GENERAL RETIREMENT SYSTEM
and
POLICE and FIRE RETIREMENT SYSTEM
BOARD OF TRUSTEES
CITY OF GRAND RAPIDS
MICHIGAN

MINUTES
JOINT MEETING
MARCH 21, 2018 – 8:15 a.m.
233 East Fulton

The meeting was called to order by Chairman Michael Hawkins. Other members present: Mr. David Tryc, Mr. Craig VanderWall, Mr. Martin Timkovich, Mr. Thomas VanderPloeg, Mr. Philip Balkema, Mr. William Butts, Mr. Phillip Mitchell, Mr. David Allen, and Ms. Donijo DeJonge.

Also present: Ms. Peggy Korzen, Executive Director of the Retirement Systems, Mr. Thomas Michaud, Legal Advisor to the Boards, Mr. Jim Anderson of Gabriel, Roeder, Smith and Company, Mr. Ray Vars and Mr. Jay Green of Harding Loevner, Mr. Kevin Dunne and Mr. Justin Barnum of PIMCO, and Mr. David Lindberg, Mr. Ned McGuire, Mr. Alex Ford, and Mr. John Patterson of Wilshire Associates, Inc.

There were no public comments regarding agenda items.

Mr. Tryc made the motion to approve the minutes of the Joint Meeting of February 21, 2018. The motion was seconded by Mr. Allen and carried.

Mr. Jim Anderson of Gabriel, Roeder, Smith and Company (GRS) next addressed the report regarding investment return assumptions that was tabled from the February 21, 2018 Board meeting. Mr. Anderson noted that it is GRS' opinion that the current 7.25% investment return assumption remains reasonable for use in the December 31, 2017 Police & Fire Retirement System actuarial valuation and the June 30, 2018 General Retirement System actuarial valuation; however, Trustees should consider decreasing this assumption by 10 basis points or more. Mr. Anderson reviewed GRS' analysis and commented that four of the investment consulting firms in their analysis provided expectations over a 20-30 year period and four provided expectations over a 5-10 year period. Based on a long-term inflation expectation of 2.50%, the average nominal return expectation was 7.36% over 20+ years, and 6.64% over a 10-year period. The overall average nominal return for all eight of the investment consultants used in their analysis was 7.05%. He stated that Wilshire provided a long-term (30 year) return expectation of 7.2% along with a 10-year return expectation of 6.1%. The long-term forecast was 7.3% last year. He noted that if the shorter-term forecast is realized, higher computed employer contributions than currently anticipated will result and little or no progress will be made toward increasing the funded ratios for the two Retirement Systems. The relatively long amortization periods currently in effect also contribute to the funded ratio impact. Mr. Anderson stated that the current investment return assumption in reasonable; however, GRS is suggesting that consideration be given to lowering this assumption by at least 0.10% for the valuations performed during 2018, consistent with the change in the long-term Wilshire forecast. He stated that this issue will be revisited each year. Mr. Anderson stated there would be approximately a 1% decrease in funding value for both Retirement Systems and a 1% increase in payroll contributions for each Retirement System. Mr. Anderson did note that the 30-year amortization is layered. Following Trustee discussion, Mr. Allen made the motion on behalf of the Police & Fire Retirement System to lower the investment return assumption from 7.25% to 7.15%, effective with the 12/31/17 actuarial valuation. The motion was seconded by Mr. Balkema. Mr. Mitchell asked whether the assumption should be lowered even further to be more in line with expectations; Ms. DeJonge agreed. Mr. Anderson commented that this issue will be addressed each year; Chairman Hawkins stated that .10% may seem nominal, but Trustees should make any changes in moderation. Mr. VanderWall asked how the Retirement System has performed historically; Mr. Lindberg stated that the Retirement System has outperformed its investment return assumption over the past 20 years. Mr. Butts stated that there may be other issues impacting this type of decision, and since Trustees will be revisiting this issue each year, moderate decreases would seem appropriate. Mr. Timkovich voiced his concern that he does not want to have the plans experience a lot of volatility in return assumptions. Mr. Allen's motion carried. Mr. Tryc made the motion on behalf of the General Retirement System to lower the investment return assumption from 7.25% to 7.15%, effective with the 06/30/18 actuarial valuation. The motion was seconded by Mr. Butts and carried.

Mr. Ray Vars, CFA and Portfolio Specialist, and Mr. Jay Green, Manager, Institutional Business Development, of Harding Loevner (HL) presented their firm's annual report to Trustees. Mr. Vars reviewed HL's organizational team and noted that HL has 37 investment professionals and the International Equity Portfolio management team averages 12 years at HL. Total assets under management as of December 31, 2017 total $62.0 billion. He reviewed HL's quality growth statistics as of December 31, 2017 v. the MSCI ACW ex-US Index as well as their total returns by quality and growth rank. Mr. Green provided a summary on both portfolios and noted the following return statistics for the portfolios as of December 31, 2017:

	3 Mo.	1 yr.	Since Inception
General Retirement System	3.66%	29.00%	8.86%
Police & Fire Retirement System	3.68%	28.99%	8.83%
MSCI ACWI ex-US Index	5.06%	27.77%	7.71%

*Inception date: April 1, 2015

Mr. Vars reviewed the benchmark sectors, region total returns, and performance attribution year-to-date as of December 31, 2017. Portfolio turnover (trailing 5-year average annual) was 13.8%. He compared the portfolio allocation from December 31, 2016 to December 31, 2017. He stated that international companies are delivering earnings growth; in 2017, companies broke their recent pattern of disappointment and outgrew the U.S. Mr. Vars reviewed portfolio profile end weights, provided position detail for the holdings within the portfolios, various portfolio statistics, and provided background on the best and worst performers. HL's strategy guidelines ensure diversification and limit risk. HL strives for above-market investment returns without additional volatility. He noted that HL narrows the investable universe in stages according to their insights about industries and companies, before considering stock prices; their portfolio typically has approximately 55 holdings. HL's portfolio decision-making structure promotes transparency and accountability. Mr. Green provided an overview of HL's International Equity ADR portfolio constraints, portfolio statistics, and model portfolio holdings as of December 31, 2017 and reviewed the current volatility in the global marketplace. The report was received and filed by Chairman Hawkins.

Mr. Kevin Dunne, CFA and CAIA, and Mr. Justin Barnum, Senior Equity Associate, of Pacific Investment Management Company (PIMCO), presented their firm's annual report to Trustees. Mr. Dunne noted that PIMCO's StocksPLUS product gains passive exposure to the index through futures and total return swaps and they invest in a high quality enhanced cash portfolio with meaningful return potential over cash. The bond portfolio is designed to be uncorrelated to equities, highly liquid, high quality, and flexible. He stated that the portfolio seeks to benefit from structural sources of returns inherent in the bond market. The percentage of 5-year S&P 500 outperformance is 88% and the average alpha for the portfolio is 0.69%. Mr. Barnum provided Trustees with an intra-quarter market update by reviewing yields, spreads, currencies and commodities, and equities data. He stated that global stocks posted strong gains amid improving growth fundamentals despite bouts of geopolitical volatility. Mr. Dunne stated that PIMCO expected the U.S. to grow at a moderate pace and intermediate U.S. interest rates to be relatively range bound, with any increases outpaced by those abroad. He noted that geopolitics continued to capture headlines, but markets were broadly resilient. The anticipation and passage of the fiscal stimulus in the U.S. as well as an uptick in the growth momentum in developed economies bolstered risk sentiment as equities globally moved higher, credit spreads tightened, and emerging market assets generally experienced gains while volatility remained low. Central banks indicated shifts towards diminished monetary support as the Fed and the BoE raised rates while the ECB announced a tapering in asset purchases (and extending the timeframe). Mr. Barnum commented that PIMCO's outlook and positioning is: modest duration exposure; selective credit holdings; high quality securitized bonds; and hold TIPS v. nominal Treasuries. The following returns were reported for the period ending December 31, 2017:

	10 yrs.	5 yrs.	3 yrs.	1 yr.	6 mo.	3 mo.	Since 09/30/87	Acct. Inception*
StocksPLUS L.P.	9.3%	16.0%	11.3%	22.8%	11.8%	6.8%	10.3%	6.0%
S&P 500	8.5%	15.8%	11.4%	21.8%	11.4%	6.6%	9.7%	5.4%

*Inception date: 09/01/00

Mr. Dunne reviewed PIMCO's performance attribution and key strategies for their enhanced cash alpha strategy as well their strategic outlook. He noted that they will focus on high quality, liquid sources of return as opportunities to capture high quality sources of structural yield persist. He provided Trustees with PIMCO's 2018 cyclical outlook and peak growth statistics. PIMCO believes: 1) there will be synchronized growth momentum, lofty valuations, and low volatility; 2) in the U.S., there will be a near-term fiscal boost to growth, but potentially at a price; 3) the Fed will likely remain on the move, but financial conditions will matter; 4) in the Eurozone, broad-based growth and muted inflationary pressures are expected to continue into 2018; 5) emerging markets will have solid fundamentals, but key political risks will be on the horizon; and 6) China's near-term stability is likely to continue following the 19th Party Congress. Mr. Barnum noted that as of December 31, 2017, PIMCO had $1.75 trillion in assets under management and more than 2,200 total employees with over 700 investment professionals. He reviewed PIMCO's organization, recent changes, and their investment philosophy. The report was received and filed by Chairman Hawkins.

Mr. Lindberg, Mr. McGuire, Mr. Ford, and Mr. Patterson next presented a report to Trustees pertaining to asset allocation. Mr. Lindberg commented that Wilshire considers six different risk lenses throughout the investment process: 1) behavioral; 2) shortfall; 3) drawdown; 4) inflation; 5) liquidity; and 6) active, and reviewed the mechanics of each one. He stated that the estimated funding status as of December 31, 2017 for the General Retirement System was 81.7%; 86.6% for the Police & Fire Retirement System. The actuarial rate of return for both systems was 7.25% and both systems have the same asset allocation policy (the General Retirement System is closed). As a percentage of assets, net outflows currently run at approximately 5% for the General Retirement System (climbing to 7.5% over 10 years) and 4% for the Police & Fire Retirement System (climbing to 6.5% over 10 years). Mr. Lindberg commented that this level of net outflow is modest and suggests the asset allocation policy would be able to accommodate additional illiquidity within the portfolio. He stated that Wilshire has modeled two frontiers of efficient portfolios: 1) frontier one maintains the 5% allocation to illiquid investments (currently private equity) and 2) frontier two increases the potential allocation to illiquid investments up to 10%. Increasing the illiquidity allows the portfolio to target a higher expected return while simultaneously dampening drawdown risk. Greater diversification within the Systems' growth assets reduces the negative impact from large drawdowns and exposure to safety-oriented fixed income and inflation hedging real assets will help the Systems weather a multitude of different market environments over time. Wilshire recommends adopting the Proposed Policy:

Asset Class	Current Policy	Proposed Policy
U.S. Equity	22.5%	17.8%
Non-U.S. Equity	22.5%	17.8%
Private Equity	5.0%	5.0%
Global Low Vol Equity	0.0%	10.0%
Private Credit	0.0%	5.0%
Core Fixed Income	25.0%	24.5%
Global REITs	5.0%	5.0%
Private Real Estate	0.0%	0.0%
U.S. TIPS	10.0%	5.0%
MLPs	5.0%	5.0%
Commodities	5.0%	5.0%
Total Illiquidity	5.0%	10.0%
Expected Return 10 yrs.	5.96%	6.26%
Expected Return 20 yrs.	6.87%	7.13%
Expected Return 30 yrs.	7.16%	7.40%
Liquidity Market Level (%)	90.3	85.2
Liquidity Overall Metric (%)	61.0	60.4

Contribution to Asset Volatility (%)

Growth	81.8	82.5
Risk Mitigating	4.4	4.1
Inflation Hedging	13.8	13.4

Mr. McGuire reviewed various inputs: 1) capital market assumptions as of December 31, 2017; 2) plan status data; 3) benefit and net cash flow streams for both Systems that Wilshire utilized for this report as well as portfolio optimization information, and provided simulations of data for each System. Based on the Systems' future needs, it is Wilshire's recommendation that Trustees consider increasing the expected return and reducing the expected risk profile of the plans by reallocating among the current asset classes through: 1) reducing public equity (both U.S. and non-U.S.) exposure; 2) optimizing the real assets portfolio to be more return-seeking while still guarding against inflation; and 3) diversifying growth exposure to include differentiated sources of return. Mr. Lindberg explained the concept of low volatility equities and private credit. He noted that low volatility equity portfolios are constructed with the objective of achieving minimum volatility by holding either stocks that demonstrate less variability than the market or stocks that demonstrate low correlations (and better diversification) to the market and other portfolio holdings. They typically hold publicly traded stock and can be long-only or long/short and are comprised of diversified securities (industries, sectors, regions, etc.). These portfolios tend to be defensive with relatively low beta, reduced drawdown risk and low correlation to cap-weighted equity indices. Volatility has historically been approximately 25%-30% lower than the broad market, a trend which is expected to persist. Mr. Patterson commented on the evolution of low volatility strategies, the low volatility anomaly, and performance for the asset class. Mr. Ford provided an overview on private credit market opportunities and statistics on fundraising by strategy type, geography, and historical performance for the asset class. The key risks of private credit are: 1) credit risk (default rate, loss rate, recovery rate, covenants, and private equity sponsorship); 2) illiquidity (size and illiquidity premium); 3) interest rate risk (fixed v. floating and duration); 4) manager selection (market efficiency and ability to differentiate, sourcing advantage, and strategy complexity and due diligence insight); 5) macro-economic/cyclicality (credit risk of corporate debt and default rate of distressed debt); and 6) regulatory (bank lending ability). Chairman Hawkins asked Trustees if they wished to pursue this recommendation by Wilshire; they stated they are agreeable to this recommendation and asked Wilshire to provide an educational piece as well as a report on suitable candidates for Private Credit at the May 9, 2018 Joint Board meeting. The Low Volatility piece could be presented at a subsequent Board meeting in the same fashion. Mr. Balkema clarified that although a motion was not made today, Trustees are all in agreement to move forward with Wilshire's recommendation as outlined in their report; Trustees agreed.

Board approval was requested for attendance at the following conferences: MAPERS One Day Seminar held March 2nd by Mr. VanderWall, Ms. DeJonge, and Ms. Korzen; Wilshire Client Conference to be held April 22 – 24 by Mr. VanderWall and Chairman Hawkins; the 2018 Annual NCPERS Conference to be held May 12 – 17 by Mr. David Allen, Mr. Phillip Mitchell, Mr. David Tryc, and Mr. Thomas VanderPloeg; and the 2018 Spring MAPERS Conference to be held May 20 – 22 by Chairman Hawkins, Mr. Tryc, Mr. VanderPloeg, Mr. VanderWall, Ms. Korzen, and Ms. Balkema. Mr. VanderPloeg made the motion to approve attendance of the aforementioned conferences by Trustees and staff per the Trustee Training, Educational Development and Due Diligence policy. The motion was seconded by Mr. Balkema and carried.

There were no public comments on items not on the agenda.

The meeting adjourned at 10:15 a.m.

The next Joint Meeting of the General and Police & Fire Retirement System Boards will be held Wednesday, May 9, 2018, at 8:05 a.m., 233 East Fulton, Grand Rapids, Michigan.

Peggy Korzen
Executive Director
General and Police & Fire Retirement Systems