FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS

ANNUAL FINANCIAL REPORT
(Audited)

Fiscal Year Ended September 30, 2018

Contents

Hochschild, Bloom & Company LLP
Certified Public Accountants
Consultants and Advisors

INDEPENDENT AUDITOR'S REPORT

February 5, 2019

The Board of Trustees
FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS

REPORT ON THE FINANCIAL STATEMENTS

We have audited the accompanying financial statements of the **FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS** (the System), a Pension Trust Fund of the City of St. Louis, Missouri, as of and for the years ended September 30, 2018 and 2017, and the related notes to the financial statements, which collectively comprise the System's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error.

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In making those risk assessments, the auditor considers internal control relevant to the System's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the System as of September 30, 2018 and 2017, and the respective changes in fiduciary net position thereof for the years then ended, in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplemental Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and required supplemental information, as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplemental information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audits of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audits were conducted for the purpose of forming opinions on the financial statements that collectively comprise the System's basic financial statements. The other supplemental information, as listed in the table of contents, is presented for purposes of additional analysis and is not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. Such information has been subjected to the auditing procedures applied in the audits of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the other supplemental information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

OTHER REPORTING REQUIRED BY *GOVERNMENT AUDITING STANDARDS*

In accordance with *Government Auditing Standards*, we have also issued our report dated February 5, 2019, on our consideration of the System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the System's internal control over financial reporting and compliance.

Hochschild, Bloom & Company LLP

CERTIFIED PUBLIC ACCOUNTANTS
Chesterfield, Missouri

The following Management's Discussion and Analysis (MD&A) of the Firemen's Retirement System of St. Louis (the System) provides an overview of the System's financial activities for the fiscal year ended September 30, 2018. The MD&A should be read in conjunction with the System's financial statements and supplemental information.

FINANCIAL HIGHLIGHTS

During the System's fiscal years ended September 30, 2018 and 2017, global economies have shown signs of strengthening. The System is well diversified and the portfolio is continually managed and monitored to an investment policy established to minimize market risks. The System is a long-range proposition and is responsible for administering benefits to firefighters of the City of St. Louis who have dedicated their careers as public servants to the residents and businesses of the St. Louis metropolitan area. The System is frozen as of February 1, 2013. Active Members on February 1, 2013 are classified as "grandfathered" Members and benefits paid to these Members is based on the Member's service and salary earned as of February 1, 2013. The only new benefits to be earned are the "grandfathered" Members who are in DROP status. The System has and will continue to provide benefits in a prudent and professional manner to its active (grandfathered) and retired Members and their beneficiaries.

The System's net position was $482 million at September 30, 2018, which represents a decrease of $7 million or 1.4% from September 30, 2017.

Additions to net position for fiscal year 2018 were $27.5 million as compared to additions of $64.4 million for fiscal year 2017. The current period net additions are comprised of $24.8 million of net investment income. The City was required to make an employer contribution in the amount of $2.7 million in fiscal year 2018, and no member contributions were received during the current year due to the System being frozen on February 1, 2013.

Deductions from net position were $34.4 million for fiscal year 2018 and $34.2 million for fiscal year 2017.

The overall investment return for the System was 5.82% for fiscal year 2018 as compared to a return of 14.69% for fiscal year 2017. The Board of Trustees acts to ensure the System retains top performing investment managers while maintaining a balanced investment portfolio.

Changes in Members' benefits resulted from:

	For The Years Ended September 30	
	2018	2017
Service retirements:		
Regular	**6**	7
Death	**-**	1
Members requesting a refund withdrawal	**9**	11
Retiree death benefits	**22**	24

FINANCIAL STATEMENTS

The financial statements, notes to financial statements, and required supplemental information (RSI) were prepared in conformity with Governmental Accounting Standards Board Statement No. 67 (GASB 67), *Financial Reporting for Pension Plans*. GASB 67 replaced GASB 25 and GASB 50 as reporting standards for governmental employer pension systems.

Highlights of the changes to these financial statements as a result of implementing GASB 67 are as follows:

- GASB 67 only affects reporting requirements and does not prescribe funding methods which could be different. The System will continue to use a funding policy that computes contribution amounts over the future working lifetime of current participants (the entry age - frozen initial liability actuarial cost method). For financial reporting purposes the System is required to use the entry age actuarial cost valuation method in determining the normal cost of the System's benefits, expressed as a percent of active covered payroll for service retirement benefits, disability benefits, survivor benefits, and administrative expenses (excluding expenses related to the investment of the System's assets, all of which are covered by investment return). The contribution amount required to amortize any unfunded actuarial liability is determined annually and as a percentage of participants covered payroll. The required contribution amounts are to be determined by regular annual actuarial valuations conducted by the System's actuary.

- Statements of net assets and statements of changes in net assets have now been retitled as statements of fiduciary net position and statements of changes in fiduciary net position, respectively.

- GASB 67 classifies the System as a single-employer public pension plan for reporting purposes.

- The discount rate used to calculate the present value of future benefit payments for reporting purposes is based upon the projected plan net position (PNP) using actuarial assumptions about contributions, benefit payments, and the long-term rate of return. If the projected PNP is not sufficient to cover projected benefit payments, a blended discount rate is required using both the weighted average of the long-term rate of return and the muni-bond rate for periods after the PNP is exhausted. The System currently uses the long-term discount rate of 7.3% and expects assets will be sufficient to cover PNP.

- Footnote requirements include the target asset allocation including long-term expected real rate of return, investments representing 5% or more of the System's fiduciary net position, employer's net pension liability, summary of actuarial assumptions, and sensitivity of net pension liability to changes in the discount rate.

- Required supplemental information includes a schedule of changes in employer's net pension liability (excess assets), schedule of employer's net pension liability (excess assets), schedule of employer's contributions, and schedule of annual money-weighted rate of return on investments. Notes to the RSI include significant methods and assumptions used in calculating the actuarially determined contributions.

The financial statements contained in this section of the annual financial report consist of:

- The statements of fiduciary net position report the System's assets, deferred outflows, liabilities, deferred inflows, and resulting net position. The net position is restricted for pensions. It is a snapshot of the financial position of the System at that specific point in time.

- The statements of changes in fiduciary net position summarizes the System's financial transactions that have occurred during the current and previous fiscal years.

- The notes to financial statements are an integral part of the above financial statements and include additional information not readily evident in the statements themselves.

Other items in the financial report are the MD&A, the RSI, and other supplemental information which provide other information considered useful in evaluating the condition of the System.

FINANCIAL ANALYSIS

Total assets at September 30, 2018 were $486,241,686 and were mainly comprised of cash and cash equivalents, investments, and receivables. Total assets decreased $3,929,105 or 0.8% from September 30, 2017.

Total liabilities at September 30, 2018 were $4,314,689 and consisted mainly of unsettled investment transactions, net pension liability - System's staff pension related, and accrued expenses. Total liabilities increased $2,875,217 or 200% from September 30, 2017 primarily due to the timing of unsettled investment transactions.

The System implemented GASB 68, *Accounting and Financial Reporting by State and Local Governments*, for the fiscal year 2015. The System's staff participate in the Employees Retirement System of the City of St. Louis (ERS), a cost sharing, multi-employer defined benefit plan. The System elected to report pension elements based on ERS' September 30 actuarial valuations at the beginning of the fiscal year as allowed by GASB 68. The pension elements required to be reported in the statements of fiduciary net position include: 1) net pension liability and 2) deferred outflows/inflows of resources.

Net position - restricted for pensions was $481,978,650 at September 30, 2018, a decrease of $6,869,563 or 1.4% from fiscal year 2017. This decrease mainly resulted from benefits paid to retirees and beneficiaries exceeding net investment income and employer contributions during the year.

Following is a condensed version of the statements of fiduciary net position (dollars in thousands):

	September 30			Total Change: Amount		Total Change: Percentage	
	2018	2017	2016	**2018**	2017	**2018**	2017
ASSETS							
Investments	**$ 478,044**	484,383	454,431	**(6,339)**	29,952	**(1.3) %**	6.6
Cash and cash equivalents	**3,801**	4,096	3,896	**(295)**	200	**(7.2)**	5.1
Receivables	**4,004**	1,245	1,844	**2,759**	(599)	**221.6**	(32.5)
Capital assets, net	**393**	447	504	**(54)**	(57)	**(12.1)**	(11.3)
Total Assets	**486,242**	490,171	460,675	**(3,929)**	29,496	**(0.8)**	6.4
DEFERRED OUTFLOWS							
System's staff pension related	**57**	124	149	**(67)**	(25)	**(54.0)**	(16.8)
LIABILITIES	**4,315**	1,439	2,125	**2,876**	(686)	**199.9**	(32.3)
DEFERRED INFLOWS							
System's staff pension related	**5**	8	8	**(3)**	-	**(37.5)**	-
NET POSITION	**$ 481,979**	488,848	458,691	**(6,869)**	30,157	**(1.4) %**	6.6

Revenues - Additions to Net Position

- Net investment income totaled $24,769,748 in fiscal year 2018 as compared to net investment income of $61,052,343 in fiscal year 2017. Investment income is net of investment expenses (investment management and custodial fees) totaling $2,024,352 and $2,242,732 for the years ended September 30, 2018 and 2017, respectively.

The reserves needed to finance retirement benefits as well as death and disability benefits are accumulated through the collection of employer contributions and through earnings on investments. Employer contributions totaled $2,715,141 for the year ended September 30, 2018 as compared to $3,313,603 for the prior year.

Expenses - Deductions from Net Position

The primary expenses of the System include the payment of pension benefits to retirees and beneficiaries, administrative expenses, and refunds of Members' contributions to operate the System. Total expenses for fiscal year 2018 were $34,354,452, an increase of $145,515 from fiscal year 2017. This increase is mainly due to more DROP lump sum distributions in fiscal year 2018 when compared to fiscal year 2017.

Following is a condensed version of the statements of changes in fiduciary net position (dollars in thousands):

	For The Years Ended September 30			Total Change			
				Amount		Percentage	
	2018	2017	2016	**2018**	2017	**2018**	2017
ADDITIONS							
Net investment income (loss)	**$ 24,770**	61,052	38,642	**(36,282)**	22,410	**(59.4) %**	58.0
Employer contributions	**2,715**	3,314	2,715	**(599)**	599	**(18.1)**	22.1
Total Additions	**27,485**	64,366	41,357	**(36,881)**	23,009	**(57.3)**	55.6
DEDUCTIONS							
Benefits paid	**32,655**	32,325	32,155	**330**	170	**1.0**	0.5
Administrative expenses	**1,050**	1,068	1,095	**(18)**	(27)	**(1.7)**	(2.4)
Refund of Members' contributions	**649**	816	1,279	**(167)**	(463)	**(20.5)**	(36.2)
Total Deductions	**34,354**	34,209	34,529	**145**	(320)	**0.4**	(0.9)
CHANGE IN NET POSITION	**(6,869)**	30,157	6,828	**(37,026)**	23,329	**(122.8)**	341.6
NET POSITION, BEGINNING OF YEAR	**488,848**	458,691	451,863	**30,157**	6,828	**6.6**	1.5
NET POSITION, END OF YEAR	**$ 481,979**	488,848	458,691	**(6,869)**	30,157	**(1.4) %**	6.6

SUMMARY

The System's net position - restricted for pensions has increased in six out of the past ten years. The decreases (which occurred in fiscal years 2018, 2015, 2011, and 2009) were the result of investment losses due to economic slowdowns that detrimentally affected most pension systems in those years. The Board of Trustees believe, and the actuarial calculations confirm, that the System is in a financial position to meet its current and projected obligations. With a continued focus on a prudent investment program, cost controls, and strategic planning, the System should maintain its current funded position over an extended period of years.

REQUESTS FOR INFORMATION

This financial report is designed to provide the Board of Trustees, our Members, and other users of our financial report with a general overview of the System's finances and to demonstrate the System's accountability for the money it receives. If you have any questions about this report or need additional financial information, contact:

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	September 30	
	2018	2017
ASSETS		
Investments at fair value:		
Equities:		
Corporate stocks	**$ 169,058,395**	195,552,492
Collective investment funds	**77,681,961**	68,135,414
Fixed income:		
Collective investment funds	**87,600,768**	78,928,469
Corporate bonds	**13,107,952**	13,078,927
Government-backed bonds	**3,632,191**	4,262,179
Mortgage-backed bonds	**2,781,122**	1,991,851
Hedge funds	**50,975,465**	49,102,436
Real estate investment trust	**46,454,643**	45,672,751
Limited partnership units	**19,114,182**	17,807,504
Money market funds	**7,637,199**	9,850,720
Total Investments	**478,043,878**	484,382,743
Cash and cash equivalents	**3,800,722**	4,096,393
Receivables:		
Unsettled investment sale transactions	**3,325,659**	462,835
Foreign withholding tax reclaims	**385,958**	457,927
Interest and dividends	**292,707**	323,949
Total Receivables	**4,004,324**	1,244,711
Capital assets, less accumulated depreciation	**392,762**	446,944
Total Assets	**486,241,686**	490,170,791
DEFERRED OUTFLOWS OF RESOURCES		
System's staff pension related	**56,933**	124,387
LIABILITIES		
Unsettled investment purchase transactions	**3,726,157**	634,146
Accrued investment management fees	**319,354**	386,687
Net pension liability - System's staff pension related	**222,861**	264,825
Members' contributions refundable	**24,528**	138,337
Accrued administrative expenses	**21,789**	15,477
Total Liabilities	**4,314,689**	1,439,472
DEFERRED INFLOWS OF RESOURCES		
System's staff pension related	**5,280**	7,493
NET POSITION - RESTRICTED FOR PENSIONS	**$ 481,978,650**	488,848,213

See notes to financial statements

STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION

	For The Years Ended September 30	
	2018	2017
ADDITIONS TO NET POSITION ATTRIBUTED TO		
Investment income:		
Net appreciation in fair value of investments	**$ 20,021,165**	55,974,952
Dividends	**4,474,310**	4,579,551
Interest	**2,047,212**	1,829,491
Class action lawsuit proceeds	**62,168**	568,459
Securities lending income	**189,245**	342,622
Total Investment Income	**26,794,100**	63,295,075
Less - Investment management and custodial fees	**2,024,352**	2,242,732
Net Investment Income	**24,769,748**	61,052,343
Employer contributions	**2,715,141**	3,313,603
Total Additions	**27,484,889**	64,365,946
DEDUCTIONS FROM NET POSITION ATTRIBUTED TO		
Benefits paid to retirees and beneficiaries	**32,654,972**	32,324,876
Administrative expenses	**1,050,387**	1,067,626
Refunds of Members' contributions	**649,093**	816,435
Total Deductions	**34,354,452**	34,208,937
CHANGE IN NET POSITION	**(6,869,563)**	30,157,009
NET POSITION - RESTRICTED FOR PENSIONS, BEGINNING OF YEAR	**488,848,213**	458,691,204
NET POSITION - RESTRICTED FOR PENSIONS, END OF YEAR	**$ 481,978,650**	488,848,213

See notes to financial statements

NOTE A - DESCRIPTION OF PLAN

The **FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS** (the System) administers a single employer defined benefit pension plan providing pension benefits to the City of St. Louis firemen (the Members). The System is frozen as of February 1, 2013. Active Members on February 1, 2013 are classified as "grandfathered" Members, and benefits paid to these Members are based on the Member's service and salary earned as of February 1, 2013. Membership in the System consists of:

	September 30		Increase
	2018	2017	**(Decrease)**
Currently receiving benefits**:**			
Retirees	**613**	631	(18)
Beneficiaries	**271**	293	(22)
Total Currently Receiving Benefits	**894**	924	(30)
Current Active Members:			
Vested - participating in DROP	**65**	59	6
Vested - non-DROP	**199**	187	12
Nonvested	**256**	283	(27)
Total Current Active Members	**520**	529	(9)
Total Membership	**1,414**	1,453	(39)

The System provides retirement benefits as well as death and disability benefits. Members can voluntarily retire after a minimum of 20 years of service (compulsory retirement at age 60 with 30 years of service). The monthly allowance consists of 40% of the final two-year average monthly compensation at 20 years of service, plus 2% of such final average compensation for each of the next five years of service, plus 5% of final average compensation for each additional year of service after 25 years with a maximum pension of 75%. Unused accrued sick pay accumulated before February 1, 2013 may increase the maximum pension beyond this limitation.

Covered Members contributed 8% of their salary through February 1, 2013 (date frozen). Upon leaving employment, the Member's contributions are refunded. In addition, terminated Members receive interest.

During the fiscal year ended August 31, 1994, the System, in accordance with Ordinance 62994 of the City of St. Louis (the City), initiated a Deferred Retirement Option Plan (DROP). The DROP option is available to Members of the System who have at least 20 years of creditable service and have achieved eligibility for retirement. Those Members who elect to participate will continue active employment, will have a service retirement allowance credited monthly in the DROP account of the Member, and the Member's contributions are 1% (previously reduced to 1% from the normal 8% through February 1, 2013). During participation in DROP, the Member will not receive credit for employer contributions or credit for service. A Member may participate in DROP only once for any period up to five years. At retirement the funds in the Member's DROP account plus: 1) interest and 2) accrued sick leave if elected is available to the Member in a lump sum or installments. The number of Members with DROP account balances and currently participating at September 30, 2018 and 2017 were as follows:

	Active Members		Retirees		DROP Account Balances	
	Currently Participating	**Previously Participated**	**With DROP Balance**	**Total DROP Accounts**	**Active Members**	**Retired Members**
2018	**65**	**62**	**92**	**219**	**$ 17,352,996**	**$ 17,954,353**
2017	59	59	96	214	15,436,331	17,810,165

NOTE B - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The significant accounting policies consistently applied by the System in the preparation of the accompanying financial statements are summarized as follows:

1. Reporting Entity

The System is a pension trust fund of the City. As such, the System is included in the City's Comprehensive Annual Financial Report as a Pension Trust Fund. The System and its Board of Trustees (Board) are not financially accountable for any other entities or other organizations. Accordingly, the System is the only entity included in this financial report.

2. Board Composition

The Board shall consist of eight (8) Trustees, three (3) of whom are elected by the active Members of the System, one (1) of whom is elected by the retired Members of the System, two (2) of whom are appointed by the Mayor of the City, and two (2) of whom are Trustees by virtue of offices (Fire Chief and the Comptroller of the City or the Comptroller's designee -- Deputy Comptroller or the First Assistant Comptroller).

3. Basis of Accounting

The financial statements were prepared using the accrual basis of accounting. Employer's contributions are recognized in the period in which the contributions are due. Benefits and refunds are recognized when due and payable in accordance with the System's benefit provisions. Expenses are recorded when the corresponding liabilities are incurred, regardless of when payment is made. Dividend income is recognized based on the ex-dividend date and interest income is recognized on the accrual basis as earned. Fair value changes are recorded as investment income or loss. Investment purchases and sales are recorded on a trade-date basis (the date upon which the transaction is initiated).

4. GASB 67 Financial Reporting Model

The System's financial statements are prepared in conformity with GASB 67's financial reporting requirements for governmental pension systems. GASB 67 includes required presentation of the financial statements, notes to financial statements, and RSI. An actuarial calculation of the total and net pension liability (excess assets) as defined in the accounting standard is included in the notes to the financial statements and RSI. Other comprehensive footnote disclosures include the sensitivity of the net pension liability (excess assets) to the discount rate and investment activity disclosures. The total employer's projected net pension liability (excess assets) is presented in the notes to financial statements and is calculated using a discount rate (long-term or blended) depending on the sufficiency of projected net position to cover projected benefit payments of retirees and beneficiaries.

NOTE B - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

5. Investment Valuation

Investments are reported at fair value. Short-term money market investments are reported at cost, which approximates fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. On September 30 or on the last reported bid price if no sale was made on that date, fixed-income securities are valued principally using quoted market prices provided by independent pricing services. For collective investments, fair value is determined and certified by the investment managers as of the reporting date. Hedge funds, limited partnership units, and real estate investment trust are measured at net asset value (NAV). Real estate investments are valued at estimated fair value as determined by the general partner, based upon appraisals provided by the investment manager. Hedge funds and limited partnership units investments are reported at estimated fair value as determined by the general partner of the investment vehicle.

6. Cash and Cash Equivalents

Cash on deposit with Commerce Bank N.A. is maintained for the System by the Treasurer of the City.

7. Operating Expenses

Benefits paid and administrative expenses are approved by the Board. Payments are processed by the Treasurer of the City.

8. Net Position - Restricted for Pensions

The System's net position - restricted for pensions consist of:

Member's Savings Fund -- Members contributed 8% of their compensation to the System through February 1, 2013 (date frozen). Such contributions are credited to the Member's Savings Fund. Interest, at a rate determined by the Board, is credited annually on the balance in each Member's account during the preceding year. Withdrawal refunds of Member's accumulated contributions are charged to this fund. Upon retirement or death in service of a Member with a surviving beneficiary, the Member's own contributions are refunded. Upon termination of employment or death in service with no survivor, the Member's contributions, including interest, are refunded. The balance at September 30, 2018 and 2017 was $83,356,133 and $80,059,314, respectively.

Benefit Reserve Fund -- Upon retirement or death, the Benefit Reserve Fund is payable to the Member or their beneficiaries. This amount is determined by the actuaries, in accordance with Ordinances 49623, 56444, 57603, 58242, 58651, 58652, and 59018. An amount is transferred from the General Reserve Fund which, when added to the amount transferred from Member's Savings Fund, brings the balance of the Benefit Reserve Fund to an amount equal

NOTE B - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

8. Net Position - Restricted for Pensions (Continued)

to the present value of future benefits. The balance at September 30, 2018 and 2017 was $316,139,758 and $325,427,379, respectively.

General Reserve Fund -- Contributions made by the City are credited to the General Reserve Fund. The present value of all future estimated benefits payable to active Members on death or retirement not provided by Member’s contributions are accumulated in this fund. The balance at September 30, 2018 and 2017 was $77,560,750 and $78,039,592, respectively.

Future Benefit Fund -- The Future Benefit Fund was established June 29, 1990 by City Ordinance as a method to fund increased benefits for retired Members. The funding of the Future Benefit Fund was terminated per the City Ordinance after fiscal year ended August 31, 1993. The balance in the fund will be used for future benefits until it is exhausted. Benefits of $493,945 and $309,336 were paid from the Future Benefit Fund during the years ended September 30, 2018 and 2017, respectively. The System entered into a settlement agreement with the City regarding sick leave benefits. The settlement required a one-time payment of $1,070,749 during the year ended September 30, 2015 and 15 annual transfers between the Future Benefit Fund and the General Reserve Fund of $166,792 starting with the year ended September 30, 2016 (see Note O). The Future Benefit Fund is excluded from the assets used in determining the employer’s contribution requirement. The balance at September 30, 2018 and 2017 was $4,825,954 and $5,236,926, respectively.

System Employees Benefit Fund -- On August 28, 1997, the Board approved a resolution to provide additional benefits for the administrative employees of the System in the form of severance pay and a limited retirement package. The severance pay applies to employees who are dismissed for any reason other than for just cause based on the wrongful conduct of the employee. The dismissed employee would be entitled to one month’s pay for each year or part of year that the employee has been employed by the System. The retirement package is for employees who have completed five years of service. Upon completing five years of service, the employee will have five months of salary credited to him or her. Thereafter the employee will be credited with a month of salary upon completion of each additional year of service. Employees accrued additional benefits of $11,053 and $14,020 for the years ended September 30, 2018 and 2017, respectively. The employees must make a one-time election as to how their accounts will be credited each anniversary date with interest on the account. There were no benefits paid from the System Employees Benefit Fund during the years ended September 30, 2018 and 2017. The System Employees Benefit Fund is excluded from the assets used in determining the employer’s contribution requirement. The balance at September 30, 2018 and 2017 was $96,055 and $85,002, respectively.

The severance pay benefit program provided to administrative employees of the System was frozen to the current and future System’s employees effective September 30, 2014. Future interest accrual or losses on employees’ vested accounts is limited to one identified employee of the System.

NOTE B - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

9. Use of Estimates

The preparation of the System's financial statements in conformity with accounting principles generally accepted in the United States of America requires management and the System's actuary to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of additions to and deductions from net position during the reporting period. Actual results could differ from those estimates.

10. Capital Assets

Expenditures for property and equipment exceeding $1,000 are capitalized and depreciated over the estimated useful lives of the capital assets on the straight-line method as follows:

Asset	**Years**
Building	40
Building improvements	10 - 15
Furniture, equipment, and software	5 - 10

Expenditures for repairs and maintenance are expensed as incurred. Gains and losses on disposition of property and equipment are included in changes in fiduciary net position as realized.

Capital assets, net of accumulated depreciation, is summarized by major classification as follows:

	For The Year Ended September 30, 2018			
	Balance September 30 2017	**Increases**	**Decreases**	**Balance September 30 2018**
Capital assets not being depreciated:				
Land	$ 83,086	-	-	**83,086**
Capital assets being depreciated:				
Building	205,417	-	-	**205,417**
Building improvements	232,702	-	-	**232,702**
Furniture, equipment, and software	505,441	-	225	**505,216**
Total Capital Assets Being Depreciated	943,560	-	225	**943,335**
Less - Accumulated depreciation for:				
Building	83,023	5,135	-	**88,158**
Building improvements	162,967	5,585	-	**168,552**
Furniture, equipment, and software	333,712	43,413	176	**376,949**
Total Accumulated Depreciation	579,702	54,133	176	**633,659**
Total Capital Assets Being Depreciated, Net	363,858	(54,133)	49	**309,676**
Total Capital Assets, Net	$ 446,944	(54,133)	49	**392,762**

NOTE B - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

10. Capital Assets (Continued)

Depreciation expense for the years ended September 30, 2018 and 2017 was $54,133 and $56,819, respectively.

11. Staff Pension Plan

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pension, and pension expense, information about the fiduciary net position of the Employees Retirement System of the City of St. Louis (ERS), a cost-sharing, multi-employer defined benefit plan and additions to/deductions from ERS' fiduciary net position have been determined on the same basis as they are reported by ERS. For this purpose, contributions from employers and net pension liability are recognized on an accrual basis of accounting.

12. Deferred Outflows/Inflows of Resources

In addition to assets, the statements of fiduciary net position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element represents a consumption of net position that applies to a future period(s) and so will not be recognized as an outflow of resources (expense/expenditure) until then.

In addition to liabilities, the statements of fiduciary net position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element represents an acquisition of net position that applies to a future period(s) and so will not be recognized as an inflow of resources (revenue) until that time.

The System currently has deferred inflows and outflows from GASB 68 pension elements from the System's staff participation in ERS which is reported on the statement of fiduciary net position.

NOTE C - CASH AND CASH EQUIVALENTS

The System's bank deposits are required by state law to be secured by the deposit of certain securities specified by RSMo 30.270. The collateralized securities are held by a trustee institution. The value of the securities must amount to the total of the System's cash not insured by the Federal Deposit Insurance Corporation (FDIC). The System's bank deposits as of September 30, 2018 and 2017 were $3,837,923 and $4,114,816, respectively. Both years' balances were insured by the FDIC or collateralized with securities held by the pledging financial institution's trust department in the System's name. The System's carrying amount of bank deposits was $3,800,722 and $4,096,393 as of September 30, 2018 and 2017, respectively.

NOTE D - CONTRIBUTION RECEIVABLE - EMPLOYER

Employer contributions are calculated by the System's actuary (Gabriel, Roeder, Smith & Company). The employer contributions due to the System for the years ended September 30, 2018 and 2017 were $2,715,141 and $3,313,603, respectively.

Contribution receivable - employer consists of the following:

	September 30 2018	2017
Contributions receivable, beginning of year	$ -	-
Current year contributions due from the employer as calculated by the System's actuary	**2,715,141**	3,313,603
Contributions received from the employer during the year	**(2,715,141)**	(3,313,603)
Total Contributions Receivable, End Of Year	$ -	-

NOTE E - INVESTMENTS

Investments of the System are managed by various investment managers hired by the Board to invest according to investment policy guidelines established by the Board. The fair value of investments managed consisted of the following:

	September 30 2018	2017
Acadian Asset Management, LLC (international small cap):		
Collective investment fund - equity	$ **25,810,916**	33,699,340
AJO, LP (emerging markets):		
Collective investment fund - emerging markets strategy	**32,418,201**	34,436,074
Argent Capital Management, LLC (U.S. large cap growth index)		
Corporate stocks	**31,164,950**	31,331,592
Money market fund	**607,725**	784,924
	31,772,675	32,116,516
The Commerce Trust Company (core plus domestic fixed income):		
Corporate bonds - active core, primarily domestic	**13,107,952**	13,078,927
Government-backed bonds	**3,632,191**	4,262,179
Mortgage-backed bonds	**2,781,122**	1,991,851
Money market fund	**413,000**	918,138
	19,934,265	20,251,095
Eagle Capital Management, LLC (large cap value):		
Corporate stocks	**27,237,907**	25,242,464
Money market fund	**351,519**	384,100
	27,589,426	25,626,564

NOTE E - INVESTMENTS (Continued)

	September 30 2018	2017
EnTrust Partners Offshore, LLC (multi-strategy hedge fund):		
Hedge fund	**22,452,730**	22,266,123
Fisher Investments, Inc. (international small cap value):		
Corporate stocks	**56,671,499**	68,178,572
Money market fund	**471,178**	405,220
	57,142,677	68,583,792
Intech Investment Management, LLC (large cap enhanced plus):		
Corporate stocks	**27,823,513**	31,177,169
Money market fund	**127,977**	126,658
	27,951,490	31,303,827
Integrity Asset Management, LLC (small cap):		
Collective investment fund - small/mid-cap value	**19,452,844**	-
Money market fund	**3,357**	428,790
Corporate stocks	**-**	17,336,732
	19,456,201	17,765,522
MacKay Shields Collective Investment Trust (fixed income):		
Collective investment fund - foreign aggregate	**42,462,352**	37,864,574
Money market fund	**504**	-
	42,462,856	37,864,574
Magnitude Institutional, LLC (multi-strategy hedge fund):		
Hedge fund	**28,522,735**	26,836,313
The Northern Trust Company (index bonds and TIPS fund):		
Collective investment fund - fixed income	**5,276,231**	5,295,900
Money market fund	**4,674,105**	5,999,087
	9,950,336	11,294,987
Pinnacle Associates, Ltd. (small/mid cap growth):		
Corporate stocks	**22,293,847**	20,202,251
Money market fund	**681,186**	457,786
	22,975,033	20,660,037
Principal Financial Group (core real estate):		
Real estate investment trust	**46,454,643**	45,672,751

NOTE E - INVESTMENTS (Continued)

	September 30	
	2018	2017
Prudential Trust Company (fixed income):		
Collective investment fund - domestic aggregate	**39,862,185**	35,767,995
Money market (overdraft)	**402**	(454)
	39,862,587	35,767,541
Tortoise Capital Advisors, LLC (master limited partnerships):		
Limited partnership units - energy	**19,114,182**	17,807,504
Corporate stocks - energy	**3,866,679**	2,083,712
Money market fund	**306,246**	346,471
	23,287,107	20,237,687
Total Investments	**$ 478,043,878**	484,382,743

Money market funds are invested in Northern Trust's Collective Government Short-term Investment Fund.

The System's investments are continuously exposed to various types of inherent risks. These risks are mitigated by the System's development and continual monitoring of sound investment policies. The maturities, credit rating by investment, and foreign currency exposures by asset class schedules are presented as follows to provide an illustration of the System's current level of exposure to various risks.

The System categorizes its fair value measurements within the fair value hierarchy established by accounting principles generally accepted in the United States of America. The hierarchy is based on the valuation inputs used to measure the fair value of the asset and give the highest priority to unadjusted quoted prices in active markets for identical assets (level 1 measurements) and the lowest priority to unobservable inputs (level 3 measurements).

The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; and Level 3 inputs are significant unobservable inputs. Fair value is defined as the quoted market value on the last trading day of the period. These prices are obtained from various pricing sources by the System's custodian bank. Debt and equity securities held in Collective Trust Funds are held in those funds on behalf of the System and there is no restriction on the use and or liquidation of those assets.

The remaining investments not categorized under the fair value hierarchy are shown at net asset value (NAV). NAV is used as a practical expedient to estimate the fair value of the System's interest therein, unless it is probable that all or a portion of the investment will be sold for an amount different from NAV. As of September 30, 2018, the System had no specific plans or intentions to sell investments at amounts different from NAV.

The categorization of investments within the hierarchy is based upon the pricing transparency of the instrument and should not be perceived as an indication of the risk associated with investing in these securities.

NOTE E - INVESTMENTS (Continued)

For the investments measured at net asset value (NAV) at September 30, 2018 and 2017:

- There were no unfunded purchase commitments.
- Redemption frequency, when currently eligible, is quarterly.
- Notice period for redemptions is 1 to 90 days.

The System has the following recurring fair value measurements as follows:

	September 30, 2018			
	Level 1	**Level 2**	**Level 3**	**Total**
Investments, at fair value:				
Corporate stocks:				
Domestic	**$ 110,460,302**	**-**	**-**	**110,460,302**
International	**58,598,093**	**-**	**-**	**58,598,093**
Collective investment funds - government bonds, agencies, and mortgaged-backed securities	**-**	**5,276,232**	**-**	**5,276,232**
Corporate bonds:				
Domestic	**-**	**13,107,952**	**-**	**13,107,952**
Collective investment funds - international equity	**58,229,116**	**-**	**-**	**58,229,116**
Collective investment funds - domestic equity	**19,452,845**			**19,452,845**
Collective investment funds - domestic fixed income	**-**	**82,324,536**	**-**	**82,324,536**
Government-backed bonds	**-**	**3,632,191**	**-**	**3,632,191**
Mortgage-backed bonds	**-**	**2,781,122**	**-**	**2,781,122**
Money market funds	**7,637,199**	**-**	**-**	**7,637,199**
Total Investments By Fair Value Level	**$ 254,377,555**	**107,122,033**	**-**	**361,499,588**
Investments measured at NAV:				
Hedge funds				**50,975,465**
Real estate investment trust				**46,454,643**
Limited partnership units - energy				**19,114,182**
Total Investments Measured At NAV				**116,544,290**
Total Investments Measured At Fair Value				**$ 478,043,878**

NOTE E - INVESTMENTS (Continued)

	September 30, 2017			
	Level 1	Level 2	Level 3	Total
Investments, at fair value:				
Corporate stocks:				
Domestic	$ 125,695,862	-	-	125,695,862
International	69,856,630	-	-	69,856,630
Collective investment funds - government bonds, agencies, and mortgaged-backed securities	-	5,295,902	-	5,295,902
Corporate bonds:				
Domestic	-	13,078,927	-	13,078,927
Collective investment funds - international equity	68,135,414	-	-	68,135,414
Collective investment funds - domestic fixed income	-	73,632,567	-	73,632,567
Government-backed bonds		4,262,179		4,262,179
Mortgage-backed bonds		1,991,851		1,991,851
Money market funds	9,850,720	-	-	9,850,720
Total Investments By Fair Value Level	$ 273,538,626	98,261,426	-	371,800,052
Investments measured at NAV:				
Hedge funds				49,102,436
Real estate investment trust				45,672,751
Limited partnership units - energy				17,807,504
Total Investments Measured At NAV				112,582,691
Total Investments Measured At Fair Value				$ 484,382,743

The following schedule provides a summary of the fixed income investment maturities by investment category, which helps demonstrate the current level of interest rate risk assumed by the System:

	Maturities As Of September 30, 2018				
Fixed Income Investment Category	**Total**	**Less Than One Year**	**1 - 5 Years**	**6 - 10 Years**	**More Than 10 Years**
Collective investment funds	**$ 87,600,768**	**3,177,640**	**27,010,229**	**35,906,903**	**21,505,996**
Corporate bonds	**13,107,952**	**711,608**	**6,262,979**	**3,173,420**	**2,959,945**
Government-backed	**3,632,191**	**247,387**	**2,215,184**	**872,597**	**297,023**
Mortgage-backed	**2,781,122**	**-**	**-**	**-**	**2,781,122**
Total	**$ 107,122,033**	**4,136,635**	**35,488,392**	**39,952,920**	**27,544,086**

NOTE E - INVESTMENTS (Continued)

Fixed Income Investment Category	Total	Maturities As Of September 30, 2017 Less Than One Year	1 - 5 Years	6 - 10 Years	More Than 10 Years
Collective investment funds	$ 78,928,469	4,554,306	15,854,678	31,327,497	27,191,988
Corporate bonds	13,078,927	-	6,974,574	3,844,165	2,260,188
Government-backed	4,262,179	-	2,828,394	1,116,383	317,402
Mortgage-backed	1,991,851	-	-	-	1,991,851
Total	$ 98,261,426	4,554,306	25,657,646	36,288,045	31,761,429

Certain collective investment funds are classified by average maturities of the portfolios.

The System's fixed income investments current level of exposure to credit risk, or the risk that an issuer or other counterparty to an investment will not fulfill its obligations, is demonstrated by the following table:

Credit Rating Level	**Total**	**Credit Rating As Of September 30, 2018** **Collective Investment Funds**	**Corporate Bonds**	**Government-Backed**	**Mortgage-Backed**
AAA	**$ 41,889,061**	**38,856,644**	**-**	**3,032,417**	**-**
AA	**7,964,629**	**3,409,228**	**1,174,505**	**599,774**	**2,781,122**
A	**17,566,877**	**8,937,580**	**8,629,297**	**-**	**-**
BBB	**27,272,934**	**24,163,022**	**3,109,912**	**-**	**-**
BB	**5,657,872**	**5,657,872**	**-**	**-**	**-**
B	**4,931,672**	**4,931,672**	**-**	**-**	**-**
Not rated	**1,838,988**	**1,644,750**	**194,238**	**-**	**-**
Total	**$ 107,122,033**	**87,600,768**	**13,107,952**	**3,632,191**	**2,781,122**

Credit Rating Level	Total	Credit Rating As Of September 30, 2017 Collective Investment Funds	Corporate Bonds	Government-Backed	Mortgage-Backed
AAA	$ 35,189,280	32,451,358	-	2,737,922	-
AA	7,382,879	2,191,065	1,675,706	1,524,257	1,991,851
A	17,873,617	9,267,718	8,605,899	-	-
BBB	24,853,455	22,456,763	2,396,692	-	-
BB	7,027,528	7,027,528	-	-	-
B	4,697,930	4,697,930	-	-	-
Not rated	1,236,737	836,107	400,630	-	-
Total	$ 98,261,426	78,928,469	13,078,927	4,262,179	1,991,851

NOTE E - INVESTMENTS (Continued)

Certain collective investment funds are classified by average credit rating levels of the portfolios.

Foreign Currency Risk is the risk that changes in exchange rates will adversely impact the fair value of an investment. The System's policy is to allow the individual investment managers to decide what action to take regarding their respective portfolio's foreign currency exposure. The following table demonstrates the System's current level of foreign currency exposure:

Foreign Currency Exposures By Asset Class In U.S. Dollars As Of September 30, 2018

Currency	Equities	Fixed Income	Real Estate Investment Trust	Hedge Funds	Limited Partnership Units	Money Market Funds	Total
Australian Dollar	$ 2,683,140	-	-	-	-	-	2,683,140
British Pound Sterling	8,299,079	-	-	-	-	-	8,299,079
Canadian Dollar	629,805	-	-	-	-	-	629,805
Danish Krone	1,245,848	-	-	-	-	-	1,245,848
Euro	25,279,319	-	-	-	-	-	25,279,319
Hong Kong Dollar	2,275,263	-	-	-	-	-	2,275,263
Japanese Yen	7,127,926	-	-	-	-	-	7,127,926
Norwegian Krone	991,946	-	-	-	-	-	991,946
South Korean Won	1,643,599	-	-	-	-	-	1,643,599
Swedish Krona	435,325	-	-	-	-	-	435,325
Swiss Franc	2,112,221	-	-	-	-	-	2,112,221
Total Foreign Currency	52,723,471	-	-	-	-	-	52,723,471
United States Dollar	161,598,684	107,122,033	46,454,643	83,393,666	19,114,182	7,637,199	425,320,407
Total	$ 214,322,155	107,122,033	46,454,643	83,393,666	19,114,182	7,637,199	478,043,878

Foreign Currency Exposures By Asset Class In U.S. Dollars As Of September 30, 2017

Currency	Equities	Fixed Income	Real Estate Investment Trust	Hedge Fund	Limited Partnership Units	Money Market Funds	Total
Australian Dollar	$ 2,158,968	-	-	-	-	-	2,158,968
British Pound Sterling	8,602,768	-	-	-	-	-	8,602,768
Canadian Dollar	650,597	-	-	-	-	-	650,597
Danish Krone	1,728,593	-	-	-	-	-	1,728,593
Euro	32,767,072	-	-	-	-	-	32,767,072
Hong Kong Dollar	2,614,690	-	-	-	-	-	2,614,690
Japanese Yen	8,238,398	-	-	-	-	-	8,238,398
Singapore Dollar	-	-	-	-	-	-	-
South Korean Won	2,283,389	-	-	-	-	-	2,283,389
Swedish Krona	347,121	-	-	-	-	-	347,121
Swiss Franc	4,790,084	-	-	-	-	-	4,790,084
Total Foreign Currency	64,181,680	-	-	-	-	-	64,181,680
United States Dollar	165,070,152	98,261,426	45,672,751	83,538,510	17,807,504	9,850,720	420,201,063
Total	$ 229,251,832	98,261,426	45,672,751	83,538,510	17,807,504	9,850,720	484,382,743

NOTE E - INVESTMENTS (Continued)

Investments Policies

Custodial Credit Risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The System's minimum credit quality for each issue shall be "BBB" (or its equivalent) at the time of purchase. In the event of a split-rating, the higher rating shall apply. The fixed income portfolio should have an average quality rating of at least "A" (or its equivalent). Commercial paper issues must be rated at least "A1" (or its equivalent) at the time of purchase. In the event of a split-rating, the higher rating shall apply. In the event of a downgrade below investment grade by any rating agency, the investment manager is required to notify the Board and investment consultant as soon as possible and to refrain from any further investment in the downgraded issue.

Interest Rate Risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Investments held for longer periods are subject to increased risk of adverse interest rate changes. The effective duration of any fixed income portfolio shall not exceed 120% of the effective duration of the investment manager's broad market benchmark.

Concentration of Credit Risk is the risk of loss attributed to the magnitude of the System's investment in a single issuer. The System's policy does not allow the concentration per issuer to exceed 5% of the portfolio's fair value at cost, with the exception of cash, cash equivalents, U.S. Treasury, or U.S. Agency securities. Furthermore, the investment manager may not hold more than 5% of the outstanding shares of any single issuer with the exception of U.S. Treasuries or Agencies. Investment in any single fund of hedge funds shall not exceed 10% of the fund's fair value.

It is the System's current policy to invest in each asset class ranging between a minimum and maximum of total System's investments as shown below:

	Asset Class As A Percent Of Total Assets		
Asset Class	**Minimum**	**Target Mix**	**Maximum**
Domestic equity:			
Large cap	13%	18	23
Small mid cap	3	8	13
International equities	19	24	29
Fixed income	20	25	30
Real estate trust	10	15	20
Hedge funds	5	10	15

Long-term Expected Rate of Return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the System's target asset allocation as of September 30, 2018 are summarized in the following table:

NOTE E - INVESTMENTS (Continued)

Asset Class	Long-term Expected Real Rate Of Return
Domestic equity	4.3%
International equity	4.7
Fixed income	(1.3)
Real estate (REIT)	4.8
Nondirectional hedge fund of funds	2.2
Private equity (partnerships)	9.4
Money market	-

The above long-term expected real rates of return represent best estimates of mathematical rates of return for each major asset class included. These rates of return are shown net of inflation (assumed at 2.75%) and net of investment expenses (assumed at 0.5%).

Liquidity Risk is the risk that redemption notice periods are required and longer periods may be imposed before payment of redemption proceeds are settled for the following investments:

AJO, LP (Hedge Fund)
EnTrust Capital Diversified Fund QP, Ltd. (Hedge Fund)
Magnitude Institutional, LLC Class A (Hedge Fund)
The Principal U.S. Property Account (REIT)

NOTE F - INVESTMENTS GREATER THAN 5% OF NET POSITION - RESTRICTED FOR PENSIONS

Investments which exceed 5% or more of net position - restricted for pensions are as follows:

	September 30	
	2018	2017
The Principal U.S. Property Account (REIT)	**$ 46,454,643**	45,672,751
Mackay Shields Core Plus Opportunities Portfolio	**42,462,352**	37,864,574
Prudential Core Plus Bond Fund	**39,862,184**	35,767,995
AJO Emerging Markets All-Cap Offshore Fund, Ltd.	**32,418,201**	34,436,073
Magnitude Institutional, LLC Class A Hedge Fund	**28,522,735**	26,836,313
Acadian International Small Cap Fund	**25,810,916**	33,699,340

NOTE G - NET APPRECIATION (DEPRECIATION) IN FAIR VALUE OF INVESTMENTS

The net appreciation (depreciation) in fair value of investments consists of:

	For The Years Ended September 30	
	2018	2017
Equities:		
Corporate stocks	**$ 15,603,808**	37,654,361
Collective investment funds	**10,772,253**	15,365,853
Fixed income:		
Collective investment funds	**(1,572,541)**	962,074
Corporate bonds	**(545,393)**	1,440,309
Government-backed bonds	**(135,085)**	8,044
Mortgage-backed bonds	**(94,440)**	(8,431)
Hedge funds	**(6,937,467)**	(2,071,633)
Real estate investment trust	**3,981,892**	3,693,637
Limited partnership units	**(1,051,862)**	(1,069,262)
Total	**$ 20,021,165**	55,974,952

NOTE H - ACTUARIALLY DETERMINED CONTRIBUTIONS BASED ON STATUTORY REQUIRED CONTRIBUTIONS

The actuarial funding method utilized by the System as required by Missouri State Statutes is the entry age frozen liability method. Under this method, any frozen unfunded actuarial accrued liability is amortized over 30 years from the date the liability is added.

Actuarially determined contributions in accordance with this method are as shown in the following table:

	For The Years Ended September 30		Covered Payroll Percentage	
	2018	2017	**2018**	2017
Required contributions - employer:				
Portion of normal cost attributable to the System's fiscal year	**$ -**	149,616	**- %**	0.5
Unfunded actuarial accrued liability amortization payment	**2,715,141**	2,715,140	**9.1**	8.7
Total Employer Required Contributions	**$ 2,715,141**	2,864,756	**9.1 %**	9.2
Contributions Made By Employer During System's Fiscal Year	**$ 2,715,141**	3,313,603	**9.1 %**	10.7

This amount is developed by using one quarter of the current year's statutory annual required contribution and three quarters of the prior year's statutory annual required contribution because the City's fiscal year ends on June 30 each year.

NOTE H - ACTUARIALLY DETERMINED CONTRIBUTIONS BASED ON STATUTORY REQUIRED CONTRIBUTIONS (Continued)

Covered payroll is the payroll on which contributions to the System are based. The covered payroll was $29,796,947 and $31,079,373 for the years ended September 30, 2018 and 2017, respectively.

The reduction in unfunded accrued liability (UAL) for the System due to plan and assumption changes attributable to BB 109 on October 1, 2013, was greater than the remaining frozen initial liability (FIL). Consequently, the FIL for the System was set equal to zero at that date. A new FIL was added at September 30, 2015 resulting from actuarial assumption changes (mortality and discount rate) as a result of an actuarial cost study performed. The FIL was $32,545,598 and $32,953,962 at September 30, 2018 and 2017, respectively. The FIL amortization period is 30 years. As of October 1, 2018 the present value of future benefits was less than the actuarial value of assets, therefore, the September 30, 2019 contributions was set at zero.

NOTE I - NET PENSION LIABILITY (EXCESS ASSETS) - ENTRY AGE NORMAL ACTUARIAL COST METHOD

The components of the employer's net pension liability (excess assets) (the System's liability determined in accordance with GASB 67 less the fiduciary net position) as of September 30, 2018 and 2017, are shown in the schedules of employer's net pension liability (excess assets) below.

Actuarial valuation of an ongoing plan involves estimates of the reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment mortality and future salary increases. Amounts determined regarding the net pension liability (excess assets) are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The schedule of changes in employer's net pension liability (excess assets) presents multi-year trend information about whether the System's fiduciary net positions are increasing or decreasing over time relative to the total pension liability. These schedules are presented in the RSI. The total pension liability as of September 30, 2018 and 2017, are based on an actuarial valuation performed as of October 1, 2018 and 2017, and a measurement date of September 30, 2018 and 2017, using generally accepted actuarial procedures.

Schedules of Net Pension Liability (Excess Assets)

	September 30	
	2018	2017
Total pension liability	**$ 459,237,398**	464,759,662
System's fiduciary net pension	**477,152,696**	483,611,287
Net Pension Liability (Excess Assets)	**($ 17,915,298)**	(18,851,625)
System's Fiduciary Net Position as a Percentage of Total Pension Liability (Excess Assets)	**103.90%**	104.06
Covered Members Payroll (excluding DROP participants)	**$ 29,796,947**	31,079,373
Net Pension Liability (Excess Assets) as a Percentage of Covered Members Payroll	**(60.12%)**	(60.66%)

NOTE I - NET PENSION LIABILITY (EXCESS ASSETS) - ENTRY AGE NORMAL ACTUARIAL COST METHOD (Continued)

The System's fiduciary net position shown in the previous schedules of employer's net pension liability (excess assets) excludes the Future Benefit Fund restricted for SHARE program benefits. The Future Benefit Fund was $4,825,954 and $5,236,926 at September 30, 2018 and 2017, respectively.

The System is closed to new Members, and benefits have been frozen as of February 1, 2013. The actuarial accrued liability is now equal to the present value of frozen accrued benefits and DROP balances as of the measurement date.

Sensitivity of the net pension liability (excess assets) to changes in the discount rate: the following presents the net pension liability (excess assets), calculated using the discount rate of 7.3%, as well as what the net pension liability (excess assets) would be if it were calculated using a discount rate that is 1% point lower (6.3%) or 1% point higher (8.3%) than the current rate.

	1% Decrease	Current Discount Rate Assumption	1% Increase
Total pension liability	$ 500,995,887	459,237,398	423,625,187
Net pension liability (excess assets)	23,843,191	(17,915,298)	(53,527,509)
System's fiduciary net pension/ total pension liability	95.24%	103.90	112.64

Discount Rate Used to Calculate the Present Value of Future Benefit Payments

A single discount rate was used to measure the total pension liability. This single discount rate was based on the expected rate of return on the System's investments of 7.3% (before administrative expenses assumption of 0.3%). This single discount rate is net of investment expenses (investment management and custodial fees) assumed to be 50 basis points. The projection of cash flows used to determine this single discount rate assumed that the City would make the required contributions as defined by Missouri State Statutes. Based on these assumptions, the System's fiduciary net position was projected to be available to make all projected future benefit payments of current Members and their beneficiaries. Therefore, the long-term expected rate of return on the System's investments was applied to all periods of projected benefit payments to determine the total pension liability.

Methods and Assumptions used in Calculations of Actuarially Determined Pension Liability

Method:	
Valuation date	October 1, 2018
Actuarial cost method (funding by State Statutes)	Entry Age - Frozen Initial Liability
Actuarial cost method (GASB 67 reporting)	Entry Age Normal
Amortization method/period	30-year closed period from establishment
Remaining amortization period	Various
Asset valuation method	3-year smoothed market

NOTE I - NET PENSION LIABILITY (EXCESS ASSETS) - ENTRY AGE NORMAL ACTUARIAL COST METHOD (Continued)

Actuarial assumptions:

Investment rate of return	7.3%, net of investment expenses of 50 basis points
Long-term municipal bond rate	3.83%
Rate of payroll growth	3% to 4% based on service. Benefits have been frozen as of February 1, 2013; therefore, no salary increases have been assumed for purposes of determining benefits
Consumer price inflation	2.75%
Mortality	Post-retirement ordinary - RP-2014 Healthy Annuitant Mortality Table, sex distinct Pre-retirement - RP-2014 Employee Mortality Tables, sex distinct Post-disability - assumed to be 20% higher than post-retirement mortality rates

Cost-of-living adjustments (COLA):

Under Age 60

Service Years	COLA
20 - 24	1.50%
25 - 29	2.25%
30 or more	3.00%

Over Age 60

5% with a maximum of 25% in increases after age 60

NOTE J - SECURITIES LENDING

The System participated in The Northern Trust Company's (NTC) securities lending program in order to enhance the investment yield. In a securities lending transaction, the System transfers possession--but not title--of the security to the borrower. Borrowers shall be rated AA, A, or higher by Moodys or Standard and Poors. Collateral consisting of cash, letter of credit, U.S. government or agency securities, or floating rate notes of U.S. issuers is received and held by NTC. The collateral maintained is at least 102% of loan value for domestic securities and 105% of loan value for international securities of the fair value of the securities lent. The System maintains all the rights in the collateral of a secured lender under the Uniform Commercial Code. The System continues to earn income on the loaned security. In addition, the System receives 70% of the net lending fees generated by each loan of securities.

NTC receives the remaining 30% of the net lending fees as compensation for its services provided in the securities lending program. NTC indemnifies operational risk and counter party risk. The System authorizes the lending and loans of the following: domestic securities, U.S. Treasuries, corporate bonds, and equities. The System does not have the ability to pledge or sell collateral securities without borrower default. Therefore, for accounting purposes, the statements of fiduciary net position and changes in fiduciary net position do not reflect an increase in assets or liabilities associated with securities lent.

NOTE J - SECURITIES LENDING (Continued)

At September 30, 2018 and 2017, outstanding loans to borrowers were $24,338,066 and $44,863,552, respectively. The System earned income of $189,245 and $342,622 for its participation in the securities lending program for the years ended September 30, 2018 and 2017, respectively.

NOTE K - SYSTEM STAFF PENSION PLAN

General Information about the Pension Plan

Plan Description

All full-time staff at the System are provided with pension benefits through the ERS.

Benefits Provided

Upon retirement at age 65, or at any age plus years if credited service equals or exceeds 85 (Rule of 85), employees receive monthly payments for life of yearly benefits equal to years of credited service multiplied by 1.3% of average final compensation plus 2.05% of average final compensation in excess of employee's benefit compensation in excess of the current Social Security wage base. Early retirement can occur at age 60 with at least five years of service. This early service retirement allowance is reduced by 4% for each year prior to age 65 or at the age at which the Rule of 85 would have been satisfied had the employee continued working until that age, if earlier.

Disability retirement is available if an employee has 5 years of creditable service and is totally disabled as determined by the Medical Board. The disability pension is computed in the same manner as normal service retirement.

In lieu of the benefit paid over the lifetime of the employee, reduced benefit options are available for survivor and beneficiary payments.

Employees are eligible, after accumulation of 5 years of credited service, for disability benefits prior to eligibility of normal retirement. Survivor benefits are available for beneficiaries of employees who die after at least 5 years of service.

The Deferred Retirement Option Plan (DROP) allows employees who have reached retirement eligibility to begin receiving a pension benefit while continuing to work. The benefit is paid to an employee's DROP account where it earns interest. No creditable service is earned during DROP participation. An employee can participate in DROP for a maximum of 5 years and can immediately retire or continue to work and resume earning creditable service.

Contributions

ERS does not require employee contributions.

NOTE K - SYSTEM STAFF PENSION PLAN (Continued)

The System was contractually required to contribute a percentage of annual payroll as follows:

Service Period	Contribution Rate
July 2018 to present	12.36%
July 2017 to June 2018	12.22
July 2016 to June 2017	12.51

The amount is actuarially determined and is expected to finance the costs of benefits earned by employees during the year along with any additional amount to finance the unfunded accrued liability. Contributions to ERS from the System were $44,431 and $43,867 for the years ended September 30, 2018 and 2017, respectively.

Net Pension Expense

Net pension expense is the sum of changes in the net pension liability and deferred inflows and outflows of resources. The System's net pension expense was calculated as follows:

	For The Years Ended September 30	
	2018	2017
System's employer contributions	**$ 44,431**	43,867
Increase (decrease) in net pension liability	**(41,964)**	9,886
Decrease in deferred inflows of resources	**(2,213)**	(407)
Decrease in deferred outflows of resources	**67,454**	24,832
Net Pension Expense	**$ 67,708**	78,178

Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

The net pension liability was measured as of the beginning of the Systems fiscal years September 30, 2017 and 2016, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. The System had a liability of $222,861 (or 0.13%) and $264,825 (or 0.13%) for its proportionate share of ERS' net pension liability for the years ended September 30, 2018 and 2017, respecttively. The System's proportion of the net pension liability was based on a projection of the System's long-term share of contributions to ERS relative to the projected contributions of all participating employers, actuarially determined.

The actuarially determined deferred outflows of resources and deferred inflows of resources related to ERS were from the following sources:

NOTE K - SYSTEM STAFF PENSION PLAN (Continued)

	For The Year Ended September 30, 2018		
	Outflows	**Inflows**	**Net Outflows**
Net difference between expected and actual experience	$ -	(5,280)	(5,280)
Net difference between projected and actual earnings on ERS' investments	2,425	-	2,425
Net impact from changes in proportion allocation between the participating employers	10,077	-	10,077
Fiscal year 2018 paid contributions	44,431	-	44,431
Total	$ 56,933	(5,280)	51,653

		For The Years Ending September 30			
	Total	**2018**	**2019**	**2020**	**2021**
Deferred outflows (inflows) future recognition	$ 51,653	59,221	11,301	(11,095)	(7,774)

	For The Year Ended September 30, 2017		
	Outflows	Inflows	Net Outflows
Net difference between expected and actual experience	$ -	(5,338)	(5,338)
Net difference from assumtpion changes	-	(2,155)	(2,155)
Net difference between projected and actual earnings on ERS' investments	49,745	-	49,745
Net impact from changes in proportion allocation between the participating employers	30,776	-	30,776
Fiscal year 2017 paid contributions	43,866	-	43,866
Total	$ 124,387	(7,493)	116,894

		For The Years Ending September 30			
	Total	2018	2019	2020	2021
Deferred outflows (inflows) future recognition	$ 116,894	77,298	23,213	19,661	(3,278)

NOTE K - SYSTEM STAFF PENSION PLAN (Continued)

Actuarial Methods and Assumptions used in Calculations of Actuarially Determined Pension Liability

Valuation date:

Actuarially determined contributions are calculated as of October 1, 2017 and 2016 (beginning of year) valuation date used to calculate the required contribution for the fiscal years ending September 30, 2018 and 2017.

Actuarial methods:	
Actuarial cost method (Funding)	Projected Unit Credit Cost Method
Actuarial cost method (GASB 68)	Entry Age Normal
Amortization method - 2017 and 2018	Fixed 20 year period as of October 1, 2015 as a level percentage of payroll. Future gains and losses and changes in actuarial assumptions will be amortized in layers over 20 year periods.
Amortization method - 2016	Rolling 30-year level dollar amortization of unfunded liability
Asset valuation method	5-year smoothing
Actuarial assumptions:	
Inflation	2.5%
Salary increases - 2017 and 2018	3% plus merit component based on employee's year of service
Salary increases - 2016	3.5% plus merit component based on employee's years of service
Investment rate of return	2017 and 2016 - 7.5%, net of pension plan investment expenses
Mortality rates - ordinary - 2018, 2017, and 2016	RP-2000 healthy mortality 3 year set-forward with generational projections using scale A
Mortality rates - disability - 2018, 2017, and 2016	RP-2000 disabled mortality 3 year set-forward with generational projections using scale AA

Discount Rate

The discount rate used to measure the total pension liability was 7.5%. The projection of cash flows used to determine the discount rate assumed that contributions will continue to follow the current funding policy. Based on those assumptions, the ERS' fiduciary net position was projected to be sufficient to make all projected future benefits payments of current plan employees and their beneficiaries.

Sensitivity of the System's Proportionate Share of the Net Pension Liability to Changes in the Discount Rate

The following presents the System's proportionate share of the net pension liability calculated using the long-term expected rate of return of 7.5%, as well as what the System's proportionate share of the net pension liability would be if it were calculated using a discount rate that is 1% point lower (6.5%) or 1% point higher (8.5%) than the current rate:

	1% Decrease	Current Discount Rate Assumption	1% Increase
Discount rate	6.5%	7.5	8.5
Net pension liability	$ 349,789	222,861	114,265

Detailed information about ERS' fiduciary net position is available in the separately issued ERS' financial report.

NOTE L - SYSTEM EMPLOYEES AND POST-RETIREMENT BENEFITS

The System will pay health insurance for the employees regardless of whether or not it is the health insurance that the City offers to its employees so long as the cost is less that the City’s health insurance plan. Current System employees are reimbursed up to $500 per calendar year for vision care. Reimbursed health care benefits totaled $8,401 and $8,035 for the years ended September 30, 2018 and 2017, respectively.

The System provides post-retirement health care benefits to all employees with a minimum of ten years of service who retire from the System on or after attaining age 65. Currently two retirees are receiving these post-retirement benefits. Expenses for post-retirement health care benefits are recognized when incurred. Due to only two eligible retirees and the limited exposure, no provision for estimated claims incurred but not yet reported has been made. Expenses for post-retirement health care were $11,880 and $20,933 for the years ended September 30, 2018 and 2017, respectively.

NOTE M - RELATED PARTY TRANSACTIONS

The System reimburses the City 100% of the total salaries, payroll taxes, and employee fringe benefits for the System’s employees. The System’s expense for the years ended September 30, 2018 and 2017, was $438,386 and $442,254, respectively. The System also reimburses the City for cost allocated from the Treasurer’s Department. The System’s expenses for the years ended September 30, 2018 and 2017, was $8,636 and $6,900, respectively.

NOTE N - RISK MANAGEMENT

The System is exposed to various risks of loss related to breach of fiduciary duties, errors and omissions, and loss of assets, torts, etc. The System has chosen to cover such losses through the purchase of commercial insurance. There have been no material insurance claims filed or paid during the past three fiscal years.

NOTE O - COMMITMENTS AND CONTINGENCIES

Unsettled Investment Transactions

The System was committed to the future settlement of investments purchased (accounted for by trade date) at September 30, 2018 and 2017, of $3,726,157 and $634,146, respectively. These amounts are reflected in the statements of fiduciary net position as a liability for unsettled investment transactions.

Lawsuits

The System entered into a settlement agreement with the Firefighters’ Retirement Plan (FRP) in July 2015 whereby firefighters employed by the City prior to February 1, 2013 are entitled to use unused medical leave that accrued from September 2, 2010 and February 1, 2013 for pension purposes. The cost of the additional sick leave benefits was funded in part with a one-time transfer of $1,070,749 from the System’s Future Benefit

NOTE O - COMMITMENTS AND CONTINGENCIES (Continued)

Fund to FRP paid on October 2, 2015. The remaining actuarial present value of the cost of the additional sick leave benefits applicable to the System of $1,515,608 shall be paid in full from the System's Future Benefit Fund to the General Reserve Fund of the System on a 15-year amortized basis, with annual payments of $166,792 beginning October 2015. The actuarially determined net present value of the remaining balance to transfer totals was $1,329,720 and $1,396,288 as of September 30, 2018 and 2017, respectively.

NOTE P - RISKS AND UNCERTAINTIES

The System invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market, foreign currency, regulatory, and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term, and such changes could materially affect the amounts reported in the statements of fiduciary net position.

Actuarial present value of accumulated plan benefits are reported based on certain assumptions pertaining to interest rates, inflation rates, and employee demographics, all of which are subject to change. Due to uncertainties inherent in the estimations and assumptions process, it is at least reasonably possible that changes in these estimates and assumptions in the near term would be material to the financial statements.

NOTE Q - TAX STATUS

The System meets the requirements of a governmental plan under Section 414(d) of the Internal Revenue Code (IRC). The System obtained its latest determination letter on December 20, 2016 in which the Internal Revenue Service (IRS) stated that the System, as designed, was in compliance with the applicable requirements of the IRC. The Trustees believe that the System is currently designed and being operated in compliance with the applicable requirements of the IRC. Therefore, they believe that the System was qualified and the related trust was tax exempt as of the financial date.

Accounting principles generally accepted in the United States of America require the System's Trustees to evaluate tax positions taken by the System and recognize a tax liability if an uncertain position that more likely than not would not be sustained upon examination by the IRS or U.S. DOL. The System's Trustees have analyzed the tax positions taken by the System and has concluded that as of September 30, 2018 and 2017, no uncertain positions are taken or are expected to be taken that would require recognition of a liability or disclosure in the financial statements. The System is subject to routine audits by the taxing jurisdictions; however, there are currently no audits for any tax periods in progress and the System has not been assessed any interest or penalties by the IRS or U.S. DOL.

NOTE R - RATE OF RETURN

For the years ended September 30, 2018 and 2017, the annual money-weighted rate of return (loss) on the System's investments, net of investment expenses, was 5.82% and 14.69%, respectively. The money-weighted rate of return expresses investment performance, net of investment expenses, adjusted for the changing amounts actually invested.

NOTE S - SUBSEQUENT EVENTS

The System has performed an evaluation of subsequent events through February 5, 2019, the date the basic financial statements were available to be issued. No material events were identified by the System.

NOTE T - SYSTEM RESERVES

Changes in the System's reserves for the years ended September 30, 2018 and 2017 are as follows:

	Total	Member's Savings Fund	Benefit Reserve Fund	General Reserve Fund	Future Benefit Fund	System Employees Benefit Fund
Balance, September 30, 2016	$ 458,691,204	77,140,271	344,798,628	31,630,140	5,051,183	70,982
Contributions	3,313,603	-	-	3,313,603	-	-
Net investment income less administrative expenses	59,984,717	10,371,777	44,442,138	4,494,911	661,871	14,020
Transfer due to (surplus) deficit	-	(6,636,299)	(31,797,847)	38,434,146	-	-
Transfer in accordance with Sick Leave Settlement	-	-	-	166,792	(166,792)	-
Benefits paid to retirees and beneficiaries	(32,324,876)	-	(32,015,540)	-	(309,336)	-
Refunds of Members' contributions	(816,435)	(816,435)	-	-	-	-
Change in reserves for the year ended September 30, 2017	30,157,009	2,919,043	(19,371,249)	46,409,452	185,743	14,020
Balance, September 30, 2017	488,848,213	80,059,314	325,427,379	78,039,592	5,236,926	85,002
Contributions	2,715,141	-	-	2,715,141	-	-
Net investment income less administrative expenses	23,719,361	3,993,866	15,494,672	3,970,005	249,765	11,053
Transfer due to (surplus) deficit	-	(47,954)	7,378,734	(7,330,780)	-	-
Transfer in accordance with Sick Leave Settlement	-	-	-	166,792	(166,792)	-
Benefits paid to retirees and beneficiaries	(32,654,972)	-	(32,161,027)	-	(493,945)	-
Refunds of Members' contributions	(649,093)	(649,093)	-	-	-	-
Change in reserves for the year ended September 30, 2018	(6,869,563)	3,296,819	(9,287,621)	(478,842)	(410,972)	11,053
Balance, September 30, 2018	**$ 481,978,650**	**83,356,133**	**316,139,758**	**77,560,750**	**4,825,954**	**96,055**

REQUIRED SUPPLEMENTAL INFORMATION SECTION

SCHEDULES OF CHANGES IN NET PENSION LIABILITY (EXCESS ASSETS)

	For The Years Ended September 30				
	2018	2017	2016	2015	2014 (A)
Discount Rate Assumption (gross of administrative expenses)	**7.300 %**	7.300 %	7.300 %	7.300 %	7.925 %
Total Pension Liability (B)					
Service cost	$ **-**	-	-	-	-
Interest on total pension liability	**32,729,886**	34,536,458	34,916,115	34,403,495	34,449,637
Benefit changes	**-**	-	-	-	-
Differences between expected and actual experience	**(5,442,030)**	(26,462,974)	(6,984,303)	15,441	-
Assumption changes	**-**	-	-	43,915,338	-
Benefit payments	**(32,161,027)**	(32,015,540)	(32,154,888)	(33,561,947)	(34,001,921)
Refunds of Members' contributions	**(649,093)**	(816,435)	(1,278,330)	(1,294,477)	(1,205,393)
Net Change In Total Pension Liability	**(5,522,264)**	(24,758,491)	(5,501,406)	43,477,850	(757,677)
Total Pension Liability Beginning	**464,759,662**	489,518,153	495,019,559	451,541,709	452,299,386
Total Pension Liability Ending (a)	$ **459,237,398**	464,759,662	489,518,153	495,019,559	451,541,709
System Fiduciary Net Position					
Contributions - Employer	$ **2,715,141**	3,313,603	2,715,140	-	1,007,760
Contributions - Members	**-**	-	-	-	-
Net investment income (loss)	**24,519,983**	60,390,472	38,228,538	(10,931,763)	48,269,780
Benefit payments	**(32,161,027)**	(32,015,540)	(32,154,888)	(33,561,947)	(34,001,921)
Refunds of Members' contributions	**(649,093)**	(816,435)	(1,278,330)	(1,294,477)	(1,205,393)
Administrative expenses	**(1,050,387)**	(1,067,626)	(1,095,335)	(1,593,979)	(1,424,217)
Transfer from Future Benefit Fund	**166,792**	166,792	166,792	-	-
Net Change In System Fiduciary Net Position	**(6,458,591)**	29,971,266	6,581,917	(47,382,166)	12,646,009
Transfer out	**-**	-	-	-	(10,278,591)
System Fiduciary Net Position Beginning	**483,611,287**	453,640,021	447,058,104	494,440,270 (C)	492,221,578
System Fiduciary Net Position Ending (b)	$ **477,152,696** (D)	483,611,287 (D)	453,640,021 (D)	447,058,104 (D)	494,588,996 (D)
Net Pension Liability (Excess Assets) Ending (a)-(b)	$ **(17,915,298)**	(18,851,625)	35,878,132	47,961,455	(43,047,287)
Assets Excluded From System Fiduciary Net Position Future Benefit Fund (D)	$ **4,825,954**	5,236,926	5,051,183	4,804,701	6,326,389

Notes:

(A) The September 30, 2014 total pension liability was restated due to an actuarial revision to develop the System's liabilities assuming benefits are fully earned because the System is closed to new Members, and benefits have been frozen as of February 1, 2013. The actuarial accrued liability, at that time, is now equal to the present value of frozen accrued benefits and DROP balances as of the measurement date.

(B) The total pension liability as of the end of each measurement year is measured as of the measurement date (October 1) at the beginning of each year and projected to the end of each year.

(C) The September 30, 2014 System fiduciary net position was restated (decreased) by $148,726 from recording the beginning net pension liability, resulting from implementing GASB 68 for the System's staff participation in ERS during the year ended September 30, 2015.

(D) The System's fiduciary net position shown in the above schedules of changes in net pension liability (excess assets) excludes the Future Benefit Fund, including its earnings allocated, transfer out, and SHARE program benefits.

SCHEDULES OF NET PENSION LIABILITY (EXCESS ASSETS)

	For The Years Ended September 30				
	2018	2017	2016	2015	2014
Total pension liability	**$ 459,237,398**	464,759,662	489,518,153	495,019,559	451,541,709
System fiduciary net position	**477,152,696**	483,611,287	453,640,021	447,058,104	494,588,996
Net Pension Liabiity (Excess Assets)	**$ (17,915,298)**	(18,851,625)	35,878,132	47,961,455	(43,047,287)
System Fiduciary Net Position as a Percentage of the Total Pension Liability	**103.90 %**	104.06	92.67	90.31	109.53
Covered Payroll (excluding DROP participants)	**$ 29,796,947**	31,079,373	30,219,253	30,288,086	29,767,542
Net Pension Liability (Excess Assets) as a Percentage of Covered Payroll	**(60.12) %**	(60.66)	118.73	158.35	(144.61)

SCHEDULES OF EMPLOYER'S CONTRIBUTIONS

	For The Years Ended September 30					
	2018	2017	2016	2015	2014	2013
Employer actuarially determined contributions	**$ 2,715,141**	3,313,603	2,715,140	-	1,007,760	9,803,957
Contributions in relation to the actuarially determined contributions	**2,715,141**	3,313,603	2,715,140	-	1,007,760	10,137,271
Contributions Excess	**$ -**	-	-	-	-	333,314
Covered Payroll (excluding DROP participants)	**$ 29,796,947**	31,079,373	30,219,253	30,288,086	29,767,542	30,021,550
Contributions as a Percentage of Covered Payroll	**9.11 %**	10.66	8.98	-	3.39	33.77

SCHEDULES OF ANNUAL MONEY-WEIGHTED RATE OF RETURN ON INVESTMENTS

	For The Years Ended September 30					
	2018	2017	2016	2015	2014	2013
Annual money-weighted rate of return, net of investment expenses	**5.82 %**	14.69	9.20	(2.42)	10.32	14.41

NOTES TO REQUIRED SUPPLEMENTAL INFORMATION FOR THE YEAR ENDED SEPTEMBER 30, 2018

1. Changes in Benefit Terms

Changes in benefit terms must be enacted by the General Assembly of the State of Missouri. There were no changes in benefits during the year ended September 30, 2018.

2. Changes in Actuarial Assumptions

None

3. Changes in Actuarial Method

None

4. Method and Assumptions used in Calculations of Actuarially Determined Pension Liability

The actuarially determined employer's contributions were calculated as of the September 30 preceding the fiscal year in which contributions are made. That is, the contributions calculated as of the September 30, 2017 actuarial valuation was made during the fiscal year ended September 30, 2018. The following actuarial methods and assumptions were used to determine pension liability reported in the schedules of changes in employer's net pension liability (schedule):

Method:	
Valuation date	October 1, 2014 through 2018
Actuarial cost method (funding by state statutes) - 2014 through 2018	Entry Age - Frozen Initial Liability
Actuarial cost method (GASB 67 reporting) - 2014 through 2018	Entry Age Normal
Amortization method/period - 2014 through 2018	30-year closed period from establishment
Remaining amortization period - 2016 through 2018	Various
Remaining amortization period - 2014 and 2015	None - No unfunded actuarial liability
Asset valuation method - 2014 through 2018	3-year smoothed market
Actuarial assumptions:	
Investment rate of return - 2015 through 2018	7.3%, net of investment expenses of 50 basis points
Investment rate of return - 2014	7.925%, net of investment expenses of 50 basis points
Long-term municipal bond rate	2014 - 4.11%; 2015 - 3.71%; 2016 - 3.06%; 2017 - 3.5%; and 2018 - 3.83%
Rate of payroll growth - 2015 through 2018	3% to 4% based on service. Benefits have been frozen as of February 1, 2013; therefore, no salary increases have been assumed.
Rate of payroll growth - 2014	3.35% to 5.5% based on service. Benefits have been frozen as of February 1, 2013; therefore, no salary increases have been assumed.
Consumer price inflation - 2015 through 2018	2.75%
Consumer price inflation - 2014	3.00%
Mortality - 2015 through 2018	Post-retirement ordinary - RP-2014 Healthy Annuitant Mortality Tables, sex distinct Pre-retirement - RP-2014 Employee Mortality Tables, sex distinct Post-disability - assumed to be 20% higher than post-retirement mortality rates
Mortality - 2014	RP-2000 mortality table, sex district, with rates projected to 2015

5. GASB 67 Ten-year Required Supplemental Schedules

Required supplemental schedules are required to present 10 years of information. However, the information in the schedules are not required to be presented retroactively. Years will be added to these schedules in future fiscal years until 10 years of information is presented.

(Continued)

NOTES TO REQUIRED SUPPLEMENTAL INFORMATION FOR THE YEAR ENDED SEPTEMBER 30, 2018 (Continued)

6. Money-weighted Rate of Return

The annual money-weighted rate of return is computed assuming investment yield is received at the end of each month and on the actual or approximate date of contributions, benefit payments, and expenses.

7. Discount Rate used to Calculate the Present Value of Future Benefits

Projected benefit payments are required to be discounted to their actuarial present values using a single discount rate that reflects: 1) a long-term expected rate of return on the System's investments (to the extent that the System's fiduciary net position is projected to be sufficient to pay benefits) and 2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating (which is published by the Federal Reserve) as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

The long-term expected rate of return of the System's funding is assumed to be 7%. Per Missouri State Statutes, this rate is net of both investment and administrative expenses. GASB 67 requires the long-term expected rate of return to be determined net of pension plan investment expense but without reduction for the System's administrative expenses. Investment expenses (investment management and custodial fees) are assumed to be approximately 50 basis points. Administrative expenses are assumed to be approximately 30 basis points; consequently, the long-term expected rate of return used for purposes of GASB 67 is increased by 30 basis points to 7.3%. This rate is gross of administrative expenses.

For the purpose of this valuation, the expected rate of return on the System's investments is 7.3%; the municipal bond rate is 3.83% (based on the weekly rate closest to but not later than the measurement date of the "state and local bonds" rate from Federal Reserve statistical release (H.15)); and the resulting single discount rate is 7.3%. The single discount rate is unchanged from the expected rate of return on the System's investments because the System is closed to new Members and the present value of benefits is projected to be sufficient to pay benefits of all current Members and their beneficiaries by the assets. Furthermore, in the event that the assets fall below the present value of benefits and a contribution is required, a sound funding policy based on the frozen initial liability actuarial cost method is used, as defined by Missouri state statutes.

The System currently expects assets will be sufficient to cover projected System net position using actuarial assumptions until 2108.

8. Total Payroll and Covered Payroll

The covered payroll for active Members is the payroll on which contributions to the System are based. Member payroll were as follows:

	For The Years Ended September 30			
	2018		2017	
	Number	**Compensation**	Number	Compensation
Active Members non-DROP "covered payroll"	**455**	**$ 29,796,947**	470	$ 31,079,373
Active Members participating in DROP	**65**	**4,712,122**	59	4,258,066
Total Payroll	**520**	**$ 34,509,069**	529	$ 35,337,439

SCHEDULES OF THE SYSTEM'S PROPORTIONATE SHARE OF THE NET PENSION LIABILITY OF THE EMPLOYEES RETIREMENT SYSTEM OF THE CITY OF ST. LOUIS (ERS), A COST-SHARING, MULTI-EMPLOYER DEFINED BENEFIT PENSION PLAN

	September 30			
	2018	2017	2016	2015
Proportionate Share of the Employer's Contributions	**0.13 %**	0.13	0.11	0.10
Proportionate Share of the Collective Net Pension Liability	**$ 222,861**	264,825	254,939	161,678
Covered Payroll	**$ 307,054**	300,217	828,263	260,505
Proportionate Share of the Collective Net Pension Liability as a Percentage of its Covered Payroll	**72.58 %**	88.21	30.78	62.06
ERS' Fiduciary Net Position as a Percentage of the Total Pension Liability	**82.46 %**	78.52	76.22	83.47

Notes:

(A) The System elected to report pension elements using the beginning of the year actuarial valuation as allowed by GASB 68. Therefore, the amounts presented were determined as of ERS' fiscal years ended September 30, 2017, 2016, 2015, and 2014 actuarial valuations and projected to the end of the years.

(B) The System implemented GASB 68 for the fiscal year ended September 30, 2015. Years will be added to this schedule in future fiscal years until 10 years of information is provided.

SCHEDULES OF THE SYSTEM'S CONTRIBUTIONS TO THE EMPLOYEES RETIREMENT SYSTEM OF THE CITY OF ST. LOUIS (ERS), A COST-SHARING, MULTI-EMPLOYER DEFINED BENEFIT PENSION PLAN

	For The Years Ended September 30			
	2018	2017	2016	2015
Contractually required contribution	$ **38,208**	40,662	39,776	38,471
Contributions in relation to the contractually required contribution	**(38,208)**	(40,662)	(39,776)	(38,471)
Contribution Excess	$ **-**	-	-	-
Covered Payroll	$ **307,054**	300,217	828,263	260,505
Contributions as a Percentage of Covered Payroll	**12.44 %**	13.54	4.80	14.77

Note to schedule:

(A) Actuarial Methods and Assumptions used in Calculations of Actuarially Determined Pension Liability

Valuation date:

Actuarially determined contributions are calculated as of October 1, 2014 through 2017 (beginning of year) valuation date used to calculate the required contribution for the fiscal years ending September 30, 2015 through 2018.

Actuarial methods:

Actuarial cost method (GASB 68)	Entry Age Normal
Amortization method - 2017	Fixed 20 year period as of October 1, 2015 as a level percentage of payroll.
Amortization method - 2016 and 2015	Rolling 30-year level dollar amortization of unfunded liability
Asset valuation method	5-year smoothing

Actuarial assumptions:

Inflation	2017 and 2016 - 2.5%; 2015 - 3.125%
Salary increases - 2017	3% plus merit component based on employee's years of service
Salary increases - 2016 and 2015	3.5% plus merit component based on employee's years of service
Investment rate of return	2017 and 2016 - 7.5%, and 2015 - 8%, net of pension plan investment expenses
Mortality rates - ordinary - 2017 and 2016	RP-2000 healthy mortality 3 year set-forward with generational projections using scale A
Mortality rates - ordinary - 2015	1994 Group Annuity Mortality Table
Mortality rates - disability - 2017 and 2016	RP-2000 disabled mortality 3 year set-forward with generational projections using scale AA
Mortality rates - disability - 2015	1953 Railroad Retirement Board disabled life mortality table

(B) The System elected to report pension elements using the beginning of the year actuarial valuation as allowed by GASB 68. Therefore, the amounts presented were determined as of ERS' fiscal years ended September 30, 2014 through 2017 actuarial valuations and projected to the end of the years.

(C) The System implemented GASB 68 for the fiscal year ended September 30, 2015. Years will be added to this schedule in future fiscal years until 10 years of information is provided.

OTHER SUPPLEMENTAL INFORMATION SECTION

	For The Years Ended September 30	
	2018	2017
BENEFITS PAID TO RETIREES AND BENEFICIARIES		
Monthly annuity:		
Accidental disability	**$ 12,563,840**	13,067,252
Beneficiaries	**4,097,804**	4,056,421
Medical, surgical, and hospital	**6,904**	10,268
Ordinary disability	**476,057**	474,736
Service retirees	**13,964,865**	14,132,634
Total Monthly Annuity	**31,109,470**	31,741,311
Lump sum:		
Death	**44,000**	48,000
DROP	**1,501,502**	535,565
Total Lump Sum	**1,545,502**	583,565
Total Benefits Paid To Retirees And Beneficiaries	**$ 32,654,972**	32,324,876
ADMINISTRATIVE EXPENSES		
Personnel costs:		
Salaries	**$ 317,224**	312,592
Payroll taxes	**23,035**	22,777
Employee fringe benefits:		
Group benefits	**50,700**	57,675
Net pension expense	**67,708**	78,178
Total Personnel Costs	**458,667**	471,222
Bank charges	**2,315**	4,015
Building operations	**13,689**	13,958
Computer and website	**63,328**	63,042
Costs allocated from City	**8,636**	6,900
Depreciation	**54,133**	56,819
Equipment rental and maintenance	**14,228**	14,363
Insurance	**29,540**	28,385
Medical reviews, consulting, and investigations	**2,474**	1,350
Office supplies and expenses	**14,461**	14,571
Postage and delivery	**8,078**	8,263
Professinal fees:		
Accounting and auditing	**45,695**	46,413
Actuary	**49,881**	52,631
Investment consultant	**177,144**	174,384
Legal	**51,057**	47,224
Property assessment	**989**	966
Telephone	**7,015**	6,447
Travel and seminars	**49,057**	56,673
Total Administrative Expenses	**$ 1,050,387**	1,067,626

INVESTMENT MANAGEMENT AND CUSTODIAL FEES

	For The Years Ended September 30	
	2018	2017
Investment management fees:		
Aberdeen Asset Management, Inc.	**$ -**	136,623
Acadian Asset Management, LLC	**224,270**	220,618
Argent Capital Management, LLC	**160,135**	147,918
The Commerce Trust Company	**44,603**	10,753
Eagle Capital Management, LLC	**220,074**	237,310
Fisher Investments, Inc.	**410,297**	422,919
Intech Investment Management, LLC	**104,520**	101,927
Integrity Asset Management, LLC	**130,774**	186,078
Penn Capital Management Company, Inc.	**-**	113,847
Pinnacle Associates, Ltd.	**183,177**	179,240
Prudential Trust Company	**105,950**	-
Tortoise Capital Advisors, LLC	**164,358**	157,602
Total Investment Management Fees	**1,748,158**	1,914,835
Custodial fees:		
The Northern Trust Company	**276,194**	327,897
Total Investment Management And Custodial Fees	**$ 2,024,352**	2,242,732

The System incurs its share of fund operating expenses (including the investment management fees) which are deducted directly from each individual fund's assets for the following investment funds:

AJO Emerging Markets All - Cap Offshore Fund, Ltd. (Emerging Markets Fund)
EnTrust Partners Offshore, LLC (Hedge Fund)
MacKay Shields Collective Investment Trust (International Fixed Income)
Magnitude Institutional, LLC (Hedge Fund)
Principal U.S. Property Account (Real Estate Separate Account)

SUMMARY OF INSURANCE COVERAGE

Type	Coverage
Fiduciary Liability, includes claims expenses	$ 5,000,000
Property:	
Building	$ 518,398
Contents	$ 516,639
General Liability:	
Per occurrence	$ 1,000,000
Aggregate	$ 3,000,000
Workers’ Compensation and Employers Liability	Statutory $ 1,000,000
Umbrella Liability:	
Per occurrence	$ 1,000,000
Aggregate	$ 3,000,000
Non-owned Automobile	$ 1,000,000
Cyber and Privacy Liability, includes claims expenses	$ 2,000,000
Commercial Crime - Employee Theft	$ 300,000

HISTORICAL TREND INFORMATION

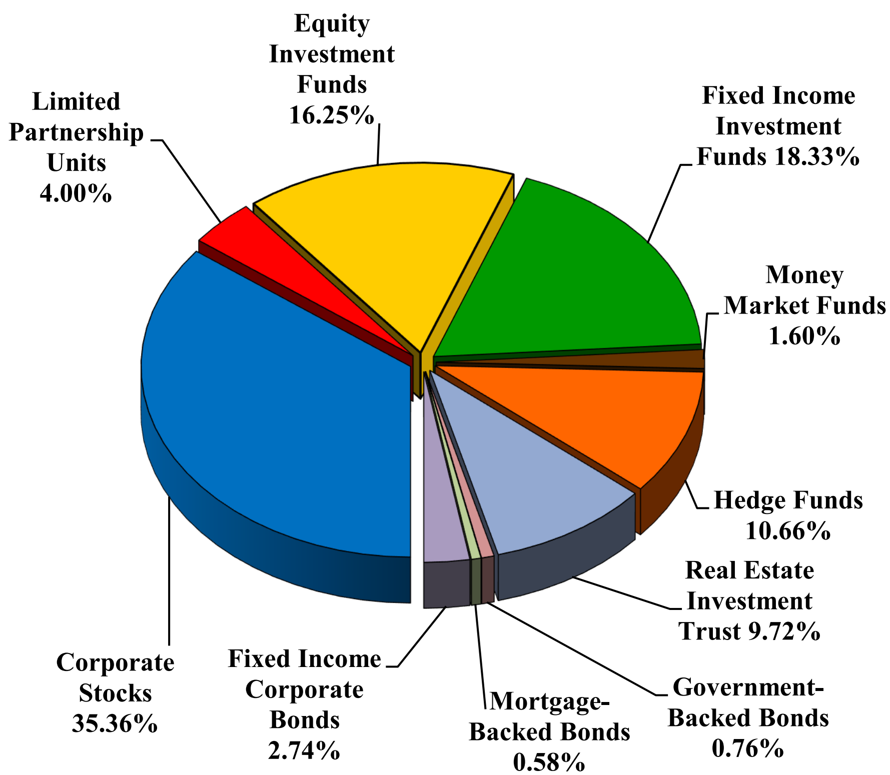
Additions to Net Position

For The Years Ended September 30		Contributions: Employer	Contributions: Members	Net Investment Income (Loss)	Total
2018		**$ 2,715,141**	**-**	**24,769,748**	**27,484,889**
2017		3,313,603	-	61,052,343	64,365,946
2016		2,715,140	-	38,641,812	41,356,952
2015		-	-	(11,079,856)	(11,079,856)
2014		1,007,760	-	48,876,120	49,883,880
2013	(A)	20,998,953	944,098	65,779,337	87,722,388
2012		21,680,123	2,569,508	71,064,693	95,314,324
2011		23,071,773	2,747,934	3,739,397	29,559,104
2010		17,854,546	2,942,373	33,298,179	54,095,098
2009		12,193,989	2,917,843	(18,864,872)	(3,753,040)

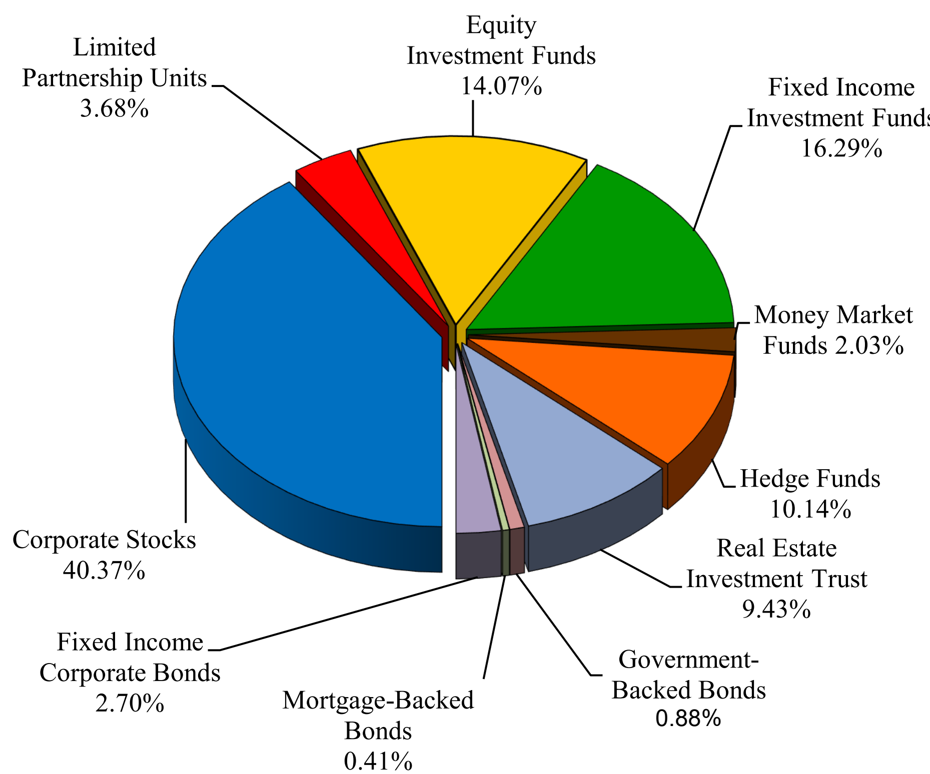
Deductions from Net Position

For The Years Ended September 30	Benefits Paid	Refunds Of Members Contributions	Admini-strative Expenses	Total
2018	**$ 32,654,972**	**649,093**	**1,050,387**	**34,354,452**
2017	32,324,876	816,435	1,067,626	34,208,937
2016	32,154,888	1,278,330	1,095,335	34,528,553
2015	33,864,793	1,294,477	1,593,979	36,753,249
2014	34,416,962	1,205,393	1,424,217	37,046,572
2013	34,535,838	3,260,793	1,730,087	39,526,718
2012	33,371,985	2,303,658	1,579,936	37,255,579
2011	32,030,971	2,191,639	1,162,784	35,385,394
2010	34,661,065	1,639,211	1,174,231	37,474,507
2009	34,230,413	1,206,585	977,713	36,414,711

(A) The City's contribution for the year ended September 30, 2013 was recalculated to be $9,803,957 for BB 109 and $10,278,591 was transferred out during the year ended September 30, 2014.

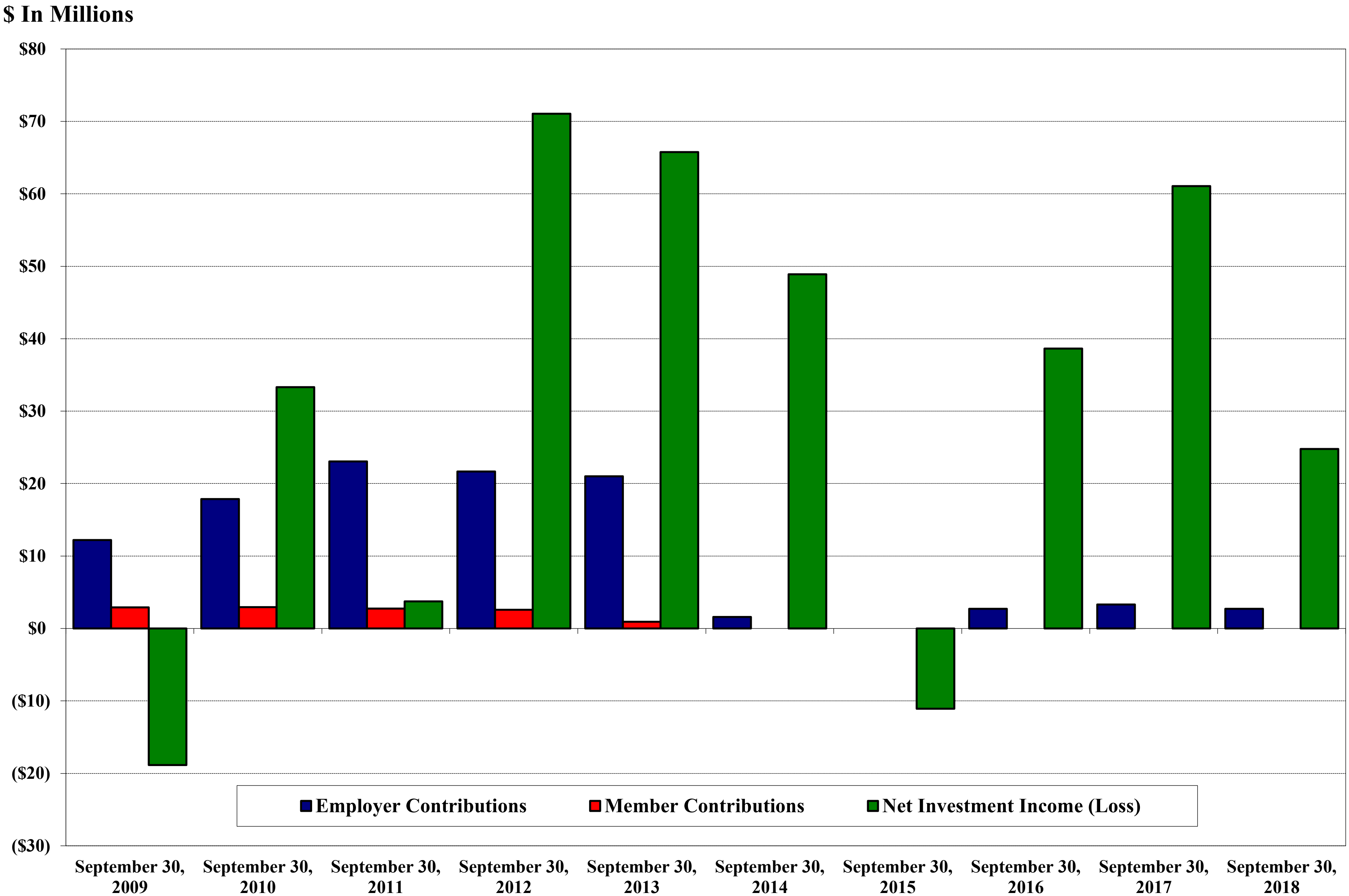


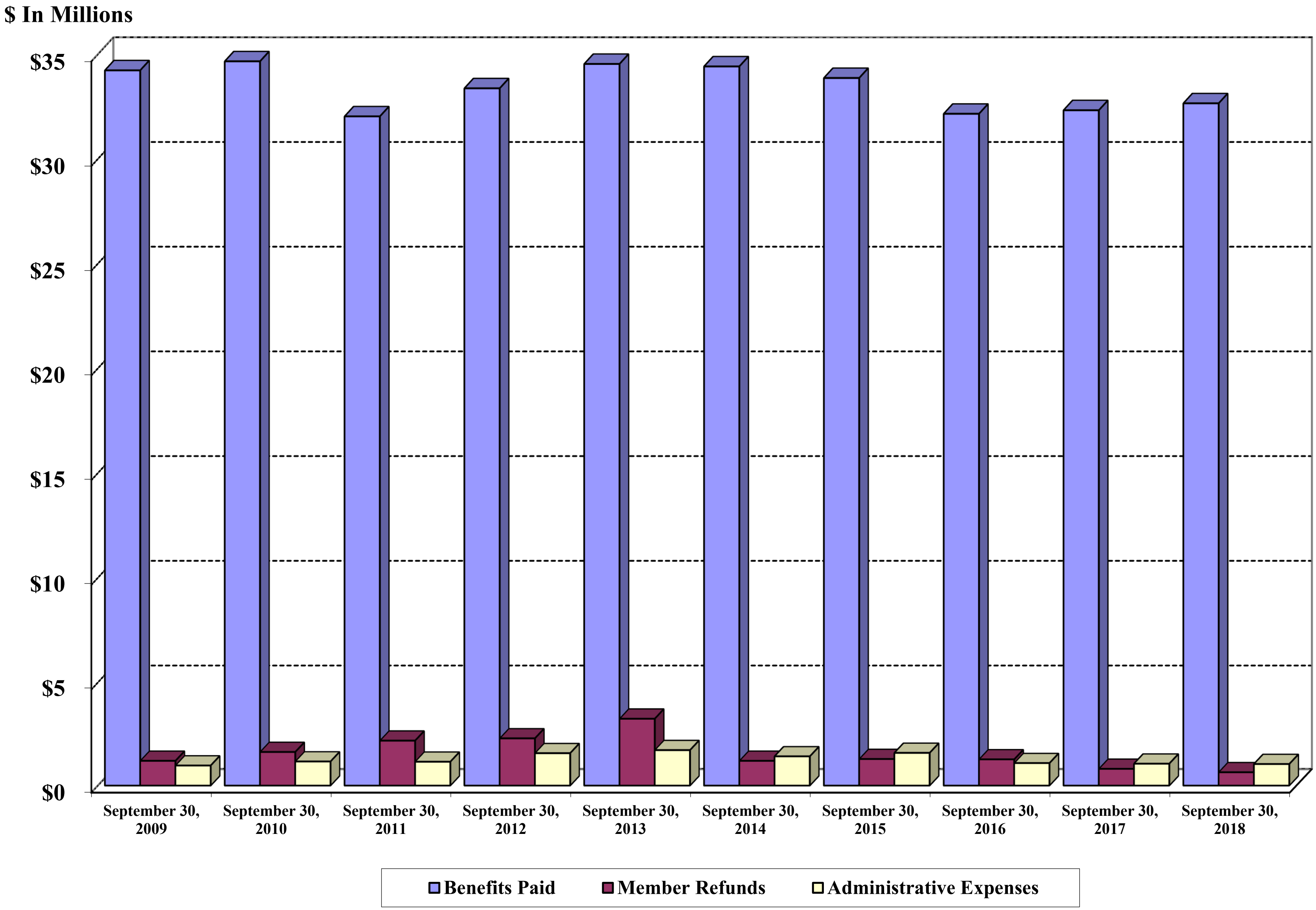
September 30, 2018



September 30, 2017

ADDITIONS TO NET POSITION
FOR THE YEARS ENDED

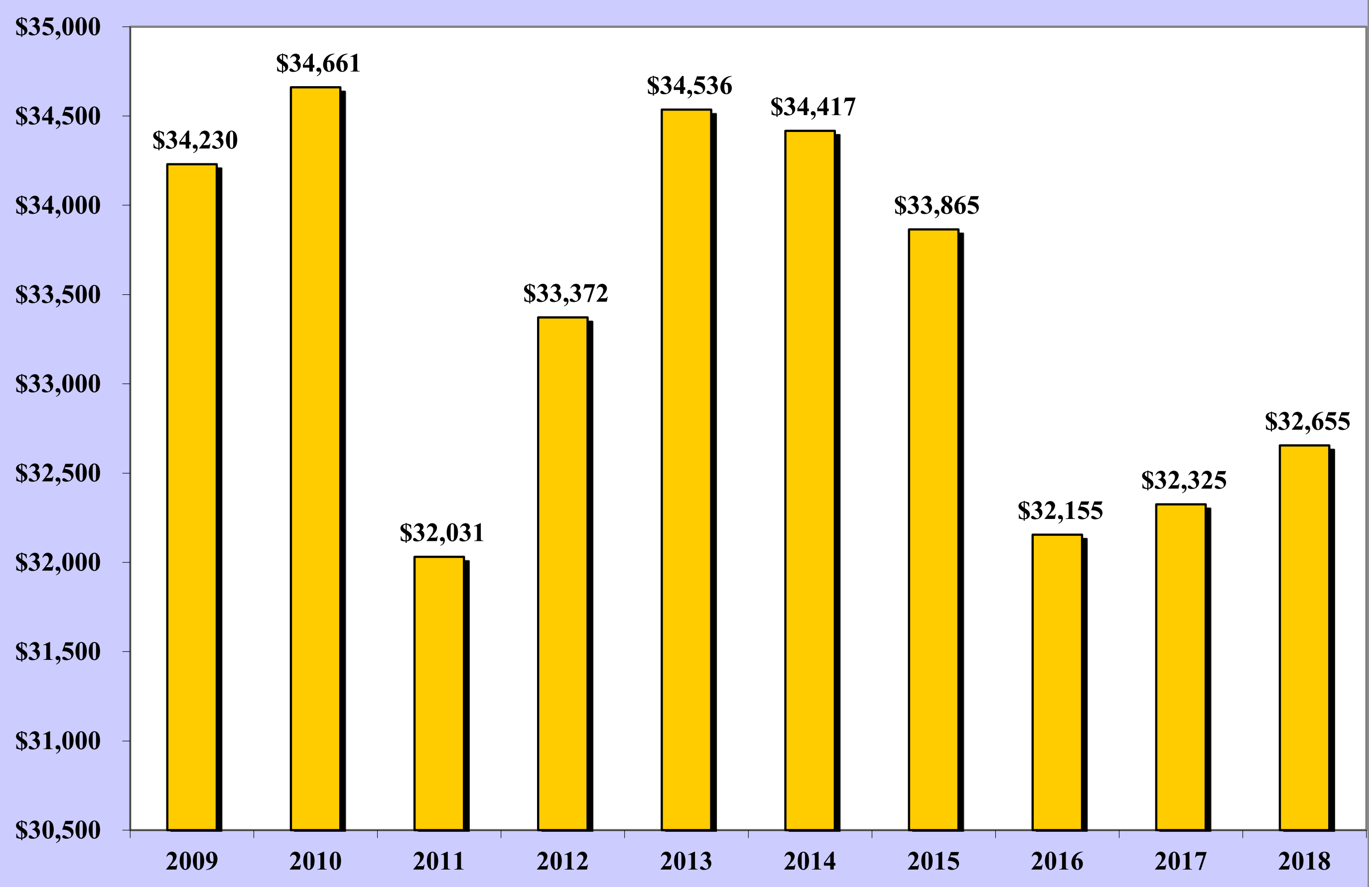




$ In Millions
$35
$30
$25
$20
$15
$10
$5
$0
September 30, 2009
September 30, 2010
September 30, 2011
September 30, 2012
September 30, 2013
September 30, 2014
September 30, 2015
September 30, 2016
September 30, 2017
September 30, 2018
Benefits Paid
Member Refunds
Administrative Expenses

For The Fiscal Years Ended	Service Retirees*	Accidental Disability	Beneficiaries	Ordinary Disability	Death	Medical, Surgical, And Hospital	Total
2009	$ 17,716,234	12,928,795	3,122,816	384,309	60,000	18,259	34,230,413
2010	17,928,029	13,104,610	3,196,489	355,068	58,000	18,869	34,661,065
2011	14,987,429	13,082,602	3,485,580	399,310	62,000	14,050	32,030,971
2012	16,110,010	13,184,657	3,543,043	464,060	56,000	14,215	33,371,985
2013	16,948,351	13,228,482	3,788,048	495,398	64,000	11,559	34,535,838
2014	16,606,662	13,155,325	3,999,493	587,993	58,000	9,489	34,416,962
2015	16,353,491	12,930,902	3,935,283	584,622	52,000	8,495	33,864,793
2016	15,120,366	12,583,999	3,898,375	493,231	50,000	8,917	32,154,888
2017	14,668,199	13,067,252	4,056,421	474,736	48,000	10,268	32,324,876
2018	**15,466,367**	**12,563,840**	**4,097,804**	**476,057**	**44,000**	**6,904**	**32,654,972**

Total Benefits Paid
(In Thousands)



*Includes DROP benefit payments.

INTERNAL CONTROL AND COMPLIANCE SECTION

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Hochschild, Bloom & Company LLP
Certified Public Accountants
Consultants and Advisors

INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH *GOVERNMENT AUDITING STANDARDS*

February 5, 2019

The Board of Trustees
FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards,* issued by the Comptroller General of the United States, the statements of fiduciary net position and the related statements of changes in fiduciary net position of the **FIREMEN'S RETIREMENT SYSTEM OF ST. LOUIS** (the System), a Pension Trust Fund of the City of St. Louis, Missouri, as of and for the year ended September 30, 2018, and the related notes to the financial statements, which collectively comprise the System's basic financial statements and have issued our report thereon dated February 5, 2019.

INTERNAL CONTROL OVER FINANCIAL REPORTING

In planning and performing our audit of the financial statements, we considered the System's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control. Accordingly, we do not express an opinion on the effectiveness of the System's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the System's financial statements will not be prevented, or detected and corrected on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

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Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

COMPLIANCE AND OTHER MATTERS

As part of obtaining reasonable assurance about whether the System's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

PURPOSE OF THIS REPORT

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the System's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the System's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Hochschild, Bloom & Company LLP

CERTIFIED PUBLIC ACCOUNTANTS
Chesterfield, Missouri