

TUCSON SUPPLEMENTAL RETIREMENT SYSTEM BOARD OF TRUSTEES AGENDA

DATE: Thursday, December 17th, 2015
TIME: 8:30 a.m.
PLACE: Finance Department Conference Room, 5th floor
City Hall, 255 West Alameda
Tucson, Arizona 85701

A. Consent Agenda

1. Approval of October 30th Board Meeting Minutes
2. Approval of November 19th Board Meeting Minutes
3. Retirement Ratifications for December 2015
4. November 2015 TSRS expenses and revenue compared to budget

B. Administrative Discussions

1. City Manager Proposed Retirement Incentive
2. Mayor and Council Presentation Regarding Code Revisions
3. PIMCO Fee Structure

C. Investment Activity Report

1. TSRS Portfolio Composition, Transactions and Performance Review for 11/30/15 ^{Note 1}

D. Articles for Board Member Education / Discussion

1. Countdown to a Better DC Plan

E. Call to Audience

F. Future Agenda Items

1. January 28, 2016 meeting – Update on Pension Administrator Recruitment

G. Adjournment

Note 1: at the time this packet was assembled this item was unavailable but will be provided at the meeting

Please Note: Legal Action may be taken on any agenda item

*Pursuant to ARS 38-431.03(A)(3) and (4): the board may hold an executive session for the purposes of obtaining legal advice from an attorney or attorneys for the Board or to consider its position and instruct its attorney(s) in pending or contemplated litigation. The board may also hold an executive session pursuant to A.R.S. 38-431.03(A)(2) for purposes of discussion or consideration of records, information or testimony exempt by law from public inspection.

TUCSON SUPPLEMENTAL RETIREMENT SYSTEM BOARD OF TRUSTEES

Meeting Minutes from Friday, October 30th, 2015

TIME: 8:30 am

PLACE: Arizona Inn – (Safari Room) 2200 East Elm Street, Tucson, AZ

Members Present: Robert Fleming, Chairman
Kevin Larson, City Manager Appointee
Rebecca Hill, Interim HR Director
Silvia Amparano, Director of Finance
Michael Coffey, Elected Representative
Jorge Hernández, Elected Representative
John O'Hare, Elected Retiree Representative

Staff Present: Dave Deibel, Deputy City Attorney (arrived 2:12 PM)
Karen Tenace, Finance Deputy Director
Silvia Navarro, Treasury Administrator
Art Cuaron, Treasury Finance Manager
Dennis Woodrich, Lead Pension Analyst
Dawn Davis, Administrative Assistant

Guests Present: Jenefer Carlin, CTRA Representative
Paul Erlendson, Callan Associates
Catherine Langford, Yoder & Langford, P.C.
Leslie Thompson, Gabriel Roeder, Smith & Company
Matt Clark, PIMCO
Sasha Talcott, PIMCO
Terry Stutz, City of Tucson HR

Absent/Excused: None

Chairman Fleming called the meeting to order at 8:31 AM.

1) Consent Agenda

- a. Approval of September 24, 2015 TSRS Board meeting minutes
- b. September 2015 TSRS Financials
- c. Approval of October 2015 Retirements

The Board approved the Consent Agenda by a vote of 6 – 0 (Chairman Fleming did not vote).

2) Actuary Valuation Report for June 30, 2015 – Gabriel Roeder Smith & Assoc., - Leslie Thompson

- a. June 30, 2015 TSRS DRAFT valuation report and discussion
- b. Recommended Contribution Rates for 2017 Plan Year Beginning July 1, 2016, Ending June 30, 2017
- c. Acceptance of 6/30/15 Draft Valuation Report, Adoption of FY17 Contribution Rates
- d. Review of TSRS Funding Projections

Leslie Thompson discussed the results of the annual actuarial valuation. All the things the Board has changed over the last few years, like changing the employee rates from 40% of the ARC to 50% of the normal costs, the rounding policy, and the smoothing of assets have come together to provide positive results and trends. The plan is complex with three tiers; tiers meaning that based on when a member is hired they get a different set of

benefits and contribution rates. The tiers include the Old-Hire fixed rate, the Tier 1-Variable Rate, and the Tier 2-Variable Rate. Accounting and funding divorced a few years ago so all the actuarial accounting work is done under GASB with different reports. They are still working under the new assumptions adopted from the 2013 experience study recommendations. The investment return assumption was decreased to 7.25%, the inflation assumption which also affects salary growth decreased by 0.5%; but even with all the decreases the Board is still seeing positive results. The Board is using a more recent mortality table with a projection scale through 2020. When studying mortality to build all the mortality tables it was found that public sector plans were so different in their mortality rates the data was thrown out; as a result there is no public sector data in the updated tables currently utilized for the TSRS Plan. Experience gets measured against the tables so it only matters that the table used by the actuary matches the experience. Actuaries have been commissioned to do a public sector mortality study because it is so different.

Paul Erlendson asked if a sponsor could shop to find the actuarial table that makes the fund look better or were they compelled to use a particular table.

Ms. Thompson answered a fund in the public sector could use the table of their choice but the actuary could refuse to sign the report. For example if the Board ordered her to use a table that had all members dying at age 65 she would add a note at the beginning of the report stating it was a proscribed table instead of an adequate table. The report needs to be signed by the actuary in order to be compliant with GAP accounting and she would pick a table that fits the plan. In the private sector their tables are legislated so they do not have the flexibility that a public sector plan does.

Kevin Larson asked if the 2014 table was out.

Ms. Thompson explained it was the projection piece of the table, so they could project longevity into the future. MP2014 was released based on 2014, this year they released a statement that says mortality is not improving as fast as the table implies so MP2015 is coming out with less projection. MP is only used when the plan is fully generational and TSRS is not there yet.

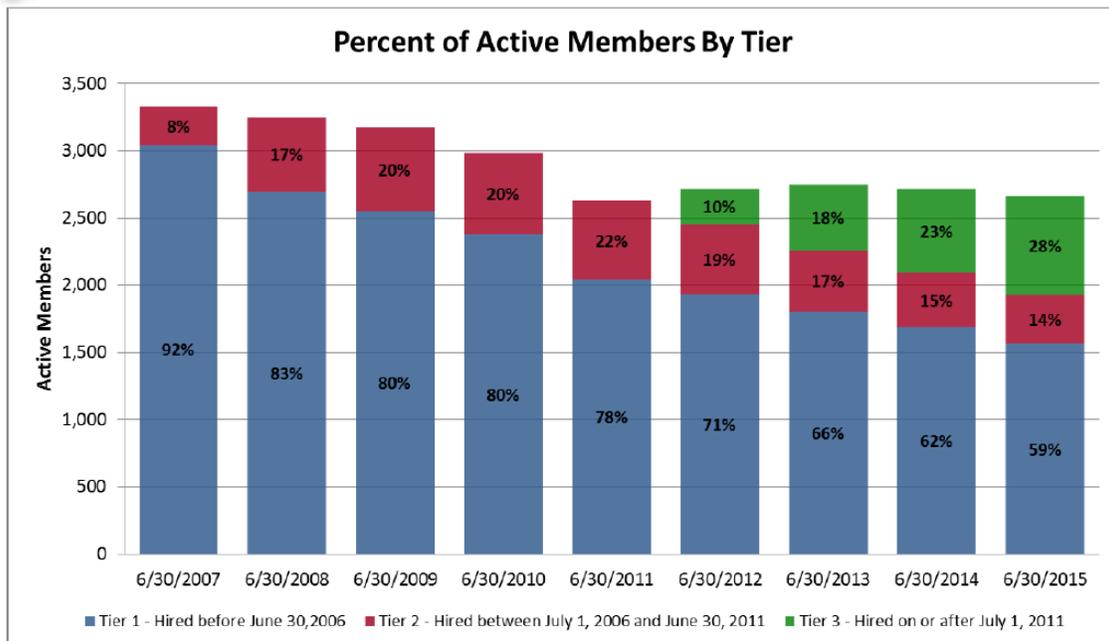
Mr. Erlendson asked if the actuarial tables affect the funded status or was it rounding error.

Ms. Thompson answered every time a different projection table is used it will move the needle but the movement will be really small. The table is really saying that someone who is age 60 in 2015 has a different mortality than someone who is aged 60 in 2030 because it has been found that through the generations mortality has been improving. There is one assumption change this year and that has to do with the Board's decision to explicitly show administrative expenses. The market return in FY2015 was 4.3% as opposed to the assumption of 7.25%, the actuarial value of assets return was 12.1%. The accrued liability remained about the same at \$1M, which is good because it should grow every year with normal cost and interest but it decreases when there are gains. The Board had a demographic gain of \$9.7M on top of the investment gain of \$30M. Normal cost by variable rate tier was 13.2% for Tier 1 and 9.78% for Tier 2; about half of that is the employee contribution. The unfunded liability payment is 18.59% of pay. Normal cost is the cost of benefits that accrue during the plan year; the pattern between 2013 and 2015 is that the total normal cost is decreasing. The amortization payment also decreased significantly because of the gains. In 2013 the City contribution rate was 26.95%, in 2014 it was 27.03%, and for 2015 it is 25.52%. The administrative expenses have been included for 2015 and are 0.53%. The funded ratio went from 64.8% to 69.2%, which is one of the biggest increases in funded ratio seen in a long time. The market value stayed about the same between 2014 and 2015. The geometric average return for actuarial value of assets is 6.2% over 5 years, and for Market Value of assets is 12.1% over 5 years. This is encouraging because actuarial value always converges to market. The investment experience is very volatile, which is to be expected, there was a \$30M gain in 2015 from earning the 12.1% vs. 7.5%. The \$9.7M gain in all demographic is mostly due to salaries not increasing as much as was assumed, so the total gain was almost \$40M for the year on an actuarial basis. The expected unfunded accrued liability (UAL) was expected to be \$355M for 2015; it was actually \$315M, the difference between the expected and actual UALs was the \$40M gain because asset gains positively impact the UAL. The normal cost is decreasing, which means as money is put into the plan more of that money will go to pay off the UAL because

it first goes to normal cost and then to the UAL. The following table shows how the different tiers are growing. Costs will decrease as the green bars increase and the blue bars decrease.



PERCENT OF ACTIVES BY TIER 2007-2015



15

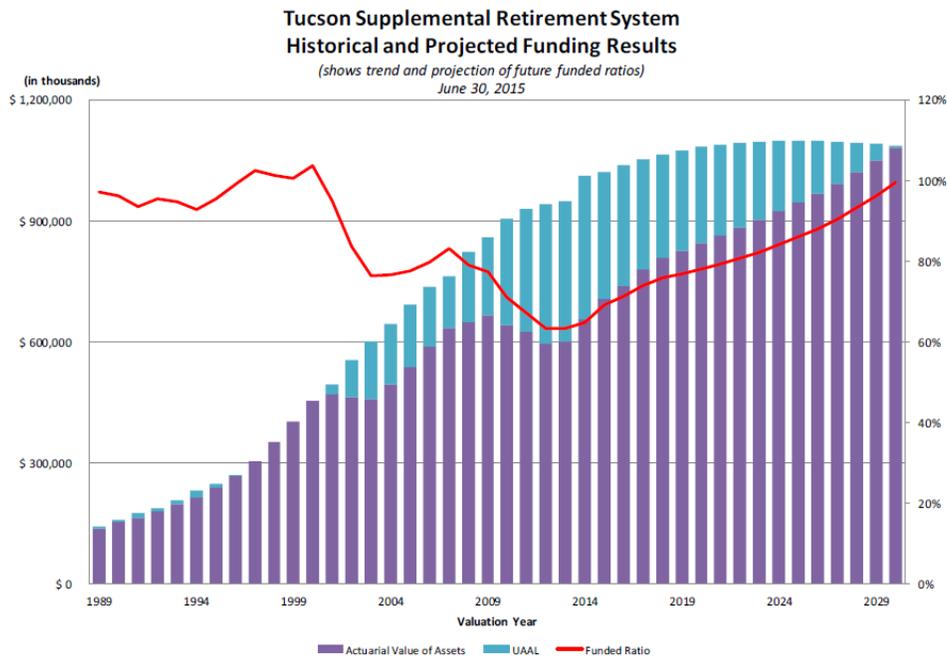
GRS

Retiree pay-status liabilities comprise 65% of the total accrued liabilities; 10 years ago the pay-status liabilities were 43%; which means a lot more liabilities exist in the plan without contributions. The only thing that can happen to a retiree from an actuarial perspective is death, so as the liability becomes a bigger portion of the plan mortality becomes a bigger, more important assumption. The market value for 2015 was 4.3% which did not meet the actuarial assumed rate. Benefit payments, refunds, and expenses are about \$72M a year, these will continue to increase in a maturing plan. The administrative expenses assumption is \$650K, which is based on the actual expenses and it will be adjusted each year. The Gain/Loss column of the Actuarial Value table below is the amount of gain or loss for the corresponding year.

Year	Gain/(Loss)	Percent Deferred	Amount Deferred
2015	\$(21,568,941)	80%	\$ (17,255,153)
2014	71,196,036	60%	42,717,622
2013	37,262,213	40%	14,904,885
2012	(36,737,183)	20%	(7,347,437)
2011	75,597,072	0%	0
Total	\$125,749,197		\$ 33,019,917

	Actuarial Rate	Proposed for FY 2017	Rate in Effect for FY 2016
Hired Prior to 7/1/06	5.00%	5.00%	5.00%
Hired 7/1/06 to 6/30/11	6.60%	6.75%	6.75%
Hired After 6/30/11	4.89%	5.25%	5.25%

The rate summary table above shows the rates now that they are based on the rounding and expense policies. The summary result is that there is no change from fiscal year 2015. The big surprise is that the employer rate dropped from 27.03% to 25.52%.



Funding policy reflects 27.50% of pay minimum City contribution until full funding is reached.

GRS

H-1

The table above shows the projections of the unfunded and funded ratio. This shows if the Board adheres to the policy, rounding the expense until fully funded, full funding will be reached in 2030.

John O'Hare stated the table assumes the Board would be reaching the 7.25% return assumption for the next 15 years, which is a big assumption.

Ms. Thompson agreed this was a big assumption but not an unrealistic one. The table also shows how the policies come together to create a positive result over time.

A motion to accept the Valuation Report and set the corresponding rates as projected was made by Kevin Larson, 2nd by John O'Hare, and passed by a vote of 6 – 0 (Chairman Fleming did not vote).

3) PIMCO Fund Manager—Sasha Talcott, Matt Clark

- a. PIMCO Update
- b. Economic Outlook
- c. Review of StockPlus Portfolio
- d. Review of Diversified Income Portfolio

Sasha Talcott thanked the Board for inviting them to the retreat, explained she is the account manager working exclusively with public pension plans in the California office, and introduced Matt Clark. She asked the Board if there was anything they wanted to hear about during the presentation.

Paul Erlendson asked them to address the Bill Gross lawsuit as it had been in the press recently and asked how disruptive an event like this is for senior management.

Chairman Fleming stated there was some interest in performance.

Ms. Talcott explained clients had 3 main concerns when Bill Gross left last year; would the departure lead to an exodus of talent, what was happening with flows and would PIMCO still be in a good position to manage given all that was going on, and what would happen to performance. A year later many of the things people were concerned about have not come to pass. In terms of an exodus of talent, the reverse has occurred, a number of key senior staff have come or returned to PIMCO. There have been a large number of outflows, largely from the products previously managed by Bill Gross. The outflows have tapered off quite a bit over the last year, especially over the last quarter. Most of the recent outflows have been a result of clients making asset allocation decisions or responding to low yields and taking action. All of the funds managed by PIMCO have seen substantial inflows. In terms of investment performance, looking at the long term track records, close to 90% of the assets under PIMCO management have outperformed in 5 years. They were surprised by Bill Gross' lawsuit, with respect to the timing, but it has not been a distraction for the organization. They have tithed off a portion of their legal team to work on it but that has freed up the trade floor and executive team to spend their time and energy in areas more beneficial to PIMCO clients.

Matt Clark added the lawsuit came out at the end of September, which was a difficult quarter for investments and performance. October has been the opposite, it was a good month for investments and performance, so if the lawsuit was distracting the members of the organization they would have expected to see an impact on the portfolios, but there has not been any.

John O'Hare asked about the basis of the lawsuit.

Mr. Clark explained the lawsuit claims PIMCO terminated Mr. Gross in a way that was not appropriate to avoid paying his portion of the assorted performance bonus paid to senior employees. The public records show that Mr. Gross chose to leave PIMCO in order to move to a smaller organization and focus more on managing portfolios.

Ms. Talcott said PIMCO has expanded their partnership with Research Affiliates, a research group headed by Rob Arnott. PIMCO uses them intensively for their equity products. They use a fundamental index which rates companies based on their size and the economy vs. thinking about the S&P 500 and other indexes.

Mr. Clark said the Board has been in PIMCO's equity strategy since 2006. The StocksPlus investment is a type of enhanced equity investment, which means PIMCO is primarily trying to deliver equity market returns. The Board could get into the S&P 500 index by taking all of their money and investing in physical stock securities. Another way to do that is to use futures contracts, by trading a short term financing agreement in the futures market and in return the Board would receive the return of the S&P 500. This generates the same kind of returns as if the Board held the physical stocks, but they are replicating the index return for futures. When doing that not all of the Board's money would have to go into the futures contract, given the example of a \$100 investment, \$2 could be put down and \$98 kept on hand to meet the obligation of the futures contract. PIMCO takes that \$98 and invests it in a high quality bond portfolio; the idea behind this is the cost of replicating the

equity market return on the futures contract is usually about 0.25%, if that can be invested in a short term, high quality bond portfolio it will yield 0.5% or 0.75%. The difference between the cost and what the portfolio yields is what the Board will capture in terms of an enhanced return on top of the S&P 500. This portfolio would really be dominated by what the broad stock market is doing, and on top of that PIMCO is trying to add a little bit of value from the way they manage the bond collateral portfolio.

Mr. Erlendson said this was a strategy that has been around for a long time and lots of people have used it. Essentially what PIMCO has is the return of the S&P 500 futures contract and the variation between the return of the strategy and the return of the benchmark. He asked how PIMCO determines what sort of risks are in the portfolio, and how much risk they are willing to take to reach the goal of 75 basis points.

Mr. Clark said PIMCO has been running this strategy since 1987 and it has been through many equity and bond cycles. Generally they are targeting roughly 0.75% in terms of extra return; they would assume the client would have to accept roughly 1.5% to 2% as volatility around that. It is unusual to have a month where they are closer to 1% under the S&P 500 but it is not outside the normal range of outcomes. A month where they are 10 to 20 basis points ahead would be more typical. They had an extreme experience with this strategy in 2008, which was a result of what was happening in the broader bond market. There will be bigger deviations in terms of the range of outcomes where there is a lot of volatility in the market, in particular when sectors of the market, like investment bank, corporate bonds, or high yield bonds, are under pressure it will add more volatility to the strategy than would be expected under normal circumstances. The portfolio is designed to add extra return, and is a high quality, short term bond portfolio, they are not taking a lot of interest rate risk so the portfolio's duration is close to a quarter of a year. This is not meant to be a long term portfolio or to take a lot of risk. Generally the portfolio tends to outperform the S&P 500 by a little. There are periods where there are deviations due to stress in the marketplace; but the strategy has demonstrated over the years that when there are periods where the portfolio is not doing as well as the client would like, the subsequent period usually has a significant performance rebound. On a year to date basis as of 9/30/15 the portfolio returned -6.4% after fees when the benchmark returned -5.3% after fees. Those returns were concentrated in the third quarter, where the portfolio did underperform by a material amount. That was driven by the fact that the portfolio is only going to take incremental risk with exposure to high yield bonds, exposure to mortgage backed securities, etc. and when there is stress in the market place they will not keep up as well as treasury securities will, and this is what drove the underperformance in that quarter. As of closing on 10/29/15 the broad stock market has on the month returned just under 9% and the Board's portfolio has returned 9.24%. October returns have done quite a bit to recapture the performance shortfall of the previous quarter. Year to date as of 10/29/15 the portfolio has returned 2.44% and the benchmark has returned 3.2%. The portfolio yields 81 basis points and to replicate the S&P 500 exposure costs 32 basis points, that differential over time is what PIMCO expects to accrue to the portfolio as the year goes forward.

Mr. Erlendson asked if the cost of the futures is a short term lending rate, if interest rates start going up would that be an additional headwind to achieving the incremental value, or was it something PIMCO can work around.

Mr. Clark answered they could work around it. If interest rates move up, often that will impact other securities across the spectrum; the cost might go up but the yields on the securities that they can put into the collateral portfolio are higher and so it is dependent on the difference between the yields in the securities that they pull vs. the financing costs. If finance costs go up, the yields on the securities tend to go up and PIMCO can capture that difference. PIMCO has a pretty wide range they can invest in, they are investing in a high quality liquid portfolio but they can emphasize securities that are less responsive to interest rate movement.

Ms. Talcott added they were basically trying to outperform, using the bond portfolio and, over time they have been able to do so consistently in the equity market.

Mr. Clark said even with the volatility in the 3rd quarter, since the Board invested, the strategy has outperformed by about 1.5%. Since inception the strategy has outperformed by about 1%. PIMCO thinks that is a very attractive way to source equity returns for the amount of risk they are willing to take.

Mr. Erlendson asked them to explain how PIMCO is compensated for this strategy.

Mr. Clark answered this was an entirely performance based fee. PIMCO only gets paid if it outperforms. When it outperforms PIMCO keeps half of the first 40 basis points of that over performance, so if it returns 40 basis points above the index PIMCO charges 20 basis points, and they charge 20% of any excess returns after the first 40 basis points. If the portfolio does not outperform over the year PIMCO will not charge a fee.

Mr. Erlendson said when there is unlimited upside there can be a greater incentive to take risk, and asked if there was a potential cap so PIMCO would not charge fees if an unacceptable amount of risk was taken and how did they reconcile risk control for client assets vs compensation for PIMCO when it comes to taking risk.

Mr. Clark explained there was no cap, from a risk control standpoint the key is that they have a very robust risk management team whose job is to make sure this portfolio maintains the parameters listed in the partnership agreement. There are limits around the amount of excess interest rate exposure they can take, limits around the amount of high yield exposure they have, the amount of emerging markets exposure, etc. The risk managers are independent from the portfolio managers and have very strong incentives to bring the exposures in line with the partnership agreement parameters. PIMCO is very mindful of the reputational risk they would incur if they started putting things that were inappropriate into the strategy as a way of earning extra returns. One of the values of working with PIMCO is that they have been around for a long time and have a lot to lose if they manage a strategy in a way that is not consistent with the way they have described it to their clients. This fund is up \$1.2B in size, so if you combine the internal risk controls with the business risk it provides very strong assurance that they are going to operate within the parameters they have described. The times when the performance has been very strong, like in 2009, it was very easy to see clear market dynamics that were driving the returns as opposed to the manager taking extra risk.

Mr. Clark discussed the diversified income strategy next. PIMCO's diversified income strategy takes exposure to mortgaged backed securities, investment grade bond securities, high yield securities, and dollar denominated emerging market debt securities. The portfolio combines all those market exposures and is pretty unique; there is no passive option that combines these sectors of the global bond market. They have developed this customized portfolio that when compared to the current benchmark, put in place in 2012, it generally has higher yields than a more traditional core bond allocation. At the beginning of the year PIMCO staff thought the Fed would raise interest rates in September, they moderated that view in June/July, but clearly it did not transpire as they expected; because some of the weakness they anticipated in the global economy occurred and had a bigger impact on the markets than they expected. As they go forward for the rest of the year they think the US economy is strong enough for the Fed to start raising rates in December; that weakness and uncertainty seen in the global economy in the 3rd quarter was a large deviation in terms of what PIMCO thought and what actually happened. That deviation led to a performance short fall in the 3rd quarter, and this portfolio has more credit risk than a traditional core bond allocation. In the 3rd quarter this portfolio returned -1.59% and a little less than -0.5% as of 10/29/15. The customized benchmark, that PIMCO developed with the Board, returned -1.3% for the 3rd quarter and -0.33% for the year as of 10/29/15. What hurt the strategy was the allocation; the sectors in the market were a little more credit sensitive. For example in emerging markets they had an overweight and they had an overweight to high yield. On a year to date basis as of the end of September, the portfolio has returned -0.8% after fees and the benchmark has returned -0.3%. As with the StocksPlus portfolio, there was a significant performance rebound in the month of October. For the month of October the portfolio returned 2.25% and the benchmark returned 1.57% so from a year to date perspective that means the portfolio has returned 1.78% before fees and the benchmark returned 1.23%. This equates to a net of fee out performance of roughly 20 basis points year to date. There were headwinds in the 3rd quarter with a nice rebound in the month of October. The approach the Board has taken is different from a traditional core bond allocation, but it has worked very well. Over 10 years the strategy has performed very close to the benchmark, returning 5.5% after fees. If the Board had been investing in a core bond portfolio it would have only returned 4.6%. This approach has helped the system to achieve higher returns because it has materially outperformed the returns the Board would have gotten from a traditional bond allocation. PIMCO is delivering a portfolio that offers better yields than they would get from a traditional bond portfolio, but it is still very liquid and relatively high quality. This portfolio yields just over 6%, the benchmark yields just under 5%. Currently high bond portfolios are yielding between 2.5% and 3.5% in a traditional space. This is not being

achieved by aggressively going into lower credit quality; the average credit quality for this portfolio is A-, the average credit quality for the index is BAA+. So on the margin the portfolio is a little higher quality than the index. Recently PIMCO has been adding to high yield exposure because in the 3rd quarter that sector of the bond market was hit hard causing the prices to go down and make them more attractive. PIMCO added the exposure, on a risk controlled basis, to the portfolio to further enhance the yield. This is very consistent with how they are thinking about the economic environment in the US as they go forward. In summary PIMCO has been balancing a diverse set of market exposures like, high yield investment grade mortgage backed securities, and external emerging market debt. They are confident about the income position of the portfolio, particularly relative to the benchmark as well as the broader fixed income universe.

Ms. Talcott discussed PIMCO's economic outlook. PIMCO starts their economic process every year in May by holding a secular forum where they look out over the next 3 to 5 years and try to determine the key issues in the global economy that they, as investors, need to be aware of when positioning portfolios. Every 3 months beyond that they have a cyclical forum where they look out over a shorter time horizon of the next 6 to 12 months. The key issues discussed at the September 2015 cyclical forum were the monetary policy divergence they are likely to see soon in the global economy, and the broad dislocation it is already creating and likely to create even more of in the future. As they view the global economy they see signs of strength across the developed world. The US has strength in housing and consumer confidence, and has come close to full employment. Though there are no signs of coming breakout growth, this kind of slow, steady improvement is likely to put the Fed on a path toward an interest rate hike, a symbolic step in terms of it leaving 0%. In Europe there has been a substantial improvement, largely due to the intervention of the European Central Bank. Japan has also improved due to the bank being so aggressive, there has been some growth. Emerging markets have become the big unknown in the global economy. From a longer term perspective, of around 10 years, emerging markets and the local currency version of emerging markets are poised to deliver some of the highest returns available in the fixed income markets. It is also PIMCO's belief that there is going to be a lot of volatility in the shorter term, particularly over the next 2 years, as the Fed begins to increase interest rates. China is going through a bumpy transition into a consumer driven economy, and the way they posed the remedy devaluation is what made the markets so volatile in the 3rd quarter. In the shorter term PIMCO does not think there will be a hard landing in China, a lot of those risks have dissipated, but they do think growth will gradually decelerate. Over the longer term investors in those markets will be rewarded, but in the shorter term the volatility will be substantial. Since the financial crisis, and given the unprecedented amount of easing seen since, valuations especially in the developing world are full. Emerging economy valuations look much better and more compelling, but one has to underwrite a lot of volatility in order to make those investments.

Mr. Erlendson asked when they said compelling did they mean it looks cheap or like someone who buys it will make money.

Ms. Talcott answered it meant it looks cheap and an investor over the long term is likely to make money. That leads them to anticipate that future returns on investments ranging from equities, and fixed income are likely to be lower than previously seen. They have already seen it with a number of plans. The question is what can be done about that. A number of plans have looked at things like income related strategies; the Board is in one of these as a way to get a little extra return from the fixed income portfolio. A core bond type fixed income portfolio will be lucky to see a return around 3%, the Board's portfolio has returned closer to 6% which is closer to meeting the return target. If equity returns are only going to lead to a 5% to 6% return over the next 10 years and equity returns are also being thought of as one of the key engines to get clients to a 7% or 8% return, that is a serious gap. So a number of plans are looking at strategies to back equity returns with bond portfolios with various amounts of flexibility, the one PIMCO runs for the Board is on the conservative side. Plans are also looking at bond portfolios that aim for the 2% to 3% excess returns. All of that leads to tremendous opportunities from an investment standpoint. PIMCO sees a lot of opportunity in both liquid and private credit in the market. In the equity space value type investment strategies have substantially underperformed by almost 11% over the last year. PIMCO believes that fundamentally driven strategies, with a value type tilt, are likely to do well in the coming quarters. They also see a number of opportunities internationally vs. the US, especially in equity and fixed income, with the caveat that there will be bumps along the way.

Ms. Talcott thanked the Board for sticking with PIMCO through a very tumultuous year and for performing due diligence and choosing to continue their investment.

4) Disability Process Discussion

- a. TSRS Disability Statistics and Process
- b. City's Medical Leave and Accommodation Policies – HR Representative
- c. Discussion of Overall Disability Program

Terry Stutz told the Board that she was the Medical Leave Specialist at the City of Tucson, and she helps manage employee Family Medical Leave (FML), medical leave, light duty, and transitioning out. The City has several administrative directives (AD) that are specifically designed and in place to deal with different types of leave requests. The HR department works with the ADs relating to sick leave, FML, medical and parental leave, light duty, reasonable accommodation of applicants in accordance with the Americans with Disabilities Act (ADA), and worker's compensation. The sick leave ADA is the basic policy allowing employees up to a specified number of days per year for general illness, and encompasses family members as well. The bigger challenges come in when employees have a serious health condition that is continuous or intermittent in nature. The City complies with the Family Medical Leave Act (FMLA) which overlays with the City's medical leave policy. The ultimate goal is to try and get employees back to work as quickly as is reasonably possible.

FML is a federal law which provides up to 12 weeks of protected unpaid leave for employees when they have a serious or intermittent health condition. Intermittent type illnesses could encompass conditions like asthma and arthritis which do not keep them from working permanently but can cause them to use more sick leave days. To be eligible for FML employees must meet specific criteria, it provides them with up to 12 weeks within a 12 month period. Many employers use a rolling 12 month calendar regarding FML, but the City uses the calendar year. It is important to note that the 12 weeks are based on the employees typical work week with regards to hours, and they can use the 12 weeks over a continuous period or over several periods in the year. The City's medical leave policy runs concurrently with all other leaves including FML. The City medical leave is a nonpaid benefit allowing employees up to 12 months of continuous medical leave, should the circumstances require it. Employees will be approved for up to 6 months of continuous medical leave without department input. From 6 to 12 months the medical leaves office will work with the employing department to determine whether it is feasible to hold that position for an employee who may or may not be returning to work. When employees come to the TSRS Board as a part of their medical disability retirement process they have typically exhausted their 12 months of medical leave. The City does require the requests for medical leave be certified by the employee's doctor using a federal form, at their own expense. In the medical certification the physician is providing the City with the detailed parameters of their illness. The physician will provide estimates, given their history with the employee, of typical leaves for the conditions. Most employees seem to want to get well and come back to work once their leave balances are exhausted, though there have been situations where employees malingering and are not motivated to come back to work. One of the biggest challenges for the medical leave office is trying to get employees back to work when they are still getting paid and have no motivation to come back. Recertification is required every 60 days for an ongoing medical leave situation. For disability retirement purposes they are usually dealing with continuous leave, long term situations, and more serious illnesses and disabling conditions. As part of the medical leave process they maintain contact with employees while they are on long term leave. They follow up on situations where the employees leave time seems inappropriate for the information received from the physician. Once the employee has been on medical leave for 9 to 11 continuous months the medical leave office begins conversing with them about the probability of returning to work and the employee is advised of options available to them if their health condition is anticipated to keep them out for more than 12 months. The options can include preparation for the disability retirement process if they qualify, long term disability, and accommodation in compliance with the Americans with Disabilities Act (ADA). The accommodation process can be time consuming, is case specific, and it has to make sense to do it.

Chairman Fleming stated the Board had been told several times that the accommodation process is voluntary and an employee cannot be required to seek accommodation.

Ms. Stutz confirmed this was correct, though the medical leave office takes steps to let them know accommodation is an option. There are situations where accommodations do not make sense, for example a groundskeeper cannot be expected to be reassigned because it does not require any skill sets, so many of the employees do not have any educational background or qualifications that will transfer to another City department. They also try to determine, when the employee is qualified to fill another position, whether it is an appropriate fit.

Chairman Fleming asked if the medical leave office is done with the employee once the disability retirement application process has been suggested.

Ms. Stutz answered when the point where the employee's last resort is to consider disability retirement has been reached, if they qualify; they have a decision to make. Once an employee applies for disability retirement the medical leave office maintains contact with the employee and keeps them on board until the retirement decision has been made so that they continue to have City benefits. Once the Board has made a decision the medical leave file is closed. If the employee does not qualify for or is denied disability retirement and they have not been approved for long term disability termination becomes the only option once their medical leave is exhausted.

Dennis Woodrich stated 7 disability retirement applications have come to the Board for the year as of 9/30/15, 6 were approved and 1 was denied.

Chairman Fleming asked how many were pending.

Mr. Woodrich answered he had 2 or 3 applications out currently, but only 1 is active. The other 2 employees were sent an application packet and the retirement office has not been in communication with them since.

Chairman Fleming stated there were currently 157 disability retirees, and 45 were beneficiaries.

Mr. Woodrich clarified that 45 were beneficiaries of disability retirees who have passed away.

Chairman Fleming asked if disability retirees stop being disability retirees upon reaching normal retirement age.

Catherine Langford explained they would retain the disability retirement classification but all of the certification requirements are no longer required once they reach retirement age. Staff only monitors until they reach the normal retirement age, and because they could be retired under other conditions they do not follow up on the medical issues.

Chairman Fleming clarified that staff required all disability retirees who have not reached normal retirement age to participate in the disability audit.

Mr. Woodrich confirmed this was correct with the exception retirees whose disabilities were so severe there was no chance they could recover.

Chairman Fleming asked how the Board and staff should address the issue of the 2 disability retirees who have not participated in the 2015 disability audit, and how to obtain another option for the medical evaluator.

Michael Coffey asked to discuss the paperwork people fill out when applying for medical retirement because it is not clear that all the applicants go through the same steps before applying, and why it is not a requirement that the City look for reasonable accommodation.

Ms. Stutz answered they tried to provide consistent process to all employees, and they are managing those employees from the beginning of their disability or illness up until they do get released. Every employee managed is informed that they can seek reasonable accommodation, but it is a voluntary process. The employee may not view themselves as disabled under the definition of the ADA and that denial keeps them

from asking for an accommodation because they think they will get better and go back to work. The City cannot perceive and/or deem an employee as being disabled and therefore cannot force the accommodation process. The medical leave office has been working with the retirement office to streamline the disability retirement application, because the employer section should not be filled out by the department because they have not been working with that employee through the disability or illness the way the medical leave office has.

Mr. Woodrich explained the retirement and medical leave offices have been working together to streamline the process since an applicant informed the Board they did not know anything about the accommodation process. The section of the application that currently goes to the employee's department will also be sent to the medical leave office so that the Board will receive more beneficial information than they have received previously.

Mr. Coffey stated there was no incentive for a hiring department to be accommodating.

Ms. Stutz agreed because the employer is not required to remove any of the essential functions of a position as a part of the accommodation process, under the ADA. The medical leave office discourages removing essential job functions from a position as part of an accommodation because it would set a dangerous precedent. They also discourage the departments offering light duty to an employee without input from the medical leave office because they would not be able to track or control the accommodation. When seeking accommodations for a disabled employee the medical leave office requires the hiring department to demonstrate that they do not have any reasonable accommodations available, and under the ADA they have to provide compelling reasons as to why they cannot provide a reasonable accommodation, it has to be a demonstrated hardship to the City.

Silvia Amparano asked what the medical leave office does to find accommodation when the hiring department has demonstrated they do not have any light duty or reasonable accommodations available.

Ms. Stutz explained with an example, there was a custodian in the Parks and Recreation department who had a severe break in his upper arm and shoulder and the healing process was slow. This employee did have some transferable skills, and when there are any open positions he may be qualified for, within a reasonable time frame, they consider it. The problem then becomes that the new department pushes back due to unsuccessful placements in the past, though the City is required to follow the ADA laws.

Ms. Amparano asked how the HR department knows what an employee's transferable skills are.

Ms. Stutz answered an employee going through the accommodation process was not required to go through the competitive process. If the employee meets the minimum requirements, which can be established with the assistance of the City's recruiting and talent management team, the disabled employee gets placed in that job. The medical leave office will pull an employee's file and review their work and educational history to try and identify whether that employee meets requirements. The City also utilizes the recruiting and talent management team to perform an analysis on whether the employee in question has transferable skills and meet the minimum requirements for an open position. The process is not always successful due to bad placements.

Jorge Hernández asked about the success rate for the accommodation placements.

Ms. Stutz answered they did not track it and gave reasons as to why they should work on a system to start.

Rebecca Hill stated the HR department has difficulty with the complexity of the ADA laws in terms of sharing information with other departments and supervisors regarding accommodation issues.

Ms. Stutz asked why the disability retirement process seemed so lengthy.

Chairman Fleming answered with a few exceptions the process takes about a month, and one of the issues is that the Board only meets once a month.

Mr. Woodrich explained the onus is on the employee to get the doctors to respond with their medical records, and that can extend the length of the process. Other cases have circumstances beyond the Board's control and gave the example of an employee who was seen by the City physician, who recommended a neuropsychological exam. It took staff a month to find someone to perform the exam and pay them, then the employee had to wait 3 weeks for their appointment, and then it took a month for staff to receive the report. Staff usually has reports from the city physician within 2 weeks.

Chairman Fleming stated the city physician was the only part of the process over which the Board has any kind of control.

Ms. Langford advised there were time provisions in the city physician's contract regarding the evaluations and submitting the report which is why he is so consistent. The only other thing the Board could do procedurally would be to place time limits on the process for the employees, but that may be inherently unfair if it is indeed the doctors who are holding up the process.

Mr. Coffey asked what the gain would be for an employee to delay the application process for disability retirement.

Ms. Stutz explained if they started the process before their 12 months of medical leave have run out they can remain on City benefits, which are more costly for retirees, until the end of the 12 months or they become a disability retiree. The other motivation could be where they are in the process of applying for social security disability because an approval would make them eligible for Medicare.

Chairman Fleming asked if there any way for the Board to obtain the social security disability status of those people who are under age 62.

Ms. Langford stated the City probably does not have a reliable number because they have not required any one to submit it.

Ms. Stutz stated that if an employee has applied for long term disability through the Hartford they are required to also pursue social security disability because the social security benefit would offset their long term disability benefit.

Mr. O'Hare asked how long the long term disability benefits last.

Ms. Stutz answered it depended on when they initiated their application and when they became disabled. If it is before age 60 it may continue until they reach Medicare and retirement age, or if the applicant is 60 years old there may be a maximum of 2 to 5 years, it depends on how the contract is set up. It is not indefinite, but it can be ongoing for a person who becomes disabled at a young age.

Kevin Larson stated the more information he had regarding a disability retirement application the faster he is able to reach a decision, and suggested the medical leave office submit a checklist as a part of the disability application packet so that the Board can see what steps the applicant has gone through as well as the steps they have been advised of and chosen not to take. The medical leave office could also include information on the length of time they have been working with the individual applicants and any other relevant information the Board may not be able to get elsewhere.

Mr. Woodrich advised the timelines had been included in the disability application packets since he took over that process. The point was to provide the Board with some of the information from the medical leave office that they had not previously been receiving.

Ms. Stutz said that greater collaboration between TSRS staff and the medical leave office was needed, and the checklist was a good idea as it would provide the Board with more information. She advocated removing the applicant's home department from the process because with the HIPAA and privacy laws they do not want the

information that the medical leaves office has. This would facilitate a smoother process and it seemed appropriate.

Mr. Woodrich suggested the supervisor page in the disability application packet should actually go to the medical leave office, and the medical leave office could contact the home department for any additional, relevant information.

Chairman Fleming noted this would help to standardize the process as well.

Ms. Stutz advised the home department was not authorized to have enough relevant information to contribute to the process.

Mr. Larson asked if Ms. Stutz ever got the impression that an applicant was working the system.

Ms. Stutz answered yes and that it was a part of the challenge because it is frustrating. Sometimes they can identify applicants who are working the system but everyone is presented with the same options. Part of the challenge of making accommodations work is when an applicant has performance issues as well as their medical issues. This is part of why many of the departments do not want to accept an employee as part of the accommodation process.

Ms. Langford explained that in the Code revisions language has been added that the application has to be submitted within 12 months of termination of employment. This language was added without the understanding that most applicants are still City employees, and did the Board want to change it from within 12 months of termination from employment to within 12 months of termination of performing services.

Chairman Fleming answered the language specifying the application must be submitted within 12 months of termination of City employment was appropriate and correct because they are not terminated until after they have gone through the medical leave process.

Ms. Stutz explained termination was the last resort process that could occur anywhere between 6 and 12 months.

Ms. Langford said if the applicant informs the medical leave office that they are going to apply for disability retirement their employment continues so that they can keep the health benefits. As a result it would be a very rare case in which there is a gap between termination and submission of the application for disability retirement.

Ms. Stutz explained that if an employee applies for disability retirement after exhausting their 12 months of leave they will not be terminated, however they will not keep their City benefits as they are no longer protected, at that point in time the employee will have to go on COBRA.

Ms. Langford stated she wanted to confirm the Board wanted to keep the termination language since the majority of applicants will not be terminated.

Ms. Amparano answered they should keep the language because there are employees who could apply because they find out, after their termination date that they had some disability. They would have to prove they had the disability before or at the time they left employment

Ms. Langford advised the new language did address that and if it was the main goal the language should stay.

Mr. Woodrich requested direction on how to handle the 2 disability retirees who had not participated in the annual disability audit.

Ms. Amparano answered last year the Board took action to approve cutting off their monthly benefits in order to receive the required response.

Chairman Fleming asked what happened after that action was taken.

Ms. Amparano answered responses were received immediately.

A motion to stop benefit payments to the disability retirement recipients who have not responded for the disability audit, effective immediately and until they respond, was made by Silvia Amparano, 2nd by Kevin Larson.

Mr. Coffey stated he would like to be certain there was documentation of all the attempts to reach the recipients, and that he would like that information to be presented to the Board because he was averse to stopping their benefits.

Mr. Woodrich answered that in these 2 cases 1st and 2nd notices were sent via certified mail. After the 2nd notice was returned he tried the phone numbers on file and was advised that one of the recipients was no longer at that phone number, the other recipient had a full voicemail box so a message could not be left.

Ms. Amparano explained it might just be a matter of getting the recipients to update their information so that we have the right information to send all of the notifications to. This was just the mechanism to get a response.

Ms. Langford stated the Code does specifically allow this action.

Mr. Woodrich also tried to obtain new phone numbers with no success. The recipients will contact the TSRS office as soon as they have not received their benefit. From there it takes about 2 days to have a check cut, so the delay should not be more than 10 days.

The motion passed by a vote of 4 – 2 (Rebecca Hill and Michael Coffey dissenting, Chairman Fleming did not vote).

5) Education Session - Callan Associates - Paul Erlendson, Gordon Weightman

a. Active Vs. Passive Management

This item was taken out of order and considered after item 2.

Paul Erlendson said people like to think about the active vs. passive debate as an absolute where one or the other always wins. Indexes are rules based protocols for deciding what goes into a benchmark. The Russell indexes are commonly used by large cap managers. They are reconstructed every June and much like active managers, the indexes use rules and protocols to change. If considering purely how it is done, indexes are actively managed too because they are based on rules, and the composition of the index changes based on what securities are in the market and whether or not they meet those standards. The question becomes whether the Board wants to pay extra money to be exposed to the market, because they might do better than the cheaper alternative. When Callan did the Board's asset liability study they started out assuming the Board bought index funds, and then the question becomes could they do better, after paying active management fees, if hiring an active manager. Mr. Erlendson directed the Board to turn to page 2 of the materials distributed, and discussed the following table.

Total Domestic Equity Database versus Russell 3000

Percent of Three-Year periods where Manager Beat Benchmark by more than Hurdle – by Percentile

Hurdle	0.25%	0.30%	0.35%	0.40%	0.45%	0.50%	0.55%	0.60%	0.65%	0.70%
Median	66%	61%	58%	56%	56%	55%	54%	53%	53%	51%
45th Percentile	79%	75%	73%	71%	68%	68%	66%	64%	60%	60%
40th Percentile	83%	81%	80%	80%	79%	79%	79%	79%	79%	73%
35th Percentile	88%	88%	88%	88%	86%	86%	85%	84%	81%	81%
30th Percentile	96%	95%	95%	91%	91%	91%	90%	90%	89%	88%
25th Percentile	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Average Annualized Excess Return – Median Manager: 0.96%

On the left margin is the active manager with a ranking median or higher. Across the top the fees are listed, so the table shows a viewer the percentage a ranked active manager has of outperforming the Russell 3000 index after fees. The highlighted portions show the managers outperformed the index at least half of the time. This particular table shows that almost any active manager can outperform the Russell 3000 most of the time and at almost any fee level. But if comparing active managers against the S&P 500 index a median manager is not going to outperform the index after fees very often:

Large Cap Broad Equity Style versus S&P 500

Percent of Three-Year periods where Manager Beat Benchmark by more than Hurdle – by Percentile

Hurdle	0.25%	0.30%	0.35%	0.40%	0.45%	0.50%	0.55%	0.60%	0.65%	0.70%
Median	49%	45%	43%	40%	39%	36%	35%	31%	30%	29%
45th Percentile	60%	60%	59%	56%	54%	54%	51%	48%	45%	43%
40th Percentile	73%	73%	70%	70%	69%	69%	66%	65%	61%	59%
35th Percentile	76%	76%	75%	74%	74%	74%	74%	73%	70%	70%
30th Percentile	83%	83%	81%	80%	80%	78%	76%	75%	74%	74%
25th Percentile	88%	86%	86%	86%	86%	86%	86%	84%	84%	83%

Average Annualized Excess Return – Median Manager: -0.14%

Kevin Larson clarified the median manager will beat the index, but the median manager is not a particular manager, it is the median during that particular 3 year period, so part of the difficulty is picking the right manager who will be the median manager or better.

Mr. Erlendson agreed this was correct. If most of the table is dark it means there is a higher probability of choosing an active manager who will outperform the index after fees. He used Las Vegas as an example in that there are some games where skill will play to a person's favor and there are games where skill is not a factor. The tables show whether the odds are in the investor's favor where skill might pay off, or they are against the customer who should just buy the index. This table is not meant to be used to decide which manager to hire, it is meant to show whether a manager should be hired at all.

Large Cap Growth Equity Style versus S&P 500

Percent of Three-Year periods where Manager Beat Benchmark by more than Hurdle – by Percentile

Hurdle	0.25%	0.30%	0.35%	0.40%	0.45%	0.50%	0.55%	0.60%	0.65%	0.70%
Median	38%	38%	34%	31%	31%	31%	31%	31%	30%	30%
45th Percentile	44%	41%	40%	40%	40%	38%	35%	35%	35%	34%
40th Percentile	50%	50%	49%	48%	45%	44%	44%	43%	43%	40%
35th Percentile	53%	53%	53%	50%	50%	50%	49%	46%	46%	46%
30th Percentile	65%	64%	61%	58%	55%	54%	54%	54%	53%	53%
25th Percentile	71%	71%	70%	70%	68%	68%	66%	65%	64%	63%

Average Annualized Excess Return – Median Manager: -0.39%

The table comparing large cap growth managers and the S&P 500 shows that the Board would need an active manager who is consistently in the top third of the rankings for large cap growth. Investors should be leery of thinking they will do well by hiring an active manager in the large cap growth space. This table compares the manager to a style neutral benchmark that includes both value and growth. The following table compares growth managers to a growth index and the odds are a little better.

Large Cap Growth Equity Style versus Russell 1000 Growth

Percent of Three-Year periods where Manager Beat Benchmark by more than Hurdle – by Percentile

Hurdle	0.25%	0.30%	0.35%	0.40%	0.45%	0.50%	0.55%	0.60%	0.65%	0.70%
Median	33%	31%	31%	31%	31%	29%	29%	28%	28%	25%
45th Percentile	50%	48%	44%	41%	39%	36%	35%	34%	34%	33%
40th Percentile	60%	59%	59%	58%	58%	54%	53%	49%	46%	43%
35th Percentile	70%	70%	68%	68%	65%	63%	61%	58%	58%	58%
30th Percentile	80%	80%	80%	78%	75%	74%	71%	68%	68%	68%
25th Percentile	89%	88%	88%	83%	83%	81%	80%	80%	80%	80%

Average Annualized Excess Return – Median Manager: 0.07%

Looking at the whole 20 year period the median manager was 7 basis points higher than the index, but that is before fees. If there is a 20 year time horizon it may be worthwhile, but if an investor is focused on shorter time periods, like rolling 3 year periods, the table shows there would be many periods of disappointment. The table does not show the magnitude of the over or under performance so while this table will tell an investor whether the odds are against them, more research would be necessary to find any ways to increase the odds of consistent success.

Michael Coffey asked why Callan chose rolling 3 year periods instead of longer periods.

Mr. Erlendson answered that generally people are willing to give managers 3 years so it is a realistic time horizon.

Chairman Fleming said the efficiencies that make active managers more attractive are going to be in less traveled spaces.

Mr. Erlendson directed the Board to look at page 17 of the distributed materials for an example.

SMID Cap Broad Equity Style versus Russell 2500

Percent of Three-Year periods where Manager Beat Benchmark by more than Hurdle – by Percentile

Hurdle	0.35%	0.40%	0.45%	0.50%	0.55%	0.60%	0.65%	0.70%	0.75%	0.80%
Median	65%	65%	61%	60%	59%	59%	59%	56%	55%	54%
45th Percentile	80%	78%	76%	74%	71%	68%	68%	68%	68%	64%
40th Percentile	90%	89%	88%	88%	86%	85%	84%	84%	83%	81%
35th Percentile	94%	94%	94%	93%	93%	91%	90%	90%	90%	90%
30th Percentile	99%	98%	98%	98%	98%	98%	96%	96%	96%	95%
25th Percentile	100%	100%	100%	100%	100%	100%	99%	99%	99%	99%

Average Annualized Excess Return – Median Manager: 1.44%

In the discussions about active and passive management it is generally said the areas where active management is most likely to be beneficial are in smaller cap stocks or in non-US investing. The information on page 17 relates to managers that buy small and mid cap stocks. When smaller companies do well the indexes rebalance, and if it gets past a certain line it is removed from the index and the manager has to decide whether they want a security that is not in the benchmark because there is no neutrality and will either make the manager look good or bad. As long as it is in the index there is some neutrality there and it does not make them look good or bad no matter what the company does. At the margin those are the things that managers think about when building and adjusting a portfolio.

Leslie Thompson asked if everyone would agree that the Russell 2500 is the right index for this style.

Mr. Erlendson answered there were no better options.

Ms. Thompson clarified the question of whether managers would choose a different index to make them look better.

Mr. Erlendson explained the indexes shown in the distributed material were all industry standard. There are other choices but that would take them into the weeds regarding methodology and benchmark construction. Callan used the Russell 2500 because they are the industry standard for small and mid cap stocks. In small and mid cap they do not have to sell a small cap stock when the company grows into mid cap, or when a mid cap company shrinks into small cap because it stays in the benchmark. The Russell 2500 does not force managers to sell securities because of benchmark considerations so there is a cost benefit. The table on page 17 shows there is a very high probability of finding a small or mid cap manager that will outperform the benchmark after fees over a longer period of time. When considering whether to hire an active manager this data shows that historically the odds are in the investor's favor when hiring a small mid cap manager as opposed to a large cap growth manager where the odds are not in the investor's favor. There may be times, for example when there is a momentum driven market, the investor may be better off in an index fund; but when a point in the market is reached where markets have started to sell off, active managers should be able to bring more value because they are thinking about what they own and the index fund is not.

Chairman Fleming asked what the median costs were.

Mr. Erlendson answered it could vary a lot and would be driven by the size of the allocation. A rule of thumb is that they should be paying half to two-thirds what they would pay in mutual fund space. 50 basis points was a good number for a typical large cap manager, a typical small cap manager would have a larger number. In small cap an investor can pay as much as 1%. A low cost small cap manager would be around 65 basis points.

Chairman Fleming stated there were administrative costs on the Board's end as well and asked if Mr. Erlendson could quantify that.

Mr. Erlendson answered this could be a separate agenda item because it included custodial costs, turnover rates for the managers, but generally when they have to pay brokerage costs for transactions those costs are netted out, so the results they report are typically net of transaction costs though it is still a reduction in the corpus of the fund. Higher turnover managers will have higher costs. A rough number would be between 25 and 75 basis points, but it would be driven by small cap stocks; are they trading securities that do not trade very much, are they trading very liquid stocks, are they performing party to party transactions, and are they doing basket trades. There are many technical things involved, but 75 basis points would be high. There are custodial costs, if the Board bought a comingled fund like in their index strategies, the custody costs are borne by the entire fund and because there is more money and more owners, net custodial costs should be less. If there is a separate account with a custodian an explicit fee has to be paid to the custodian, one to register the account, part of the transaction costs paid may be included in the custodial costs, there will be a cost for corporate actions like dividend payments or stock splits even if not explicitly identified. Custodial costs for plans of this size have been increasing dramatically because the incremental areas where custodians have been able to make money are not available to them anymore. None of those costs are reflected in the data provided in the distributed material, but the total custodial costs should be no more than 1% of the total plan.

Chairman Fleming stated if they had to hire a manager who is consistently above the median, pay administrative expenses of less than 70 basis points in order to come out ahead, and then another 25 basis points are added to the costs, it makes it that much harder for the fund to come out ahead.

Mr. Erlendson agreed. Many large funds decide to take all the securities they own and build their own index fund rather than pay active management fees on what is effectively a giant index fund. Callan measures that for the Board, it is called active share. When Callan comes in and speaks to the Board about making changes, they are monitoring the probability of success, costs, administrative issues, and the margin to consider whether it makes the Board's portfolio look like an index fund or is the manager bringing something different the Board would not get otherwise.

Chairman Fleming asked if there were other public pensions that have gone to passive management.

Mr. Erlendson answered the state of Maine had gone to passive management.

Ms. Thompson answered the state of Nevada had gone to passive management.

Mr. Erlendson stated if the Board has a lot of active managers, there is a lot of information to pay attention to, and there is a time burden. If on average they are only going to make 20 basis points and it is a nightmare for schedules, is it worth it for just 20 basis points, especially when there is no guarantee?

Chairman Fleming stated the Board's management of the active managers is not very active.

Mr. Erlendson explained the time horizon the Board is willing to apply to the evaluation of managers is critical to whether or not active management will work. With a shorter focus of 3 years or less, active management is a difficult strategy to hold.

Karen Tenace said she thought the time horizon was an economic cycle, around 5 to 7 years.

Mr. Erlendson agreed in theory but the reality is if a manager is under performing investors do not decide to give them another 4 years. Callan thinks a 3 year time horizon is short but reasonable for clients to stick with an underperforming manager. They could argue managers should be fired when they are exceeding expectations, not when they are failing to meet them if the manager is going to work out.

Catherine Langford asked if the 6 year time horizon was working for the plan in Alaska that Callan was working with.

Mr. Erlendson answered they were happy with their results over rolling 6 year periods. They make changes with managers, but they are more often driven by organizational issues. They almost fired a manager for

performance reasons for the first time this year. Not only does a fund want to have a pool where the odds are in their favor, but they also want to have an appropriate time horizon. Callan has been working with the TSRS Board for 3 years now and they have the general sense that the Board is okay with a time horizon of 3 years or longer.

Chairman Fleming stated there was only one manager that makes the Board wonder how long they should wait out an underperforming manager.

Mr. Coffey said the materials present around 40 different examples of average annualized excess returns, and all of them have different percentages and asked if there was any significance in sorting them high to low when considering hiring active managers.

Mr. Erlendson answered the data would tell the Board that they should be hiring small cap and international managers. They should probably stay away from large cap managers and bonds.

Mr. Coffey asked if the Board had a rule that the active managers needed to outperform the benchmark by at least 2%.

John O'Hare stated he was trying to get such a rule implemented.

Mr. Erlendson answered that a 2% premium was an unrealistic expectation. In large cap it would not happen, in small cap over rolling 3 year periods the average manager, when equal weighted, can be 2 to 600 over the benchmark. That is why a lot of plans will hire multiple small cap managers because no one is ever average all of the time, but if enough of them are bought investors can build themselves into average, which would be a good approach in small cap. In large cap average is going to weight the costs and reduce the likelihood of success so it would be better to just buy the index. When new trustees and staff come onto boards they become confused by the volume of information, and they want to latch onto the ideas that seem the easiest with the biggest headlines; but it is so easy to be misled and reach conclusions that are not good for the fund by having such a simple belief set. New trustees have to start somewhere and having the discussions about active and passive management, and reasonable performance hurdles are good starting points, but they are only starting points. In conclusion, it is good to have some of each; in some areas passive management is better, and in other areas, if the right time frames and the right expectations are applied, active managers would be appropriate.

Mr. O'Hare asked Mr. Erlendson for more information on the success of the passive management of the fund for the state of Nevada.

Mr. Erlendson answered the state of Nevada went to passive management for operational as well as investment purposes.

Mr. O'Hare asked staff to provide more information on the state of Nevada because the fund is completely passively managed.

Ms. Thompson asked if a manager could come and present the kind of information that would tell the Board whether or not their performance would be above the median.

Mr. Erlendson said they would all be above the median. In those meetings the managers show the past and promise the future, and no one can promise the future. The Board's current allocations with the use of active and passive management are fine.

Mr. Larson asked if fine was the best fit.

Mr. Erlendson said there were bigger issues, one of the things Callan would like to do is develop a work plan with the Board. In the future they might want to take a hard look at active and passive management. There is

still a large asset allocation rebalancing that has yet to happen, so they might be able to combine some of these things.

Chairman Fleming asked when they should schedule that discussion, if it should take place a few months after hiring a new manager, or should it wait till the next retreat.

Mr. Erlendson answered it would happen either way though it might require a couple of discussions to establish the possibilities and implications of certain courses of action might make. It would be best to have a couple of discussions that lead to a decision rather than compelling the Board to absorb a large amount of information in a short period of time and make a decision quickly.

6) Investment Activity / Status Report

a. TSRS Portfolio Composition, Transactions and Performance for 9/30/15

Art Cuaron reported as of 9/30/15 the total portfolio value was \$689.7M, as of 10/30/15, it was \$707M; this can be explained by the market rebounding over the last month.

Calendar YTD returns – Through 9/30/15, the calendar YTD return for the Total Fund was -3.26% vs. -2.32 % for the Custom Plan Index; Total Fixed returned -0.14% vs. the Barclays Aggregate at 1.14%; Total Equities returned -6.4% vs. Equity Composite at -5.89%; Total Real Estate returned 10.92% vs. NCREIF 11.29 (as of 9/30/15); Total Infrastructure returned 0.45% vs. the CPI +4% at 4.36% (as of 9/30/15).

Fiscal YTD returns – As of 9/30/15 the Total Fund returned -5.96% vs. the Custom Plan Index at -4.58%; Total Fixed returned -0.89% vs. the Barclays Aggregate at 1.24%; Total Equities returned -9.37% vs. the Equity Composite at -8.33%; Total Real Estate returned 2.27% vs. the NCREIF at 3.68 (as of 9/30/15); and Total Infrastructure returned 0.94% vs. the CPI +4% at 0.7%.

Trailing One Year Returns – As of 9/30/15 the Total Fund returned -1.08% vs. the Custom Plan Index at 0.18%; Total Fixed returned 0.57% vs. Barclays Aggregate at 2.95%; Total Equities returned -3.64% vs. the Equity Composite at -2.86%; Total Real Estate returned 13.65% vs. the NCREIF at 14.92% (as of 9/30/15); and Total Infrastructure returned 0.86% vs. the CPI +4% at 3.97%.

Last month Mr. O'Hare asked why the total infrastructure was down 6% in the trailing one year numbers. The number is being driven down by Macquarie, their valuations are in Euros and gets converted to Dollars, so as the Dollar strengthens it affects the valuation on the account. The internal rate of return vs. the time weighted return is the other factor in play. Macquarie is doing better on the internal rate of return and are performing as they should. The net client earnings for fiscal year 2016 were \$20,095 through the month of September. \$5M was transferred from T. Rowe Price to pay for retiree benefits in September.

b. Executive Summary of TSRS Performance for 9/30/2014 **Callan Associates – Paul Erlendson, Gordon Weightman**

Paul Erlendson distributed materials containing the Callan Monthly report and more information on active vs. passive management.

Asset Class	\$000s Actual	Percent Actual	Percent Target	Percent Difference	\$000s Difference
Large Cap Equity	262,763	38.1%	36.0%	2.1%	14,282
Small/Mid Cap Equity	77,489	11.2%	10.0%	1.2%	8,466
Fixed Income	161,501	23.4%	26.0%	(2.6%)	(17,958)
International Equity	86,696	12.6%	15.0%	(2.4%)	(16,838)
Real Estate	60,666	8.8%	8.0%	0.8%	5,448
Infrastructure	40,283	5.8%	5.0%	0.8%	5,771
Cash	829	0.1%	0.0%	0.1%	829
Total	690,226	100.0%	100.0%		

The table above shows the Board's current actual asset allocation vs. the target allocation. The most important information in this table is the Percent Difference. Is the Board close to the target weight because the asset allocation dictates how much risk the Board is willing to take and any over or under weight to an asset class is deviating from the Board's stated risk tolerance. The 2 big exceptions in this case are the Fixed Income, at 2.6% or \$18M under, and International Equity, at 2.4% or \$17M under target. To reach the target weights the Board would have to transfer assets from the classes that are overweight to the classes that are under weight. Every month assets are taken out of the classes that are furthest over their target in order to pay the retiree benefits for that month. Normally occurring cash flows can be used to try and correct the risk profile of the fund rather than waiting until the end of the year when many sales transactions must occur and incur additional costs. Because of the volatility in the market place the differences are now about 2% for many of the asset classes, which is a concern. Callan has done an asset liability study for the Board where they looked into the funding policy, benefit payments into the future, capital markets, and the Board decided to implement a new asset allocation. When that is done the Board will reduce its exposure to domestic equities. The current target allocation to large cap equity will drop from 36% to 26%, small/mid cap equity will go to 8%, fixed income will go to 27%, international equities will go to 25%, so a quarter of the fund assets will be delegated to non-US stocks. Real estate will go to 9%, infrastructure will stay at 5%, and the Board has a 0 strategic weight to cash because cash is generally a low returning asset. When money leaves or comes into the fund staff and Callan work towards the new ratings because the magnitude of the changes makes it more cost effective to do so. He also went over the following table.

Asset Distribution Across Investment Managers

	September 30, 2015		Net New Inv.	Inv. Return	August 31, 2015	
	Market Value	Percent			Market Value	Percent
Large Cap Equity	\$262,763,167	38.07%	\$(4,999,384)	\$(8,802,261)	\$276,564,813	38.82%
Alliance S&P Index	81,282,023	11.78%	294	(2,048,375)	83,330,103	11.70%
PIMCO StocksPLUS	39,571,085	5.73%	0	(1,337,834)	40,908,919	5.74%
BlackRock Russell 1000 Value	72,067,538	10.44%	0	(2,233,286)	74,300,825	10.43%
T. Rowe Price Large Cap Growth	69,842,521	10.12%	(4,999,679)	(3,182,766)	78,024,966	10.95%
Small/Mid Cap Equity	\$77,489,083	11.23%	\$3,278	\$(3,174,588)	\$80,660,392	11.32%
Champlain Mid Cap	39,004,731	5.65%	802	(1,485,465)	40,489,393	5.68%
Pyramis Small Cap	38,484,353	5.58%	2,476	(1,689,123)	40,170,999	5.64%
International Equity	\$86,695,704	12.56%	\$(75,239)	\$(5,358,510)	\$92,129,452	12.93%
Causeway International Value Eq	51,556,532	7.47%	224	(3,247,370)	54,803,678	7.69%
Aberdeen EAFE Plus	35,139,171	5.09%	(75,463)	(2,111,141)	37,325,774	5.24%
Fixed Income	\$161,500,551	23.40%	\$2,317	\$(1,281,430)	\$162,779,664	22.85%
BlackRock U.S. Debt Fund	62,228,524	9.02%	0	441,703	61,786,821	8.67%
PIMCO Fixed Income	99,272,027	14.38%	2,317	(1,723,133)	100,992,843	14.17%
Real Estate	\$60,666,062	8.79%	\$(53,293)	\$1,187,050	\$59,532,305	8.36%
JPM Strategic Property Fund	43,603,447	6.32%	0	559,738	43,043,709	6.04%
LaSalle Income and Growth Fund*	62,000	0.01%	0	0	62,000	0.01%
JPM Income and Growth Fund	17,000,615	2.46%	(53,293)	627,312	16,426,596	2.31%
Infrastructure	\$40,282,741	5.84%	\$(41,792)	\$296,385	\$40,028,148	5.62%
Macquarie European	21,244,668	3.08%	0	296,385	20,948,283	2.94%
SteelRiver Infrastructure	19,038,073	2.76%	(41,792)	()	19,079,865	2.68%
Total Cash	\$828,565	0.12%	\$41,792	\$0	\$786,773	0.11%
Cash	828,565	0.12%	41,792	0	786,773	0.11%
Total Fund	\$690,225,873	100.0%	\$(5,122,321)	\$(17,133,354)	\$712,481,548	100.0%

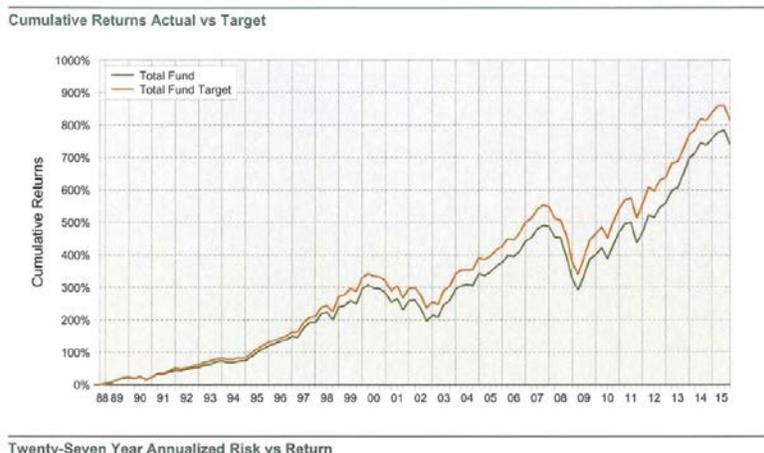
Mr. Erlendson went over the returns, net of fees, for periods ended September 30, 2015. The Board should always assume returns are gross unless advised otherwise.

Returns for Periods Ended September 30, 2015

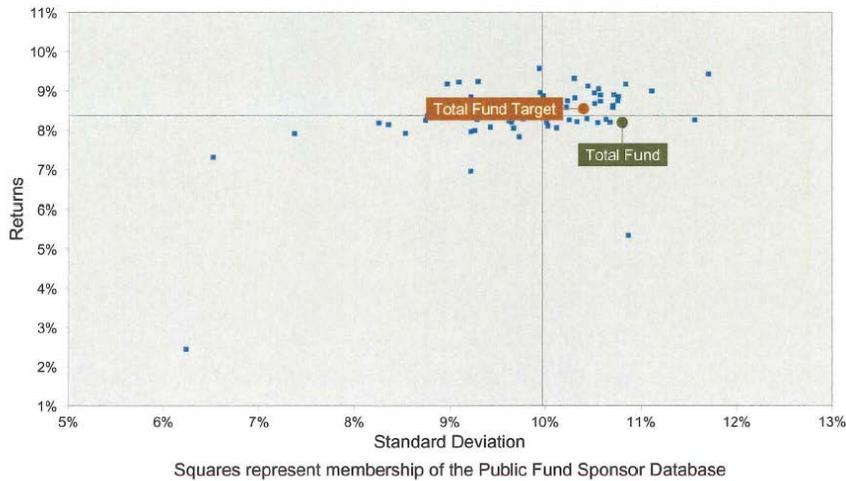
	Last Month	Last 3 Months	Last 12 Months	Last 36 Months	Last 60 Months
Net of Fees					
Real Estate	1.90%	3.24%	13.93%	13.23%	13.27%
NFI-ODCE Value Weight Gr*	1.26%	3.82%	15.08%	13.50%	14.06%
JPM Strategic Property Fund	1.30%	3.15%	13.42%	12.75%	13.23%
LaSalle Income and Growth Fund	0.00%	0.00%	22.88%	12.15%	5.64%
JPM Income and Growth Fund	3.49%	3.50%	15.65%	15.61%	18.72%
NFI-ODCE Value Weight Gr*	1.26%	3.82%	15.08%	13.50%	14.06%
Infrastructure	0.74%	1.04%	0.54%	4.18%	4.05%
CPI + 4%	0.04%	0.51%	3.36%	4.65%	5.66%
Macquarie European Infrastructure Fund	1.41%	1.99%	(2.97%)	4.80%	4.29%
SteelRiver Infrastructure North America	0.00%	0.00%	4.67%	3.50%	3.81%
CPI + 4%	0.04%	0.51%	3.36%	4.65%	5.66%
Total Fund	(2.42%)	(5.21%)	(0.37%)	8.58%	9.03%
Total Fund Target	(1.76%)	(4.59%)	0.13%	7.88%	8.74%

The Board must have some more aggressive strategies built in to the plan in terms of implementation with the manager selection because when the benchmark is up the fund out performs, and when the benchmark is down the fund under performs. Long term, if one assumes capital market should give positive returns that incrementally add value, and as long as the fund has that orientation, short term market phases with slight lagging of the benchmarks should not be a concern. The net result for the 3rd quarter is a lot of money left the fund, \$5M for retiree benefit payments, another \$17M worth of market value write down. The fund still owns the securities which have been written down in value, so the fund has not actually realized a \$17M loss. In terms of rebalancing to the new target, there will be a mandate change with one of the managers in terms of emerging market exposure, so there will be a lot of money moving around and when that happens performance measurement becomes tricky because 12% of the fund will be taken out of the domestic stock market and moved into non-US stocks and fixed income. While that is happening performance measurement can become difficult because the target is different than where the money is actually flowing. There are ways to address that; Callan will discuss those ways with the Board when that stage is reached. There will be some difference between the fund performance and the benchmark because about 40% of the fund will have been moved.

Previously there have been questions about the fund's performance since it is significantly handled by active managers vs. passive management. The fund target had better results than the actual fund. The underperformance occurred from 1988 to 2004, since 2004 the gap has been getting smaller.



Twenty-Seven Year Annualized Risk vs Return

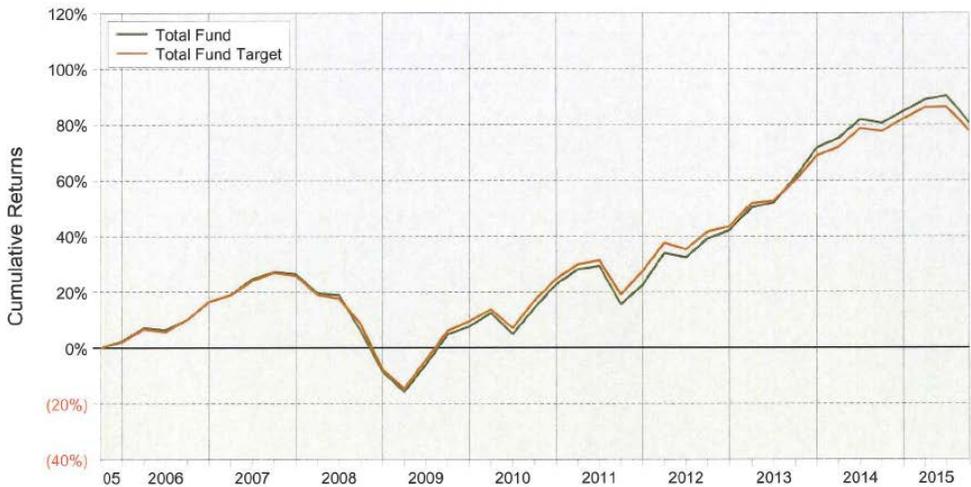


This chart shows rates of return over a 27 year history. The horizontal line shows the average public pension plan return is for 27 years, which is over 8%.

John O'Hare asked if the graph representing the actual returns vs. target returns shows the Board would be better served by utilizing passive management.

Mr. Erlendson answered passive management would have been better from 1988 to 2004 maybe. Since that time the fund's results have been better than the benchmark, in which case indexed funds would have had lower returns. The Board does have some passive management exposure in large cap, which is where the Board would be least likely to make money with active management.

Cumulative Returns Actual vs Target



Looking at the last 10 years the Board is not exactly on their target, some of the difference occurred because the fund is underweight in some areas sometimes and overweight in others. Around 2013 the gap between the fund returns and the target is increasing in the Board's favor, so things are getting better. Over the last 10 years the TSRS fund has outperformed relative to the benchmark and relative to other public funds. Recently the fund has had better returns than it would have if invested exclusively in index funds.

Mr. O'Hare asked if this was net of fees.

Mr. Erlendson answered it was gross because Callan does not have the Board's net of fees returns from the time period before Callan was hired. Fees would have been lower when the fund was underperforming, but now that the Board is paying higher fees the fund is getting better relative results. Over the last 5 years the fund is 1.8% ahead of the benchmark, before fees.

Mr. O'Hare asked if this could continue in the long term future.

Mr. Erlendson answered that 2% above benchmark was not a reasonable long term expectation. For the last 5 years the fund is 1.8% ahead, if 60 basis points are taken out for fees the fund is 1.2% ahead which is the upper end of a reasonable expectation.

c. Transition Manager Overview

Paul Erlendson said this was a multiphase undertaking, first the agreement that it made sense to have a transition manager. Callan worked with staff to develop a candidate profile; there are not many people with experience in this at the levels required for this undertaking. They went through the results of a request for information with staff and selected 5 or 6 managers for interviews, contracts were prepared and signed. It would be staff intensive to go through this; and staff decided with Callan that it was best to wait to make the transaction until the internal resources are there, so the new asset allocation will not go into effect until the Plan Administrator position is filled so that enough resources are available to make sure it is done right and it will not have to be done all over again. The other alternative would be to have Callan step in and handle it for TSRS but their view is that there is no rush to do it as some of the assets the fund are moving into are cheap and it is a great way for the new administrator to learn about the managers.

7) Discussion of Fund Manager Presentations to the Board of Trustees Callan Associates

- a. Models Being Used in Other Plans
- b. Effectiveness of Current Practice
- c. What can we do Different?

This item was taken out of order and considered after item 5.

Paul Erlendson distributed a handout with links to articles about pension fund governance and discusses interactions with managers and other issues. The articles are long but easy to read and were prepared for entities like the TSRS Board. There are 3 different models for interacting with managers: one is where the board participates in the interactions and schedules every manager they want to meet at least once a year. The upside to this model is that the board maintains regular contact with their managers. The downside is that it gets to be a perfunctory formality and the actual informational benefit is low. A variation on that model is where either a consultant or staff will schedule managers for a specific educational reason. The second model is where boards will designate an investment subcommittee that will meet with the managers in place of the full board. The third model is where the responsibility of interacting with the managers is given to staff, in these cases the board is more policy oriented instead of operationally oriented and staff will report to the board on operations periodically. The benefits of this model are that staff is much more engaged in the program provided they have the time and resources, it frees the board up to think about bigger picture items, because manager selection at the margin does not really matter that much.

Chairman Fleming said the Board should read the articles provided by Mr. Erlendson and have a new Plan Administrator in place before they make any significant policy changes.

Mr. Erlendson said the "Clapman Report 2.0: Model Governance Provisions to Support Pension Fund Best Practice Principles" was put out by Stanford University's Law School Fiduciary College and is a great article that discusses what kind of skills board members should have. "Best Governance Practice for Investment Committees" was a document prepared in conjunction with the CFA institute. Both articles have good information in them.

8) Administrative Discussions

- a. Update on Pension Administrator recruitment and Potential Expenses Associated with the Recruitment
- b. TSRS day-to-day operations
- c. Discussion of hiring authority for TSRS System Administrator – **Cassie Langford**
- d. Discussion of Additional Proposed TSRS Code Changes **Cassie Langford**

Silvia Navarro explained TSRS has 2 employees, Dennis Woodrich and Bob Szelewski, who are doing a great job with the daily walk-ins and making sure the monthly benefit checks go out. They have also been able to borrow Doris Rentschler from the revenue department.

Silvia Amparano said they had been working with HR to develop a recruiting plan to fill the Pension Administrator position. HR was asked to perform a review of the pension division in order to determine the body of work within the division and whether the positions were classified at the appropriate levels. HR determined the position should be upgraded from a manager classification to an administrator classification, which increases the pay range at which they could hire. A recruitment flyer has been created to advertise the position. The position would also adopt some of the investment functions that have previously been handled by the treasury manager because only one deferred compensation plan would be administered as opposed to the previous three, TSRS staff no longer does the calculations for PSPRS, and the retirement calculation process has been streamlined. The flier is meant to recruit candidates with the skills needed to work with Callan to administer the plan and its investments. There will be Board involvement in the recruitment and hiring process.

Rebecca Hill said the recruiting flier listed the required and highly desirable qualifications, and the salary range. The chairman participated in the conversations regarding the recruitment timeframe and a national recruitment effort. The position would be posted for applications no later than 11/4/15 and closed on 12/9/15, with a candidate pool established by mid-December. The position will be posted with various organizations like GFOA and ICMA to establish a nation-wide recruitment. She asked the Board for suggestions on where else to post the job listing.

Ms. Amparano advised the expenses associated with the recruitment would be for the advertising.

Ms. Hill explained after the first of the year they hoped to begin the oral board interview process, and create a certified list of the best qualified candidates to participate in hiring interviews at the end of January, with a tentative start date in late February after a background check has been completed.

Michael Coffey asked what role they envisaged for the Board in this process.

Ms. Amparano stated it was an option at this point. The Board had previously expressed interest in participating in the determination of who the new administrator would be. The oral board could have 1 member of the Board participating, and the hiring interviews could also have another member or the Chair participating. If the Board wanted to meet the candidates being considered for hiring interviews a meet and greet could be arranged.

John O'Hare asked how many were expected to participate in the oral board process.

Ms. Amparano answered they expect around 8-12 candidates based on other administrator positions listed by the City of Tucson. The Board member participating in the oral boards can expect a real time commitment.

Mr. O'Hare stated this was the fastest hiring process projection he had ever seen for the City of Tucson.

Ms. Hill responded it was expedited because they recognized how critical the Pension Administrator position is.

Ms. Amparano asked the Board to provide any suggestions and revisions for the flier by the end of the day on Monday, 11/2/15 so it could be revised and posted by Wednesday 11/4/15.

Kevin Larson asked if the position was fully funded by the TSRS plan, and whether a position like this is ever outsourced.

Ms. Amparano answered that outsourcing could be considered for any City position but other pension plans outsource functions like investments and cutting checks, not plan administration because someone needs to be available to communicate with the members.

Catherine Langford advised the Board had previously requested an agenda item to discuss their involvement in the recruitment, hiring, and supervision process for the plan administrator. The board packet materials contain the results of a summary search to provide a better picture of how other systems are operated. The organizational charts provided by GRS are interesting but have limited value because every system is drastically different and every system operates under unique laws. The TSRS system administrator position is listed in the Tucson City Code (Code), it does not specifically say who employs that administrator, and historically the administrator has been a civil service employee. Research was done to determine if the administrator position had to remain a civil service position or whether the Board could be the administrator's employer. Theoretically it is possible to make the plan administrator a Board appointed position, but it is not recommended at this time. There are advantages for administrator to be a civil service employee with civil service protections, which could be an advantage in the recruiting process. The TSRS Board is a relatively small board with a lot of responsibility and when looking at the boards that employ and supervise the administrator and staff, those boards are typically more active with daily involvement as opposed to the oversight function served by the TSRS Board. She recommended formalizing the process described by Ms. Amparano so that the Board would be involved in the recruitment and review of the administrator. The distributed Memorandum of Understanding (MOU) stated the plan administrator would remain a City employee and the Board would be involved in the recruiting, hiring, annual evaluation process, and performance issue resolution. The MOU would make the Board a partner in the employment process without changing the legal structure under which the plan administrator operates. She suggested working through the process before formalizing the MOU so that it could be changed, if necessary, before it was formalized.

Chairman Fleming clarified the Board's options were to approve the tentative MOU today, or wait and work cooperatively with City staff this time to hire a plan administrator and formalize the MOU at a later date.

Mr. O'Hare stated this was a creative solution to a real problem.

The Board decided not to formalize the Memorandum of Understanding, between the City of Tucson and the TSRS Board of Supervisors, until after the new plan administrator is hired so that any necessary revisions can be made.

Chairman Fleming stated that though this was not going to be a formal process, he would appoint a member to participate in the oral boards. He asked the Board members to contact him within the next week to volunteer to be that participant.

Mr. O'Hare asked how many interviewers usually participated in the oral boards.

Ms. Amparano answered three.

Chairman Fleming advised he had already committed to participating in the hiring interview.

Ms. Langford explained it was better to have a different Board member participate in the oral boards so that the Board would have more exposure to the candidates.

Karen Tenace directed the Board members to pay attention to the draft timeline to ensure they were available for the time frames projected as it is a large commitment.

Mr. O'Hare asked if the oral boards were public meetings.

Ms. Amparano answered no they were not, and some of them may take place using skype.

Mr. Coffey said HR recommended an administrator classification for this position and asked whether the pay range was market competitive given that the previous manager retired upon receiving a higher paying position elsewhere.

Ms. Hill stated the City needs to reevaluate its classification and compensation system as a whole, but the resources are not available to facilitate a compensation study or to increase the pay scale.

Mr. Coffey stated a particular classification had been chosen as opposed to creating a new classification and asked why they chose to go with an already existing classification.

Ms. Amparano stated a completely new position, pension administrator, had been created but it falls under the classification of administrator, based on the current and future responsibilities of that position.

Mr. Coffey asked if they were offering a competitive wage.

Dave Deibel advised the next classification available would be deputy director which is not appropriate based on the responsibilities of the position.

Mr. Coffey asked why they could not create a new position with a competitive pay range.

Mr. Deibel answered the classification had to fall within the City's current compensation plan.

Ms. Hill explained they were trying to reduce the number of classifications within the compensation plan instead of expanding it but this position proved to be an exception due to the unique skills required.

Ms. Langford asked how the analysis led to the conclusion that the administrator classification was appropriate.

Ms. Hill answered it was based on the skills required for the functions of the position. The classification analysis uses a point factor system that reviews all of the knowledge, skills, and abilities required to facilitate the level of work. It includes educational, experience, and preferred requirements.

Mr. Deibel explained as the hiring administrator in the City Attorney's Office he knows how difficult it is to recruit with the non-competitive compensation plan, but nothing can be done at this time to remedy the situation.

Mr. O'Hare asked if the position statements for other public pension plan administrators had been considered when performing the analysis.

Ms. Hill answered some comparable plan administrator positions were considered.

Mr. O'Hare asked whether those positions were listed at a significantly higher pay range.

Ms. Amparano explained that because it is a civil service position it has to remain within the confines of the City's classification and compensation systems. Unfortunately the City of Tucson is not competitive with the market, but with the upgrade of the position there is some flexibility that was not there previously. It is also difficult to compare different pension administrator positions because they are so varied.

Ms. Hill stated it was very unique position, and not many are available in the market within the public sector.

Mr. Deibel explained the administrators would like to pay all City employees a more competitive wage and unfortunately this was not an option at this time.

Mr. O'Hare stated the problem with not being competitive was they may not be able to hire someone with an appropriate skill set.

Mr. Deibel answered that was very possible.

Mr. O'Hare asked if they could go through the process and reevaluate if no suitable candidates result.

Chairman Fleming answered there were no choices because the City could not offer a competitive pay range, all hands were tied by the classification system and resulting compensation ranges.

Ms. Tenace explained it was difficult to compare the TSRS plan with others because the other administrator might administer 3 different boards, the plan may be bigger with more managers, some tasks might be outsourced; as a result salaries were inconsistent and difficult to compare. The salary range for the administrator classification seemed to be in line with comparable pension plans, but there were some outliers on the higher end, and cost of living adjustments were not considered.

Mr. O'Hare clarified that this problem potentially could be solved by hiring at the higher end of the range.

Ms. Hill answered that was correct.

Kevin Larson stated this was why he had asked about outsourcing, and he thought it was worth it to go through this process to determine whether they could find the talent needed for the position. He asked whether the Board could offer a signing bonus.

Ms. Hill answered there were not any provisions in the ADs to allow or not allow for a signing bonus and it was something they could look into.

Ms. Amparano explained they could also consider paying relocation expenses for the new administrator if needed.

Paul Erlendson said within the retirement administration profession, especially at the state level, there are a lot of retirements taking place. There are at least 3 other City and County plans in the same position as the City of Tucson in terms of trying to hire a new administrator knowing that they will become scape goats for the groups attacking public pension funds. These are not the easiest positions to fill, and this is a difficult time to fill them.

Ms. Langford stated that a lot of the time these types of positions are listed for 3 months or more for applications.

Ms. Tenace advised there have been instances in the City of Tucson where HR has viewed the qualifications of the applicants on the candidate list and extended the posting.

Ms. Hill stated the time line established is a tentative one with the potential for any adjustments that prove necessary.

Ms. Langford advised the Board was aware they were working on Code revisions in connection with an IRS application whose deadline is approaching and there was one more change for the Board to consider. The Funding Policy was approved by the Board on 9/24/15, and was included in the board packet so that the Board could see the changes they had approved. The Code revisions now include an issue with successive appointed positions. The Code allows an appointed employee to elect to participate in TSRS within 90 days of being appointed. Once the 90 days have passed the election opportunity closes. There has been an individual who is currently in his 2nd consecutive appointed position in a row, and he has asked for the opportunity to reelect into the system. This is not the first time such a request has come up, and they thought it made sense to incorporate the answer to the question in the Code revisions. The new language states if an appointed employee takes a 2nd or 3rd appointed position they do not have another opportunity to elect in or out of the

TSRS system, if they terminate and are appointed again that is when they would have another election opportunity. It is a clarification that is consistent with the answers given in the past.

Chairman Fleming asked if this was the final draft for approval.

Ms. Langford answered yes, and they planned to bring the changes to the Mayor and Council for approval in early December 2015.

A motion to adopt the revisions to the Code as presented was made by Silvia Amparano, 2nd by John O'Hare.

Ms. Amparano asked what was to prevent an employee in an appointed position terminating and getting reappointed for the sole purpose of reelecting in or out of the TSRS system.

Ms. Langford suggested requiring a period of time between termination and reappointment. The gap should be between 30 and 60 days, long enough to be inconvenient for the employee in order to discourage terminating just to be able to reelect.

Chairman Fleming clarified they wanted to add language to require a termination date 30 days or more prior to the new appointment.

Ms. Amparano stated that if they did not include the language the interpretation was that the appointed employee would not be eligible at all when transferring from one appointment to the next, but if they terminate and come back to an appointed position a year later the clock starts over again with a new opportunity to elect in or out of the TSRS system.

Ms. Langford answered that has been the interpretation but it is just an interpretation so the Board is free to structure any rule it would like to because the current language only anticipates one appointment. Recently the employee in question transferred from one appointed position to another with no termination date; the same individual asked to reelect in 2013 because the contribution rates were lower.

Mr. Coffey asked if that was the problem they were trying to solve.

Ms. Langford answered the problem was that they did not want the appointed employees to be able to jump in and out of the system if they move between positions. Regular members are required to participate and appointed employees have the very limited window of 90 days in which to make their decision, and the situation where an appointed employee transfers to another appointed position and requests another 90 day election period had not come up before.

Ms. Amparano said she did not want to add the language at all because the issue does not come up very often and it seemed like these revisions were in response to one individual. She questioned whether the language was necessary but if it was going to be added, the gap between the termination and new appointment dates should be included.

Ms. Langford explained the language should be added for historical purposes, so when the question is asked again in the distant future the Board is able to give consistent answers, even if the original members are no longer on the Board.

The motion was amended to include a 30 day separation period in the revisions to Sec. 22-33(b) by Silvia Amparano, 2nd by John O'Hare.

Mr. Coffey asked what the gain was of adding the 30 day separation period.

Chairman Fleming answered it was to provide a disincentive to terminate solely to attain a new TSRS election period.

Ms. Amparano asked for clarification on the process for appointed employees.

Art Cuaron explained the individual in question would terminate and immediately be reappointed in order to be able to elect in or out of the TSRS system. If the individual cannot be appointed again for 30 days in order to get the reelection period, and they will probably choose not to terminate.

Mr. Deibel stated he was aware of this issue coming up for Council Aides.

Mr. Woodrich stated the individual used as the example was in an appointed position but it was not under any of the ward offices.

The amended motion passed by a vote of 6 – 0 (Chairman Fleming did not vote).

The Board elected to recommend the approved Code revisions to the Mayor and Council by a vote of 6 – 0 (Chairman Fleming did not vote).

9) Articles for Board Member Education / Discussion

- a. Public and Private Mortality

10) Call to Audience

John O'Hare advised the Board of the death of Jean Wilkins and distributed an article from the Financial Analysts Journal.

11) Future Agenda Items

12) Adjournment 2:46 PM

Approved:

Robert Fleming
Chairman of the Board

Date

Silvia Navarro
Treasury Administrator

Date

TUCSON SUPPLEMENTAL RETIREMENT SYSTEM BOARD OF TRUSTEES AGENDA

Meeting minutes from Thursday, November 19, 2015
Finance Department Conference Room, 5th floor East
City Hall, 255 West Alameda
Tucson, Arizona 85701

Members Present: Michael Coffey, Acting Chairman
Kevin Larson, City Manager Appointee
Rebecca Hill, Interim HR Director
Silvia Amparano, Director of Finance
Jorge Hernández, Elected Representative
John O'Hare, Elected Retiree Representative

Staff Present: Dave Deibel, Deputy City Attorney
Karen Tenace, Deputy Director of Finance
Silvia Navarro, Treasury Administrator
Art Cuaron, Treasury Finance Manager
Dennis Woodrich, Lead Pension Analyst
Dawn Davis, Administrative Assistant

Guests Present: Claire Beaubien, CTRA Representative
Gordon Weightman, Callan Associates

Absent/Excused: Robert Fleming, Chairman

Acting Chairman Michael Coffey called the meeting to order at 8:32 AM.

A. Consent Agenda

1. Approval of October 30th Board Meeting Minutes
2. Retirement ratifications for November 2015
3. October 2015 TSRS expenses and revenue compared to budget

John O'Hare requested the minutes be moved to the meeting scheduled on December 17, 2015 as he had not been able to review them prior to the meeting.

A motion to approve Consent Agenda Items A2 and A3 was made by Silvia Amparano, 2nd by Rebecca Hill, and passed by a vote of 5 – 0 (Acting Chairman Coffey did not vote).

B. Administrative Discussions

1. Selection of Board Member to Participate in Oral Board Interviews for Pension Administrator

Silvia Navarro stated at the 10/30/15 meeting staff advised that one board member was needed to participate in the oral board interviews for the new Pension Administrator. Chairman Fleming had advised staff that he would like to appoint John O'Hare, Michael Coffey, or Kevin Larsen to fill that role.

Kevin Larson asked about the anticipated schedule, and whether it would be before the end of the year.

Ms. Navarro answered they would be held in January.

Silvia Amparano said it also depended on how many applicants met the minimum qualifications, but the interviews will not be scheduled until the first week of January.

Mr. Larson asked how long they would be.

Ms. Amparano answered they were typically about an hour long and scheduled in blocks.

Karen Tenace said they were tentatively scheduled for the week of January 4, 2016.

Acting Chairman Coffey asked whether Chairman Fleming had committed to participating in the hiring interviews to take place after the oral boards had been completed.

Ms. Amparano answered yes.

Mr. Larson committed to participating in the oral board interviews.

John O'Hare asked if the oral board interviews were open to the other Board members who wanted to observe.

Rebecca Hill answered not typically.

Michael Coffey asked if staff was still planning on scheduling a meet and greet where the Board members could interact with the candidates.

Ms. Hill answered yes and it would be a more appropriate way for the Board to become familiar with the candidates.

Dave Deibel stated the problem with a non-participating Board member observing the interviews is that they had to be conducted in very similar and impartial ways.

Ms. Hill explained that a non-participating Board member would not be able to express any opinions or make any recommendations.

Ms. Navarro advised a schedule would be sent to Mr. Larson at a later date once it is established.

Mr. Larson asked if they expected around 4 or 5 candidates.

Ms. Amparano answered it depended on how many applicants met the minimum qualifications.

Ms. Tenace explained oral boards tend to have more candidates than the hiring interviews. There have been around 14 applications submitted but they have not been screened to see if the applicant meets the minimum qualifications yet. All of the applicants who meet the minimum qualifications will get an opportunity to participate in an oral board interview, so the time commitment could be 2 – 3 days. The cutoff date for submitting applications is 12/9/15, but if they screen the applicants and not a lot of them meet the minimum requirements the posting could be extended and they would have to adjust the hiring schedule accordingly.

2. Update on TSRS Code Revisions to be Approved by Mayor and Council

Silvia Amparano said the Code Revisions item had been scheduled for the Mayor and Council Regular meeting of 12/8/15. At the Agenda Committee meeting a study session item was requested for 12/8/15 so that she could describe the Code Revisions to Mayor and Council so they could ask questions before voting on it at the regular meeting. The City Manager was briefed on the impact of the funding policy, and at that point he was not willing to support the Board's recommendation of a 27.5% minimum contribution rate. If Mayor and Council decide to not to approve the Board's recommendation the item may have to be rescheduled for 12/15/15, or early January 2016. It was unknown whether the City Manager would support the rounding policy

or the addition of the administration expenses to the contribution rates. Budget has been asked to run numbers on the impact to the general fund and other City funds. This information will be presented to the Mayor and Council. Board members are welcome to attend the meetings in case the Mayor and Council want them to speak. Catherine Langford will be attending the meeting as the TSRS lawyer.

Dave Deibel asked if the item scheduled on the regular session agenda would be removed.

Ms. Amparano answered the item would remain on the regular agenda but Mayor and Council can request it be moved to another meeting. The fiscal year 2017 contribution rates might be added to this agenda item as well.

Mr. Deibel stated the IRS code changes were due soon.

Ms. Amparano answered they were due by the end of January 2016.

Acting Chairman Coffey asked what the possible outcomes were for the meeting of 12/8/15.

Ms. Amparano answered currently the City is required to pay 100% of the actuarially required contribution (ARC), the funding policy changes it to actuarially determined contribution (ADC) which includes the rounding policy, the administrative expense, and a minimum of 27.5% until the fully funded status is reached. The difference between the ARC and the 27.5% contributions is \$3M. If they approve the Code revisions they are committing to paying more than the ARC.

Acting Chairman Coffey asked if Mayor and Council could approve parts of the code revisions without approving them all.

Ms. Amparano answered yes and they would be provided with 5 options: the current contribution rate, the ARC of 24.99% for FY 2017, 25% which is the ARC plus the rounding, 25.52% which is the ARC plus the administrative expense, and 27.5% as the minimum.

John O'Hare asked if the City Manager's objection was purely from a financial perspective.

Ms. Amparano answered yes, but he understands the Board's responsibility as fiduciaries to maintain the long term sustainability of the plan, and this would be explained to Mayor and Council.

3. 2016 TSRS Board Meeting Calendar

Silvia Navarro advised staff was required to send the yearly TSRS Board Meeting Calendar to the City Clerk's office for posting, and asked if the Board wanted to cancel the November board meeting since it is only 3 weeks after the retreat staff has a difficult time getting the item materials prepared for distribution in the board packet, and because they get the materials late the Board has trouble reviewing them before the meeting.

John O'Hare asked if the Board had to hold monthly meetings because the retirements have to be ratified on a monthly basis.

Silvia Amparano answered yes.

Ms. Navarro clarified the Board wanted to continue having the November meetings.

The Board agreed they wanted to continue having meetings in November.

C. Investment Activity Report

1. TSRS Portfolio composition, transactions and performance review for 10/31/15

Art Cuaron said the Total Fund was at \$719.8M as of 10/31/15, which was up \$30.2M from September with the majority of increases occurring in stocks as the market continued to rebound from August and September. On 11/19/15 the Total Fund is at \$718M.

Calendar YTD Net of Fees – The Total fund is at 0.98% which is up 4.24% over the September return of -3.2%, but down from the index at 2.3%. Total fixed returned 1.25% which is up 1.39% over the September return of -0.14%, and is ahead of the benchmark which is at 1.16%. Total equities returned -0.40% which is up 6.0% over the September return of -6.4%, but still trailing the composite which is at 1.36%. Total real estate returned 12.44% which is up 1.52% over the September return of 10.92%, and is ahead of the benchmark at 11.29%. Total infrastructure is at -0.10% which is down 0.55% from the September return of 0.45%, and trailing the CPI which is at 4.65%.

Fiscal YTD Net of Fees – The total fund is at -1.85% which is a 4.11% improvement over September but still down from the index at -0.07%. Total fixed saw a 1.37% increase over September at 0.48% with the benchmark at 1.26, so it is still lagging. Total equities saw a 5.81% increase over the September return of -3.56 but still trails the composite which stands at -1.27 as of 10/31/15. Total real estate saw a 1.4% increase over the September return of 3.67% and is in line with the benchmark at 3.68%. Total infrastructure had a 0.56% drop from Sept at 0.38% and trails the CPI which returned 0.98%.

Trailing One Year Net of Fees – The total fund returned 1.77% which is a 2.85% increase over the September return of -1.08% but trailing the index which returned 3.43%. Total fixed returned 0.84% which represents a 27 basis point increase over the September return of 0.57%, but still trails the benchmark at 1.97%. Total equities returned 0.66% representing a 4.3% increase over September returns of -3.64%, but trails the composite which is 2.64% as of 10/31/15. Total real estate returned 14.43% which is a 78 basis point increase over the September return of 13.65%, and slightly trails the benchmark at 14.92%. Total infrastructure returned 0.73% which is down 13 basis points from the September returns of 0.86% and continues to trail the CPI at 4.18%.

2. Callan's quarterly review of TSRS investment manager performance for September 30, 2015

Gordon Weightman said there were major themes in occurrences during the 3rd quarter. One of them was a flight to quality, so treasuries performed very well while riskier assets were sold off. It was driven by macro level noise and fear, some of which can be attributed to what has happened in China even though they have the world's 2nd largest economy, an emerging market economy. Between a quarter and a third of the world's natural resources are imported to China, and with their slowing growth some of the emerging market commodity producers are worried that they will buy less resulting in a slowing of the producers growth as well. China is fighting their slowing growth but ultimately it is a demographics problem. They suddenly devalued their currency which is even worse for the commodity producers looking to export because now it is more expensive for China to buy these outside commodities. They also reduced the amount of cash that banks are required to hold to support their riskier assets, and decreased interest rates. The other factor was the Fed and the speculation about raising interest rates changing multiple times. All signs indicate interest rates will be increased in December 2015. Janet Yellen has said she expects a rate hike in December, according to the Wall Street Journal. An increase in interest rates should be a good thing as it implies that the economy is able to support itself again, but in this case investors are wondering what will happen with their fixed income portfolio. There will be a capital loss because of the duration and interest rate risk inherent in a bond portfolio. On the other side there is so much cash on the sideline and on balance sheets of corporations and individuals right now that a rate hike of 25 basis points could actually prove to be a stimulus. In the 3rd quarter US GDP was 1.5%, 3.9% in the 2nd quarter. About 1% of the difference between the 2nd and 3rd quarters was due to inventory. Companies and manufacturers were stocking their shelves in the 2nd quarter and there was not a need to do so in the 3rd. The consumer is spending and housing is up so there is a lot of good news. Inflation is 0 if you include energy; if energy is removed it was almost 2%, which is the Fed's target. The unemployment rate is at 5% with a really strong jobs report through October. The flight to quality previously mentioned can be seen in the following table.

Asset Class Performance

Periods Ending September 30, 2015

**Periodic Table of Investment Returns
for Periods Ended September 30, 2015**

Last Quarter	Last 3 Quarters	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Barclays:Aggregate Index 1.2%	Barclays:Aggregate Index 1.1%	S&P:600 Small Cap 3.8%	S&P:600 Small Cap 13.0%	S&P:600 Small Cap 14.0%	S&P:600 Small Cap 7.7%
3 Month T-Bill 0.0%	3 Month T-Bill 0.0%	Barclays:Aggregate Index 2.9%	S&P:500 12.4%	S&P:500 13.3%	S&P:500 6.8%
S&P:500 (6.4%)	MSCI:EAFE US\$ (5.3%)	3 Month T-Bill 0.0%	MSCI:EAFE US\$ 5.6%	MSCI:EAFE US\$ 4.0%	Barclays:Aggregate Index 4.6%
S&P:600 Small Cap (9.3%)	S&P:500 (5.3%)	S&P:500 (0.6%)	Barclays:Aggregate Index 1.7%	Barclays:Aggregate Index 3.1%	MSCI:Emer Markets 4.6%
MSCI:EAFE US\$ (10.2%)	S&P:600 Small Cap (5.5%)	MSCI:EAFE US\$ (8.7%)	3 Month T-Bill 0.1%	3 Month T-Bill 0.1%	MSCI:EAFE US\$ 3.0%
MSCI:Emer Markets (17.8%)	MSCI:Emer Markets (15.2%)	MSCI:Emer Markets (19.0%)	MSCI:Emer Markets (4.9%)	MSCI:Emer Markets (3.2%)	3 Month T-Bill 1.3%

Bonds were the top performer at 1.2% and all equities were negative, some in double digits. Looking over the last 5 years it has been an extended bare market for emerging market equities, one of the longest ever seen; it is a very volatile asset class where big swings can be seen in short periods of time.

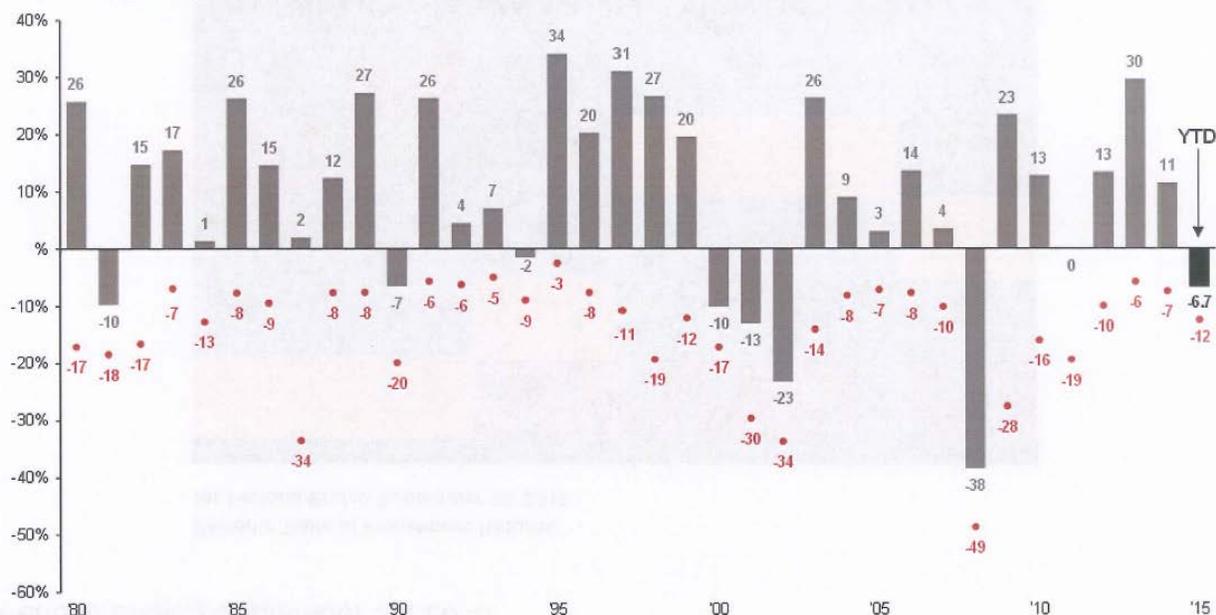
Acting Chairman Coffey expressed concern over the Board's decision to move into international emerging markets recently.

Mr. Weightman clarified the Board had chosen to get closer to a market capitalization weighting in emerging markets with their active managers. October was a good month; the S&P 500 was up 8.4%, YTD large cap US equities are positive, a little over 1%. ACWI ex-US, which is developed and emerging markets outside of the US, is up 7.4%, and interest rates went up on bonds so the aggregate was at 0%. October was a good month but remember if an investor has \$1 and 10% is lost, the investor has only \$0.90 and more than 10% has to be earned to get back to \$1.

Market Volatility

S&P 500 intra-year declines vs. calendar year returns

Despite average intra-year drops of 14.2%, annual returns positive in 27 of 35 years*



Source: JP Morgan: Guide to the Markets
As of: September 30, 2015

The graph above gives perspective to the intra-year decline of the S&P 500. The average intra-year decline for the S&P 500 is over 14%, the Board's is down 12% as of 9/30/15. The red dots are intra-year declines, so peak to trough, of the S&P 500. From 1980 through 2015 the average of those declines is 14.2%. The Board's decline of 12% as of 9/30/15 is within the realm of what has been seen historically in other calendar years. The YTD return down 6.7% for the S&P 500, but through October it is 1.2%. It is not uncommon to see these types of declines and still have good end of year results.

Acting Chairman Coffey asked for further explanation of an intra-year peak and trough.

Mr. Weightman answered in a calendar year with up to a 5% return before there is a selloff in the market, the red dots capture the largest decline intra-calendar year, so if the market peaks on June 30th and then declines from June 30th until September 30th, the difference between the highest part of the market and the lowest part of the market would be the intra-year decline. The graph is saying that in the face of many intra-year declines, which are normal, there have still been a lot of positive results. That may not be the case this year, but it is not uncommon to see a decline like the one the Board recently saw through the 3rd quarter.

Growth has outperformed value stocks for over 10 years now in US equity returns, largely due to energy because it has a larger weighting in value indexes than it does in growth. Energy value was down 19% in the quarter, in small cap stocks it is down 33%. In the quarter the more defensive areas of the market, like utilities, performed well at 4.2%. Whenever interest rates decline utilities usually do well because they are dividend paying stocks and people like that income component. Some of the more cyclical sectors had lower returns. Europe seems to be improving from an economic perspective. There is hope that lower oil prices will be a stimulus, and they have an easing monetary policy in place. Japan is down 11.8%. Emerging markets are down 17.8% and were hit hard by the strong Dollar. In local currency emerging markets were down 12%. The strengthening US Dollar vs. emerging market currencies resulted in an additional -5% return. The aggregate was up 1.2%, treasuries were up 1.8%, and all the other sectors were lower. Spreads widened on credit and credit is up 0.53%. High yield was down 4.9%, there are a lot of energy issues in the high yield index which

contributed to the decline. This is a flight to quality which has been seen before and the Board has 30% in fixed income which helps to buffer periods like this.

Jorge Hernández asked what long term effect Callan anticipated a strong Dollar would have on the portfolio.

Mr. Weightman answered a strong Dollar will hurt the fund's non-US equity exposure, because when any currency is exchanged the US Dollar is more expensive which will cut into the Board's returns. There is also a thought that the US Dollar could continue to strengthen because the US is on firmer ground than other parts of the world. If interest rates go up it could attract more capital, US treasuries at 2% on the 10 year are already attractive vs. other developed world yields. If foreign investors buy treasuries they would have to exchange their currencies into US Dollars which provides potential headwinds. From a growth perspective it can hurt the trade gap because US goods become much more expensive to the rest of the world all of a sudden, but products can be purchased from the world at lower prices because the US Dollar is stronger. Longer term it could have an effect on the GDP, in the short term looking out over the portfolio a continued increase in the strength of the US Dollar could hurt the non-US exposure.

Mr. Hernández asked about the consensus regarding the interest rate and whether the Fed will actually raise it.

Mr. Weightman answered everything he heard pointed toward a rate hike in December 2015.

Silvia Amparano asked how quickly it would rise.

Mr. Weightman answered Janet Yellen stated she expected a gradual tightening. If the US were to go into another recession the Fed could not do anything to fight it, outside of bond buying programs, because interest rates are already at 0%. Raising interest rates would be a good thing so that the Fed has that option if necessary.

John O'Hare clarified that 40% of earnings from the S&P 500 come from overseas.

Mr. Weightman answered that 40% of revenues from the S&P 500 come from overseas.

Mr. O'Hare asked how the strengthening Dollar affects that.

Mr. Weightman explained that it was very hard to say because a lot of companies hedge their currency exposure. With interest rates very low in the US there have been many institutional investors and individuals looking for riskier assets with higher yields. As a result there has been a lot of money going into emerging markets, debt and equity. Emerging markets are smart, issuing their debt in US Dollars, an investor can buy emerging market debt in local currency or US Dollars; so an interest rate hike means that on the debt in US Dollars the interest rate service goes up and outflows of capital goes up also. So in the short term there could be another headwind for emerging markets with a rate hike.

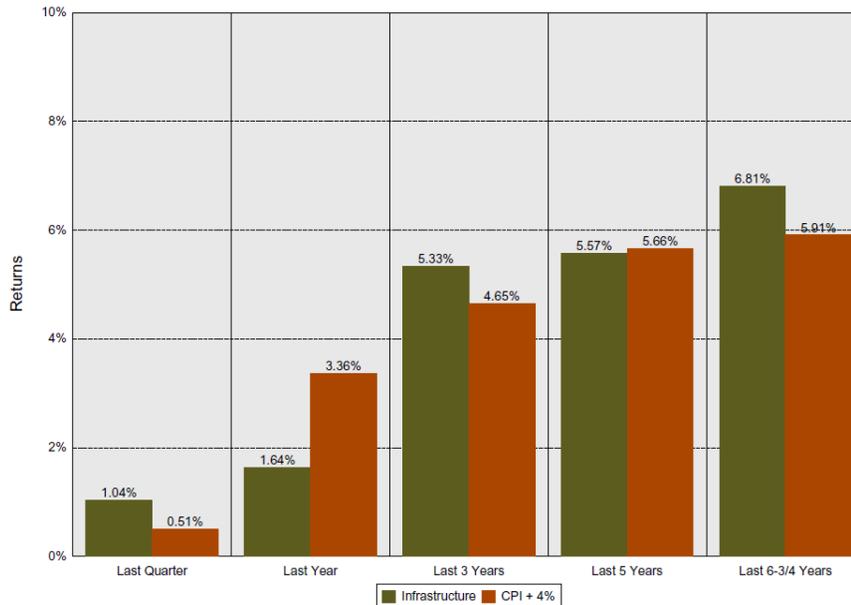
Mr. O'Hare said Macquarie was down 700 basis points vs. the index and asked how much of that was due to the strengthening US Dollar.

Mr. Weightman directed the Board to turn to page 79 of the Quarterly Review.

Infrastructure
Period Ended September 30, 2015

Quarterly Summary and Highlights

- Infrastructure's portfolio outperformed the CPI + 4% by 0.53% for the quarter and underperformed the CPI + 4% for the year by 1.72%.
-



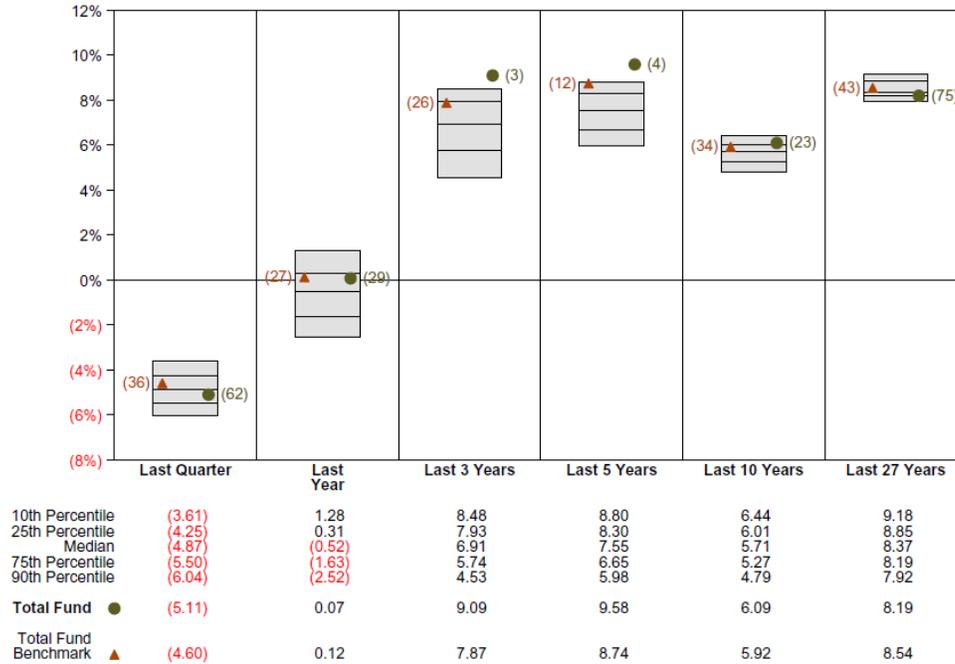
These are time weighted rates of return. Period to period these returns account for cash flows so that if the Board gives one of their infrastructure managers \$1K it will not be seen in the return. This levels the playing field, and then quarterly or monthly results are taken and compounded together. Macquarie wants to be evaluated on a money weighted basis because there is an initial outflow and they make money on that over time, receiving income that they pay out to their limited partners. If there is \$100, and over 5 years no money is earned, the investor starts with \$100 and ends with \$100, which would have a 0% time weighted return. Money weighted rate of return differs because at a period where a portfolio has declined, if the investor decides to give the manager more money and they do well with it, a difference will be created between the time weighted and money rated rates of return. Macquarie wants to be evaluated on a money weighted return basis because it is the concept of the internal rate of return, which is the rate that makes the net present value equal to 0. The graph represents time weighted rates of return and incorporates currency. Macquarie owns 2 airports, one in Brussels and one in Copenhagen. They are doing some development in each of the airports, they have a strong income stream, and they are actually doing quite well. There is an unrealized loss over the last year of 2% from currency. It is a result of the stronger US Dollar because Macquarie is not hedging their currency exposures. On a time weighted basis the Board is getting 5%, net IRR since inception for this portfolio is 9.5%. Despite that 2% infrastructure has been a strong performer for the fund. About 2 years ago Steel River presented to the Board and said they had 8 portfolio holdings, the fund closed in 2008 and has a 20 year life, so the Board will probably be in it until 2028. 40% of their initial investment was in a company called Natural Gas Pipeline (NGPL), and the company had a lot of issues. The initial capital investment in NGPL was \$702M; today the fair value is \$66.7M. All signs pointed toward this fund breaking even over its 20 year history, however something has emerged that has been very positive. An initial 30% investment (\$564M) was in Steel River Ventures. They own natural gas utilities in western Pennsylvania and western Virginia, and with the shale development in western Pennsylvania, and with the lower cost of natural gas it is now valued at \$1.4B which more than makes up for the shortfall from NGPL. These valuations can change over time but as of right now the net gain on this fund is positive, which is good news because 2 years ago they thought it would only break even.

Mr. O'Hare asked if there was a way to show this in the monthly investment report.

Mr. Weightman answered they would have to add the money weighted rate of return which lags by a quarter. He recommended the Board schedule Steel River representatives to come and talk about their investments and asked if they could schedule it for February because he would like to be present.

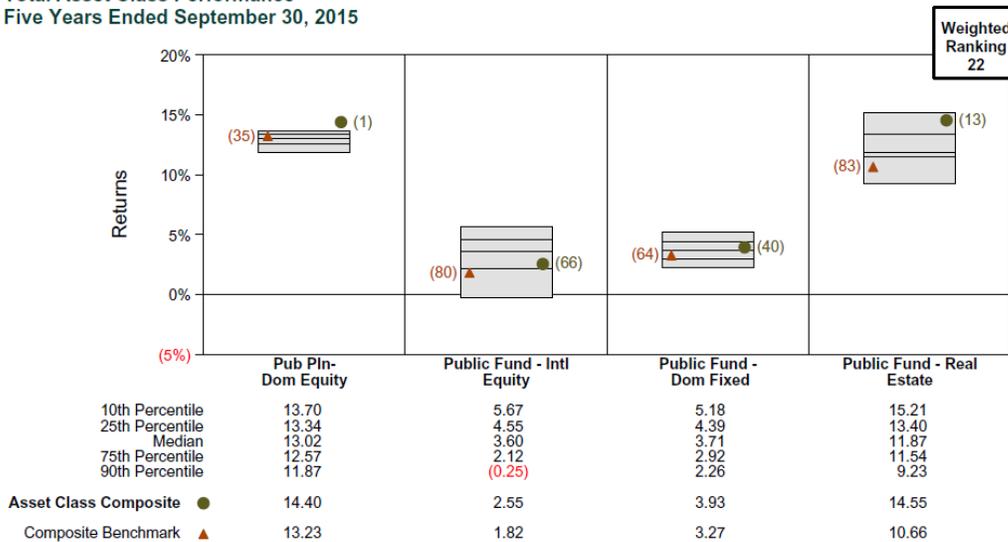
The Board requested Steel River be scheduled to present to the Board at the meeting scheduled for February 25, 2016.

Performance vs Public Fund Sponsor Database (Gross)



Mr. Weightman gave a quick commentary on the Total Fund represented in the chart above. The Board tends to have more US equity exposure than peers which has shown through in the results shown.

Total Asset Class Performance
Five Years Ended September 30, 2015



Mr. Weightman discussed asset class performance vs. benchmark and peers, as represented in the chart above. International equity is the area where there have been some difficulties, specifically with Aberdeen.

Relative Attribution Effects for Quarter ended September 30, 2015

Style Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Style Allocation	Total Relative Return		
Large Cap Equity	39%	36%	(6.69%)	(6.44%)	(0.09%)	(0.07%)	(0.16%)		
Small/Mid Cap Equity	12%	10%	(8.72%)	(10.30%)	0.19%	(0.08%)	0.10%		
Fixed Income	22%	26%	(0.80%)	1.23%	(0.45%)	(0.20%)	(0.65%)		
Real Estate	8%	8%	3.51%	3.68%	(0.01%)	0.01%	(0.00%)		
Infrastructure	5%	5%	1.04%	0.51%	0.03%	0.02%	0.05%		
International Equity	13%	15%	(12.13%)	(12.17%)	0.01%	0.14%	0.15%		
Total			(5.11%)	(4.60%)	+	(0.32%)	+	(0.19%)	(0.51%)

Mr. Weightman went over the information given in the Relative Attribution Effects table above. The manager effect tells the Board how well the active managers have performed vs. their benchmarks; about 2% value has been added. Large cap equity has been strong adding 28 basis points, primarily from T. Rowe Price. Small/mid cap equity has added 64 basis points, coming from Pyramis. Fixed income is the main detractor at 52 basis points, which has been brought down vs. the benchmark due to credit and high yield exposure. International equity detracted 30 basis points because of Aberdeen's performance. The style allocation tells how over or underweights in a particular area of the market will affect performance. In general the Board is slightly overweight in US equity, slightly underweight in fixed income, and underweight in international equity as well and this all affected the fund's performance negatively. The style allocation gets down to how closely the Board monitors and manages the portfolio to the target allocation, and over a long period of time that would be expected to be closer to 0.

Mr. O'Hare stated he did not understand the fee structure discussed by PIMCO at the meeting held on 10/30/15; and requested a future agenda item to discuss it.

D. Articles for Board Member Education / Discussion

1. Saving Public Defined Benefit Plans

E. Call to Audience

John O'Hare introduced Claire Beaubien as the newly appointed CTRA representative, appointed by a unanimous vote from the CTRA Board.

F. Future Agenda Items

- PIMCO fee structure and how it relates to the Fund's performance in 2015
- Approval of the October 30, 2015 meeting minutes
- Update on TSRS Code revisions to be approved by Mayor and Council
- Update on process and interview questions for selection of Plan Administrator

Jorge Hernández asked if the oral board interview questions would be presented to the Board.

Silvia Amparano answered no because they were not public record, but the Board was welcome to submit any questions and ideal answers to her office.

Acting Chairman Coffey asked if a meet and greet would be scheduled where the Board could get some exposure to the candidates.

Ms. Amparano advised it would have to be at the January 2016 Board meeting, after the oral board interviews have taken place and the candidate list had been condensed to a few of the best candidates, because if enough board members to reach a quorum attended it would have to be treated as an open meeting. The

Board would be welcome to provide feedback and opinions to her after the meeting. The candidates could present to the Board, or the meeting could be more informal depending on the Board's preference.

John O'Hare asked who would make the final decision about which candidate to hire.

Ms. Amparano answered that ultimately it was her responsibility as the finance director but she would consider any input from the Board.

G. Adjournment

A motion to adjourn was made by Rebecca Hill, 2nd by Jorge Hernández, and passed by a vote of 5 – 0 (Acting Chairman Coffey did not vote).

Meeting adjourned at 9:22 AM.

Approved:

Robert Fleming
Chairman of the Board

Date

Silvia Navarro
Treasury Administrator

Date

Report ID : FIN-COT-BA-0001

Run Date : 12/11/2015

Run Time : 09:03 AM

**City of Tucson
Budget vs Actual Expenses
Through: November, 2016
For Fiscal Year 2016**

Parameter Page

Parameters and Prompts

Fiscal Year	2016
Accounting Period	5
Fund	072
Department	900
Unit	*
Object Code	*

Report Description

The Expenses vs. Actual Report shows expenditures and encumbrances for the selected accounting period and for the selected fiscal year compared against the current expense budget and the unobligated budget balance. The report is sectioned by Department, Fund and Unit and summarized by Object.

**City of Tucson
Budget vs Actual Expenses
Through: November, 2016
For Fiscal Year 2016**

Department 900 - TUCSON SUPPL RETIREMENT SYSTEM
Fund 072 - TUCSON SUPP RETIREMENT SYSTEM
Unit 9001 - Normal Retiree Benefit

Object	Current Period Encumbrance	Current Period Expenditure	Current Total Obligations	YTD Encumbrance	YTD Expenditure	YTD Total Obligations	Current Budgeted Amount	Unobligated Budget Balance	Percent
105 - PAYROLL PENSION	0.00	5,063,611.39	5,063,611.39	0.00	25,262,610.09	25,262,610.09	63,300,000	38,037,389.91	60.09 %
Total for 100 - PAYROLL CHGS	0.00	5,063,611.39	5,063,611.39	0.00	25,262,610.09	25,262,610.09	63,300,000	38,037,389.91	60.09 %
Total for Unit 9001 - Normal Retiree Benefit	0.00	5,063,611.39	5,063,611.39	0.00	25,262,610.09	25,262,610.09	63,300,000	38,037,389.91	60.09 %

**City of Tucson
Budget vs Actual Expenses
Through: November, 2016
For Fiscal Year 2016**

Department 900 - TUCSON SUPPL RETIREMENT SYSTEM
Fund 072 - TUCSON SUPP RETIREMENT SYSTEM
Unit 9003 - Normal Retiree Beneficiary Benefit

Object	Current Period Encumbrance	Current Period Expenditure	Current Total Obligations	YTD Encumbrance	YTD Expenditure	YTD Total Obligations	Current Budgeted Amount	Unobligated Budget Balance	Percent
105 - PAYROLL PENSION	0.00	287,775.89	287,775.89	0.00	1,444,318.43	1,444,318.43	3,100,000	1,655,681.57	53.41 %
Total for 100 - PAYROLL CHGS	0.00	287,775.89	287,775.89	0.00	1,444,318.43	1,444,318.43	3,100,000	1,655,681.57	53.41 %
Total for Unit 9003 - Normal Retiree Beneficiary Benefi	0.00	287,775.89	287,775.89	0.00	1,444,318.43	1,444,318.43	3,100,000	1,655,681.57	53.41 %

**City of Tucson
Budget vs Actual Expenses
Through: November, 2016
For Fiscal Year 2016**

Department 900 - TUCSON SUPPL RETIREMENT SYSTEM
Fund 072 - TUCSON SUPP RETIREMENT SYSTEM
Unit 9020 - Disability Retiree Benefit

Object	Current Period Encumbrance	Current Period Expenditure	Current Total Obligations	YTD Encumbrance	YTD Expenditure	YTD Total Obligations	Current Budgeted Amount	Unobligated Budget Balance	Percent
105 - PAYROLL PENSION	0.00	169,690.52	169,690.52	0.00	858,536.26	858,536.26	1,975,000	1,116,463.74	56.53 %
Total for 100 - PAYROLL CHGS	0.00	169,690.52	169,690.52	0.00	858,536.26	858,536.26	1,975,000	1,116,463.74	56.53 %
Total for Unit 9020 - Disability Retiree Benefit	0.00	169,690.52	169,690.52	0.00	858,536.26	858,536.26	1,975,000	1,116,463.74	56.53 %

Run Date : 12/11/2015

Run Time : 09:03 AM

City of Tucson
Budget vs Actual Expenses
Through: November, 2016
For Fiscal Year 2016

Department 900 - TUCSON SUPPL RETIREMENT SYSTEM
Fund 072 - TUCSON SUPP RETIREMENT SYSTEM
Unit 9021 - Pension Fund Administration

Object	Current Period Encumbrance	Current Period Expenditure	Current Total Obligations	YTD Encumbrance	YTD Expenditure	YTD Total Obligations	Current Budgeted Amount	Unobligated Budget Balance	Percent
101 - SALARIES & WAGES FOR PERMANENT EMPLOYEES	0.00	11,600.00	11,600.00	0.00	92,055.12	92,055.12	211,940	119,884.88	56.57 %
108 - DOWNTOWN ALLOWANCE & DISCOUNTED TRANSIT PASSES	0.00	69.24	69.24	0.00	451.72	451.72	1,160	708.28	61.06 %
113 - TSRS PENSION CONTRIBUTION	0.00	3,190.00	3,190.00	0.00	25,315.15	25,315.15	58,280	32,964.85	56.56 %
114 - FICA (SOCIAL SECURITY)	0.00	868.82	868.82	0.00	8,003.73	8,003.73	15,410	7,406.27	48.06 %
115 - WORKERS COMPENSATION INSURANCE	0.00	229.17	229.17	0.00	1,171.39	1,171.39	5,930	4,758.61	80.25 %
116 - GROUP PLAN INSURANCE	0.00	1,811.50	1,811.50	0.00	12,584.16	12,584.16	30,920	18,335.84	59.30 %
117 - STATE UNEMPLOYMENT	0.00	17.34	17.34	0.00	93.51	93.51	300	206.49	68.83 %
171 - SICK LEAVE PAID AT RETIREMENT	0.00	0.00	0.00	0.00	14,217.42	14,217.42	0	(14,217.42)	0.00%
196 - INTERDEPARTMENTAL LABOR	0.00	9,016.66	9,016.66	0.00	45,083.30	45,083.30	220,800	175,716.70	79.58 %
Total for 100 - PAYROLL CHGS	0.00	26,802.73	26,802.73	0.00	198,975.50	198,975.50	544,740	345,764.50	63.47 %
202 - TRAVEL	0.00	1,859.49	1,859.49	0.00	1,859.49	1,859.49	4,000	2,140.51	53.51 %
204 - TRAINING	0.00	0.00	0.00	0.00	165.00	165.00	14,000	13,835.00	98.82 %
205 - PARKING & SHUTTLE SERVICE	0.00	110.00	110.00	0.00	110.00	110.00	200	90.00	45.00 %
212 - CONSULTANTS AND SURVEYS	0.00	18,139.00	18,139.00	0.00	41,910.00	41,910.00	65,000	23,090.00	35.52 %
213 - LEGAL	0.00	10,089.00	10,089.00	0.00	17,442.00	17,442.00	50,000	32,558.00	65.12 %
215 - AUDITING AND BANK SERVICES	0.00	1,000.00	1,000.00	0.00	11,000.00	11,000.00	0	(11,000.00)	0.00%
219 - MISCELLANEOUS PROFESSIONAL SERVICES	0.00	12,005.00	12,005.00	0.00	(229,608.34)	(229,608.34)	4,059,500	4,289,108.34	105.66 %
221 - INSUR-PUBLIC LIABILITY	0.00	155.46	155.46	0.00	800.51	800.51	29,160	28,359.49	97.25 %

Run Date : 12/11/2015

Run Time : 09:03 AM

City of Tucson
Budget vs Actual Expenses
Through: November, 2016
For Fiscal Year 2016

Department 900 - TUCSON SUPPL RETIREMENT SYSTEM

Fund 072 - TUCSON SUPP RETIREMENT SYSTEM

Unit 9021 - Pension Fund Administration

Object	Current Period Encumbrance	Current Period Expenditure	Current Total Obligations	YTD Encumbrance	YTD Expenditure	YTD Total Obligations	Current Budgeted Amount	Unobligated Budget Balance	Percent
228 - HAZARDOUS WASTE INSURANCE	0.00	27.75	27.75	0.00	175.40	175.40	560	384.60	68.68 %
232 - R&M MACHINERY & EQUIPMENT	0.00	0.00	0.00	0.00	0.00	0.00	1,200	1,200.00	100.00 %
245 - TELEPHONE	0.00	0.00	0.00	0.00	840.00	840.00	1,200	360.00	30.00 %
252 - RENTS EQUIPMENT	0.00	80.12	80.12	0.00	390.71	390.71	0	(390.71)	0.00%
260 - COMPUTER SOFTWARE MAINTENANCE AGREEMENTS	0.00	0.00	0.00	0.00	0.00	0.00	41,000	41,000.00	100.00 %
263 - PUBLIC RELATIONS	0.00	2,043.09	2,043.09	0.00	2,043.09	2,043.09	2,560	516.91	20.19 %
284 - MEMBERSHIPS AND SUBSCRIPTIONS	0.00	0.00	0.00	0.00	305.00	305.00	1,500	1,195.00	79.67 %
Total for 200 - PROF CHARGES	0.00	45,508.91	45,508.91	0.00	(152,567.14)	(152,567.14)	4,269,880	4,422,447.14	103.57 %
311 - OFFICE SUPPLIES	0.00	250.04	250.04	0.00	748.08	748.08	7,500	6,751.92	90.03 %
312 - PRINTING,PHOTOGRAPHY,REPRODUCTION	0.00	104.29	104.29	0.00	2,497.67	2,497.67	7,500	5,002.33	66.70 %
314 - POSTAGE	0.00	1,386.77	1,386.77	0.00	1,612.10	1,612.10	10,000	8,387.90	83.88 %
341 - BOOK, PERIODICALS AND RECORDS	0.00	0.00	0.00	0.00	0.00	0.00	250	250.00	100.00 %
345 - FURNISHINGS, EQUIPMENT AND TOOLS < \$5,000	0.00	0.00	0.00	0.00	0.00	0.00	1,000	1,000.00	100.00 %
346 - COMPUTER EQUIPMENT < \$5,000	0.00	0.00	0.00	0.00	0.00	0.00	1,000	1,000.00	100.00 %
Total for 300 - SUPPLIES	0.00	1,741.10	1,741.10	0.00	4,857.85	4,857.85	27,250	22,392.15	82.17 %
Total for Unit 9021 - Pension Fund Administration	0.00	74,052.74	74,052.74	0.00	51,266.21	51,266.21	4,841,870	4,790,603.79	98.94 %

**City of Tucson
Budget vs Actual Expenses
Through: November, 2016
For Fiscal Year 2016**

Department 900 - TUCSON SUPPL RETIREMENT SYSTEM
Fund 072 - TUCSON SUPP RETIREMENT SYSTEM
Unit 9022 - Disability Retiree Beneficiary Benefit

Object	Current Period Encumbrance	Current Period Expenditure	Current Total Obligations	YTD Encumbrance	YTD Expenditure	YTD Total Obligations	Current Budgeted Amount	Unobligated Budget Balance	Percent
105 - PAYROLL PENSION	0.00	30,418.52	30,418.52	0.00	153,397.96	153,397.96	350,000	196,602.04	56.17 %
Total for 100 - PAYROLL CHGS	0.00	30,418.52	30,418.52	0.00	153,397.96	153,397.96	350,000	196,602.04	56.17 %
Total for Unit 9022 - Disability Retiree Beneficiary Ben	0.00	30,418.52	30,418.52	0.00	153,397.96	153,397.96	350,000	196,602.04	56.17 %

**City of Tucson
Budget vs Actual Expenses
Through: November, 2016
For Fiscal Year 2016**

Department 900 - TUCSON SUPPL RETIREMENT SYSTEM
Fund 072 - TUCSON SUPP RETIREMENT SYSTEM
Unit 9023 - ACTIVE MEMBER REFUNDS-CONTRBS

Object	Current Period Encumbrance	Current Period Expenditure	Current Total Obligations	YTD Encumbrance	YTD Expenditure	YTD Total Obligations	Current Budgeted Amount	Unobligated Budget Balance	Percent
105 - PAYROLL PENSION	0.00	744.57	744.57	0.00	1,489.14	1,489.14	0	(1,489.14)	0.00%
186 - TSRS REFUNDS	0.00	209,816.56	209,816.56	0.00	1,477,766.13	1,477,766.13	2,400,000	922,233.87	38.43 %
Total for 100 - PAYROLL CHGS	0.00	210,561.13	210,561.13	0.00	1,479,255.27	1,479,255.27	2,400,000	920,744.73	38.36 %
Total for Unit 9023 - ACTIVE MEMBER REFUNDS-CON	0.00	210,561.13	210,561.13	0.00	1,479,255.27	1,479,255.27	2,400,000	920,744.73	38.36 %

**City of Tucson
Budget vs Actual Expenses
Through: November, 2016
For Fiscal Year 2016**

Department 900 - TUCSON SUPPL RETIREMENT SYSTEM
Fund 072 - TUCSON SUPP RETIREMENT SYSTEM
Unit 9025 - INTEREST ON REFUNDS

Object	Current Period Encumbrance	Current Period Expenditure	Current Total Obligations	YTD Encumbrance	YTD Expenditure	YTD Total Obligations	Current Budgeted Amount	Unobligated Budget Balance	Percent
186 - TSRS REFUNDS	0.00	1,289.98	1,289.98	0.00	16,088.05	16,088.05	50,000	33,911.95	67.82 %
Total for 100 - PAYROLL CHGS	0.00	1,289.98	1,289.98	0.00	16,088.05	16,088.05	50,000	33,911.95	67.82 %
Total for Unit 9025 - INTEREST ON REFUNDS	0.00	1,289.98	1,289.98	0.00	16,088.05	16,088.05	50,000	33,911.95	67.82 %

**City of Tucson
Budget vs Actual Expenses
Through: November, 2016
For Fiscal Year 2016**

Department 900 - TUCSON SUPPL RETIREMENT SYSTEM
Fund 072 - TUCSON SUPP RETIREMENT SYSTEM
Unit 9026 - DWE SYSTEM BENEFIT PAYMENT

Object	Current Period Encumbrance	Current Period Expenditure	Current Total Obligations	YTD Encumbrance	YTD Expenditure	YTD Total Obligations	Current Budgeted Amount	Unobligated Budget Balance	Percent
186 - TSRS REFUNDS	0.00	0.00	0.00	0.00	61,918.40	61,918.40	200,000	138,081.60	69.04 %
Total for 100 - PAYROLL CHGS	0.00	0.00	0.00	0.00	61,918.40	61,918.40	200,000	138,081.60	69.04 %
Total for Unit 9026 - DWE SYSTEM BENEFIT PAYMENT	0.00	0.00	0.00	0.00	61,918.40	61,918.40	200,000	138,081.60	69.04 %

**City of Tucson
Budget vs Actual Expenses
Through: November, 2016
For Fiscal Year 2016**

Department 900 - TUCSON SUPPL RETIREMENT SYSTEM
Fund 072 - TUCSON SUPP RETIREMENT SYSTEM
Unit 9027 - CREDITABLE SERVICE TRANS(ASRS)

Object	Current Period Encumbrance	Current Period Expenditure	Current Total Obligations	YTD Encumbrance	YTD Expenditure	YTD Total Obligations	Current Budgeted Amount	Unobligated Budget Balance	Percent
186 - TSRS REFUNDS	0.00	0.00	0.00	0.00	(8,811.37)	(8,811.37)	0	8,811.37	0.00%
Total for 100 - PAYROLL CHGS	0.00	0.00	0.00	0.00	(8,811.37)	(8,811.37)	0	8,811.37	0.00%
Total for Unit 9027 - CREDITABLE SERVICE TRANS(A'	0.00	0.00	0.00	0.00	(8,811.37)	(8,811.37)	0	8,811.37	0.00%
Total for Fund 072 - TUCSON SUPP RETIREMENT SYS	0.00	5,837,400.17	5,837,400.17	0.00	29,318,579.30	29,318,579.30	76,216,870	46,898,290.70	61.53 %
Total for Department 900 - TUCSON SUPPL RETIREME	0.00	5,837,400.17	5,837,400.17	0.00	29,318,579.30	29,318,579.30	76,216,870	46,898,290.70	61.53 %
Grand Totals	0.00	5,837,400.17	5,837,400.17	0.00	29,318,579.30	29,318,579.30	76,216,870	46,898,290.70	61.53 %

Tucson Supplemental Retirement System Tucson Code Revisions

Mayor & Council
Study Session
December 8, 2015



Finance
Department



Agenda Today

- Overview of TSRS financial status
- Discuss the TSRS Board's fiduciary role to Plan members
- Review Tucson City Code provisions regarding setting contribution rates
- Discuss current funding policy & objectives
- Discuss FY17 recommended funding policy and benefits
- Other Code Amendments



2015 TSRS Financial Highlights

Financial Highlights as of June 30, 2015			
Active Employees	2,665	Average Annual Compensation	\$46,309
Retired Members	2,809	Average Annual Retirement Benefit	\$23,707
Portfolio Investment Return for FY 2015	4.63% (Gross)	Funded Ratio	69.20%

Statement of Net Assets	
Total Assets	\$ 762,213,988
Total Liabilities	\$ 22,420,441
Net Position Held In Trust	\$ 739,793,547

Funded Status	
Actuarial Valuation-Assets	\$ 706,773,630
Actuarial Valuation-Liabilities	\$ 1,021,377,564
Unfunded Liability	\$ (314,603,934)



History of Contributions

Actuarial Report Dated 6/30	Funded Status	City ARC \$	City ARC % (unrounded)	M&C Approved Contribution Rates	
2015	69.2%	\$ 30,841,299	24.99%	TBD	2017
2014	64.8%	\$ 33,918,397	27.03%	27.50%	2016
2013	63.3%	\$ 34,189,288	26.95%	27.50%	2015
2012	63.5%	\$ 34,523,315	27.09%	27.09%	2014
2011	67.3%	\$ 36,846,476	28.77%	28.77%	2013

The FY 2017 actuarial determined contribution rate is 25.52% pursuant to the TSRS new policy.



History of TSRS Board Actions/Recommendations

- Adopted post retirement benefit increase policy (2008)
- Modified disability retirement requirement (2010)
- Lowered pension multiplier (2012)
- Raised minimum retirement age (2012)
- Raised required service credits (2012)
- Increased years to calculate average salary (2012)
- Eliminated sick & vacation pay into calculation (2012)
- Modified employee contribution formula (2007 & 2012)
- Changed amortization schedule (2009 & 2014)
- Changed asset smoothing period (2009 & 2014)
- Changed assumed rate of return on assets (2004 & 2015)
- Development of the funding policy (2015)



CITY OF
TUCSON

Finance
Department



TSRS Board – Fiduciary Role

- TCC Section 22-44(k)(7) requires the Board to “do all things necessary or prudent for the proper administration of the provision of TSRS”
- Principle fiduciary duties include:
 - Duty of Prudence- Must exercise care and diligence in plan administration
 - Duty of Loyalty- Must act impartially and in good faith for the benefit of members and beneficiaries
 - Duty to Comply with Applicable Law- Includes Tucson City Code, Arizona Common Law of Trusts and Internal Revenue Code



TSRS Board – Fiduciary Role (Continued)

Duty of Prudence includes:

- Annual review of funded status and future projections
- Exercising due diligence in setting actuarial and valuation factors
- Ongoing monitoring and adjustment of administrative policies and procedures as circumstances evolve



CITY OF
TUCSON

Finance
Department



Proposed Tucson Code Revisions

- Codification of TSRS Funding Policy
- Disability Retirements
- Rehired Retirees and TSRS Pensions
- Appointed Positions and TSRS Membership
- Codification of Administrative Practices, Administrative Clarifications and Compliance Changes



Tucson City Code

Setting Contribution Rates

- Sec. 22-35(b). Certification of rates and charges. The board shall certify to the city manager, on a fiscal year basis, the annual required contribution, the member contribution rate and the employer contribution for the system.
- Sec. 22-35(c). City's funding requirement for system. The city council shall appropriate no less than one hundred (100) percent of the employer contribution for a particular fiscal year.



Objectives of Funding Policy

- To accumulate assets over time that will provide for all the benefits earned by Plan participants
- To minimize volatility for employer and employee
- Promote intergenerational equity in that Plan costs are reasonably allocated to the years of public service worked by an employee



CITY OF
TUCSON

Finance
Department



Current Funding Policy

- Employees hired before July 1, 2006 pay a “fixed” contribution rate, set at 5% of compensation (this rate is “fixed” by the Arizona Constitution)
- Employees hired after June 30, 2006 pay a “variable” contribution rate, set at 50-100% of the normal cost determined by Tier membership
- “Minimum required” employer rates and employee variable rates are calculated by the Plan’s actuary



TSRS Approved Funding Policy

- Continue to base employer and employee contribution rate recommendations on the Actuary's calculation
- Implement a Contribution Rounding Policy:
 - Employer Rate - Round the actuary's recommended blended rate up to the nearest half percentage point (i.e. 0.50%), then a sufficiency test is applied
 - Employee Rate - Round the actuary's recommended member tier rate up to the nearest quarter percentage point (i.e. 0.25%).
 - Rounding Policy was applied in FY 2015 and FY 2016
- Add administrative expenses to the annual required contribution
- Recommendation that the employer rate remain at a minimum of 27.5% until the plan reaches full funding



CITY OF
TUCSON

Finance
Department



FY17 TSRS Recommended Rates

Recommended Employee Rates	Actuary Rate (50% of Normal Cost)	Round Up Policy	TSRS Board's Recommendation
Tier			
Hired prior ro 7/1/06	5.00%	5.00%	5.00%
Hired 7/1/06-6/30/11	6.60%	6.75%	6.75%
Hired after 6/30/11	5.00%	5.25%	5.25%
Recommended Employer Rates			
Tier			
Hired prior ro 7/1/06	25.16%		
Hired 7/1/06-6/30/11	23.56%		
Hired after 6/30/11	25.27%		
Blended Rate (Recommendation >Each Tier)	24.99%	25.50%	27.50%

With the administrative expenses the employer rates are 25.69%, 24.09%, 25.80% for a blended rate of 25.52%



Benefits of Recommended Funding Policy

- It reduces volatility in the contribution rates in that a change is not required each fiscal year for every change in basis point (i.e. 0.01%). Reduction in volatility benefits both the City during the budget cycle and the employee.
- It accelerates the rate in which the unfunded liabilities are paid off.
- It sends a positive signal to bond rating agencies demonstrating that the City is committed to a funding policy that seeks to achieve a 100% funded ratio for the Plan within a reasonable timeframe.



CITY OF
TUCSON

Finance
Department



Comparison of Contribution Rates

Scenario based on Actuarial Report of June 30, 2015	City Contribution Rate Until Full Funding	Year of Full Funding	TSRS Contribution Estimated Amount	Difference from Current Code Requirement	General Fund Impact
Actuarially Required Contribution	24.99%	2033	\$ 30,841,299	\$ -	\$ -
Actuarially Determined Contribution with Rounding Policy Only	25.50%	2033	\$ 31,470,713	\$ 629,414	\$ 323,330
Actuarially Determined Contribution with Administrative Charge	25.52%	2033	\$ 31,495,396	\$ 654,097	\$ 336,010
Actuarially Determined Contribution with Administrative Charge & Rounding Policy	26.00%	2032	\$ 32,087,786	\$ 1,246,487	\$ 640,320
Baseline - Current Funding Policy	27.50%	2031	\$ 33,939,004	\$ 3,097,705	\$ 1,591,291



FY17 Estimated Financial Impact

Scenario based on Budget	Assumed City Contribution Rate	FY 2016 Budget		FY 2017 Projected Budget		FY16 vs FY17
		All Funds	General Fund	All Funds	General Fund	Impact on General Fund Budget Inc/(Dec)
Actuarially Required Contribution	24.99%	n/a	n/a	\$ 33,181,421	\$ 17,043,902	\$ (1,728,088)
Actuarially Determined Contribution with Rounding Policy Only	25.50%	n/a	n/a	\$ 33,884,936	\$ 17,405,190	\$ (1,366,800)
Actuarially Determined Contribution with Administrative Charge & Rounding Policy	26.00%	n/a	n/a	\$ 34,544,230	\$ 17,732,490	\$ (1,039,500)
Baseline - Current Funding Level	27.50%	\$35,977,470	\$18,771,990	\$36,513,590	\$ 18,755,150	\$ (16,840)



Disability Retirements

Background: The TSRS Board reviews applications for disability retirements under TSRS. The Board has determined that certain clarifications and improvements in the 2009 Code provisions addressing disability issues are warranted.

New Provisions:

- Revise the definition of disability to state the disabling condition must be expected to result in death or continue for a long and indefinite duration.
- Allow the Board to consider a Social Security disability determination to be evidence of disability under TSRS.
- Require a TSRS member to apply for a disability retirement benefit within 12 months of termination from employment and to establish that he or she terminated from employment with the City as a result of the disability condition.



Rehired Retirees and TSRS Pensions

Background: The pension of a retiree who is rehired by the City shall be suspended during the period of reemployment unless certain conditions are met indicating that the former employee's retirement was legitimate and that the retiree is not returning to work on a permanent basis.

- To meet Internal Revenue Service compliance requirements applicable to tax-qualified retirement plans
- To make sure that pension eligible job positions are filled with contributing TSRS members

New Provision: To address the rehire of retirees into consecutive non-permanent employment positions and states that the TSRS pension payable to the retiree will not be suspended if the retiree is retired for at least 12 month before returning to work, that each employment position filled by the retiree is a non-permanent position, that each employment position is separate and distinct and that the retiree's continuous period of reemployment does not exceed 18 months.



Appointed Positions and TSRS Membership

Background: Appointed City officers and employees have the option to join TSRS within the first 90 days of their appointment. On occasion, an appointed officer or employee may transition from one appointed position to another. It has been the administrative practice of the TSRS Administrator to allow a second opportunity to elect TSRS membership only if the appointed officer or employee had a break in employment between appointed positions.

New Provision: To expressly state that an individual who is appointed to a second appointed position will have the option to join TSRS only if he or she has a break in employment of at least 30 days before the commencement of the new appointment.



Next Step

Mayor and Council to Approve:

- Today's Regular Consent Session – Revisions to Tucson Code related to the following:
 - Disability Retirements
 - Rehired Retirees and TSRS Pensions
 - Appointed Positions and TSRS Membership
 - Codification of Administrative Practices, Administrative Clarifications and Compliance Changes
- Jan/Feb - FY 2017 TSRS Contribution Rates



Questions



CITY OF
TUCSON

Finance
Department



EXHIBIT C
FEE SCHEDULE
TUCSON SUPPLEMENTAL RETIREMENT SYSTEM (TSRS)
DIVERSIFIED INCOME FEE SCHEDULE

(Manager Account #2446)

Effective: January 2, 2012

Following is the schedule of annual fees for advice and counseling services performed by Manager with respect to the investment portfolio of the Fund.

0.50% on first \$100 million
0.45% on next \$100 million
0.40% thereafter

Fees are payable quarterly in advance and are computed based on the market value of the Fund's investment portfolio as reported on the Manager's statement at the beginning of the billing period. Market value for the portfolio will be determined by aggregating the market value for each asset in the portfolio using the last sale price on the principal exchange on which the security is listed as reported in the financial press. If such sale price is not readily available, the market price shall be determined in good faith by or at the direction of Manager.

Fees shall be prorated on a daily basis when the investment portfolio is under the supervision of Manager for a portion of any quarter.

The investment portfolio is comprised of all funds and assets, including cash, cash accruals, additions, substitutions and alterations which are subject to advice by the Manager.

This fee schedule is based on the specific investment guidelines of the investment portfolio. Any deviation from the investment guidelines for the investment portfolio described in the attached Exhibit B and dated January 2, 2012, as amended, may result in a change in the foregoing fees.

AM

R.F.

Countdown to a Better DC Plan

This year we put a different spin on the traditional New Year's Eve countdown. Instead of counting the minutes and seconds until the ball drops, we are anticipating the 10th anniversary of the Pension Protection Act (PPA) in 2016. The PPA instituted comprehensive reforms to America's retirement system—including defined contribution (DC) plans—in 2006. Citing results from Callan's annual *DC Trends Survey*, we explore plan sponsor adoption of PPA provisions to see how they have benefited, where they have met challenges, and where they could do more. We also offer seven takeaways to help sponsors better position their plans in 2015 as we approach the decade mark for this legislation.

- 1. Educate participants on Roth accounts' possible long-term tax advantages.** The availability of Roth designated accounts in DC plans was originally set to expire at the end of 2010, but the PPA made them permanent. Today, 62% of DC plans offer Roth designated accounts and another 23% are considering adding them in the next 12 months—an impressive showing. However, Fidelity¹ reports that when Roth is offered, only 7% of participants direct their contributions to it.
- 2. If you offer managed accounts, review your process for selecting and monitoring the managed account provider.** The PPA sought to encourage the availability of investment advice to DC plan participants. It created a prohibited transaction exemption that allows financial institutions that provide investment options to also offer investment advice to DC participants. Today, 79% of DC plan sponsors provide investment guidance or advisory services to participants, and most are satisfied with these services. However, the Government Accountability Office (GAO) has raised questions about one type of advisory service that is also a qualified default investment alternative (QDIA): managed accounts. In June 2014, a GAO report found that the advantages of managed accounts (improved diversification and higher savings rates) may be offset by their fees. The report concluded that the Department of Labor (DOL) should act to ensure that both plan sponsors and participants have sufficient information to understand and select managed accounts.
- 3. Take advantage of the fund mapping provision and purge the plan of "legacy" funds in order to streamline the investment fund lineup.** Behavioral research shows this will make it easier for participants to navigate the DC plan. The PPA's fund mapping provision extended 404(c) protection to cover mapping participant assets from one fund to another when a fund is replaced. Nearly 70% of plan sponsors that eliminated funds in 2014 mapped assets to the most similar fund based on the risk level of the existing fund—consistent with the PPA's provision. Seventeen percent mapped assets to the default investment option, which could also offer 404(c) protection. Still, the number of funds in DC plans continues to creep higher, according to the Callan DC Index™: excluding target date funds (TDFs), the typical plan holds 15 funds, up from 11 in 2006.

1 Fidelity. "Building Futures DC Trends Fact Sheet." September 30, 2014.

-
4. **Revisit automatic feature defaults to ensure they are as robust as possible while continuing to educate workers on the need to save at high levels in their plan.** Arguably one of the PPA's biggest benefits was to increase the attractiveness of auto features (automatic enrollment, automatic contribution escalation) by protecting plans that offer them. Today, 62% of plans offer automatic enrollment; more than half of these plans also offer automatic contribution escalation. However, robust implementation of auto features remains the exception to the rule. Most commonly, plans auto enroll workers into their DC plans with annual contribution increases of 1% of pay and a 6% cap. Under this scenario, EBRI projects just under a 70% probability of eligible workers reaching retirement "success." This probability increases to 82% if workers are auto enrolled in a more robust way: with annual auto contribution increases of 2% up to a 10% cap.²
 5. **Review and document the appropriateness and efficacy of the TDF.** The PPA put TDFs on the DC map by giving them 404(c) protection under the QDIA regulation. Today, 75% of plans offer a TDF as the default investment fund for participant-directed monies. According to the Callan DC Index, TDFs tend to be the single largest option in DC plans, averaging 29% of plan assets when offered. However, TDFs' track record is not flawless: 2008 was a notoriously poor year. The median 2010 TDF lost 22%, prompting a series of hearings by the Securities and Exchange Commission and DOL. Further, TDF performance is widely dispersed: an average of all TDF vintages across providers shows that those in the top decile earned 10.3% annually compared to the bottom decile's 7.8% (over five years ending September 30, 2014). The median TDF failed to outperform the Callan Target Date Index over the same time period.
 6. **Resolve to annually benchmark plan fees.** Under the PPA, DC plan participants who have the right to direct their investments receive quarterly statements. The DOL subsequently required that all participants must receive statements showing the dollar amount of plan-related fees and expenses charged to their accounts at least quarterly, as well as annual disclosures. Increased transparency has driven DC sponsors to have a greater focus on plan fees. In 2014, 86% of sponsors calculated fees for their DC plan. Still, less than two-thirds of these sponsors also benchmarked fees.
 7. **Reevaluate the plan's approach to company stock and carefully document how—as a fiduciary—you intend to treat company stock in the 401(k) plan.** In an effort to reduce company stock holdings in DC plans, the PPA required the plans that offer it to provide increased disclosure about diversification, as well as a greater ability for participants to diversify out of company stock. Today, just over one-third of DC plans offer company stock. According to the Callan DC Index, when company stock is offered, it accounts for 14% of assets, on average—down from 22% in 2006. Still, stock-drop lawsuits continue to proliferate and the Supreme Court recently disallowed presumption of prudence as a stock-drop lawsuit defense, potentially raising the fiduciary bar.

*Authored by Lori Lucas, CFA,
Callan's Defined Contribution
Practice Leader.*

*Email institute@callan.com
with questions.*

With the big anniversary around the corner in 2016, it is a good time for sponsors to bolster their DC plans' implementation of the PPA's provisions. At a minimum, plan sponsors should know where they stand in relation to the PPA's opportunities and challenges before it turns 10 years old.

² Retirement success is defined as workers replacing at least 80% of their income in retirement through 401(k) balances and Social Security on an inflation-adjusted basis. To achieve the better outcome, workers must not opt out of auto contribution escalation and must maintain their deferral levels when switching jobs.