

Investment

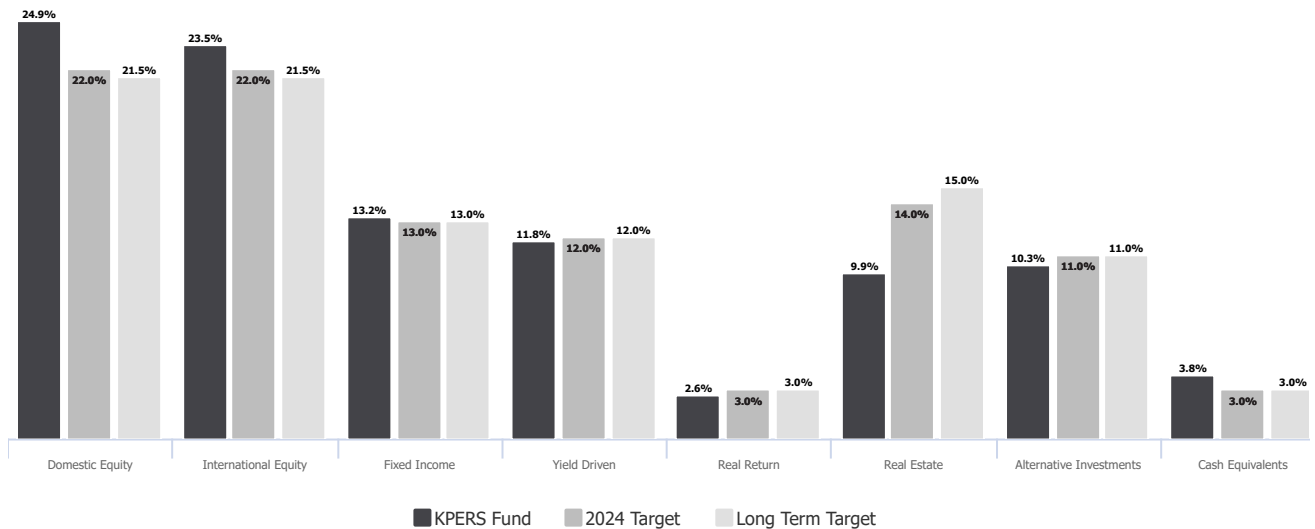
Section



CHIEF INVESTMENT OFFICER’S REVIEW

The Kansas Public Employees Retirement System investment portfolio represents all contributions to the Pension Plan, from both members and their employers, as well as net earnings on these assets. Total investment assets at the end of Fiscal Year 2024 were \$27.3 billion. The System’s investment portfolio is managed for the long term, in order to generate adequate returns to pay

the benefits promised to members. In order to achieve that goal, the assets receive the benefit of a broadly diversified investment portfolio which includes domestic and non-U.S. stocks, bonds, real estate, timber, infrastructure, alternative investments, and cash equivalents.



BASIS OF PRESENTATION

The investment performance data is calculated by the Retirement System’s custodial bank and prepared by the Retirement System’s Investment Division staff. In Fiscal Year 2024, the System’s custodial bank was State Street Bank and Trust. Performance calculations were prepared using time-weighted rates of return, gross of fees, unless otherwise indicated.

ASSET ALLOCATION

Portfolio investments are diversified among eight different asset classes for asset allocation and investment performance purposes, including: domestic equity; international (non-U.S.) equity; fixed income; “yield driven” assets; “real return” assets; real estate; alternative investments; and cash equivalents. *(Note: For financial reporting purposes, as reported in the Financial Section and the Investment Summary in the Investment Section, investments are categorized by the underlying security.)*

The Board of Trustees, working with the System’s general investment consultant, Meketa Investment Group (MIG) and investment staff, completed an asset/liability study in May 2023. At the conclusion of the asset/liability study, the Board adopted a new set of long-term asset allocation targets. The risk philosophy implied by the asset allocation policy targets places significant

emphasis on managing and improving the funded status of the Retirement System over time. The long term target asset mix is 21.5 percent domestic equity, 21.5 percent international equity, 13 percent fixed income, 12 percent yield driven assets, 3 percent real return assets (infrastructure and timber), 15 percent real estate, 11 percent alternatives (private equity), and 3 percent cash equivalents. An implementation plan to achieve the new long-term target asset mix is in progress. The table above reflects both the interim targets in place at June 30, 2024, as well as the long-term target allocations adopted by the Board.

The allocation to equity investments (primarily publicly-traded stocks) continues to comprise the largest portion of the Retirement System’s investment portfolio. This allocation reflects the System’s long-term investment orientation and the expectation that equities will provide attractive real returns over time. Equity investments allow the investment portfolio to participate in the investment returns produced by companies seeking to grow and profit from their business activities. Equity investments are made globally, sourcing investment return from both domestic and foreign companies, and diversifying the accompanying investment risk across a broad spectrum of economies, currencies, economic sectors, and industries. Fixed income investments are also an important component of the System’s asset mix. Due to its relatively low correlation with

equities, the fixed income portfolio serves to diversify the risk of equity investing.

The yield driven asset class is designed to house those assets that derive a significant part of their expected return from income and have moderate exposure to growth risk, but also provide a degree of diversification. The yield driven asset class consists of the System’s strategic fixed income portfolios and investments in domestic Real Estate Investment Trusts (REITs).

The real return asset class houses the System’s investments in infrastructure and timber assets. The long term asset allocation targets adopted in May 2023 contemplated an exit from the TIPS and GILBs portfolio. This was accomplished in Fiscal Year 2024. The assets in the portfolio were reallocated in accordance with the implementation plan.

Real estate investments generate returns in a different manner than equities or fixed income investments, since real estate follows a different (and, typically, longer) market cycle. Because it moves in a different market cycle than publicly traded stocks and bonds, real estate provides diversification advantages, as well as some inflation protection, to the investment portfolio. The System’s real estate portfolio is heavily weighted to “core” real estate, which means that it also produces an attractive current income.

The System’s alternative investments, which consist primarily of investments in private partnerships that make venture capital investments, pursue leveraged buyout strategies or own private debt, represent the higher end of the investment risk/return spectrum. Private equity managers pursue higher growth opportunities in pursuit of higher returns, with commensurate investment risk.

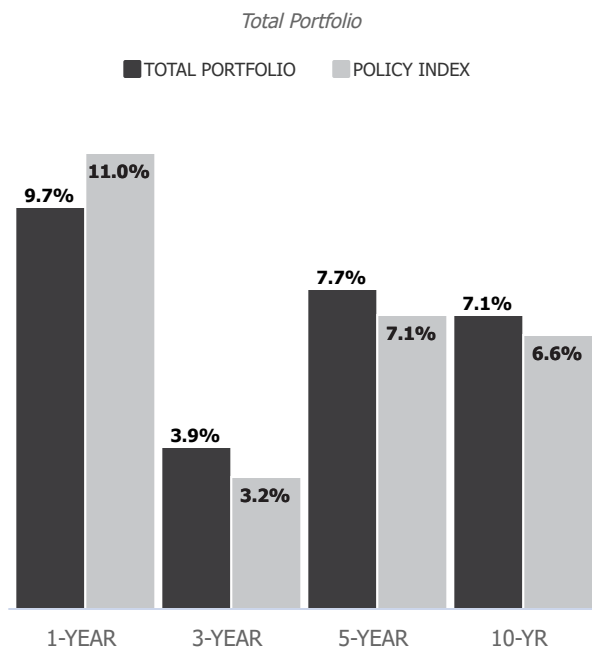
The System also holds cash equivalents investments, primarily to facilitate investment transactions and the cash flows needed to pay benefits. In Fiscal Year 2024, the portfolio was moved to be wholly invested in a short-term investment fund (STIF), in accordance with the long term asset allocation targets adopted in May 2023.

INVESTMENT POLICY

The Board of Trustees has adopted a Statement of Investment Policy, Objectives and Guidelines (the Statement), which serves as a guide to the implementation of the System’s broad investment objectives. The Statement complements state statutes and documents the principles and standards that guide the management of the System’s assets. It is binding upon all persons with authority over the assets, including investment managers, custodians, consultants, staff and the members of the Board of Trustees. The Statement is the product of the Board’s careful and prudent study and is reviewed annually and updated as needed. It sets forth the investment policies, objectives, and

guidelines which the Board of Trustees judges to be appropriate and prudent, in consideration of the needs of the System, and to comply with K.S.A. 74-4901 et seq., to direct the System’s assets. Although the System is not subject to the provisions of the Employee Retirement Income Security Act of 1974, as amended (ERISA), the Board intends to abide by the provisions of ERISA to the greatest extent practicable. As such, this Statement is written to be consistent with ERISA. Among other things, the Statement establishes the criteria against which the System’s investment managers are to be measured. In addition, it serves as a review document to guide ongoing oversight of the investment of the Fund as a yardstick of compliance with K.S.A 74-4901 et seq.

TIME WEIGHTED TOTAL RETURN



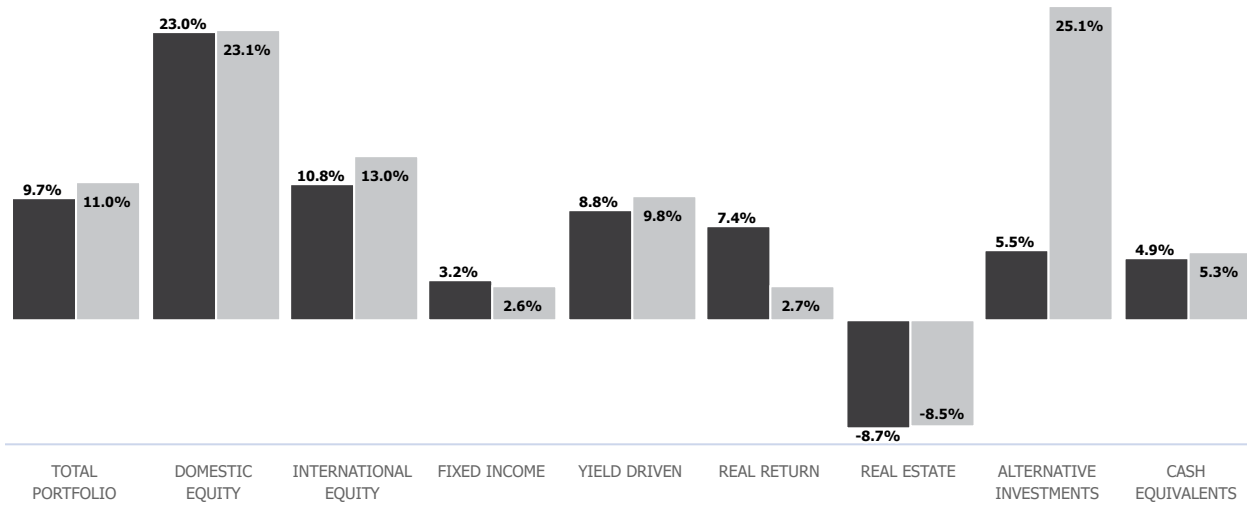
FISCAL YEAR 2024 INVESTMENT PERFORMANCE

The Retirement System’s total investment portfolio experienced a 9.7 percent total return for the one year ending June 30, 2024. The 9.7 percent return underperformed the KPERs Policy Index by 1.3 percent for the fiscal year. For the three years ending June 30, 2024, the System’s total investment portfolio has produced an average annualized return of 3.9 percent, which outperformed the Policy Index by 0.7 percent. The System’s investment portfolio generated a 7.7 percent total return during the five years ending June 30, 2024, exceeding the Policy Index benchmark by 0.6 percent. For the ten-year period, total return has been 7.1 percent, and has exceeded the Policy Index by 0.5 percent, as of June 30, 2024.

For the 25-year period ending June 30, 2024, the System’s assets have produced an average annualized total return of 6.9 percent, trailing the current 7.0 percent actuarial return assumption.

TIME WEIGHTED TOTAL RETURN BY ASSET CLASS

Fiscal Year 2024

 KPERS
 INDEX


FINANCIAL MARKET AND PERFORMANCE OVERVIEW

Fiscal Year 2024 was a positive year for investors. Returns on U.S. equities were very robust with the Russell 3000 Index delivering 23.1 percent over the year. Sentiment remained strong into the close of Fiscal Year 2024 as central banks outside the U.S. began to lower interest rates, supporting expectations that the U.S. Federal Reserve would soon follow. Risk assets responded with, in addition to the robust return on the Russell 3000, the System's international equity benchmark returning 13.0 percent and the strategic fixed income benchmark returning 10.4 percent over the year ending June 30, 2024. The System maintained its asset allocation discipline throughout and the portfolio delivered a 9.7 percent total return for Fiscal Year 2024.

Public domestic equities increased over Fiscal Year 2024 with the Russell 3000 Index producing a 23.1 percent return, while the MSCI U.S. REITS Index produced a total return of 7.6 percent for investors. International equities gained, as the System's total international equity benchmark delivered 13.0 percent return for the fiscal year.

Fixed income returns were positive for the fiscal year. The Bloomberg U.S. Aggregate Bond Index produced a total return of 2.6 percent for the fiscal year, while high yield bonds delivered positive returns with the Bloomberg U.S. Corporate High Yield Index producing a 10.4 percent total return for the fiscal year.

Private real estate returns, as measured by the NCREIF ODCE Index, was negative 9.3 percent for the fiscal year. The System's

private equity portfolio posted a 5.5 percent return for Fiscal Year 2024.

INVESTMENT STAFF

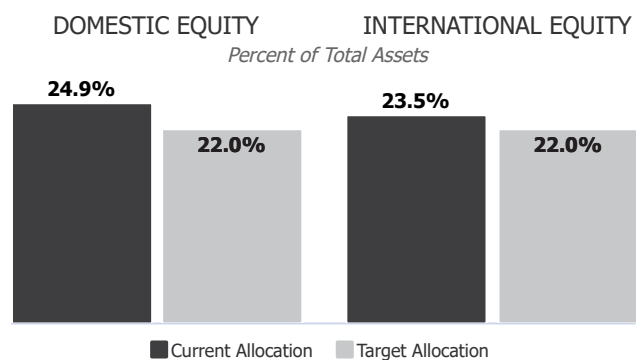
The System employs a staff of ten investment professionals to provide oversight and management of the assets and external investment managers. Under the oversight of the Chief Investment Officer (CIO), responsibility for the portfolio is assigned to the respective investment teams. The Deputy CIO for Public Markets has oversight responsibility for the publicly traded asset classes, and oversees the System's active international equity investment portfolios and the currency overlay strategies. The Investment Officer for Public Markets and the Assistant Investment Officer for Public Markets have oversight responsibility for their assigned public market portfolios. The Deputy CIO for Private Markets and Assistant Investment Officer for Private Markets manage the System's real estate and private equity investments, as well as the allocations to infrastructure and timber. The CIO and the Investment Officers are supported by a team of Investment Analysts who provide research support and assistance in managing the portfolios. The investment staff focus on bringing a consistent, disciplined management process to all aspects of oversight of investment managers, compliance monitoring and risk management.

PUBLIC EQUITY INVESTMENTS

Public equity investments represent the largest strategy allocation within the System’s portfolio. As of June 30, 2024, the fair value of the System’s global equity portfolio was \$13.2 billion. The strategy is executed through external managers investing domestically and internationally. Active strategies are utilized for international equities. The domestic equity portfolio is passively managed to replicate the return of broad market indices.

PORTFOLIO STRUCTURE

The following graphs describe the current and target allocations at June 30, 2024:



DOMESTIC EQUITY

Domestic equities represent 51.5 percent of the total public equity portfolio and 24.9 percent of total assets. Domestic equity investments are benchmarked against the Russell 3000 Index. It is the System’s view that consistent outperformance over time through active management is extremely difficult when investing in U.S. equities. Therefore, 100 percent of the domestic equity portfolio is passively managed in an index strategy. This passive exposure is designed to replicate the return on the Russell 3000 Index and is implemented through two investment managers.

INTERNATIONAL EQUITY

International equities represent 48.5 percent of the total public equity portfolio and 23.5 percent of total assets. International equity investments are benchmarked against the MSCI All Country World ex U.S.A. ex China Net Index. Equity investments in companies domiciled outside of the United States offer the potential to add value through prudent active management. The System retains four active managers to invest across the non-U.S. developed and emerging markets.

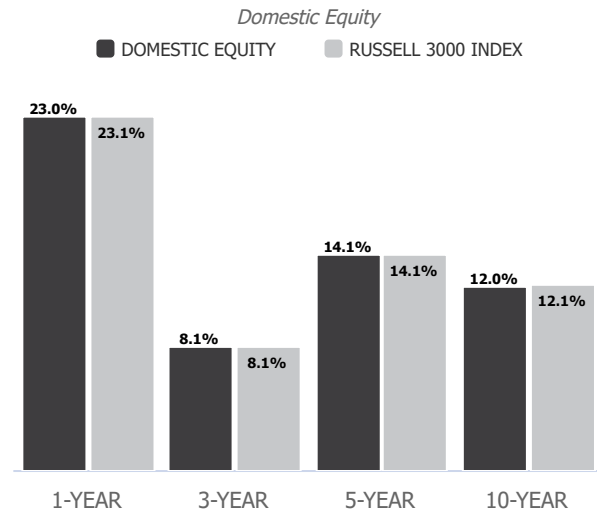
PERFORMANCE

The return of the System’s domestic equity portfolio was in line with the portfolio’s benchmark during Fiscal Year 2024. The domestic equity portfolio produced a positive 23.0 percent

total return during the fiscal year. Over longer time periods, the return on the domestic equity portfolio was also in line with its benchmark, as expected, given its purely passive approach.

The following chart reports the performance of the domestic equity portfolio:

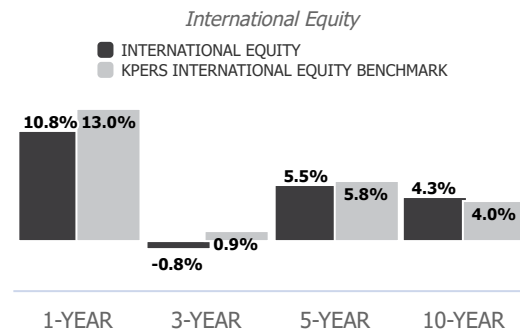
TIME WEIGHTED TOTAL RETURN



The return of the international equity portfolio was positive but below the benchmark return during Fiscal Year 2024. The international equity portfolio produced a total return of positive 10.8 percent for the fiscal year, relative to the positive 13.0 percent return for the benchmark. One of the System’s four active international equity managers outperformed the benchmark during Fiscal Year 2024. Over very long time periods, the international equity portfolio has produced positive relative returns, as active management has added value relative to the benchmark.

The following chart reports the performance of the international equity portfolio:

TIME WEIGHTED TOTAL RETURN

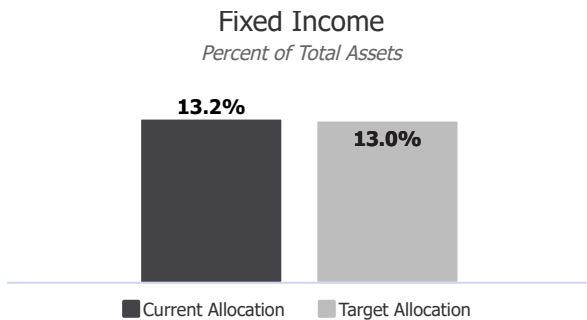


FIXED INCOME INVESTMENTS

As of June 30, 2024, the Retirement System's fixed income portfolio had a fair value of \$3.6 billion, representing 13.2 percent of the total assets of the System. The structure of the portfolio consists of external managers investing through an active core fixed income U.S. mandate. Three investment managers manage this strategy.

PORTFOLIO STRUCTURE

The following graph describes the current and target allocations at June 30, 2024:



CORE U.S. FIXED INCOME

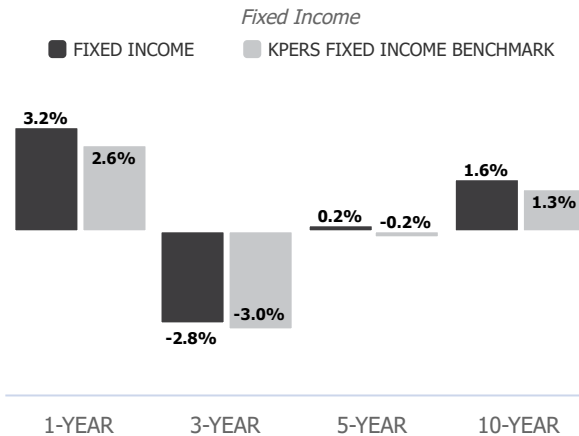
KPERS invests the fixed income portfolio in core U.S. strategies through three active investment managers. The portfolio's objective is to provide diversification to other assets in the System's portfolio and to preserve capital while providing current income. The core fixed income U.S. strategies are primarily invested in traditional investment grade securities. The fixed income portfolio uses the Bloomberg U.S. Aggregate Index as the benchmark.

PERFORMANCE

The core U.S. fixed income portfolio produced a total return of 3.2 percent during Fiscal Year 2024, outperforming the benchmark return of 2.6 percent. Two investment managers outperformed the benchmark during the period, while the third investment manager does not yet have enough track record to be included in fiscal year returns. Over longer periods, the fixed income portfolio has produced positive relative returns, as active management has added value.

The following chart reports the performance of the fixed income portfolio:

TIME WEIGHTED TOTAL RETURN

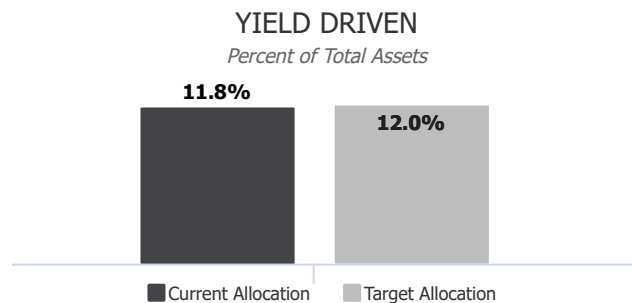


YIELD DRIVEN INVESTMENTS

As of June 30, 2024, the System's yield driven portfolio had a fair value of \$3.2 billion, representing 11.8 percent of total assets. The strategy is actively managed by four strategic fixed income managers and one REIT manager. The yield driven asset class is designed to produce current income and an element of diversification away from equity risk, while also maintaining some degree of correlation with equities.

PORTFOLIO STRUCTURE

The following graph describes the current and target allocations at June 30, 2024:



STRATEGIC FIXED INCOME

The strategic fixed income strategy represents approximately 79.8 percent of the total yield driven portfolio and 9.4 percent of total assets. KPERS currently measures the performance of the strategy against the Bloomberg U.S. High Yield 2 percent Issuer Cap Index. The strategic fixed income portfolio maintains a minimum investment of 70 percent in high yield corporate debt securities. Two of the System's strategic fixed income managers were hired during Fiscal Year 2024 while the remaining two both underperformed the benchmark during Fiscal Year 2024.

REAL ESTATE INVESTMENT TRUSTS (REITS)

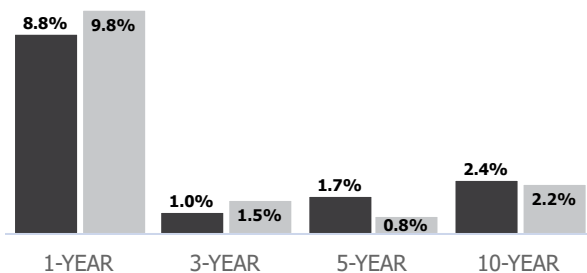
REITs represent 20.2 percent of the yield driven asset class and 2.4 percent of the System’s total assets. This strategy is benchmarked against the MSCI U.S. REIT Index. The System’s publicly traded real estate securities portfolio is implemented through one manager that actively invests in domestic REITs, real estate operating companies (REOCs) and related investment vehicles. The REIT manager produced a total return of 7.9 percent, outperforming the benchmark during Fiscal Year 2024.

PERFORMANCE

The yield driven portfolio produced a total return of 8.8 percent in Fiscal Year 2024, underperforming the asset class benchmark return of 9.8 percent. The yield driven portfolio has delivered positive relative returns over longer time periods.

TIME WEIGHTED TOTAL RETURN

Yield Driven
 ■ YIELD DRIVEN ■ KPERS YIELD DRIVEN BENCHMARK



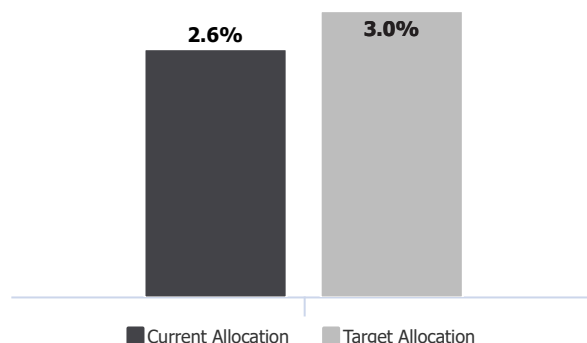
REAL RETURN INVESTMENTS

The real return portfolio is designed to provide the System with diversification at the total portfolio level and provide a partial hedge against future inflationary episodes. The System exited the public markets exposure to TIPS and GILBs in the real return portfolio during the fiscal year. Assets in these portfolios were reallocated in accordance with the implementation plan developed to achieve the long-term asset allocation targets adopted in May 2023. KPERS retained exposure in private markets through investments in timber and infrastructure. The real return portfolio represents 2.6 percent of the System’s total assets, and had a fair value of \$703.4 million as of June 30, 2024.

PORTFOLIO STRUCTURE

The following graph describes the current and target allocations at June 30, 2024:

REAL RETURN *Percent of Total Assets*



U.S. TREASURY INFLATION LINKED BONDS (TIPS)

The TIPS portfolio was fully liquidated during the fiscal year.

GLOBAL INFLATION LINKED BONDS (GILBs)

The GILB portfolio was fully liquidated during the fiscal year.

TIMBER

Timber investments are a component of the System’s real return asset allocation due to their historically positive correlation to inflation and comprised 17.2 percent of the real return portfolio. The System is diversified within timber markets located throughout seven states in the southern U.S. Over time, timber investments are expected to provide the System with current cash yields and modest capital appreciation. For Fiscal Year 2024, the System’s timber investments produced an 8.9 percent total return, outperforming the strategy benchmark by 2.1 percent and outperforming the real return asset class benchmark.

INFRASTRUCTURE

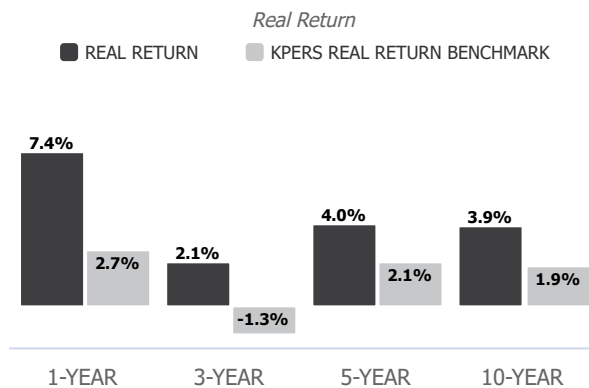
The infrastructure portfolio represents 82.8 percent of the real return portfolio. The System’s four infrastructure managers have been successful in operating their infrastructure investments. The System’s infrastructure portfolio is well diversified, with investments in Australia, Europe, and throughout North and South America. It is invested across multiple sectors, including renewable power, toll roads, electric utilities, airports, seaports and energy. The infrastructure portfolio produced a total return of 8.0 percent for the fiscal year, outperforming the strategy benchmark by 0.2 percent and outperforming the real return asset class benchmark.

PERFORMANCE

The System’s real return portfolio outperformed its benchmark in Fiscal Year 2024, producing a 7.4 percent total return against a benchmark return of 2.7 percent. Timber was the strongest performing investment strategy in the asset class. The real return

portfolio has outperformed its benchmark over the one, three, five, and ten year time periods ending June 30, 2024.

TIME WEIGHTED TOTAL RETURN



REAL ESTATE INVESTMENTS

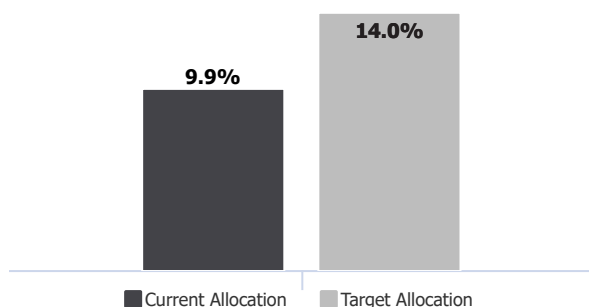
As of June 30, 2024, the real estate portfolio had a fair value of \$2.7 billion, representing 9.9 percent of the total fund. The real estate portfolio is primarily designed to provide diversification to the broader portfolio, while also providing a meaningful current income. Capital appreciation is a tertiary objective of current real estate investment activities.

PORTFOLIO STRUCTURE

The System’s real estate portfolio is classified into two categories: core and non-core. The core portion of the portfolio is targeted at a 75 percent allocation, while the non-core segment is targeted at a 25 percent allocation.

REAL ESTATE

Percent of Total Assets



CORE REAL ESTATE

The largest segment of the real estate portfolio is core real estate. This portion of the portfolio is expected to produce steady current income in the form of investment yield, while also providing portfolio diversification and serving as an inflation

hedge. The Retirement System’s core portfolio primarily consists of partial and full commitments to eight commingled funds.

The System continued to invest into pooled real estate investment funds during Fiscal Year 2024. This strategy is expected to result in improved liquidity, enhanced portfolio diversification, lower management fees and a reduction in the single event risk associated with owning individual real estate assets.

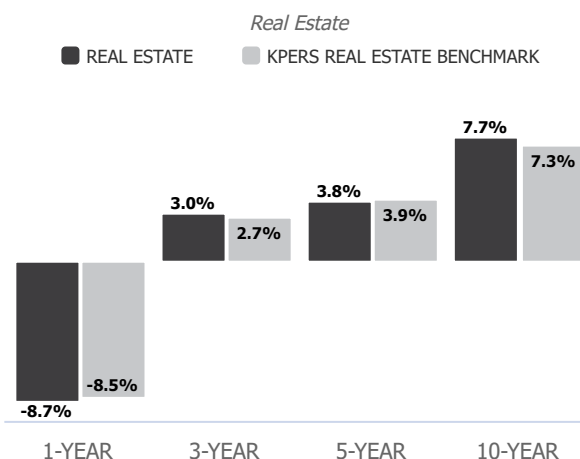
NON-CORE REAL ESTATE

The non-core segment consists of investments that generally involve some element of property lifecycle risk (such as positioning, leasing and development) while also using greater leverage (debt) than core strategies. While providing elements of inflation protection and a diversification benefit to the broader portfolio, the System expects non-core real estate investments to produce meaningful capital appreciation and higher overall long-term returns than core investments. The non-core portfolio consists of investment funds employing diverse strategies and property types, both domestically and internationally.

REAL ESTATE PERFORMANCE

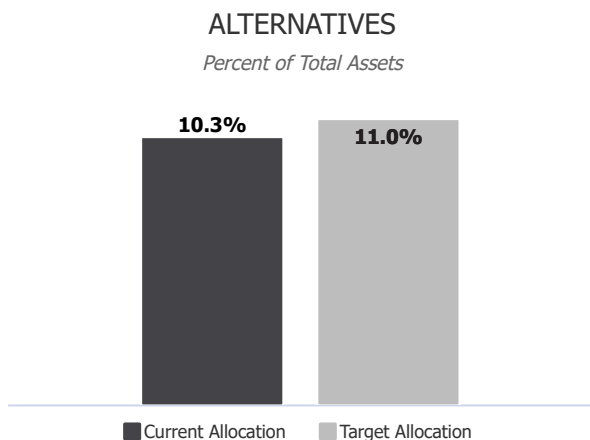
The System’s real estate portfolio underperformed its benchmark in Fiscal Year 2024. The core real estate portfolio produced a total return of negative 9.1 percent, outperforming the strategy benchmark by 0.2 percent, while the non-core real estate portfolio underperformed its benchmark by 0.6 percent, with a total return of negative 6.9 percent. In total, the System’s real estate portfolio produced a total return of negative 8.7 percent, which underperformed the benchmark return by 0.2 percent. Overall, most of the System’s real estate fund investments were negatively impacted by a weakening economic landscape, with the majority generating negative returns. Longer term results from the real estate asset class produced a 7.7 percent total return for the trailing ten years, exceeding the asset class benchmark total return of 7.3 percent.

TIME WEIGHTED TOTAL RETURN



ALTERNATIVE INVESTMENTS

As of June 30, 2024, the System's alternative investment portfolio had a fair value of \$2.8 billion, representing 10.3 percent of the total portfolio. Since the inception of the alternative investment program in 1997 through June 30, 2024, the System has committed \$5.5 billion to 142 funds with 61 general partners.



PORTFOLIO STRUCTURE

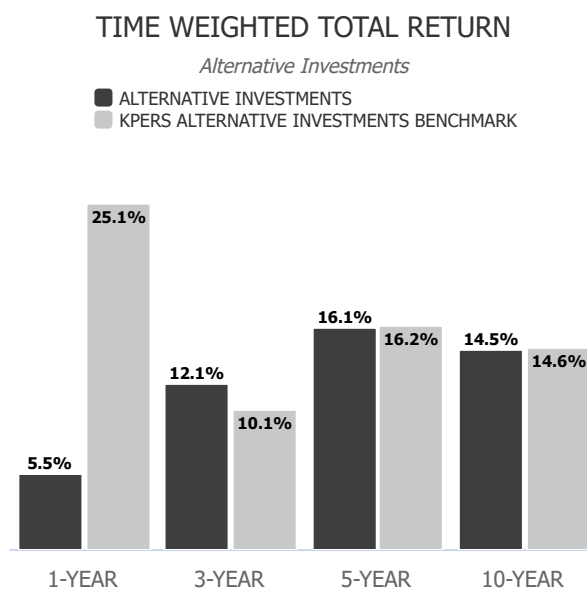
The alternative investment portfolio consists primarily of interests in private partnerships that provide equity and debt to companies. The portfolio contains two primary sub-portfolios based on investment period. Each portfolio has its own set of directives, guidelines, external fund managers and consultants who provide advice on investment strategy and investment selection during its investment period. The largest portfolio is the Private Equity Program (PEP), representing over 99.9 percent of the market value of the asset class. The PEP portfolio actively seeks new commitments to private equity funds in three styles: buyout, venture capital/growth equity and special situations. Since the inception of PEP in 2007, the System has committed \$4.4 billion to 88 funds with 30 general partners.

The second portfolio is the Alternative Investment Portfolio (AIP), which represents less than 0.1 percent of the market value of the asset class. From 1997 to 2001, AIP made commitments to 54 funds with 35 general partners across five styles: buyout, venture capital, mezzanine, distressed debt and natural resources. As this is a mature portfolio, the remaining funds in the AIP portfolio are currently pursuing exit strategies for their existing holdings.

ALTERNATIVE INVESTMENTS PERFORMANCE

The System's alternative investments portfolio underperformed its benchmark in Fiscal Year 2024, producing a 5.5 percent total return against a benchmark return of 25.1 percent.

Private equity investments typically span ten years or longer. Therefore, the longer term returns from this asset class are more relevant in assessing its success in adding value to the overall portfolio. The System's current long-term performance objective for alternative investments is to exceed the return of the Russell 3000 Index plus 2 percent. As shown in the chart below, the alternative investments portfolio is marginally underperforming this objective over the ten year time period, with a total return of 14.5 percent.



As required by K.S.A 74-4907, a schedule of alternative investments initiated on or after July 1, 1991, is listed on the following two pages.

ALTERNATIVE INVESTMENTS INITIATED ON OR AFTER JULY 1, 1991 ⁽¹⁾

As of June 30, 2024

| Description | Cost | Net Asset Value |
|---|---------------|-----------------|
| Apax Europe IX, L.P. | \$ 34,790,771 | \$ 59,098,040 |
| Apax Europe X, L.P. | 38,969,384 | 55,297,867 |
| Apax Europe XI, L.P. | 7,500 | 689,406 |
| Apollo Investment Fund VIII, L.P. | 26,259,231 | 17,752,212 |
| Apollo Investment Fund IX, L.P. | 39,129,228 | 61,664,338 |
| Ares Corporate Opportunities Fund III, L.P. | 3,369,921 | - |
| Ares Corporate Opportunities Fund IV, L.P. | 6,215,548 | 4,078,891 |
| Ares Corporate Opportunities Fund V, L.P. | 52,789,592 | 75,182,357 |
| Ares Corporate Opportunities Fund VI, L.P. | 41,500,205 | 54,147,641 |
| Ares Special Situations Fund IV, L.P. | 47,686,469 | 37,580,848 |
| Audax Mezzanine Fund III, L.P. | 2,205,661 | 1,114,457 |
| Beacon Group Energy Fund II, L.P. | 1,841,499 | 490,852 |
| Capital Resource Partners IV, L.P. | 1 | - |
| CCMP Capital Investors III, L.P. | 6,492,331 | 383,145 |
| Centerbridge Capital Partners II, L.P. | 14,881,252 | 699,999 |
| Centerbridge Capital Partners III, L.P. | 19,359,889 | 27,399,993 |
| Clayton Dublier & Rice VI, L.P. | 2,998,283 | 8,275 |
| Consolidated Storage Company, Inc. | 34,155 | 34,155 |
| Crestview Partners III, L.P. | 41,370,104 | 37,550,320 |
| Encap Energy Capital VIII, L.P. | 15,725,679 | 9,392,665 |
| Encap Energy Capital IX, L.P. | 19,944,931 | 7,985,013 |
| Encap Energy Capital X, L.P. | 26,815,987 | 29,219,156 |
| First Reserve Fund XII, L.P. | 17,100,605 | 16,399 |
| FS Equity Partners VII, L.P. | 34,264,825 | 50,042,406 |
| FS Equity Partners VIII, L.P. | 54,279,301 | 96,896,151 |
| Green Equity Investors VII, L.P. | 37,556,422 | 51,666,069 |
| Green Equity Investors VIII, L.P. | 44,501,907 | 56,194,071 |
| Green Equity Investors IX, L.P. | 10,660,917 | 13,424,003 |
| GSO Capital Solutions Fund II, L.P. | 12,679,094 | 2,949,563 |
| GSO Capital Solutions Fund III, L.P. | 18,955,179 | 18,494,056 |
| Halpern Denny Fund III, L.P. | 1 | - |
| HD Access, Inc. | 180,137 | 105,395 |
| Hellman & Friedman VII, L.P. | 577,009 | 1,296,610 |
| Hellman & Friedman VIII, L.P. | 27,426,162 | 51,831,223 |
| Hellman & Friedman IX, L.P. | 65,617,805 | 106,361,212 |
| Hellman & Friedman X, L.P. | 47,099,611 | 58,688,376 |
| JMI Equity Fund VII, L.P. | 3,102,877 | 859,913 |
| JMI Equity Fund X, L.P. | 32,108,527 | 44,898,798 |
| JMI Equity Fund XI, L.P. | 11,964,991 | 15,218,525 |
| Montagu IV, L.P. | 2,781,056 | 1,214,903 |
| Montagu V, L.P. | 37,711,158 | 58,065,548 |
| Montagu VI, L.P. | 30,253,101 | 35,401,620 |
| New Enterprise Associates 13, L.P. | 3,744,419 | 1,993,016 |
| New Enterprise Associates 16, L.P. | 41,818,230 | 56,688,960 |
| New Enterprise Associates 17, L.P. | 39,125,226 | 44,448,134 |

ALTERNATIVE INVESTMENTS INITIATED ON OR AFTER JULY 1, 1991 ⁽¹⁾ (CONTINUED)

As of June 30, 2024

| Description | Cost | Net Asset Value |
|---|------------------|------------------|
| New Enterprise Associates 18, L.P. | 9,286,103 | 9,647,081 |
| NEA 18 Venture Growth Equity | 8,520,000 | 8,072,104 |
| New Mountain Partners V, L.P. | 27,006,999 | 58,205,214 |
| New Mountain Partners VI, L.P. | 36,790,860 | 52,167,931 |
| OCM Opportunities Fund VIIb, L.P. | - | - |
| Pine Brook Capital Partners, L.P. | 7,260,582 | 1,088,085 |
| Pine Brook Capital Partners II, L.P. | 35,174,262 | 36,729,386 |
| Platinum Equity Capital Partners III, L.P. | 8,620,100 | 5,297,215 |
| Platinum Equity Capital Partners IV, L.P. | 46,541,803 | 65,938,006 |
| Platinum Equity Capital Partners V, L.P. | 44,723,010 | 68,440,874 |
| Platinum Equity Capital Partners VI, L.P. | 25,209,736 | 28,344,945 |
| Quad-C Partners IX, L.P. | 30,017,073 | 39,868,046 |
| Quad-C Partners X, L.P. | 19,263,949 | 21,639,926 |
| Snow Phipps II, L.P. | 12,838,018 | 11,930,730 |
| Snow Phipps III, L.P. | 22,942,052 | 36,207,261 |
| TA XII, L.P. | 32,679,041 | 66,516,260 |
| TA XIII, L.P. | 38,100,075 | 63,993,000 |
| TA XIV, L.P. | 69,486,225 | 67,135,228 |
| TowerBrook Investors III, L.P. | 3,982,077 | 55,665 |
| TowerBrook Investors IV, L.P. | 10,565,378 | 19,157,038 |
| TowerBrook Investors V, L.P. | 61,494,967 | 89,832,094 |
| TPG Growth II, L.P. | 3,331,503 | 519,078 |
| TPG Growth III, L.P. | 27,540,341 | 32,659,567 |
| TPG Growth IV, L.P. | 30,239,848 | 54,338,588 |
| TPG Growth V, L.P. | 39,007,209 | 56,560,336 |
| TPG Partners VI, L.P. | 6,747,679 | 314,300 |
| TPG Partners VII, L.P. | 32,428,401 | 25,132,238 |
| TPG Partners VIII, L.P. | 58,651,065 | 90,271,555 |
| TPG Partners IX, L.P. | 15,826,000 | 18,809,438 |
| VantagePoint Venture Partners IV, L.P. | 7,596,229 | 49,801 |
| Vista Equity Partners Fund IV, L.P. | 8,583,071 | 21,813,746 |
| Vista Equity Partners Fund V, L.P. | 39,425,162 | 107,175,568 |
| Vista Equity Partners Fund VI, L.P. | 42,973,381 | 82,229,135 |
| Vista Equity Partners Fund VII L.P. | 57,933,723 | 78,080,697 |
| Warburg Pincus Global Growth, L.P. | 61,307,814 | 92,300,140 |
| Warburg Pincus Global 14, L.P. | 15,288,120 | 17,259,492 |
| Warburg Pincus Private Equity X, L.P. | 13,818 | 918,849 |
| Warburg Pincus Private Equity XI, L.P. | 10,334,191 | 14,287,629 |
| Warburg Pincus Private Equity XII, L.P. | 30,922,128 | 51,315,457 |
| Wellspring Capital Partners V, L.P. | 7,590,119 | 8,078,687 |
| Wellspring Capital Partners VI, L.P. | 46,098,956 | 74,938,371 |
| Windjammer Mezzanine & Equity Fund II, L.P. | - | - |
| | \$ 2,108,237,249 | \$ 2,823,843,342 |

(1) Investment values quoted without spin-offs or distributions.

LIST OF LARGEST HOLDINGS ⁽¹⁾

As of June 30, 2024

| EQUITIES | | | FIXED INCOME | | | | |
|-----------|----------------------------|-----------------|--------------|-----------------|--------------------|-----------------|--|
| Shares | Security | Fair Value (\$) | Par Value | Security | Description | Fair Value (\$) | |
| 960,176 | Microsoft Corp | \$429,150,663 | 170,000,000 | Treasury Bill | 0.010% 26 Dec 2024 | \$165,700,559 | |
| 1,877,139 | Apple Inc | 395,363,016 | 127,109,000 | US Treasury N/B | 4.250% 15 Feb 2054 | 121,031,601 | |
| 3,071,477 | Nvidia Corp | 379,450,269 | 101,240,000 | US Treasury N/B | 4.625% 30 Apr 2029 | 102,402,679 | |
| 8,504,883 | Taiwan Semiconductor Mfg | 253,247,136 | 106,600,000 | Treasury Bill | 0.010% 15 May 2025 | 101,993,059 | |
| 1,200,694 | Amazon.com Inc | 232,034,116 | 81,860,000 | US Treasury N/B | 4.000% 15 Feb 2034 | 79,455,363 | |
| 177,435 | ASML Holding NV | 183,358,102 | 75,882,000 | US Treasury N/B | 4.375% 15 May 2034 | 75,905,687 | |
| 1,096,488 | Novo Nordisk A/S B | 158,464,593 | 75,000,000 | US Treasury N/B | 3.875% 31 Mar 2025 | 74,263,916 | |
| 2,555,868 | Samsung Electronics Co LTD | 151,328,182 | 75,000,000 | US Treasury N/B | 3.875% 30 Apr 2025 | 74,192,871 | |
| 282,957 | Meta Platforms Inc Class A | 142,672,579 | 75,000,000 | US Treasury N/B | 2.000% 15 Feb 2025 | 73,467,041 | |
| 757,741 | Alphabet Inc Cl A | 138,022,523 | 69,135,000 | US Treasury N/B | 4.125% 31 Aug 2030 | 68,254,609 | |

(1) A complete listing of the System's holdings is available at the Retirement System office.

CHANGES IN FAIR VALUE OF INVESTMENTS ⁽¹⁾

(In Thousands)

For the Fiscal Year Ended June 30, 2024

| | June 30, 2023 Fair Value | Purchases and Other Increases | Sales and Other Decreases | June 30, 2024 Fair Value | Asset Mix Fair Value |
|--|-----------------------------|-------------------------------------|------------------------------|-----------------------------|-------------------------|
| Marketable Securities | | | | | |
| Domestic Equities | \$ 7,222,369 | \$ 2,816,316 | \$ (1,707,388) | \$ 8,331,297 | 30.29% |
| International Equities | 5,105,197 | 5,166,364 | (4,967,604) | 5,303,957 | 19.28 |
| Total Fixed | 6,014,906 | 18,940,273 | (18,512,708) | 6,442,471 | 23.42 |
| Temporary ⁽²⁾ Investments | 1,025,580 | 28,582,341 | (28,412,560) | 1,195,361 | 4.35 |
| Total Marketable Securities | 19,368,052 | 55,505,294 | (53,600,260) | 21,273,086 | 77.34 |
| Real Estate and Alternative Investments | | | | | |
| Real Estate | 3,648,241 | 119,775 | (361,069) | 3,406,947 | 12.39 |
| Alternatives | 2,811,341 | 230,571 | (218,069) | 2,823,843 | 10.27 |
| Total Real Estate and Alternative Investments | 6,459,582 | 350,346 | (579,138) | 6,230,790 | 22.66 |
| Total | \$ 25,827,634 | \$ 55,855,640 | \$ (54,179,398) | \$ 27,503,876 | 100.00% |

(1) Amounts include changes in unrealized appreciation and exclude interest and dividend accruals.

(2) Temporary Investments include currencies, short term pools, and securities maturing within one year of purchase.

U.S. EQUITY COMMISSIONS

For the Fiscal Year Ended June 30, 2024

| Broker Name | Commissions Paid | Shares | Commissions per Share | Percent of Total Commissions |
|-----------------------------------|-------------------|-------------------|-----------------------|------------------------------|
| Citigroup Global Markets, Inc | \$ 78,489 | 3,881,239 | 0.020 | 19.5% |
| Morgan Stanley Co., Inc | 58,060 | 3,410,886 | 0.017 | 14.4 |
| Liquidnet, Inc | 56,225 | 2,899,006 | 0.019 | 13.9 |
| JP Morgan Securities, LLC | 42,780 | 3,880,760 | 0.011 | 10.6 |
| Wells Fargo Securities, LLC | 42,519 | 1,713,232 | 0.025 | 10.6 |
| Raymond James and Associates, Inc | 31,474 | 1,631,517 | 0.019 | 7.8 |
| Bank of America Securities, Inc | 21,801 | 2,793,855 | 0.010 | 5.4 |
| RBC Capital Markets, LLC | 9,334 | 1,482,921 | 0.006 | 2.3 |
| Jefferies, LLC | 6,945 | 395,910 | 0.020 | 1.7 |
| Keybank Capital Markets Inc | 6,389 | 305,888 | 0.020 | 1.6 |
| Evercore ISI | 5,927 | 150,898 | 0.039 | 1.5 |
| Loop Capital Markets | 5,893 | 744,078 | 0.008 | 1.5 |
| Goldman Sachs + Co LLC | 5,878 | 1,594,649 | 0.004 | 1.5 |
| Mizuho Securities USA Inc. | 5,848 | 186,660 | 0.031 | 1.4 |
| Virtu Americas LLC | 5,474 | 1,569,398 | 0.003 | 1.4 |
| Other | 19,715 | 3,135,632 | 0.010 | 4.9 |
| Total Broker Commissions | <u>\$ 402,751</u> | <u>29,776,529</u> | | <u>100.0%</u> |