show them what their retirement income will look like based on their current situation. If necessary, we will alter these projections by increasing savings, risk level, timeframe or a combination of each to help the employee reach his/her goal.

Portfolio Name:	Moderate	Moderately Aggressive	Aggressive
Asset Class: Large Cap, Mid Cap, Small Cap, International, Fixed Income			
Projected Annual Before-Tax Return:	6%	7%	8%
Projected Return Probability Range:	95% PROBABILITY RANGE (6 MONTHS) -11% +19%	95% PROBABILITY RANGE (6 MONTHS) -15% +24%	95% PROBABILITY RANGE (6 MONTHS) -19% +30%
Projected Balance at Retirement Age:	$446,778	$521,271	$611,465
Estimated Monthly Income in Retirement:	$2,133	$2,489	$2,919
Present Value of Monthly Income Adjusted for Inflation:	$1,300	$1,517	$1,779

Employee Experience

- Easy-to-use navigation tools
- Loan and distribution wizard
- On-demand statements and optional weekly email statement summary
- Transaction email confirmations
- Easy model view and management
- Enhanced transaction capabilities, rebalance options and scheduled transfers
- Educational tools and materials customized by life stages

Views automatically adjusted on mobile devices for access anywhere, anytime.

Model Portfolio Construction

CBIZ InR strategically builds each Model Portfolio.

- We annually research the 10 year forward looking projection of returns by asset class
- We develop an asset correlation matrix on the asset classes
- We run 10,000 simulations (Monte Carlo) for each year in the forecast horizon based upon various asset allocations
- We analyze the probability distribution of the forecasted annualized returns of the asset allocations
- We build risk based asset allocation models based on the 50th percentile of the results
- We review the performance each calendar quarter and rebalance the portfolio quarterly, if appropriate

Investment Selection in Plans

Each plan participant can choose to use a Model Portfolio or build their own allocation by allocating their assets among the low cost Vanguard index funds offered:

Fixed Income	MetLife Stable Value Fund	Total Bond Index	Intermediate Corporate Bond Index
Fixed Income	Inflation Protected Securities TIPS	Intermediate Bond Index	Total International Bond Index
US Equity	Total Stock Market		
US Equity	Large Cap Value Index	Large Cap Index	Large Cap Growth Index
US Equity	Mid Cap Value Index	Mid Cap Index	Mid Cap Growth Index
US Equity	Small Cap Value Index	Small Cap Index	Small Cap Growth Index
International Equity	Total International Index	Emerging Markets Index	European Stock Index
Other	REIT Index	Precious Metals and Mining Index	

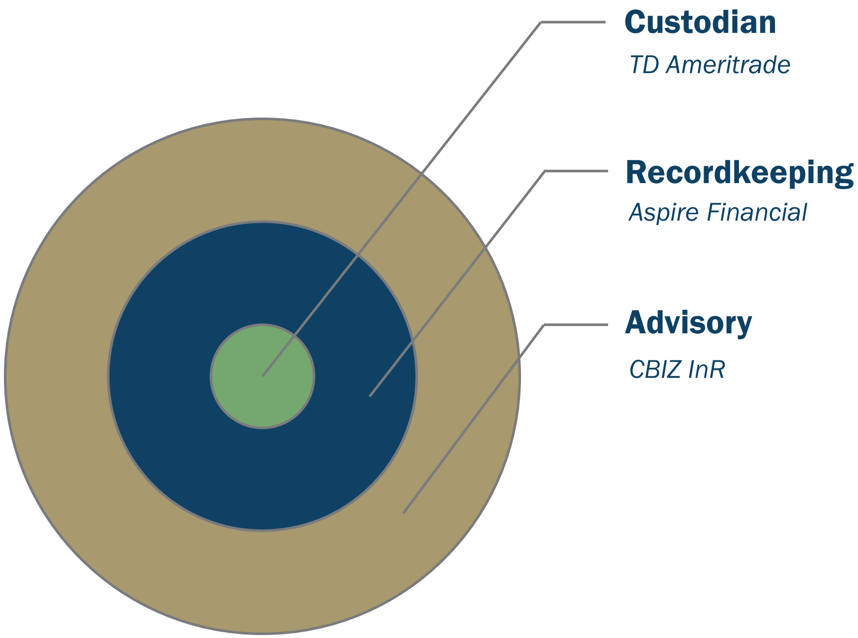
The expense ratio of the Vanguard Index Funds range from .07% to .15% of assets.

CBIZ InR Client Commitment

1. Coordinate plan services with recordkeeper and Third Party Administrator (TPA)
2. Present program to employees in group and individual meetings
3. Toll-free telephone access at any time
4. Coordinate distribution requests
5. Quarterly participant asset statements
6. Annual meeting to review plan and suggest improvements

Fees

Our fee for providing fiduciary advice is a percentage of plan assets and there are never any hidden fees.



Contact us to learn more!

- Low-cost program
- No commission, independent structure
- Passive investment approach and risk-based models
- Personalized investment and retirement advice
- Extensive experience with defined contribution retirement plans

rritzer@cbiz.com

610.891.1677

CONTACT INFO

CBIZ InR

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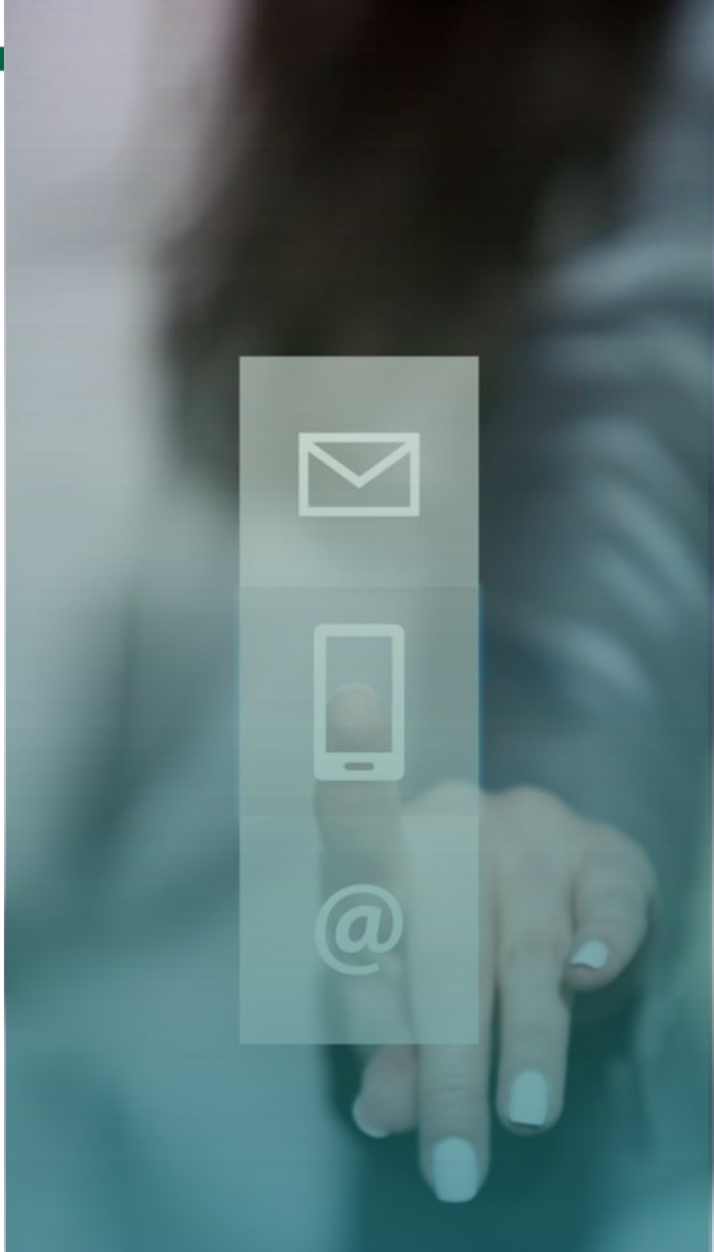
(610) 891-1677



Investment management services to individuals, corporations, trusts, endowments and foundations offered through CBIZ Investment Advisory Services, LLC, SEC Registered Investment Adviser. Investment management services to governmental and/or municipal defined benefit plans, 457 plans and related individuals provided by CBIZ Investment Advisory Services, LLC, dba CBIZ InR and dba CBIZ Retirement Plan Services.

CBIZ InR

Learn more by contacting us at team@cbiz.com

Asset Allocation Analysis

Current vs. Target Portfolio

70-30 ETF Model

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Basic Capital Market Assumptions

Asset Class	Expected Return (%)	Standard Deviation
US Large Cap	7.41	15.59
US Mid/Small Cap	8.68	20.44
Non-US Stock	8.67	17.43
Bonds	3.60	6.05
Cash	1.94	1.89
Real Estate	7.60	23.12
Commodities	4.47	27.25
Inflation	2.25	1.72

Detailed Capital Market Assumptions

Asset Class	Expected Return (%)	Standard Deviation	Yield (%)	Total Turnover (%)
US Large Cap	7.41	15.59	2.20	0.00
US Mid/Small Cap	8.68	20.44	1.45	0.00
Non-US Stock	8.67	17.43	3.27	0.00
Bonds	3.60	6.05	4.05	0.00
Cash	1.94	1.89	2.04	0.00
Real Estate	7.60	23.12	4.20	0.00
Commodities	4.47	27.25	2.04	0.00
Inflation	2.25	1.72	0.00	0.00

Correlation Matrix

	1	2	3	4	5	6	7	8
1								
2	0.85							
3	0.85	0.75						
4	0.06	0.09	0.08					
5	-0.02	-0.02	-0.01	0.23				
6	0.62	0.60	0.57	0.19	0.02			
7	0.21	0.17	0.25	-0.22	-0.01	0.05		
8	-0.05	-0.04	-0.01	-0.18	0.50	-0.02	0.13	

Asset Class

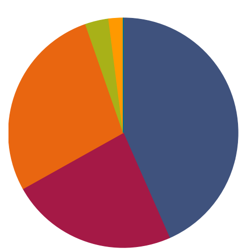
1 US Large Cap
2 US Mid/Small Cap
3 Non-US Stock
4 Bonds
5 Cash
6 Real Estate
7 Commodities
8 Inflation

Degree of Correlation

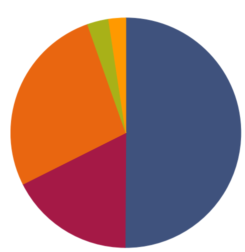
High	Moderate	None	Moderately Negative	Highly Negative
0.70 to 1.00	0.11 to 0.69	0.10 to -0.10	-0.11 to -0.69	-0.70 to -1.00

Current vs. Target Allocation: 2018

Current



Target



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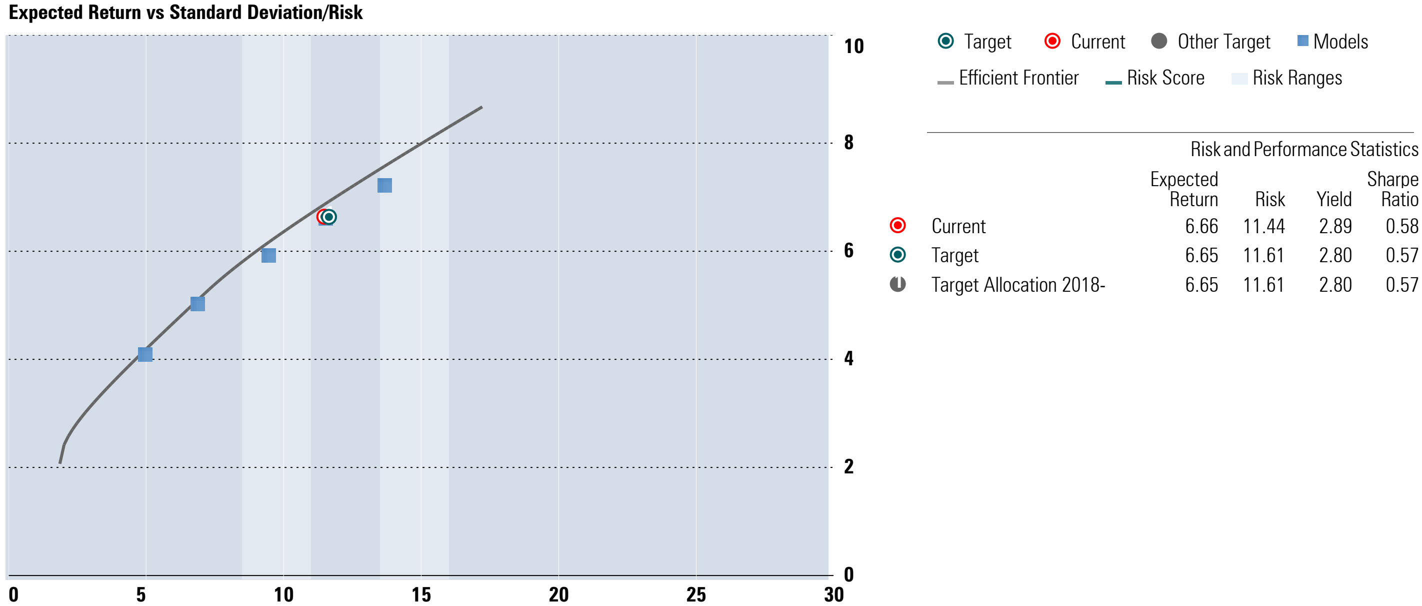
Asset Weight (%)	Current	Target	+/- %
US Large Cap	28.69	33.40	4.71
US Mid/Small Cap	14.71	16.70	1.99
Non-US Stock	23.49	17.50	-5.99
Bonds	27.78	27.00	-0.78
Cash	3.29	3.00	-0.29
Real Estate	2.04	2.40	0.36
Commodities	0.00	0.00	0.00
Standard Deviation	11.44	11.61	0.17
Expected Return	6.66	6.65	-0.01
Yield	2.89	2.80	-0.09
Sharpe Ratio	0.58	0.57	-0.01

Efficient Frontier

Expected Return vs Standard Deviation/Risk



Risk and Performance Statistics

	Expected Return	Risk	Yield	Sharpe Ratio
Current	6.66	11.44	2.89	0.58
Target	6.65	11.61	2.80	0.57
Target Allocation 2018-	6.65	11.61	2.80	0.57

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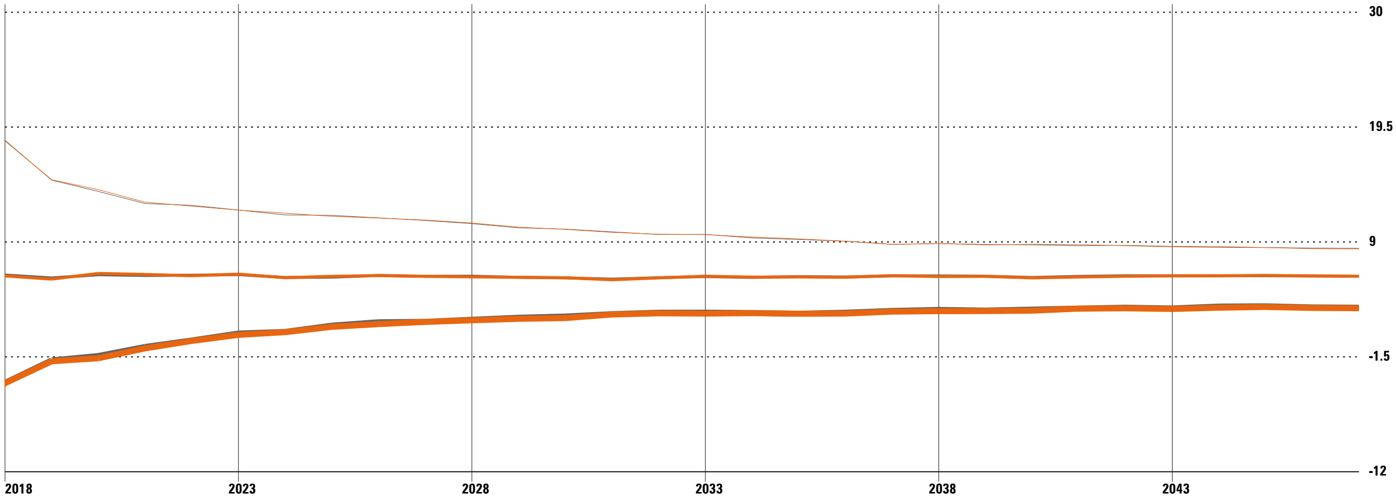
Current vs. Target Forecasted Returns

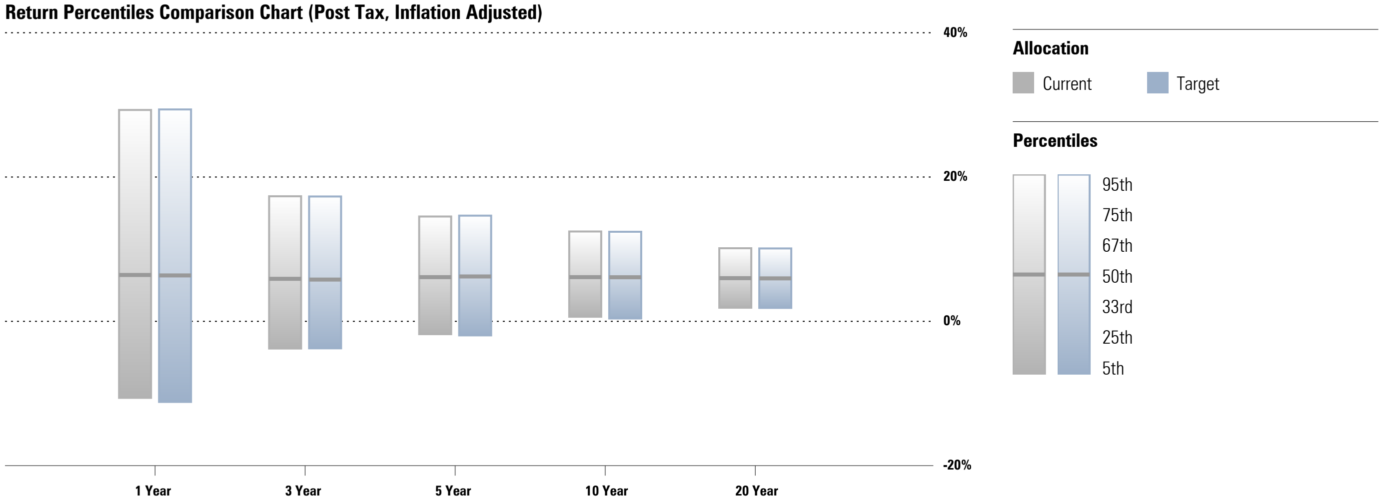
Current Allocation (percentile):	10%	50%	90%	Target Allocation (percentile):	10%	50%	90%
Avg Return (%)	3.2	6.1	8.6	Avg Return (%)	3.2	6.1	8.6



Return Percentiles

Percentiles	Current 1 Year	Target 1 Year	Current 3 Year	Target 3 Year	Current 5 Year	Target 5 Year	Current 10 Year	Target 10 Year	Current 20 Year	Target 20 Year
95th	29.30	29.37	17.33	17.30	14.53	14.65	12.45	12.41	10.13	10.10
75th	15.40	15.43	10.45	10.59	9.54	9.53	8.53	8.59	7.69	7.65
67th	11.73	11.55	9.18	9.10	8.24	8.31	7.57	7.52	7.03	7.01
50th	6.42	6.36	5.89	5.79	6.12	6.22	6.12	6.11	5.98	5.95
33rd	0.92	0.69	3.12	3.03	3.69	3.73	4.56	4.54	4.82	4.79
25th	-1.08	-1.55	1.60	1.50	2.83	2.81	3.65	3.62	4.25	4.15
5th	-10.61	-11.17	-3.77	-3.74	-1.78	-1.95	0.64	0.40	1.89	1.86

Return Percentiles Comparison Chart (Post Tax, Inflation Adjusted)



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Investment Policy Statement Disclosure

Asset Allocation Disclosure

The Investment Policy Statement is hypothetical in nature and for illustrative purposes. The suggested Target Allocation does not represent actual securities or performance information. In all cases, the Investment Policy Statement should accompanied by this disclosure statement.

Asset Allocation
"Asset allocation" is the decision of how much to invest in each investment category, or "asset class." Examples of broad asset classes include U.S. stocks, non-U.S. stocks, bonds, and cash.

The current asset allocation in this report is determined based on the makeup of the securities held in your current portfolios. The allocation for any holdings which cannot be classified will be distributed across other asset classes according to proportional market size of the asset classes.

The target asset allocation in this report was developed by your financial advisor. In determining a target asset allocation, your advisor may have considered your ability to handle market volatility -- financially and/or emotionally -- your financial needs and goals, the expected market behavior of the various asset classes, and other factors. Your advisor may have used tools developed by Morningstar to arrive at a suggestion, may have used other commercially or privately available tools, and/or may have applied his/her own objective or subjective judgment or analysis. Please contact your financial advisor to understand how your particular asset allocation was selected.

There is no guarantee that your advisor applied any specific methodology in determining the asset allocation. Tools employed for purposes of arriving at an asset allocation decision, even when objectively employed, reflect subjective judgments.

There is no guarantee that any tool employed to arrive at the asset allocation proposed in the report effectively analyzed your situation or resulted in your advisor arriving at an appropriate allocation. There is no guarantee that the target asset allocation is appropriate for your situation, or will be an effective means of achieving your financial goals. There is no guarantee that a particular return or dollar amount will be achieved.

The target asset allocation may include allocations to several different asset classes. While allocations to multiple asset classes can reduce risk, risk cannot be completely eliminated with diversification. There is no guarantee that the identified mix of asset classes will eliminate risk, reduce your current exposure to risk, or manage your exposure to risk in a way that is tolerable for you.

However, investors should note that security implementation decisions that must be made in implementing a particular asset allocation may have a significant effect on the actual risk and return results for a portfolio of securities. If the suggestions are implemented using specific securities, shares may be worth more or less than when invested. There is no guarantee of a specific return or dollar value.

Morningstar is not a broker/dealer or FINRA-member firm.

Asset Class Assumptions
The Standard Deviation, Expected Return, and Sharpe Ratio values displayed for the Current and Target asset allocations, as well as the wealth forecast and estimation of probability of achieving financial goals, are dependent upon the Capital Market Assumptions. These assumptions consist of estimated returns for each asset class, variability of return, and the correlation between the returns of the asset classes.

The Capital Market Assumptions displayed above were developed by Ibbotson Associates, a wholly-owned subsidiary of Morningstar, Inc. These forward-looking estimates were calculated using a proprietary variation of Ibbotson Associates' "Building Blocks" approach. This approach separates the expected return of each asset class into three components: the real risk-free rate, expected inflation, and the risk premium for each asset class. The real risk-free rate is the return that can be earned without incurring any default or inflation risk. Expected inflation is the additional reward demanded to compensate investors for future price increases, and risk premia measure the additional reward demanded for accepting uncertainty associated with investing in a given asset class. The building block approach then adds the historical risk premium for each asset class to the current risk-free rate and expected inflation.

The intermediate treasury yield curve rate was applied to determine the real risk free rate. The risk premia are derived from the historical relationship between the returns of the asset class and the risk-free rate. In this way, past data is incorporated into the assumption of the future returns.

Please Note: Although prudent assumptions have been applied, the rate of return and risk for an investment cannot be predicted with certainty, nor can correlation coefficients between investments. There is no guarantee that income or gain realized will be repeated. Past performance is no guarantee of future results. Further, security implementation decisions may have a significant effect on risk and return results. The returns and risks identified in the illustration in no way represent a guarantee that the portfolio will produce a particular result.

There is no guarantee that the target amount will be achieved over the investing horizon. Principal value and investment return will fluctuate, so that an investor's investment, when redeemed, may be worth more or less than the original investment. Please note the Target Allocation applied is dependent on the input supplied by your financial advisor, which impacts the results provided.

Limitations
The accuracy of any analysis is contingent upon the appropriateness and accuracy of the assumptions. Not all potentially relevant details about your personal or financial situation were collected or considered in the analysis. Unexpected changes in your situation and in market conditions may change actual results.

The analysis applies projections of risk, return, and correlation at an asset class level. Security implementation decisions may result in significantly different outcomes.

Asset Class Indexes
The indexes listed below are used in the software as proxies to represent each asset class for purposes of illustrating historical performance.

Morningstar Consolidated
Russell 1000 (US Large Cap)
Consists of the 1000 largest companies within the Russell 3000 index. Also known as the Market-Oriented Index, because it represents the group of stocks from which most active money managers choose. The returns for the index are total returns, which include reinvestment of dividends. Frank Russell Company reports its indices as one-month total returns.

Russell 2000 (US Mid/Small Cap)

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Consists of the smallest 2000 companies in the Russell 3000 Index, representing approximately 7% of the Russell 3000 total market capitalization. The returns we publish for the index are total returns, which include reinvestment of dividends.

MSCI EAFE (Non-US Stock)
Listed for foreign stock funds (EAFE refers to Europe, Australasia, and Far East). Widely accepted as a benchmark for international stock performance, the EAFE Index is an aggregate of 21 individual country indexes that collectively represent many of the major markets of the world. NDTR_D indexes provide an estimate of the total return that would be achieved by reinvesting one twelfth of the annual yield reported at every month end. It also takes into account actual dividends before withholding taxes, but excludes special tax credits declared by companies. In addition, NDTR_D indexes subtract withholding taxes retained at the source, for foreigners who do not benefit from a double taxation treaty.

BarCap US Agg Bond (Bonds)
Composed of the Lehman Brothers Govt/Credit Index, the Mortgage-Backed Securities Indices, and the Asset-Backed Securities Index, an unmanaged market value-weighted performance benchmark for investment-grade fixed-rate debt issues, with maturities of at least one year, and an outstanding par value of at least $100 million.

Citi Treasury Bill 3 Mon (Cash & Equivalents)
Citigroup 3 Month T-Bill Index measures monthly return equivalents of yield averages that are not marked to market. The 3 Month Treasury Bill Index consists of the last three three-month Treasury bill issues and returns for this index are calculated on a monthly basis only.

FTSE NAREIT Equity REITs (Real Estate)
The FTSE NAREIT US Real Estate Index Series is designed to present investors with a comprehensive family of REIT performance indexes that spans the commercial real estate space across the US economy. The index series provides investors with exposure to all investment and property sectors.

DJ UBS Commodity (Commodities)
The DJ UBS Commodity Index SM is composed of futures contracts on physical commodities. Unlike equities, which typically entitle the holder to a continuing stake in a corporation, commodity futures contracts normally specify a certain date for the delivery of the underlying physical commodity. In order to avoid the delivery process and maintain a long futures position, nearby contracts must be sold, and contracts that have not yet reached the delivery period must be purchased. This process is known as "rolling" a futures position. The DJ UBS Commodity Index is a "rolling index."

SAMPLE PENSION PLAN

INVESTMENT POLICY STATEMENT

PURPOSE

This document provides the framework for the management of the Sample Pension Plan. The document is divided into five sections.

1. Investment goals and responsibilities,
2. Investment policies and procedures,
3. Asset allocation policies and investment allocations,
4. Performance objectives, and
5. Investment guidelines and review.

INVESTMENT GOALS AND RESPONSIBILITIES

- The investment goals state the mission of the retirement plan and its investment program. They articulate the philosophy and process for the management of plan assets.

- The overall goal of the Sample Pension Plan (the "Plan") is to provide benefits, as anticipated under the retirement Plan, to its participants and their beneficiaries through a carefully planned and executed investment program.

- The Plan Sponsor shall be responsible for the creation of the investment policies of the Plan and provide oversight for the management of the Plan's assets.

- Sample will make the necessary contributions as dictated by the Plan document. Benefits will be funded through a combination of township contributions, member contributions, and investment earnings on the Plan's assets.

- The Plan Sponsor shall select investments with specific objectives and guidelines to manage the Plan's assets.

- The investment philosophy of the Plan is to create a management process with sufficient flexibility to capture investment opportunities as they may occur, yet maintain reasonable parameters to ensure prudence and care in the execution of the investment program.

- The Plan Sponsor seeks to produce a return on investment which is based on levels of investment risk that are prudent and reasonable given prevailing capital market conditions. While the Plan Sponsor recognizes the importance of the preservation of capital, it also recognizes modern portfolio theory, which maintains that varying degrees of investment risk will be rewarded with compensating returns. Consequently, prudent risk-taking is warranted and justifiable.

- The retirement investment program shall at all times comply with existing and future applicable state and federal regulations.

INVESTMENT POLICIES AND PROCEDURES

The policies and procedures of the investment program guide its implementation and outline the specific responsibilities of the Plan Sponsor and its investment managers. The investment policies of the Plan shall be based on a program that will consider:

- The financial condition of the Plan
- The expected long term capital market outlook
- The Plan Sponsor's risk tolerance
- Future growth of active and retired participants
- Expected inflation
- Expected costs and benefit payments

The financial planning process considers alternative investment policies and measures their potential impact on the financial condition of the Plan and future retirement costs.

Based on the financial Plan it will be the responsibility of the Plan Sponsor, the Plan's fiduciary, to determine the specific allocation of the investments (the asset policy mix) among the various asset classes considered prudent given the Plan's liability structure. The long-term allocation guidelines shall be expressed in terms of a target and ranges for each asset class to provide sufficient flexibility to take advantage of shorter-term market opportunities as they may occur.

The asset policy mix shall be sufficiently diversified to maintain a reasonable level of risk as determined by the Plan Sponsor without imprudently sacrificing return. The Plan Sponsor shall review the asset allocation Plan each year with current capital market assumptions to ensure the current asset mix will achieve the long-term goals of the retirement program.

In accordance with the asset allocation guidelines, the Plan Sponsor will select investment options that will be responsible for the implementation of the Plan's investment policies.

The Plan Sponsor will allocate funds across investments to develop the most efficient investment structure for each asset class. The Plan Sponsor will set guidelines for these options and regularly review their investment performance against stated objectives.

The procedures for the management of the Plans assets are:

1. The Plan Sponsor will exercise its fiduciary responsibilities in regard to the investment program in accordance with the provisions of the Plan document.

2. The Plan Sponsor will conduct a formal review of the Plan's asset allocation policies and investment structure **annually**.

3. The investments of the Plan shall be reviewed no less than **quarterly** (more often if unusual market conditions dictate) to ensure that policy guidelines continue to be appropriate and are met. The Plan Sponsor shall monitor investment returns on both an absolute and comparative basis.

ASSET ALLOCATION POLICIES AND INVESTMENT ALLOCATIONS

The Plan Sponsor has adopted the following asset allocation policies and manager allocations:

Asset Class	Target Allocation	Permitted Range
Domestic Stocks	49.00%	*+/- 10.0%*
International Stocks	21.00%	*+/- 10.0%*
Total Stocks	**70.00%**	*+/- 10.0%*
Cash	3.00%	*+/- 5.0%*
Domestic Bonds	25.00%	*+/- 10.0%*
International Bonds	2.00%	*+/- 10.0%*
Total Fixed Income	**30.00%**	*+/- 10.0%*

PERFORMANCE OBJECTIVES

The Plan's performance objectives shall be set forth at the total Plan level. All objectives will be incorporated in the **annual** review of the Plan's performance. Rates of return will be calculated based on a time-weighted rate of return formula.

The performance of the overall fund will be measured relative to:

- The actuarial target rate of return
- Inflation rate, and
- The Plan's level of risk tolerance

The first objective is achieving a rate of return equal to or greater than the Plans actuarial interest rate. If the Plan's assets grow at a rate equal to or greater than the actuarial rate, the Plans funding condition will be maintained. Earning a lower return will generally result in increased levels of contributions.

The second objective is achieving a real return above inflation. The Plan's liabilities are sensitive to inflation as benefits are ultimately determined by future salaries. Failing to achieve the necessary real return may increase retirement costs.

The third objective is to maintain a risk level within the tolerance level of the plan fiduciaries.

INVESTMENT GUIDELINES & REVIEW

The Plan Sponsor has selected a number of investment options to implement its investment policies. Each option is retained to invest a specific allocation in accordance with its style and investment process as specified in the investment guidelines. On an ongoing basis, the Plan Sponsor will monitor the investment managers for compliance with the investment guidelines and specific objectives.

Modifications may occur for the following reason:

1. Plan objectives have changed and the current investment program is no longer appropriate.
2. Asset class expectations have changed and the Plan's policy needs to be updated.

ADOPTION OF INVESTMENT POLICY STATEMENT

Dated this ____ day of __________, 2019

SAMPLE PENSION PLAN

Approved by: ______________________________________

Print Name: ________________

Title: ______________________

The case for low-cost index-fund investing

Vanguard Research

April 2017

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- Due to governmental regulatory changes, the introduction of exchange-traded funds (ETFs), and a growing awareness of the benefits of low-cost investing, the growth of index investing has become a global trend over the last several years, with a large and growing investor base.

- This paper discusses why we expect index investing to continue to be successful over the long term—a rationale grounded in the zero-sum game, the effect of costs, and the challenge of obtaining persistent outperformance.

- We examine how indexing performs in a variety of circumstances, including diverse time periods and market cycles, and we provide investors with points to consider when evaluating different investment strategies.

Acknowledgments: The authors thank David J. Walker, of Vanguard's Investment Strategy Group, for his valuable contributions to this paper. This paper is a revision of Vanguard research first published in 2004 as *The Case for Indexing* by Nelson Wicas and Christopher B. Philips, updated in succeeding years by Mr. Philips and other co-authors. The current authors acknowledge and thank Mr. Philips and Francis M. Kinniry Jr. for their extensive contributions and original research on this topic.

Index investing[1] was first made broadly available to U.S. investors with the launch of the first index mutual fund in 1976. Since then, low-cost index investing has proven to be a successful investment strategy over the long term, outperforming the majority of active managers across markets and asset styles (S&P Dow Jones Indices, 2015). In part because of this long-term outperformance, index investing has seen exponential growth among investors, particularly in the United States, and especially since the global financial crisis of 2007–2009. In recent years, governmental regulatory changes, the introduction of indexed ETFs, and a growing awareness of the benefits of low-cost investing in multiple world markets have made index investing a global trend. This paper reviews the conceptual and theoretical underpinnings of index investing's ascendancy (along with supporting quantitative data) and discusses why we expect index investing to continue to be successful and to increase in popularity in the foreseeable future.

A market-capitalization-weighted indexed investment strategy—via a mutual fund or an ETF, for example—seeks to track the returns of a market or market segment with minimal expected deviations (and, by extension, no positive excess return) before costs, by assembling a portfolio that invests in the securities, or a sampling of the securities, that compose the market. In contrast, actively managed funds seek to achieve a return or risk level that differs from that of a market-cap-weighted benchmark. Any strategy, in fact, that aims to differentiate itself from a market-cap-weighted benchmark (e.g., "alternative indexing," "smart beta" or "factor strategies") is, in our view, active management and should be evaluated based on the success of the differentiation.[2]

This paper presents the case for low-cost index-fund investing by reviewing the main drivers of its efficacy. These include the zero-sum game theory, the effect of costs, and the difficulty of finding persistent outperformance among active managers. In addition, we review circumstances under which this case may appear less or more compelling than theory would suggest, and we provide suggestions for selecting an active manager for investors who still prefer active management or for whom no viable low-cost indexed option is available.

Notes on risk

Notes about risk and performance data: Investments are subject to market risk, including the possible loss of the money you invest. Past performance is no guarantee of future returns. Bond funds are subject to the risk that an issuer will fail to make payments on time, and that bond prices will decline because of rising interest rates or negative perceptions of an issuer's ability to make payments. Investments in stocks issued by non-U.S. companies are subject to risks including country/regional risk, which is the chance that political upheaval, financial troubles, or natural disasters will adversely affect the value of securities issued by companies in foreign countries or regions; and currency risk, which is the chance that the value of a foreign investment, measured in U.S. dollars, will decrease because of unfavorable changes in currency exchange rates. Stocks of companies based in emerging markets are subject to national and regional political and economic risks and to the risk of currency fluctuations. These risks are especially high in emerging markets.

Funds that concentrate on a relatively narrow market sector face the risk of higher share-price volatility. Prices of mid- and small-cap stocks often fluctuate more than those of large-company stocks. U.S. government backing of Treasury or agency securities applies only to the underlying securities and does not prevent share-price fluctuations. Because high-yield bonds are considered speculative, investors should be prepared to assume a substantially greater level of credit risk than with other types of bonds. Diversification does not ensure a profit or protect against a loss in a declining market. Performance data shown represent past performance, which is not a guarantee of future results. Note that hypothetical illustrations are not exact representations of any particular investment, as you cannot invest directly in an index or fund-group average.

1 Throughout this paper, we use the term *index investing* to refer to a passive, broadly diversified, market-capitalization-weighted strategy. Also for purposes of this discussion, we consider any strategy that is not market-cap-weighted to be an active strategy.

2 See Pappas and Dickson (2015), for an introduction to factor strategies. Chow et al. (2011) explained how various alternatively weighted index strategies outperformed market-cap-weighted strategies largely on the basis of factors.

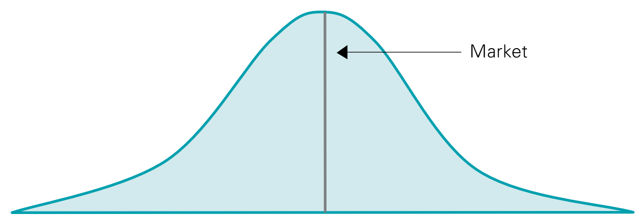
Zero-sum game theory

The central concept underlying the case for index-fund investing is that of the zero-sum game. This theory states that, at any given time, the market consists of the cumulative holdings of all investors, and that the aggregate market return is equal to the asset-weighted return of all market participants. Since the market return represents the average return of all investors, for each position that outperforms the market, there must be a position that underperforms the market by the same amount, such that, in aggregate, the excess return of all invested assets equals zero.[3] Note that this concept does not depend on any degree of market efficiency; the zero-sum game applies to markets thought to be less efficient (such as small-cap and emerging market equities) as readily as to those widely regarded as efficient (Waring and Siegel, 2005).

Figure 1 illustrates the concept of the zero-sum game. The returns of the holdings in a market form a bell curve, with a distribution of returns around the mean, which is the market return.

It may seem counterintuitive that the zero-sum game would apply in inefficient markets, because, by definition, an inefficient market will have more price and informational inefficiencies and, therefore, more opportunities for outperformance. Although this may be true to a certain extent, it is important to remember that for every profitable trade an investor makes, (an)other investor(s) must take the opposite side of that trade and incur an equal loss. This holds true regardless of whether the security in question is mispriced or not. For the same reason, the zero-sum game must apply regardless of market direction, including bear markets, where active management is often thought to have an advantage. In a bear market, if a manager is selling out of an investment to position the portfolio more defensively, another or others must take the other side of that trade, and the zero-sum game still applies. The same logic applies in any other market, as well.

Figure 1. Market participants' asset-weighted returns form a bell curve around market's return



Source: Vanguard.

Some investors may still find active management appealing, as it seemingly would provide an even-odds chance of successfully outperforming. As we discuss in the next section, though, the costs of investing make outperforming the market significantly more difficult than the gross-return distribution would imply.

Effect of costs

The zero-sum game discussed here describes a theoretical cost-free market. In reality, however, investors are subject to costs to participate in the market. These costs include management fees, bid-ask spreads, administrative costs, commissions, market impact, and, where applicable, taxes—all of which can be significant and reduce investors' net returns over time. The aggregate result of these costs shifts the return distribution to the left.

3 See Sharpe (1991) for a discussion of the zero-sum game.

Figure 2 shows two different investments compared to the market. The first investment is an investment with low costs, represented by the red line. The second investment is a high-cost investment, represented by the blue line. As the figure shows, although both investments move the return curve to the left—meaning fewer assets outperform—the high-cost investment moves the return curve much farther to the left, making outperformance relative to both the market and the low-cost investment much less likely. In other words, after accounting for costs, the aggregate performance of investors is less than zero sum, and as costs increase, the performance deficit becomes larger.

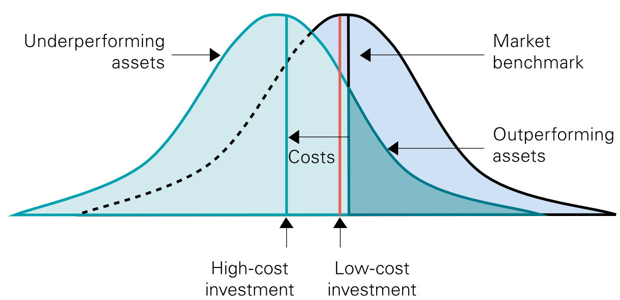
This performance deficit also changes the risk–return calculus of those seeking to outperform the market. We previously noted that an investor may find active management attractive because it theoretically provides an even chance at outperforming the market. Once we account for costs, however, underperformance becomes more likely than outperformance. As costs increase, both the odds and magnitude of underperformance increase until significant underperformance becomes as likely, or more likely, than even minor outperformance.

Figure 3 illustrates the zero-sum game on an after-cost basis by showing the distribution of excess returns of domestic equity funds (Figure 3a) and fixed income funds (Figure 3b), net of fees. Note that for both asset classes, a significant number of funds' returns lie to the left of the prospectus benchmark, which represents zero excess returns. Once merged and liquidated funds are considered, a clear majority of funds fail to outperform their benchmarks, meaning that negative excess returns tend to be more common than positive excess returns.[4] Thus, as predicted by the zero-sum game theory, outperformance tends to be less likely than underperformance, once costs are considered.

This begs the question of how investors can reduce the chances of underperforming their benchmark. Considerable evidence supports the view that the odds of outperforming a majority of similar investors increase if investors simply seek the lowest possible cost for a given strategy. For example, Financial Research Corporation (2002) evaluated the predictive value of different fund metrics, including a fund's past performance, Morningstar rating, alpha, and beta. In the study, a fund's expense ratio was the most reliable predictor of its future performance, with low-cost funds delivering above-average performance relative to the funds in their peer group in all of the periods examined. Likewise, Morningstar performed a similar analysis across its universe of funds and found that, regardless of fund type, low expense ratios were the best predictors of future relative outperformance (Kinnel, 2010).

This negative correlation between costs and excess return is not unique to active managers. Rowley and Kwon (2015) looked at several variables across index funds and ETFs, including expense ratio, turnover, tracking error, assets under management, weighting methodology, and active share, and found that expense ratio was the most dominant variable in explaining an index fund's excess return.

Figure 2. Market participant returns after adjusting for costs

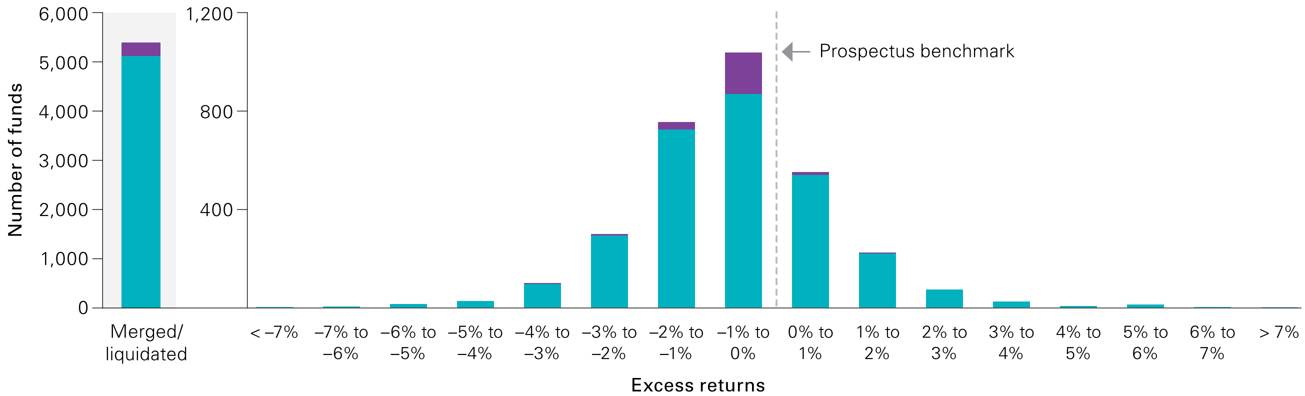


Source: Vanguard.

4 Survivorship bias and the effect of merged and closed funds on performance are discussed in more detail later in this paper.

Figure 3. Distribution of equity and fixed income funds' excess return

a. Distribution of equity funds' excess return



b. Distribution of fixed income funds' excess return

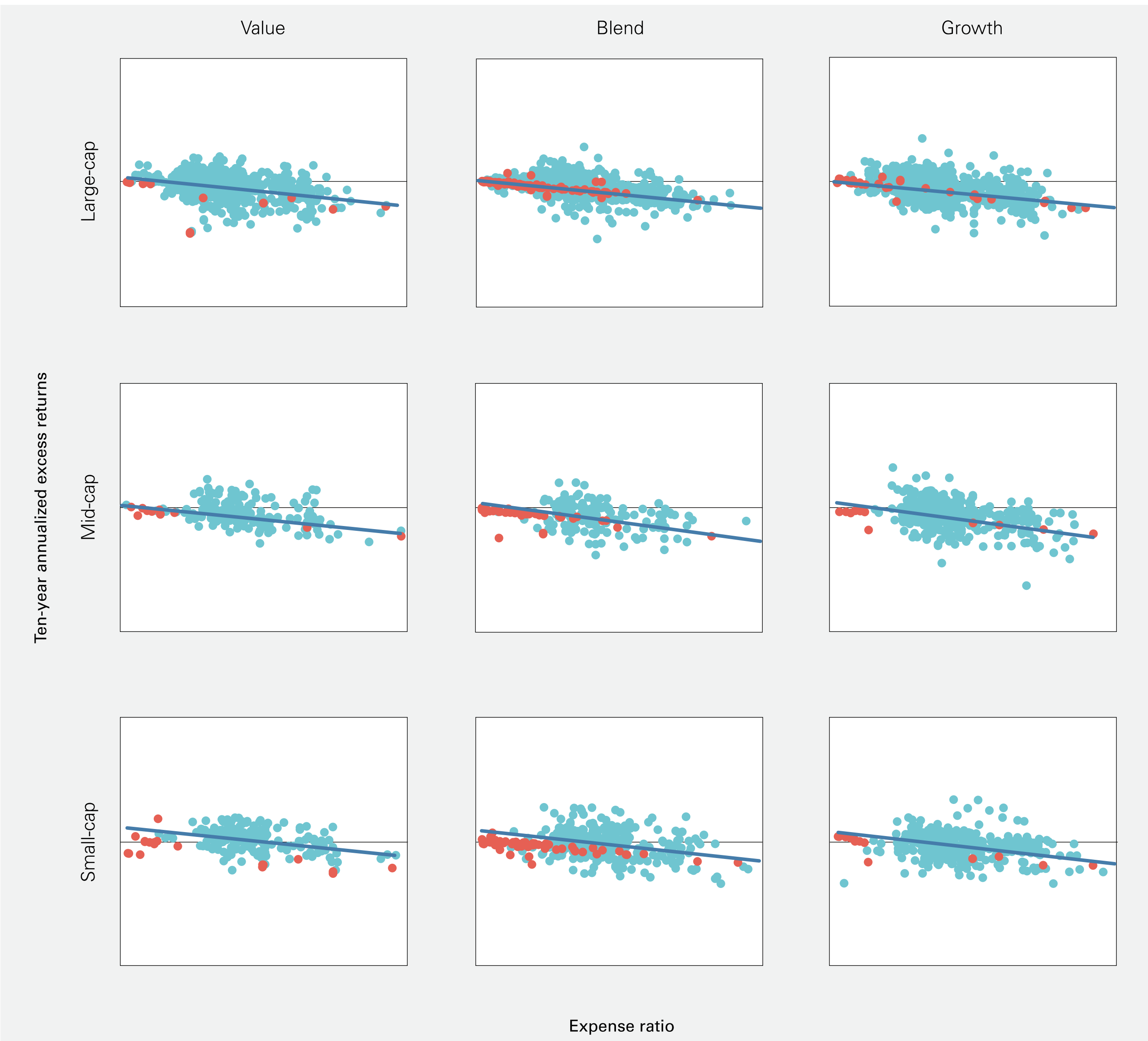
Note: Past performance is no guarantee of future results. Charts *a.* and *b.* display distribution of funds' excess returns relative to their prospectus benchmarks, for the 15 years ended December 31, 2016. Our survivor bias calculation treats all dead funds as underperformers. It's possible, of course, that some of those funds outperformed the relevant index before they died. If we splice fund category average returns onto the records of dead funds, we see a modest decline in the percentage of funds that trail the index. The differences from our existing calculations are not material.

Sources: Vanguard calculations, using data from Morningstar, Inc.

To quantify the impact of costs on net returns, we charted managers' excess returns as a function of their expense ratios across various categories of funds over a ten-year period. **Figure 4** shows that higher expense ratios are generally associated with lower excess returns. The blue line in each style box in the figure represents the simple regression line and signifies the trend across all funds for each category. For investors, the clear implication is that by focusing on low-cost funds (both active and passive), the probability of outperforming higher-cost portfolios increases.

Figure 4. Higher expense ratios were associated with lower excess returns for U.S. funds: As of December 31, 2016

a. U.S. equity funds



(Continued on page 7)

Figure 4 *(Continued).* Higher expense ratios were associated with lower excess returns for U.S. funds: As of December 31, 2016

b. U.S. bond funds

Notes to charts *a.* and *b.*: Past performance is no guarantee of future results. All data as of December 31, 2016. Index funds are shown in red. Each plotted point represents a U.S. fund within the specific size, style, and asset group. Each fund is plotted to represent the relationship of its expense ratio (x-axis) versus its ten-year annualized excess return relative to its stated benchmark (y-axis). The straight line represents the linear regression, or the best-fit trend line—that is, the general relationship of expenses to returns within each asset group. The scales are standardized to show the slopes' relationship to each other, with expenses ranging from 0% to 3% and returns ranging from –15% to 15% for equities and from –5% to 5% for fixed income. Some funds' expense ratios and returns go beyond the scales and are not shown.

Sources: Vanguard calculations, using data from Morningstar, Inc.

Costs play a crucial role in investor success. Whether invested in an actively managed fund or an index fund, each basis point an investor pays in costs is a basis point less an investor receives in returns. Since excess returns are a zero-sum game, as cost drag increases, the likelihood that the manager will be able to overcome this drag diminishes. As such, most investors' best chance at maximizing net returns over the long term lies in minimizing these costs. In most markets, low-cost index funds have a significant cost advantage over actively managed funds. Therefore, we believe that most investors are best served by investing in low-cost index funds over their higher-priced, actively managed counterparts.

Persistent outperformance is scarce

For those investors pursuing an actively managed strategy, the critical question becomes: Which fund will outperform? Most investors approach this question by selecting a winner from the past. Investors cannot profit from a manager's past success, however, so it is important to ask, Does a winning manager's past performance persist into the future? Academics have long studied whether past performance can accurately predict future performance. About 50 years ago, Sharpe (1966) and Jensen (1968) found limited to no persistence. Three decades later, Carhart (1997) reported no evidence of persistence in fund outperformance after adjusting for both the well-known Fama-French (1993) three-factor model as well as momentum. More recently, Fama and French (2010) reported results of a separate 22-year study suggesting that it is extremely difficult for an actively managed investment fund to outperform its benchmark regularly.

To test if active managers' performance has persisted, we looked at two separate, sequential, non-overlapping five-year periods. First, we ranked the funds by performance quintile in the first five-year period, with the top 20% of funds going into the first quintile, the second 20% into the second quintile, and so on. Second, we sorted those funds by performance quintile according to their performance in the second five-year period. To the second five-year period, however, we added a sixth category: funds that were either liquidated or merged during that period. We then compared the results. If managers were able to provide consistently high performance, we would expect to see the majority of first-quintile funds remaining in the first quintile. Figure 5, however, shows that a majority of managers failed to consistently outperform.

It is interesting to note that, once we accounted for closed and merged funds, persistence was actually stronger among the underperforming managers than those that outperformed. These findings were consistent across all asset classes and all markets we studied globally. From this, we concluded that consistent outperformance is very difficult to achieve. This is not to say that there are not periods when active management outperforms, or that no active managers do so regularly. Only that, on average and over time, active managers as a group fail to outperform; and even though some individual managers may be able to generate consistent outperformance, those active managers are extremely rare.

Figure 5. Actively managed domestic funds failed to show persistent outperformance

Initial excess return quintile, five years ended December 31, 2011	Number of funds	Subsequent five-year excess return ranking, through December 31, 2016						
		Highest quintile	2nd quintile	3rd quintile	4th quintile	Lowest quintile	Merged/ liquidated	Total
1st quintile	1,108	15.6%	11.6%	11.6%	14.6%	21.3%	25.3%	100.0%
2nd quintile	1,118	11.7	16.0	16.4	15.1	13.2	27.5	100.0
3rd quintile	1,113	14.0	13.3	15.2	14.8	11.5	31.2	100.0
4th quintile	1,112	11.5	12.4	12.5	11.9	10.2	41.5	100.0
5th quintile	1,114	12.2	12.3	9.7	8.9	9.2	47.7	100.0

Notes: The far-left column ranks all active U.S. equity funds within each of the nine Morningstar style categories based on their excess returns relative to their stated benchmarks during the five-year period ended December 31, 2011. The shaded columns show how funds in each quintile performed over the subsequent five years.

Sources: Vanguard and Morningstar, Inc.

When the case for low-cost index fund investing can seem less or more compelling

For the reasons already discussed, we expect the case for low-cost index fund investing to hold over the long term. Like any investment strategy, however, the real-world application of index investing can be more complex than the theory would suggest. This is especially true when attempting to measure indexing's track record versus that of active management. Various circumstances, which we discuss next, can result in data that at times show active management outperforming indexing while, at other times, show indexing outperforming active management by more than would be expected. As a result, the case for low-cost index fund investing can appear either less or more compelling than the theory would indicate. The subsections following address some of these circumstances.

Survivorship bias can skew results

Survivorship bias is introduced when funds are merged into other funds or liquidated, and so are not represented throughout the full time period examined. Because such funds tend to be underperformers (see the accompanying box titled "Merged and liquidated funds have tended to be underperformers" and **Figure 6**, on page 10), this skews the average results upward for the surviving funds, causing them to appear to perform better relative to a benchmark.[5]

5 For a more detailed discussion of the underperformance of closed funds, see Schlanger and Philips (2013).

Merged and liquidated funds have tended to be underperformers

To test the assumption that closed funds underperformed, we evaluated the performance of all domestic funds identified by Morningstar as either being liquidated or merged into another fund. Figure 6 shows that funds tend to trail their benchmark before being closed. We found the assumption that merged and liquidated funds underperformed to be reasonable.

Figure 6. Dead funds showed underperformance versus style benchmark prior to closing date

Notes: Chart displays the cumulative annualized performance of those funds that were merged or liquidated within this study's sample, relative to a benchmark representative of that fund's Morningstar category. See Appendix for the list of benchmarks used. We measured each fund's performance from January 1, 2002, through the month-end prior to its merger or liquidation. Figure displays the middle-50% distribution of these funds' returns before their closure.

Sources: Vanguard calculations, based on data from Morningstar, Inc., Standard & Poor's, MSCI, CRSP, and Barclays.

However, the average experience of investors—some of whom invested in the underperforming fund before it was liquidated or merged—may be much different. **Figure 7** shows the impact of survivorship bias on the apparent relative performance of actively managed funds versus both their prospectus and style benchmarks.

In either case, a majority of active funds underperformed, and this underperformance became more pronounced as the time period lengthened and survivorship bias was accounted for. Thus, it is critical to adjust for survivorship bias when comparing the performance of active funds to their benchmarks, especially over longer time periods.

Figure 7. Percentage of actively managed mutual funds that underperformed versus their benchmarks: Periods ended December 31, 2016

a. Versus fund prospectus

Notes: Data reflect periods ended December 31, 2016. Fund classifications provided by Morningstar; benchmarks reflect those identified in each fund’s prospectus. “Dead” funds are those that were merged or liquidated during the period.

Sources: Vanguard calculations, using data from Morningstar, Inc.

(Continued on page 12)

Figure 7 *(Continued).* Percentage of actively managed mutual funds that underperformed versus their benchmarks: Periods ended December 31, 2016

b. Versus representative 'style benchmark'

Notes: Past performance is no guarantee of future results. Benchmark comparative indexes represent unmanaged or average returns on various financial assets, which can be compared with funds' total returns for the purpose of measuring relative performance. Data reflect periods ended December 31, 2016. "Dead" funds are those that were merged or liquidated during the period.

Sources: Vanguard calculations, using data from Morningstar, Inc., MSCI, CRSP, Standard & Poor's, and Barclays. Fund classifications provided by Morningstar. See appendix for list of benchmarks.

Mutual funds are not the entire market

Another factor that can complicate the analysis of real-world results is that mutual funds, which are used as a proxy for the market in most studies (including this one), do not represent the entire market and therefore do not capture the entire zero-sum game. Mutual funds are typically used in financial market research because their data tend to be readily available and because, in many markets, mutual fund assets represent a reasonable sampling of the overall market. It is important to note, however, that mutual funds are merely a market *sampling*. In cases where mutual funds constitute a relatively smaller portion of the market being examined, the sample size studied will be that much smaller, and the results more likely to be skewed. Depending on the direction of the skew, this could lead to either a less favorable or a more favorable result for active managers overall.

Portfolio exposures can make relative performance more difficult to measure

Differences in portfolio exposures versus a benchmark or broader market can also make relative performance difficult to measure. Benchmarks are selected by fund managers on an ex ante basis, and do not always reflect the style in which the portfolio is actually managed. For example, during a period in which small- and mid-cap equities are outperforming, a large-cap manager may hold some of these stocks in the portfolio to increase returns (Thatcher, 2009). Similarly, managers may maintain an over/underexposure to certain factors (e.g., size, style, etc.) for the same reason. These portfolio tilts can cause the portfolio to either outperform or underperform when measured against the fund's stated benchmark or the broad market, depending on whether the manager's tilts are in or out of favor during the period being examined. Over a full market or factor cycle, however, we would expect the performance effects of these tilts to cancel out and the zero-sum game to be restored.

Short time periods can understate the advantage of low-cost indexing

Time is an important factor in investing. Transient forces such as market cycles and simple luck can more significantly affect a fund's returns over shorter time periods. These short-term effects can mask the relative benefits of low-cost index funds versus active funds in two main respects: the performance advantage conferred on index funds over the longer term by their generally lower costs; and the lack of persistent outperformance among actively managed funds.

A short reporting period reduces low-cost index funds' performance advantage because the impact of their lower costs compounds over time. For example, a 50-basis-point difference in fees between a low-cost and a higher-cost fund may not greatly affect the funds' performance over the course of a single year; however, that same fee differential compounded over longer time periods can make a significant difference in the two funds' overall performance.

Time also has a significant impact on the application of the zero-sum game. In any given year, the zero-sum game states that there will be some population of funds that outperforms the market. As the time period examined becomes longer, however, the effects of luck and market cyclicality tend to cancel out, reducing the number of funds that outperform. Market cyclicality is an important factor in the lack of persistent outperformance as investment styles and market sectors go in and out of favor, as noted earlier.

This concept is illustrated in **Figure 8**, which compares the performance of domestic funds over rolling one- and ten-year periods to that of their benchmarks. As the figure shows, active funds were much less likely to outperform over longer periods compared with shorter periods; this was especially true when merged and liquidated funds were included in the analysis. Thus, as the time period examined became longer, the population of funds that consistently outperformed tended to shrink, ultimately becoming very small.

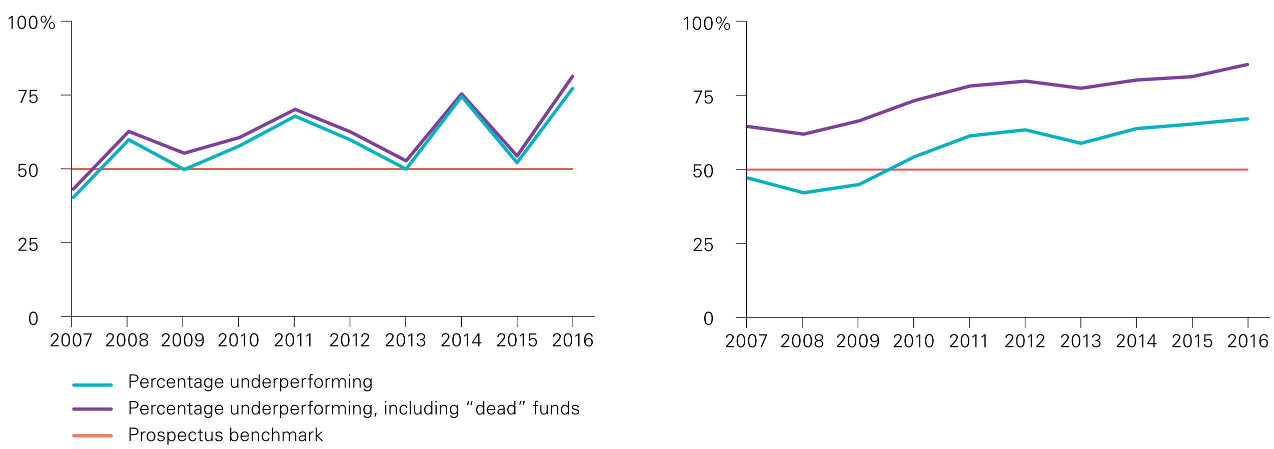
Low-cost indexing—a simple solution

One of the simplest ways for investors to gain market exposure with minimal costs is through a low-cost index fund or ETF. Index funds seek to provide exposure to a broad market or a segment of the market through varying degrees of index replication ranging from full replication (in which every security in the index is held) to synthetic replication (in which index exposure is obtained through the use of derivatives). Regardless of the replication

Figure 8. Percentage of active U.S. equity funds underperforming over rolling periods versus prospectus benchmarks

a. One-year periods

b. Ten-year periods



Notes: Past performance is no guarantee of future results. Performance is calculated relative to prospectus benchmark. "Dead" funds are those that were merged or liquidated during the period.

Sources: Vanguard calculations, using data from Morningstar, Inc.

method used, all index funds seek to track the target market as closely as possible and, by extension, to provide market returns to investors. This is an important point and is why index funds, in general, are able to offer investors market exposure at minimal cost. Index funds do not attempt to outperform their market, as many active managers do. As such, index funds do not require the significant investment of resources necessary to find and capitalize on opportunities for outperformance (such as research, increased trading costs, etc.) and therefore do not need to pass those costs onto their investors.

By avoiding these costs, index funds are generally able to offer broad market exposure, with market returns at very low cost relative to the cost of most actively managed funds. Furthermore, because index funds do not seek to outperform the market, they also do not face the challenges of either persistent outperformance or of beating the zero-sum game. In short, by accepting market returns while keeping costs low, low-cost index funds lower the hurdles that make successful active management so difficult over the long term.

Although we believe that low-cost index funds offer most investors their best chance at maximizing fund returns over the long run, we acknowledge that some investors want or need to pursue an active strategy. For example, investors in some markets may have few low-cost, domestic index funds available to them. For those investors, or any investor choosing an active strategy, low-cost, broadly diversified actively managed funds can serve as a viable alternative to index funds, and in some cases may prove superior to higher-cost index funds; keep in mind that the performance advantage conferred by low-cost funds is quickly eroded as costs increase.

Conclusion

Since its inception, low-cost index investing has proven to be a successful investment strategy over the long term, and has become increasingly popular with investors globally. This paper has reviewed the conceptual and theoretical underpinnings of index investing and has discussed why we expect the strategy to continue to be successful, and to continue to gain in popularity, in the foreseeable future.

The zero-sum game, combined with the drag of costs on performance and the lack of persistent outperformance, creates a high hurdle for active managers in their attempts to outperform the market. This hurdle grows over time and can become insurmountable for the vast majority of active managers. However, as we have discussed, circumstances exist that may make the case for low-cost indexing seem less or more compelling in various situations.

This is not to say that a bright line necessarily exists between actively managed funds and index funds. For investors who wish to use active management, either because of a desire to outperform or because of a lack of low-cost index funds in their market, many of the benefits of low-cost indexing can be achieved by selecting low-cost, broadly diversified active managers. However, the difficult task of finding a manager who consistently outperforms, combined with the uncertainty that active management can introduce into the portfolio, means that, for most investors, we believe the best chance of successfully investing over the long term lies in low-cost, broadly diversified index funds.

References

Carhart, Mark M., 1997. On Persistence in Mutual Fund Performance. *Journal of Finance* 52(1): 57–82.

Chow, Tzee-man, Jason Hsu, Vitali Kalesnik, and Bryce Little, 2011. A Survey of Alternative Equity Index Strategies. *Financial Analysts Journal* 67 (5, Sept./Oct.): 37–57.

Fama, Eugene F., and Kenneth R. French, 1993. Common Risk Factors in the Returns on Stocks and Bonds. *Journal of Financial Economics* 33(1): 3–56.

Fama, Eugene F., and Kenneth R. French, 2010. Luck Versus Skill in the Cross-Section of Mutual Fund Returns. *Journal of Finance* 65(5): 1915–47.

Financial Research Corporation, 2002. *Predicting Mutual Fund Performance II: After the Bear.* Boston: Financial Research Corporation.

Jensen, Michael C., 1968. The Performance of Mutual Funds in the Period 1945–1964. Papers and Proceedings of the Twenty-Sixth Annual Meeting of the American Finance Association. Washington, D.C., December 28–30, 1967. Also in *Journal of Finance* 23(2): 389–416.

Kinnel, Russel, 2010. How Expense Ratios and Star Ratings Predict Success (Aug. 9); available at http://news.morningstar.com/articlenet/article.aspx?id=347327.

Pappas, Scott N., and Joel M. Dickson, 2015 *Factor-Based Investing.* Valley Forge, Pa.: The Vanguard Group.

Rowley Jr., James J. and David T. Kwon, 2015. The Ins and Outs of Index Tracking. *Journal of Portfolio Management* 41(3): 35–45.

S&P Dow Jones Indices, 2015. SPIVA U.S. Scorecard (Mid-Year 2015); available at spiva-us-midyear-2015.pdf.

Schlanger, Todd, and Christopher B. Philips, 2013. *The Mutual Fund Graveyard: An Analysis of Closed Funds.* Valley Forge, Pa.: The Vanguard Group.

Sharpe, William F., 1966. Mutual Fund Performance. *Journal of Business* 39 (1, Part 2: Supplement on Security Prices): 119–38.

Sharpe, William F., 1991. The Arithmetic of Active Management. *Financial Analysts Journal* 47(1): 7–9.

Thatcher, William R., 2009. When Indexing Works and When It Doesn't in U.S. Equities: The Purity Hypothesis. *Journal of Investing* 18(3): 8–11.

Waring, M. Barton, and Laurence B. Siegel, 2005. Debunking Some Myths of Active Management. *Journal of Investing* (Summer): 20–28.

Additional selected Vanguard research on active and index investing

Low-cost: *A key factor in improving probability of outperformance in active management. A rigorous qualitative manager-selection process is also crucial.*

Daniel W. Wallick, Brian R. Wimmer, and James Balsamo, 2015. *Keys to Improving the Odds of Active Management Success.* Valley Forge, Pa.: The Vanguard Group.

Balsamo, James, Daniel W. Wallick, and Brian R. Wimmer, 2015. *Shopping for Alpha: You Get What You Don't Pay For.* Valley Forge, Pa.: The Vanguard Group.

Factor investing: *The excess return of smart beta and other rules-based active strategies can be partly (or largely) explained by a manager's time-varying exposures to various risk factors.*

Christopher B. Philips, Donald G. Bennyhoff, Francis M. Kinniry Jr., Todd Schlanger, and Paul Chin, 2015. *An Evaluation of Smart Beta and Other Rules-Based Active Strategies.* Valley Forge, Pa.: The Vanguard Group.

Benchmark mismatch: *A manager's exposure to market-risk factors outside the benchmark may explain outperformance more than individual skill in stock selection.*

Hirt, Joshua M., Ravi G. Tolani, and Christopher B. Philips, 2015. *Global Equity Benchmarks: Are Prospectus Benchmarks the Correct Barometer?* Valley Forge, Pa.: The Vanguard Group.

When the case for indexing can seem less or more compelling: *Despite the theory and publicized long-term success of indexed investment strategies, criticisms and misconceptions remain.*

Hirt, Joshua M., and Christopher B. Philips, 2014. *Debunking Some Myths and Misconceptions About Indexing.* Valley Forge, Pa.: The Vanguard Group.

Active versus index debate: *Examining the debate from the perspective of market cyclicality and the changing nature of performance leadership.*

Philips, Christopher B., Francis M. Kinniry Jr., and David J. Walker, 2014. *The Active-Passive Debate: Market Cyclicality and Leadership Volatility.* Valley Forge, Pa.: The Vanguard Group.

Appendix. Benchmarks represented in this analysis

Equity benchmarks are represented by the following indexes—Large blend: MSCI US Prime Market 750 Index through January 30, 2013, CRSP US Large Cap Index thereafter; Large growth: S&P 500/Barra Growth Index through May 16, 2003, MSCI US Prime Market Growth Index through April 16, 2013, CRSP US Large Cap Growth Index thereafter; Large value: S&P 500/Barra Value Index through May 16, 2003, MSCI US Prime Market Value Index through April 16, 2013, CRSP US Large Cap Value Index thereafter; Mid blend: S&P MidCap 400 Index through May 16, 2003, MSCI US Mid Cap 450 Index through January 30, 2013, CRSP US Mid Cap Index thereafter; Mid growth: MSCI US Mid Cap Growth Index through April 16, 2013, CRSP US Mid Cap Growth Index thereafter; Mid value: MSCI US Mid Cap Value Index through April 16, 2013, CRSP US Mid Cap Value Index thereafter; Small blend: Russell 2000 Index through May 16, 2003, MSCI US Small Cap 1750 Index through January 30, 2013, CRSP US Small Cap Index thereafter; Small growth: S&P SmallCap 600/Barra Growth Index through May 16, 2003, MSCI US Small Cap Growth Index through April 16, 2013, CRSP US Small Cap Growth Index thereafter; Small value: S&P SmallCap 600/Barra Value Index through May 16, 2003, MSCI US Small Cap Value Index through April 16, 2013, CRSP US Small Cap Value Index thereafter. Bond benchmarks are represented by the following Barclays indexes: U.S. 1–5 Year Government Bond Index, U.S. 1–5 Year Corporate Bond Index, U.S. Intermediate Government Bond Index, U.S. Intermediate Corporate Bond Index, U.S. GNMA Bond Index, U.S. Corporate High Yield Bond Index. International and global benchmarks are represented by the following indexes: Global—Total International Composite Index through August 31, 2006, MSCI EAFE + Emerging Markets Index through December 15, 2010, MSCI ACWI ex USA IMI Index through June 2, 2013, FTSE Global All Cap ex US Index thereafter; Developed—MSCI World ex USA Index; Emerging markets—MSCI Emerging Markets Index.

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News for Immediate Release

Jan. 14, 2015

Auditor General DePasquale Says Underfunded Municipal Pension Liability Now $7.7 Billion, Up $1 Billion in Two Years

Updated pension report reinforces need for swift legislative action

HARRISBURG – Auditor General Eugene DePasquale today said Pennsylvania's underfunded municipal pension liability has now grown to $7.7 billion, an increase of $1 billion over a two-year period. He again called upon the governor and the General Assembly to place a top priority on finding solutions to this growing challenge facing communities across the state.

DePasquale released an updated version of his report on municipal pensions that now shows 562 municipalities out of 1,223 municipalities that administer pension plans, are distressed and underfunded, posing a huge liability to taxpayers.

The auditor general's initial municipal pension report was based on January 2011 actuarial data from the Public Employee Retirement Commission (PERC); today's updated report is based upon the most recent available data reported to PERC as of January 2013.

"As I said a year ago when I initially raised the issue, our municipal pension challenges are not going away," DePasquale said. "It is important to note that this increase in pension liability has occurred during a growing economy. Clearly, these pension challenges cannot be corrected by a strong stock market. This is going to take some decisive actions by the governor and the legislature to prevent this municipal pension issue from crippling state and local taxpayers, and jeopardizing the future for our communities."

DePasquale noted the example of the City of Scranton where a recent audit showed that, at current funding levels, the city's police plan has assets to fund less than five years of benefit payments, while the firefighters' and non-uniformed plans have assets to fund less than three years of benefit payments.

"While the underfunded pension situation in Scranton is extreme, the city is certainly not alone," DePasquale said. "Without action by the legislature, no relief is in sight for Scranton and the hundreds of other municipalities facing these serious financial challenges. Waiting out this situation is not an option. We cannot stand idly by and risk having any of our municipalities become the next bankrupt Detroit or Stockton, Calif."

DePasquale's municipal pension report includes 13 recommendations that could be considered to address the underfunding of municipal pension plans and the systemic issues associated with the administration of the plans.

The updated municipal pension report includes a new recommendation that may help resolve systemic funding issues associated with pension plans:

- Absent a statewide plan consolidation, all municipal pension plans should consider using a low cost, conservative method of investing based on index investing. Such a practice would eliminate wild fluctuations or poor investment returns. Investment companies such as Vanguard Group (a

Pennsylvania based firm), Fidelity, etc. all provide index investing at an extremely low cost to the pension plan.

Other recommendations to address systemic issues associated with the administration of municipal pension plans include:

- Consolidation of local government pension plans into a statewide system plan segregated by different classes of employees, e.g., police officers, firefighters, and non-uniformed employees, for both current and/or future municipal employees. Such consolidation should consider the size of local government plans currently in existence and prohibit the merger of plans with unfunded liabilities with plans that are currently maintaining adequate funding levels.
- Consolidation of the administration of the local government pension plans by one entity while maintaining the existing system of individual pension plans. This overall administrator could be entities such as the Pennsylvania Municipal Retirement System (PMRS), the State Employees' Retirement System (SERS), or another large multiple-employer plan administrator.
- Develop portability options for existing municipal employees to allow changing municipal jobs without fear of forfeiting accrued pension benefits.
- Mandate a state agency, such as DCED's Bureau of Local Government Services, to have responsibility for providing guidance to municipalities for compliance with applicable state statutory provisions. This agency could also establish best practices, develop manuals, and offer training to municipalities related to pension plan administration.

The report also includes the following recommendations to address the underfunding of the plans:

- Exclude "spiking" overtime and lump-sum payments for accrued leave when determining pension benefits.
- Update age and service requirements for normal retirement eligibility to account for increased life expectancy.
- Establish consistent member contribution provisions.
- Narrow the range of acceptable investment rate of return assumption options to reflect current economic conditions.
- Establish a new distress recovery program that would amend the current formula of state aid distribution to provide for additional state aid based on distress level. Additional aid should only be provided if municipalities meet certain requirements such as funding plans in accordance with Act 205 standards, agreeing not to provide any benefit increases to current employees, and establishing a revised benefit structure for new hires.
- Set limits on the amount of pension costs that may be reimbursed by the commonwealth, thus ensuring that municipalities contribute a portion of a plan's annual pension costs exclusive of state aid allocations.
- Mandate that each municipality publish its annual pension costs, by plan, for public review.
- Reduce administrative and management fee expenses.

The auditor general's updated municipal pension report is available online **here**.

# # #

Media contact: Susan Woods, 717-787-1381

Pennsylvania's Municipal Pension Challenges

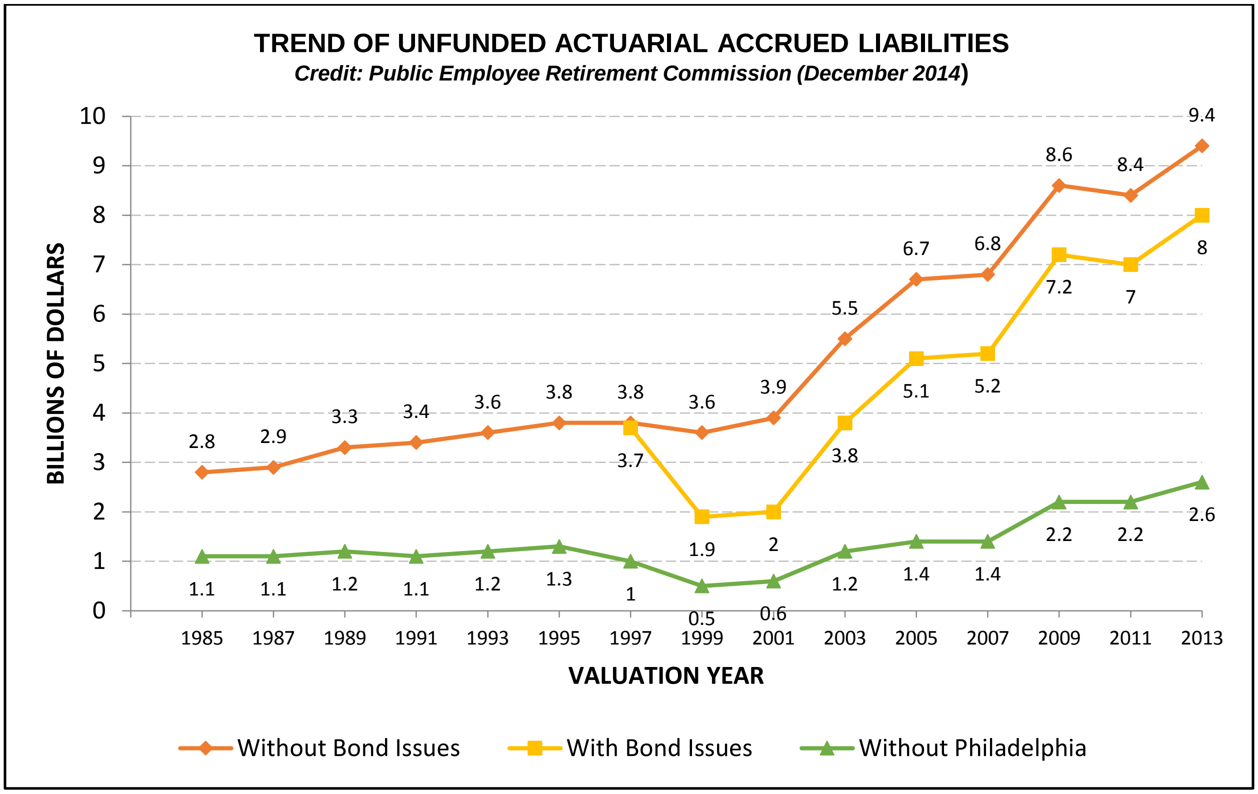
Recommendations from Governor Tom Wolf's Task Force on Municipal Pensions

Auditor General Eugene A. DePasquale (Chair)
Susan Hockenberry
Mary Soderberg
Janet Yeomans

June 30, 2015

Introduction

According to the latest actuarial data from the Public Employee Retirement Commission (PERC), as of January 2013, the unfunded liability of Pennsylvania municipal pension plans has doubled in the last ten years. It is now $7.7 billion. Approximately 3,240 local government plans exist in the commonwealth; 2,600 of these are municipal plans. About one-third of Pennsylvania municipal pension plans are less than 80 percent funded. This report focuses on those underfunded plans.



Pennsylvania's municipal pension challenges have resulted from a combination of many factors, including a lack of consistent and sound investment assumptions, a failure to fully fund obligations, increased life expectancies of retirees and current employees, cases where there are fewer active employees than retirees, and the stock market decline in 2008.

Regardless of the causes of the pension challenges, it is imperative that the Commonwealth's system of local government pension plans, as well as their administration, be reformed immediately. Given that the state courts have consistently and firmly decreed that pension obligations cannot be reduced or eliminated, a failure to address the funding gap will result in crippling cuts to critical municipal services that will dramatically impact the quality of life for residents, commuters, and anyone who does business with the municipality. In extreme cases, municipalities in other states have been forced into bankruptcy as a result of failing to address pension health appropriately.

Due to the need for swift action on municipal pension reform, Governor Tom Wolf assembled a Task Force on Municipal Pensions in May of this year to come up with workable, fair and responsible recommendations to address the pension challenges of municipalities. This report is the result of the work of that task force.

In developing this report, the task force received input from individuals representing government retirement entities, unions, elected officials, trade associations, research organizations with expertise in pension issues, and the financial industry (Appendix A). All who participated in these meetings provided helpful, real-life examples of the pension challenges and offered many carefully thought-out ideas.

The task force would like to thank all who offered their time and expertise to such an important endeavor.

Recommendations for Addressing Pennsylvania's Municipal Pension Challenge

The Municipal Pension Aid Fund receives about $267 million per year funded out of the Foreign Casualty Insurance Premium Tax and from a portion of the Foreign Fire Insurance Premium Tax. Currently, the formula for this state aid, as designed in Act 205 of 1984, covers 100 percent of the Minimum Municipal Obligation (MMO) for one-third of the municipalities. Other municipalities receive significantly less than 100 percent. There is little or no annual growth foreseen in the revenue stream that produces the Municipal Pension Aid Fund.

The task force recommends that any proposed revenue enhancements be considered only if structural changes are made to the plans. The recommendations from the task force focus on structural and operational changes that encourage, and in some cases require, responsible and prudent management of municipal pension plans.

Increasing transparency, accountability and fiscal responsibility to all plans

The following reforms should apply to **all** municipal pension plans. These standards provide a more transparent picture of a plan's fiscal health, control fees paid to external parties, and make a municipality's pension obligations more predictable. The purpose is to ensure that promises of retirement security that have been made to employees can be met without impairing the ability to maintain services and invest for the future.

- **Increase penalties for municipalities that do not pay their full minimum municipal obligation (MMO).** The MMO is the minimum amount municipalities are legally required to contribute annually to a pension fund to maintain long-term solvency. Currently, the penalty for failure to make the full MMO payment is an interest charge.

An additional penalty is recommended that would eliminate municipal pension state aid for each year the MMO is not fully paid. A state government entity should be authorized to enforce this provision.

- **End the current practice of allowing state aid to be spent on administrative expenses.** The annual distribution of state aid given to municipalities should assist with pension payments, not administrative fees. Given the number of employees and retirees counting on benefits, all state aid should be directed to the purpose of meeting the pension obligations. This change would also encourage control of administrative costs by requiring them to be part of the annual expenditures of the municipality and not paid for out of the pension trust assets.
- **Post actual pension liability.** Adopt Generally Accepted Accounting Principles standards (GAAP). Specifically, adopt and implement Governmental Accounting Standards Board (GASB) Statement 68, which requires state and local governments to include full disclosure of all pension obligations in their financial statements. This will increase transparency of the assumed rate of return versus the actual realized return.
- **Exclude municipal pensions from the collective bargaining process.** This considerably strengthens municipalities' ability to predict costs, a critical piece to reform.
- **Post municipal pension plan costs annually.** This includes fees paid to investment managers, the performance of the funds managed by those investment managers compared to an appropriate benchmark and administrative expenses of the plan.

Strategies for underfunded municipal pension plans other than Philadelphia and Pittsburgh

It is critical that significantly underfunded municipal pension plans be placed on a road to recovery. Specific actions include giving a realistic view of the status of each plan, changing how the plans are administered, prohibiting benefit enhancements, and creating a new statewide pension system for all new municipal employees. These significant reforms would put into place a structure that will prevent further deterioration and force municipalities to deal with a more realistic understanding of the problems. These steps are imperative if promises to plan beneficiaries are to be met.

The underfunded plans must adopt three major categories of change:

- Adherence to new investment and benefit standards
- Shifting of management responsibility away from the municipality
- Placement of new hires into a newly created statewide municipal pension system

"Underfunded" is defined as a funding ratio (percent of accrued pension liabilities that are covered by assets) below 80 percent. The funding ratio is calculated based on the required rate of return for the relevant year as described below. The task force presents two alternative options for the Governor to consider:

- **Alternative A.** Aggregate the funding ratio of all of a municipality's defined benefit plans; if the aggregate falls below 80 percent, all plans must adopt the changes described below. Currently, 363 municipalities' aggregate funding ratios fall below 80 percent.
  - **Pros:**
    - Mirrors Act 205 state aid distribution to each municipality, not to individual plans.
    - Requires more plans to adopt stronger and more responsible standards.
    - Prevents potentially damaging divisions between plans in the same municipality.
  - **Cons:**
    - Some municipalities may resist putting restrictions on an adequately funded plan simply because other plans in its purview are underfunded.
- **Alternative B.** Only individual plans that have a funding ratio below 80 percent must adopt the changes described below. Thus a municipality may have one plan that would have to adopt the required changes, and one that would not.
  - **Pros:**
    - Allows adequately funded plans to remain under the management of the municipality, with fewer restrictions on investments and benefit enhancements
  - **Cons:**
    - Increases divisiveness between plans within the same municipality
    - Might lead to tougher decisions for municipalities on how much to fund each plan
    - Fewer plans are required to adopt stronger standards

The following describe the strategies for the underfunded pension plans no matter which method above is selected. A variation on the strategies for Philadelphia and Pittsburgh appear in a subsequent section.

Require underfunded pension plans to adopt new investment and benefit standards. The following is meant to control costs and provide a more transparent picture of the actual funding status of the pension plan. All of these requirements on underfunded plans are permanent.

- **Cap the amount of overtime that may be included in the pension calculation at 10 percent of the final five years' average base salary.** This allows more predictability by the municipalities and the ability to project and manage their pension costs while still allowing some accumulated overtime to be reflected in pensioners' benefits.

- **Exclude accumulated leave from pension calculations.** As in Act 600 (Municipal Police Pension Law), any accumulated sick, vacation, or other unused leave may not be used in pension benefit calculations.
- **Adopt realistic rate of return assumptions.** Plans should adopt an assumed rate of return on investments that more accurately reflects long-term realized returns. The practice of using unrealistically high rates of return for investments must be eliminated. The practice allows local governments to pay lower MMOs and therefore underfund their pension obligations while simultaneously using the proceeds to help fund other budget holes. The result is a worsening funded status of plans.

  For municipalities currently using an excessively high rate of return, a reduction will be a material change, but the reduction is critical to reforming pension funding obligations and positioning funds to meet their obligations.

  To soften the impact of the adjustment, plans may transition to a lower rate of return gradually, by reducing their current rate by one percentage point per year.
- **Control investment management fees.** Require that investment management fees not exceed 50 basis points per annum. For reference, plans should use fees charged by passively managed funds as a benchmark. While active investment managers have a role in investment management, and a very few managers have consistently demonstrated an ability to earn returns in excess of the market, such relationships need to be carefully monitored. Employing active managers must not come at the expense of putting someone's retirement income at risk.
- **Disallow any benefit enhancement that would cause the funding ratio to fall below 90 percent.** Quite simply, you should not enhance benefits if you cannot honestly afford to do so. Enhancements may be considered only if, after making them, the pension plan remains at least 90 percent funded.
- **Specifically require that any gains above the projected rate of return be retained by the fund until the plan is 130 percent funded.** Given the volatility of the market, firm restrictions should be put in place as to how higher-than-expected returns may be used. This is the key to preventing actions such as what happened in the City of Philadelphia earlier this year, where the city – despite having its pensions funded at less than 48 percent of its obligation – mailed $31 million in bonus checks to retirees, when the actual rate of return exceeded the assumed rate.
- **Prohibit Deferred Retirement Option Plans (DROP).** Lump-sum payments resulting from DROP programs should be eliminated for all plans. DROPs represent a financial

burden on the city or municipality obligated for the payment, and take monies away from the pension plan of retirees

***Shift management responsibility for underfunded plans to a single shared investment manager and plan administrator*.** While the investments would be managed by an independent statewide organization, the current benefit levels – as determined by the contract between the municipality and the employee – will remain the same, at least for current employees. The plans also will remain the financial responsibility of the municipality. Municipalities will be charged for the administrative costs in this statewide management plan based upon the number of plan members. Once a plan shifts to this manager, it may not shift back out.

The shared investment manager and plan administrator must adhere to all of the standards above, including utilizing a realistic assumed rate of return and maintaining controls on investment management fees.

Moving these underfunded plans to a new shared manager would begin one year from the date of the authorizing legislation being signed into law, with staggered entry dates based on level of underfunding. This approach to implementation provides time for the shared manager to adequately handle the influx of new plans. The specifics of this phase-in should be determined in collaboration with the shared manager.

Underfunded plans may opt not to enter the shared management if they demonstrate that their pension plan funding level has risen above 80 percent since publication of the most recent data from PERC and before the required entrance date.

The shared investment manager and plan administrator must meet the following qualifications:

- Possesses an existing cost effective structure to centralize management of assets
- Has expenses that do not exceed existing cost levels of the Pennsylvania Municipal Retirement System (PMRS).
- Requires the use of a realistic rate of return when municipalities are estimating their pension liability.
- Demonstrates a minimum of 10 years' experience in managing multiple public pension funds in Pennsylvania.

***Consider the creation of new statewide benefit structures for all new hires in the underfunded plans*.** Two benefit structures are included; one for public safety employees and one for non-uniformed employees. If this avenue is pursued, the task force recommends immediately consulting with a public employee pension design expert who can recommend a fair and predictable benefit plan design based on nationally accepted best practices and tailored to our specific circumstances. This plan should include a provision for portability of pension benefits accrued between municipalities.

Review the viability of the sale/lease/securitization of assets to help address significant unfunded liabilities. Municipalities with underfunded pension plans should assess potential benefits of selling, leasing, or otherwise securitizing assets, such as water and sewer systems, that would provide a fiscal net gain and would not lead to higher costs for the municipality in the future. This is a viable option for only a very small number of municipalities with underfunded pensions.

Strategies for Philadelphia and Pittsburgh

Because Philadelphia and Pittsburgh together represent over $6 billion of the state's total municipal pension plan unfunded liability, the task force recommends that each of the two cities have the option of either joining the other underfunded municipalities in the statewide management system outlined above, or that each maintain its own investment manager/plan administrator that adopts the recommended standards above.

If opting to adhere to the standards under their own management, Philadelphia and Pittsburgh must develop, within six months of enactment, a five-year plan to meet the standards and create a new plan for new hires. Both cities must submit an annual report detailing the implementations and achievements to date, with copies to the Governor, General Assembly, Auditor General, and PERC. Failure to submit a five year plan or annual report or to comply with the five-year plan will result in the loss of all Act 205 state aid.

Modernize data collection, reporting requirements, and state aid system

Currently, municipalities must submit their pension information via hard copy to PERC and the Department of the Auditor General. In addition to being a cumbersome, labor-intensive, and outdated process, it creates a frustrating lag in the reporting of data. PERC must manually enter all information for thousands of plans. As a result, PERC is only able to publish their report every two years, which prevents a timely assessment of the status of Pennsylvania's municipal pension funds.

The Department of the Auditor General, PERC, and the appropriate commonwealth agencies should work together to develop a cost-effective plan to modernize state aid distribution and reporting systems to create greater efficiencies and enable annual reporting in line with common industry practice. If moved to an electronic reporting system, PERC should be required to report annual figures, creating a more up-to-date understanding of a plan's relative health, including any progress or decline in unfunded liability. In addition, the MMO calculation should be made annually.

The goal for implementation for electronic filing should be 2017. The Department of the Auditor General will continue previous discussions with the Governor's Center for Local Government Services to utilize their new e-filing system to obtain necessary data. PERC will establish its plan for e-filing as well.

Summary

A consensus of stakeholders – on all sides of the pension issue – believe that it is imperative that we immediately address problems with the commonwealth's system of local government pension plans. The recommendations presented in this report of Governor Tom Wolf's Municipal Pension Task Force are realistic and responsible reforms to Pennsylvania's municipal pension challenges.

We recommend increasing transparency and accountability for all municipal pension plans by:

- Increasing penalties for municipalities that do not pay their full minimal municipal obligation (MMO).
- Ending the current practice of allowing state municipal pension aid to be used for administrative expenditures.
- Adopting standards to require municipalities to disclose pension liability and requiring the public posting of municipal pension costs.
- Excluding municipal pensions from collective bargaining.

We recommend helping with the recovery of underfunded pension plans by:

- Requiring underfunded pension plans to adopt new investment and benefit standards including controlling management fees, capping overtime and excluding accumulated leave from pension calculations, eliminating lump-sum DROP payments, adopting realistic rates of return on investments and limiting benefit enhancement.
- Shifting management responsibility for underfunded plans to a shared investment manager.
- Possibly creating a new statewide defined benefit structure for all new hires in underfunded plans.

We recommend that the Pittsburgh and Philadelphia pension plans be given the option of joining the other underfunded municipalities in the plan outlined above, or maintaining their own investment managers/plan administrators, with specific requirements and consequences for achieving those reforms.

Lastly, we recommend that the Department of the Auditor General and the Public Employee Retirement System work together to modernize state aid distribution and reporting systems to enable annual reporting.

These recommendations will require discipline at both state and local levels. This discipline is important for the viability of Pennsylvania's communities. If we are able to adequately address the municipal pension issue, a significant stressor for local government, we will be able to put all communities on stronger ground which, in turn, will help Pennsylvania as a whole.

###

Appendix A: Organizations Who Participated in Discussions

Allegheny Conference on Community Development

City of Lancaster

City of Philadelphia

City of Pittsburgh

City of York

Commonwealth Foundation

Council 13 AFSCME

Greater Reading Area Chamber of Commerce

International Association of Fire Fighters

Keystone Research Center

K&L Gates LLP

Lancaster County Chamber of Commerce

McNees Wallace & Nurick LLC

Pennsylvania Professional Firefighters Association

Pennsylvania State Association of Township Commissioners

Pennsylvania State Association of Township Supervisors

Pennsylvania Fraternal Order of Police

Pennsylvania Municipal Retirement System

Pennsylvania Municipal League

Pennsylvania State Association of Boroughs

Pennsylvania Infrastructure Investment Authority (PENNVEST)

Philadelphia Fire Fighters' & Paramedics' Union I.A.F.F. Local #22

Philadelphia Fraternal Order of Police Lodge #5

Pittsburgh Firefighters I.A.F.F. Local #1

Pittsburgh Fraternal Order of Police Lodge #1

Public Employees Retirement Commission

SEIU Local 668

York County Controller

Plan Review

Combined Account Portfolio

1/1/18-8/31/18

Table of Contents

Prepared For

Sample Township

Prepared on 9/4/18

Prepared By

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Please Also Note: Please compare this statement with account statements received from the account custodian. The account custodian does not verify the accuracy of the advisory fee calculation. Please advise us if you have not been receiving monthly statements from the account custodian. A copy of our current written disclosure statement discussing our advisory services and fees continues to remain available upon request.

Historical performance results for investment indices and/or categories have been provided for general comparison purposes only, and generally do not reflect the deduction of transaction and/or custodial charges, the deduction of an investment management fee, nor the impact of taxes, the incurrence of which would have the effect of decreasing historical performance results. It should not be assumed that your account holdings correspond directly to any comparative indices.

Investment Adviser Representative CBIZ InR, a Registered Investment Adviser

CBIZ InR

As of: 8/31/18

ASSET	TICKER	MANAGEMENT NAME	QUANTITY	PRICE ($)	VALUES ($)
FDIC INSURED DEPOSIT ACCOUNT IDA12 NOT COVERED BY SIPC	MMDA12	TD Ameritrade	105,079.49	1.00	105,079.49
FEDERATED GOVERNMENT OBLIGATIONS FUND	GOSXX	GOLDMAN SACHS FUNDS	422,822.88	1.00	422,822.88
ISHARES TR TIPS BD ETF	TIP		10,077.00	112.09	1,129,530.93
VANGUARD BD INDEX FD INC TOTAL BND MRKT	BND		35,243.00	79.32	2,795,474.76
VANGUARD CHARLOTTE FDS INTL BD IDX ETF	BNDX		20,720.00	54.72	1,133,798.40
VANGUARD INDEX FDS GROWTH ETF	VUG		22,958.00	160.74	3,690,268.92
VANGUARD INDEX FDS MID CAP ETF	VO		7,544.00	165.65	1,249,663.60
VANGUARD INDEX FDS SMALL CP ETF	VB		7,701.00	165.66	1,275,747.66
VANGUARD INDEX FDS VALUE ETF	VTV		33,070.00	110.72	3,661,510.40
VANGUARD INTL EQUITY INDEX F ALLWRLD EX US	VEU		97,760.00	52.09	5,092,318.40
VANGUARD SCOTTSDALE FDS INT-TERM CORP	VCIT		6,874.00	84.17	578,584.58
			Core Accounts		**$21,134,800.02**

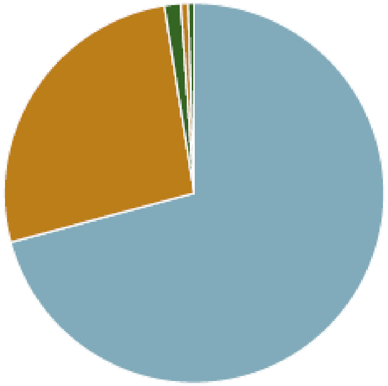
A This report may include assets that the firm does not hold and which are not included on the firm's books and records.

Prepared by: Michael B Glackin CBIZ InR

Plan Review created on: 9/4/18

As of: 8/31/18

Combined Total



ASSET TYPE	VALUE ($)	(%)
EQUITY	14,969,509	70.83
FIXED INCOME	5,637,389	26.67
CASH	292,467	1.38
BONDS	130,356	0.62
CASH OR EQUIVALENTS	105,079	0.50
Total:	**$21,134,800**	**100%**

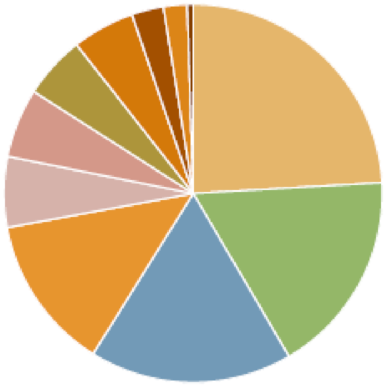
^ This report may include assets that the firm does not hold and which are not included on the firm's books and records.

Prepared by: Michael B Glackin CBIZ InR

Plan Review created on: 9/4/18

As of: 8/31/18

Combined Total



INVESTMENT OBJECTIVE	VALUE ($)	(%)
FOREIGN LARGE BLEND	5,092,318	24.09
LARGE CAP - GROWTH	3,690,269	17.46
LARGE CAP - VALUE	3,661,510	17.32
INTERMEDIATE-TERM BOND	2,795,475	13.23
SMALL CAP - BLEND	1,275,748	6.04
MID CAP - BLEND	1,249,664	5.91
LONG-TERM MEDIUM QUALITY	1,133,798	5.36
INFLATION-PROTECTED BOND	1,129,531	5.34
DOMESTIC BONDS	578,585	2.74
SHORT-TERM HIGH QUALITY	422,823	2.00
MONEY MARKET	105,079	0.50
Total:	**$21,134,800**	**100%**

[A] This report may include assets that the firm does not hold and which are not included on the firm's books and records.

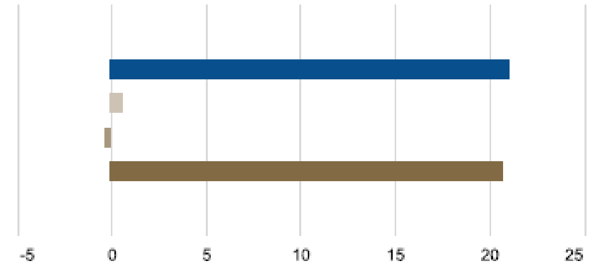
Prepared by: Michael B Glackin CBIZ InR

Plan Review created on: 9/4/18

Period: 1/1/18 - 8/31/18

Core Accounts (millions $)

Return 3.11 %



	VALUE ($)
Beginning Value	20,694,966
Net Contribution	-201,453
Change In Value	641,287
Ending Value	21,134,800

Negative dividends are dividends paid in cash. The number is negative because it represents money which is paid out either to the investor or deposited into the money market.

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Prepared by: Michael B Glackin CBIZ InR

Plan Review created on: 9/4/18

Period: 1/1/18 - 8/31/18

Asset Type: BONDS

Investment Objective: SHORT-TERM HIGH QUALITY

ASSET	BEGINNING VALUE ($)	NET CONTRIBUTION ($)	CHANGE IN VALUE ($)	ENDING VALUE ($)	RETURN (%)
FEDERATED GOVERNMENT OBLIGATIONS FUND (30.83% of Asset)	--	130,356.29	0.00	130,356.29	0.00[6]
SHORT-TERM HIGH QUALITY Total:	--	**$130,356.29**	**$0.00**	**$130,356.29**	**0.00%[6]**
BONDS Total:	--	**$130,356.29**	**$0.00**	**$130,356.29**	**0.00%[6]**

Asset Type: CASH

Investment Objective: SHORT-TERM HIGH QUALITY

ASSET	BEGINNING VALUE ($)	NET CONTRIBUTION ($)	CHANGE IN VALUE ($)	ENDING VALUE ($)	RETURN (%)
FEDERATED GOVERNMENT OBLIGATIONS FUND (69.17% of Asset)	--	292,466.59	0.00	292,466.59	0.00[6]
SHORT-TERM HIGH QUALITY Total:	--	**$292,466.59**	**$0.00**	**$292,466.59**	**0.00%[6]**
CASH Total:	--	**$292,466.59**	**$0.00**	**$292,466.59**	**0.00%[6]**

Asset Type: CASH OR EQUIVALENTS

Investment Objective: CASH OR EQUIVALENTS

ASSET	BEGINNING VALUE ($)	NET CONTRIBUTION ($)	CHANGE IN VALUE ($)	ENDING VALUE ($)	RETURN (%)
CASH	--	53,862.01	-53,862.01	--	--[7]
CASH OR EQUIVALENTS Total:	--	**$53,862.01**	**-$53,862.01**	--	--[7]

Investment Objective: MONEY MARKET

ASSET	BEGINNING VALUE ($)	NET CONTRIBUTION ($)	CHANGE IN VALUE ($)	ENDING VALUE ($)	RETURN (%)
FDIC INSURED DEPOSIT ACCOUNT IDA12 NOT COVERED BY SIPC	640,949.28	-536,750.82	881.03	105,079.49	0.17
MONEY MARKET Total:	**$640,949.28**	**-$536,750.82**	**$881.03**	**$105,079.49**	**0.17%**
CASH OR EQUIVALENTS Total:	**$640,949.28**	**-$482,888.81**	**-$52,980.98**	**$105,079.49**	**-9.85%**

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Prepared by: Michael B Glackin CBIZ InR

Plan Review created on: 9/4/18

Period: 1/1/18 - 8/31/18

Asset Type: EQUITY

Investment Objective: FOREIGN LARGE BLEND

ASSET	BEGINNING VALUE ($)	NET CONTRIBUTION ($)	CHANGE IN VALUE ($)	ENDING VALUE ($)	RETURN (%)
VANGUARD INTL EQUITY INDEX F ALLWRLD EX US	5,062,694.40	203,529.14	-173,905.14	5,092,318.40	-3.41
FOREIGN LARGE BLEND Total:	**$5,062,694.40**	**$203,529.14**	**-$173,905.14**	**$5,092,318.40**	**-3.41%**

Investment Objective: LARGE CAP - GROWTH

ASSET	BEGINNING VALUE ($)	NET CONTRIBUTION ($)	CHANGE IN VALUE ($)	ENDING VALUE ($)	RETURN (%)
VANGUARD INDEX FDS GROWTH ETF	3,566,884.00	-380,516.02	503,900.94	3,690,268.92	14.94
LARGE CAP - GROWTH Total:	**$3,566,884.00**	**-$380,516.02**	**$503,900.94**	**$3,690,268.92**	**14.94%**

Investment Objective: LARGE CAP - VALUE

ASSET	BEGINNING VALUE ($)	NET CONTRIBUTION ($)	CHANGE IN VALUE ($)	ENDING VALUE ($)	RETURN (%)
VANGUARD INDEX FDS VALUE ETF	3,559,274.64	-85,755.85	187,991.61	3,661,510.40	5.38
LARGE CAP - VALUE Total:	**$3,559,274.64**	**-$85,755.85**	**$187,991.61**	**$3,661,510.40**	**5.38%**

Investment Objective: MID CAP - BLEND

ASSET	BEGINNING VALUE ($)	NET CONTRIBUTION ($)	CHANGE IN VALUE ($)	ENDING VALUE ($)	RETURN (%)
VANGUARD INDEX FDS MID CAP ETF	1,217,189.92	-60,230.15	92,703.83	1,249,663.60	7.77
MID CAP - BLEND Total:	**$1,217,189.92**	**-$60,230.15**	**$92,703.83**	**$1,249,663.60**	**7.77%**

Investment Objective: SMALL CAP - BLEND

ASSET	BEGINNING VALUE ($)	NET CONTRIBUTION ($)	CHANGE IN VALUE ($)	ENDING VALUE ($)	RETURN (%)
VANGUARD INDEX FDS SMALL CP ETF	1,214,916.00	-89,310.99	150,142.65	1,275,747.66	12.65
SMALL CAP - BLEND Total:	**$1,214,916.00**	**-$89,310.99**	**$150,142.65**	**$1,275,747.66**	**12.65%**
EQUITY Total:	**$14,620,958.96**	**-$412,283.87**	**$760,833.89**	**$14,969,508.98**	**5.30%**

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Prepared by: Michael B Glackin CBIZ InR

Plan Review created on: 9/4/18

Period: 1/1/18 - 8/31/18

Asset Type: FIXED INCOME

Investment Objective: DOMESTIC BONDS

ASSET	BEGINNING VALUE ($)	NET CONTRIBUTION ($)	CHANGE IN VALUE ($)	ENDING VALUE ($)	RETURN (%)
VANGUARD SCOTTSDALE FDS INT-TERM CORP	1,625,541.39	-1,007,304.25	-39,652.56	578,584.58	-2.69
DOMESTIC BONDS Total:	**$1,625,541.39**	**-$1,007,304.25**	**-$39,652.56**	**$578,584.58**	**-2.69%**

Investment Objective: INFLATION-PROTECTED BOND

ASSET	BEGINNING VALUE ($)	NET CONTRIBUTION ($)	CHANGE IN VALUE ($)	ENDING VALUE ($)	RETURN (%)
ISHARES TR TIPS BD ETF	548,268.48	581,544.56	-282.11	1,129,530.93	-0.04
INFLATION-PROTECTED BOND Total:	**$548,268.48**	**$581,544.56**	**-$282.11**	**$1,129,530.93**	**-0.04%**

Investment Objective: INTERMEDIATE-TERM BOND

ASSET	BEGINNING VALUE ($)	NET CONTRIBUTION ($)	CHANGE IN VALUE ($)	ENDING VALUE ($)	RETURN (%)
VANGUARD BD INDEX FD INC TOTAL BND MRKT	2,718,646.53	110,034.13	-33,205.90	2,795,474.76	-1.17
INTERMEDIATE-TERM BOND Total:	**$2,718,646.53**	**$110,034.13**	**-$33,205.90**	**$2,795,474.76**	**-1.17%**

Investment Objective: LONG-TERM MEDIUM QUALITY

ASSET	BEGINNING VALUE ($)	NET CONTRIBUTION ($)	CHANGE IN VALUE ($)	ENDING VALUE ($)	RETURN (%)
VANGUARD CHARLOTTE FDS INTL BD IDX ETF	540,600.91	586,622.65	6,574.84	1,133,798.40	0.96
LONG-TERM MEDIUM QUALITY Total:	**$540,600.91**	**$586,622.65**	**$6,574.84**	**$1,133,798.40**	**0.96%**
FIXED INCOME Total:	**$5,433,057.31**	**$270,897.09**	**-$66,565.73**	**$5,637,388.67**	**-1.17%**
Core Accounts Total:	**$20,694,965.55**	**-$201,452.71**	**$641,287.18**	**$21,134,800.02**	**3.11%**

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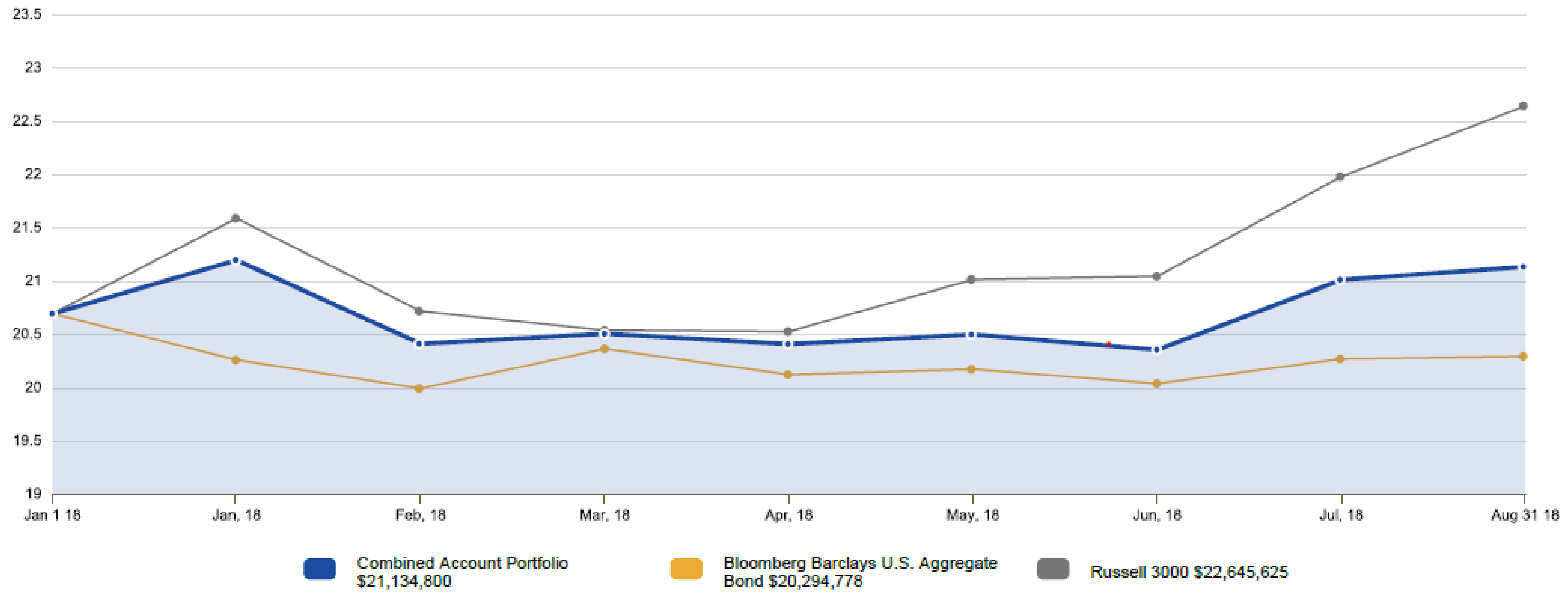
Prepared by: Michael B Glackin CBIZ InR

Plan Review created on: 9/4/18

Period: 1/1/18 - 8/31/18

Portfolio Value (millions $)



Portfolio Performance

PERIOD	ENDING VALUE ($)	NET CONTRIBUTION ($)	CHANGE IN VALUE	PORTFOLIO (%)	Bloomberg Barclays U.S. Aggregate Bond PERFORMANCE (%)	Bloomberg Barclays U.S. Aggregate Bond DIFF (%)	Russell 3000 PERFORMANCE (%)	Russell 3000 DIFF (%)
Start	20,694,966							
Jan, 18	21,197,259	-195,782	698,075	3.39	-1.15	4.54	5.29	-1.90

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Prepared by: Michael B Glackin CBIZ InR

Plan Review created on: 9/4/18

Period: 1/1/18 - 8/31/18

					Bloomberg Barclays U.S. Aggregate Bond		Russell 3000	
PERIOD	ENDING VALUE ($)	NET CONTRIBUTION ($)	CHANGE IN VALUE	PORTFOLIO (%)	PERFORMANCE (%)	DIFF (%)	PERFORMANCE (%)	DIFF (%)
Feb, 18	20,412,661	-75,484	-709,114	-3.35	-0.95	-2.40	-3.69	0.34
Mar, 18	20,506,179	241,707	-148,189	-0.72	0.64	-1.36	-2.00	1.29
Apr, 18	20,409,452	-90,214	-6,513	-0.03	-0.75	0.71	0.38	-0.42
May, 18	20,499,046	-92,230	181,824	0.89	0.71	0.18	2.83	-1.94
Jun, 18	20,355,437	-109,442	-34,167	-0.17	-0.13	-0.04	0.66	-0.83
Jul, 18	21,012,841	226,296	431,108	2.09	0.02	2.07	3.33	-1.24
Aug, 18	21,134,800	-106,305	228,264	1.09	0.64	0.44	3.51	-2.42
Jan, 18 - Aug, 18	**$21,134,800**	**-$201,453**	**$641,287**	**3.11%**	**-0.97%**	**4.08%**	**10.45%**	**-7.34%**

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Prepared by: Michael B Glackin CBIZ InR

Plan Review created on: 9/4/18

CBIZ
CBIZ InR

Portfolio Snapshot Summary

Combined Account Portfolio

Prepared for: Sample Township

Portfolio Return

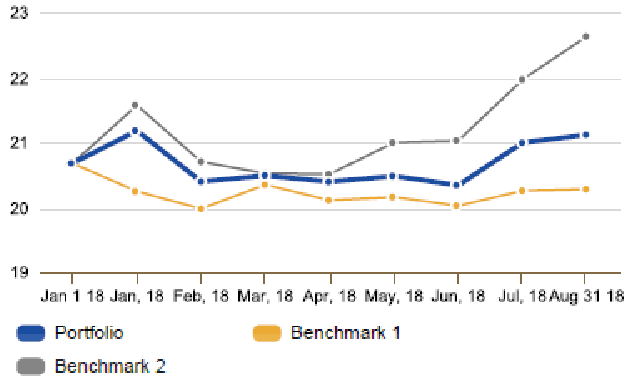
Period: 1/1/18-8/31/18

	SELECTED PERIOD ($)	LAST QTR ($)	YEAR TO DATE ($)	LAST YEAR ($)	SINCE START DATE ($) 12/1/11
Beginning Value	20,694,966	20,506,179	20,694,966	17,581,728	0
Net Contribution	-201,453	-291,886	-201,453	193,301	11,950,971
Change in Value	641,287	141,144	641,287	2,919,936	9,183,829
Ending Value	21,134,800	20,355,437	21,134,800	20,694,966	21,134,800
Return	3.11%	0.69%	3.11%	16.60%	9.10%
Benchmark 1: Bloomberg Barclays U.S. Aggregate Bond	-0.97%	-0.17%	-0.97%	3.54%	2.22%
Benchmark 2: Russell 3000	10.45%	3.91%	10.45%	21.11%	15.95%

Portfolio Value (millions $)

Period: 1/1/18-8/31/18

$21,134,800



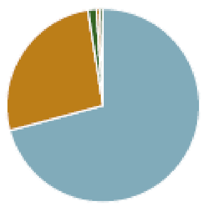
Account Performance

Period: 1/1/18-8/31/18

ACCOUNT	START DATE	VALUE ($)	% OF TOTAL	SELECTED PERIOD (%)	YEAR TO DATE (%)	LAST YEAR (%)	SINCE START DATE (%)
913023065	12/1/11	21,134,800	100.00	3.11	3.11	16.60	9.10

Asset Type

As of: 8/31/18



ASSET TYPE	VALUE ($)	(%)
EQUITY	14,969,509	70.83
FIXED INCOME	5,637,389	26.67
CASH	292,467	1.38
BONDS	130,356	0.62
CASH OR EQUIVALENTS	105,079	0.50
Total:	**$21,134,800**	**100%**

^A This report may include assets that the firm does not hold and which are not included on the firm's books and records.

Prepared by: Michael B Glackin CBIZ InR

Plan Review created on: 9/4/18.

coverage. Assets reflected on this report that are not held at the Firm on your behalf are not part of the Firm's books and records.

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Performance data quoted represents past performance and does not guarantee future results. The investment return and principal of an investment will fluctuate so that an investor's shares when redeemed may be worth more or less than original cost. The values represented in this report may not reflect the true original cost of your initial investment.

Cost basis information may be incomplete or may not accurately reflect the methodology used by a particular client. Clients should consult with their tax advisor.

For fee-based accounts only: The data may or may not reflect the deduction of investment advisory fees. If the investment is being managed through a fee-based account or agreement, the returns may be reduced by those applicable advisory fees. The information contained in these reports is collected from sources believed to be reliable. However, you should always rely on the official statements received directly from the custodians. If you have any questions regarding this report, please call your representative.

Pie chart slices labeled as "other" may include securities classified as "other" by the provider of asset classification data, as well as securities that did not fit in the other slices displayed.

[6] The return for this holding represents a partial period relative to the report period requested on the report. At some time during the reporting period, the holding was not in the portfolio. The partial period asset will affect the total account's rate of return.

[7] Cash and Cash Equivalents rate of return is not displayed as a line item; however, they are calculated in the overall rate of return performance.

Performance calculations are performed using the Internal Rate of Return (IRR) Calculation method

The Internal Rate of Return (IRR) is used to calculate the true, money-weighted rate of return. Like the Modified Dietz calculation, the portfolio or asset is valued at the starting and ending points of the period. And, cash flows are included based on their timing.

The IRR is related to the time-value of money or present value formula. It calculates the discount rate which will take the starting value and all cash flows to result in the ending market value.

Performance returns for time periods longer than 365 days have been annualized.

Any benchmark return calculations included on this report were performed using a cash flow adjusted calculation.

[A] The source data for the following accounts was provided by TD Ameritrade:
913023065

[A] This report may include assets that the firm does not hold and which are not included on the firm's books and records.

Prepared by: Michael B Glackin CBIZ InR

Plan Review created on: 9/4/18

TD Ameritrade
Institutional

SAMPLE CLIENT
Sample Monthly Statement

Industry Trade Settlement Date Change

On September 5, 2017, the financial industry will shorten the settlement cycle process for trades of most securities (including equities, exchange-traded funds [ETFs], fixed-income products, unit investments trusts [UITs], and other products comprising these types of securities) from three business days after the trade date to two business days after the trade date. If you have any questions on how this change will impact you specifically, please contact your Advisor.

1.0, 2.0, 3.0, 4.0, 5.0, 6.0

Terms and Conditions

TD Ameritrade provides monthly statements for active accounts and inactive accounts with assets.[1]

Account Summary: Tracks the current value of your account as of the report date and compares it to the prior month.

Retirement Account Activity Overview: Review the IRS regulated transactions for the current and prior years. IRS Form 5498 fair market value is based on the current account value including Alternative Investments as of December 31 of the previous year and will be furnished to the IRS.

Holdings Detail: View your investments at the current market value. The display of cost basis information is optional. Estimated Annual Income is strictly an estimate for future earnings based on past performance. The value is calculated by taking the number of shares owned multiplied by the dividend rate over a rolling 12 month period. Estimated Yield is a value obtained by TD Ameritrade from quotation services or other independent sources. The display of estimated income and yield is for informational purposes only and is displayed at the Advisors request. This statement represents a statement of account assets and account activity of your account only.

Transaction Detail: All account activity is listed in date order, and reflected in the closing cash balance.

Trades Pending Settlement: Executed trades with a settlement date after month end. These transactions will be reflected in the Transaction Detail section next month.

Cash Services: Cash management transactions (including checks, debit card, credit card and ATM activity) that cleared this month are listed in date order.

TD Ameritrade does not provide legal or tax advice. Please consult your legal advisor or tax accountant when necessary. As a standard industry practice, phone conversations may be recorded for quality control and transaction verification purposes.

For TD Ameritrade Institutional clients, your advisor firm is separate from and not affiliated with TD Ameritrade, Inc. or TD Ameritrade Clearing, Inc., and each firm is not responsible for the products and services of the other.

Accuracy of Reports: Please review this statement carefully. If you disagree with any transaction, or if there are any errors or omissions, please notify us at 800-431-3500 within ten (10) days of your receipt of this statement. Any oral statements that you have made to us should be confirmed in writing. The statement will otherwise be considered conclusive.

Account Protection: Deposits held by TD Bank, N.A. and TD Bank USA, N.A., are insured by the FDIC (not covered by SIPC) up to $250,000. Limits are per account ownership per institution. To learn more about FDIC coverage go to www.fdic.gov. Securities, including mutual funds, held in your Brokerage Account are not deposits or obligations of, or guaranteed by, any bank, are not FDIC-insured, and involve investment risks, including possible loss of principal. TD Ameritrade is a member of SIPC, which protects securities customers of its members up to $500,000 (including $250,000 for claims for cash). Explanatory brochure is available on request at www.sipc.org.

Additionally, TD Ameritrade provides each client $149.5 million worth of protection for securities and $2 million of protection for cash through supplemental coverage provided by London insurers. In the event of a brokerage insolvency, a client may receive amounts due from the trustee in bankruptcy and then SIPC. Supplemental coverage is paid out after the trustee and SIPC payouts and under such coverage each client is limited to a combined return of $152 million from a trustee, SIPC and London insurers. The TD Ameritrade supplemental coverage has an aggregate limit of $500 million over all customers. This policy provides coverage following brokerage insolvency and does not protect against loss in market value of the securities.

An investment in a money market fund is not insured or guaranteed by the FDIC or any other government agency. Although certain money market funds may seek to preserve their value of your investment at $1 per share, it is possible to lose money by investing in such a fund. Mutual fund purchases may be subject to eligibility and other restrictions, as well as charges and expenses. Certain money market funds may impose liquidity fees and redemption gates in certain circumstances. Dividends are declared daily and paid/reinvested monthly. The prospectus contains this and other important information. Read the prospectus carefully before investing. Non-deposit investments held by your broker-dealer are NOT FDIC INSURED / NOT BANK GUARANTEED / MAY LOSE VALUE.

The balance in your bank deposit account or shares of your money market mutual fund can be liquidated on your order, and the proceeds returned to your securities account or remitted to you.

Tax Reporting: The portfolio report is not a tax document. You will receive Form 1099 for annual tax reporting in compliance with IRS requirements (includes taxable interest, dividends, capital gains, taxes withheld, and sales proceeds). Some payments are subject to reclassification which will be reflected on subsequent tax reports.

Cost Basis: Cost-Basis, tax lot and performance reporting and Gainskeeper are offered and conducted by CCH INCORPORATED. TD Ameritrade is not responsible for the reliability or suitability of the information. TD Ameritrade and its information providers do not guarantee the accuracy of the information and data provided. CCH INCORPORATED is a separate company and is not affiliated with TD Ameritrade.

Margin and Options Account Agreements: Promptly advise TD Ameritrade in writing of any change in your investment objectives or financial situation as they pertain to your margin or options account agreements. Commission/Fee represents base commission and any options contract, exercise, and assignment fees.

Current Market Prices: The market values of securities have been obtained, if available, from quotation services and other independent sources. Values are based on the closing price, the mean between the bid and asking prices, or other methods. If no market value is available from a quotation service or other independent source, the security is subject to being reflected as Not Available ("NA"). The valuations on your portfolio report are provided as general information and we do not guarantee the accuracy of any securities prices. Mortgage backed positions are valued using the remaining balance and the current market price. Portfolio report valuations may not represent sales proceeds. The secondary market for Certificates of Deposits ("CDs") is generally illiquid and the actual value may be different from the purchase price. A significant loss of principal may result from the sale of a CD prior to maturity. Bonds and/or Fixed Income Securities trade differently than equity securities and do not trade on a liquid exchange. Rather, they trade in the OTC (over the counter) market and sufficient liquidity may not exist for you to sell your position prior to maturity. The sale of bonds prior to maturity may result in a loss of principal.

Alternative Investments ("AI"), also called Non Standard Assets ("NSA"), are typically investments in direct participation program securities (partnerships, limited liability companies, or real estate investment trusts), commodity pools, private equity, private debt or hedge funds. AI are typically illiquid investments and do not trade on a national securities exchange. The values shown for these investments are estimated values derived from various methods, including, but not limited to, unconfirmed management estimates, independent appraisals, the program's net assets, and/or third party tender offers that have been provided by the management, administrator, and/or sponsor of each program, or by a third-party vendor without independent verification by TD Ameritrade. Values may not reflect the original purchase price, actual market value or be realized upon liquidation. If an estimated value cannot be established through these methods, the valuation may be reflected as Not Available ("NA"). For additional detail regarding valuation for Alternative Investments, please contact Client Services. These investments are not covered under the SIPC. AI transaction fees are applicable to purchases, capital call processing, and redemptions.

∆ Distributions on Direct Participation Programs and/or REITs are reported and a net investment per share estimated value is also reported. Pricing and distribution information has been provided by the sponsor, issuer or other external party responsible for reporting of the DPP or REIT and the classification of distributions as income or return of capital, in whole or in part, is subject to final accounting by such party(ies) and will be reported to you on a Form 1099 or K-1, as applicable.

Auction Rate Securities ("ARS") Pricing: The market values for ARS securities have been obtained, if available, from quotation services or other independent sources. The accuracy of the pricing is not guaranteed. If a market value is not available, TD Ameritrade will price the ARS position, taking into consideration both the liquidity and underlying credit quality. The ARS may lack liquidity and, as a result, there can be no assurance that such securities can be sold under current market conditions.

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All transactions are subject to (i) the constitution, rules, regulations, customs and usages of the exchange or market, and its clearing house, if any, on which such transactions are executed; (ii) federal laws and state laws, and the rules and regulations promulgated thereunder; and the rules and regulations of FINRA and the Federal Reserve System.

For an investor brochure that includes information describing FINRA's Public Disclosure Program, please contact FINRA at 800-289-9999 or www.finra.org.

The interest rate shown for TD Ameritrade Cash is taken from the applicable interest rate tier for the Market Value balance in the TD Ameritrade Cash, as of the statement closing date. Simple interest is accrued daily based on the interest rate tier applicable to each day's balance.

Financial Statement Notification: The statement of financial condition for TD Ameritrade Clearing, Inc. is available twice a year and may be obtained at no cost, via the internet at http://www.tdameritrade.com/financialstatement.html.

Option Assignment: All short equity option positions and some index option positions are available for assignment. Exercise assignment notices for equity or index options are randomly allocated among all clients' short positions by an automated procedure.

Free Credit Balances (Rule 15c3-2 & 3): Under the client protection rules, we may use free credit balances in your account in the ordinary course of our business which are payable to you on demand.

Margin Accounts (Regulation T): If you have a margin account, this report is a combination of your margin account and a special memorandum account. Trading on margin poses additional risks and is not suitable for all investors. A complete list of the risks associated with margin trading is available in the margin risk disclosure document. You may obtain a copy of this document by contacting us at the number listed on page one of your statement.

Payment for Order Flow Disclosure (Rules 606 and 607): The firm receives compensation for directing listed and OTC securities, and options order flow to selected market centers (e.g., broker-dealers, exchanges and alternative trading systems (including electronic communications networks)) for execution. Compensation generally is in the form of a per share or per contract cash payment. TD Ameritrade also may receive compensation related to the foreign currency exchange component of transactions in foreign securities from market centers executing such trades. TD Ameritrade posts SEC Rule 606 quarterly reports that include order routing disclosures at www.tdameritrade.com. A written copy is available upon request. In addition, on request, TD Ameritrade will provide the identity of the venue to which your orders were routed for execution in the six months prior to the request, whether the orders were directed orders or non-directed orders, and the time of the transactions, if any, that resulted from such orders.

TD Ameritrade regularly assesses the execution quality provided by the market centers to which we route order flow in seeking best execution for our clients. For non-directed client orders, it is our policy to route orders to market centers based on a number of factors that are more fully discussed in the Supplemental Materials of FINRA Rule 5310, including where applicable, but not necessarily limited to, speed of execution, price improvement opportunities, differences in price disimprovement, likelihood of executions, the marketability of the order, size guarantees, service levels and support, the reliability of order handling systems, customer needs and expectations, transaction costs and whether the firm will receive remuneration for routing order flow to such market centers. Price improvement is available under certain market conditions and for certain order types and we regularly monitor executions to test for such improvement if available.

Trade Confirmations (Rule 10b-10): All confirmations are transmitted on the transaction date. If you participate in the Dividend Reinvestment Plan (DRIP) details regarding the reinvestment of dividends will be included on your monthly statements. TD Ameritrade will act as agent in having your DRIP purchases executed.

Taxes: Transactions in foreign securities (including foreign company ADRs that trade in the U.S.) may include taxes and fees charged by the foreign markets or governments, which may be reflected in the price of the security or charged as an independent line item.

Privacy Policy Notification: A copy of the TD Ameritrade privacy policy is available at www.tdameritrade.com

Callable Securities: The allocation of partial redemptions or calls is done using a pro-rata lottery system. A description of the procedures for callable securities is available on the website or hard copies are available upon request.

In case of errors or questions about your Electronic Fund Transfers, please contact us at 1-800-669-3900, or in writing to P.O. Box 2209, Omaha, NE 68103, or by email at clientservices@tdameritrade.com. The information contained in your account statement shall be binding upon you if you do not object within sixty (60) days for any transfer of funds subject to Regulation E, such as ATM and point-of-sale transfers, debit transactions, direct deposits, and withdrawals. We must hear from you no later than 60 days after we sent you the FIRST statement on which the error or problem appeared.

(1) Tell us your name and account number.
(2) Describe the error or the transfer you are unsure about, and explain as clearly as you can why you believe it is an error or why you need more information.
(3) Tell us the dollar amount of the suspected error.

We will investigate your complaint and will correct any error promptly. If we take more than 10 business days to do this, we will credit your account for the amount you think is in error, so that you will have the use of the money during the time it takes us to complete our investigation.

1Due to rounding adjustments, the statement details may not equal the statement totals.

Account xxxxxxx
Sample Client

MONTHLY STATEMENT

Reporting Period: **July 1 - 31, 2017**

ACCOUNT SUMMARY

Total Account Value: $14,522,787.19

YOUR INDEPENDENT ADVISOR

INR ADVISORY SVCS LLC
115 W STATE ST
STE 300
MEDIA PA 19063

For questions regarding the services provided by your Independent Advisor call
(610) 891-1677

Questions? - Contact us.
(800) 431-3500

TD Ameritrade Clearing, Inc., Member SIPC

CHANGE IN ACCOUNT VALUE

	This Month 7/1/17 - 7/31/17	Year to Date 1/1/17 - 7/31/17
BEGINNING VALUE	**$14,297,271.16**	**$16,239,965.97**
Deposits to Account	**44,859.80**	232,104.13
Dividends and Interest	**6,909.39**	148,324.17
Market Appreciation/(Depreciation)	**270,707.20**	1,342,594.65
Withdrawals from Account	**(89,811.72)**	(3,417,946.35)
Other Income or Expense	**(7,148.64)**	(22,255.38)
ENDING VALUE	**$14,522,787.19**	**$14,522,787.19**
CHANGE IN VALUE	**$225,516.03**	$(1,717,178.78)

Market Appreciation/ Depreciation
The change in value of investments due to the market assessment of their worth, which is separate from value added by corporate actions (such as the issuance of dividend or interest payments) and your own additions or withdrawals.

Other Income or Expense
Miscellaneous expenses including management fees, as well as TD Ameritrade fees (such as for wire transfer or returned checks) and/or miscellaneous income credited to the account such as a margin interest adjustment, royalties, etc.

SUMMARY OF HOLDINGS (does not represent an asset allocation)

	Market Value as of 7/31/17	Percent of Account
Cash and Cash Alternatives	$345,852.80	2.38%
Exchange Traded Funds (ETFs)	14,176,934.39	97.62
TOTAL VALUE	**$14,522,787.19**	**100.0%**

TD Ameritrade Institutional

MONTHLY STATEMENT

Reporting Period: **July 1 - 31, 2017**

HOLDINGS DETAIL

CASH AND CASH ALTERNATIVES

Investment Description	Quantity	Price	Market Value
FDIC INSURED DEPOSIT ACCOUNT IDA12 NOT COVERED BY SIPC	-	$ -	$345,852.80
TOTAL CASH & CASH ALTERNATIVES			**$345,852.80**

EXCHANGE TRADED FUNDS (ETFs)

Investment Description	Symbol/ CUSIP	Quantity	Closing Price	Market Value
ISHARES TIPS BOND ETF	TIP	2,758	$113.66	$313,474.28
VANGUARD TOTAL BOND MARKET ETF	BND	19,252	81.99	1,578,471.48
VANGUARD INTL BOND INDEX ETF	BNDX	5,755	54.40	313,072.00
VANGUARD INTL EQUITY INDEX	VEU	75,240	51.72	3,891,412.80
VANGUARD INTERMEDIATE TERM CORP BOND ET	VCIT	10,827	88.13	954,183.51
VANGUARD CRSP US MID CAP INDEX	VO	6,258	145.09	907,973.22
VANGUARD CRSP US LARGE CAP GROW IND ETF	VUG	20,520	130.27	2,673,140.40
VANGUARD CRSP US LARGE CAP VALUE IND ET	VTV	26,935	98.05	2,640,976.75

HOLDINGS DETAIL *(continued)*

EXCHANGE TRADED FUNDS (ETFs)

Investment Description	Symbol/ CUSIP	Quantity	Closing Price	Market Value
VANGUARD SMALL CAP ETF	VB	6,593	137.15	904,229.95
TOTAL EXCHANGE TRADED FUNDS (ETFs)				**$14,176,934.39**
	TOTAL EXCHANGE TRADED FUNDS- LONG POSITION			**14,176,934.39**

TOTAL HOLDINGS	**$14,522,787.19**
TOTAL ACCOUNT VALUE	**$14,522,787.19**

TRANSACTIONS DETAIL

Transaction Date	Settlement Date	Activity Type	Description	Symbol/ CUSIP	Quantity	Price	Transaction Amount
07/10	07/10	Dividends and Interest	ISHARES TIPS BOND ETF PAYABLE: 07/10/2017 ORDINARY DIVIDENDS 804.94	TIP	-	$ -	$804.94
07/10	07/10	Dividends and Interest	VANGUARD TOTAL BOND MARKET ETF PAYABLE: 07/10/2017 ORDINARY DIVIDENDS 3266.54	BND	-	-	3,266.54
07/10	07/10	Dividends and Interest	VANGUARD INTERMEDIATE TERM CORP BOND ET PAYABLE: 07/10/2017 ORDINARY DIVIDENDS 2533.52	VCIT	-	-	2,533.52

TRANSACTIONS DETAIL *(continued)*

Transaction Date	Settlement Date	Activity Type	Description	Symbol/ CUSIP	Quantity	Price	Transaction Amount
07/10	07/10	Dividends and Interest	VANGUARD INTL BOND INDEX ETF PAYABLE: 07/10/2017 ORDINARY DIVIDENDS 282.00	BNDX	-	-	282.00
07/10	07/10	Other Income or Expense	QUARTERLY MGMT FEE INR ADVISORY SVCS LLC 9130206661	-	-	-	(7,148.64)
07/24	07/24	Withdrawals from Account	ACH 017205007511733 TDA ACH ENTRY	-	-	-	(87,311.72)
07/25	07/25	Deposits to Account	CASH RECEIVED CHECK13745	-	-	-	44,859.80
07/28	07/28	Withdrawals from Account	CASH DISBURSEMENT CHK 13154796 INVOICE NO. 147922	-	-	-	(2,500.00)
07/31	07/31	Dividends and Interest	FDIC INSURED DEPOSIT ACCOUNT IDA12 NOT COVERED BY SIPC ON 22.39 SHARES INTEREST: INSURED DEPOSIT ACCOUNT BANK USA PAYABLE: 07/31/2017 INSURED DEPOSIT ACCOUNT INTEREST 22.39	MMDA12	22.39	-	22.39

TD AMERITRADE CASH INTEREST CREDIT/EXPENSE

Begin Date	Margin Balance	Credit Balance	Number of Days	Interest Rate	Interest Debited	Interest Credited
07/25	$-	$44,859.80	1	0.0500	-	$ -
TOTAL INTEREST INCOME/(EXPENSE)					**-**	**-**

Questions? Consult your Independent Advisor:
INR ADVISORY SVCS LLC (610) 891-1677

TD Ameritrade Institutional

INSURED DEPOSIT ACCOUNT TD AMERITRADE INTEREST CREDIT/EXPENSE

Begin Date	Balance	Number of Days	Interest Rate	Interest Accrued	MTD Accrued	MTD Paid
07/01	$391,043.97	9	0.0700	$6.75	$6.75	$ -
07/10	390,782.33	14	0.0700	10.48	17.23	-
07/24	303,470.61	2	0.0700	1.17	18.40	-
07/26	348,330.41	2	0.0700	1.33	19.73	-
07/28	345,830.41	4	0.0700	2.66	22.39	22.39
TOTAL INTEREST INCOME						**$22.39**

INSURED DEPOSIT ACCOUNT ACTIVITY

Transaction Date	Settlement Date	Transaction	Description	Amount	Balance
Opening Balance					**$391,043.97**
07/10	07/10	Received	FDIC INSURED DEPOSIT ACCOUNT IDA12 NOT COVERED BY SIPC PURCHASE FDIC INSURED DEPOSIT ACCOUNT	$6,887.00	397,930.97
07/11	07/11	Delivered	FDIC INSURED DEPOSIT ACCOUNT IDA12 NOT COVERED BY SIPC REDEMPTION FDIC INSURED DEPOSIT ACCOUNT	(7,148.64)	390,782.33
07/25	07/25	Delivered	FDIC INSURED DEPOSIT ACCOUNT IDA12 NOT COVERED BY SIPC REDEMPTION FDIC INSURED DEPOSIT ACCOUNT	(87,311.72)	303,470.61
07/26	07/26	Received	FDIC INSURED DEPOSIT ACCOUNT IDA12 NOT COVERED BY SIPC PURCHASE FDIC INSURED DEPOSIT ACCOUNT	44,859.80	348,330.41
07/31	07/31	Delivered	FDIC INSURED DEPOSIT ACCOUNT IDA12 NOT COVERED BY SIPC REDEMPTION FDIC INSURED DEPOSIT ACCOUNT	(2,500.00)	345,830.41
07/31	07/31	Received	INTEREST: INSURED DEPOSIT ACCOUNT BANK USA	7.68	345,838.09
07/31	07/31	Received	INTEREST: INSURED DEPOSIT ACCOUNT BANK NA	14.71	345,852.80
Closing Balance					**$345,852.80**
TD Bank NA				**$247,500.00**	
TD Bank USA NA				**$98,352.80**	

FDIC Insured Deposit Account (IDA) *balances reflected in your brokerage account are FDIC-insured up to applicable limits and held by TD Bank, N.A., or TD Bank USA, N.A., or both. The IDA balances are not covered by the Securities Investor Protection Corporation (SIPC) protection applicable to your brokerage account.*

****** THANK YOU FOR CHOOSING TD AMERITRADE INSTITUTIONAL - END OF STATEMENT ******

Fabricon, Inc. 401(k) Plan

Plan Id: ASD

Your Total Portfolio Value: **$89,108.90**

Les M Paul
1952 Telecaster Ave
1952 Telecaster Ave
ST. Louis, MO 63017

Your Account Statement for January 1, 2017 - June 30, 2017

	Period	Year to Date
Opening Balance	**$84,257.34**	**$84,257.34**
Contributions		
Employee	$250.00	$250.00
Employer	$75.00	$75.00
Total Contributions	**$325.00**	**$325.00**
Withdrawals	$0.00	$0.00
Loans	$0.00	$0.00
Fees	$0.00	$0.00
Investment Results	$4,526.56	$4,526.56
Closing Balance	**$89,108.90**	**$89,108.90**
Your Total Vested Value	**$89,108.90**	
Your Total Outstanding Loan Balance	**$0.00**	
Loan Payments	$0.00	$0.00
Fund Transfers	$0.00	$0.00

Website Information

Log-in to your account at https://investlink.aspireonline.com. Your default user name is your account ID number, and your default password is the last four digits of your Social Security number. You will be prompted to change your password upon first login.

Contact Information

Questions or assistance, please contact a specialist at 866-634-5873 or info@aspireonline.com.

Message Board

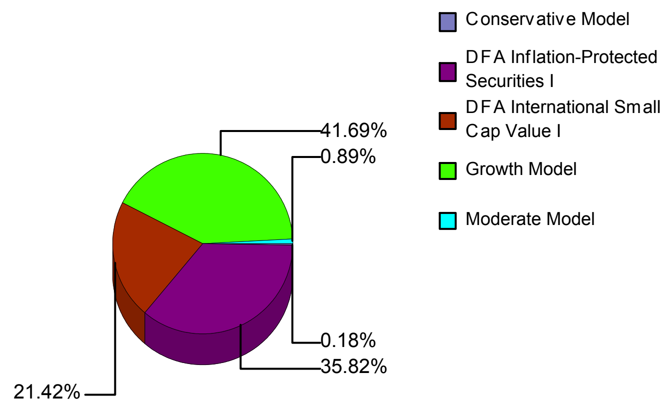
Ttransaction detail information is available on the website. After signing in with your ID and PIN, click on Services on the top menu, and scroll down to Transaction History.

Your Portfolio Allocation

Current Investment Elections

Money Type	Percent
All Sources	
Conservative Model	100.00%

Current Savings Allocation

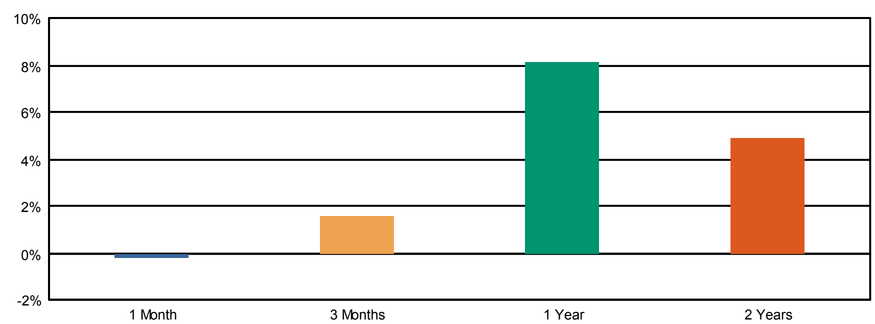


Model Fund Description	Total Units	Unit Price	Closing Balance	Percent of Current Holdings
Conservative Model			**$161.23**	**0.18%**
DFA Emerging Markets Core Equity I	0.253	20.540000	$5.19	0.01%
DFA Global Real Estate Securities Port	0.265	10.790000	$2.86	0.00%
DFA Inflation-Protected Securities I	1.699	11.690000	$19.86	0.02%
DFA International Small Cap Value I	0.164	21.730000	$3.56	0.00%
DFA International Small Company I	0.175	19.980000	$3.50	0.00%
DFA International Value III	0.350	15.400000	$5.39	0.01%
DFA US Large Cap Value III	0.535	25.850000	$13.83	0.02%
DFA US Micro Cap I	0.166	21.160000	$3.51	0.00%
PIMCO CommoditiesPLUS® Strategy Instl	1.321	5.640000	$7.45	0.01%
PIMCO Foreign Bond (USD-Hedged) I	1.646	10.520000	$17.32	0.02%
Vanguard 500 Index Admiral	0.077	223.750000	$17.23	0.02%
Vanguard Developed Markets Idx Admiral	0.261	13.260000	$3.46	0.00%
Vanguard Short-Term Bond Index Adm	2.684	10.460000	$28.08	0.03%
Vanguard Small Cap Value Index Admiral	0.132	52.840000	$6.98	0.01%
Vanguard Total Bond Market Index Adm	2.137	10.770000	$23.01	0.03%
DFA Inflation-Protected Securities I	2,730.771	11.690000	$31,922.70	35.82%
DFA International Small Cap Value I	878.345	21.730000	$19,086.45	21.42%
Growth Model			**$37,147.64**	**41.69%**
DFA Emerging Markets Core Equity I	135.729	20.540000	$2,787.87	3.13%
DFA Global Real Estate Securities Port	89.198	10.790000	$962.44	1.08%
DFA Inflation-Protected Securities I	109.232	11.690000	$1,276.92	1.43%
DFA International Small Cap Value I	87.832	21.730000	$1,908.59	2.14%
DFA International Small Company I	75.391	19.980000	$1,506.32	1.69%
DFA International Value III	124.652	15.400000	$1,919.64	2.15%
DFA US Large Cap Value III	268.639	25.850000	$6,944.32	7.79%
DFA US Micro Cap I	73.931	21.160000	$1,564.37	1.76%
PIMCO CommoditiesPLUS® Strategy Instl	242.733	5.640000	$1,369.02	1.54%
PIMCO Foreign Bond (USD-Hedged) I	96.183	10.520000	$1,011.85	1.14%
Vanguard 500 Index Admiral	37.651	223.750000	$8,424.42	9.45%

Model Fund Description	Total Units	Unit Price	Closing Balance	Percent of Current Holdings
Vanguard Developed Markets Idx Admiral	112.266	13.260000	$1,488.65	1.67%
Vanguard Short-Term Bond Index Adm	154.371	10.460000	$1,614.72	1.81%
Vanguard Small Cap Value Index Admiral	52.163	52.840000	$2,756.29	3.09%
Vanguard Total Bond Market Index Adm	149.696	10.770000	$1,612.22	1.81%
Moderate Model			**$790.88**	**0.89%**
DFA Emerging Markets Core Equity I	2.064	20.540000	$42.39	0.05%
DFA Global Real Estate Securities Port	1.348	10.790000	$14.54	0.02%
DFA Inflation-Protected Securities I	5.577	11.690000	$65.20	0.07%
DFA International Small Cap Value I	1.156	21.730000	$25.11	0.03%
DFA International Small Company I	1.248	19.980000	$24.93	0.03%
DFA International Value III	2.142	15.400000	$32.98	0.04%
DFA US Large Cap Value III	4.132	25.850000	$106.82	0.12%
DFA US Micro Cap I	1.178	21.160000	$24.92	0.03%
PIMCO CommoditiesPLUS® Strategy Instl	6.207	5.640000	$35.01	0.04%
PIMCO Foreign Bond (USD-Hedged) I	4.254	10.520000	$44.75	0.05%
Vanguard 500 Index Admiral	0.590	223.750000	$132.02	0.15%
Vanguard Developed Markets Idx Admiral	1.833	13.260000	$24.31	0.03%
Vanguard Short-Term Bond Index Adm	8.269	10.460000	$86.50	0.10%
Vanguard Small Cap Value Index Admiral	0.936	52.840000	$49.45	0.06%
Vanguard Total Bond Market Index Adm	7.610	10.770000	$81.95	0.09%
Total:			**$89,108.90**	**100.00%**

Your Personal Rate of Return

Period	Pror
1 Month	-0.22%
3 Months	1.62%
1 Year	8.19%
2 Years	4.92%



Your Vesting Summary

You are always 100% vested in your own contributions

Source	Current Balance	Current Vested Percent	Current Vested Value
Employee Deferral	$75,629.89	100.00%	$75,629.89
Employee Roth	$224.28	100.00%	$224.28
Employer Match	$793.71	100.00%	$793.71
Employer Profit Sharing	$12,461.02	100.00%	$12,461.02
Total:	**$89,108.90**		**$89,108.90**

Your Investment Activity

Investment Fund	Opening Balance	Contributions	Loan Payments	Withdrawals & Loans	Investment Results	Closing Balance	Vested Balance	Fees
DFA Emerging Markets Core Equity I	$2,382.44	$16.25	$0.00	$0.00	$436.76	$2,835.45	$2,835.45	$0.00
DFA Global Real Estate Securities Port	$938.13	$6.50	$0.00	$0.00	$35.21	$979.84	$979.84	$0.00
DFA Inflation-Protected Securities I	$33,227.41	$29.25	$0.00	$0.00	$28.02	$33,284.68	$33,284.69	$0.00
DFA International Small Cap Value I	$18,393.00	$9.75	$0.00	$0.00	$2,620.96	$21,023.71	$21,023.71	$0.00
DFA International Small Company I	$1,317.88	$9.75	$0.00	$0.00	$207.12	$1,534.75	$1,534.75	$0.00
DFA International Value III	$1,794.59	$13.00	$0.00	$0.00	$150.42	$1,958.01	$1,958.01	$0.00
DFA US Large Cap Value III	$6,699.04	$42.25	$0.00	$0.00	$323.68	$7,064.97	$7,064.97	$0.00
DFA US Micro Cap I	$1,562.88	$9.75	$0.00	$0.00	$20.17	$1,592.80	$1,592.80	$0.00
PIMCO CommoditiesPLUS® Strategy Instl	$1,594.45	$16.25	$0.00	$0.00	-$199.22	$1,411.48	$1,411.48	$0.00
PIMCO Foreign Bond (USD-Hedged) I	$1,048.41	$19.50	$0.00	$0.00	$6.01	$1,073.92	$1,073.92	$0.00
Vanguard 500 Index Admiral	$7,866.80	$52.00	$0.00	$0.00	$654.87	$8,573.67	$8,573.66	$0.00
Vanguard Developed Markets Idx Admiral	$1,333.74	$9.75	$0.00	$0.00	$172.93	$1,516.42	$1,516.42	$0.00
Vanguard Short-Term Bond Index Adm	$1,688.69	$35.75	$0.00	$0.00	$4.86	$1,729.30	$1,729.30	$0.00
Vanguard Small Cap Value Index Admiral	$2,747.34	$19.50	$0.00	$0.00	$45.88	$2,812.72	$2,812.72	$0.00
Vanguard Total Bond Market Index Adm	$1,662.54	$35.75	$0.00	$0.00	$18.89	$1,717.18	$1,717.18	$0.00
Totals:	**$84,257.34**	**$325.00**	**$0.00**	**$0.00**	**$4,526.56**	**$89,108.90**	**$89,108.90**	**$0.00**

Your Source Summary

Source	Opening Balance	Contributions	Withdrawals	Loans	Fund Transfers	Investment Results	Closing Balance	Fees
Employee Deferral	$71,534.54	$250.00	$0.00	$0.00	$0.00	$3,845.35	$75,629.89	$0.00
Employee Roth	$213.37	$0.00	$0.00	$0.00	$0.00	$10.91	$224.28	$0.00
Employer Match	$684.77	$75.00	$0.00	$0.00	$0.00	$33.94	$793.71	$0.00
Employer Profit Sharing	$11,824.66	$0.00	$0.00	$0.00	$0.00	$636.36	$12,461.02	$0.00
Totals:	**$84,257.34**	**$325.00**	**$0.00**	**$0.00**	**$0.00**	**$4,526.56**	**$89,108.90**	**$0.00**

Fee Disclosure

Section 404(a)(5) of the Employee Retirement Income Security Act of 1974, as amended (ERISA) and Department of Labor regulations require that certain plan and investment-related information be provided to you because you have an account balance in the Plan or you are eligible to participate. The information provided is based on the latest information available to the plan.

To assist with meeting these disclosure requirements, the following information must be provided to you:

* Fees actually charged to your account,
* Fees charged by the designated investments,
* Fees the plan charges for administrative and individual services, and
* Investment Performance of the designated investment alternatives offered under the plan and their corresponding benchmark indices.

Some (or all) of the plan’s administrative expenses may be paid from the total annual operating expenses of one or more of the plan’s designated investments (e.g. through revenue sharing). Additional investment information, including more current investment performance may be available through the listed funds' web addresses. Please review the Fee Disclosure information carefully and keep it in mind when managing or monitoring any funds you may have in the Plan .

Fee and expense information is only one of several factors that should be considered when making investment decisions.

Fees and expenses are only one of several factors that participants and beneficiaries should consider when making investment decisions. The cumulative effect of fees and expenses can substantially reduce the growth of a retirement account. Additional information may be found at the Department of Labor's website, www.dol.gov. This information may also be made available through the participant website. Paper copies are available upon request by contacting your Plan administrator,

Your Transaction Summary

Date	Transaction Type	Amount
05/01/2017	Contributions	$250.00
05/01/2017	Contributions	$75.00

Fee Disclosure Notes

Notes and FAQs

The plan pays outside service providers for plan administrative services, such as legal, accounting and recordkeeping services, unless the plan sponsor elects, at its own discretion, to pay some or all of the plan administrative expenses. The cost for these services fluctuates each year based on a variety of factors. To the extent these expenses are not charged against forfeitures or paid by the employer, or reimbursed by a third party, the plan charges these expenses pro rata (i.e., based on the relative size of each account), at a flat rate per participant or based on asset size against participants' accounts.

An annual recordkeeping fee of .04% of the account balance will be charged to each individual plan account. This fee will be charged on a quarterly basis . Each quarter, an amount equal to .01% of the account's ending balance for the quarter will be deducted from your individual account.

However, these expenses may be paid, in whole or in part, from revenue sharing payments that the plan receives from plan investment options. If revenue sharing payments are received, the plan will pay less than the stated fees from participant accounts, and only those expenses not offset by revenue sharing will be deducted from your account.

The actual amount charged in any quarter will be disclosed on your quarterly participant statement.

A glossary of terms to assist you in understanding your retirement plan's investment options can be found at www.investmentterms.com.

Investment Performance Summary

**** Indicates Index/Benchmark Performance***

Investment Name	Ticker	YTD	Last 3 Months	1 Year	3 Year	5 Year	10 Year	Since Inception
	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
***	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*

IMPORTANT NOTICE - Investment Principles: To help achieve long-term retirement security, you should give careful consideration to the benefits of a well balanced and diversified investment portfolio. Spreading your assets among different types of investments can help you achieve a favorable rate of return, while minimizing your overall risk of losing money. This is because market or other economic conditions that cause one category of assets, or one particular security, to perform very well often cause another asset category, or another particular security, to perform poorly. If you invest more than 20% of your retirement savings in any one company or industry, your savings may not be properly diversified. Although diversification is not a guarantee against loss, it is an effective strategy to help you manage investment risk. In deciding how to invest your retirement savings, you should take into account all of your assets, including any retirement savings outside of the Plan. No single approach is right for everyone because, among other factors, individuals have different financial goals, different time horizons for meeting their goals, and different tolerances for risk. It is also important to periodically review your investment portfolio, your investment objectives, and the investment options under the Plan to help ensure that your retirement savings will meet your retirement goals. For information on individual investing and diversification, you are encouraged to visit the U.S. Dept. of Labor's website on these topics at http://www.dol.gov/ebsa/investing.html.
Mutual funds are not bank deposits or obligations, are not guaranteed by any bank, and are not insured or guaranteed by the FDIC, the Federal Reserve Board, or any other government agency. Investment in mutual funds involves risk, including loss of principal. Performance quoted is past performance and is not indicative of future results. Performance information is taken from sources believed to be reliable, but is not guaranteed as to completeness or accuracy.

S & P 500 Index is designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries. The S & P 500 Index serves as a benchmark for U.S. Large Company Equities.

Russell 2000 Index measures the performance of the 2,000 smallest companies in the Russell 3000 Index, which represents approximately 8% of the total market capitalization of the Russell 3000 Index. The Russell 2000 Index serves as a benchmark for U.S. Small Company Equities.

MSCI EAFE© Index is a capitalization-weighted index of stocks representing the markets of 21 countries in the developed world outside of North America. The MSCI EAFE© index serves as a benchmark for International Equities.

Russell Midcap Index measures the smallest 800 securities in the Russell 1000. The average Russell Midcap Index member has a market cap of $8 billion to $10 billion, with a median value of $4 billion to $5 billion.

Barclays Aggregate Bond is designed to measure performance of the USD-denominated, investment-grade, fixed-rate, taxable bond market of SECregistered securities. The index includes bonds from the Treasury, Government-Related, Corporate, MBS (agency fixed-rate and hybrid ARM pass-throughs), ABS, and CMBS sectors.

Accuracy of Account Disclosure: Please review this statement carefully. Please contact your plan administrator immediately if you discover any discrepancies or errors. Corrections will be made only for errors which you communicate within 90 days of the last calendar quarter. After this 90 day period, account information shall be deemed accurate and acceptable to you.

CERTIFIED 3(38) MANAGER

CBIZ Investment Advisory Services, LLC.,

dba CBIZ InR

JUNE 13, 2018

CREDENTIAL DOCUMENT

DALBAR

Contents

Opinion Letter

June 13, 2018

To Whom it May Concern:

We have evaluated the qualification, capabilities and services provided by Michael B. Glackin of CBIZ Investment Advisory Services, LLC., dba CBIZ InR (hereinafter referred to as “CBIZ InR”) to determine if they meet the requirements of the Employee Retirement Income Security Act of 1974, as amended [“ERISA”] Section 3(38) that permits qualified investment managers to be appointed as fiduciaries to manage assets of ERISA plans.

Based on evaluations concluded on June 11, 2018 it is our opinion that, services provided **do** meet the standards of ERISA § 3(38).

Evaluations consist of:

- Background checks of all key personnel
- Potential conflicts of interest
- Reasonableness of arrangements and contracts
- Scope of work performed
- Adequacy of insurance protection
- Investment track record
- Use of Generally Accepted Investment Theory

These evaluations revealed no noteworthy concerns. Detailed findings from our evaluations are included in the report that accompanies this letter.

Client evaluation indicated Excellent performance in Trust, Financial Performance, Quality of Advice and Quality of Service.

Our opinion regarding the manager and his services is based on information provided by CBIZ InR and confirmed through public sources where feasible. Any material change or discrepancy in this information could change our opinion.

Very truly yours,

DALBAR, Inc.

CBIZ InR Fact Sheet

The Manager	Client Ratings	Affiliations
Number of Advisers: 5	Trust Excellent Financial Performance Excellent Advice Quality Excellent Service Quality Excellent	**Affiliated Firm:** CBIZ
Primary Revenue Source: RIA Fees		**Primary Business of Firm:** Pension and Retirement Plan Consulting and Advisory Services
Total Assets Managed/ Supervised by Team: $1.05 Billion		**Broker/Dealer Name:** None
Retail Clients Served: **Number:** 725 **Assets:** $117 Million		**Provider Affiliations:** None
Institutional Clients: **Number:** 186 **Assets:** $933 Million	**Notes:** None	**Other Disclosure:** None
Other Information		
Geographic Coverage: DE, NJ, PA, FL, TX	**Liability Insurance:** $2,000,000	**Previous Audit Date:** June 29, 2016
Web Site: www.inradvisors.com	**Phone:** 610-891-1677	**e-mail contact:** mglackin@cbiz.com

The 3(38) Manager(s)	
Adviser Name: Michael B. Glackin	**Experience as Adviser:** 25 Years
Academics, Credentials & License(s): CFP®, AIF®	**Background Check:** Clear
Phone/email: 610-891-1677/ mglackin@cbiz.com	**Adviser Age/Gender:** 50 Years/Male

Noteworthy Observations

CBIZ InR has been highly effective in the most important measure of an investment manager… delivering for clients:

CBIZ InR has delivered… by unambiguously taking fiduciary responsibility for the advice given to clients and for the clients’ assets it manages.

CBIZ InR has delivered… by earning the trust of its clients as evidenced by an Excellent rating in this, the most challenging rating category.

CBIZ InR has delivered… by earning Excellent ratings from its clients in the three major categories of financial performance, advice quality and quality of service.

Prudent Choice Table

Federal regulations and common sense require that responsible plan fiduciaries make a prudent choice of the providers that are used by ERISA plans. In order to facilitate the prudent choice, DALBAR has examined ***CBIZ InR*** and rated the prudence of using it. The following table summarizes DALBAR's findings regarding the prudence of using the ***CBIZ InR*** for an ERISA plan.

Prudence Criteria	DALBAR Prudence Rating	Primary Basis for Prudence Rating
Benefit to Employees	Excellent	Excellent investment track record. Comprehensive scope of services offered.
Cost Effectiveness	Excellent	The range of fees are consistent with industry practices of low cost providers.
Specific ERISA Requirements	Excellent	Formal declaration of fiduciary responsibility, adequate insurance protection, clean regulatory record.
Good Business Practices	Excellent	Provider is a knowledgeable expert. High client ratings in quality of advice and service.
Avoidance of Litigation	Excellent	Formal declaration of fiduciary responsibility. Reasonable, arms-length arrangements.

Asset Allocator Rating

The Asset Allocator Rating summarizes the three major criteria used for this evaluation. The rating consists of three elements, Investment Quality, Allocator Methodology and Investor Outcome. Each element may be one of four letter grades or an "∗" if no rating is available:

The DALBAR Asset Allocator Rating as of 6/11/2018 for: **CBIZ InR**

A

Investment Quality

This grade reflects the findings that:

- ✓ **Underlying investments consist of a broad array of passive investments**
- ✓ **Asset allocations are made from low cost index investment**

A

Allocator Methodology

This grade reflects the findings that:

- ✓ **Modern portfolio theory is the strategy used**
- ✓ **Allocator is an acknowledged fiduciary**

A

Investor Outcome

This grade reflects the findings that:

- ✓ **Direct assessment by investors yielded "Excellent" ratings for:**
  - **Trust**
  - **Financial Performance**
  - **Quality of Advice**
  - **Quality of Service**

Explanation of Rating

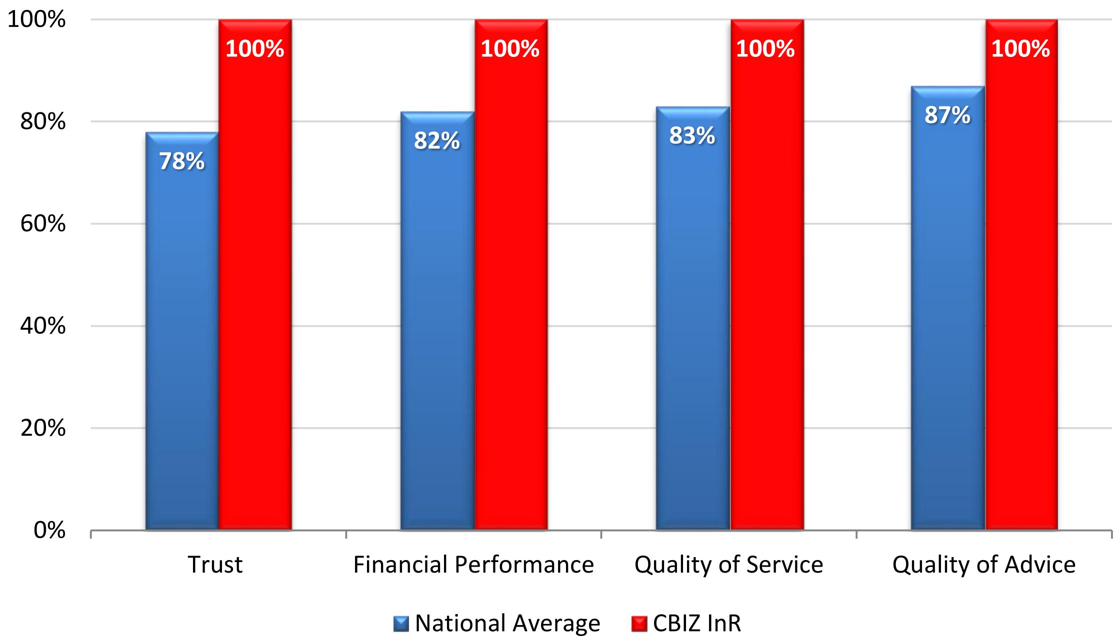
Investment Quality- This rating is a composite of the underlying investments used in this Asset Allocator's strategy. The rating includes the investment performance, volatility, fees and expenses.

Allocator Methodology - This rating shows the thoroughness of the allocation process, fiduciary role, experience and qualifications of the allocator and resolution of potential conflicts of interests (if any).

Investor Outcome - This rating measures the effectiveness of the Asset Allocation strategy. It is derived from any of three possible sources: (1) DALBAR tests of an Asset Allocator model, (2) Investor retention after three years, (3) Direct assessment by investors.

Client Rating Recap

To qualify for certification, managers must exceed benchmarks in the areas of trust, financial performance, quality of services, and quality of advice. The following graph represents the national averages of favorable responses.



About DALBAR Ratings

- DALBAR Certifications are issued to financial professionals and firms who have:
  - at least five years of experience,
  - a clear regulatory record,
  - knowledge appropriate for services offered, and
  - exceed national benchmarks in Trust, Financial Performance, Satisfaction with Services, and Quality of Advice.
- DALBAR Ratings are not representative of any one client's experience and are not indicative of future performance. Additional information concerning these ratings is available from CBIZ InR.
- This information must accompany the publication of DALBAR Ratings in accordance with guidelines issued by the United States Securities and Exchange Commission (SEC).
- Professionals pay DALBAR a uniform fee for conducting the due diligence process. These ratings are part of a group of 2,545 professionals and firms tested.
- DALBAR is not related to CBIZ InR or its affiliates and has the appropriate technical training and experience to objectively certify, monitor and audit investment managers.

Investment Management Services		ERISA Related Services	
Define the client’s investment-related goals and objectives	✓	Conduct an initial fiduciary assessment	✓
Prepare and maintain the client’s Investment Policy Statement (“IPS”)	✓	Oversee plan administration activities	✓
Identify asset classes appropriate for client’s portfolios	✓	Support for DOL and IRS audits	✓
Conduct due diligence for plan investment options	✓	Design rules for assigning participants to QDIAs	✓
Choose investments and create portfolios according to the terms of the IPS	✓	Place participants in appropriate investments	✓
Develop and maintain model portfolios	✓	Assist participants in selecting investments	✓
Construct QDIA investment alternatives	✓	Control and account for the plan’s investment expenses	✓
Monitor investment options and prepare periodic investment reports	✓	Periodically report investment decisions made to plan sponsor and Named Fiduciary	✓
Periodically report fiduciary decisions made to plan sponsor and Named Fiduciary	✓	Select, hire and monitor other service providers	✓
Other:		Review plan’s success in meeting participants needs and retirement goals and make recommendations for changes	✓

Fee Structure

Usual fees charged for services:

CBIZ InR may provide discretionary investment advisory services on a fee basis. CBIZ InR's annual investment advisory fee shall vary from **0.20% up to 0.75%** of the total assets placed under CBIZ InR's management/advisement and shall be based upon various objective and subjective factors. These factors include, but are not limited to, the amount of the assets placed under CBIZ InR's management, the level and scope of the overall investment advisory services to be rendered and the complexity of the engagement.

Contractual arrangements that could result in direct or indirect compensation to manager or affiliates on the basis of investment decisions if clients take actions on the basis of advice given:

None.

Sources of compensation and percentage from each source:

	Source	Percentage
1	RIA Fees	100%

Other factors or suggestions from others that could improperly influence investment decisions or the advice given to clients:

None.

ERISA 3(38) Manager Disclosures

Acceptance of Fiduciary Responsibility:

CBIZ InR understands and agrees to act as a fiduciary and accept the responsibility for the investment decisions made and advice provided to retirement plans and employees that elect to use its services. As a fiduciary, CBIZ InR will act in the best interest of these employees and their beneficiaries.

The investment decisions made and advice provided will be based on CBIZ InR's best judgment of what a prudent person would do under the same circumstances. As a fiduciary CBIZ InR is not responsible for financial results that are achieved or not achieved, provided that it can be demonstrated that a prudent process was used to arrive at the investment decisions made and advice provided.

As a fiduciary, CBIZ InR will make investment decisions and provide advice that is consistent with the principles of diversification so as to minimize the risk of large losses, unless under the circumstances it is shown to be imprudent to diversify.

The investment decisions made and advice provided as a fiduciary will be in accordance with the documents or other instruments governing the plan and consistent with ERISA.

Plan Provider Affiliation:

CBIZ InR has reported that there is no affiliation with product providers.

Privacy Policy:

Michael B. Glackin, as an employee of CBIZ InR is required to maintain all personal information about any client in the strictest confidence.

Information about any employee of a client of CBIZ InR is disclosed only for the purposes of conducting due diligence and audits required by regulations.

Statement of Participant Rights:

The recipient of advice from CBIZ InR may separately arrange for the provision of advice by another adviser that could have no material affiliation with and receive no fees or other compensation in connection with this plan.

Additional Disclosures:

None.

Understanding DALBAR 3(38) Certification

What is the DALBAR 3(38) Certification?

The DALBAR 3(38) Certification Program provides investment managers with a powerful combination of sales tool and compliance disclosures to satisfy the requirements of ERISA section 3(38). The DALBAR 3(38) Certification Credentials includes:

- An independent opinion of the investment manager's capability to serve as an ERISA 3(38) manager,
- A DALBAR three letter Asset Allocator Rating that encompasses Investment Quality, Allocation Methodology and Investor Outcomes,
- An authorized testimonial from existing clients,
- Specific services offered by the manager and
- Material disclosures.

The certified 3(38) manager uses these Credentials to promote its services and to give comfort to existing and prospective clients that the manager has been independently examined and found to be qualified and to have the written obligation to act in client's best interest.

ERISA Fiduciaries use the manager's Credentials to comply with regulations that require fiduciaries to prudently select and monitor all investment managers they engage. Instead of conducting their own investigation, ERISA Fiduciaries can rely on the manager's Credentials which have been independently prepared by a recognized expert.

The Certification process and disclosures are compliant with regulations and guidelines from the Securities and Exchange Commission ("SEC") and Department of Labor ("DoL").

The certification process is entirely voluntary but provides support if/when the manager is challenged by regulators, auditors, by litigation or arbitration.

About DALBAR, Inc.

DALBAR, Inc. is the financial community's leading independent expert for evaluating, auditing and rating business practices, customer performance, product quality and service.

Launched in 1976, DALBAR has earned the recognition for consistent and unbiased evaluations of investment companies, registered investment advisers, insurance companies, broker/dealers, retirement plan providers and financial professionals. DALBAR awards are recognized as marks of excellence in the financial community.

Goals of Certification

Increase Employee Benefit

Retirement plans were created and adopted by employers as employee benefits. As such these plans can be seen as an income supplement for workers that also has some tax preferences. Employers should understand the value that is derived as an employee benefit and the first priority should be to maximize the return on the employers' retirement plan investment.

The first goal of 3(38) Certification is to assess the value of an investment manager as an employee benefit. Considerations include investment returns and the expenses as well as intangibles such as the value perceived by employees.

Cost Saving

Investment services can raise or lower the direct and indirect cost of offering the retirement plan. Complex and confusing communication about the investment and the failure to provide clear answers to employee inquiries add to employer costs. On the other hand, an effective phone center and Website that supports the investment can save employee time and reduce employer costs.

The second goal of 3(38) Certification is to determine the extent to which an investment raises or lowers the direct or indirect cost of offering a plan.

Required by ERISA

ERISA regulations add to the cost of offering a retirement plan but failure to comply can be considerably more expensive.

The third goal of 3(38) Certification is to assess the degree to which the investment manager supports compliance with ERISA regulations.

Good Practice

Good practice describes the steps that would normally be used in selecting a vendor or hiring an employee. These steps are performed independent of regulatory requirements.

The fourth goal of 3(38) Certification is to use good practices as part of the process of evaluating the investment manager.

Avoid Litigation

Litigation is not only costly it is also damaging to a firm's reputation.

The fifth goal of 3(38) Certification is to examine the investment for presence of indicators that make the parties involved more or less vulnerable to law suits.

Vetting Standards Used

DALBAR has vetted **CBIZ InR** to determine if prudent standards for ERISA 3(38) managers have been met. The areas of evaluation and the reasons for each item are listed in the following table:

Done	Vetted Item	Reason for Vetting				
		Increase Benefit	Cost Saving	Required by ERISA	Good Practice	Avoid Litigation
✓	Background checks				X	X
✓	Validation of knowledge/expertise			X	X	X
✓	Willingness to formally declare fiduciary responsibility.	X	X	X	X	
✓	Client evaluation of trust, financial performance, quality of advice and quality of service	X			X	X
✓	Scope of work performed	X		X	X	
✓	Regulatory compliance across multiple regulators			X	X	X
✓	Reasonableness of arrangements and contracts	X	X	X	X	X
✓	Avoidance of self-dealing, potential conflicts of interest and other improper influence	X		X	X	X
✓	Adequacy of insurance protection			X	X	
✓	Completeness, clarity, accuracy and usefulness of communication	X		X	X	X
✓	Practices, processes and controls			X	X	X
✓	Costs, Fees & expenses		X	X	X	X
✓	Use of generally accepted investment theory			X		X
✓	Investment track record			X		X

About ERISA §3(38)

The Plan Fiduciary Advantage

It is expected that growing numbers of ERISA Fiduciaries will elect to use 3(38) managers so as to transfer the responsibility of selecting and monitoring plan designated investments and the associated liability to ERISA 3(38) professionals.

- As employers become more concerned about their personal liability for losses in their employees' 401(k) plan, there will be increased interest in outsourcing the fiduciary risk to ERISA 3(38) managers. When an employer uses a 3(38) manager properly, any liability for investment losses is transferred from the employer to the 3(38) manager.

There are two "catches" to properly using a 3(38) manager:

- First is that the ERISA Fiduciary may lose some control of the investments that go into the plan, this is often the duty of the 3(38) manager.
- Second is that the ERISA Fiduciary must use a prudent process to select the 3(38) manager.

The loss of control means that employee objections and preferences can be made as suggestions to the 3(38) manager and the employer may be powerless to make changes (other than terminating the 3(38) manager and assuming any liability for losses).

The prudent process of selection is aided by the DALBAR ERISA 3(38) Manager Due Diligence. DALBAR conducts the necessary steps and documents the process so that each ERISA Fiduciary can rely on the DALBAR process to meet its obligation.

The Investment Manager Advantage

Investment managers that support ERISA Fiduciaries to prudently handle the trillions of dollars in ERISA plans may do so in any one of three capacities… by offering investments (mutual fund, etc.) as a registered representative… by advising the ERISA Fiduciary or participants as a 3(21) advisor… as a 3(38) manager.

The typical 3(38) manager has several advantages over the alternatives, such as:

- Providing discretionary investment management for plans and/or participants
- The use of investment models and pre-constructed portfolios as plan designated investments
- Relieving ERISA Fiduciary of a large portion of its liability
- Permit investment offering (models or managed accounts) to be used as a QDIA
- May use mutual funds and ETFs but are not burdened by the requirements of registered investment companies

These advantages are amplified by the DALBAR 3(38) Certification.

Requirements

Section 3(38)(B) of the Employee Retirement Income Security Act of 1974 (ERISA) imposes certain registration requirements on an investment adviser that wishes to be considered an investment manager under ERISA. Section 3(38) of ERISA defines "investment manager" as any fiduciary (other than a trustee or named fiduciary)

(A) who has the power to manage, acquire, or dispose of any plan asset;
(B) who is
(i) a registered investment adviser under the Investment Advisers Act of 1940:
(ii) a bank: or
(iii) an insurance company; and
(C) who has acknowledged in writing that he is a fiduciary with respect to the plan.

Duties of Responsible Fiduciary (Employer)

Employers have key responsibilities in using an ERISA 3(38) investment manager to advise about or to manage plan investments. These responsibilities are to prudently select the 3(38) investment manager and then to monitor the manager on an ongoing basis. Failing to perform these responsibilities, exposes the employer to fiduciary liabilities. The following are guidelines from the United States Department of Labor.

Selecting the 3(38) Investment Manager

Selecting a 3(38) investment manager in and of itself is a fiduciary function. When considering prospective managers, provide each of them with complete and identical information about the plan and what services you are looking for so as to make a meaningful comparison.

Some items a fiduciary needs to consider when selecting a service provider include:

- Information about the firm itself: financial condition and experience with retirement plans of similar size and complexity;
- Information about the quality of the firm's services: the identity, experience, and qualifications of professionals who will be handling the plan's account; any recent litigation or enforcement action that has been taken against the firm; and the firm's experience or performance record;
- A description of business practices: how plan assets will be invested if the firm will manage plan investments or how participant investment directions will be handled; the proposed fee structure; and whether the firm has fiduciary liability insurance.

An employer should document its selection (and monitoring) process, and, when using an internal administrative committee, should educate committee members on their roles and responsibilities.

Monitoring the 3(38) Investment Manager

An employer should establish and follow a formal review process at reasonable intervals to decide if it wants to continue using the current 3(38) investment manager or look for replacements.

When monitoring 3(38) investment managers, actions to ensure they are performing the agreed-upon services include:

- Reviewing the service providers' performance;
- Reading any reports they provide;
- Checking actual fees charged;
- Asking about policies and practices (such as trading, investment turnover, and proxy voting); and
- Following up on participant complaints.

ACT 44 DISCLOSURE FORM FOR ENTITIES PROVIDING PROFESSIONAL SERVICES TO THE MOUNT PENN BOROUGH MUNICIPAL AUTHORITY PENSION SYSTEM

CHAPTER 7-A OF ACT 44 OF 2009 MANDATES the annual disclosure of certain information by every entity (hereinafter "Contractor") which is a party to a professional services contract with one or more of the pension funds of the above municipality (hereinafter the "Requesting Municipality"). Act 44 disclosure requirements apply to Contractors who provide professional pension services and receive payment of any kind from the Requesting Municipality's pension fund. The Company believes we fall under the requirements of Act 44 and therefore, we are submitting the attached disclosure form.

RETURN COMPLETED DISCLOSURE TO:

Mount Penn Borough Municipal Authority
200 North 25th Street
Reading, PA 19606
Telephone: (610) 779-4900
Email: contact@mtpennwater.com

REQUIRED UPDATES:

Where noted, information in this form must be updated in writing as changes occur.

DEFINITIONS FOR DISCLOSURE

TERM:	DEFINITION:
CONTRACTOR	Any person, company, or other entity that receives payments, fees, or any other form of compensation from a municipal pension fund in exchange for rendering professional services for the benefit of the municipal pension fund.
SUBCONTRACTOR OR ADVISOR	Anyone who is paid a fee or receives compensation from a municipal pension system - directly or indirectly from or through a contractor.
AFFILIATED ENTITY	Any of the following: 1. A subsidiary or holding company of a lobbying firm or other business entity owned in whole or in part by a lobbying firm. 2. An organization recognized by the Internal Revenue Service as a tax-exempt organization under section 501(c) of the Internal Revenue Code of 1986 (Public Law 99-514, 26 U.S.C. § 501 (c)) established by a lobbyist or lobbying firm or an affiliated entity.
CONTRIBUTIONS	As defined in section 1621 of the act of June 3rd, 1937 (P.L. 1333, No. 320), known as the Pennsylvania Election Code
POLITICAL COMMITTEE	As defined in section 1621 of the act of June 3rd, 1937 (P.L. 1333, No. 320), known as the Pennsylvania Election Code
EXECUTIVE LEVEL EMPLOYEE	**Any employee or person or the person's affiliated entity who**: 1. Can affect or influence the outcome of the person's or affiliated entity's actions, policies, or decisions relating to pensions and the conduct of business with a municipality or a municipal pension system; or 2. Is directly involved in the implementation or development policies relating to pensions, investments, contracts or procurement or the conduct of business with a municipality or municipal pension system.
MUNICIPAL PENSION SYSTEM	Any qualifying pension plan, under Pennsylvania state law, for any municipality within the Commonwealth of Pennsylvania; includes the Pennsylvania Municipal Retirement System.
PROFESSIONAL SERVICES CONTRACT	A contract to which the municipal pension system is a party that is: (1) for the purchase of professional services including investment services, legal services, real estate services, and other consulting services; and, (2) not subject to a requirement that the lowest bid be accepted.

IDENTIFICATION OF CONTRACTORS & RELATED PERSONNEL

CONTRACTORS: (See **"Definitions"** – page 2) Any entity that currently provides service(s) by means of a Professional Services Contract to the Municipal Pension System of the Requesting Municipality, please complete all of the following:

Identify the Municipal Pension plan(s) for which you are providing information:

Non-Uniform

1. Please provide the names and titles of all individuals providing professional services to the Requesting Municipality's pension plan(s) identified above. Also include the names and titles of any advisors and subcontractors of the Contractor, identifying them as such. After each name provide a description of the responsibilities of that person with regard to the professional services being provided to each designated pension plan.

   Mike Glackin - President
   Jeff Hugo - Executive Vice President
   Rich Ritzer - Vice President
   Jennifer Coale - Account Executive

2. Please list the name and title of any *Affiliated Entity* and their *Executive-level Employee(s)* that require disclosure; after each name, include a brief description of their duties. (See: Definitions)

   ANSWER: NONE

3. Are any of the individuals named in Item 1 or Item 2 above, a current or former official or employee of the Requesting Municipality? IF "YES", provide the name and of the person employed, their position with the municipality, and dates of employment.

   ANSWER: NO

4. Are any of the individuals named in Item 1 or Item 2 above a current or former registered Federal or State lobbyist? IF "YES", provide the name of the individual, specify whether they are a state or federal lobbyist, and the date of their most recent registration /renewal.

   ANSWER: NO

NOTICE: All information provided for items 1- 4 above must be updated as changes occur.

5. Since December 17th 2009, has the *Contractor* or an *Affiliated Entity* paid compensation to or employed any third party intermediary, agent, or lobbyist that is to directly or indirectly communicate with an official or employee of the *Municipal Pension System* of the Requesting Municipality (OR), any municipal official or employee of the Requesting Municipality in connection with any transaction or investment involving the *Contractor* and the Municipal Pension System of the Requesting Municipality?
This question does not apply to an officer or employee of the *Contractor* who is acting within the scope of the firm's standard professional duties on behalf of the firm, including the actual provision of legal, accounting, engineering, real estate, or other professional advice, services, or assistance pursuant to the professional services contact with municipality's pension system. IF "YES", identify: (1) whom (the third party intermediary, agent, or lobbyist) was paid the compensation or employed by the *Contractor* or *Affiliated Entity*, (2) their specific duties to directly or indirectly communicate with an official or employee of the *Municipal Pension System* of the Requesting Municipality (OR), any municipal official or employee of the Requesting Municipality, (3) the official they communicated with, and (4) the dates of this service.

ANSWER: NO

6. Since December 17th 2009, has the *Contractor*, or any agent, officer, director or employee of the *Contractor* solicited a contribution to any municipal official or candidate for municipal office in the Requesting Municipality, or to the political party or political action committee of that official or candidate?

IF "YES", identify the agent, officer, director or employee who made the solicitation and the municipal officials, candidates, political party or political committee who were solicited (to whom the solicitation was made).

ANSWER: NO

7. Since December 17th, 2009: Has the *Contractor* or an *Affiliated Entity* made any contributions to a municipal official or any candidate for municipal office in the Requesting Municipality?
IF "YES", provide the name and address of the person(s) making the contribution, the contributor's relationship to the Contractor, the name and office or position of the person receiving the contribution , the date of the contribution, and the amount of the contribution.

ANSWER: NO

8. Does the *Contractor* or an *Affiliated Entity* have any direct financial, commercial or business relationship with any official of the Requesting Municipality?
IF "YES", identify the individual with whom the relationship exists and gives a detailed description of that relationship. A written letter is required from the Requesting Municipality acknowledging the relationship and consenting to its existence. The letter must be attached to this disclosure. Contact the Requesting Municipality to obtain this letter and attach it to this disclosure before submission.

ANSWER: NO

9. Has the *Contractor* or an *Affiliated Entity* given any gifts having more than a nominal value to any official, employee or fiduciary of the Requesting Municipality?

ANSWER: NO

IF "YES", provide the name of the person conferring the gift, the person receiving the gift, the office or position of the person receiving the gift, specify what the gift was, and the date conferred.

10. Disclosure of contributions to any political entity in the Commonwealth of Pennsylvania Applicability: A "yes" response is required and full disclosure is required ONLY WHEN ALL of the following applies:

- **a)** The contribution was made within the last 5 years
- **b)** The contribution was made by an officer, director, executive-level employee or owner of at least 5% of the *Contractor* or *Affiliated Entity.*
- **c)** The amount of the contribution was at least $500 and in the form of:
  1. A single contribution by a person in (b) above, OR
  2. The aggregate of all contributions all persons in (b) above;
- **d)** The contribution was for:
  1. Any candidate for any public office or any person who holds an office in the Commonwealth of Pennsylvania;
  2. The political committee of a candidate for public office or any person that holds an office in the Commonwealth of Pennsylvania.

IF "YES", provide the name and address of the person(s) making the contribution, the contributor's relationship to the *Contractor*, the name and office or position of the person receiving the contribution (or the political entity / party receiving the contribution), the date of the contribution, and the amount of the contribution.

ANSWER: NO

11. With respect to your provision of professional services to the Municipal Pension System of the Requesting Municipality:
Are you aware of any apparent, potential or actual conflicts of interest with respect to any officer, director or employee of the *Contractor* and officials or employees of the Requesting Municipality?

NOTE: If, in the future, you become aware of any apparent, potential, or actual conflict of interest, you are expected to update this Disclosure Form immediately in writing by:

- Providing a brief synopsis of the conflict of interest (and);
- An explanation of the steps taken to address this apparent, potential, or actual conflict of interest.

ANSWER: NO

IF "YES", Provide a detailed explanation of the circumstances which provide you with a basis to conclude that an apparent, potential, or actual conflict of interest may exist.

12. To the extent that you believe that Chapter 7-A of Act 44 of 2009 requires you to disclose any additional information beyond what has been requested above, please provide that information below or on a separate piece of paper.

ANSWER: NO

List of Municipal Officials for the Requesting Municipality

Certain requests for information in this form will refer to a **"List of Municipal Officials."** To assist you in preparing your answers, you should consider the following names to be a complete list of pensions system and municipal officials and employees. Throughout this Disclosure Form, the below names will be referred to as the **"List of Municipal Officials."**

Elected Officials	None
Appointed Officials	Thomas Smith, Chairman, Authority Board Joseph Boyle, Vice-Chairman, Authority Board Kelly Dudash, Secretary, Authority Board Member Tuan Doing, Authority Board Member Alfred Worrall, Authority Board Member Mark Merolla, Solicitor

Chief Pension Administrative Officer: Christeena Hauck

VERIFICATION

I, Jeff Hugo ______________________ *(name)*, hereby state that I am a Vice President for the Company and I am authorized to make this verification.

I hereby verify that the facts set forth in the foregoing Act 44 Disclosure Form for Entities Providing Professional Services to **Mount Penn Borough Municipal Authority** are true and correct to the best of my knowledge, information and belief. I also understand that knowingly making material misstatements or omissions in this form could subject the responding Contractor to the penalties in Section 705-A(e) of Act 44.

I understand that false statements herein are made subject to the penalties of 18 P.A.C.S. § 4904 relating to unsworn falsification to authorities.

____
Signature

____
Date