

Lehigh County Employee's Retirement Plan August 2022

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Definitions

The following definitions will apply throughout this policy statement:

- "Authorized Signer(s)" Person(s) identified in writing in the published Policy and Procedures document as being approved to act on behalf of the Organization, either individually or collectively.
- "Benchmark" A standard against which the performance of a fund is compared and measured.
- "Board" The Board of Directors of the Organization.
- "Commingled Fund" Any fund (i.e. mutual fund, exchange traded fund, limited partnership, etc.) in which the Organization owns shares of an underlying portfolio rather than direct shares of the underlying investments.
- "Consultant" entity that is engaged by the Board to manage all investible assets of the Organization.
- "Custodian" An institution that provides services like settlement, safekeeping, and reporting of customers' securities and cash.
- "Fund Managers" Third party investment managers that are unaffiliated with Consultant.
- "Investible Assets" or "Account" or "Assets" The funds to be managed which are subject to this Policy.
- "IPS" or "Policy" or "Statement" This Investment Policy Statement
- "Organization" Lehigh County Employee's Retirement Plan
- "Separately Managed Account" An account in which individual securities are owned on behalf of the Organization.
- "Tactical Asset Allocation" The actual portfolio weightings, within the bounds established by this IPS, to which the Consultant is at any time managing the assets based on Consultant's outlook for future capital market conditions.
- "Target Asset Allocation" The portfolio weightings to which the Investible Assets will be managed.

Opening Statement & Intent

This Policy is designed to convey the mandates established by the Board insofar as they act as determinants for the management of the Investible Assets. This Policy is intended to outline how the Account is to be structured, managed, and supervised.

This Statement is meant to encourage effective communications between all responsible parties and establish acceptable performance metrics and encourage adherence to all applicable fiduciary, prudence and due diligence requirements for the Assets as set forth in this document.

All parties to this Policy shall conform with the standards of a fiduciary to act solely in the best interest of the Organization. Besides the duty of care and the duty of loyalty, all conflicts of interest, both real and perceived, must be disclosed and, when possible, remediated.

This IPS has been formulated with the assistance of the Consultant and has been duly approved by the Board. It is based upon the consideration of the financial implications of a wide range of policies, and it describes the prudent investment process by which the Board shall oversee the management of the Assets under its care.

Description of Assets & Objectives

The Investible Assets are governed by Pennsylvania state law, specifically Act 96 - County Pension Law and subsequently by 20 Pa.C.S.A. § Ch. 73.1

The objectives of the Investible Assets are as follows: total return (capital appreciation and/or yield), liquidity, and safety. These Assets provide for the long-term growth of the programs supported by the Organization; therefore, the outlined asset allocation has balanced risk with the intention of maximizing expected return within the defined risk levels. Permanent loss of capital should be avoided; however, some intermediate term volatility is acceptable.

Total Return

The Board acknowledges that the desire for growth of principal can, at times, come with heightened volatility. Growth above inflation is expected over full market cycles as compensation for the risk being accepted by the Board.

Liquidity

The Assets shall be invested in a sufficiently liquid manner to facilitate the Organization's operating needs. Cash reserves will be maintained to fund unanticipated needs of the Organization.

Safety

Permanent loss of capital is unacceptable to the Organization; however, some intermediate volatility is acceptable to achieve the long-term objectives of the Organization. Limitations meant to mitigate various risks are outlined in the section Investment Management Assumptions & Restrictions.

Duties of Fiduciaries & Delegation of Authority

The Board

The Board has ultimate authority to set the strategic vision of the Organization and maintains the responsibility to approve this IPS.

The Board, in conjunction with the Consultant, establishes this Policy to guide the management of the Investible Funds. The Board shall meet regularly to consider changes to this IPS to provide oversight of the Consultant's adherence to this Statement and achievement of the objectives laid out in the **Executive Summary**.

The Board believes that strategic asset allocation provides a solid foundation upon which proper investment goals and strategies to achieve those goals can be built. By focusing on risk-adjusted returns using a blend of passive investment strategies and active strategies in less efficient asset classes, the long-term goals of the Organization can most reasonable be met.

¹A definition can be found in Appendix 1 – Governing Law.

The Board has chosen to hire the Consultant with discretion as permissible under 20 Pa. C.S.A. §7206(a).²

The Consultant

The Consultant shall maintain its status as Registered Investment Adviser with the Securities and Exchange Commission under the Investment Advisers Act of 1940 and is a co-fiduciary with the Organization with regards to the management of the Investible Assets. The Consultant acknowledges the delegation of discretion over the Account covered by this Statement.

The Consultant shall execute the following duties within the parameters of this Policy and shall be available to the Board and as desired to report on the progress of the investment program.

- 1) Asset allocation development
- 2) Portfolio rebalancing
- 3) Manager selection and monitoring
- 4) Risk management oversight
- 5) Performance reporting at portfolio and manager level

Fund Managers & Commingled Funds

The Consultant will select Fund Managers to invest the Assets in a manner consistent with this Policy. The minimum requirements that a Fund Manager must meet for inclusion by the Consultant include:

- Being a bank, insurance company, investment management company, or an investment adviser as defined by the Registered Investment Advisers Act of 1940;
- Providing historical performance of three years of a composite portfolio calculated in compliance with GIPS®³ methodology;
- Providing a detailed history of the firm, key personnel, etc. This requirement can be fulfilled through a recently completed request for proposal;
- · Articulating a clear investment strategy that will be followed; and,
- Committing to performing all transactions within the current definition of "best execution" as defined by the Securities and Exchange Commission.

The Fund Managers must utilize the same care, skill, prudence and due diligence under the circumstances then prevailing that experienced investment professionals acting in a like capacity and with full familiarity with such matters would use for similar Assets.

The Fund Managers must also promptly inform the Consultant of material changes to its organization, management team, process and ownership.

The Consultant may also select certain Commingled Funds to manage portions of the Assets. While it is the intention of the Consultant that all Commingled Funds align with the limitations found in this Policy, the offering memorandum or prospectus of the

²The definition of this statute can be found in the Appendix 1 – Governing Law.

³The CFA Institute's Global Investment Performance Standards as available at the date of this Policy.

Commingled Fund shall govern these investments. Commingled Funds shall meet the following minimum requirements:

- Management must have been in place for at least three years,
- The Commingled Fund must have followed the same strategy for at least three years; and,
- No single client may represent more than 10% of the fund's assets under management.

Monitoring of Delegated Authority

The Board shall have the responsibility of monitoring the Account for adherence to this Policy and the long-term goals of the Organization. The Consultant shall provide reporting to the Board on a regular basis that outlines the following:

- 1) The Consultant's macroeconomic outlook,
- 2) Cashflows at the Fund Manager/Commingled Fund level and portfolio level,
- 3) Asset allocation of the Account compared to IPS targets.
- 4) Performance of the Account as a whole and each subcomponent versus an appropriate benchmark and peer group focused on:
 - a Absolute and relative performance over various time periods,
 - b. Comparable risk levels (including standard deviation, beta, downside risk & down-market capture⁴); and,
 - c. Risk-adjusted metrics (including Sharpe Ratio, Sortino Ratio, Information Ratio).

The Board shall determine frequency of such reporting and the Consultant's attendance at Board meetings.

Nature & Duration of Fiduciary Relationship

The Investible Assets have a perpetual timeframe. The Board maintains responsibility to communicate to the Consultant any changes to this assumption.

Liquidity & Distribution Requirements of the Assets

It is the expectation of the Board that the Investible Assets will remain highly liquid. The Consultant will not invest in any Fund Manager or Commingled Product with liquidity notification requirements longer than a month without written acknowledgement of an Authorized Signer.

Contributions and distributions can be unexpected. When the need for distributions arises, the Organization shall notify Consultant as soon as practicable. Consultant shall have the authority, within the limits set by this Policy, to provide liquidity or invest contributions as the Consultant shall see fit.

⁴ Definitions of terms can be found in Appendix II – Glossary of Terms.

Tax Considerations

The Organization is tax-exempt, and therefore does not require tax-free income, nor are taxes a consideration in the management of the Account.

Role of Each Investment or Course of Action on Overall Investment Strategy

This Account is subject to 20 Pa. C.S.A. § 7203 — Prudent Investor Rule. This rule acknowledges Modern Portfolio Theory as a guiding tenet. Under this legal regime, all decisions respecting individual assets should be considered in the context of the portfolio as a whole. No specific investment or course of action, taken alone, shall be considered inherently prudent or imprudent.

The Organization, however, does maintain certain values as to how the Assets should be invested. The Organization's interest is in supporting good governance as part of its larger mission and does not support investing in companies at odds with general good governance practices, including the appropriateness and structure of CEO compensation packages, discriminatory practices of any type, and disregard for human rights. The Organization understands that corporate reporting on some of these matters is still evolving and will work with Consultant to monitor and take actions such as heightened due diligence, engagement or direction to divest such holdings when necessary regarding any holding that does not abide by these values.

Assets of Special Relation or Special Value

Unless otherwise provided for in writing by an Authorized Signer, it is the intention of the Board that all in-kind contributions to the Organization will be liquidated by the Consultant in the most efficient manner available given market conditions at that time and reinvested in accordance with this Policy.

Investment Management Assumptions & Restrictions

Prohibited Securities

Fund Managers are prohibited from the following securities and transactions without prior written approval:

- Letter stock or other unregistered securities;
- Physical commodities or contracts thereof;
- Transacting in futures contracts in any form;
- Utilizing options for speculation;
- Short sales or margin transactions;
- Securities lending, pledging or hypothecating securities;
- Initial Public Offerings;
- Investments for the purpose of exercising control of management; and,
- Direct investments in digital assets or cryptocurrencies.

Global Equities: In General

- Equity holdings in any one company should not exceed 5% of the market value of the total Investible Assets' equity holdings.
- Allocations to economic sectors should be consistent with the broad equity market.
- Fund Managers have discretion to invest a portion of their assets in cash reserves; however, there will be no adjustment for these reserves to the assigned benchmark or peer group.

International Equities: Specifically

- Allocations to specific countries should take the Fund Manager's assigned benchmark into consideration.
- There should be no direct foreign currency speculation; however, foreign exchange contracts to hedge currency exposure are allowed.

Fixed Income: In General

- U.S. Treasury and U.S. government agencies, which are unrated securities, shall be considered the highest quality rating.
- No exposure to any one issuer, other than securities of the U.S. government or its agencies, shall exceed 10% of the market value of the fixed income portfolio.
- No more than 20% of the market value of the fixed income portfolio shall be rated less than "A-" quality unless the Fund Manager has prior written authorization.
- All securities must be rated as investment grade by at least one ratings agency. Should a holding be downgraded below investment grade, the Fund Manager may either sell the holding or communicate with the Consultant the qualities that would support maintaining the position.

Fixed Income: Prohibited Securities & Transactions

- Securities not offered through an SEC registration filing other than U.S. government or agency-backed mortgages.
- Derivative securities.

Alternatives: In General

 Alternative investments are defined as everything other than traditional long stock and bond portfolios. For the purpose of this IPS, alternative investments shall include any investment that has a low correlation to the domestic equity and fixed income markets. This shall include real estate, private equity, hedged investments, commodities, timber, and global macro allocation portfolios, among other asset classes. These holdings should be limited to funds registered under the Investment Company Act of 1940.

Cash & Cash Equivalents: In General

Cash equivalent reserves shall consist of cash instruments having a quality rating
of A-2, P-2 or higher. Eurodollar Certificates of Deposits, time deposits, and
repurchase agreements are also acceptable investment vehicles.

 Any idle cash not invested by the investment managers shall be invested daily through an automatic interest-bearing sweep vehicle managed by the custodian

Performance Expectations & Monitoring

The Board shall rely on quarterly reports, as provided by the Consultant, to evaluate the progress of the Investible Assets in relation to the attainment of long-term goals. It is understood that variance over short-time periods is to be expected.

Expectations

The Consultant shall provide forward-looking capital market assumptions to the Board annually to confirm that this Policy's target allocation and ranges are still appropriate for the long term well-being of the Organization's pension funds.

Monitoring

The Board will meet regularly with Consultant to focus on Fund Managers' and Commingled Funds':

- Adherence to the IPS guidelines:
- Material changes in organization, investment philosophy and/or personnel; and,
- Comparisons of the results to appropriate indices and peer groups.

The risk associated with each Fund Manager's portfolio, as measured by the variability of quarterly returns (standard deviation), should not exceed that of the asset category benchmark index (see Appendix III) and the peer group without a corresponding increase in performance above this benchmark index and peer group over a full market cycle.

Ongoing review and analysis of Fund Managers and Commingled Products is as important as the due diligence implemented during the initial selection process. Accordingly, a thorough review and analysis of a Fund Manager will be conducted, should it:

- Perform in the bottom quartile (75th percentile) of its peer group over an annual period;⁵
- Fall in the southeast quadrant of the risk/return scatterplot for a 3-year time period; or,
- Have a 3-year risk adjusted return (as defined by Sharpe Ratio) fall below that of the median manager within the appropriate peer group.

Furthermore, performance which may require the replacement of a Fund Manager includes:

 Fund Managers that consistently perform below the median (50th percentile) of their peer group over rolling five-year periods; or,

⁵Peer group and benchmark definitions can be found in Appendix III – Indexes & Peer Groups.

• Fund Managers with negative alphas for a five-year time period.

Major organizational changes also warrant immediate review of the Fund Manager, including:

- Change in professionals
- Significant increase or reduction in assets under management
- Significant growth of new business
- Change in ownership
- · Change in investment style
- Negative change in financial condition of Fund Manager

The performance of the Fund Managers and Commingled Funds will be monitored on an ongoing basis, and it is at the Consultant's discretion to take corrective action by replacing a manager if the Consultant deems it appropriate at any time.

Policy Acceptance:

Approved by the Lehigh County Employees' Retirement Board:

Member h h My	Shear D. Hozza J.
Date 2	Date 2/22
Manh Punky	Member Member
\$/2/27 Date	Date 2 2022
Yenher M. Canlid	Timber Helevis
8/2/2022 Date	$\frac{8/2/2022}{\text{Date}}$
Member	

Agreed to by Investment Consultant:

Agreed to by Investment Consultant:

Consultant

Date

Addendum - Executive Summary

Description & Asset Allocation⁶

Type of Fund	Municipal Defined Benefit Retirement Plan
Governing Law	Act 96 & 20 Pa.C.S.A. § CH. 73
Current Assets (as of IPS date)	\$618,760,000
Time Horizon	Greater than 20 years
Modeled Nominal Return ⁷	5.6%
25 Year Historical Return ⁸	7.2%
Modeled Drawdown ⁹	-13.0%
Peer Group	Callan Public Pension Plan

Asset Class	Lower Limit	Target	Upper Limit
Domestic Equity	32%	42%	52%
International Equity	8%	18%	28%
Fixed Income	10%	20%	30%
Alternative Investments	5%	15%	25%
Short-Term Fixed & Cash	0%	5%	15%

Long-Term Success Measures

- Maintenance of real (inflation-adjusted) value of Assets, net of Spending Policy;
- Outperformance of Assets compared to strategic target-weighted blended benchmark index (Callan Public Pension Plan, with assets ranging from \$100M to \$100B), net of fees;
- Outperformance of Assets compared to actual-weighted benchmark, net of fees; and,
- Outperformance of peer group median based on risk-adjusted measurements.

⁶ Asset allocation limits are suspended during periods of initial or subsequent dollar-cost averaging strategies.

⁷Annual expected return based on current year capital market assumptions for target asset allocation.

⁸ Annual return based 25-year historical capital market returns for target asset allocation.

⁹ Annual 95th percentile performance based on target asset allocation and current year capital market assumptions.

¹⁰ Risk-adjusted measurements shall be defined in the section entitled Performance Expectations & Monitoring

Appendix I - Governing Law

Act 96. – County Pension Law – Provides guidance encompassing fiduciary responsibility, funding of the plan, investments, actuarial analysis, record keeping and plan reviews.

20 Pa. C.S.A. -

- §73 Municipal Investments Provides an overview of the permissible investments considered for and allowed in the investment process of a Municipality.
- §7203(a) Prudent investor rule A fiduciary shall invest and manage property held in a trust as a prudent investor would, by considering the purposes, terms and other circumstances of the trust and by pursuing an overall investment strategy reasonably suited to the trust.
- §7206(a) Permissible delegation A fiduciary may delegate investment and management functions that a prudent investor of comparable skills might delegate under the circumstances.

Appendix II - Glossary of Terms

Alpha – is used as a measure of a manager's contribution to performance due to security or sector selection.

Beta – is a measure of the systematic risk of a security or portfolio. The value of Beta is expressed as a percentage of the market where the market Beta is 1.00. A security or portfolio that has a Beta above (below) 1.00 has greater (less) volatility than the market.

Down Market Capture Ratio – is the percentage of the total market movement achieved by a manager during a period in which the asset category benchmark index decreases.

Downside Risk – differentiates between "good" risk (upside volatility) and "bad" risk (downside volatility).

Information Ratio – is a risk statistic that measures the excess return per unit of residual "non-market" risk in a portfolio.

Sharpe Ratio – is a measure of the risk-adjusted return of a portfolio. The ratio represents the return gained per unit of risk taken.

Sortino Ratio – identifies the value added per unit of bad risk. This statistic measure excess return divided by downside risk.

Standard Deviation – is a statistical measure of portfolio risk. It reflects the average deviation of the observations from their sample mean.

Appendix III - Indexes & Peer Groups

Asset Categ	ory	Index	Peer Group Universe
Domestic Equition	Large Cap Value	Russell 1000 Value	Large Cap Value Style
Equities	Large Cap Core	S&P 500	Large Cap Broad Style
	Large Cap Growth	Russell 1000 Growth	Large Cap Growth Style
	Mid Cap Value	Russell Midcap Value	Mid Cap Value Style
	Mid Cap Broad	Russell Midcap	Mid Cap Broad Style
	Mid Cap Growth	Russell Midcap Growth	Mid Cap Growth Style
	Small Cap Value	Russell 2000 Value	Small Cap Value Style
	Small Cap Broad	Russell 2000	Small Cap Broad Style
	Small Cap Growth	Russell 2000 Growth	Small Cap Growth Style
International	Large Cap Value	MSCI EAFE Value	Intl Large Cap Value
Equities	Large Cap Core	MSCI EAFE	Intl Large Cap Core
	Large Cap Growth	MSCI EAFE Growth	Intl Large Cap Growth
	SMid Value	MSCI EAFE Small Cap	Lipper: Intl Sm/Mid Value
	SMid Growth	MSCI EAFE Small Cap	Lipper: Intl Sm/Mid Growth
	Small Cap Broad	MSCI EAFE Small Cap	Lipper: Intl Sm/Mid Core
	Emerging Markets	MSCI Emerging Markets	Emerging Mkts Style
	Specialty	MSCI EAFE	Intl Core Eq Style
Global Equities	Large Cap Value	MSCI ACWI	GI Equity Style
	Large Cap Core	MSCI ACWI	GI Equity Style
	Large Cap Growth	MSCI ACWI	GI Equity Style
	Mid Cap Growth	MSCI ACWI	Gl Equity Style
	Small Cap Growth	MSCI World Small Cap	GI Equity Style
Fixed Income	Emerging Markets	Bloomberg Capital Gbl Emer Mkt Bond	Emer Mkt Bond
	Specialty	Bloomberg Capital High Yield Intermediate	High Yield Style
	High Yield Bond	Bloomberg Capital High Yield Intermediate	High Yield Style
	Global Bond	Bloomberg Capital Global Agg	GI Fixed Income Style
	Core Bond	Bloomberg Capital Aggregate Bond	Intermediate Style
	Core Bond (Long Duration)	Bloomberg Capital Govt/Credit Long	Ext Maturity Style
	Core Bond (Intermediate Duration)	Bloomberg Capital Aggregate Bond	Intermediate Style
	Core Bond (Short Duration)	Bloomberg Capital 1-3yr Govt/Credit	Defensive FI Style
	Core Bond (Multisector Bond)	Bloomberg Capital US Universal Index	Core Plus Style
	Government Bond	Bloomberg Capital Gov Inter	Intermediate Style
	Government Bond (Long Duration) Government Bond (Intermediate	Bloomberg Capital Gov Long	Ext Maturity Style
	Duration)	Bloomberg Capital Gov Inter	Intermediate Style
	Government Bond (Short Duration)	Bloomberg Capital Gov 1-3 Yr Bloomberg Capital 1-3vr	Defensive FI Style
	Short Term Bond	Govt/Credit	Muni Bond-S/TDB

Asset Catego	ory	Index	Peer Group Universe
Real Estate	Real Estate Direct	DJ US Real Estate	Lipper: Real Estate
Alternative*	Specialty	S&P 500	Core Equity Style
*Alternatives	TIPS	Bloomberg Capital US TIPS	Lipper TIPS Funds
may include	Moderate Allocation	CPI + 5%	Dom Balanced Style
additional subclasses not specified here, appropriate benchmarks and peer groups should be used on a case-by- case basis	TIPS	Bloomberg Capital US TIPS	Lipper: TIPS Funds
	MLPs	Alerian MLP Index	Callan Master Limited Partnerships
	Real Estate Investment Trust	DJ US Real Estate	Lipper: Real Estate
	Real Estate Investment Trust (Global Real Estate)	DJ US Real Estate	Lipper: GL Real Estate
	Real Estate Direct	DJ US Real Estate	Lipper: Real Estate
5455 24515	Commodities	DJ:UBS Commodity Index	Lipper: Commodities
	Long-Short	S&P 500	Lipper: Long/Short Equity Funds
	Convertibles	ML Convertible Bonds	Lipper: Convertible Secs
	GTAA	HFRX Global Hedge Fund Index	Absolute Return Hedge FoF
Cash & Equivalents	Taxable Money Market	Citi 90 Day T-Bill	Lipper: Insti Money Mkt