



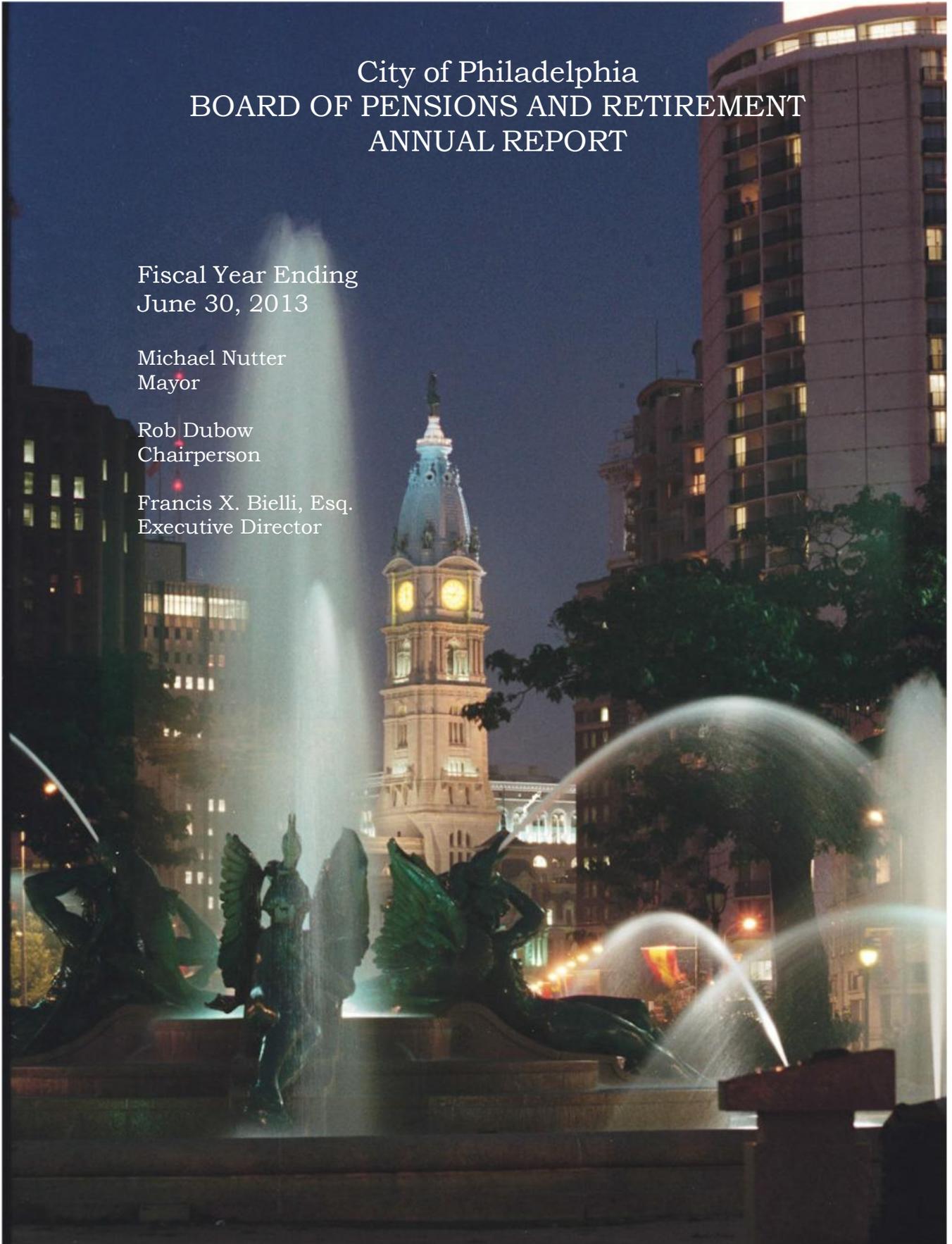
City of Philadelphia BOARD OF PENSIONS AND RETIREMENT ANNUAL REPORT

Fiscal Year Ending
June 30, 2013

Michael Nutter
Mayor

Rob Dubow
Chairperson

Francis X. Bielli, Esq.
Executive Director



City Of Philadelphia
BOARD OF PENSIONS AND RETIREMENT

Annual Report

Fiscal Year July 1, 2012 – June 30, 2013



16th Floor, Two Penn Center Plaza
Philadelphia, Pennsylvania 19102
(215-496-7418)

To the People of the City of Philadelphia:

The Board of Pensions and Retirement hereby submits the Annual Report of the Retirement System for City of Philadelphia employees for the fiscal year ending June 30, 2013.

The report consists of three sections:

- An introductory section, which contains a brief summary of the Fund and identifies the administrators, trustees, investment managers and professional consultants of the Retirement System, and
- An actuarial section which details the methods of costing and funding current and future benefits to members and beneficiaries of the Retirement System, and
- A financial section, which contains the System's financial statements, membership pension data, and investment statistics.

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If you require more detailed information on the Board's Investment Portfolio, please write to Francis X. Bielli, Esq., Executive Director, Two Penn Center Plaza – 16th Floor, Philadelphia, PA 19102 or call 215-496-7418 or 1-800-544-1173.

Additional copies of this report can be downloaded from <http://www.phila.gov/pensions>.

Cover photo provided by courtesy of the Office of the City Representative, City of Philadelphia

INTRODUCTORY SECTION

CITY OF PHILADELPHIA PUBLIC EMPLOYEES RETIREMENT SYSTEM

Francis X. Bielli, Esquire

Executive Director

MEMBERS OF THE BOARD

Rob Dubow, Chairperson

Director of Finance
Appointed January 7, 2008.

Alan L. Butkovitz, Esquire

City Controller
Elected by voters of Philadelphia.
Serving as Board Member since
January 2006.

Albert L. D'Attilio, Esquire

Director of Human Resources
Appointed June 2, 2008

Richard Negrin, Esquire

Deputy Mayor/Managing Director
Appointed July 1, 2010.

Veronica M. Pankey

AFSCME District Council 33.
Serving as Employee Elected
Representative since February 2011.

Shelley Smith, Esquire

City Solicitor
Appointed January 7, 2008

Ronald Stagliano, ViceChairperson

Fraternal Order of Police.
Serving as Employee Elected
Representative since November 2004.

Carol Stukes

AFSCME District Council 47.
Serving as Employee Elected
Representative since September 1994.

Andrew P. Thomas

Philadelphia Firefighters Union Local
No. 22. Serving as Employee Elected
Representative since November
2012.

CONSULTANTS

ACTUARY

Cheiron, Inc.

McLean, Virginia

PRE-AUDIT FUNCTIONS

City of Philadelphia - Office of the City Controller

AUDITOR

CliftonLarsonAllen LLP

Timonium, Maryland

LEGAL COUNSEL

City of Philadelphia Law Department

GENERAL INVESTMENT CONSULTANT

Cliffwater LLC

Marina del Ray, California

ALTERNATIVE INVESTMENT CONSULTANTS

Courtland Partners, Ltd. (Private Real Estate)

Cleveland, Ohio

Franklin Park Associates LLC (Private Markets) Bala Cynwyd, Pennsylvania

PROXY CONSULTANT

Marco Consulting Group

Chicago, Illinois

CUSTODIAN BANK

J.P. Morgan Chase

New York, New York

INVESTMENT MANAGERS

Domestic Equity

Aronson + Johnson + Ortiz, LLC
Philadelphia, Pennsylvania

Ceredex Value Advisors
Orlando, Florida

Emerald Advisors
Lancaster, Pennsylvania

Fisher Investment Management
Woodside, California

Geneva Capital Management
Milwaukee, Wisconsin

Lee Munder
Boston, Massachusetts

O'Shaughnessy Asset Management
Stamford, Connecticut

Rhumblin Advisors
Boston, Massachusetts

Snyder Capital Management
San Francisco, California

Turner Investment Partners
Berwyn, Pennsylvania

International Equity

Baring International
London, United Kingdom

Causeway Capital Management
Los Angeles, California

Northern Trust
Chicago, Illinois

Emerging Markets Equity

Eaton Vance Management
Boston, Massachusetts

Trilogy Global Advisors
Winter Park, Florida

Portable Alpha

Bridgewater Associates, Inc.
Westport, Connecticut

Core Bond & Fixed Income

Merganser Capital Management
Boston, Massachusetts

Rhumblin Advisors
Boston, Massachusetts

Global Fixed Income

Brandywine Global Management
Philadelphia, Pennsylvania

Global Tips

Western Asset Management Co.
Pasadena, California

High Yield

Artio Asset Management
New York, New York

MacKay Shields
New York, New York

Convertible Bonds

Allianz Global Investors Capital
New York, New York

Emerging Market Debt

Stone Harbor
New York, New York

Shares J.P. Morgan EM Bond Fund ETF
New York, New York

Master Limited Partnership

Harvest Fund Advisors
Wayne, Pennsylvania

Tortoise Capital Advisors
Leawood, Kansas

Advisory Research
St. Louis, Missouri

Opportunity Fund

PFM Advisors
Philadelphia, Pennsylvania

FIS Group
Philadelphia, Pennsylvania

Advent Capital Management
New York, New York

Karsch
New York, New York

Beachpoint Capital Management
Santa Monica, California

Kynikos Opportunity Fund
New York, New York

Axonic
New York, New York

Mason Capital Management
New York, New York

Caspian Select Credit Int'l
Harrison, New York

Regiment Capital Ltd.
Boston, Massachusetts

Emerging Sovereign Group
New York, New York

Taconic
New York, New York

Apollo
New York, New York

Private Markets

Advent International GPE VI, L.P.
Boston, Massachusetts

Ascend Ventures, L.P.
New York, New York

Audax Mezzanine Fund III, L.P.
New York, New York

Bay Partners XI, L.P.
Cupertino, California

Blackstone Capital Partners, IV, V, & VI
L.P. New York, New York

Castile Ventures III, L.P.
Waltham, Massachusetts

Court Square Capital Partners II, L.P.
New York, New York

Fairview Capital II & III, L.P.
Farmington, Connecticut

Fenway Partners Capital Fund II, L.P.
New York, New York

Green Equity Investors IV, L.P.
Los Angeles, California

Keystone Venture V, L.P.
Philadelphia, Pennsylvania

Kohlberg Investors V, L.P.
Mt. Kisco, New York

Levine Leichtman Capital Partners IV, L.P.
Los Angeles, California

Littlejohn Fund III, L.P.
Greenwich, Connecticut

Mason Wells Buyout Fund III, L.P.
Milwaukee, Wisconsin

Merion Investment Partners, L.P.
King of Prussia, Pennsylvania

Altaris Healthcare Partners II, L.P.
New York, New York

Asian Financial Corporation
Philadelphia, Pennsylvania

Avenue Special Situations Fund V, L. P.
New York, New York

Behrman Capital, III, L.P.
New York, New York

Carlyle Europe III, L.P.
New York, New York

Columbia Capital Equity Partners II & III QP,
L.P.
New York, New York

European Strategic Partners I & II, L.P.-
Standard Life of Scotland
Edinburgh, Scotland

Falcon Mezzanine Partners, L.P.
Boston, Massachusetts

Franklin Park Venture Fund Series 2 008, L.P.
Bala Cynwyd, Pennsylvania

ICV Partners II, L.P.
New York, New York

KKR 2006 Fund, L.P.
New York, New York

KPS Special Situations Fund III, L.P.
New York, New York

Lindsay, Goldberg & Bessemer I & II, L.P. New
York, New York

LLR Equity Partners I, II & III, L.P.
Philadelphia, Pennsylvania

Meridian Venture Partners, L.P. & M VP
Distribution Partners, L.P.
Radnor, Pennsylvania

Morgan Stanley Venture Partners IV & 2002,
L.P.
New York, New York

Natural Gas Partners IX, L.P.
Irving, Texas

Novitas Capital III, L.P. (formerly PA Early Stage)
Wayne, Pennsylvania

Pharos Capital Partners II, L.P.
Houston, Texas

Quaker BioVentures, L.P.
Philadelphia, Pennsylvania

Riverside Capital Appreciation Fund V, L.P.
New York, New York

State of Israel Bonds
Israel Bonds

Summit Subordinated Debt IV, L.P.
Palo Alto, California

TCW/ Crescent Mezzanine Partners II & III, L.P.
Los Angeles, California

TGP Partners II & III, L.P.
Fort Worth, Texas

Thomas H. Lee Equity Fund IV & V, L.P.
Boston, Massachusetts

United Bank of Philadelphia
Philadelphia, Pennsylvania

Vista Equity Partners III, L.P.
Chicago, Illinois

Wicks Capital Partners IV, L.P.
New York, New York

Nogales Investors Fund I & II, L.P.
Los Angeles, California

OCM Opportunities Fund III, IV & VIIb, L.P.
Los Angeles, California

Platinum Equity Capital Partners I & II, L.P.
Beverly Hills, California

Relativity Fund, L.P.
New York, New York

SCP Private Equity Partners I & II, L.P.
Wayne, Pennsylvania

Sterling Capital Partners II & III, L.P.
Northbrook, Illinois

TA Associates XI, L.P.
Boston, Massachusetts

Technology Leaders I, II & V, L.P.
Wayne, Pennsylvania

The Retail Initiative 1994, L.P.
New York, New York

TWCP, L.P.
New York, New York

Veritas Capital Partners III, L.P.
New York, New York

Wellspring Capital Partners IV, L.P.
New York, New York

Wicks Communications & Media Partners III, L.P.
New York, New York

Private Real Estate Investments

Arsenal Real Estate Fund IA, LP
Morristown, New Jersey

CIM Urban REIT, LLC
Los Angeles, California

Exeter Industrial Value Fund, LP
Plymouth Meeting, Pennsylvania

Beacon Capital Strategic Partners IV & V, LP
Boston, Massachusetts

Colony Investors VIII, LP
Los Angeles, California

Invesco Core Real Estate – U.S.A., LLC
Dallas, Texas

JP Morgan Chase Strategic Property Fund
New York, New York

Mesa West Real Estate Income Fund II, LP
Los Angeles, California

Lone Star Real Estate Fund II, LP
Dallas, Texas

Tishman Speyer European Real Estate Venture VI
Scots B, LP
New York, New York

MISSION STATEMENT

The Board of Pensions and Retirement was charged under the Philadelphia Home Rule Charter with the creation and maintenance of an actuarially sound Retirement System providing benefits for all City employees. The Ordinance (Bill No. 907) implementing the present Retirement System was formally approved by City Council on December 3, 1956, and the System became operational effective January 1, 1957. The enactment of Bill No. 907 superseded the Act of Assembly approved May 20, 1915, P.L. 566, under which the Pension Fund had previously been governed.

The Board, as defined in the Home Rule Charter, is composed of the Director of Finance, who serves as chairperson, the Managing Director, the City Solicitor, the Personnel Director, the City Controller and four members who are elected by the Civil Service employees of the City of Philadelphia. The elected members serve a four-year term of office.

The 9-member Board formally approves all benefit applications, but its major role is that of “trustee”, to ensure that the Retirement System remains actuarially and financially sound for the benefit of current and future benefit recipients. The Board, with the assistance of its professional consultants, develops the policies and strategies which will enable the Board to successfully execute its fiduciary obligations.

The Executive Director, aided by staff, administers the day-to-day activities of the Retirement System, providing services to all system members.

MEMBERSHIP

The Public Employees Retirement System provides benefits to police, fire and civilian workers of the City of Philadelphia through the administration of multiple plans adopted from 1915 to the present. In addition, the Board of Pensions administers (but does not fund) a pension plan for the employees of some quasi-public agencies (the Philadelphia Parking Authority, the Philadelphia Municipal Authority, and the Philadelphia Housing Development Corporation). Membership details, as well as membership activity information for fiscal year 2013, may be found in the Actuarial Section of this report.

FUNDING

The Municipal Pension Plan Funding Standard and Recovery Act of December 1984 (Act 205) mandated funding methods for all municipal pension plans in the Commonwealth of Pennsylvania. Under the provisions of Act 205, the Municipal Retirement System is required to fund the actuarial liability accrued after July 1, 1985 on a level dollar payment method. In effect, the cost of current pension obligations must be satisfied annually.

The unfunded actuarial liability which had accrued prior to July 1, 1985 is being amortized over a 40-year period with payments increasing at the rate of 6% per year. This debt portion will be satisfied on June 30, 2019.

Act 205 requires that an actuarial valuation be performed annually and that an experience study, covering a 5-year period, be conducted every 4 years to insure that the pension costs derived by the actuary are accurate and based on valid historical experience.

In January 1999, the City issued \$1.29 billion of 30-year pension obligation bonds having an overall rate of 6.61% with a goal of reducing the City's unfunded pension obligation liability.

The Actuarial Section of this report contains fiscal year 2013 information regarding normal cost; total unfunded accrued liability; recommended contribution under the City's funding policy; actual contributions; and the Minimum Municipal Obligation (MMO) as required by the Commonwealth of Pennsylvania's Acts 205 and 189.

In Fiscal Year 2013, the Board lowered the assumed rate of interest from 8.10% to 7.95%.

INCOME

The City of Philadelphia is the largest single contributor to the Public Employees Retirement System. Employees contribute a percentage of their pay, which varies with plan membership. Contributions are also paid by the quasi-public agencies whose employees' pension benefits are administered by the Board of Pensions. A major source of income is the earnings of the System's investment portfolio. Both the Actuarial and Financial Sections of this report provide further information on the Board's fiscal year 2013 income.

INVESTMENTS

The 9-member Board of Pensions and Retirement plays an active role in the determination of investment policy and strategy. All major decisions with regard to the portfolio are approved by the Board based upon the recommendations of its investment consultants and managers and the Board's in-house investment staff. Cliffwater LLC, the Board's Investment Consultant, oversees the management of the portfolio by investment management firms (a listing of these firms is presented on pages 6-10).

The investment policy developed by the Board provides the framework for the investment of funds. However, the manner in which the Board invests its funds is constrained by legal statutes. Investments of the Public Employees Retirement System must be made in compliance with Section 22-1001 of the Public Employees Retirement Code and the regulations for the investment of similar State funds as set forth in the Act of March 1, 1974 (P.L. 125, No. 31), as amended (71 Pa. C.S. Section 5931).

As part of its overall investment policy, the Board approved an asset allocation strategy which has as its goal the identification of the mix of broad asset classes that most efficiently balances the need for achieving a 7.95% rate of return with the desire to minimize the possibility of capital loss. This strategy is periodically reviewed by the Board for possible fine-tuning to ensure that it remains dynamic and reflective of market conditions.

The Financial Section of this report provides further information on the Board's fiscal year 2013 assets.

EXPENSES

Pension benefit payments are the Board's greatest current normal expense. Other expenses include the refund of pension contributions to employees who left City employment and the administrative expenses of operating the Board.

AMENDMENTS TO CITY OF PHILADELPHIA PUBLIC EMPLOYEES RETIREMENT CODE

Bill #110443 (Enacted by City Council on 9/15/12)

Amending Title 22 of The Philadelphia Code, entitled "Public Employees Retirement Code," by amending the options for retirement benefits; in particular, amending Section 22-310, entitled "Deferred Retirement Option Plan (DROP)," by making various changes to DROP to reduce its costs, including, but not limited to, changing eligibility requirements and the interest credited to DROP accounts; adding a new option for retirees to take a lump sum benefit at retirement, in exchange for an actuarial reduction of their regular monthly pension; and making conforming amendments to other provisions; all u

Bill #120824 (Enacted by City Council on 11/29/12)

Authorizing and approving the City to amend the payments due under an Alternative Funding Mechanism for a portion of the unfunded actuarial accrued liability of the City of Philadelphia Retirement System pursuant to the Municipal Pension Plan Funding Standard and Recovery Act, through the execution and delivery of a supplement to a Service Agreement between the City of Philadelphia and the Authority, such amendment of payments to be effected through the issuance of the Authority's bonds to provide funds to purchase outstanding bonds of the Authority previously issued to finance such Alternativ

Bill #130307 (Enacted by City Council on 6/13/13)

Amending the Ordinance of March 1, 1963, entitled "An Ordinance authorizing the Board of Pensions and Retirement to enter into an agreement or agreements to administer employee retirement benefits for the Philadelphia Industrial Development Corporation, Passenger Services Improvement Corporation, Food Distribution Center, and the Philadelphia Parking Authority, under certain terms and conditions," as amended, to provide for revised reimbursement rates, under certain terms and conditions.

The full text of these amendments, as well as the entirety of the City of Philadelphia Public Employees Retirement Code (Section 22 of the Philadelphia Code) is available on the City of Philadelphia City Council website at <http://citynet/citycouncil/index.html>.

PROFESSIONAL SERVICES

Professional consultants are retained by the Board of Pensions and Retirement to provide expertise and support necessary for the administration of the Public Employees Retirement System. A list of those firms rendering professional services to the Board is presented on Page 6.

AUDIT

The City Controller's Office, which is independent of the City of Philadelphia Administration, audits all operational transactions of the Board of Pensions and Retirement. For the Fiscal year ending June 30, 2013, the Board elected to have the annual financial audit of the Municipal Pension Fund performed by the accounting firm of CliftoLarsonAllen, LLP.

LETTER OF TRANSMITTAL

April 03, 2014

City of Philadelphia Municipal Retirement System
Two Penn Center Plaza – 16th Floor
Philadelphia, PA 19102-1721

Dear Board Members:

At your request, we have performed the July 1, 2013 actuarial valuation of the City of Philadelphia Municipal Retirement System.

In preparing our report, we relied on information (some oral and some written) supplied by the System's staff. This information includes, but is not limited to, plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice #23. The results of this report are only applicable to the System's contribution for Fiscal Year Ending 2015, and rely on future plan experience conforming to the underlying assumptions. To the extent that actual plan experience deviates from the underlying assumptions, the future results will vary accordingly.

To the best of our knowledge, this report has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. Furthermore, as credentialed actuaries we meet the Qualification Standards, as defined by the American Academy of Actuaries, to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.

This actuarial valuation report was prepared solely for the City of Philadelphia Municipal Retirement System for the purposes described herein, except that the plan auditor may rely on this report solely for the purpose of completing an audit related to the matters herein. This actuarial valuation report is not intended to benefit any third party, and Cheiron assumes no duty or liability to any such party.



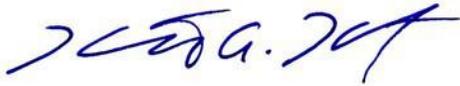
CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2013 ACTUARIAL VALUATION

SECTION I
BOARD SUMMARY

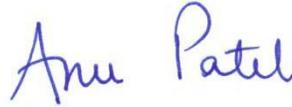
City of Philadelphia Municipal Retirement System
April 03, 2014
Page 2

Finally, in preparation of this report we have accepted the assumptions and methodologies as adopted by the Board of Pensions and Retirement for the City of Philadelphia Municipal Retirement System.

Sincerely,
Cheiron



Kenneth A. Kent, FSA, FCA, EA, MAAA
Principal Consulting Actuary



Anu Patel, FSA, EA, MAAA
Consulting Actuary

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2013 ACTUARIAL VALUATION**

**SECTION I
BOARD SUMMARY**

The primary purpose of the actuarial valuation and this report is to disclose the following as of the valuation date:

- The financial condition of the City of Philadelphia Municipal Retirement System,
- Past trends and expected future trends and risks to the Retirement System's financial condition,
- The City's required contribution for Fiscal Year End (FYE) 2015,
- The Retirement Board's Funding Policy recommended City contribution, and
- Information required by the Governmental Accounting Standards Board (GASB).

In this Section, we present a summary of the principal valuation results. This includes the basis upon which the July 1, 2013 valuation was completed and an examination of the current financial condition of the System. In addition, we present a review of the key historical trends followed by the System's projected financial outlook.

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2013 ACTUARIAL VALUATION

SECTION I
BOARD SUMMARY

A. Valuation Basis

The June 30, 2013 valuation results are based on the same methods used in the June 30, 2012 valuation as outlined in the report reflecting the amendments made under Act 44 to the Act 205 funding requirements through the addition of Chapter 10. This report was prepared using census data and financial information as of July 1, 2013 and does not reflect any subsequent changes in the membership or the assets.

The valuation results reflect the Board's decision to

- decrease the interest rate from 7.95% to 7.85% as of July 1, 2013, and
- apply a liability load of 0.54% to the actuarial liability to account for funding of benefits payable under the Pension Adjustment Fund (PAF).

Below we highlight significant outcomes of this valuation. Table I-1 summarizes these results:

- **Financial performance:** The return on assets for the year ending June 30, 2013 was favorable when benchmarked against the assumed 7.95% return. Our calculation of performance results in a return of 10.94%. However with the 10 year smoothing of assets applied in the calculation of the actuarial asset value, the 2008 and 2009 investment losses still dominated the results. On an actuarial asset value basis the return of June 30, 2013 is 5.08%.
- **Unfunded Actuarial Liability (UAL):** The UAL is the excess of the System's actuarial liability (AL) over the actuarial value of assets (AVA). The UAL increased from \$5.083 billion as of July 1, 2012 to **\$5.327 billion as of July 1, 2013** reflecting the net of asset losses and liability losses from July 1, 2012 through June 30, 2013 in addition to changes in actuarial assumptions as of July 1, 2013. The experience loss represents \$167.5 million increase in the UAL. This is comprised of a \$39.3 million liability loss attributable to losses from new entrants with past service and mortality losses from retirees living longer than expected while offset in part by salary growth slower than expected and \$127.7 million asset loss. There was also an increase in UAL due to actuarial assumptions changes of \$143.1 million.
- **Funding Ratio:** This is the ratio of the System's AVA to AL. The funding ratio decreased from 48.1% as of July 1, 2012 to **47.4% as of July 1, 2013** mainly due to the asset losses and changes in actuarial assumptions. While this ratio may appear to reflect lack of progress in funding at the same time the Systems risk profile is being improved by including funding for the PAF and lowering of the discount rate.
- **Minimum Municipal Obligation (MMO):** The MMO is the required minimum amount the City must contribute under Pennsylvania State law **before application of amendments** specific to the System. The MMO increased from \$523.4 million for FYE 2014 to **\$556.0 million for FYE 2015**.

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2013 ACTUARIAL VALUATION

**SECTION I
BOARD SUMMARY**

- **Deferred Contribution Payment:** The deferred MMO amounts as permitted under Act 44 totaling \$230 million and all interest on these amounts were fully paid by the City during the Plan Year ending June 30, 2013.
- **Annual Act 205 Reporting:** Under Section 1002 of Act 205, the City is required to provide annual reports to the Pennsylvania Employee Retirement Commission (PERC). Therefore the MMO determination reflects annually determined experience gains and losses as opposed to biennially.
- **Contribution under the City’s Funding Policy:** The beginning-of-year contribution under the City’s Funding Policy increased from \$769.0 million for FYE 2013 based upon actual FYE 2013 payroll to an estimated **\$826.9 million for FYE 2014**.

Table I-1 summarizes the comparative UAL and fiscal year funding amounts discussed above.

Table I-1 Key Results (\$ thousands)			
Valuation Date		7/1/2013	7/1/2012
Unfunded Actuarial Liability	\$	5,326,895	\$ 5,083,059
Funding Ratio		47.4%	48.1%
		Fiscal Year 2015	Fiscal Year 2014
Minimum Municipal Obligation	\$	556,030	\$ 523,368
City's Funding Policy Contribution*	\$	826,847	\$ 769,040

*The City’s funding policy contribution for FYE Fiscal Year 2014 was updated based upon the actual payroll of \$1,429.7 million (provided as pay rates in the data) as of July 1, 2013, used to estimate the beginning of year FYE 2014 payroll. In the July 1, 2012 actuarial valuation report, the estimated FYE 2014 payroll was \$1,417.5 million based upon July 1, 2012 pay rates and increased with the payroll assumption

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2013 ACTUARIAL VALUATION**

**SECTION I
BOARD SUMMARY**

B. Current Financial Condition

On the following pages, we summarize the key results of the July 1, 2013 valuation and how they compare to the results from the July 1, 2012 valuation.

1. City Membership:

As shown in Table I-2 below, total membership in the Retirement System increased by 0.7% from 2012 to 2013.

Table I-2				
Membership Total				
		July 1, 2013	July 1, 2012	% Change
Actives		26,788	26,306	1.8%
Terminated Vesteds		1,281	1,289	-0.6%
Disabled		4,152	4,169	-0.4%
Retirees		21,696	21,314	1.8%
Beneficiaries		8,614	8,621	-0.1%
DROP		<u>2,427</u>	<u>2,786</u>	-12.9%
Total City Members		64,958	64,485	0.7%
Annual Salaries	\$	1,429,723,436	\$ 1,372,174,460	4.2%
Average Salary per Active Member	\$	53,372	\$ 52,162	2.3%
Annual Retirement Allowances	\$	676,634,789	\$ 646,916,633	4.6%
Average Retirement Allowance	\$	19,634	\$ 18,969	3.5%

The active participant population increased by 1.8% during the 2012 to 2013 plan year. DROP participants decreased about 12.9% from 2012 to 2013 as members reached the end of their 4-year DROP participation period. The average salary per active member increased by 2.3% during the plan year, which is lower than assumed by the salary scale assumption. The result of higher active membership slightly offset by lower salary growth produced a total payroll growth higher than expected of 4.2% versus the expected 3.3% payroll growth assumption from last year.

Annual retirement allowances continued to increase, growing by 4.6% this year and reflects a 3.5% increase in the average benefits provided and an increase in participants in pay status of 1.0%.

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2013 ACTUARIAL VALUATION**

**SECTION I
BOARD SUMMARY**

2. City Assets and Liabilities:

Table I-3 presents a comparison between the July 1, 2013 and July 1, 2012 System assets, liabilities, UAL, and funding ratios. The Funding Ratio decreased from 48.1% as of July 1, 2012 to **47.4%** as of July 1, 2013 due to the asset losses, liability losses and changes in actuarial assumptions. Prior to the assumption changes the funded ratio would have remained at 48.1%.

The July 1, 2012 market value of assets (MVA) includes \$230 million in deferred contributions in accordance with the requirements of Act 44.

Table I-3				
Assets and Liabilities				
(\$ thousands)				
	July 1, 2013		July 1, 2012	% Change
Actuarial Liabilities by Membership:				
Actives	\$ 3,171,233	\$	2,946,588	7.6%
Terminated Vesteds	117,083		116,813	0.2%
Disabled	720,597		699,033	3.1%
Retirees	4,441,281		4,187,990	6.0%
Beneficiaries	571,413		550,868	3.7%
DROP	1,098,426		1,292,585	-15.0%
Non-Vested Refunds	6,123		5,975	2.5%
Total Actuarial Liability	\$ 10,126,156	\$	9,799,852	3.3%
Market Value of Assets (net of PAF)*	\$ 4,444,127	\$	4,151,828	7.0%

*The PAF is available for distribution under title §22-311 of the Philadelphia Code. In general, the PAF provides for enhanced benefit distribution to retirees and beneficiaries through the use of excess earnings. For more details on the PAF, see Section II – E

The market asset value (net of the Pension Adjustment Fund (PAF)) average return was 10.9% compared to the 7.95% assumption for the previous year. For the actuarial value of assets, the experience gains and losses are smoothed over future years, which yielded a rate of return of 5.1%.

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3. Components of UAL Change between July 1, 2012 and July 1, 2013:

The Retirement System's unfunded actuarial liability increased by \$243.8 million, from \$5,083.1 million as of July 1, 2012 to \$5,326.9 million as of July 1, 2013. Table I-4 presents the specific components of this change in the UAL.

The System experienced a \$127.7 million asset loss based upon the actuarial value of assets and a \$39.3 million liability loss which is attributable to demographic experience. There was also an additional liability of \$143.1 million recognized due to the changes in assumptions (decrease in interest rate from 7.95% to 7.85% and prefunding for the PAF). Actual FYE 2013 contributions when compared to the expected MMO created a \$23.6 million gain because of higher contributions. This is offset with a \$24.0 million loss due to the one year deferral of gains and losses under the MMO funding requirements. When these changes are compared to the expected paydown of the UAL as part of the MMO there is a net increase in the UAL of \$243.8 over what is expected as of July 1, 2013.

Table I-4	
Change in Unfunded Actuarial Liability (UAL)	
(\$ millions)	
<u>Experience</u>	
1. UAL change due to asset (gain)/loss	\$ 127.7
2. UAL change due to overall liability (gain)/loss	\$ 39.3
<u>Contributions</u>	
3. UAL change due to difference in benefit accruals, MMO contributions, and timing	\$ (23.6)
4. UAL change due to one-year delay in MMO contributions	\$ 24.0
<u>Total (Gain)/Loss Amortization Base</u>	
5. Total UAL change due to gains and losses: sum 1 through 4	\$ 167.4
<u>Assumption Changes</u>	
6. UAL change due to assumption changes	\$ 143.1
<u>Total</u>	
7. Total net overall change: 5 + 6	\$ 310.5
8. UAL change due to benefit accruals, benefit payments and interest accumulation	<u>(66.7)</u>
9. Net increase/(decrease) in UAL: 7 + 8	\$ 243.8

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4. Contributions:

Table I-5 on the next page summarizes the alternative City contribution amounts. The contribution under the **City's Funding Policy** for FYE 2014 was originally estimated to be \$769.2 million based upon estimated FYE 2014 payroll. Using updated payroll, the FYE 2014 contribution is \$769.0 million. For Fiscal Year 2015, the funding policy contributions increased by 2.20% of payroll, from 53.79% to 55.99%. In dollar terms, the contributions under the City's Funding Policy increased from \$769.0 million to \$826.8 million, a \$57.8 million increase. Along with changes in assumptions and experience, the increase in the funding policy is attributable to experience losses for each year the policy amount is not contributed. The FYE 2015 contributions under the City's Funding Policy will be updated next year based on actual payroll. All contributions for the City's Funding Policy are provided as of the beginning of the year.

The **Minimum Municipal Obligation** for FYE 2015 measured as of the beginning of the year increased by 0.73% of payroll, from 36.92% to 37.65%. In dollar terms, the required beginning of year contribution increased from \$523.4 million to \$556.0 million, a \$32.6 million increase.

In Section IV of this report, we provide more detail on the development of these contributions.

Table I-5 Contributions (\$ thousands)					
Fiscal Year Ending in Year:	2015	% of Pay	2014	% of Pay	
City's Funding Policy¹					
Estimated FY Payroll	\$ 1,476,904		\$ 1,429,723		²
Normal Cost (with Expenses)	\$ 141,507	9.58%	\$ 134,981	9.44%	
Employee Contributions	<u>(49,266)</u>	3.34%	<u>(47,859)</u>	3.35%	
City Normal Cost	\$ 92,241	6.25%	\$ 87,121	6.09%	
Amortization Payment	<u>734,606</u>	49.74%	<u>681,919</u>	47.70%	
City's Funding Policy	\$ 826,847	55.99%	\$ 769,040	53.79%	
Minimum Municipal Obligation³					
Estimated FY Payroll	\$ 1,476,904		\$ 1,417,456		
Normal Cost (with Expenses)	\$ 141,507	9.58%	\$ 134,705	9.50%	
Employee Contributions	<u>(49,266)</u>	3.34%	<u>(47,449)</u>	3.35%	
City Normal Cost	\$ 92,241	6.25%	\$ 87,256	6.16%	
Amortization Payment	<u>463,789</u>	31.40%	<u>436,112</u>	30.77%	
Minimum Municipal Obligation	\$ 556,030	37.65%	\$ 523,368	36.92%	

¹Assuming beginning-of-year payment.

²FYE 2014 Payroll for the City's Funding Policy is based upon the 7/1/2013 pay rates and will be finalized when the FYE 2014 payroll is available. All other payroll is estimated based upon the prior year's data used for the actuarial valuation.

³The MMO does not include Quasi-Agency contributions.

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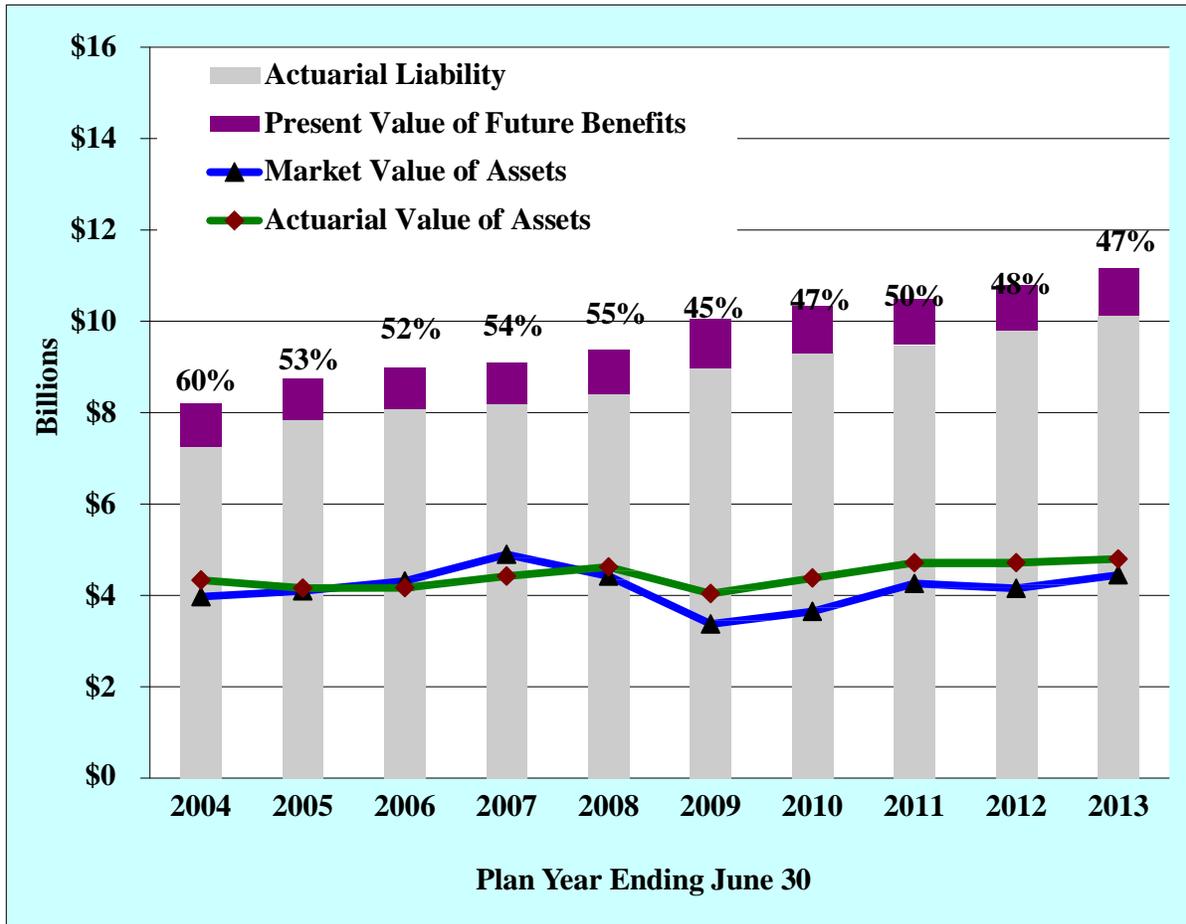
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C. Historical Trends

Although most of the attention given to the valuation reflects the most recently computed unfunded actuarial liability, funding ratio, and contribution amounts, it is important to remember that each valuation is merely a snapshot of the long-term progress of a pension fund. It is equally important to judge a current year's valuation result relative to historical trends, as well as trends expected into the future.

In the chart below, we present the historical trends for the market and actuarial value of assets compared to the actuarial liabilities and present value of future benefits; we also show the progress of the Retirement System's funding ratios (provided above each bar) since 2004.

City of Philadelphia Assets* and Liabilities – 2004 to 2013



* Market value of assets includes the PAF, which is not available for funding purposes.

The System's funding ratio has declined significantly since 2004. In 2009, the funding ratio declined by 10% due to the investment losses during the year and the change in the actuarial liability interest rate assumption. In 2011, the funding ratio increased by 3% due to strong investment returns, which was partially offset by the increased actuarial liability due to the

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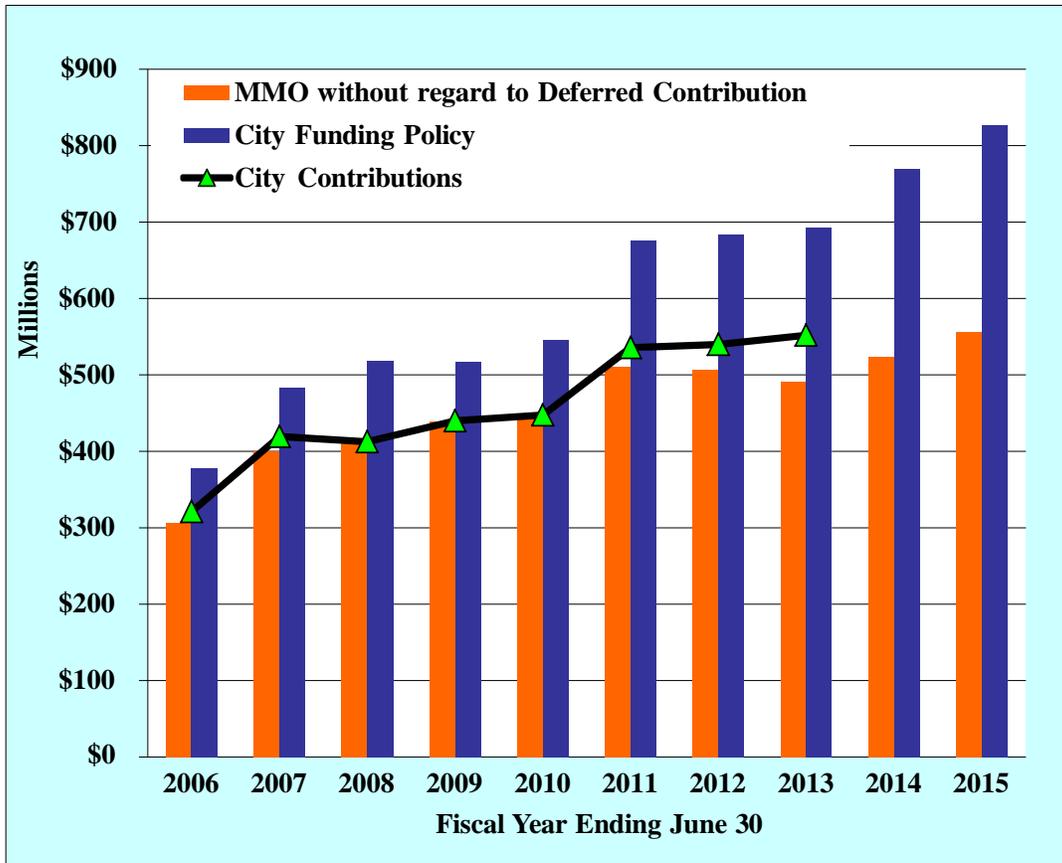
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assumption changes. In particular, the assumed interest rate assumption has been decreased during this period from 9.00% to 7.85%. In each of 2012 the funding ratio decreased by 2% due to lower than expected investment returns and additional changes in assumptions and in 2013 the funding ratio decreased by 1% due to asset losses and further changes in assumptions to reduce future risks and reflect lower interest rates resulting in an increased actuarial liability.

This historic trend emphasizing the relatively low funded status highlights the potential risk of running out of assets to pay benefits. However, as long as the City adheres to the continued policy of contributing at least the Minimum Municipal Obligation this risk will be avoided.

In this next chart, we present historical trends for the Minimum Municipal Obligation (MMO), the contribution under the City's Funding Policy, and the actual contribution made for fiscal years since 2005. Because there is a two-year lag in the determination of the City Funding Policy and MMO requirements, we show the contributions to date and the estimated amounts for fiscal years 2014 and 2015. The FYE 2010 and 2011 City contributions include the \$150 million and \$80 million deferred contributions which have been paid during FYE 2013. The deferred contributions are subsequently included in the asset value and treated as if they are short-term investments and therefore not reflected in the actual City contributions received during FYE 2013.

City of Philadelphia Contributions for Fiscal Years 2006-2015



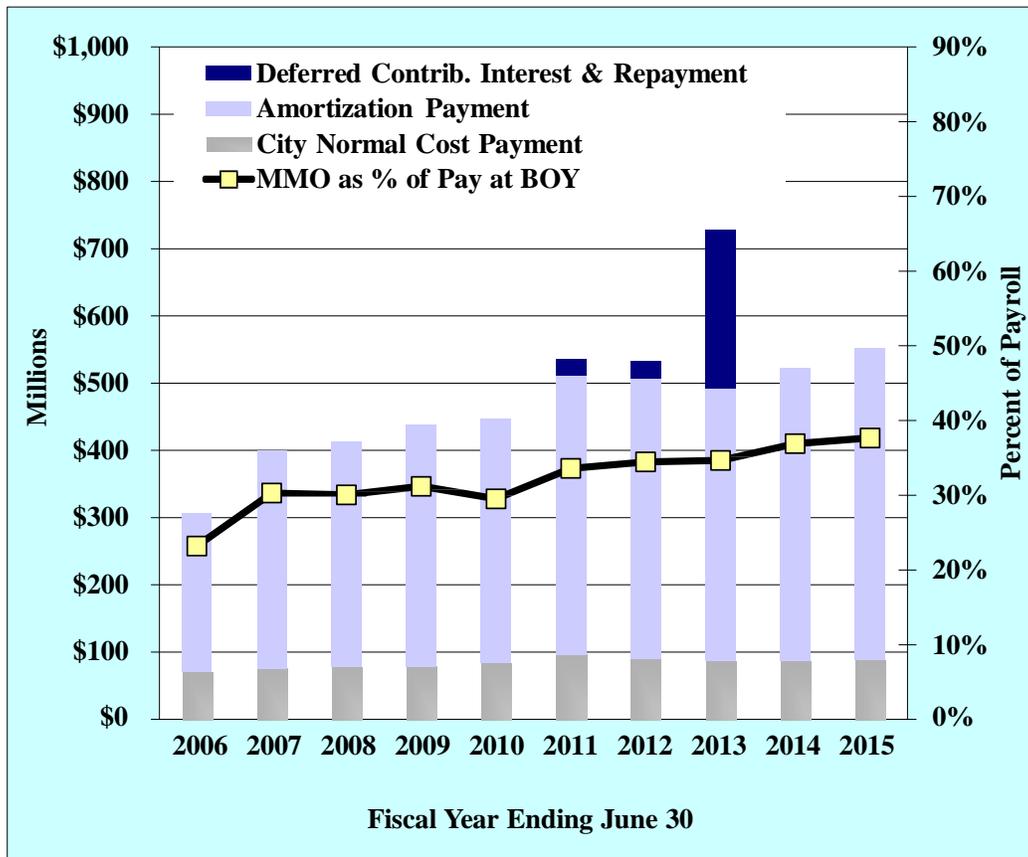
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The key trend illustrated in this chart is the rapid escalation in all three measures starting in FYE 2006 due in part to investment losses and the City’s decision to move from the funding policy to the MMO. This has slowed the funding progress in maintaining the funding policy and has resulted in losses under the funding policy due to contribution amounts being lower than what the policy calls for. These losses result in the increasing gap between the funding policy amount and the MMO. In addition, the MMO and City’s Funding Policy amounts for FYE 2011 increased significantly mainly due to the investment losses and changes in assumptions.

The chart below shows historical amortization payments, City normal cost payments, and the deferred contribution interest and principal repayment. Also shown is the beginning-of-year MMO (normal cost plus amortization payments only, not including the deferred contributions) as a percentage of payroll based on the values in the legend on the right versus the line graph. For example in 2014 and 2015, the City cost is expected to be about 37% and 38% of payroll respectively.

MMO Contributions by Source for Fiscal Years 2006-2015



The chart illustrates that the City normal cost payment has increased gradually over the period shown. The amortization payment to pay off the unfunded actuarial liability has increased from just under \$236 million for FYE 2006 to just under \$464 million for FYE 2015. In 2011, the amortized payment increased by \$50 million due to investment losses and the decrease in the

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interest rate assumption, which were then mitigated by the 30 year fresh start of the unfunded liability. For FYE 2014 and FYE 2015 the amortization amounts have increased steadily due to the changes in assumptions that have had a net result of increase in liabilities.

The total City cost (normal cost plus amortization payments) as a percentage of payroll (as shown by the line and on the right hand axis) increased rapidly from about 23% in 2006 to about 30% in 2007, remained relatively steady for 4 years through 2010, and then increasing again as the investment losses of FYE 2008 and 2009 get recognized over time to the current level of 38% in FYE 2015.

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D. Projected Financial Trends

Our analysis of the City of Philadelphia Municipal Retirement System’s projected financial trends is an important part of this valuation. In this section, we present our assessment of the implications of the July 1, 2013 valuation results on the future outlook in terms of benefit security (assets over liabilities) and the City’s expected cost progression.

In the charts that follow, we project the Retirement System’s assets and liabilities, and the City’s contributions as a percent of payroll. Unless otherwise noted we assume the MMO contributions are made each year. Our illustrations assume the provisions of Act 205 as amended by Act 44 remain in force during the projection period.

The projections are provided on two different asset return assumption bases:

- 1) Assuming the new 7.85% return assumption each and every year, and
- 2) Assuming returns shown in the table below. These are rates of return which vary each year, but over the projection period equal on average the assumed 7.85% return. We do this because the City’s return will never be level from year to year and the System must anticipate the implications of asset return volatility to the funded status and contribution requirements.

Fiscal Year Beginning	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Return	3.5%	7.5%	15.5%	5.0%	10.0%	10.5%	7.6%	5.3%	0.0%	-4.5%
Fiscal Year Beginning	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Return	-0.5%	7.0%	6.5%	6.0%	11.5%	15.0%	19.5%	15.5%	11.0%	7.0%

In reviewing each of these projections, it is the future trends, not necessarily the actual values that are important to consider in your deliberation of the risks of the System and the potential volatility of future funding ratios and City contribution levels.

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Projection Set 1: Assets and Liabilities

The two charts below show asset measures (green and blue lines) compared to liabilities (grey and pink bars). At the top of each chart is the progression of the System’s funding ratio which compares the actuarial value of assets (green lines) to the actuarial liability (grey bars). The projections demonstrate a number of issues. Funding at the MMO level with the current ten year asset smoothing method and the 2009, 30 year fresh start amortization method on a level dollar basis, will result in a very slow improvement of funding while the full impact of the 2008/2009 investment losses are fully realized. This is also a reflection of the negative cash flow of the System discussed below. The alternative return expectations reveal insight from these two charts as to how varying investment returns impact the System’s funding ratio. In both projections, the 10 year asset smoothing method has significant influence on the smoothing of assets against market value volatility as well as the relatively slow funding progress. What should be apparent is while achieving the same average return over the projection period, when returns actually vary the funded ratio is below the projection of consistent 7.85% returns each year – this demonstrates the risk of negative cash flow.

Chart 1: Projection of Assets and Liabilities, 7.85% return each year and City makes contributions based on MMO

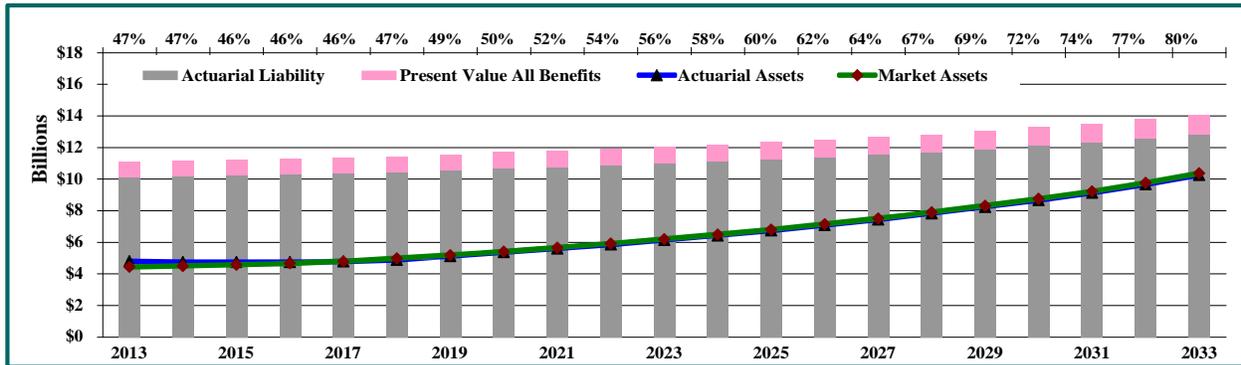
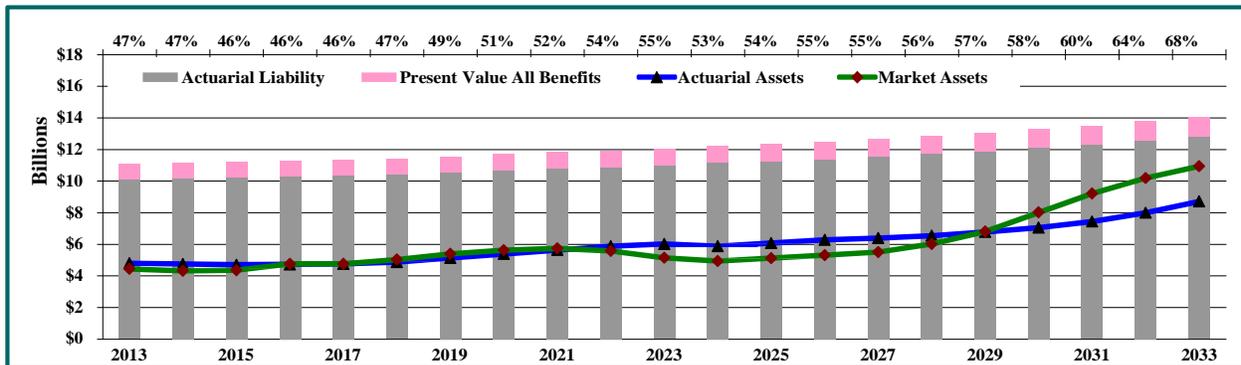


Chart 2: Projection of Assets and Liabilities, varying returns averaging 7.85% and City makes contributions based on MMO



* Market value of assets includes the PAF, which is not available for funding purposes.

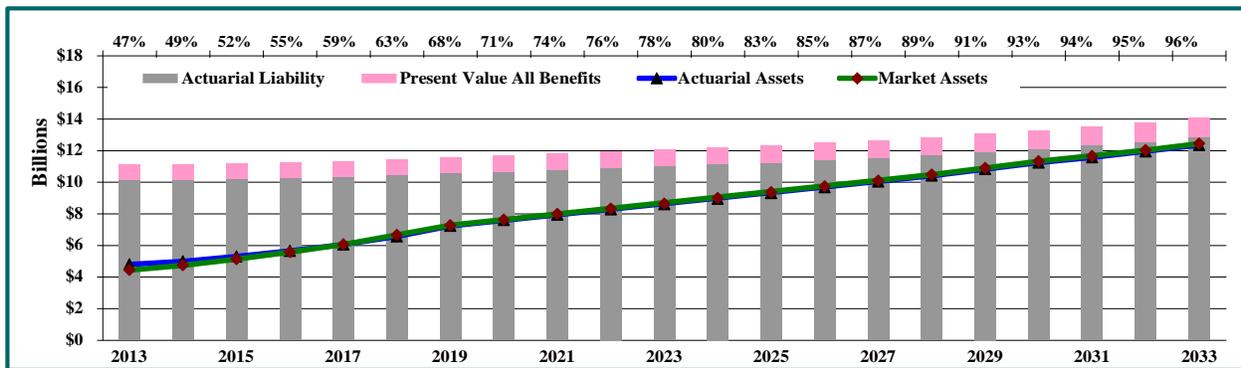
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Chart 2 demonstrates that if the fund can achieve a long-term return rate of 7.85%, the funding ratio can be adversely impacted by volatile returns year by year. This component of funding risk is driven by negative cash flows (where benefit payments and expenses are greater than contributions). When a mature fund pays out more than it receives in a year and returns are below the assumption, the assets that get paid out are no longer in the fund during subsequent years of market recovery. So a fund with significant negative cash flow coupled with investment return volatility will grow at a slower rate than the investment return assumption.

It is also important to consider the fact that as long as the System is significantly underfunded, the financial burden on the City will remain relatively high, and the only reason both of these projections show gradual improvement is because the contributions will be adjusted to cover any cost volatility to comply with MMO requirements under Act 205.

Chart 3: Projection of Assets and Liabilities, 7.85% return each year, and the City makes contributions based on the City’s Funding Policy



In the above scenario, where the City’s Funding Policy is contributed every year, the System reaches a funded ratio of 96% at the end of the projection period. Also, for the entire period the funding ratio is higher than the ratio achieved each year if the MMO contributions are made, because of the higher assumed contributions. These higher funded levels are a result of significantly higher contribution levels as can be seen in the next section where we project the contribution amounts in support of these funding graphs.

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Chart 4: Projection of Assets and Liabilities, if the City makes contributions based on the Funding Policy, varying returns averaging 7.85%

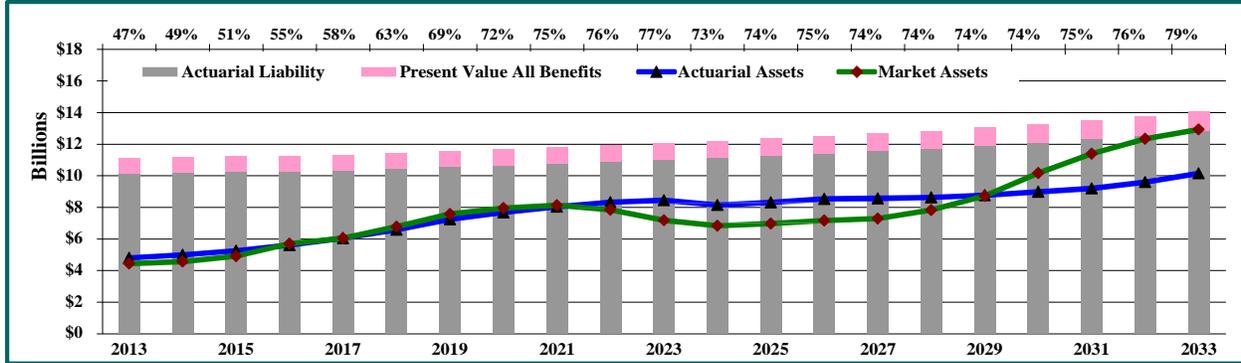


Chart 4 demonstrates that even if the return is achieved on average, because of negative cash flows the funded ratio could be materially less than long-term expectations might imply.

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Projection Set 2: Projected City Contribution Rate

The chart below shows that the City’s composite contribution rate under the MMO decreases very gradually over the projection period ending at about 25% of payroll by 2033. The unfunded actuarial liability is not paid off during this projection period; thus the projected contributions never revert to the normal cost rate. The decrease in 2019 for the City’s Funding Policy rate is due to the payment in full of the initial unfunded liability. This projection assumes all actuarial assumptions are met, including the 7.85% anticipated investment return assumption, and the MMO contributions are made each year.

Chart 5: Projection of City Contributions, 7.85% return each year and the City makes contributions based on the MMO

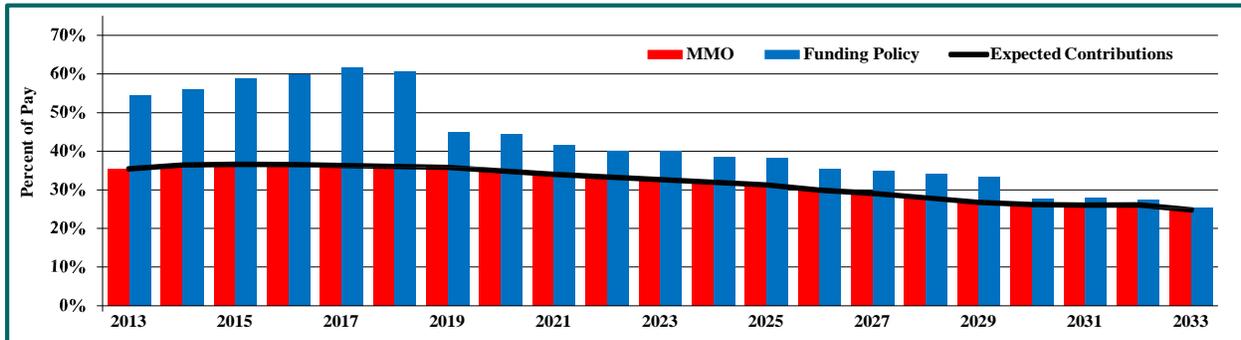
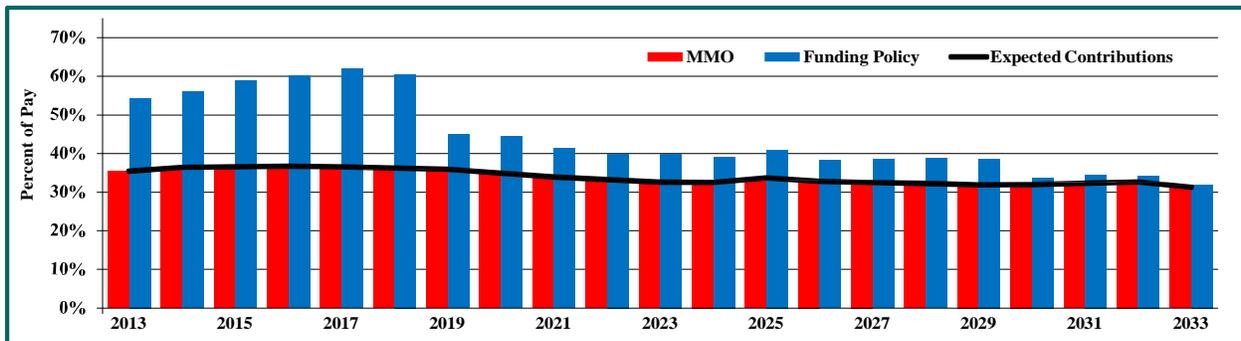


Chart 6: Projection of City Contributions, varying returns averaging 7.85% and the City makes contributions based on the MMO



As shown above, varying returns have an impact on the computed City contribution rate, especially in the later projection years. However, the volatility is mitigated for two reasons, the 10-year smoothing of assets and 20-year amortization of experience gains and losses. This illustrates that the future contributions should be anticipated to be higher to adjust for the market volatility. Thus, the market volatility can prolong the period of paying down the unfunded when coupled with the impact of negative cash flows in down markets.

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Chart 7: Projection of City Contributions, 7.85% return each year, and the City makes contributions based on the City’s Funding Policy

This chart shows the expected future contribution if the City’s Funding Policy contributions are made each year. Because under this scenario significantly larger contributions are assumed to be made each year up front, projected contributions are expected to decline dramatically when the initial funded base is expected to be paid off in 2018 when compared to Chart 5.

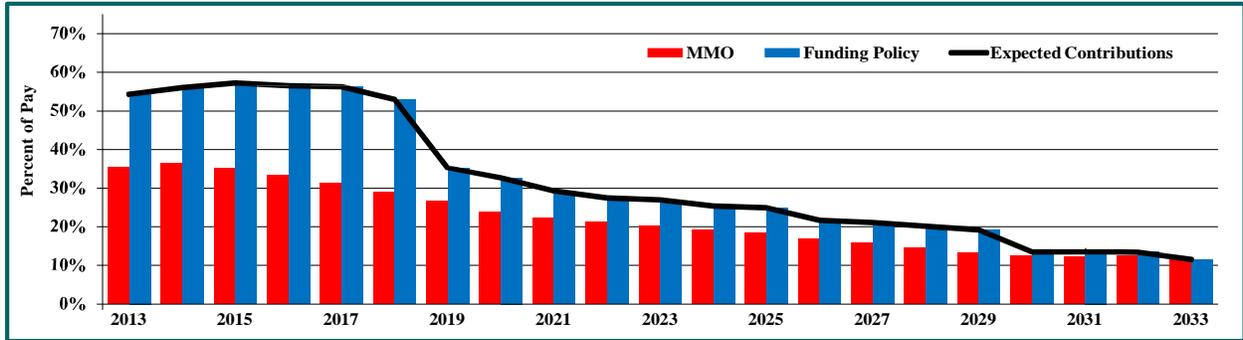
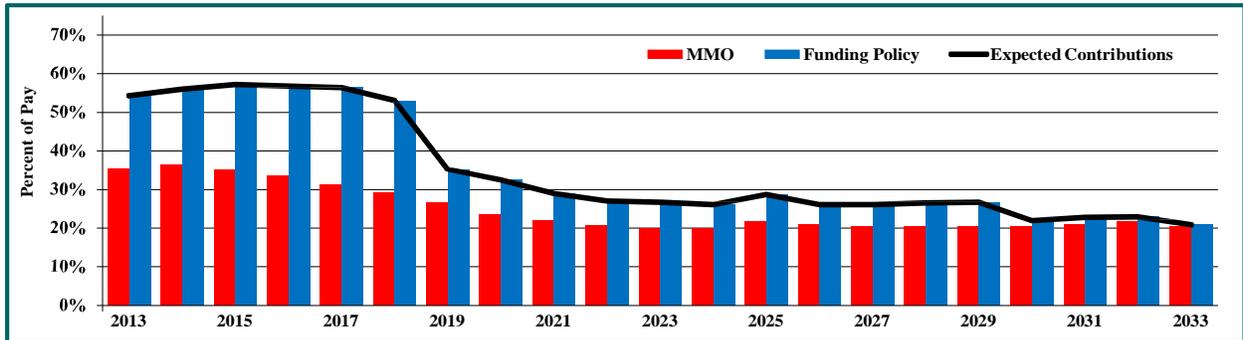


Chart 8: Projection of City Contributions, varying returns averaging 7.85% and the City makes contributions based on the City’s Funding Policy

Chart 8 is similar to Chart 7, illustrating again the smoothing expectation on a City Funding Policy level when the annual return rates vary from year to year.



We note that when the System becomes 70% funded or greater, the unfunded liability may be amortized on a rolling 10-year basis. We have not shown the implications of this alternative funding method provided for in Act 205 because of the potential length of the projected period it will take before the System reaches this level of funding.

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The Retirement System uses and discloses two different asset measurements which are presented in this Section of the report: market value and actuarial value of assets. The market value represents the value of the assets if they were liquidated on the valuation date and, unless explicitly stated otherwise, this value includes the Pension Adjustment Fund (PAF) which is not available for funding purposes. The actuarial value of assets is a value that smoothes annual investment returns over ten years beginning in 2008 (five years before 2008) to reduce annual investment volatility and is used in determining contribution levels. By definition, the actuarial value of assets does not include the PAF.

On the following pages, we present detailed information on System assets:

- Disclosure of assets at July 1, 2012 and July 1, 2013,
- Statement of cash flows during the year,
- Development of the actuarial value of assets,
- Apportionment of assets between plans for valuation purposes,
- Development of the Pension Adjustment Fund as of July 1, 2013, and
- Disclosure of investment performance for the year.

A. Disclosure

The market value of assets represents a “snap-shot” value as of the last day of the fiscal year that provides the principal basis for measuring financial performance from one year to the next. Market values, however, can fluctuate widely with corresponding swings in the value of the investments. Because these fluctuations would cause volatility in employer contributions, an actuarial value of assets is developed. Table II-1 below presents the market value by asset class as of July 1, 2012 and July 1, 2013. Table II-2 presents the System’s net cash flows for the plan year beginning July 1, 2012 and ending June 30, 2013. Table II-3 presents Fiscal 2013 City contributions.

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**Table II-1
Statement of Assets at Market Value¹**

	7/1/2013	7/1/2012
<u>Assets</u>		
Cash	\$ 200,682,000	\$ 202,479,449
Investments	4,238,153,000	3,716,592,996
Securities Lending	614,267,000	407,007,573
Due from Brokers and Other Receivables	182,597,553	264,214,407
Due from Other Governmental Units	<u>3,133,447</u>	<u>2,441,845</u>
Total Assets	\$ 5,238,833,000	\$ 4,592,736,270
<u>Liabilities</u>		
Due on Securities Lending	\$ 614,742,000	\$ 407,007,573
Due to Brokers and Other Liabilities	<u>178,867,000</u>	<u>262,911,910</u>
Total Liabilities	\$ 793,609,000	\$ 669,919,483
Net Assets	\$ 4,445,224,000	\$ 3,922,816,787
Deferred Contributions for each FYE	<u>0</u>	<u>230,000,001</u>
Net Assets with Deferred Contributions	\$ 4,445,224,000	\$ 4,152,816,788

* Includes the PAF which is not available for funding purposes.

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B. System Cash Flows for the Year July 1, 2012 through July 1, 2013

Table II-2 Changes in Market Values¹		
Value of Assets – July 1, 2012		\$ 4,152,817,000
<u>Additions</u>		
Contributions:		
Employer Contributions	\$ 551,823,000	
Employee Contributions	49,614,000	
Total Contributions		\$ 601,437,000
Investment Income:		
Gain/(Loss) from Sale of Investments	\$ 332,000,000	
Interest and Dividends	122,893,000	
Total Investment Income	\$ 454,893,000	
Investment Activity Expenses:		
Investment Expenses	(12,226,000)	
Total Investment Activity Expenses	\$ (12,226,000)	
Securities Lending Activities:		
Securities Lending Income	\$ 2,996,000	
Securities Lending Expenses	(331,000)	
Net Income from Securities Lending Activities	\$ 2,665,000	
Miscellaneous Operating Revenues	\$ 469,000	
Net Investment Income		445,801,000
Total Additions		\$ 1,047,238,000
<u>Deductions</u>		
Administrative Expenses	\$ (8,341,000)	
Withdrawal Refunds	(5,744,000)	
Benefit Payments	(740,746,000)	
PAF Distributions	0	
Total Deductions		(754,831,000)
<u>Total</u>		
Net Increase (Decrease)		292,407,000
Value of Assets – July 1, 2013		\$ 4,445,224,000

¹ Includes the PAF which is not available for funding purposes and beginning of year assets reflect \$230 million in deferred contributions actually received during the year.

² Does not include the \$230 million in deferred contributions repaid during the year because they are included in the beginning of year assets.

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Cash Received during Fiscal Year 2013	\$	763,822,655
Cash Received from Quasi-Agencies		<u>18,000,345</u>
Total Cash Received during Fiscal Year 2013	\$	781,823,000
Payment of Deferred Contributions		(230,000,000)
Total Contributions for Fiscal Year 2013	\$	551,823,000

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C. Actuarial Value of Assets

To determine on-going funding requirements, most pension funds utilize an actuarial value of assets that differs from the market value of assets. The actuarial value of assets represents an asset value based on averaging or smoothing year-to-year market value returns for purposes of reducing contribution volatility. Beginning with investment losses as of Fiscal Year End 2009, gains and losses are prospectively distributed in equal amounts over a ten-year period (over a five year period prior to 2009) coupled with the requirement that the resulting asset value may not be more or less than 20% of the MVA.

**Table II-4
Development of Actuarial Value of Assets
as of July 1, 2013**

1. Market Value of Assets as of July 1, 2013					\$ 4,445,223,788
2. Pension Adjustment Fund (PAF) as of July 1, 2013 Before Additional Transfers					\$ 1,096,608
3. Market Value of Assets Net of Original PAF*					\$ 4,444,127,180
4. Deferred Asset Gains/(Losses)					
<u>Plan</u> <u>Year</u>	<u>Investment</u> <u>Gains / (Losses)</u>	<u>Percent</u> <u>Recognized</u>	<u>Percent</u> <u>Deferred</u>	<u>Amount</u> <u>Deferred</u>	
2008	\$ (1,235,073,412)	50%	50%	\$ (617,536,706)	
2009	200,524,637	40%	60%	120,314,782	
2010	414,187,915	30%	70%	289,931,541	
2011	(328,486,968)	20%	80%	(262,789,574)	
2012	127,718,278	10%	90%	114,946,450	
Total				\$ (355,133,507)	
5. Preliminary Actuarial Value as of July 1, 2013 (5 = 3 - 4)					\$ 4,799,260,687
6. Corridor for Actuarial Value					
a. 80% of Market Value Net of PAF					\$ 3,555,301,744
b. 120% of Market Value Net of PAF					\$ 5,332,952,616
7. Additional PAF Transfer as of July 1, 2013					\$ 0
8. Actuarial Value of Assets Net of Final PAF as of July 1, 2013 8 = max((min of 5 or 6b) and 6a), minus 7					\$ 4,799,260,687
9. As a percent of Market Value Net of Final PAF					108.0%
10. Market Value of Assets Net of Final PAF					\$ 4,444,127,180

* Market value of assets net of original PAF before the determination of the final PAF amount. See section II - E for more details on the development of the total PAF and the additional PAF transfer, if applicable.

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D. Allocation of Actuarial Value of Assets

The asset allocation reflects the actual cash flows for each plan and proportional allocation of investment earnings.

Table II-5									
Allocation of Assets for Valuation Purposes Between Plans as of July 1, 2013									
(\$ thousands)									
	<u>1967 Plan</u>			<u>1987 Plan</u>				<u>Plan '10</u>	<u>Total</u>
	<u>Municipal</u>	<u>Police</u>	<u>Fire</u>	<u>Municipal</u>	<u>Elected</u>	<u>Police</u>	<u>Fire</u>	<u>Municipal</u>	
1. Actuarial Value of Assets as of July 1, 2012	\$ 1,786,073	\$ 751,692	\$ 309,350	\$ 853,066	\$ 10,992	\$ 792,441	\$ 213,179	\$ 0	\$ 4,716,793
2. Transactions During Plan Year July 1, 2012 to June 30, 2013									
a. Contributions									
City and Commonwealth Employees	\$ 241,378	\$ 141,513	\$ 53,851	\$ 47,157	\$ 822	\$ 38,119	\$ 10,983	\$ 0	\$ 533,823
Quasi-Public Agencies	6,173	2,577	813	15,249	241	19,020	5,537	4	49,614
b. Benefit Payments	15,408	0	0	2,592	0	0	0	0	18,000
c. Withdrawals	(402,147)	(204,666)	(88,516)	(24,536)	(1,530)	(14,973)	(4,378)	0	(740,746)
d. Administrative Expenses	(1,429)	(272)	(19)	(2,199)	0	(1,570)	(255)	0	(5,744)
e. Net Transactions	(3,160)	(1,326)	(457)	(2,367)	(6)	(794)	(231)	0	(8,341)
3. Total Fund Balance Prior to Allocation of Investment Income [1. + 2e.]	\$ (143,777)	\$ (62,174)	\$ (34,328)	\$ 35,896	\$ (473)	\$ 39,802	\$ 11,656	\$ 4	\$ (153,394)
4. Investment Income During Plan Year July 1, 2012 to June 30, 2013	\$ 1,642,296	\$ 689,518	\$ 275,022	\$ 888,962	\$ 10,519	\$ 832,243	\$ 224,835	\$ 4	\$ 4,563,399
5. Preliminary Actuarial Value of Assets as of July 1, 2013 [3. + 4.]	\$ 84,883	\$ 35,638	\$ 14,215	\$ 45,946	\$ 544	\$ 43,015	\$ 11,621	\$ 0	\$ 235,862
6. Final Actuarial Value of Assets With Corridor as of July 1, 2013	\$ 1,727,179	\$ 725,155	\$ 289,237	\$ 934,909	\$ 11,062	\$ 875,258	\$ 236,456	\$ 4	\$ 4,799,261

Note: Numbers may not add due to rounding

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2013 ACTUARIAL VALUATION**

**SECTION II
ASSETS**

E. Development of the Pension Adjustment Fund as of July 1, 2013

The table below provides the funds available for distribution consideration under title §22-311 of the Philadelphia Code. In general, the Pension Adjustment Fund (PAF) provides for additional benefit distributions to retirees and beneficiaries through the use of excess earnings. This may include a lump-sum bonus payment, monthly pension increases, ad-hoc cost of living adjustments, or other increase determined by the Board. The adjusted market value of assets reflects a five-year smoothing of asset gains and losses, as described in the Philadelphia Code.

Table II-6 Development of the Pension Adjustment Fund as of July 1, 2013		
1. PAF on July 1, 2012	\$	988,497
2. PAF Distribution		0
3. Market Value Asset Return Through June 30, 2013 *		10.94%
4. PAF on July 1, 2013 Before Additional Transfers** =(1) x [1 + (3)] + (2)	\$	1,096,608
5. Adjusted Market Value of Assets Through June 30, 2013	\$	4,333,264,645
6. Adjusted Market Value of Assets Return Through June 30, 2013 ***		3.61%
7. Return in Excess of Investment Assumption Plus 1.0%, Limited to 5.0% =(6) - [7.95% + 1.00%]		0.00%
8. Additional Transfer as of July 1, 2013 =50% of (7) x (5)	\$	0
9. Total PAF as of July 1, 2013 = (4) + (8)	\$	1,096,608

* Market Value Asset Return including the PAF

** Calculations are based upon the unrounded percents for items (3) and (7)

*** Asset Return based upon the Adjusted Market Value of Assets using a 5 year smoothing of the gains/losses as outlined in Title 22-311

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2013 ACTUARIAL VALUATION**

**SECTION II
ASSETS**

F. Investment Performance

The market value of assets internal rate of return was 10.9% for the year ending June 30, 2013. This is compared to an assumed return of 7.95% for the same period. This return produced an overall investment gain of \$127.7 million for the year ending June 30, 2013. In the table below, we also provide returns from the two broad asset classes for comparison.

On an actuarial value of assets basis (net of PAF), the return for FYE 2013 was 5.1%.

Table II-7 Annual Rates of Return					
Year Ending June 30,	Investment Return Assumption	Market Value	Actuarial Value *	Total Return Standard & Poor's 500 Index	Barclays Aggregate Bond Index**
1995	9.00%	11.7%	7.8%	26.1%	12.8%
1996	9.00%	15.1%	10.1%	26.0%	4.7%
1997	9.00%	18.3%	12.2%	34.6%	8.2%
1998	9.00%	14.3%	13.1%	30.2%	10.5%
1999	9.00%	10.0%	13.1%	22.7%	3.1%
2000	9.00%	9.6%	11.1%	7.3%	4.6%
2001	9.00%	-6.0%	8.3%	-14.8%	11.2%
2002	9.00%	-5.8%	3.4%	-18.0%	8.6%
2003	9.00%	1.8%	-2.2%	0.3%	10.4%
2004	9.00%	16.6%	4.6%	19.1%	0.3%
2005	8.75%	9.9%	1.8%	6.3%	6.8%
2006	8.75%	11.3%	6.1%	8.6%	-0.8%
2007	8.75%	17.0%	10.7%	20.6%	6.1%
2008	8.75%	-4.5%	10.1%	-13.1%	7.1%
2009	8.75%	-19.9%	-9.3%	-26.2%	6.0%
2010	8.25%	13.8%	12.9%	14.4%	9.2%
2011	8.15%	19.4%	9.9%	28.1%	3.6%
2012	8.10%	0.2%	2.4%	3.1%	7.3%
2013	7.95%	10.9%	5.1%	17.9%	-0.8%

* Net of PAF

** Formerly Lehman Brothers Aggregate Bond Index



**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2013 ACTUARIAL VALUATION**

**SECTION II
ASSETS**

G. Asset Gain/(Loss)

There was a \$127.7 million investment gain on market value of assets when compared to the expected as of July 1, 2013. Table II-8 reconciles the 2013 asset gain (expected versus actual) for the market value of assets both net of the PAF and in total. This investment gain is smoothed over a ten-year period to determine the actuarial value of assets (see Table II – 4). Also provided below is a reconciliation of the PAF. There was no PAF transfer amount or distribution as of July 1, 2013.

Table II-8 Calculation of Asset Gain/(Loss)			
	Market Value (Net of PAF)	PAF	Total Market Value
1. Market Value of Assets as of July 1, 2012	\$ 4,151,828,291	\$ 988,497	\$ 4,152,816,788
2. Transactions During Plan Year July 1, 2012 to June 30, 2013			
a. Contributions			
City and Commonwealth	\$ 533,822,655	\$ 0	\$ 533,822,655
Employees	49,614,000	0	49,614,000
Quasi-Public Agencies	18,000,345	0	18,000,345
b. Benefit Payments	(740,746,000)	0	(740,746,000)
c. Withdrawals	(5,744,000)	0	(5,744,000)
d. Administrative Expenses	<u>(8,341,000)</u>	<u>0</u>	<u>(8,341,000)</u>
e. Net Transactions	\$ (153,394,000)	\$ 0	\$ (153,394,000)
3. Expected Investment Income From July 1, 2012 to June 30, 2013	\$ 318,676,443	\$ 108,111 ¹	\$ 318,784,554
4. PAF transfer at July 1, 2013	\$ 0	\$ 0	\$ 0
5. Expected Market Value of Assets as of July 1, 2013 [1. + 2.e. + 3. + 4]	\$ 4,317,110,734	\$ 1,096,608	\$ 4,318,207,342
6. Market Value of Assets as of July 1, 2013	\$ 4,444,127,180	\$ 1,096,608	\$ 4,445,223,788
7. Investment Gain/(Loss) [6. - 5.]	\$ 127,016,446	\$ 0	\$ 127,016,446

¹The PAF is credited with investment income at the market rate of return earned by plan assets.

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2013 ACTUARIAL VALUATION

**SECTION III
LIABILITIES**

In this section, we present detailed information on liabilities for the City of Philadelphia Municipal Retirement System, including:

- Disclosure of liabilities at July 1, 2012 and July 1, 2013,
- Statement of changes in these liabilities and the unfunded liabilities during the year,
- Development of the normal cost rates by plan, and
- The reconciliation of the changes in the unfunded liability by plan as well as the expected unfunded liability as of July 1, 2014.

Disclosure

Two types of liabilities are calculated and presented in this report. Each type is distinguished by the purpose for which the figures are ultimately used.

- **Present Value of all Future Benefits:** Used for measuring all future obligations, this represents the amount of money needed today to fully pay off all benefits both earned as of the valuation date and those to be earned in the future by current Plan participants, under the current Plan provisions and assumptions.
- **Actuarial Liability:** Used for determining employer contributions and GASB accounting disclosures. This liability is calculated by subtracting the present value of future member contributions and future employer normal cost contributions as determined under the Entry Age Normal Cost (EAN) actuarial funding method from the present value of all future benefits.

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2013 ACTUARIAL VALUATION**

**SECTION III
LIABILITIES**

Table III-1 shows the present value of future benefits, actuarial liability, and unfunded actuarial liability as of July 1, 2013, and July 1, 2012, for the Retirement System.

Table III-1 Disclosure of Liabilities (\$ thousands)		
	July 1, 2013	July 1, 2012
Present Value of Future Benefits		
Actives	\$ 4,198,370	\$ 3,924,652
Terminated Vesteds	117,083	116,813
Disabled	720,597	699,033
Retirees	4,441,281	4,187,990
Beneficiaries	571,413	550,868
DROP Account plus Deferred Annuities	1,098,426	1,292,585
Non-Vested Refunds	<u>6,123</u>	<u>5,975</u>
Total City PVFB	\$ 11,153,293	\$ 10,777,916
Market Value of Assets	(4,445,224)	(4,152,817)
Present Value Future Member Contrib.	<u>(348,784)</u>	<u>(339,045)</u>
City's Unfunded Future Obligation	\$ 6,359,285	\$ 6,286,054
Actuarial Liability		
Actives	\$ 3,171,233	\$ 2,946,588
Terminated Vesteds	117,083	116,813
Disabled	720,597	699,033
Retirees	4,441,281	4,187,990
Beneficiaries	571,413	550,868
DROP	1,098,426	1,292,585
Non-Vested Refunds	<u>6,123</u>	<u>5,975</u>
Total City AL	\$ 10,126,156	\$ 9,799,852
Actuarial Value of Assets	<u>(4,799,261)</u>	<u>(4,716,793)</u>
Unfunded Actuarial Liability	\$ 5,326,895	\$ 5,083,059

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2013 ACTUARIAL VALUATION**

**SECTION III
LIABILITIES**

Table III-2 shows the present value of future benefits, actuarial liability, and unfunded actuarial liability for each Plan in the Retirement System.

Table III-2 Liabilities Detail as of July 1, 2013 (\$ thousands)									
	<u>1967 Plan</u>			<u>1987 Plan</u>				<u>Plan '10</u>	<u>Total</u>
	<u>Municipal</u>	<u>Police</u>	<u>Fire</u>	<u>Municipal</u>	<u>Elected</u>	<u>Police</u>	<u>Fire</u>	<u>Municipal</u>	
Present Value of Future Benefits									
Actives	\$ 877,743	\$ 274,176	\$ 80,026	\$ 1,250,827	\$ 14,391	\$ 1,345,637	\$ 355,498	\$ 73	\$ 4,198,370
Terminated Vesteds	58,458	147	0	42,541	0	12,833	3,104	0	117,083
Disabled	233,930	219,839	53,740	56,305	0	132,898	23,886	0	720,597
Retirees	2,382,069	1,268,481	590,045	137,074	10,788	35,260	17,564	0	4,441,281
Beneficiaries	312,482	152,324	67,100	19,349	426	13,831	5,901	0	571,413
DROP	608,905	278,116	90,456	70,292	0	39,565	11,092	0	1,098,426
Non-Vested Refunds	<u>1,736</u>	<u>156</u>	<u>50</u>	<u>3,507</u>	<u>0</u>	<u>533</u>	<u>141</u>	<u>0</u>	<u>6,123</u>
Total PVFB	\$ 4,475,323	\$ 2,193,239	\$ 881,417	\$ 1,579,896	\$ 25,605	\$ 1,580,557	\$ 417,186	\$ 73	\$11,153,293
Actuarial Liability									
Actives	\$ 805,769	\$ 244,199	\$ 71,738	\$ 934,213	\$ 11,940	\$ 881,897	\$ 221,471	\$ 5	\$ 3,171,233
Terminated Vesteds	58,458	147	0	42,541	0	12,833	3,104	0	117,083
Disabled	233,930	219,839	53,740	56,305	0	132,898	23,886	0	720,597
Retirees	2,382,069	1,268,481	590,045	137,074	10,788	35,260	17,564	0	4,441,281
Beneficiaries	312,482	152,324	67,100	19,349	426	13,831	5,901	0	571,413
DROP	608,905	278,116	90,456	70,292	0	39,565	11,092	0	1,098,426
Non-Vested Refunds	<u>1,736</u>	<u>156</u>	<u>50</u>	<u>3,507</u>	<u>0</u>	<u>533</u>	<u>141</u>	<u>0</u>	<u>6,123</u>
Total AL	\$ 4,403,349	\$ 2,163,262	\$ 873,129	\$ 1,263,283	\$ 23,154	\$ 1,116,817	\$ 283,159	\$ 5	\$10,126,156
Actuarial Value of Assets	<u>(1,727,179)</u>	<u>(725,155)</u>	<u>(289,237)</u>	<u>(934,909)</u>	<u>(11,062)</u>	<u>(875,258)</u>	<u>(236,456)</u>	<u>(4)</u>	<u>(4,799,261)</u>
Unfunded Actuarial Liability	\$ 2,676,170	\$ 1,438,107	\$ 583,892	\$ 328,374	\$ 12,092	\$ 241,559	\$ 46,703	\$ 1	\$ 5,326,895
Funding %	39.2%	33.5%	33.1%	74.0%	47.8%	78.4%	83.5%	79.9%	47.4%

Note: Numbers may not add due to rounding.

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2013 ACTUARIAL VALUATION**

**SECTION III
LIABILITIES**

Table III-3 shows the derivation of the City normal cost as a percent of pay for each Plan in the System.

	Table III-3								
	Derivation of the Normal Cost as of July 1, 2013								
	(\$ thousands)								
	<u>1967 Plan</u>			<u>1987 Plan</u>				<u>Plan '10</u>	
	<u>Municipal</u>	<u>Police</u>	<u>Fire</u>	<u>Municipal</u>	<u>Elected</u>	<u>Police</u>	<u>Fire</u>	<u>Municipal</u>	<u>Total</u>
Retirement	\$ 8,596	\$ 4,663	\$ 1,374	\$ 23,805	\$ 230	\$ 36,246	\$ 10,731	\$ 5	\$ 85,651
Death	438	198	59	1,826	17	1,687	513	1	4,739
Disability	1,272	605	165	5,389	30	5,241	1,495	1	14,198
Termination	3,623	635	176	15,024	144	3,350	828	2	23,782
Administrative Expenses	3,166	1,337	459	2,555	6	836	257	1	8,616
Total Normal Cost	\$ 17,094	\$ 7,437	\$ 2,234	\$ 48,599	\$ 428	\$ 47,361	\$ 13,823	\$ 10	\$ 136,987
Expected Employee Contributions	\$ 5,824	\$ 2,372	\$ 693	\$ 14,553	\$ 264	\$ 18,679	\$ 5,299	\$ 8	\$ 47,692
City Normal Cost	\$ 11,270	\$ 5,066	\$ 1,541	\$ 34,045	\$ 164	\$ 28,682	\$ 8,525	\$ 1	\$ 89,294
Current Annual Payroll	\$ 155,310	\$ 39,527	\$ 11,555	\$ 746,329	\$ 3,168	\$ 369,151	\$ 104,422	\$ 263	\$1,429,723
City Normal Cost as % of Pay, Beginning of Year Payment	7.257%	12.816%	13.334%	4.562%	5.170%	7.770%	8.164%	0.560%	6.246%
City Normal Cost as % of Pay, End of Year Payment	7.826%	13.822%	14.381%	4.920%	5.575%	8.380%	8.805%	0.603%	6.736%

Note: Numbers may not add due to rounding.

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2013 ACTUARIAL VALUATION**

**SECTION III
LIABILITIES**

Table III-4 shows changes in the unfunded actuarial liability from July 1, 2012 to July 1, 2013 due to actuarial experience and assumption changes; there were no plan changes. It also shows the development of the expected unfunded actuarial liability from July 1, 2013 to July 1, 2014 based upon the City's Funding Policy, which is used to develop the end of year amortization amounts for the City's Funding Policy in Table IV – 10 and in Appendix D. The actuarial experience of each of the plans is calculated based on the plans' actual asset and liability values compared to the expected values.

Table III-4 Expected Unfunded Actuarial Liability for the Plan Year Ending June 30, 2014 (\$ thousands)									
	<u>1967 Plan</u>			<u>1987 Plan</u>				<u>Plan '10</u>	<u>Total</u>
	<u>Municipal</u>	<u>Police</u>	<u>Fire</u>	<u>Municipal</u>	<u>Elected</u>	<u>Police</u>	<u>Fire</u>	<u>Municipal</u>	
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2013 Based on July 1, 2012 Valuation*	\$ 2,455,516	\$ 1,333,377	\$ 556,404	\$ 241,722	\$ 10,420	\$ 193,478	\$ 41,226	\$ 0	\$ 4,832,143
2. Changes in UAL due to									
a. Actuarial Experience	\$ 165,104	\$ 77,840	\$ 16,773	\$ 63,022	\$ 1,363	\$ 27,304	\$ 292	\$ 1	\$ 351,699
b. Assumption Changes	55,550	26,889	10,714	23,630	308	20,777	5,184	0	143,054
c. Active Plan Changes	0	0	0	0	0	0	0	0	0
d. Inactive Plan Changes	0	0	0	0	0	0	0	0	0
e. Subtotal	\$ 220,654	\$ 104,729	\$ 27,487	\$ 86,652	\$ 1,672	\$ 48,081	\$ 5,476	\$ 1	\$ 494,753
3. Actual UAL as of July 1, 2013 [1. + 2e.]	\$ 2,676,170	\$ 1,438,106	\$ 583,892	\$ 328,374	\$ 12,092	\$ 241,558	\$ 46,703	\$ 1	\$ 5,326,895
4. Expected Changes in UAL from July 1, 2013 to July 1, 2014 due to									
a. Interest on Changes in UAL	\$ 17,321	\$ 8,221	\$ 2,158	\$ 6,802	\$ 131	\$ 3,774	\$ 430	\$ 0	\$ 38,838
b. FY 2014 Amortization Contribution	(183,400)	(116,341)	(42,119)	(6,984)	(331)	(3,550)	(769)	0	(353,493)
c. Subtotal	\$ (166,078)	\$ (108,120)	\$ (39,962)	\$ (181)	\$ (199)	\$ 224	\$ (339)	\$ 0	\$ (314,655)
5. Expected UAL as of July 1, 2014 [3. + 4c.]	\$ 2,510,092	\$ 1,329,986	\$ 543,930	\$ 328,193	\$ 11,892	\$ 241,782	\$ 46,364	\$ 1	\$ 5,012,240

* Expected UAL is based upon the City's funding policy

Note: Numbers may not add due to rounding.

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2013 ACTUARIAL VALUATION**

**SECTION IV
CONTRIBUTIONS AND MINIMUM MUNICIPAL OBLIGATION**

In the process of evaluating the financial condition of any pension plan, the actuary analyzes the assets and liabilities to determine what level (if any) of contribution is needed based upon the funding methods either required by law or adopted by the plan sponsor. For an actuarial funding method to be effective, it should result in a pattern of contributions that are both stable, predictable and systematically fund the plan obligations.

The actuarial funding method used to determine the normal cost and the unfunded actuarial liability is the Entry Age Normal (EAN) cost method. The normal cost is based on taking the value, as of entry age into the plan, of each member's projected future benefits. This value is then divided by the value, also at entry age, of each member's expected future salary producing a normal cost rate as a percent of salary that should remain relatively constant over a participant's career. The normal cost rate is multiplied by current salary to determine each member's normal cost. Finally, the normal cost is reduced by the member contribution to produce the employer normal cost. The unfunded actuarial liability is the difference between the EAN actuarial liability and the actuarial value of assets.

Within this section of the report, two contribution amounts are determined based upon two different sets of rules for determining the way the unfunded actuarial liability is funded.

The first method is defined in accordance with Act 205 and defines the Minimum Municipal Obligation (MMO), which is the City's minimum required contribution under Pennsylvania state law. The second method is in accordance with the City's Funding Policy which predates the Act 205 rules and calls for contributions that are greater than the MMO until the initial unfunded liability determined in 1984 is fully funded. Under both funding methods there are two components: the normal cost and the amortized unfunded actuarial liability. The amortized unfunded actuarial liability is the amount of the unfunded actuarial liability that is paid each year based upon the given or defined amortization periods. The amortization periods are different under the MMO and the City's Funding Policy, which is outlined in more detail in Appendix B, Section B.

As of July 1, 2010, gains and losses are recognized annually to determine the amortization base used to calculate the MMO, as opposed to biennially. This change is implemented in accordance with section 1002 of Act 205.

In addition, the MMO, excluding the Pension Obligation Bond (POB) is also provided in this section, as required for reporting purposes under Act 205.

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2013 ACTUARIAL VALUATION**

**SECTION IV
CONTRIBUTIONS AND MINIMUM MUNICIPAL OBLIGATION**

In Table IV-1 we provide the employee contribution rates as a percent of pay effective for the plan year starting July 1, 2014. Table IV-2a and Table IV-2b shows the quasi-agency funding rates as a percent of payroll for both Plans 67 Municipal and 87 Municipal based on the funding policy and MMO respectively.

Table IV-1				
Employee Contribution Rates				
for the Plan Year Beginning July 1, 2014				
	Municipal¹	Elected²	Police	Fire
Plan 67	3.75%	N/A	6.00%	6.00%
Plan 87	1.95%	8.33%	5.00%	5.00%
Plan 87 Prime ³	3.38%	N/A	6.00%	6.00%
Plan '10 ⁴	3.23%	N/A	5.50%	5.50%

¹For Municipal 1967 plan, employee contributions are 6% for pay in excess of the social security wage base

²The employee contribution rate is based upon the normal cost of \$427,618 under Plan 87 Elected, normal cost of \$234,093 under Plan 87 Municipal and current annual payroll of \$3,167,623

³Plan 87 Prime refers to new hires who have the option to elect Plan '10 but have elected to stay in Plan '87

⁴There were only 7 participants in Plan '10 Municipal as of the valuation date. Since this group is so small the employee contribution rate is phased in over 10 years with the employee contribution rate calculated for new entrants in Plan '87 Prime

The next two tables isolate the City Funding Policy requirements for the Quasi Agencies that participate in the System broken out for Municipal Plans 1967 and 1987 both under the Funding Policy and MMO.

Table IV-2a		
Quasi Agency Funding Rate as a		
Percent of Payroll (Based on Funding Policy)		
Valuation Date	July 1, 2013	July 1, 2012
Fiscal Year Ending in Year	2015	2014
67 Municipal		
1. Normal Cost Rate	7.826%	7.702%
2. Amortization Rate under the City's Funding Policy	<u>261.704%</u>	<u>229.469%</u>
3. Total Year-End Rate [1. + 2.]	269.530%	237.171%
4. Quarterly adjustment factor	0.97184	0.97150
5. Total, adjusted for Quarterly Payments [3. x 4.]	261.940%	230.412%
87 Municipal		
1. Normal Cost Rate	4.920%	4.871%
2. Amortization Rate under the City's Funding Policy	<u>4.819%</u>	<u>3.745%</u>
3. Total Year-End Rate [1. + 2.]	9.739%	8.616%
4. Quarterly adjustment factor	0.97184	0.97150
5. Total, adjusted for Quarterly Payments [3. x 4.]	9.465%	8.370%

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2013 ACTUARIAL VALUATION

**SECTION IV
CONTRIBUTIONS AND MINIMUM MUNICIPAL OBLIGATION**

Table IV-2b		
Quasi Agency Funding Rate as a Percent of Payroll (Based on MMO)		
Valuation Date	July 1, 2013	July 1, 2012
Fiscal Year Ending in Year	2015	2014
67 Municipal		
1. Normal Cost Rate	7.826%	7.702%
2. Amortization Rate under MMO	<u>161.849%</u>	<u>145.529%</u>
3. Total Year-End Rate [1. + 2.]	169.675%	153.231%
4. Quarterly adjustment factor	0.97184	0.97150
5. Total, adjusted for Quarterly Payments [3. x 4.]	164.897%	148.864%
87 Municipal		
1. Normal Cost Rate	4.920%	4.871%
2. Amortization Rate under MMO	<u>4.133%</u>	<u>3.196%</u>
3. Total Year-End Rate [1. + 2.]	9.053%	8.066%
4. Quarterly adjustment factor	0.97184	0.97150
5. Total, adjusted for Quarterly Payments [3. x 4.]	8.798%	7.837%

Table IV-3 shows the development of the FYE 2015 Minimum Municipal Obligation (MMO) for each division. Table IV-4 on the following page shows a schedule of amortization payments toward the MMO.

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Table IV-3				
Development of the Minimum Municipal Obligation for Fiscal Year End 2015				
(\$ thousands)				
	Non-Uniformed	Police	Fire	Total
Estimated FY 2014-2015 Payroll	\$ 934,937	\$ 422,164	\$ 119,804	\$ 1,476,904
Normal Cost %	6.674%	12.877%	13.228%	8.979%
Normal Cost	\$ 62,396	\$ 54,362	\$ 15,848	\$ 132,606
Amortization Payment	262,724	145,995	55,070	463,789
Administrative Expenses	<u>5,917</u>	<u>2,244</u>	<u>740</u>	<u>8,901</u>
Subtotal	\$ 331,037	\$ 202,601	\$ 71,658	\$ 605,296
Expected Employee Contributions	<u>(21,331)</u>	<u>(21,745)</u>	<u>(6,190)</u>	<u>(49,266)</u>
Minimum Municipal Obligation	\$ 309,706	\$ 180,857	\$ 65,467	\$ 556,030

Note: Numbers may not add due to rounding.

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Table IV-4 Unfunded Liability Payments toward the MMO for Fiscal Year 2015 (\$ thousands)												
Type of Base	<u>Municipal</u>			<u>Police</u>			<u>Fire</u>			<u>Total</u>		
	7/1/2013 Balance	Years Left	FY 2015 Payment									
Fresh Start Base est. July 1, 2009	\$ 2,661,521	26	\$ 225,305	\$ 1,498,129	26	\$ 126,821	\$ 580,553	26	\$ 49,145	\$ 4,740,203	26	\$ 401,271
Gain/Loss Base est. July 1, 2010	\$ (55,980)	17	\$ (5,634)	\$ (39,917)	17	\$ (4,017)	\$ (2,988)	17	\$ (301)	\$ (98,885)	17	\$ (9,951)
Assumption Change est. July 1, 2010	\$ 75,370	12	\$ 9,201	\$ 30,242	12	\$ 3,693	\$ 27,599	12	\$ 3,369	\$ 133,211	12	\$ 16,264
Gain/Loss est. July 1, 2011	\$ (109,667)	18	\$ (10,737)	\$ (22,222)	18	\$ (2,176)	\$ (21,853)	18	\$ (2,140)	\$ (153,742)	18	\$ (15,053)
Assumption Change est. July 1, 2011	\$ 21,640	13	\$ 2,518	\$ 13,011	13	\$ 1,514	\$ 4,388	13	\$ 511	\$ 39,039	13	\$ 4,542
Gain/Loss est. July 1, 2012	\$ 151,316	19	\$ 14,452	\$ 80,030	19	\$ 7,644	\$ 20,726	19	\$ 1,979	\$ 252,072	19	\$ 24,075
Assumption Change est. July 1, 2012	\$ 58,999	14	\$ 6,578	\$ 33,706	14	\$ 3,758	\$ 11,777	14	\$ 1,313	\$ 104,482	14	\$ 11,649
Gain/Loss est. July 1, 2013	\$ 133,949	20	\$ 12,509	\$ 39,019	20	\$ 3,644	\$ (5,507)	20	\$ (514)	\$ 167,461	20	\$ 15,639
Assumption Change est. July 1, 2013	\$ 79,489	15	\$ 8,532	\$ 47,666	15	\$ 5,116	\$ 15,899	15	\$ 1,707	\$ 143,054	15	\$ 15,355
Total	\$ 3,016,637		\$ 262,724	\$ 1,679,664		\$ 145,997	\$ 630,594		\$ 55,070	\$ 5,326,895		\$ 463,790

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Table IV-5 (a) – (d) provides more detail by plan on the expected and actual unfunded actuarial liability and the new amortization bases established as of July 1, 2013 for the MMO.

Table IV-5a				
Development of the Fiscal Year 2015 Amortization Payment under MMO				
Municipal and Elect				
(\$ thousands)				
	7/1/2013	Remaining		FY 2015
	Outstanding Balance	Years		Payment
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2013				
Based on July 1, 2012 Valuation	\$ 2,803,199		\$	241,682
2. Changes in UAL due to				
a. Actuarial Experience	\$ 133,949	20	\$	12,509
b. Assumption Changes	79,489	15		8,532
c. Active Plan Changes	0	10		0
d. Inactive Plan Changes	<u>0</u>	<u>1</u>		<u>0</u>
e. Subtotal	\$ 213,438		\$	21,041
3. Total [1c. + 2e.]	\$ 3,016,637		\$	262,723

Note: Numbers may not add due to rounding.

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Table IV-5b			
Development of the Fiscal Year 2015 Amortization Payment under MMO			
Police			
(\$ thousands)			
	7/1/2013	Remaining	FY 2015
	Outstanding Balance	Years	Payment
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2013			
Based on July 1, 2012 Valuation	\$ 1,592,979		\$ 137,236
2. Changes in UAL due to			
a. Actuarial Experience	\$ 39,019	20	\$ 3,644
b. Assumption Changes	47,666	15	5,116
c. Active Plan Changes	0	10	0
d. Inactive Plan Changes	<u>0</u>	1	<u>0</u>
e. Subtotal	\$ 86,685		\$ 8,760
3. Total [1c. + 2e.]	\$ 1,679,664		\$ 145,996

Note: Numbers may not add due to rounding.

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Table IV-5c				
Development of the Fiscal Year 2015 Amortization Payment under MMO				
Fire				
(\$ thousands)				
	7/1/2013	Remaining		FY 2015
	Outstanding Balance	Years		Payment
1. Expected Unfunded Actuarial				
Liability (UAL) as of July 1, 2013				
Based on July 1, 2012 Valuation	\$ 620,202		\$	53,877
2. Changes in UAL due to				
a. Actuarial Experience	\$ (5,507)	20	\$	(514)
b. Assumption Changes	15,899	15		1,707
c. Active Plan Changes	0	10		0
d. Inactive Plan Changes	<u>0</u>	1		<u>0</u>
e. Subtotal	\$ 10,392		\$	1,192
3. Total [1c. + 2e.]	630,594		\$	55,069

\$

Note: Numbers may not add due to rounding.

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Table IV-5d				
Development of the Fiscal Year 2015 Amortization Payment under MMO				
Total				
(\$ thousands)				
	7/1/2013	Remaining		FY 2015
	Outstanding Balance	Years		Payment
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2013				
Based on July 1, 2012 Valuation	\$ 5,016,380		\$	432,795
2. Changes in UAL due to				
a. Actuarial Experience	\$ 167,461	20	\$	15,639
b. Assumption Changes	143,054	15		15,355
c. Active Plan Changes	0	10		0
d. Inactive Plan Changes	<u>0</u>	1		<u>0</u>
e. Subtotal	\$ 310,515		\$	30,994
3. Total [1c. + 2e.]	\$ 5,326,895		\$	463,789

Note: Numbers may not add due to rounding.

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The tables on the following pages support Exhibit I of the Act 205 filings.

- Table IV-6 is a summary of assets, liabilities, and amortization contributions under the assumption that the Pension Obligation Bond (POB) was never contributed.
- Table IV-7 is a schedule of modified amortization payments under the assumption that the proceeds from the POB were never contributed.
- Table IV-8a, IV-8b, and IV-8c are debt service schedules for the POB, allocated for the Municipal, Police, and Fire divisions.
- Tables IV-9a and IV-9b are statements of receipts and disbursements for each division excluding and including bond issue assets, respectively, excluding the PAF.

Table IV-6				
Summa	(\$ thousands)			
	Municipal	Police	Fire	Total
Actuarial Liability	\$ 5,689,791	\$ 3,280,077	\$ 1,156,287	\$ 10,126,156
Market Value of Assets (less POB)	\$ 2,145,571	\$ 1,376,741	\$ 360,286	\$ 3,882,598
Actuarial Value of Assets (less POB)	\$ 2,172,982	\$ 1,375,221	\$ 372,011	\$ 3,920,214
Unfunded Actuarial Liability (AL - AVA)	\$ 3,516,809	\$ 1,904,856	\$ 784,276	\$ 6,205,941
Amortization Contributions				
Total Amortization Amount	\$ 305,576	\$ 165,453	\$ 68,319	\$ 539,348
Remaining Years	24	24	24	24

Note: Numbers may not add due to rounding.

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Table IV-7

**Modified Unfunded Liability Payments toward the MMO for Fiscal Year 2015
(\$ thousands)**

Type of Base	Municipal			Police			Fire			Total		
	7/1/2013 Balance	Remaining Years	FY 2015 Payment									
Fresh Start UAL Base est. July 1, 2009	\$ 3,121,042	26	\$ 264,204	\$ 1,690,514	26	\$ 143,106	\$ 716,176	26	\$ 60,626	\$ 5,527,732	26	\$ 467,937
July 1, 2010 Charges												
Experience (Gain)/Loss	\$ (49,581)	17	\$ (4,990)	\$ (34,683)	17	\$ (3,490)	\$ 1,702	17	\$ 171	\$ (82,561)	17	\$ (8,309)
Assumption Change	75,370	12	9,201	30,242	12	3,692	27,599	12	3,369	133,212	12	16,263
July 1, 2011 Charges												
Experience (Gain)/Loss	\$ (85,801)	18	\$ (8,401)	\$ (8,649)	18	\$ (847)	\$ (11,583)	18	\$ (1,134)	\$ (106,032)	18	\$ (10,381)
Assumption Change	\$ 21,640	13	\$ 2,518	\$ 13,011	13	\$ 1,514	\$ 4,388	13	\$ 511	\$ 39,039	13	\$ 4,542
July 1, 2012 Charges												
Experience (Gain)/Loss	\$ 152,016	19	\$ 14,519	\$ 84,389	19	\$ 8,060	\$ 21,641	19	\$ 2,067	\$ 258,046	19	\$ 24,646
Assumption Change	\$ 58,999	14	\$ 6,578	\$ 33,706	14	\$ 3,758	\$ 11,777	14	\$ 1,313	\$ 104,483	14	\$ 11,649
July 1, 2013 Charges												
Experience (Gain)/Loss	\$ 143,634	20	\$ 13,414	\$ 48,659	20	\$ 4,544	\$ (3,323)	20	\$ (310)	\$ 188,970	20	\$ 17,647
Assumption Change	\$ 79,489	15	\$ 8,532	\$ 47,666	15	\$ 5,116	\$ 15,899	15	\$ 1,707	\$ 143,054	15	\$ 15,355
Total	\$ 3,516,809		\$ 305,576	\$ 1,904,856		\$ 165,453	\$ 784,277		\$ 68,319	\$ 6,205,942		\$ 539,348

Note: Numbers may not add due to rounding.

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Table IV-8a				
TOTAL DEBT SERVICE REQUIREMENTS: MUNICIPAL				
Plan Year	Required Principal Payment	Required Interest Payment	Premium or Discount Amortized	Principal Balance at Valuation Date
1999	\$ -	\$ 7,041,525.30	\$ -	\$ 727,185,593.15
2000	9,917,857.50	29,825,175.27	-	717,267,735.65
2001	4,567,730.63	29,324,323.46	-	712,700,005.02
2002	-	29,087,715.02	-	712,700,005.02
2003	6,422,403.75	29,087,715.02	-	706,277,601.27
2004	8,884,981.88	28,728,336.25	-	697,392,619.39
2005	15,161,038.13	28,250,550.75	-	682,231,581.26
2006	18,743,737.50	27,403,048.72	-	663,487,843.76
2007	22,526,257.50	26,345,901.92	-	640,961,586.26
2008	26,486,083.13	25,064,157.87	-	614,475,503.13
2009	30,870,879.38	23,543,856.70	-	583,604,623.75
2010	40,000,711.88	21,756,432.78	-	543,603,911.87
2011	45,151,018.13	19,420,391.21	-	498,452,893.74
2012	22,154,721.72	45,234,066.39	-	476,298,172.02
2013	21,786,233.75	48,416,929.37	-	454,511,938.27
2014	20,545,516.84	50,378,126.28	-	433,966,421.43
2015	20,088,811.07	53,652,021.42	-	413,877,610.36
2016	19,364,886.72	56,464,212.02	-	394,512,723.64
2017	18,085,471.62	57,743,627.12	-	376,427,252.02
2018	16,915,332.51	58,913,766.23	-	359,511,919.51
2019	15,787,131.76	60,041,966.99	-	343,724,787.75
2020	14,758,165.41	61,070,933.33	-	328,966,622.34
2021	13,823,708.03	62,005,390.71	-	315,142,914.31
2022	12,919,375.38	62,909,723.36	-	302,223,538.93
2023	12,071,748.11	63,757,350.63	-	290,151,790.82
2024	11,250,110.80	64,578,987.94	-	278,901,680.02
2025	10,560,195.36	65,268,903.38	-	268,341,484.66
2026	17,271,090.90	58,558,007.84	-	251,070,393.76
2027	60,297,984.38	16,196,263.75	-	190,772,409.38
2028	64,125,534.38	12,367,341.75	-	126,646,875.00
2029	126,646,875.00	4,147,685.16	-	-

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Table IV-8b				
TOTAL DEBT SERVICE REQUIREMENTS: POLICE				
Plan Year	Required Principal Payment	Required Interest Payment	Premium or Discount Amortized	Principal Balance at Valuation Date
1999	\$ -	\$ 3,848,228.76	\$ -	\$ 397,410,560.15
2000	5,420,158.68	16,299,607.13	-	391,990,401.47
2001	2,496,287.61	16,025,889.30	-	389,494,113.86
2002	-	15,896,581.60	-	389,494,113.86
2003	3,509,875.74	15,896,581.60	-	385,984,238.12
2004	4,855,686.99	15,705,644.36	-	381,128,551.13
2005	8,285,583.09	15,439,067.14	-	372,842,968.04
2006	10,243,546.20	14,975,903.05	-	362,599,421.84
2007	12,310,712.28	14,398,167.04	-	350,288,709.56
2008	14,474,776.77	13,697,687.51	-	335,813,932.79
2009	16,871,089.83	12,866,835.33	-	318,942,842.96
2010	21,860,588.91	11,889,999.22	-	297,082,254.05
2011	24,675,257.01	10,613,340.83	-	272,406,997.04
2012	12,107,666.12	24,720,643.30	-	260,299,330.92
2013	11,906,285.60	26,460,093.82	-	248,393,045.32
2014	11,228,227.61	27,531,897.73	-	237,164,817.71
2015	10,978,635.63	29,321,097.79	-	226,186,182.08
2016	10,583,007.35	30,857,974.00	-	215,603,174.73
2017	9,883,800.61	31,557,180.75	-	205,719,374.12
2018	9,244,313.74	32,196,667.62	-	196,475,060.38
2019	8,627,746.39	32,813,234.97	-	187,847,313.99
2020	8,065,411.14	33,375,570.22	-	179,781,902.85
2021	7,554,725.51	33,886,255.84	-	172,227,177.34
2022	7,060,503.20	34,380,478.16	-	165,166,674.14
2023	6,597,270.66	34,843,710.70	-	158,569,403.48
2024	6,148,241.77	35,292,739.59	-	152,421,161.71
2025	5,771,199.53	35,669,781.82	-	146,649,962.18
2026	9,438,737.48	32,002,243.88	-	137,211,224.70
2027	32,953,149.75	8,851,339.07	-	104,258,074.95
2028	35,044,924.95	6,758,814.06	-	69,213,150.00
2029	69,213,150.00	2,266,730.66	-	-

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Table IV-8c				
TOTAL DEBT SERVICE REQUIREMENTS: FIRE				
Plan Year	Required Principal Payment	Required Interest Payment	Premium or Discount Amortized	Principal Balance at Valuation Date
1999	\$ -	\$ 1,620,185.70	\$ -	\$ 167,318,251.01
2000	2,282,001.44	6,862,479.41	-	165,036,249.57
2001	1,050,989.88	6,747,238.34	-	163,985,259.69
2002	-	6,692,797.06	-	163,985,259.69
2003	1,477,731.92	6,692,797.06	-	162,507,527.77
2004	2,044,346.92	6,612,408.45	-	160,463,180.85
2005	3,488,405.72	6,500,173.80	-	156,974,775.13
2006	4,312,749.60	6,305,171.92	-	152,662,025.53
2007	5,183,070.24	6,061,932.84	-	147,478,955.29
2008	6,094,187.16	5,767,016.15	-	141,384,768.13
2009	7,103,085.64	5,417,209.80	-	134,281,682.49
2010	9,203,770.28	5,005,941.15	-	125,077,912.21
2011	10,388,805.08	4,468,440.96	-	114,689,107.13
2012	5,097,583.51	10,407,913.67	-	109,591,523.62
2013	5,012,798.05	11,140,259.13	-	104,578,725.57
2014	4,727,321.30	11,591,511.24	-	99,851,404.27
2015	4,622,237.80	12,344,802.31	-	95,229,166.47
2016	4,455,669.93	12,991,859.70	-	90,773,496.54
2017	4,161,289.10	13,286,240.52	-	86,612,207.44
2018	3,892,051.60	13,555,478.02	-	82,720,155.84
2019	3,632,463.70	13,815,065.92	-	79,087,692.14
2020	3,395,708.67	14,051,820.95	-	75,691,983.47
2021	3,180,699.22	14,266,830.40	-	72,511,284.25
2022	2,972,621.18	14,474,908.45	-	69,538,663.07
2023	2,777,590.48	14,669,939.14	-	66,761,072.59
2024	2,588,539.82	14,858,989.80	-	64,172,532.77
2025	2,429,797.06	15,017,732.56	-	61,742,735.71
2026	3,973,908.11	13,473,621.52	-	57,768,827.60
2027	13,873,973.00	3,726,600.95	-	43,894,854.60
2028	14,754,654.60	2,845,603.67	-	29,140,200.00
2029	29,140,200.00	954,341.55	-	-

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Table IV- 9a provides the receipts and disbursements of assets *excluding* the Bond issue assets and excluding the PAF.

Table IV-9a				
Receipts and Disbursements Excluding Bond Issue Assets				
	Municipal	Police	Fire	Total
Assets as of July 1, 2012	\$ 2,023,896,237	\$ 1,260,542,301	\$ 340,847,171	\$ 3,625,285,709
Receipts				
Employer Contributions	\$ 285,144,124	\$ 158,422,632	\$ 62,548,669	\$ 506,115,425
Employee Contributions	21,667,000	21,597,000	6,350,000	49,614,000
State Aid	35,632,105	22,120,361	7,983,906	65,736,372
Supplemental State Assistance	0	0	0	0
Investment Income (includes investment expenses)	216,605,978	137,659,415	36,412,683	390,678,076
Other Receipts	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Receipts	\$ 559,049,207	\$ 339,799,408	\$ 113,295,259	\$ 1,012,143,873
Disbursements				
Benefit Payments	\$ 428,213,000	\$ 219,639,000	\$ 92,894,000	\$ 740,746,000
Refund of Contributions	3,628,000	1,842,000	274,000	5,744,000
Administrative Expenses	5,533,116	2,119,883	688,002	8,341,000
PAF Transfer at Year End	0	0	0	0
Other Disbursements	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Disbursements	\$ 437,374,116	\$ 223,600,883	\$ 93,856,002	\$ 754,831,000
Assets as of July 1, 2013	\$ 2,145,571,328	\$ 1,376,740,826	\$ 360,286,428	\$ 3,882,598,583

Note: Numbers may not add due to rounding.

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Table IV- 9b provides the market value of assets *including* the Bond issue assets and excluding the PAF.

Table IV-9b				
Receipts and Disbursements Including Bond Issue Assets				
	Municipal	Police	Fire	Total
Assets as of July 1, 2012	\$ 2,333,317,153	\$ 1,363,751,321	\$ 454,759,819	\$ 4,151,828,293
Receipts				
Employer Contributions	\$ 271,724,414	\$ 157,511,543	\$ 56,850,671	\$ 486,086,628
Employee Contributions	21,667,000	21,597,000	6,350,000	49,614,000
State Aid	35,632,105	22,120,361	7,983,906	65,736,372
Supplemental State Assistance	0	0	0	0
Investment Income (includes investment expenses)	248,053,269	149,486,900	48,152,720	445,692,889
Other Receipts	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Receipts	\$ 577,076,788	\$ 350,715,804	\$ 119,337,297	\$ 1,047,129,889
Disbursements				
Benefit Payments	\$ 428,213,000	\$ 219,639,000	\$ 92,894,000	\$ 740,746,000
Refund of Contributions	3,628,000	1,842,000	274,000	5,744,000
Administrative Expenses	5,533,116	2,119,883	688,002	8,341,000
PAF Transfer at Year End	0	0	0	0
Other Disbursements	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Disbursements	\$ 437,374,116	\$ 223,600,883	\$ 93,856,002	\$ 754,831,000
Assets as of July 1, 2013	\$ 2,473,019,825	\$ 1,490,866,242	\$ 480,241,114	\$ 4,444,127,181

Note: Numbers may not add due to rounding.

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2013 ACTUARIAL VALUATION

**SECTION IV
CONTRIBUTIONS AND MINIMUM MUNICIPAL OBLIGATION**

The Table IV – 10 and Table IV – 11 provide information on the City’s Funding Policy for FYE 2014 and FYE 2015. The differences between the MMO and the City’s Funding Policy are:

- The City’s Funding Policy amortizes the initial July 1, 1985 unfunded actuarial liability over 34 years. Chapter 10 under Act 44 allowed for the amortization of the entire unfunded actuarial liability as of July 1, 2009 to be “fresh started” over a 30-year period for MMO purposes.
- The normal cost portion of the City’s Funding Policy payment is based on actual fiscal year payroll, whereas the MMO is based on the prior year’s estimated payroll for that year.
- **Interest does not accumulate on the MMO, as long as the payment is made by the end of the fiscal year.** This has the impact of creating systematic losses each year which get offset by assumed interest on contributions received before year end.
- Both the City’s Funding Policy and the MMO utilize valuation results developed in the previous year (e.g., the July 1, 2013 valuation report will determine FYE 2014 contribution amounts). However, no interest is added to the MMO for this delay.
- The MMO reflects amortization of prior years’ City contributions above past MMOs as actuarial gains.

Starting with FYE 2007-2008, the MMO recognized actuarial gains and losses every other year, in order to coincide with the filing of the Act 205 forms. Beginning for FYE 2012, gains and losses are recognized annually. The City’s Funding Policy recognizes actuarial gains and losses on an annual basis.

Table IV – 10 develops the amortized amounts for the current year under the City’s Funding Policy. For additional details on the amortized amounts by plan, refer to Appendix B. Table IV – 11 provides the estimated FYE 2015 and updated FYE 2014 contribution amount under the City’s Funding Policy. The estimated FYE 2015 contribution will be updated in next year’s actuarial valuation report based upon the July 1, 2014 payroll.

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2013 ACTUARIAL VALUATION**

**SECTION IV
CONTRIBUTIONS AND MINIMUM MUNICIPAL OBLIGATION**

Table IV-10						
Development of the Fiscal Year 2015 Amortization Payment under the City's Funding Policy						
Total						
(\$ thousands)						
	7/1/2013	7/1/2014	Remaining	FY 2015 Payment	FY 2015 Payment	
	Outstanding Balance	Expected Balance	Years	Beginning-of-Year	End-of-Year	
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2013 Based on July 1, 2012 Valuation Remaining	\$ 4,832,142	\$ 4,478,649		\$ 682,622	\$ 736,208	
2. Changes in UAL due to						
a. Actuarial Experience	\$ 351,698	\$ 379,307	20	\$ 35,422	\$ 38,203	
b. Assumption Changes	143,054	154,284	15	16,560	17,860	
c. Active Plan Changes	0	0	10	0	0	
d. Inactive Plan Changes	<u>0</u>	<u>0</u>	1	<u>0</u>	<u>0</u>	
e. Subtotal	\$ 494,752	\$ 533,591		\$ 51,983	\$ 56,063	
3. Total [1c. + 2e.]	\$ 5,326,894	\$ 5,012,240		\$ 734,605	\$ 792,272	

Table IV-11					
City's Funding Policy Contributions*					
Fiscal Year	2015	% of Pay	2014	% of Pay	
Estimated FY Payroll	\$ 1,476,904		\$ 1,429,723	**	
Normal Cost (with Expenses)	\$ 141,507	9.58%	\$ 134,980	9.44%	
Employee Contributions	<u>(49,266)</u>	3.34%	<u>(47,859)</u>	3.35%	
City Normal Cost	\$ 92,241	6.25%	\$ 87,121	6.09%	
Amortization Payment	<u>734,606</u>	49.74%	<u>681,919</u>	47.70%	
City's Funding Policy	\$ 826,847	55.99%	\$ 769,040	53.79%	

* Assuming beginning-of-year payment.

** FY 2014 Payroll for the City's Funding Policy is the final payroll for the prior year. All other payroll is estimated based upon the prior year's data used for the actuarial valuation.

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2013 ACTUARIAL VALUATION**

**SECTION V
ACCOUNTING STATEMENT INFORMATION**

The Governmental Accounting Standards Board's Statement No. 25 (GASB 25) is effective for plan years beginning after June 15, 1996, and supersedes Statement No. 5. GASB No. 25 establishes standards for disclosure of pension information by public employee retirement systems and governmental employers in notes to financial statements and supplementary information.

For the System effective for the Plan year beginning June 30, 2014 GASB Statement No. 67 will replace Statement No. 25, and effective for the City's Fiscal year ending June 30, 2015, GASB Statement No. 68 will replace Statement No. 27. This report only provides information under Statements 25 and 27. A separate report will be issued reporting amounts under Statement 67 as of June 30, 2014.

The disclosure presents the actuarial liability computed for funding purposes to the actuarial value of assets to determine a funding ratio (i.e., the EAN liability). The actuarial liability is determined assuming that participants continue to terminate employment, retire, etc., in accordance with the actuarial assumptions. Liabilities are discounted at the assumed valuation interest rate of 8.10% per annum for Fiscal Year 2013. For Fiscal Year 2014, the assumed interest rate will change to 7.95% based upon July 1, 2012 liabilities valued at this interest rate. For Fiscal Year 2015, the assumed interest rate will change to 7.85% based upon July 1, 2013 liabilities valued at this interest rate. GASB Statement No. 25 requires the actuarial liability be compared with the actuarial value of assets for funding purposes. The relevant amounts as of July 1, 2012 and July 1, 2013 are presented in Table V-1 and Table V-2.

GASB 25 also requires for the disclosure of two financial statements and two schedules of historical information:

- Statement of Plan Net Assets – includes information about System assets and liabilities at the valuation date. This statement can be found at the beginning of the Assets section of this report, in Table II-1. The City's deferred contributions are included in these amounts based on the requirement set out in Section 10 of Act 205.
- Statement of Changes in Plan Net Assets – shows receipts and disbursements from the Fund for the most recent plan year. This statement can also be found in the Assets section of this report, in Table II-2. The City's deferred contributions are included in these amounts based on the requirement set out in Section 10 of Act 205.
- Schedule of Funding Progress – discloses current and historical information about the funded status of the plan. This schedule can be found in Tables V-1 and V-3. Consistent with the exclusion of the deferred contribution amounts in the Schedule of Employer Contribution amounts, we have adjusted the Actuarial Value of Assets for the net amounts of the deferred contribution of \$230 million for the July 1, 2012 value.
- Schedule of Employer Contributions – discloses historical information about the Annual Required Contribution (ARC) and the actual contributions made by the employer. This

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2013 ACTUARIAL VALUATION**

**SECTION V
ACCOUNTING STATEMENT INFORMATION**

schedule can be found in Table V-4. These contributions do not include the deferred contributions of \$150 million for FYE 2010 and \$80 million for FYE 2011.

GASB Statement No. 27 requires that financial statements must include additional disclosures for pension expenditures/expenses. It is effective for the period beginning after June 15, 1997. Table V-5 summarizes the results of this valuation according to our interpretation of GASB 27.

The interpretation of the statements is subject to your auditor's review. The required disclosures are:

- Annual Required Contribution (ARC) – this is the expected contribution required based on statement-specific valuation methods and assumptions, with the unfunded liability amortized over an initial period not to exceed 40 years and thereafter 30 years, either as a level-dollar amount or as a level percentage of pay, and with amortization of contributions less than or in excess of the required amount. Historically, the ARC has been shown as the contribution required under the City's Funding Policy.
- Equivalent Single Amortization Period – this is the number of years incorporated in a weighted average amortization factor for all amortization components combined. The weighted average amortization factor is equal to the total unfunded actuarial liability divided by the sum of the amortization provisions for each of the separately amortized components. This weighted average produces 9.9 years where the amortized components are based upon the Funding policy.
- Net Pension Obligation (NPO) – the accumulated value of contribution deficiencies (or excesses) over required contributions from July 1, 1987 to July 1, 2013 between the annual pension cost and the employer's contribution.
- Annual Pension Cost – is equal to the ARC plus one year's interest on NPO and ARC adjustment.

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2013 ACTUARIAL VALUATION**

**SECTION V
ACCOUNTING STATEMENT INFORMATION**

Table V-1				
Funding Status Under GASB Statement No. 25				
(\$ thousands)				
	July 1, 2013	July 1, 2012	% Change	
1. Actuarial Liabilities				
a. Members Currently Receiving Payments	\$ 6,831,717	\$ 6,730,476		1.5%
b. Vested Terminated and Inactive Members	123,206	122,788		0.3%
c. Active Members	<u>3,171,233</u>	<u>2,946,587</u>		7.6%
d. Total Actuarial Liability	\$ 10,126,156	\$ 9,799,851		3.3%
2. Actuarial Value of Assets*	\$ 4,799,261	\$ 4,486,793		7.0%
3. Unfunded Actuarial Liability	\$ 5,326,895	\$ 5,313,058		0.3%
4. Ratio of Actuarial Value of Assets to Actuarial Liability (2)/(1)(d)	47.4%	45.8%		1.6%

* Actuarial Value of Assets have been adjusted to net out the outstanding deferred contribution amount of \$230 million as of July 1, 2012.

Note: Numbers may not add due to rounding.

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2013 ACTUARIAL VALUATION

SECTION V
ACCOUNTING STATEMENT INFORMATION

Table V-2
Statement of Changes in Liabilities - GASB No. 25 Basis
(\$ thousands)

Actuarial Liability as of July 1, 2012	\$	9,799,851
Increase (Decrease) During Year Attributable to:		
Passage of Time		749,415
Benefits Paid		(746,490)
Assumption Change		143,054
Plan Amendment		0
Benefits Accrued, Other Gains/Losses		180,326
Net Increase (Decrease)	\$	326,305
Actuarial Liability as of July 1, 2013	\$	10,126,156

Table V-3
Schedule of Funding Progress
(\$ millions)

Actuarial Valuation Date *	Actuarial Value of Assets (a)	Actuarial Liability (b)	Unfunded Actuarial Liability (UAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAL as a % of Covered Payroll [(b-a)/c]
7/1/1992	\$ 1,981.8	\$ 4,425.5	\$ 2,443.7	44.8%	\$ 993.3	246.0%
7/1/1993	2,113.9	4,502.1	2,388.2	47.0%	975.0	244.9%
7/1/1994	2,225.2	4,662.6	2,437.4	47.7%	974.3	250.2%
7/1/1995	2,312.1	4,850.8	2,538.7	47.7%	1,006.4	252.3%
7/1/1996	2,457.2	5,098.1	2,640.9	48.2%	1,068.3	247.2%
7/1/1997	2,660.9	5,318.1	2,657.2	50.0%	1,067.7	248.9%
7/1/1998	2,921.3	5,586.1	2,664.8	52.3%	1,128.2	236.2%
7/1/1999	4,496.8	5,862.1	1,365.3	76.7%	1,178.6	115.8%
7/1/2000	4,765.0	6,193.4	1,428.4	76.9%	1,142.8	125.0%
7/1/2001	4,943.4	6,379.8	1,436.4	77.5%	1,180.4	121.7%
7/1/2002	4,891.3	6,727.2	1,835.9	72.7%	1,207.3	152.1%
7/1/2003	4,548.1	7,188.3	2,640.2	63.3%	1,269.3	208.0%
7/1/2004	4,333.1	7,247.7	2,914.6	59.8%	1,266.0	230.2%
7/1/2005	4,159.5	7,851.5	3,692.0	53.0%	1,270.7	290.5%
7/1/2006	4,168.5	8,083.7	3,915.2	51.6%	1,319.4	296.7%
7/1/2007	4,421.7	8,197.2	3,775.5	53.9%	1,351.8	279.3%
7/1/2008	4,623.6	8,402.2	3,778.7	55.0%	1,456.5	259.4%
7/1/2009	4,042.1	8,975.0	4,932.9	45.0%	1,463.3	337.1%
7/1/2010	4,230.9	9,317.0	5,086.2	45.4%	1,421.2	357.9%
7/1/2011	4,489.1	9,487.5	4,998.4	45.8%	1,371.3	364.5%
7/1/2012	4,486.8	9,799.9	5,313.1	45.8%	1,372.2	387.2%
7/1/2013	4,799.3	10,126.2	5,326.9	47.4%	1,429.7	372.6%

* The actuarial valuation reports need to be referenced in comparison of these values to ascertain when and if the values reflect assumption, benefit or method changes.

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2013 ACTUARIAL VALUATION

SECTION V
ACCOUNTING STATEMENT INFORMATION

Table V-4
Schedule of Employer Contributions
(\$ millions)

Fiscal Year Ended June 30	Annual Required Contribution (ARC)	Percentage of ARC Contributed
1993	\$ 209.4	100.0%
1994	223.8	104.5%
1995	212.8	100.0%
1996	222.5	100.0%
1997	237.0	100.0%
1998	252.1	100.0%
1999	256.7	586.9%*
2000	168.9	108.9%
2001	167.6	100.0%
2002	178.2	100.0%
2003	195.5	91.9%
2004	253.8	79.9%
2005	358.1	83.6%
2006	395.0	84.0%
2007	527.9	81.9%
2008	536.9	79.5%
2009	539.5	84.4%
2010	581.1	53.8%**
2011	715.5	65.7%**
2012	722.5	77.0%
2013	738.0	105.9%***

* Due to Pension Obligation Bond worth \$1,250,000,000 deposited February 2, 1999

** Reflects actual contributions for FYE 2010 and FYE 2011 which does not include the deferred contributions

*** Reflects repayment of deferred contributions of \$230 million

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2013 ACTUARIAL VALUATION

SECTION V
ACCOUNTING STATEMENT INFORMATION

Table V-5
Calculation of Annual Pension Cost
(\$ thousands)

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
ARC	\$ 223,750	\$ 212,838	\$ 222,482	\$ 237,016	\$ 252,080	\$ 256,704	\$ 168,928	\$ 167,616	\$ 178,239	\$ 195,514
Interest on NPO	0	(900)	(869)	(840)	(811)	(783)	(113,257)	(110,748)	(106,975)	(103,330)
Adjustment to ARC	<u>0</u>	<u>1,241</u>	<u>1,198</u>	<u>1,158</u>	<u>1,118</u>	<u>1,080</u>	<u>156,130</u>	<u>152,672</u>	<u>147,470</u>	<u>142,446</u>
Annual Pension Cost	\$ 223,750	\$ 213,179	\$ 222,811	\$ 237,334	\$ 252,387	\$ 257,001	\$ 211,801	\$ 209,540	\$ 218,734	\$ 234,630
Contributions	<u>233,750</u>	<u>212,838</u>	<u>222,482</u>	<u>237,016</u>	<u>252,080</u>	<u>1,506,704</u>	<u>183,928</u>	<u>167,616</u>	<u>178,239</u>	<u>179,757</u>
Increase in NPO	\$ (10,000)	\$ 341	\$ 329	\$ 318	\$ 307	\$(1,249,703)	\$ 27,873	\$ 41,924	\$ 40,495	\$ 54,873
NPO at BOY	<u>0</u>	<u>(10,000)</u>	<u>(9,659)</u>	<u>(9,330)</u>	<u>(9,012)</u>	<u>(8,705)</u>	<u>(1,258,408)</u>	<u>(1,230,535)</u>	<u>(1,188,611)</u>	<u>(1,148,116)</u>
NPO at EOY	\$ (10,000)	\$ (9,659)	\$ (9,330)	\$ (9,012)	\$ (8,705)	\$(1,258,408)	\$(1,230,535)	\$(1,188,611)	\$(1,148,116)	\$(1,093,243)
Interest Rate	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%
15-Year Amortization Factor (EOY)	8.06	8.06	8.06	8.06	8.06	8.06	8.06	8.06	8.06	8.06

Note: (\$9,012,000) was the NPO at transition date

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2013 ACTUARIAL VALUATION

SECTION V
ACCOUNTING STATEMENT INFORMATION

Table V-5
Calculation of Annual Pension Cost (continued)
(\$ thousands)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
ARC	\$ 253,844	\$ 358,141	\$ 394,950	\$527,925	\$ 536,874	\$ 539,464	\$ 581,123	\$ 715,544	\$ 722,491	\$ 738,010
Interest on NPO	(98,392)	(90,448)	(82,068)	(71,541)	(60,685)	(48,957)	(39,899)	(14,155)	6,521	19,756
Adjustment to ARC	<u>135,638</u>	<u>124,687</u>	<u>113,135</u>	<u>99,953</u>	<u>84,785</u>	<u>68,399</u>	<u>55,744</u>	<u>20,353</u>	<u>(9,435)</u>	<u>(28,660)</u>
Annual Pension Cost	\$ 291,090	\$ 392,380	\$ 426,017	\$ 556,337	\$ 560,974	\$ 558,906	\$ 596,968	\$ 721,742	\$ 719,577	\$ 729,106
Contributions	<u>202,827</u>	<u>299,266</u>	<u>331,765</u>	<u>432,267</u>	<u>426,934</u>	<u>455,389</u>	<u>312,556</u>	<u>470,155</u>	<u>555,690</u>	<u>781,823</u>
Increase in NPO	\$ 88,263	\$ 93,114	\$ 94,252	\$ 124,069	\$ 134,040	\$ 103,517	\$ 284,412	\$ 251,587	\$ 163,887	\$ (52,717)
NPO at BOY	<u>(1,093,243)</u>	<u>(1,004,980)</u>	<u>(911,866)</u>	<u>(817,614)</u>	<u>(693,545)</u>	<u>(559,505)</u>	<u>(455,987)</u>	<u>(171,575)</u>	<u>80,012</u>	<u>243,898</u>
NPO at EOY	\$(1,004,980)	\$ (911,866)	\$ (817,614)	\$ (693,545)	\$ (559,505)	\$ (455,987)	\$ (171,575)	\$ 80,012	\$ 243,898	\$ 191,181
Interest Rate	9.00%	9.00%	9.00%	8.75%	8.75%	8.75%	8.75%	8.25%	8.15%	8.10%
15-Year Amortization Factor (EOY)	8.06	8.06	8.06	8.18	8.18	8.18	8.18	8.43	8.48	8.51

FINANCIAL SECTION

EXHIBIT A-1

CITY OF PHILADELPHIA
MUNICIPAL PENSION FUND
STATEMENT OF PLAN NET ASSETS
JUNE 30, 2013

ASSETS

Cash and Cash Equivalents	\$	200,681,606
Investments at Fair Value		4,238,152,560
Securities Lending		614,267,336
Allowance for Unrealized Gain		-
Accounts Receivable		166,856,137
Due from Brokers		-
Total Income Receivable		-
Due from Other Governmental Units		18,875,033

<u>Total Assets</u>	\$	<u>5,238,832,671</u>
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LIABILITIES

Vouchers Payable	\$	18,130
Accounts Payable		3,291,366
Salaries and Wages Payable		52,990
Due on Securities Lending		614,741,895
Due to Brokers		170,782,035
Accrued Expenses		2,433,914
Deferred Revenue		1,791,543
Monies Held in Escrow		9,172
Other Liabilities		487,931

<u>Total Liabilities</u>		<u>793,608,975</u>
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Net Assets Held in Trust for Pension Benefits	\$	<u>4,445,223,696</u>
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FINANCIAL SECTION

EXHIBIT A-1a

CITY OF PHILADELPHIA
MUNICIPAL PENSION FUND
SUMMARY OF INVESTMENT TYPE
FYE 6/30/13

	<u>Par</u>	<u>Cost</u>	<u>Market</u>
Cash & Cash Equivalents	402,830,441.63	238,269,085.23	238,131,253.48
U.S. Government Securities	185,889,000.00	195,005,425.40	190,319,309.43
U.S. Government Agency Securities	132,524,331.30	142,848,691.84	139,739,118.29
Government Bonds (foreign)	39,047,208,069.69	242,664,853.65	239,132,617.22
Corporate Bonds	40,754,585,586.50	362,481,589.83	371,750,157.69
Commercial Mortgage Backed Securities	31,317,372.37	33,098,840.74	32,300,443.68
Corporate Equity	489,344,201.31	1,670,639,094.69	1,853,409,792.23
Limited Partnerships	1,199,276.34	892,777,336.64	909,864,615.32
Mutual Funds	4,000.00	210,091,101.09	231,676,910.55
Real Estate	2,208,522.00	78,231,838.49	76,186,373.51
Investmet Companies - Exchange Traded Funds	462,206.00	56,015,121.47	58,980,383.93
Depository Receipts	4,126,832.00	60,003,405.60	61,606,445.27
Other Fixed Income	30,797,788.06	31,319,070.77	31,341,962.87
Derivatives	(6,255,790,707.29)	27,773.10	1,739,580.28
Miscellaneous Other Investments	146,884,103.25	1,933,723.55	2,655,201.52
	<hr/>	<hr/>	<hr/>
Total	<u>74,973,591,023.16</u>	<u>4,215,406,952.09</u>	<u>4,438,834,165.27</u>

FINANCIAL SECTION

CITY OF PHILADELPHIA
MUNICIPAL PENSION FUND
STATEMENT OF CHANGES IN PLAN NET ASSETS
FOR THE FISCAL YEARS ENDED JUNE 30, 2013 AND 2012

EXHIBIT A-2

Additions:		
Contributions:		
Employer's Contributions	\$ 781,822,615	\$ 556,031,693
Employees' Contributions	<u>49,613,514</u>	<u>49,978,658</u>
Total Contributions	831,436,129	606,010,351
Investment Income:		
Interest and Dividends	122,893,029	86,167,699
Gain (Loss) from Sale of Investments	332,000,142	(57,719,607)
(Less) Investment Expenses	(12,225,407)	(13,291,333)
Securities Lending Revenue	2,995,788	2,075,769
Unrealized Gain	-	(1,860,053)
(Less) Securities Lending Expenses	<u>(330,719)</u>	<u>(852,159)</u>
Net Investment Income	445,332,833	14,520,317
Miscellaneous Operating Revenues	468,878	-
Total Additions	<u>1,277,237,841</u>	<u>620,530,668</u>
Deductions:		
Personal Services	3,502,036	-
Purchase of Services	1,617,768	-
Materials and Supplies	68,867	-
Employee Benefits	2,941,159	-
Pension Benefits	740,746,251	706,184,221
Refunds of Members' Contributions	5,743,488	6,500,247
Indemnities	-	-
Other Operating Expenses	211,361	15,245,311
Net Transfers	-	-
Total Deductions	<u>754,830,931</u>	<u>727,929,779</u>
Net Increase	<u>522,406,910</u>	<u>(107,399,111)</u>
Net Assets Held in Trust for Pension Benefits - July 1, 2012	<u>3,922,816,786</u>	<u>4,030,215,897</u>
Prior Period Adjustment	-	-
Net Assets Held in Trust for Pension Benefits - June 30, 2013	<u><u>4,445,223,696</u></u>	<u><u>3,922,816,786</u></u>

FINANCIAL SECTION

CITY OF PHILADELPHIA
MUNICIPAL PENSION FUND
ANALYSIS OF MEMBER'S CONTRIBUTION
FOR THE PERIOD ENDED JUNE 30, 2013

Exhibit A-3

	Municipal Division Old	Municipal Divison New	Fire Division New	Police Division New	Elected Officials	Municipal Revised Plan 60	Municipal Revised Plan 87	Municipal Revised Plan 93	Fire Division Old	Police Division Old	Total
Balance, July 1, 2012	203,350	319,169	40,489,628	87,266,550	2,141,936	208,165,600	7,148,880	128,325,752	51,880,663	188,247,613	714,189,141
Additions											
Regular Payroll Deductions	-	-	732,501	2,484,536	236,658	5,772,458	707	13,797,697	5,198,507	18,512,870	46,735,934
Installment Repurchase Deductions	-	-	9,634	36,310	4,560	29,358	-	335,060	85,634	163,800	664,357
Payment Through City Treasurer	-	-	70,448	56,071	-	368,764	5,837	1,113,287	252,393	343,510	2,210,311
Retirees' Pension Payment	-	-	24	-	-	2,282	-	608	-	-	2,913
Net Change in Liability for Deceased Pensions	-	-	-	-	-	(48,155)	-	52,347	(57,457)	84,870	31,605
Net Change in Liability for Pensioner's Unexpected Contribution	-	-	32,377	1,660,591	(349,453)	485,636	-	(167,326)	200,987	554,866	2,417,677
Adjustments to Member's Contribution Accounts	-	-	-	-	-	-	-	-	-	-	-
Unclaimed Withdrawal Checks Deposited	-	-	-	-	-	-	-	-	-	-	-
Total Additions	-	-	844,984	4,237,508	(108,235)	6,610,343	6,544	15,131,672	5,680,063	19,659,917	52,062,797
Deductions											
Withdrawals	-	-	19,049	271,917	215	1,428,659	-	2,198,757	254,795	1,570,096	5,743,488
Retirements	-	-	4,416,767	7,542,790	-	18,487,797	-	3,343,868	968,381	2,711,599	37,471,201
Adjustments to Member's Contribution Accounts	-	-	-	-	-	-	-	-	-	-	-
Total Deductions	-	-	4,435,816	7,814,707	215	19,916,455	-	5,542,625	1,223,176	4,281,695	43,214,689
Net Change in Year	-	-	(3,590,831)	(3,577,199)	(108,450)	(13,306,113)	6,544	9,589,047	4,456,887	15,378,223	8,848,108
Balance, June 30, 2013	\$ 203,350	\$ 319,169	\$ 36,898,797	83,689,351	2,033,486	194,859,487	7,155,424	137,914,799	56,337,550	203,625,836	723,037,249

FINANCIAL SECTION

**MUNICIPAL PENSION FUND
FISCAL 2013 INFORMATION**

Cash and Accrued Contributions from the City - Fiscal 2013 *

<u>Category</u>	<u>Amount</u>		
Cash received	\$ 765,629,663		
Accrued 6/30/13	<u>-</u>	\$	765,629,663

Cash and Accrued Contributions from Quasi-Agencies - Fiscal 2013

Cash received	17,363,812		
Accrued 6/30/2013	(1,170,860)		<u>16,192,953</u>
Total City & Quasi Agencies		\$	<u>781,822,615</u>
Contribution from the Commonwealth			<u>-</u>
Total Contribution requirement		\$	<u>781,822,615</u>

* Analysis of Contributions from the City - Fiscal 2013

<u>Date</u>	<u>Amount</u>
08/09/2013	\$ <u>765,629,663</u>
	\$ <u><u>765,629,663</u></u>

FINANCIAL SECTION

Exhibit A-4

CITY OF PHILADELPHIA
MUNICIPAL PENSION FUND
ANALYSIS OF FUND BALANCE
FOR THE PERIOD ENDED JUNE 30, 2013

	Reserve for Member Contributions	Reserve for Payment of Pensions and All Other Purposes	Total Reserves
Balance, July 1, 2012	714,189,141	3,208,627,645	3,922,816,786
Additions:			
Contributions:			
Employees	49,613,514	-	
Quasi-Public Agencies Net Accrual	-	16,192,953	
City Appropriations	-	765,629,663	
Total Contributions	49,613,514	781,822,615	
Interest:			
Members' Reinstatements	-	-	
Interest on Long-Term Investments	-	122,893,029	
Interest on Short-Term Investments	-	-	
Total Interest	-	122,893,029	
Net Appreciation (Depreciation) Fair Value of Investment	-	(2,926,903)	
Net Income (Loss) from Investment Managers	-	332,000,142	
Members' Contributions Transferred to Reserve for Retirements	-	37,471,201	
Adjustments for Liability to Deceased Pensioners	31,605	-	
Adjustments to Members' Unexpended Contributions	2,417,677	-	
Adjustments for Accrued Death Benefits	-	(84,658)	
Adjustment for Employees Unexpended Vacation Time	-	-	
Other Additions:			
Unclaimed Withdrawal Checks Deposited	-	-	
Refunds and Cancelled Checks - Prior Years' Pensions	-	(1,419,458)	
Miscellaneous Receipts	-	(468,878)	
Miscellaneous Fund Balance Adjustments	-	-	
Total Other Additions	2,449,282	364,571,446	
Total Additions	52,062,796	1,269,287,090	1,321,349,886
Deductions			
Withdrawals	5,743,488		
Retirements	37,471,201		
Administrative Expenses	-	211,361	
Payments of Pensions and Benefits	-	740,746,251	
Investment Manager Expenses	-	12,225,407	
Monies Held In Escrow	-	9,172	
Adjustments for Liability to Deceased Pensioners	-	31,605	
Adjustments to Members' Unexpended Contributions	-	2,417,677	
Adjustments for Accrued Death Benefits	-	84,658	
Adjustment for Employees Unexpended Vacation Time	-	(7,004)	
Transfer Out	-	-	
Reversal of Prior Year Accruals	-	9,161	
Miscellaneous Fund Balance Adjustments	-	-	
Total Deductions	43,214,689	755,728,288	798,942,976
Balance, June 30, 2013	723,037,248	3,722,186,448	4,445,223,696

FINANCIAL SECTION

CITY OF PHILADELPHIA
MUNICIPAL PENSION FUND
FOR THE PERIOD ENDED JUNE 30, 2013

RECEIPTS AND DISBURSEMENTS BY DIVISION

		<u>Employee Contributions</u>	<u>Pension Benefits</u>	<u>Miscellaneous Revenue</u>	<u>Operating Expenses</u>
Police Division - Old	530347	19,020,181	14,990,930	31,731	-
Police Division - New	530340	2,576,917	204,906,498	166,131	-
Fire Division - Old	530337	5,536,533	4,382,919	26,572	-
Fire Division - New	530330	812,607	88,620,640	3,199	-
Municipal Revised - Plan 60	530360	6,172,861	402,620,433	160,595	-
Municipal Revised - Plan 87	530367	6,544	253,273	-	-
Municipal Revised - Plan 90	530361	15,246,651	24,135,922	703	-
Municipal Division - New	530362	-	175,687	1,250	-
Civilian - Elected Officials	530350	241,218	1,531,499	-	-
Operating Fund	530390	-	(871,550)	78,697	211,361
TOTAL		<u>49,613,514</u>	<u>740,746,251</u>	<u>468,878</u>	<u>211,361</u>