## Section I-A: History of the Chicago Teachers' Pension Fund (CTPF)

In May 1895, the Legislature of Illinois passed the following pension law which went into effect on July 1, 1895:

"AN ACT TO PROVIDE FOR THE FORMATION AND DISBURSEMENT OF A PUBLIC SCHOOL TEACHERS' AND PUBLIC SCHOOL EMPLOYEES' PENSION AND RETIREMENT FUND IN CITIES HAVING A POPULATION EXCEEDING ONE HUNDRED THOUSAND INHABITANTS."

Members of the Board of Education, the superintendent of schools, and two representatives elected annually by the teachers and employees of the public schools under control of the Board of Education formed the first Board of Trustees of the Chicago Teachers' Pension Fund ("Board of Trustees" or "Board"). The official rules of the Board were adopted and approved on December 31, 1895. The funds were entrusted to the custody of the City Treasurer.

## Section I-B: Mission Statement of the Chicago Teachers' Pension Fund

To provide, protect and enhance the present and future economic well-being of members, pensioners and beneficiaries through efficient and effective management of benefit programs, investment practices and customer service, and commitment to earning and keeping the respect and trust of the participants through quality service and by protecting retirement benefits, in compliance with applicable laws and standards.

## Section I-C: Purpose of the Investment Policy and Guidelines

This document specifically outlines the investment philosophy and practices of Chicago Teachers' Pension Fund ("CTPF" or "Fund") and has been developed to serve as a reference point for the management of the Fund's assets. In order to assist CTPF participants in achieving their financial security objectives, the Board shall adopt this long-term plan by which the assets of the Fund will be maintained and enhanced through prudent investments. At all times, CTPF will have an established written investment objective concerning the investment of the Fund's assets. This Investment Policy documents the Fund's investment objectives, policies, and guidelines, and, coupled with investment procedures, outlines the duties all individuals and departments that safeguard the Fund's assets.

This Policy is intended to be flexible, as evolving markets limit the rigidness of the document, yet provide parameters to ensure prudence and care in the execution of all the Fund's investment programs. This Policy is intended to be a guideline for the fiduciaries of the Fund and to provide a foundation to oversee the management of the investments of the Fund. This document doesn't supersede any investment guidelines and/or contractual agreements made between the Fund and their investment managers.

## Section IIA: Definition and Responsibilities

The first reported sum to be invested in 1896 was $16,000 and the first annual pension to be paid was $450. Today, the Fund has over $9 billion in assets. At one time, the requests for annuities, refunds and survivor benefits were handled directly by the trustees and the clerk of the Board. Today, CTPF operates as an independent organization and is governed by the Board of Trustees and administered by the Executive Director, who oversees the day to day operations of the Fund and assures that benefits continue to be paid out on a timely basis. This section will define the roles and responsibilities of all persons that owe a fiduciary responsibility to the Fund. CTPF is one of the larger public pension funds in Chicago. As such, its operational requirements are complex. The Board relies heavily on both internal staff and external vendors in order to properly administer the Fund and implement its investment strategies. A large number of parties are required to ensure that the Fund's business is conducted effectively. Roles as fiduciaries must be clearly identified to increase operational efficiency, to ensure clear lines of responsibility and to reduce or eliminate duplication of effort.

**Section II-B: Definition of a Fiduciary**

The Fund's service providers, Board of Trustees, and staff must understand and accept their fiduciary obligations to the Fund's membership. These obligations are legal in nature and require a clear definition. CTPF defines a fiduciary in accordance with Section 1-101.2 of the Pension Code.

**Section II-B1: Responsibilities of a Fiduciary**

All Board members, employees, service providers and other persons who meet the definition of a fiduciary must discharge their duties according to Section 1-109 of the Pension Code.

**Section II-C: Definition of the Board of Trustees**

The Board of Trustees is comprised of twelve members: six active teachers elected by the active contributors; three pensioners elected by the pensioners; one principal elected by administrators; and two appointees of the Board of Education.

The terms of the board members are as follows:

| | Elected By | Term |
|---|---|---|
| Active Teachers | Active teachers | 3 Years |
| Retired Teachers | Pensioners | 2 Years |
| Principal | Active Administrators | 3 Years |
| Board of Education Appointees | Appointed | 2 Years |

**Section II-C1: Responsibilities of the Board of Trustees**

The Board of Trustees and the Executive Director hire and monitor investment staff and independent advisors to facilitate the operations of the Fund. The Board has established the following goals to help achieve this mission:

- To achieve customer service excellence.
- To preserve fiscal integrity and financial stability.
- To conduct all phases of operation under the highest standards of ethics and morality.
- To improve the quality of fund personnel by employing the most careful method of selection, training, and promotion.
- To regularly inform our members, pensioners, and beneficiaries regarding our plans and progress towards our overall mission.

The Board has the responsibility of establishing and maintaining broad policies and objectives for all aspects of the Fund's operation. The Board is responsible overall for the prudent investment and expenditure of the Fund's assets, specifically with regard to investments. All fiduciaries shall carry out their functions solely in the interest of the members and benefit recipients and for the exclusive purpose of providing benefits and defraying reasonable expenses incurred in performing such duties, as required by law. All fiduciaries shall act in accordance with the provisions of the Pension Code and with the care, skill, prudence and diligence in light of the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with aims by diversifying the investments of the association so as to minimize the risk of large losses, unless in light of such circumstances it is clearly prudent not to do so. All members of the Board of Trustees shall be indemnified and held harmless by the Fund for any reasonable cost or expenses incurred as a result of any actual or threatened litigation or administrative proceeding arising out of the performance of the Board member's duties. No member of the Board of Trustees may participate in deliberations or vote on any matter before the Board which will, or is likely to, result in direct, measurable gain to the Board member, or to that Board member's spouse or employer. The Board recognizes that even though the Fund's investments are subject to short term volatility, it shall maintain a long-term investment focus. This prevents ad-hoc revisions to the Fund's investment philosophy and policies in reaction to either speculation or short-term market fluctuations. In order to preserve this long-term view, the Board has adopted the following formal review schedule:

| Formal Review Item | Formal Review Schedule |
|---|---|
| Asset Allocation | Every 3-5 years |
| Investment Consultant's Performance | Annually |
| Investment Goal | Every 3-5 years |
| Investment Managers' Performance | Annually |
| Investment Policy and Guidelines | Annually (small revisions as needed) |
| Total Portfolio Performance | Quarterly |

**Trustee Code of Ethics**

In order to maintain the highest ethical standards, the Board of Trustees is expected to abide by the CTPF Code of Ethics Policy. This policy is to be reviewed annually for appropriateness. A copy of this policy can be found on the Fund's website.

## Section II-D: Role of the Executive Director

The Executive Director is appointed by and serves at the pleasure of the Board. The Executive Director's primary responsibility is to supervise and direct the operations of the Fund in accordance with the Board's rules, orders and resolutions. In accordance with this task, the Executive Director shall perform the following tasks on behalf of the Fund:

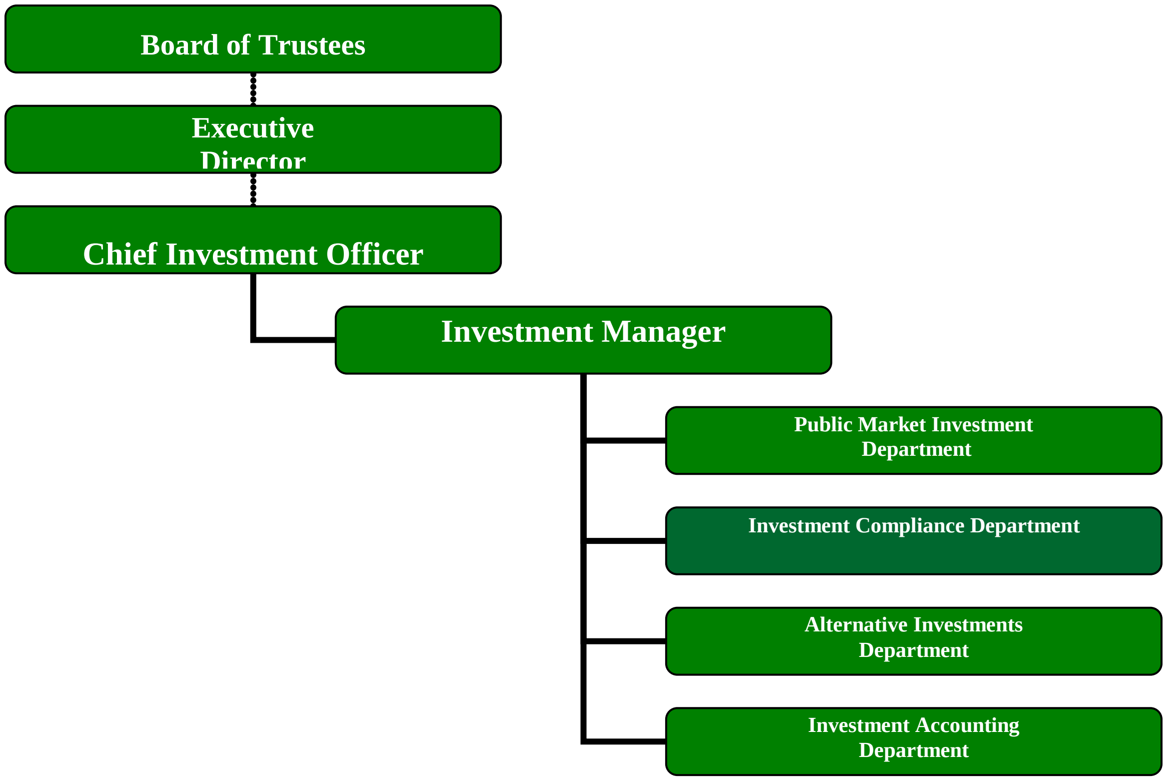
- Receive and deposit payments made to the Fund;
- Sign vouchers and checks for the payment of monies in accordance with authorization;
- Answer all correspondence bearing upon the rights and benefits of contributors or pensioners;
- Present to the Board for approval all bills for administrative expenses, applications for pensions, benefits and refunds, and compile such relevant information as required;
- Render assistance to the committees of the Board as necessary;
- Oversee the execution of investment transactions according to the Board policies;
- Compile information on the Fund's investment portfolio to be presented to the Board;
- Keep all records, books, files, papers and documents belonging to the Board, other than those in the possession or under the control of the City Treasurer, custodial bank, investment managers and other consultants of the Fund;
- Direct and supervise the legislative agenda approved by the Board;
- Direct the Fund's legal counsel with regards to matters which arise between Board meetings;
- Implement rebalancing directives, in concert with the master custodian, investment staff and affected investment manager(s);
- Manage and monitor net cash flow so that the sum of income, contributions and sale of securities is sufficient to provide for current payment of pension obligations (along with the investment department);

### Executive Director Code of Ethics

Since the Executive Director is a key member of the investment department, the Executive Director must also abide by the Investment Department Code of Ethics. This policy is to be reviewed annually for appropriateness. A copy of this policy is included in the appendix of this document.

## Section II-E: Investment Department

In order to maintain the fiscal soundness of the Fund, the Executive Director may employ investment staff to assist in overseeing the Fund's investment portfolio. The investment department is segmented into three departments and is overseen by the Fund's Chief Investment Officer (CIO); the Executive Director may, at the Board's discretion, act as Executive Director and Chief Investment Officer.




All investment staff members are expected to abide by the policies and procedures set forth in the Investment Staff Policies and Procedures Guidelines.

**Section II-E1: Role of the Chief Investment Officer**

The Chief Investment Officer is appointed by the Executive Director, upon direction from the Board of Trustees. The Chief Investment Officer's primary responsibility is to supervise and direct the operations of the Fund's investments in accordance with the Board's rules, orders and resolutions, and all applicable laws. In accordance with this task, the Chief Investment Office shall perform the following tasks on behalf of the Fund:

- Take the leadership role regarding the Fund's investment portfolio;
- Inform the Board of any investment information that would warrant the Board's attention;
- Work collaboratively with subordinate staff and outside investment consultants to establish and implement investment policies ;
- Establish and implement appropriate processes and guidelines for monitoring CTPF's investment portfolio and service providers;
- Render such assistance to the committees of the Board as necessary;
- Oversee the execution of investment transactions according to the Board's policies;
- Evaluate the investment staff's capabilities and performance;
- Work in conjunction with investment staff and investment consultant and prepare and present research and recommendations for the Board's consideration on matters affecting the Fund's investments;

- Participate in searches for investment related service providers, as well as contract and fee negotiations;
- Monitor investment service providers with regards to performance, portfolio risk, compliance with CTPF portfolio on a routine basis;
- Oversee all the investment staff and investment related service providers to ensure the Fund's best interests are serviced;
- Implement rebalancing directives, in concert with the master custodian, investment staff and affected investment manager(s);
- Provide advice on investment policy, implementation and control issues as requested by the Board;

**Chief Investment Officer Code of Ethics**

The Chief Investment Officer must abide by the Investment Department Code of Ethics. This policy is to be reviewed annually for appropriateness. A copy of this policy is included in the appendix of this document.

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**Section II-E2: Role of the Investment Manager**

The Investment Managers is appointed by the Chief Investment Officer, upon direction from the Board of Trustees. The Investment Manager's primary responsibility is to supervise and direct the operations of the Fund's investments in accordance with the Board's rules, orders and resolutions, and all applicable laws. In accordance with this task, the Investment manager shall assist the Chief Investment Officer in performing the following tasks on behalf of the Fund:

- Take the leadership role regarding the Fund's investment portfolio;
- Inform the Board of any investment information that would warrant the Board's attention;
- Work collaboratively with subordinate staff and outside investment consultants to establish and implement investment policies ;
- Establish and implement appropriate processes and guidelines for monitoring CTPF's investment portfolio and service providers;
- Oversee the execution of investment transactions according to the Board's policies;
- Evaluate the investment staff's capabilities and performance;
- Work in conjunction with investment staff and investment consultant and prepare and present research and recommendations for the Board's consideration on matters affecting the Fund's investments;
- Participate in searches for investment related service providers, as well as contract and fee negotiations;
- Monitor investment service providers with regards to performance, portfolio risk, compliance with CTPF portfolio on a routine basis;
- Oversee all the investment staff and investment related service providers to ensure the Fund's best interests are serviced;
- Implement rebalancing directives, in concert with the master custodian, investment staff and affected investment manager(s);

- Provide advice on investment policy, implementation and control issues as requested by the Board;

**Investment Manager's Code of Ethics**

The Chief Investment Officer must abide by the Investment Department Code of Ethics. This policy is to be reviewed annually for appropriateness. A copy of this policy is included in the appendix of this document.

## Section II-E3: Role of the Investment Accounting Department

The Investment Accounting Department's primary responsibility is to monitor net cash flow, so that the sum of income, contributions and sale of securities is sufficient to provide for the current payment of pension obligations. In accordance with this responsibility, the Investment Accounting Department shall perform the following tasks on behalf of the Fund:

- Reconcile the assets of the investment managers against the reports of the master custodian on a routine basis;
- Upon the approval of the Executive Director, initiate monthly liquidations of the securities to meet pension obligations;
- Serve as a liaison to the accounting department to ensure balancing and proper reconciliation of the Fund's assets;
- Maintain recorders for the Fund's financial transactions with regards to investment managers' funding, capital calls and other cash in/outflows of the Fund;
- Monitor the cash movement of all investment managers for abnormal transactions;
- Monitor the cash positions of the Fund's investment managers to ensure compliance with the Fund's "fully invested" policies;
- Oversee the payment of all investment related invoices, including investment managers' and consultants' fees;

**Investment Accounting Department Code of Ethics**

All staff members in the investment accounting department must also abide by the Investment Department Code of Ethics. This policy is to be reviewed annually for appropriateness. A copy of this policy is included in the appendix of this document.

## Section II-E4: Role of the Alternative Investments Department

The Alternative Investment Department's primary responsibility is to monitor the Fund's real estate, private equity, REITs, infrastructure and hedge fund investments. In accordance with this responsibility, the Alternative Investments Department shall perform the following tasks on behalf of the Fund:

- Implement the decisions of the Board of Trustees regarding funding modifications, hiring, and termination of all alternative investment managers;
- Monitor alternative investment managers, including conducting on-site due diligences visits and routine conference calls with managers to ensure they meet expectations and conform to policies and guidelines;

- Provide monthly, quarterly and yearly reports to the Executive Director with regards to the Fund's alternative investment managers' performance and assets;
- Serve as a liaison between the Executive Director and the Fund's alternative investment managers;
- Provide reports, as needed, to the Executive Director regarding the health and stability of the Fund's alternative investments;
- Collaborate with the Fund's investment consultants and the Executive Director to develop and implement asset allocations and portfolio modifications;

**Alternative Investments Department Code of Ethics**

All staff members in the alternative investment department must abide by the Investment Department Code of Ethics. This policy is to be reviewed annually for appropriateness. A copy of this policy is included in the appendix of this document.

## Section II-E5: Role of the Public Markets Investments Department

The Public Markets Investment Department's primary responsibility is to monitor the Fund's public equity and fixed income investments. In accordance with this responsibility, the Public Markets Investments Department shall perform the following tasks on behalf of the Fund:

- Implement the decisions of the Board of Trustees regarding funding modifications, hiring, and termination of all public markets investment managers;
- Monitor public markets investment managers, including conducting on-site due diligence visits and routine conference calls with managers to ensure they meet expectations and conform to policies and guidelines;
- Provide daily, monthly, quarterly and yearly reports to the Executive Director with regards to the Fund's public markets investment managers' performance and assets;
- Serve as a liaison between the Executive Director and the Fund's public markets investment managers;
- Provide reports, as needed, to the Executive Director regarding the health and stability of the Fund's public markets investments;
- Collaborate with the Fund's investment consultants and the Executive Director to develop and implement asset allocations and portfolio modifications;
- Monitor the Fund's securities litigation policy, MWDBE brokerage policy and securities lending programs;

**Public Markets Investments Department Code of Ethics**

All staff members in the public markets investment department must also abide by the Investment Department Code of Ethics. This policy is to be reviewed annually for appropriateness. A copy of this policy is included in the appendix of this document.

## Section III: Investment Service Providers

All of CTPF's assets are managed by external investment managers. Outside service providers, including investment consultants and master custodians, may be hired, upon the Board's approval, to assist the Fund's internal staff in monitoring and safeguarding the Fund's assets.

### Section III-A: Role of the General Investment Consultant

The Board may conduct a search and hire a general consultant. The general consultant is hired by and serves at the pleasure of the Board. The general consultant is responsible for providing the Fund with ongoing performance evaluation and due diligence of the Fund's current investment managers. In accordance with this responsibility, the General Consultant shall perform the following tasks on behalf of the Fund:

- Work with the Board and staff in the management of the investment process, including attendance at regular meetings with the Board to provide an independent perspective on the Fund's goals, structure, performance and investment managers;
- Work directly with staff to review asset allocations and performance and make recommendations to the Board as appropriate;
- Assist the Board with external investment manager selection;
- Promptly inform the Fund and discuss the impact of material changes taking place within any current investment manager's organization or investment process;
- Work directly with the staff to review and make recommendations to the Board as appropriate;
- Provide quarterly performance evaluations for each investment manager;
- Upon request, negotiate fee arrangements and other investment guideline terms with the investment managers on behalf of CTPF;
- Have no conflict of interest in making recommendations and providing investment advice to CTPF; general consultants can not cause the Fund to make an investment from which the general consultant will derive an economic benefit. Any cross ownership or conflict of interest must be immediately disclosed to the Executive Director and the Board of Trustees.

**Section III-A1: Role of the Specialized Consultant**

The Board may conduct a search and hire a specialized consultant. The specialized consultant is appointed by and serves at the pleasure of the Board. The specialized consultant is responsible for providing the Fund with ongoing performance evaluation and due diligence of the Fund's current investment managers with a specialization on a specific asset class or strategy. In accordance with this responsibility, the specialized consultant shall perform the following tasks with regards to the specific asset class, on behalf of the Fund:

- Work with the Board and staff in the management of the investment process, including attendance at regular meetings with the Board to provide an independent perspective on the Fund's goals, structure, performance and investment managers;
- Work directly with the staff to review and make recommendations to the Board as appropriate;
- Assist staff and the Board with external investment manager selection;
- Promptly inform the Fund and discuss the impact of material changes taking place within any current investment manager's organization or investment process;
- Provide quarterly performance evaluations for each investment manager;
- Upon request, negotiate fee arrangements and other investment guideline terms with the investment managers on behalf of CTPF;
- Have no conflict of interest in making recommendations and providing investment advice to CTPF; specialized consultants can not cause the Fund to make an investment from which the specialized consultant will derive an economic benefit. Any cross ownership or conflict of interest must be immediately disclosed to the Executive Director and the Board of Trustees.

**Section III-B: Role of the Master Custodian**

The master custodian is the Trust Division of a major investment-centered bank. The Fund's master custodian is responsible for holding in custody all the securities, cash and cash equivalent of the Fund; which are to be housed in separate account of each investment manager, with the exception of commingled or mutual funds. The master custodian is to make available, upon the request from any investment department staff member, reports detailing the securities transactions processed or pending, market values and all other pertinent information regarding the Fund's investments. The master custodian may also, at the direction of the Board, engage in a securities lending program. Alternatively, the Board may choose to retain a third party firm to provide securities lending services to the Fund.

**Section III-C: Role of the Investment Manager**

In accordance with the Pension Code and applicable law, the Board may conduct a search and hire an external investment manager(s) to invest the assets of the Fund. The primary responsibility of the investment manager is to invest assets in accordance with the investment manager(s) specific guideline and objectives. Investment managers are also tasked with:

- Using the same skill, prudence and due diligence when managing the Fund's assets;

- Exercising full investment discretion in regards to buying, selling and managing the assets held in their respective portfolios;
- Communicating with CTPF's staff and investment consultants, in writing, regarding performance, market values and significant changes pertaining to the Fund's assets being managed by the investment manager and investment strategy;
- Using skill, prudence and due diligence when managing the Fund's assets;
- Vote proxy on behalf of the Fund (if applicable);
- Have no conflict of interest in making recommendations and providing investment advice to CTPF. Any cross ownership or conflict of interest must be immediately disclosed to the Executive Director and the Board of Trustees.

## Section IV: Portfolio Management Policies

The Fund invests assets for the benefit of the Fund's contributors and pensioners. CTPF's assets are managed in a fashion that reflects the unique liabilities, funding resources and portfolio size. It is the Fund's position that asset allocation is the key determinant of return and that commitments to asset allocation ranges should be maintained through a disciplined rebalancing program. Diversification, both by and within asset classes, is a primary risk control element. Because assets are invested to achieve long term returns, disappointing results over a short periods of time will not be the determining factor in the Fund's decision to revise an asset allocation or terminate an investment manager (with the exception of extreme cases; passive and actively managed portfolios are both acceptable options for the Fund).

## Section IV-A: Investment Objectives

The Fund, working in conjunction with its investment consultants and subject to the approval of the Board of Trustees, will develop an investment objective prior to developing an investment portfolio. It is the Fund's policy that based on the Fund's monthly pension obligations; all investment objectives must be prudent in an effort to the preserve the Fund's assets.

The Fund's overall investment objective is to provide the beneficiaries and pensioners of the Fund with retirement, disability, death and survivors benefits, by providing the highest possible rate of return for all investments while maintaining a conservative level of risk, ultimately obtaining an annual rate of return of 8% over extended periods of time.

The following issues will be considered during the development of the Fund's investment objectives:

- Current benefits structure and long-term goals regarding benefit securities;
- Current and prospective funding sources, levels and liability structure;
- Actuarial methods and assumptions;
- Historical and prospective risk and return characteristics associated with various assets and investment management styles;
- Impact of changes in asset value on funding status and benefit security.

### Section IV-A1: Asset Allocation

The Fund, working in conjunction with its investment consultants and subject to the approval of the Board of Trustees, builds the asset allocation framework that has the highest likelihood of achieving the Fund's investment objectives. The asset allocation of the Fund is reviewed monthly for compliance, yearly for appropriateness, and as necessary to implement any changes required to comply with the Pension Code any other applicable laws.

| Asset Class | Target (%) | Allowable Range (%) |
|---|---|---|
| ***Large Cap Equity*** | ***18.25*** | ***+/- 5*** |
| Index | 6.25 | |
| Core | 4 | |
| Value | 4 | |
| Growth | 4 | |
| ***Mid Cap Equity*** | ***2.50*** | ***+/- 1*** |
| Index | 0 | |
| Growth | 1.25 | |
| Core | 0 | |
| Value | 1.25 | |
| ***Small Cap Equity*** | ***6.5*** | ***+/- 2*** |
| Index | 0 | |
| Value | 3.25 | |
| Growth | 3.25 | |
| ***All Cap Equity*** | ***4*** | ***+/- 2*** |
| ***International Equity*** | ***31.25*** | ***+/- 5*** |
| ***Private Equity*** | ***3*** | ***+/-2*** |
| ***Public REITs*** | ***2.5*** | ***+/- 2*** |
| ***Total Equity*** | | |
| ***Real Estate*** | ***6.5*** | ***+/- 2%*** |
| ***Infrastructure*** | ***2*** | ***+/- 2*** |
| ***Hedge Funds*** | ***2*** | ***+/- 2*** |
| ***Fixed Income*** | ***19.5*** | ***+/-5%*** |
| Index | 10.5 | |
| Core | 4.5 | |
| Opportunistic | 4.5 | |
| Cash Equivalents | 2 | +/-2 |
| ***Total Fixed Income*** | | |

**Section IV-A2: Rebalancing**

At all times the Fund's portfolio should be as close as possible to the asset allocation. It is the responsibility of the staff to maintain the asset allocation and, on a quarterly basis, evaluate the position of the portfolio to determine if the portfolio is consistent with the exposure ranges. If an asset class(es) falls above or below the allowable ranges set forth in the asset allocation, the Executive Director may direct the investment staff to rebalance the portfolio. On a monthly basis, the investment department is to provide the Executive Director with a monthly asset allocation.

There are two ways CTPF rebalances the investment portfolio:

*Strategic Rebalancing:* This method requires the Investment Accounting Department to liquidate one asset class (i.e. Fixed Income, Large Cap, Small Cap, Mid Cap, International, REITs) during the course of several months. The liquidated assets will then be used to meet pension obligations. This rebalancing method is used to bring one asset class into its appropriate asset allocation ranges over a series of several months. The investment department will begin liquidation upon direction from the Executive Director.

*Tactical Rebalancing:* This method is used when the portfolio's asset allocation has been altered or market conditions have created substantial rebalancing requirements. The investment department will create a rebalancing plan to be presented and approved by the Board. Upon direction from the Board, the investment staff will initiate transition of the portfolio based on market conditions.

Seven days prior to monies being withdrawn from an investment manager, investment staff will notify the manager of the amount and date of the withdrawal. The securities liquidated will be at discretion of the investment manager, not the Fund's staff or investment consultant(s).

Apart from investment objectives, the Fund seeks to earn market returns from each asset class. Each public market asset class has a Policy Benchmark Index that is believed to best represent the broadest market opportunity set for the respective asset class. The return on each Policy Benchmark Index is the market return for each asset class. The total fund benchmark is determined by the Fund's general investment consultant.

**Section IV-B: Domestic Equities**

CTPF invests in the domestic equity market to earn an equity risk premium to enhance the Fund's long-term returns. This asset class includes the broad market of publicly traded U.S. equities with varying characteristics related to market capitalization and investment style. The Policy Benchmark Index for Domestic Equities is the Russell 3000 Core Index.

**Section IV-B1: Domestic All Capitalization Core (ACC)**

CTPF invests in domestic all capitalization core equities; these equities are classified as domestic equities with a market capitalization of any size and are considered core equities as determined by statistical characteristics and classification by the Fund's consultant. The portion of the CTPF portfolio invested in this strategy is benchmarked to the Russell 3000 index. Investment managers that manage money for the Fund using an ACC strategy have the following risk constraints on their portfolios:

- Invest up to 10% in American Depository Receipts (ADRs);
- No holding can make up more than 5% of the manager's entire portfolio or 1.5X the index weighting, whichever is greater;
- No sector can make up more than 35% of the manager's entire portfolio or 1.5 times the portfolio's benchmark;
- Up to 5% of cash can be held in the portfolio for over five consecutive business days;
- Abide by all constraints set forth in the investment guidelines and contract;
- Private placement, foreign listed on foreign exchanges, options and futures are prohibited.

ACC investment managers' performance criteria are:

| Horizon | Index | Universe |
|---|---|---|
| Less than one market cycle (Rolling 3-year periods) | Exceed the Russell 3000 Core Index | Rank in the upper half of a universe |
| One market cycle (Rolling 5-year periods) | Exceed the Russell 3000 Core Index by 50 basis points | Rank in the upper 40% of a universe |

**Section IV-B2: Domestic Manager of Managers (MoM)**

CTPF invests in domestic equity manager of managers programs, in order to increase the diversity of the Fund's investment managers. The portion of the CTPF portfolio invested in this strategy is benchmarked to the Russell 3000 index. Investment managers that manage money for the Fund using a MoM strategy have the following risk constraints on their portfolios:

- May not fund any underlying investment manager that does not meet the definition of Emerging Investment Manager;
- Must be in possession of (and supply upon request from the Fund's staff) copies of all underlying investment managers' most current MWDBE certifications;
- Abide by all constraints set forth in the investment guidelines and contract.

The underlying investment managers of the of the MoM programs have the following constraints on their portfolios:

- Invest up to 10% in American Depository Receipts (ADRs);
- Up to 5% of cash can be held in the portfolio for over five consecutive business days;

- No holding can make up more than 5% of the manager's entire portfolio or 1.5X the index weighting, whichever is greater;
- No sector can make up more than 35% of the manager's entire portfolio for the Fund or 1.5 times the portfolio's benchmark;
- Private placement, foreign listed on foreign exchanges, options and futures are prohibited.

MoM investment managers' performance criteria are:

| Horizon | Index | Universe |
|---|---|---|
| Less than one market cycle (Rolling 3-year periods) | Exceed the Russell 3000 Core Index | Rank in the upper half of a universe |
| One market cycle (Rolling 5-year periods) | Exceed the Russell 3000 Core Index by 50 basis points | Rank in the upper 40% of a universe |

**Section IV-B3: Domestic Large Capitalization Value (LCV)**

CTPF invests in domestic large capitalization value equities; these equities are classified as domestic equities with a market capitalization of $5B and over and are considered value equities as determined by statistical characteristics and classification by the Fund's consultant. The portion of the CTPF portfolio invested in this strategy is benchmarked to the Russell 1000 Value index. Investment managers that manage money for the Fund using a LCV strategy have the following risk constraints on their portfolios:

- Invest up to 10% in American Depository Receipts (ADRs);
- No holding can make up more than 5% of the manager's entire portfolio or 1.5X the index weighting, whichever is greater;
- No sector can make up more than 35% of the manager's entire portfolio for the Fund or 1.5 times the portfolio's benchmark;
- Up to 5% of cash can be held in the portfolio for over five consecutive business days;
- 80% of the portfolio's holdings must be classified as value by the Fund's consultant;
- 80% of the portfolio's holdings must be classified as large cap by the Fund's consultant;
- Abide by all constraints set forth in the investment guideline and contract;
- Private placement, foreign listed on foreign exchanges, options and futures are prohibited.

LCV investment managers' performance criteria are:

| Horizon | Index | Universe |
|---|---|---|
| Less than one market cycle. (Rolling 3-year periods) | Exceed the Russell 1000 Value Index. | Rank in the upper half of a universe. |
| One market cycle. (Rolling 5-year periods) | Exceed the Russell 1000 Value Index by 50 basis points. | Rank in the upper 40% of a universe. |

**Section IV-B4: Domestic Large Capitalization Growth (LCG)**

CTPF invests in domestic large capitalization growth equities; these equities are classified as domestic equities with a market capitalization of $5B and over are considered growth equities as determined by statistical characteristics and classification by the Fund's consultant. The portion of the CTPF portfolio invested in this strategy is benchmarked to the Russell 1000 Growth Index. Investment managers that manage money for the Fund using a LCG strategy have the following risk constraints on their portfolios:

- Invest up to 10% in American Depository Receipts (ADRs);
- No holding can make up more than 5% of the manager's entire portfolio or 1.5X the index weighting, whichever is greater;
- No sector can make up more than 35% of the manager's entire portfolio for the Fund or 1.5 times the portfolio's benchmark;
- Up to 5% of cash can be held in the portfolio for over five consecutive business days;
- 80% of the portfolio's holdings must be classified as growth by the Fund's consultant;
- 80% of the portfolio's holdings must be classified as large cap by the Fund's consultant;
- Abide by all constraints set forth in the investment guidelines and contract;
- Private placement, foreign listed on foreign exchanges, options and futures are prohibited.

LCG investment managers' performance criteria are:

| Horizon | Index | Universe |
|---|---|---|
| Less than one market cycle. (Rolling 3-year periods) | Exceed the Russell 1000 Growth Index. | Rank in the upper half of a universe. |
| One market cycle. (Rolling 5-year periods) | Exceed the Russell 1000 Growth Index by 50 basis points. | Rank in the upper 40% of a universe. |

**Section IV-B5: Domestic Large Capitalization Core (LCC)**

CTPF invests in domestic large capitalization core equities, these equities are classified as domestic equities with a market capitalization of $5B. The portion of the CTPF portfolio invested in this strategy is benchmarked to the Russell 1000 Index. Investment managers that manage money for the Fund using a LCC strategy have the following risk constraints on their portfolios:

- Invest up to 10% in American Depository Receipts (ADRs);
- No holding can make up more than 5% of the manager's entire portfolio or 1.5X the index weighting, whichever is greater;
- No sector can make up more than 35% of the manager's entire portfolio for the Fund or 1.5 times the portfolio's benchmark;
- Up to 5% of cash can be held in the portfolio for over five consecutive business days;
- 80% of the portfolio's holdings must be classified as large cap by the Fund's consultant;
- Private placement, foreign listed on foreign exchanges, options and futures are prohibited.

LCC investment managers' performance criteria are:

| Horizon | Index | Universe |
|---|---|---|
| Less than one market cycle. (Rolling 3-year periods) | Exceed the Russell 1000 Index. | Rank in the upper half of a universe. |
| One market cycle. (Rolling 5-year periods) | Exceed the Russell 1000 Index by 50 basis points. | Rank in the upper 40% of a universe. |

**Section IV-B6: Domestic Mid Capitalization Value (MCV)**

CTPF invests in domestic mid capitalization value equities; these equities are classified as domestic equities with a market capitalization of $2-5B and are considered value equities as determined by statistical characteristics and classification by the Fund's consultant. The portion of the CTPF portfolio invested in this strategy is benchmarked to the Russell Mid Cap Value index. Investment managers that manage money for the Fund using a MCV strategy have the following risk constraints on their portfolios:

- Invest up to 10% in American Depository Receipts (ADRs);
- No holding can make up more than 5% of the manager's entire portfolio or 1.5X the index weighting, whichever is greater;
- No sector can make up more than 35% of the manager's entire portfolio for the Fund or 1.5 times the portfolio's benchmark;
- Up to 5% of cash can be held in the portfolio for over five consecutive business days;
- 80% of the portfolio's holdings must be classified as value by the Fund's consultant;
- 80% of the portfolio's holdings must be classified as mid cap by the Fund's consultant;
- Abide by all constraints set forth in the investment guidelines and contract;
- Private placement, foreign listed on foreign exchanges, options and futures are prohibited.

MCV investment managers' performance criteria are:

| Horizon | Index | Universe |
|---|---|---|
| Less than one market cycle (Rolling 3-year periods) | Exceed the Russell Mid Value Cap Index | Rank in the upper half of a universe |
| One market cycle (Rolling 5-year periods) | Exceed the Russell Mid Value Cap Index by 50 basis points | Rank in the upper 40% of a universe |

**Section IV-B7: Domestic Mid Capitalization Growth (MCG)**

CTPF invests in domestic mid capitalization growth equities; these equities are classified as domestic equities with a market capitalization of $2-5B and are considered growth equities as determined by statistical characteristics and classification by the Fund's consultant. The portion of the CTPF portfolio invested in this strategy is benchmarked to the Russell Mid Cap Growth Index. Investment managers that manage money for the Fund using a MCG strategy have the following risk constraints on their portfolios:

- Invest up to 10% in American Depository Receipts (ADRs);

- No holding can make up more than 5% of the manager's entire portfolio or 1.5X the index weighting, whichever is greater;
- No sector can make up more than 35% of the manager's entire portfolio for the Fund or 1.5 times the portfolio's benchmark;
- Up to 5% of cash can be held in the portfolio for over five consecutive business days;
- 80% of the portfolio's holdings must be classified as growth by the Fund's consultant;
- 80% of the portfolio's holdings must be classified as mid cap by the Fund's consultant;
- Abide by all constraints set forth in the investment guidelines and contract;
- Private placement, foreign listed on foreign exchanges, options and futures are prohibited.

MCG investment managers' performance criteria are:

| Horizon | Index | Universe |
|---|---|---|
| Less than one market cycle (Rolling 3-year periods) | Exceed the Russell Mid Cap Growth Index | Rank in the upper half of a universe |
| One market cycle (Rolling 5-year periods) | Exceed the Russell Mid Cap Growth Index by 50 basis points | Rank in the upper 40% of a universe |

**Section IV-B8: Domestic Mid Capitalization Core (MCC)**

CTPF invests in domestic mid capitalization growth equities, these equities are classified as domestic equities with a market capitalization of $2-5B. The portion of the CTPF portfolio invested in this strategy is benchmarked to the Standards and Poor's 400 Mid Cap Index (S&P 400). Investment managers that manage money for the Fund using a LCC strategy have the following risk constraints on their portfolios:

- Invest up to 10% in American Depository Receipts (ADRs);
- No holding can make up more than 5% of the manager's entire portfolio or 1.5X the index weighting, whichever is greater;
- No sector can make up more than 35% of the manager's entire portfolio for the Fund or 1.5 times the portfolio's benchmark;
- Up to 5% of cash can be held in the portfolio for over five consecutive business days;
- 80% of the portfolio's holdings must be classified as mid cap by the Fund's consultant;
- Abide by all constraints set forth in the investment guidelines and contract;
- Private placement, foreign listed on foreign exchanges, options and futures are prohibited.

MCC investment managers' performance criteria are:

| Horizon | Index | Universe |
|---|---|---|
| Less than one market cycle (Rolling 3-year periods) | Exceed the Russell Mid Cap Core Index | Rank in the upper half of a universe |
| One market cycle (Rolling 5-year periods) | Exceed the Russell Mid Cap Core Index by 50 basis points | Rank in the upper 40% of a universe |

## Section IV-B9: Domestic Small Capitalization Value (SCV)

CTPF invests in domestic small capitalization value equities; these equities are classified as domestic equities with a market capitalization of $2B or less and are considered value equities as determined by statistical characteristics and classification by the Fund's consultant. The portion of the CTPF portfolio invested in this strategy is benchmarked to the Russell 2000 Value index. Investment managers that manage money for the Fund using a SCV strategy have the following risk constraints on their portfolios:

- Invest up to 10% in American Depository Receipts (ADRs);
- No holding can make up more than 5% of the manager's entire portfolio or 1.5X the index weighting, whichever is greater;
- No sector can make up more than 35% of the manager's entire portfolio for the Fund or 1.5 times the portfolio's benchmark;
- Up to 5% of cash can be held in the portfolio for over five consecutive business days;
- 80% of the portfolio's holdings must be classified as value by the Fund's consultant;
- 80% of the portfolio's holdings must be classified as small cap by the Fund's consultant;
- Abide by all constraints set forth in the investment guidelines and contract;
- Private placement, foreign listed on foreign exchanges, options and futures are prohibited.

SCV investment manager's performance criteria are:

| Horizon | Index | Universe |
|---|---|---|
| Less than one market cycle (Rolling 3-year periods) | Exceed the Russell 2000 Value Cap Index | Rank in the upper half of a universe |
| One market cycle (Rolling 5-year periods) | Exceed the Russell 2000 Value Cap Index by 100 basis points | Rank in the upper 40% of a universe |

## Section IV-B10: Domestic Small Capitalization Growth (SCG)

CTPF invests in domestic small capitalization growth equities; these equities are classified as domestic equities with a market capitalization of $2B or less and are considered growth equities as determined by statistical characteristics and classification by the Fund's consultant. The portion of the CTPF portfolio invested in this strategy is benchmarked to the Russell 2000 Growth Index. Investment managers that manage money for the Fund using a SCG strategy have the following risk constraints on their portfolios:

- Invest up to 10% in American Depository Receipts (ADRs);
- No holding can make up more than 5% of the manager's entire portfolio or 1.5X the index weighting, whichever is greater;
- No sector can make up more than 35% of the manager's entire portfolio for the Fund or 1.5 times the portfolio's benchmark;
- Up to 5% of cash can be held in the portfolio for over five consecutive business days;
- 80% of the portfolio's holdings must be classified as growth by the Fund's consultant;
- 80% of the portfolio's holdings must be classified as small cap by the Fund's consultant;

- Abide by all constraints set forth in the investment guidelines and contract;
- Private placement, foreign listed on foreign exchanges, options and futures are prohibited.

SCG investment manager's performance criteria are:

| Horizon | Index | Universe |
|---|---|---|
| Less than one market cycle (Rolling 3-year periods) | Exceed the Russell 2000 Growth Cap Index | Rank in the upper half of a universe |
| One market cycle (Rolling 5-year periods) | Exceed the Russell 2000 Growth Cap Index by 100 basis points | Rank in the upper 40% of a universe |

**Section IV-B11: Domestic Small Capitalization Core (SCC)**

CTPF invests in domestic small capitalization core equities, these equities are classified as domestic equities with a market capitalization of $2B or less and are considered core as determined by statistical characteristics and classification by the Fund's consultant. The portion of the CTPF portfolio invested in this strategy is benchmarked to the Russell 2000 Index. Investment managers that manage money for the Fund using a SCC strategy have the following risk constraints on their portfolios:

- Invest up to 10% in American Depository Receipts (ADRs);
- No holding can make up more than 5% of the manager's entire portfolio or 1.5X the index weighting, whichever is greater;
- No sector can make up more than 35% of the manager's entire portfolio for the Fund or 1.5 times the portfolio's benchmark;
- Up to 5% of cash can be held in the portfolio for over five consecutive business days;
- 80% of the portfolio's holdings must be classified as small cap by the Fund's consultant;
- Abide by all constraints set forth in the investment guidelines and contract;
- Private placement, foreign listed on foreign exchanges, options and futures are prohibited.

SCC investment managers' performance criteria are:

| Horizon | Index | Universe |
|---|---|---|
| Less than one market cycle (Rolling 3-year periods) | Exceed the Russell 2000 Core Cap Index | Rank in the upper half of a universe |
| One market cycle (Rolling 5-year periods) | Exceed the Russell 2000 Core Cap Index by 100 basis points | Rank in the upper 40% of a universe |

**Section IV-B12: Real Estate Investment Trusts (REITs)**

CTPF invests in domestic REITs; these equities are classified as holdings that trade on public stock exchanges and invest in real estate either directly or through properties or mortgages. The portion of the CTPF portfolio invested in this strategy is benchmarked to the FTSE NAREIT US Real Estate Index or customized index. Investment managers that manage money for the Fund using a REITs strategy have the following risk constraints on their portfolios:

- The Investment Manager shall abide by all constraints set forth in the investment guidelines and contract;
- The Investment manager shall comply with the terms of the Illinois Pension Code, 40 ILCS 5/1-110.5 (and shall provide any certification required by the Fund regarding the Investment Manager's compliance with 5/1-110.5).
- No holding can make up more than 5% of the manager's entire portfolio or 1.5X the index weighting, whichever is greater;
- No individual sector can make up more than 5% of the manager's entire portfolio or 1.5X the index weighting in the sector, whichever is greater;
- Cash is limited to 5% of the portfolio. The investment manager shall not maintain, for any period in excess of 20 consecutive business days, a cash position exceeding 5 percent of the value of the sub-account unless specifically agreed upon, in advance, by the Fund;
- The Investment manger shall not, without the Fund's prior consent, purchase equity securities on margin, trade in commodities or futures contracts, hedge currencies or deal in private placements or option contracts.

REIT investment managers' performance criteria are:

| Horizon | Index | Universe |
|---|---|---|
| Less than one market cycle. (Rolling 3-year periods) | Exceed the FTSE NAREIT US Real Estate Index or customized index net of fees | Rank above the median manager in the peer universe |
| One market cycle. (Rolling 5-year periods) | Exceed the FTSE NAREIT US Real Estate Index by 50 basis points or customized index net of fees | Rank in the upper 40% of the peer universe. |

**Section IV-C: International Equities**

CTPF invests in international equities to earn an equity risk premium and to diversify the equity exposure within the Fund. The international equities asset class includes both developed and emerging equity markets. The portion of the CTPF portfolio invested in this strategy is benchmarked to the Morgan Stanley Capital International (MSCI) All-Country World Index ex-U.S. (ACWI ex-U.S.).

**Section IV-C1: International Small Cap Equity (ISC)**

CTPF invests in international small capitalization core equities, these equities are classified as international equities with a market capitalization of $2B or less. The portion of the CTPF portfolio invested in this strategy is benchmarked to the MSCI ex-US Small Cap Index. Investment managers that manage money for the Fund using an ISC strategy have the following risk constraints on their portfolios:

- No holding can make up more than 7.5% of the manager's entire portfolio for the Fund;
- No sector can make up more than 35% of the manager's entire portfolio for the Fund;
- Up to 5% of cash can be held in the portfolio for over five consecutive business days;

- 100% of the portfolio's holdings must be classified as international equities;
- 80% of the portfolio's holdings must be classified as small cap equities;
- Abide by all constraints set forth in the investment guidelines and contract;
- The average (median) market capitalization of the portfolio should not exceed three times the median market capitalization of a comparable Index.
- The manager may invest in emerging markets up to 30% of the market value of the portfolio.

ISC investment managers' performance criteria are:

| Horizon | Index | Universe |
|---|---|---|
| Less than one market cycle (Rolling 3-year periods) | Exceed the MSCI ex-US Small Cap Index | Rank in the upper half of a universe |
| One market cycle (Rolling 5-year periods) | Exceed MSCI ex-US Small Cap Index by 100 basis points | Rank in the upper 40% of a universe |

**Section IV-C2: International All Cap Core Equity (IACC)**

CTPF invests in international all capitalization core equities, these equities are classified as international equities with any market capitalization. The portion of the CTPF portfolio invested in this strategy is benchmarked to the Morgan Stanley All Country All World (ACWI) ex US Index. Investment managers that manage money for the Fund using an IACC strategy have the following risk constraints on their portfolios:

- No holding can make up more than 7.5% of the manager's entire portfolio for the Fund;
- No sector can make up more than 35% of the manager's entire portfolio for the Fund;
- Up to 5% of cash can be held in the portfolio for over five consecutive business days;
- 80% of the portfolio's holdings must be classified as international equities;
- Abide by all constraints set forth in the investment guidelines and contract;
- The average (median) market capitalization of the portfolio should not exceed three times the median market capitalization of a comparable Index;
- The manager may invest in emerging markets up to 30% of the market value of the portfolio.

IACC investment managers' performance criteria are:

| Horizon | Index | Universe |
|---|---|---|
| Less than one market cycle (Rolling 3-year periods) | Exceed the MSCI ACWI ex-US Index | Rank in the upper half of a universe |
| One market cycle (Rolling 5-year periods) | Exceed MSCI ACWI ex-US Index by 75 basis points. | Rank in the upper 40% of a universe |

**Section IV-C3: Global Real Estate Investment Trusts (Global REITs)**

CTPF invests in global REITs; these equities are classified as securities of companies in the real estate industry located throughout the world. A company is considered to be in the real estate industry if it derives at least 50% of its revenues or profits from the ownership, construction, management, financing or sale of residential, commercial, or industrial real estate or has at least 50% of the fair market value of its assets invested in residential, commercial or industrial real estate. The portion of the CTPF portfolio invested in this strategy is benchmarked to the FTSE EPRA/NAREIT Global Real Estate Index or customized index. Investment Managers that manage money for the Fund using a Global REIT strategy have the following risk constraints on their portfolios:

- The Investment Manager shall abide by all constraints set forth in the investment guidelines and contract;
- The Investment manager shall comply with the terms of the Illinois Pension Code, 40 ILCS 5/1-110.5 (and shall provide any certification required by the Fund regarding the Investment Manager's compliance with 5/1-110.5).
- The investment manager shall not acquire any security if, after the completion of such acquisition, more than 10% of the value of the sub-account would be invested in securities of a single issuer;
- No individual sector can make up more than 5% of the manager's entire portfolio or 1.5X the index weighting in the sector, whichever is greater;
- The Investment manger shall not, without the Fund's prior consent, purchase equity securities on margin, trade in commodities or futures contracts, hedge currencies or deal in private placements or option contracts.

| Horizon | Index | Universe |
|---|---|---|
| Less than one market cycle. (Rolling 3-year periods) | Exceed the FTSE EPRA/NAREIT Global Real Estate Index or customized index after fees | Rank in the upper half of the peer universe. |
| One market cycle. (Rolling 5-year periods) | Exceed the FTSE EPRA/NAREIT Global Real Estate Index by 50 basis points or customized index after fees | Rank in the upper 40% of the peer universe. |

**Section IV-D: Fixed Income**

CTPF invests in fixed income to earn an equity risk premium and to diversify the Fund's equity exposure. The fixed income asset class includes both core, core plus and high yield/opportunistic fixed income. The Policy Benchmark Index for fixed income is the Barclays' Aggregate Bond Index.

**Section IV-D1: Opportunistic/High Yield Fixed Income**

CTPF makes a strategic allocation to high opportunistic fixed income securities and their future or options derivatives, either individually or in a commingled vehicle subject to credit, diversification and marketability guidelines. Fixed income investment managers' performance criteria are:

| Horizon | Index | Universe |
|---|---|---|
| Less than one market cycle (Rolling 3-year periods) | Exceed the Barclay Aggregate Index | Rank in the upper half of a universe |
| One market cycle (Rolling 5-year periods) | Exceed Barclay Aggregate Index by 70 basis points | Rank in the upper 40% of a universe |

Investment managers that manage the opportunistic fixed income assets of the Fund have the following constraints on their portfolios:

- May not invest in:
  - short sales;
  - CMO residuals and support tranches;
  - stripped mortgage related securities;
  - leveraged floaters and inverse floaters (including money markets);
  - leveraged floaters and inverse floaters including money market obligations;
  - tiered-index bonds, range notes and all other forms of structured notes whose return characteristics are tied to changes in prepayments on mortgages or changes in a specified interest rate index or market rate;
  - natural resource real properties such as oil, gas, precious metals or timber;
  - partnerships or limited partnerships;
  - other forms of derivatives not specifically defined as permissible;
- Concentration per fixed income issuer cannot exceed 6% of the portfolio market value at the time of purchase, with the exception of investments in commingled vehicles, cash, cash-equivalent, U.S. Treasury or Agency securities. Furthermore, managers may not hold more than 5% of the outstanding shares of any single issuer with the exception of U.S. Treasuries or Agencies;
- "144A" debt and Section 4(2) Commercial Paper are limited to a maximum of 20% of the fixed income portfolio market value;
- A minimum of 80% of all fixed income securities (including 144A's) must be rated investment grade at the time of purchase by a majority of the Nationally Recognized Statistical Rating Organizations ("NRSROs)" assigning a rating to that issue, or in the case of a single rating, that rating must be investment grade. If there are two ratings, both must be investment grade. If less than 80% of the portfolio is rated investment grade subsequent to purchase, the manager will immediately contact the Board regarding its recommendation for bringing the portfolio into compliance;

- Up to 20% of all fixed income securities may be invested in non-dollar denominated securities; up to 10% of the portfolio may be invested in un-hedged non-dollar denominated securities;
- Up to 10% of the portfolio may be invested in emerging markets debt (dollar and non-dollar denominated), although under no circumstances may the combined assets held in high yield and emerging markets debt exceed 20% of the portfolio;
- Rated cash and cash-equivalent securities must be rated in the highest short-term rating category by a majority of the NRSROs assigning a rating to that issue, such as "A1" by Standard & Poor's or "P1" by Moody's. In the case of two ratings, the lowest rating applies and must be in the highest short-term category. In the case of only a single rating, that rating must be in the highest short-term rating category;
- The weighted average duration of the fixed income portfolio is expected to remain within a range of 80% to 120% of the representative benchmark;
- Permissible CMOs will be limited to no greater than 25% of the market value of the fixed income portfolio;
- In addition to the above rating guidelines, all bank-issued securities must carry a minimum rating of "B/C" or better by Thomson BankWatch rating service;
- Securities owned by the Plan, but held in custody by another party, may not be lent unless previously approved;
- The manager will conform to all applicable Statutory limitations, Board resolutions, guidelines relating to brokerage, (if any) voting and reporting requirements;
- The maximum amount of the portfolio that can be invested in the securities of a single issuer does not apply to issues guaranteed by the FDIC under the Temporary Liquidity Guarantee Program;
- Abide by all constraints set forth in the investment guidelines and contract;
- If the rating of the bond held in the managers portfolio drops, the manager must immediately notify the Fund and, at the discretion of the manager, unwind the position(s).

Opportunistic Fixed Income Managers may invest in:

- Cash Equivalent Securities, including, but not limited to: interest bearing or discount instruments such as money market funds; U.S. Treasury Bills; corporate-issued commercial paper; bank-issued Certificates of Deposits; bankers' acceptances; and repurchase agreements fully collateralized by U.S. Treasury or Agency securities;
- U.S. Treasury Notes, Bonds, TIPS, and STRIPs;
- Government Agencies & Instruments (Discount Notes, Debentures, Mortgage-Backed Securities);

- Corporate Bonds, Notes, Debentures, Asset-Backed Securities—such as mortgage bonds, convertible and non-convertible notes and debentures, preferred stocks, commercial paper, certificates of deposit and bankers acceptances issued by industrial, utility, finance, commercial banking or bank holding company organizations;

- Yankee and Eurodollar Bonds, Notes;

- Non-Agency Mortgage-Backed Securities;

- Sovereign or Supra-national Bonds;

- Obligations, including the securities of emerging market issuers, denominated in U.S. dollars or foreign currencies of international agencies, supranational entities and foreign governments (or their subdivisions or agencies), as well as foreign currency exchange-related securities, warrants, and forward contracts;

- Swaps, forwards, options on swaps, options on forwards;

- Securities defined under Rule 144(A) and Commercial Paper defined under Section 4(2) of the Securities Act of 1933.

All of the above can be fixed, variable, or floating rate.

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**Section IV-D1-1: Derivatives Policy (opportunistic fixed income)**

Investment managers may use derivatives traded on a recognized derivatives exchange for the purposes of hedging and efficient portfolio management, subject to compliance with the following specific guidelines at all times:

No more than 5% of the portfolio will be invested in original futures margin and option premiums, exclusive of any in-the-money portion of the premiums. Short (sold) options positions will generally be hedged with cash, cash equivalents, current portfolio security holdings, or other options or futures positions.

a) *Futures*

- The portfolio shall never be leveraged;

- The effective economic exposure to any asset class after allowing for the impact of short futures positions shall never be negative;

b) *Options*

- Call options may be purchased only if there is sufficient cash available to meet the exercise price or as part of a call spread;

- Put options may be purchased only to the extent that the corresponding physical asset is held in the portfolio or as part of a put spread;

- Call options may be written only if they are covered by holdings of the corresponding physical asset or as part of a call spread. Writing of uncovered call options is prohibited;

- Put options may be written only if there is sufficient cash available to pay to meet the exercise of the option or as part of a put spread;

- Options positions will be limited to those which, in a reasonable range of market scenarios, will not change the portfolio's average weighted duration by more than 20%.

c) *Reporting*

- All derivative positions and transactions shall be separately and explicitly identified in the investment manager's report. Each time the investment manager undertakes a derivative transaction; such manager shall so state in the next written report and explain the rationale for the transaction.

Over-the-counter derivatives not traded on a recognized exchange can only be used with specific prior written consent.

**Section IV-D2: Core Fixed Income**

Core fixed income managers' performance criteria are:

| Horizon | Index | Universe |
|---|---|---|
| Less than one market cycle.<br>(Rolling 3-year periods) | Exceed the Barclay Aggregate Index | Rank in the upper half of a universe.[2] |
| One market cycle.<br>(Rolling 5-year periods) | Exceed Barclay Aggregate Index by 70 basis points. | Rank in the upper 40% of a universe.[2] |

The Fund's core fixed income managers have the following constraints on their portfolios:

- Appropriate investments consist of marketable debt securities and cash equivalents;

- Bonds purchased must have a minimum quality rating of Baa (Moody's) or BAA (Standard & Poor's) and the average quality of the portfolio must be AA or better. Unrated U.S. Treasury and Government agency securities are permissible and will be treated as AAA rated for purposes of weighting. If the rating of the bond held in the manager's portfolio drops, the manager must immediately notify the Fund and, at the discretion of the manager, unwind the position(s);

- Individual security holdings (excluding cash equivalents and U.S Treasury and Government agency issues) should not exceed 6% of the total portfolio, measured at market value;

- Each manager will conform to all applicable Statutory limitations, Board resolutions, guidelines relating to brokerage, (if any) voting and reporting requirements;

- The maximum amount of the portfolio that can be invested in the securities of a single issuer does not apply to issues guaranteed by the FDIC under the Temporary Liquidity Guarantee Program;

- Prohibited investments include:
  - Private placements (144A securities are acceptable)
  - Foreign securities (Yankees are acceptable)

**Section IV-E: Hedge Funds**

CTPF invests in hedge funds to hedge the potential risks and loss of traditional investments. All Hedge Fund investments are currently within a fund of fund structure and adhere to the partnership agreement CTPF's hedge fund managers have the following guidelines:

- The portfolio should maintain adequate diversification by both fund type and provider;
- Due to the diverse nature of hedge funds, Manager Guidelines will be evaluated when hired.

Hedge Fund managers' performance criteria are:

| Horizon | Index | Universe |
|---|---|---|
| Less than one market cycle.<br>(Rolling 3-year periods) | Meet the US 3 Month T-Bill + 5% Index. | N/A |
| One market cycle (rolling 5 years) | Exceed the US 3 month T-Bill + 5% Index. | N/A |

**Section IV-F: Private Real Estate**

CTPF invests in real estate to enhance the investment portfolio return through long-term capital appreciation. Due to the long-term nature of most private real estate investments, the fund structures that accommodate private real estate investments are highly illiquid. CTPF seeks to be compensated for such illiquidity by earning returns substantially greater than those available from publicly traded real estate investments. CTPF private real estate managers have the following guidelines:

- Private real estate investments should be made through both closed-end and open-ended real estate funds;
- Adequate diversification by real estate subtypes (core, non-core/enhanced return, non-core/high return) should be maintained;
- The Fund will maintain minimum allocation of 60% to core real estate investments, primarily through investment in Open End Diversified Core commingled fund vehicles;
- The Fund will maintain a maximum allocation of 40% to all non-core private real estate investments, primarily through limited partnership interests in closed-end funds;
- The Fund will maintain a maximum allocation of 25% to all non-US private real estate investments, regardless of investment vehicle;
- Managers will execute for the Fund any and all documents pertaining to real estate limited partnership investments, including, but not limited to, private real estate limited partnership agreements; private real estate limited partnership subscriptions agreements and amendments to said agreements;

Private Equity managers' performance criteria are:

| Horizon | Index |
|---|---|
| Rolling 5-year period | Exceed the NCREIF Property Index by 2% |

**Section IV-G: Private Equity**

CTPF invests in private equity to enhance the investment portfolio return through long-term capital appreciation. Private equity investments are highly illiquid, and CTPF seeks to be compensated for such illiquidity by earning returns substantially greater than those available from publicly traded securities. CTPF's private equity managers have the following guidelines:

- Private equity investments should be made primarily through closed-end private equity funds;
- Adequate diversification by private equity subclass (venture capital, buyout, mezzanine, distressed debt, special situation, and non-U.S.) should be maintained;
- New investments in private equity funds should not exceed 10% of the normal policy allocation to private equity;
- Managers will execute for the Fund any and all documents pertaining to private equity limited partnership investments, including, but not limited to, private equity limited partnership agreements; private equity limited partnership subscriptions agreements and amendments to said agreements;

Private equity managers' performance criteria are:

| Horizon | Index | Universe |
|---|---|---|
| One market cycle (rolling 12-15 years) | 16% annualized rate of Return | Rank in the upper half of a universe. |

**Section IV-H: Infrastructure**

CTPF invests in infrastructure to enhance the investment portfolio return through long-term capital appreciation. Due to the long-term nature of most infrastructure investments, the fund structures that accommodate infrastructure investments are highly illiquid. CTPF seeks to be compensated for such illiquidity by earning returns substantially greater than those available from publicly traded infrastructure investments. All Infrastructure investments are currently within a fund of fund structure and adhere to the partnership agreement. The overall financial objective of the Infrastructure portfolios of the Fund is to meet the performance standard on a net of fee basis over the longer time periods. CTPF infrastructure managers have the following guidelines:

- The portfolio should maintain adequate diversification across Investments.
- Each manager invests in both US and non-US assets, with at least 50% of their investments in US Infrastructure products.

Infrastructure managers' performance criteria are:

| Horizon | Index |
| --- | --- |
| One Market Cycle (Rolling 5-7 years) | 8% annualized rate of return |

**Section IV-I Passively Managed Funds**

Periodically, the Fund may choose to have a portion of its assets passively managed. The primary objective of these Funds is to

**Section IV-J Cash**

Cash, for the purpose of applying the asset allocation weights and ranges, is limited to funds available prior to distribution to investment managers and the amount reserved to pay near-term benefits and administrative costs. The Policy Benchmark Index for Cash is the Salomon Brothers 3 month Treasury Bills Index. Cash investments have the following guidelines:

- Eligible investments shall be limited to units of the Collective Short-term Investment Fund, the Collective Short-term Extendible Portfolio, and the Collective Short to Intermediate Bond Fund, each of which is a collective trust fund maintained by the Fund's master custodian. The investment guidelines governing these funds have been reviewed and accepted by the Trustees and Investment Consultant.

Cash managing investment managers' performance criteria are:

| Horizon | Index | Universe |
| --- | --- | --- |
| Less than one market cycle. (Rolling 3-year periods) | Exceed Salomon Brothers 3 month Treasury Bills by 30 basis points. | Exceed the Donoghue Money Market Index. |
| One market cycle. (Rolling 5-year periods). | Exceed Salomon Brothers 3 month Treasury Bills by 70 basis points. | Exceed the Donoghue Money Market Index by 30 basis points. |

**Section IV-I1: Securities Lending**

The Program shall be managed to accomplish the following: It is intended that the Securities Lending Program generate income primarily from fees derived from lending its positions in invested capital from debt or equity securities to qualified borrowers and secondarily through a low risk collateral investment strategy and collateral investment. The securities lending program actively lends securities through various programs to qualified borrowers in order to provide incremental income to the respective asset classes. Borrowers provide liquid collateral in exchange for the right to borrow securities. Cash collateral investment shall follow the Cash Policy and Guidelines.

Securities lending agents shall follow the following guidelines and procedures stated below:

- Risk is managed through a combination of quantitative and qualitative constraints. The following sections identify the significant elements of risk associated with securities lending. Staff shall establish reasonable parameters to control such risks. Staff will monitor agents' and/or principals' compliance with Fund's Securities Lending Policy on a regular basis.
    - **Cash Reinvestment Risk:** The primary risk associated with securities lending is the risk that the cash reinvestment assets would not be sufficient to cover the liabilities due the borrowing brokers. This risk is addressed for all of our lending agents and cash collateral managers by the prudent observation of the CTPF's Cash Policy and Guidelines.
    - **Counterparty Risk:** The risk that a borrowing broker would not return a security from loan is managed through several factors. Staff regularly monitors amounts on loan to each borrowing broker. Excess collateral is held for each loan in the amount of 102% for domestic securities, and 105% for international securities. These collateral amounts are marked to market daily, should there ever be a need to liquidate collateral for a loan that cannot be returned. In order to further control potential risk associated with securities lending, the maximum amount that may be on loan with any one borrower is 10% of the total plan assets.
    - **Liquidity Risk:** The risk that assets may be on loan at a time when liquidity is needed. This risk is addressed by our agreement that establishes our legal right to recall any security at any time
- Cash collateral can be invested only in the following investment vehicles:
    - U.S. Government Obligations.
    - Bank obligations including certificates of deposit, time deposits, bankers' acceptances, medium term notes, or deposit notes where the guarantor is rated "A" or better by qualified rating agencies.
    - Commercial Paper and other Short Term securities including loan participation provided the issuer or guarantor is rated "A1" or "P1".
    - Corporate and other Debt Obligations including high grade fixed, floating and variable rate notes, variable rate demand obligations (Master Notes) and medium term notes with a credit quality of "A" or better.
    - Repurchase Agreements with respect to Government securities, but only with banks and broker-dealers registered with the SEC. Such instruments should be overnight, collateralized at 102% using the above securities.

- Money Market Mutual Funds registered with the SEC, as long as their guidelines are in conformance with the System's investment guidelines.
- Derivative investments are not permitted, including highly leveraged structured notes such as inverse floaters, CMT floaters, range floaters, dual index floaters, and other speculative instruments tied to inappropriate reset provisions.
- Non US investments and NON-US collateral will not be considered without Board approval.

In addition, the following guidelines set forth the parameters for diversification, maturity, and liquidity:

- No more than 5% of the portfolio can be exposed to term obligations of any one issuer unless they are U. S. Government obligations.
- A minimum of 20% of the portfolio must be invested in overnight instruments.
- The maximum maturity for any one investment shall not exceed 24 months. The weighted average maturity of the reinvestment portfolio shall not exceed 180 days.

**Section IV-J1: Commingled Vehicles**

CTPF may choose to invest in commingled vehicles or mutual funds in addition to separate accounts. All investment managers are expected to abide by the investment policies/guidelines and contractual agreement policies; additionally investment managers have the following guidelines:

- Maintain all fixed income and public equity commingled/mutual funds in a liquid position and, with 30 days notice for termination and fourteen business days for rebalancing, liquidate positions in the portfolio. All investment managers must demonstrate reasonable and efficient processes to ensure the liquidity of the Fund's assets.

- Abide by the Fund's derivates and securities lending policies, if applicable, in their investment of Fund assets in commingled/mutual funds.

**Section V-A: Securities Litigation**

As a large institutional investor, CTPF's assets include investments in publicly traded companies. Frequently, these investments are the subject of individual and class-action securities litigation under state and federal law. It is necessary for CTPF to understand the ramifications of legal actions impacting publicly traded securities. For the purposes of this paragraph, investments include public securities held in separate accounts, mutual funds and commingled funds in which CTPF has invested. As CTPF exists to provide retirement income to its members, the goal of this policy is the preservation of assets to meet the needs of CTPF members. The Board will prudently select the best means to preserve the Fund's assets, in accordance with its fiduciary responsibilities. In determining whether to pursue legal action, the Board will consider that most (if not all) of securities litigation cases will be prosecuted by the class-action bar whether or not CTPF takes an active role. In recognition of its fiduciary responsibilities, the Board establishes the following procedures and guidelines for monitoring and participating in securities class actions:

- CTPF will consider the active role in class-action litigation only when a case is identified where active involvement can add value on a long-term portfolio-wide basis. For the purposes of this policy, an “active role” means seeking to serve as lead plaintiff, co-lead plaintiff, named plaintiff, or file an individual action.
- All litigation in which the potential loss to CTPF is under $2MM will be "passively monitored." Passively monitored means that cases will be tracked for any notices of settlement and CTPF will participate in the litigation as a member of the class. Passively monitored also means that as notices of settlement are issued, proposed settlements will be evaluated and, absent any reasonable objections to unusual terms, CTPF’s master custodian will file a proof of claim so that it will receive its pro rata share of the recovery.
- Cases in which CTPF 's potential losses are $2MM or greater will receive a detailed analysis to determine the appropriate course of action – including, but not limited to, a motion to become lead plaintiff or co-lead plaintiff, named plaintiff, or to opt out and file an action on an individual basis in federal or state court as set out below. The criteria to be used in this analysis will include, but not be limited to, the following:
    1. Whether CTPF has, or had, substantial or significant holdings in the defendant company or security during the most plausible class period and sustained damages surpassing its threshold for considering action.
    2. Whether there is a very strong factual and legal basis for the action, including an analysis of any unique issues or defenses to which CTPF might be subject, indicating that it is highly probable that a successful verdict would be achieved by CTPF if the case was fully litigated.
    3. The availability of potential witnesses and the ability of the investment manager, investment consultants, and master custodian to respond to requested discovery.
    4. The probability that the defendant or an insurer is able to pay a reasonable recovery to the class.
    5. The potential prospective positive impact that corporate governance changes required as a result of legal action may have on the value of CTPF’s current holdings in the defendant corporation’s securities.
    6. Whether to function as a co-lead plaintiff for the purpose of aggregating damages.
    7. Whether to serve as a lead or co-lead plaintiff for the purpose of modifying the claim’s time period to include CTPF’s transactions.
    8. Whether to function as a lead or co-lead plaintiff with the purpose of disqualifying a law firm or lead plaintiff that will not represent the best interest of class members.
    9. Whether CTPF has any knowledge that another institutional investor is considering lead plaintiff or co-lead plaintiff status.

10. Whether it would be prudent to take action to oppose or dismiss a lawsuit that is deemed not in the best interest of shareholders.
11. Whether there is any other information that would be relevant to aid CTPF in deciding a position to take.
12. Whether there are staffing or resource constraints that might make it difficult to effectively pursue the case actively, as a lead plaintiff, co-lead plaintiff, or through an independent legal action.

- A decision to seek an active role in litigation is based on the totality of the circumstances. The dollar loss thresholds referenced above are guidelines and are not intended to be the sole factor in making the determination to seek an active or maintain a passive role.

**Roles and Responsibilities of the Executive Director**

Prior approval of the Board shall be required to proceed with any individual or class-action litigation pursuant to this policy. At the call of the Executive Director, the Board shall meet to consider recommendations to proceed with litigation and may authorize that the Executive Director:

- Retains the authority related to the conduct of the litigation and settlement pursuant to this policy in recognition of Executive Director's statutory authority to administer CTPF.
- Has full authority to execute all contracts, legal documents, certifications, and authorizations required hereunder to pursue authorized litigation.
- May delegate the exercise of the Executive Director's statutory authority and responsibility to any CTPF staff member.
- Is authorized to hire one or more consultants to serve as the Securities Monitoring and Litigation Counsel (Counsel), monitoring consultant, or in another capacity related to this policy.

**Monitoring and Reporting**

The Board may receive periodic regular reports regarding the implementation of this policy. Reports shall include information related to the passive and active monitoring activity authorized in this policy, including but not limited to the status of any litigation in which CTPF has assumed the role of lead plaintiff or co-lead plaintiff, or has initiated individual action; the name of the security and/or defendant corporation; the estimated market loss to CTPF; action recommended and/or taken against the security or defendant corporation; status of the action; amount of claimed loss forwarded to the claims administrator; date claim was filed; and the amounts recovered. The Board may request additional information in advance of its next regularly scheduled meeting.

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## Section V-B: Proxy Voting

All public markets investment managers are responsible for voting the proxies and shall provide a report to the Fund on an annual basis. At this time, the Board believes proxy voting to be a significant responsibility and expects the investment managers to cast the Fund's proxies consistent with a fiduciary responsibility to the Fund.

## Section V-C: Soft Dollars

The Fund allows investment manager to use soft dollars on the Fund's behalf for research purposes only.

## Section VI: Investment Managers

All assets of the Fund are managed externally by asset managers that are hired by the Fund, upon the approval of the Board of Trustees. All investment managers hired are expected to comply with all the policies, guidelines and procedures of the Fund, including, but not limited to, guidelines set forth in this document and in the investment manager's respective contract and investment guidelines with the Fund.

The duties and responsibilities of the investment managers selected by the Fund include:

- Exercising full investment discretion in regards to buying, managing and selling the assets held in their respective portfolios.
- Promptly informing the Board and/or their designated agents (the Executive Director and the Investment Consultant or Real Estate Investment Consultant) regarding significant matters pertaining to the investment of Fund assets. This includes, at a minimum, the following:
  - Quarterly portfolio asset and transactions statements.
  - Substantive changes in investment strategy and portfolio structure.
  - Changes in ownership, organizational structure, financial condition or professional staffing.
  - Quarterly reports detailing all trading activity and specific broker utilization.
  - Annual reports detailing all proxy voting activity.
- Using the same skill, prudence and due diligence when managing the Fund's assets.
- Utilizing same care, skill, prudence, and due diligence when managing the Fund's investment portfolio.
- Acting as a fiduciary to the Fund (this must be acknowledged in writing) and fully complying with the expectations of the Fund with regards to a fiduciary.

## Section VI-B: Investment Manager Search and Selection Process

Each manager is selected to meet specific investment objectives and/or performance of the Fund. The Board encourages the use of Emerging Investment Managers whenever possible. Pursuant to IL Public Act 96-006, if an Emerging Investment Manager meets the qualifications and criteria for a specific search, the Emerging Investment Manager will receive an invitation to present his/her firm for final consideration. Prior to any search, the Fund's staff and investment consultant must receive direction from the Board of Trustees. Once direction has been received from the Board of Trustees, staff and investment consultants will determine the basic criteria for qualified candidates. Once the criteria have been determined, staff will issue a request for proposal (RFP); all RFPs for mandates from the Fund will be posted on the Fund's webpage (www.ctpf.org). The Fund will use best efforts to meet the following guidelines when conducting a search:

Search Time Line

| | Time line |
|---|---|
| RFP posted on the Fund Website | 4 weeks prior to the RFP due date |
| RFP posted in investment publication | 2 weeks prior to the RFP due date |
| Deadline for questions | 1 week prior to the RFP due date |
| Selection of Finalist(s) | 1-2 months after RFP due date |
| Finalists' presentation at Board Meeting | 1-2 months after RFP due date |
| RFP candidates notified of Board decision | 1-2 months after RFP due date |
| Search results posted on the website | 1-2 months after RFP due date |
| Contract and Investment Guideline negotiations | 2-3 months after RFP due date |
| Initial funding | 2-3 months after RFP due date |

All investment managers that are seeking or are currently investing the Fund's assets must meet the following qualifications and requirements:

- Registered as a bank, insurance company, investment management company, or investment adviser as defined by the Registered Investment Advisers Act of 1940;
- Provide historical quarterly performance numbers calculated on a time-weighted basis, based on a composite of all fully discretionary accounts of similar investment style, and reported net and gross of fees;
- Provide performance evaluation reports prepared by an objective third party that illustrate the risk/return profile of the manager relative to other managers of like investment style;
- Provide detailed information on the history of the firm, key personnel, key clients, fee schedule, and support personnel and demonstrate financial and professional staff stability. This information can be a copy of a recent Request for Proposal (RFP) completed by the manager;
- Clearly articulate the investment strategy that will be followed and document that the strategy has been successfully adhered to over time;
- Selected firms shall have no outstanding legal judgments or past judgments which may reflect negatively upon the Fund;
- The Fund will make up no more than 20% of a firms' total AUM (See the Fund's Procurement Policy in the Appendix).

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**Section VI-B: Emerging Investment Manager Graduation**

A portion of the Fund's assets are managed by manager of managers (MoM); the purpose of these investments is to assist in developing Emerging Investment Managers while minimizing the risks associated with investing with smaller firms. Each year, the Fund will ask the direct manager of these portfolios to submit the names of underlying Emerging Investment Managers in the portfolio that could maintain a direct mandate from the Fund based on the firms' infrastructure and performance. If the Fund has capacity for the firm's strategy, upon the recommendation of the Fund's staff and investment consultants, the Board may elect to graduate the Emerging Investment Manager from the MoM program to a direct relationship. Once an Emerging Investment Manager has been graduated from the MoM portfolio, the MoM cannot hold the Emerging Investment Manager in their portfolio for the same product/service.

**Section VI-C: Investment Manager Watchlist and Probation Guideline**

Staff working with the Fund's investment consultants will recommend placing an investment manager on "watch" status when: confidence is lost in the management of a strategy; the characteristics of the portfolio no longer satisfy the desired or expected elements of the mandate, or the current style is no longer deemed appropriate. The following are a list of scenarios that would lead to a loss of confidence in a manager:

- *Performance:* Continued performance shortfalls versus a peer group of managers with a similar style and market index. A manager that does not remain in the upper half of the universe and lags the market index for the 3 year period;
- *Changes in strategy:* If the manager departs from the strategy and/or style it was originally hired to implement, such as a switch from a quantitative process to a fundamental one and or the strategy deviates from the universe and benchmark dramatically and in a manner that would not have been expected given the tracking error expectations of the particular strategy;
- *Change in organizational structure or personnel:* A significant change in culture through a merger or acquisition that is likely to distort incentives and promote turnover, or if significant members of the investment team leaves the firm;
- *Compliance:* Any gross negligence, willful misconduct, Investment Policy violation or violation of federal or state laws;
- *Brokerage Guidelines:* Investment managers that do not follow CTPF's Brokerage Policy will be considered for placement on watch status;
- *Other:* Any other reason the Investment Committee may deem necessary for a heightened review of the manager is warranted.

Once staff and investment consultants recommend that an investment manger should be added to the Fund's "watchlist" the investment manager will be monitored for a period of three quarters, for one-year total watch duration. At the end of this period, staff and investment consultants will review the investment manager's performance and recommend one of the following for the Board of Trustees' consideration:

- *Remove from the watchlist:* 3 year performance has improved to above-benchmark and or above the manager median over a market cycle;
- *Retain and reduce assets; remaining on the watchlist*: Confidence in the investment manager's ability to add future value; however, the manager's 3 year performance is not at or above the manager's respective benchmark and there is another outstanding concern regarding the manager (i.e. ownership change);

- *Retain without reducing assets; remaining on the watchlist*: Confidence in the investment manager's ability to add future value; however, the manager's 3 year performance is not at or above the manager's respective benchmark;
- *Terminate*: No confidence in the manager's ability to add future value over a benchmark. We may recommend terminating a manager if significant concerns exist as to the organization or strategy and/or there is another outstanding concern regarding the manager (i.e. ownership change);

**Section VI-D: Investment Manager Termination**

Any investment manager may be terminated upon direction from the Board of Trustees. Investment managers may be terminated for the following reasons:

- Consistent or deliberate contractual and/or investment guideline violations;
- Underperformance in comparison to peer group(s) and/or benchmark for 3 years or more;
- Change in investment strategy or philosophy;
- Ownership or key staff changes;
- Receiving negative publicity that will reflect poorly on the image or reputation of the Fund, the Fund's staff and/or the Board of Trustees;
- Strategy, asset class or philosophy no longer fits the Fund's overall portfolio, investment objectives or asset allocation;

If an investment manager is being terminated for performance reasons the manager may request, prior to the manager's portfolio being liquidated, the opportunity to present in front of the Board of Trustees, at the Board's discretion. Such a request must be submitted in writing no less than two weeks after the Board of Trustees has recommended termination. Once the Board has heard the presentation of the terminated manager the Board of Trustees may direct staff to do one of the following:

- Uphold the previous termination recommendation;
- Retain and reduce assets (the manager will be added back to the watchlist);
- Retain without reducing assets (the manager will be added back to the watchlist);

Once the Board has decided to terminate a manager and the window to present to the Board for reconsideration had passed, staff will submit to the Fund's transition managers a model of the portfolio in order to solicit bids from interested transition managers (if utilized). All terminated investment managers' assets should be liquidated as soon as feasible, considering market factors and where the liquidated assets will be going.

**Section VI-E: Transition Manager**

Transition managers are hired to liquidate and/or reallocate the Fund's assets once direction from the Board has been received. Transition managers are fiduciaries of the Fund and are expected to abide by all guidelines and policies (including brokerage requirements). At all times the Fund will maintain a list of approved transition managers. When the Fund finds the need to use the services of a transition manager, all approved transition managers will be invited to bid on the project. The transition managers that submit the best proposal, based on (1) cost and (2) feasibility of the transition plan, will be asked to discuss their proposal via a conference call with Fund staff. After conference calls have been completed, a recommendation by investment staff will be submitted to the Executive Director for approval.

## Section VI-F: Investment Manager Due Diligence

Staff, with the assistance of the Fund's investment consultants, will review all investment managers' performance, adherence to contractual and investment guidelines, and progression toward achieving the investment objectives specified in their respective investment guidelines.

***Monthly Due Diligence***

On a monthly basis, investment managers shall report their respective portfolios' net-of-fees and gross-of-fees performance for the month, year to date, quarter to date, 1 year, 3 year and since inception periods. Brokerage and additional performance data may be requested if deemed necessary.

***Quarterly Due Diligence***

On a quarterly basis, investment managers shall report their respective portfolios' net-of-fees and gross-of-fees performance for the month, year to date, quarter to date, 1 year, 3 year and since inception periods, as well as attribution data, brokerage data, and holdings data. Fund staff will also conduct quarterly conference calls with each investment manager to discuss the performance of the portfolio and the investment managers' progression toward their respective guidelines. Investment managers are also expected to submit quarterly performance and portfolio commentary to the Fund's investment consultants, which includes a review of investment performance and portfolio structure.

***Yearly Due Diligence***

Every 12-18 months, each investment manager will be expected to meet with the Board to discuss their investment portfolios with the Board. Investment managers must also submit on a yearly basis a due diligence questionnaire and their firms' most current:

- ADV;
- Proof of insurance;
- MWDBE Certification (if applicable);
- Statement regarding compliance with Illinois laws and regulations;
- SAS 70 and/or contingency/disaster recovery plan;
- Proxy voting policy;
- Proxy voting summary for the year;

## Section VII: Reconciliations

On a monthly basis, all investment managers are expected to reconcile the market values of their portfolio (including accruals) against the market values provided by the Fund's master custodian. All investment returns must be calculated on a gross-of-fees and net-of-fees basis.

The purpose of this policy is to provide a process for the valuation of securities where the master custodian's prices appear to be discrepant.

In those situations where pricing is disputed between the investment manager for the Fund assets and the master custodian, the approach outlined in this policy will be implemented. The minimum level of pricing discrepancy for which the manager may provide alternative prices will be the greater of $1 per issue or 1% per issue. The master custodian will provide official pricing for all the Fund's portfolios, with the following exceptions:

- Issue-specific market values may be priced by the portfolio manager where no reliable third party pricing source is available;
- Disputed issue prices may be deferred to the price provided by the portfolio manager when (listed in order of preference):
    - the manager provides the average of at least two dealer prices (bid-side);
    - the manager provides the average of one dealer price (bid-side) and a quantitatively-based estimate;
    - the manager provides an estimated price resulting from one consistently applied quantitative methodology.

**Section VII-A: Domestic Equities Reconciliation**

Each domestic equity manager is expected to reconcile on a quarterly basis:

- Verify each security market value. List those issues outside of a 1 basis point tolerance for market valuation differences (compared to the market values provided by the Fund's master custodian);
- Verify accrued dividends for each issue. List those issues with differences which would impact performance results by > 5 basis points (compared to the market values provided by the Fund's master custodian);
- Verify total securities traded but not settled at month-end;
- Confirm corporate actions and income collection. Note significant differences;
- Verify miscellaneous receivables and payables and their age. Note any issues for which receivables are deemed not collectible.

**Investment Consultant Reconciliation**

- Review all investment managers' portfolio returns and benchmark calculations on a quarterly basis. Note performance differential if > 10 basis points at the portfolio level.

**Section VII-B: International Equities Reconciliation**

Each international equity manager is expected to reconcile on a quarterly basis:

- Verify each security market value. List those issues outside of a 1 basis point tolerance for market valuation differences, with the exception of non-Japan Pacific Basin equities. For non-Japan Pacific Basin equities, list those issues outside of a 25 basis point tolerance for market valuation differences;

- Verify accrued dividends for each issue. List those issues with differences which would impact performance results by > 5 basis points;
- Verify total securities traded but not settled at month-end;
- Confirm corporate actions and income collection and note significant differences;
- Verify miscellaneous receivables and payables and their age. Note any issues for which receivables are deemed not collectible;
- Review tax reclamations receivables and note any issues where aging presents a problem to collection.

**Investment Consultant Reconciliation Responsibilities**

- Review all investment managers' portfolio returns and benchmark calculations on a quarterly basis. Note performance differential if > 20 basis points at the portfolio level.

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**Section VII-C: Fixed Income Reconciliation**

Each fixed income manager is expected to reconcile on a quarterly basis:

- Verify each security market value. List those issues outside of a 25 basis point tolerance for market valuation differences, with the exception of high yield bonds. For high yield bonds, list those issues outside of a 50 basis point tolerance for market valuation differences;
- Verify accrued interest for each issue. List those issues with differences which would impact performance results by > 5 basis points;
- List any issues for which coupon or principal payments are past due;
- Confirm corporate actions and income collection. Note significant differences;
- Verify miscellaneous receivables and payables and their age. Note any issues for which receivables are deemed not collectible.

**Investment Consultant Reconciliation**

- Review all investment managers' portfolio returns and benchmark calculations on a quarterly basis. Note performance differential if > 25 basis points at the portfolio level.

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**Section VIII: Diversity Policies**

CTPF is committed to diversity in the investment management arena; in light of this commitment, the Board of Trustees has established the following brokerage and inclusion policies.

**Section VIII-A:** ***MWDBE Investment Manager Usage Policy***

- 20% of the Fund's total assets to be invested with MWDBE investment managers;
- 25% of the Fund's active assets to be invested with MWDBE investment managers;
- 30% of the Fund's equity assets to be invested with MWDBE investment managers; of this percentage:

- 25% to be invested with MWDBE investment managers that are Minority Owned Businesses.

- 5% to be invested with MWDBE investment managers that are Female Owned Businesses.

- 0% to be invested with MWDBE investment managers that are Businesses Owned by a Person with a Disability.

- 15% of the Fund's fixed income assets to be invested with MWDBE investment managers; of this percentage:

- 12% to be invested with MWDBE investment managers that are Minority Owned Businesses.

- 3% to be invested with MWDBE investment managers that are Female Owned Businesses.

- 0% to be invested with MWDBE investment managers that are Businesses Owned by a Person with a Disability.

- 10% of the Fund's alternative assets to be invested with MWDBE investment managers; of this percentage:

- 10% to be invested with MWDBE investment managers that are Minority Owned Businesses.

-0% to be invested with MWDBE investment managers that are Female Owned Businesses

- 0% to be invested with MWDBE investment managers that are Businesses Owned by a Person with a Disability.

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These guidelines are minimum thresholds and are subject to change based on the in/decrease of MWDBE investment managers that could feasibly maintain a direct mandate from the Fund. This policy is to be re-examined yearly. These percentages are minimum acceptable floors.

## Section VIII-B: MWDBE Brokerage Policy

The Board has established the following goals, to be reviewed annually, for the utilization of qualified MWDBE brokers:

- 50% of trades executed by the Fund’s all cap, large cap and mid cap managers must executed with MWDBE brokers on the approved broker list provided by the Fund. 100% of these trades must be done via direct trading relationships (i.e. no correspondence, step-outs, etc);
- 35% of trades executed by the Fund’s small cap managers must executed with MWDBE brokers on the approved broker list provided by the Fund. 100% of these trades must be done via direct trading relationships (i.e. no correspondence, step-outs, etc);
- 25% of trades executed by the Fund’s international equity managers must executed with MWDBE brokers on the approved broker list provided by the Fund. 50% of these trades must be done via direct trading relationships (i.e. no correspondence, step-outs, etc);
- 25% of trades executed by the Fund’s fixed income managers must executed with MWDBE brokers on the approved broker list provided by the Fund. 100% of these trades must be done via direct trading relationships (i.e. no correspondence, step-outs, etc);

Managers are to submit quarterly brokerage reports to the Fund staff. Managers who fail to meet the Fund’s brokerage requirements on a yearly basis will be asked to appear before the Board to explain why they have not met the requirements.