CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Debra Figone

SUBJECT: **Police & Fire Pension Contribution Rate Projections**

DATE: 04-03-09

INFORMATION

On November 14, 2008, I distributed an Information Memorandum to the City Council forwarding information from the Department of Retirement Services regarding the investment performance of our retirement funds in light of the significant market decline (Attachment 1). As of the information available at that time, the retirement funds had experienced a decline of nearly **$1 billion** in assets. As noted in my memorandum, the decline in assets will lead, in the absence of a financial market recovery by the end of the current fiscal year, to higher City contribution rates in the future. The extent of the impact on the contribution rates was not known at that time.

Following-up on my memorandum, the Department of Retirement Services provided additional information regarding the financial status of the retirement plans. A memo dated December 18, 2008, was heard by the City Council at the January 13, 2009, City Council meeting (Attachment 2).

The Segal Company, the actuary for the Police and Fire Department Retirement Plan, recently provided a report to the Department of Retirement Services that contains projected contribution rates for the City and sworn Police and Fire employees under different scenarios that take into account the decline in assets as of February 2009 (Attachment 3). This report was initially presented to the Police & Fire Retirement Board yesterday, April 2, 2009. The Board has not had an opportunity to fully consider the report, and it will be discussed more fully at the May Board meeting.

It is important to note that this report contains **projections only** and not any final determinations of pension contribution rates. As the report states:

> Projections by their nature are not a guarantee of future results. The modeling projections are intended to serve as illustrations of future financial outcomes that are based on information available to us at the time the modeling is undertaken and completed, and the agreed-upon assumptions and methodologies described herein. Emerging results may differ significantly if the actual experience proves to be different from these assumptions or if alternative methodologies are used. Actual experience may differ due to such variables as demographic experience, the economy, stock market performance and the regulatory environment.

Although the attached report contains only projected contribution rates that include variables and assumptions that may change, I believe it is important to share this report with the City Council immediately.

Please note Exhibit 1 of The Segal Company report. The baseline City pension contribution rate is shown as 22.5% in "plan year" 2008-2009 and 2009-2010. The projected contribution rates begin in plan year 2010-2011.

Under the scenarios examined, the City's contribution rate for Police and Fire is projected to increase from 22.5% to the range of 35.3%-57.8% for 2010-2011 and to the range of 54.2%-70.1% for 2013-2014. It is important to note that these projections are for Police and Fire pension benefits only and do **not** include retiree healthcare contribution rates.

For reference, Scenario 2 would result in additional costs to the City for Police and Fire pension of approximately $31 million in 2010-11, $24 million in 2011-12, $22 million in 2012-13 and $24 million in 2013-14, for a total additional cost of $101 million.

A representative from my office was present at the Police and Fire Department Retirement Plan Board meeting on April 2nd and indicated to the Board the City Administration's desire and intent to stay engaged with the Retirement Board on this issue, including the various decisions the Board will be making regarding actuarial assumptions and methodologies.

The projected contribution rates for the current pension benefits are very significant, particularly considering the City's fiscal situation. However, we must continue to ensure that the City's pension plans are actuarially sound and funded appropriately.

We do not yet have similar projections for the Federated City Employees Retirement System, but my understanding is that those projections are being developed. I will forward that information to the City Council as soon as it is available.

Debra Figone
City Manager

For questions please contact Russell Crosby, Director of Retirement Services, at (408) 794-1000.

Attachments
1 – Retirement Fund Investment Performance (November 14, 2008)
2 – Financial Status of the Retirement Plans (December 18, 2008)
3 – Projection of Contribution Rates Under Different Scenarios (March 25, 2009)

ATTACHMENT I

Distributed on:

SENT TO COUNCIL: NOV 14 2008

by City Manager's Office

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Debra Figone

SUBJECT: **Retirement Fund Investment Performance**

DATE: November 14, 2008

INFORMATION

Attached for your information are two memos recently released by the Department of Retirement Services regarding the soundness of the Police and Fire Department Retirement Plan and the Federated City Employees' Retirement System. As the memos indicate, most retirement systems are exposed to general market risks, and the City's pension plans are no exception.

The total market value of the assets in the two retirement plans has declined by approximately $950 million since the beginning of the fiscal year. The following chart summarizes the performance of the Plan's investment portfolio in the current fiscal year.

	Police & Fire Department Retirement Plan		Federated City Employees' Retirement System	
	Market Value	Rate of Return	Market Value	Rate of Return
June 30, 2008	$2.561 Billion	-24.8%*	$1.774 Billion	-17.8%*
October 2008	$1.926 Billion*		$1.459 Billion*	
Total Decline in Market Value Return	**$635 Million***		**$315 Million***	
Grand Total	**$950 Million***			

*unaudited data as of 10/27/2008 P&F and 10/31/2008 (Federated)

The Police and Fire Department Retirement Plan assumes an 8% rate of return and the Federated City Employees' Retirement System assumes an 8.25% return. As shown above, these recent returns are far less than the long-term assumptions.

Although pension plans operate under a long-term investment strategy, this recent significant decline of nearly **$1 billion** in assets of the City's pension plans is certainly a concern. Although employees and retirees should **not** be concerned about retirement benefits being paid, the decline in assets will lead, in the absence of a financial market recovery by the end of the current fiscal year, to higher City contribution rates in the future. The extent of the impact on the contribution rates is not known at this time.

Future actuarial valuations performed by both Retirement Boards will incorporate pension fund performance, among other factors. It is these actuarial valuations that result in the contribution rates that the City and employees pay into the pension plans. The Boards currently perform actuarial valuations every two years. Performing annual actuarial valuations, rather than

biannual, would lead to a lower volatility in both the City's and the employee contribution rates. I will be requesting that the Boards consider performing annual actuarial valuations rather than biannual.

For your information, the current retirement contribution rates are as follows:

	City	Employees
Federated	22.68%	8.93%
Police	24.94%	11.96%
Fire	27.37%	12.40%

The contribution rates listed above include only the current partial pre-funding of retiree healthcare benefits. For the entire 2008-2009 fiscal year, the City has contributed approximately $120 million into the retirement plans.

We will continue to be in contact with the Department of Retirement Services and both Retirement Boards and will provide updated information.

DEBRA FIGONE
City Manager

Attachments

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: Police & Fire Department Retirement Plan Board of Administration

FROM: Ronald R. Kumar

SUBJECT: Soundness of the Plan

DATE: October 28, 2008

Approved [signature] Date 10/28/08

INFORMATIONAL

BACKGROUND

At the October 3, 2008 meeting of the Board of Administration (the "Board") of the Police & Fire Department Retirement Plan (the "Plan"), the Trustees requested a summary of the Plan's asset balance and exposure to the AIG, Lehman Brothers, and Merrill Lynch.

ANALYSIS

The following chart illustrates the fluctuation of the Plan's assets over the past calendar year:

Balance as of:		Market Value
12/31/2007		$ 2,776,959,000
6/30/2008		$ 2,561,590,000
9/26/2008*	Friday prior to the proposed Financial Ballout Plan	$ 2,449,512,000
9/29/2008*	Monday: Financial Ballout Failure	$ 2,356,872,000
9/30/2008		$ 2,348,046,000
*10/27/2008**		*$ 1,926,656,000*

-30.6%	*decline since Calendar Year End 12/31/2007**
-3.8%	*decline due to the Financial Ballout Failure***
-8.1%	*decline in the 3rd Quarter* (-8.4% for S&P 500)*
-24.8%	*decline from 6/30/2008 thru 10/27/2008**

Current Exposure to:	Market Value*	Percent of Plan
AIG	$ 1,078,506	0.06%
Lehman Brothers	2,317,203	0.12%
Merrill Lynch	5,944,783	0.30%
Total Exposure:	$ 9,340,492	0.48%

** unaudited data as of 10/27/2008*

*** estimated data as of the end of the business day*

As is the case with most retirement systems, the Plan is exposed to general market risk. In a pension plan context, the market risk is the risk that the rate of return earned on the pension plan

assets could be below the long term rate of return assumed for the Plan, which is 8.0%. This general market risk is reflected in asset valuations fluctuating with market volatility. Any impact from market volatility on the Plan depends in large measure on how deep the market downturn is, how long it lasts, and how it fits within fiscal year reporting periods.

Market risk could impact the financial condition of the Plan and the City's required contribution to the Plan. However, it should be noted that the Plan takes a long term view and invest for the long term benefits. Market gains and losses are factored into the contribution rates through biennial actuarial calculations and "smoothed" or averaged over five years. This smoothing methodology has the effect of minimizing the possibility of large fluctuations in the contribution rates.

Employees and retirees should be assured over the City's ability to make retirement benefit payments either today or in the future. The City has a legal obligation to make these payments, and the Plans have investment strategies in place which take into account long-term market perspectives and methods are in place to periodically evaluate the various assumptions and make adjustments in the contribution rates through the biennial actuarial evaluation process.

Ronald R. Kumar
Financial Analyst

QC: Ceara O'Fallon
Analyst II

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: Federated City Employees' Retirement System Board of Administration

FROM: Ronald R. Kumar

SUBJECT: Soundness of the Plan

DATE: November 3, 2008

Approved _____ Date 11/3/08

INFORMATIONAL

BACKGROUND

At the October 9, 2008 meeting of the Board of Administration (the "Board") of the Federated City Employees' Retirement System (the "Plan"), the Trustees requested a summary of the Plan's asset balance and exposure to the AIG, Lehman Brothers, and Merrill Lynch.

ANALYSIS

The following chart illustrates the fluctuation of the Plan's assets over the past calendar year:

Balance as of:		Market Value
12/31/2007		$ 1,884,199,000
6/30/2008		$ 1,774,276,000
9/26/2008*	Friday prior to the proposed Financial Bailout Plan**	$ 1,709,940,000
9/29/2008*	Monday: Financial Bailout Failure**	$ 1,646,525,244
9/30/2008		$ 1,654,258,000
*10/31/2008**		*$ 1,459,203,000*
-22.6%	*decline since Calendar Year End 12/31/2007**	
-3.8%	*decline due to the Financial Bailout Failure***	
-6.8%	*decline in the 3rd Quarter* (-8.4% for S&P 500)*	
-17.8%	*decline from 6/30/2008 thru 10/31/2008**	

Current Exposure to:	Market Value*	Percent of Plan
AIG	$ 916,949	0.06%
Lehman Brothers	358,669	0.03%
Merrill Lynch	904,619	0.06%
Total Exposure:	$ 2,180,237	0.15%

** unaudited data as of 10/31/2008*

*** estimated data as of the end of the business day*

As is the case with most retirement systems, the Plan is exposed to general market risk. In a pension plan context, the market risk is the risk that the rate of return earned on the pension plan

assets could be below the long term rate of return assumed for the Plan, which is 8.25%. This general market risk is reflected in asset valuations fluctuating with market volatility. Any impact from market volatility on the Plan depends in large measure on how deep the market downturn is, how long it lasts, and how it fits within fiscal year reporting periods.

Market risk could impact the financial condition of the Plan and the City's required contribution to the Plan. However, it should be noted that the Plan takes a long term view and invests for the long term benefits. Market gains and losses are factored into the contribution rates through biennial actuarial calculations and "smoothed" or averaged over five years. This smoothing methodology has the effect of minimizing the possibility of large fluctuations in the contribution rates.

Employees and retirees should be assured over the City's ability to make retirement benefit payments either today or in the future. The City has a legal obligation to make these payments, and the Plans have investment strategies in place which take into account long-term market perspectives and methods are in place to periodically evaluate the various assumptions and make adjustments in the contribution rates through the biennial actuarial evaluation process.

Ronald R. Kumar
Financial Analyst

QC: Ceara O'Fallon
Analyst II

ATTACHMENT 2

COUNCIL AGENDA: 1-13-09
ITEM: 3.4

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Russell U. Crosby

SUBJECT: FINANCIAL STATUS OF THE RETIREMENT PLANS

DATE: December 18, 2008

Approved Christine F. Shippey Date 12/19/08

COUNCIL DISTRICT: City-Wide

RECOMMENDATION

Accept report on staff's response to questions raised by the Rules and Open Government Committee on December 10, 2008 related to the financial status of the retirement plans.

OUTCOME

Present the financial status of both the Federated City Employees' Retirement System and the Police & Fire Department Retirement Plan.

BACKGROUND

A recent report by the City Manager indicated that the total market value of assets in the two retirement Plans had declined by approximately $950 million since the beginning of the fiscal year due to current economic conditions. Regardless of the long-term investment strategy of the plans, the decline of nearly $1 billion is of great concern.

At the December 10, 2008, the Rules and Open Government Committee, Mayor Reed requested that staff prepare a report for the January 13, 2009 City Council meeting regarding the status of the City of San Jose's ("City") two Retirement Plans to include:

a) The amount of investment losses in 2008;
b) Report on the impact of the City's required contribution to make up for the losses;
c) Benchmark comparisons to performance of other retirement plans, public and private, over the last five to ten years; and
d) Identify any best practices that might be considered to improve the Plans' investment performance and to protect the City's General Fund from additional losses.

This memorandum has been prepared in response to that request.

ANALYSIS

a) Performance

The following table illustrates the Federated City Employees' Retirement System's ("Federated System") and the Police & Fire Department Retirement Plan's ("Police & Fire Plan"), collectively referred to as "the Plans," performance.

	Oct-08*	YTD*	3rd Qtr. 2008**	ICC Rank	TUCS Rank	One Year**	ICC Rank	TUCS Rank	Three Years**	ICC Rank	TUCS Rank	Five Years**	ICC Rank	TUCS Rank
Federated System	-11.7%	-23.7%	-9.1%	61	57	-14.0%	39	31	2.7%	40	47	6.8%	42	47
Policy Index~FED	*-11.9%*	*-22.4%*	*-7.0%*	*16*	*12*	*-12.1%*	*14*	*15*	*3.3%*	*25*	*28*	*6.9%*	*40*	*40*
Police & Fire Plan	-13.2%	-27.2%	-9.6%	79	68	-16.5%	81	79	3.0%	39	34	7.3%	19	33
Policy Index~P&F	*-12.9%*	*-26.0%*	*-8.8%*	*60*	*45*	*-15.3%*	*62*	*58*	*3.6%*	*23*	*23*	*7.4%*	*17*	*32*
Public Funds^	-	-	-8.0%	-	-	-14.2%	-	-	2.7%	-	-	6.5%	-	-
Corporate Funds^	-	-	-8.2%	-	-	-14.4%	-	-	2.4%	-	-	6.7%	-	-
S&P 500	-16.8%	-32.8%	-8.4%	*46*	-	-22.0%	*57*	-	0.2%	*53*	-	5.2%	*77*	-
MSCI EAFE (Intn'l Equity)	-20.2%	-43.5%	-20.6%	*62*	-	-30.5%	*73*	-	1.1%	*82*	-	9.7%	*84*	-
Barclays Capital Aggregate+	-4.5%	-1.7%	-0.5%	*15*	-	3.7%	*22*	-	4.2%	*31*	-	3.8%	*39*	-
NCREIF Real Estate Index	0.6%	2.0%	-0.2%	*67*	-	5.3%	*28*	-	13.2%	*38*	-	14.2%	*42*	-

** as of 10/31/2008 ** as of 9/30/2008 + Formerly Lehman Brothers Aggregate Bond Index*
^ Median Data Source: ICC & TUCS (not available for 10/31/2008)
The Independent Consultants Cooperative ("ICC") uses systems supported by State Street Bank to deliver detailed performance and asset allocation rankings. The Wilshire's Trust Universe Comparison Service ("TUCS") is a collaborative effort between Wilshire Associates and custodian banks to provide comprehensive information on the effects of risk, allocation, and style.

The Federated System has consistently ranked in the second and third quartiles of the ICC and TUCS universes. A more diversified portfolio including alternative investments would have improved the Federated System's quartile ranking. The Policy Index return is the return that the asset allocation would have achieved with passive managers who attempt to replicate and not outperform their benchmarks. For all time periods considered, except the month of October, the Federated System underperformed its Policy Index. In other words, active management has consistently detracted value.

The Police & Fire Plan has ranked in different quartiles in the various time periods considered. The reason for the volatility of returns is a heavy allocation to equity investments. A more diversified portfolio including alternative investments would have improved the Plan's quartile ranking. For all time periods considered, the Police & Fire Plan underperformed its Policy Index. Again, active management has consistently detracted value.

More important than performance against other plans, however are the Plans' progress towards full funding. Progress towards full funding is achieved by performing at least as well as the actuarial assumptions. The following discussion will explain the potential impact of falling short of the actuarial assumptions.

The following table illustrates the Plans' balances as of recent dates and a year-to-date percent change, which is calculated without accounting for cash flows:

	Nov. 30, 2008*	Oct. 31, 2008	Sept. 30, 2008	Jun. 30, 2008	Dec. 31, 2007
Federated System	$1,398,610,000	$1,457,774,000	$1,654,258,000	$1,774,276,000	$1,884,199,000
YTD $ Loss	($485,589,000)	($426,425,000)	($229,941,000)	($109,923,000)	-
YTD % Loss	*-25.8%*	*-22.6%*	*-12.2%*	*-5.8%*	-
Police & Fire Plan	$1,992,396,000	$2,031,499,000	$2,348,046,000	$2,561,590,000	$2,776,959,000
YTD $ Loss	($784,563,000)	($745,460,000)	($428,913,000)	($215,369,000)	-
YTD % Loss	*-28.3%*	*-26.8%*	*-15.4%*	*-7.8%*	-

** unaudited data*

As illustrated above, as of November 30, 2008, the market values of the Federated System and Police & Fire Plan have declined 25.8% and 28.3%, respectively, since the beginning of the calendar year. The decline in the third quarter is slightly understated due to the City's prepayment of the retirement contributions for fiscal year 2008-09.

b) The impact of the Plans' investment losses on the City of San Jose

The impact of the Plans' investment losses on the City's contribution rate will be determined through an actuarial valuation. The City's required pension contribution, determined as a percentage of payroll, is based on an actuarial valuation report that is currently performed on a biennial basis for both Plans. The current pension contribution rates are based on the June 30, 2007 actuarial valuation and will be effective through June 30, 2010, unless the Retirement Boards modify the current biennial valuation process.

The following table illustrates the two Plans' normal valuation schedule:

FUNDS' CONTRIBUTION SETTING PROCESS		
Actuarial Valuation	**Date rates adopted by the Board**	**Rates Effective**
6/30/2007	June 2008	Fiscal Year 2008-09 Fiscal Year 2009-10
6/30/2009	June 2010	Fiscal Year 2010-11 Fiscal Year 2011-12

Given the current process, new rates based on the June 30, 2009 actuarial valuation will be implemented beginning July 1, 2010. These rates will reflect the largely smoothed actuarial investment losses incurred to the valuation date. The Police & Fire Plan has a "corridor" trigger, which ceases smoothing of losses when the losses exceed certain levels. Retirement Services has requested additional information from the actuary relating to the level at which the "corridor" trigger stops the smoothing of losses.

The actuarial loss or experience loss due to investment performance is defined as the difference between the "expected investment income" that the actuarial valuation assumed would be earned on the Plan's assets, based on an 8.75% gross rate of return assumption for Police & Fire (8.00%

net) and 9.00% gross rate of return for Federated (8.25% net), and the realized investment income. Actuarial losses are smoothed over five years except when losses exceed the "corridor" trigger for the Police & Fire Plan.

The current pension funding arrangement provides for the following cost sharing of benefits:

1. The current service cost or Normal Cost is the cost of funding an additional year of service for all the current active participants. Current service rate cost sharing is eight-to-three between the city and the employees. This year the City's portion of the normal cost was paid in full at the beginning of the fiscal year; whereas, members pay through payroll deductions during the year; and

2. The current service and past service deficiency cost is the cost of funding the Unfunded Actuarial Liability ("UAL"), which is the difference between the Plans' assets and liabilities. Current service deficiency cost refers to service accrued by members on and after July 1, 1975 while the past service deficiency cost refers to service prior to July 1, 1975. In other words, this deficiency cost pays for experience gains or losses relative to the assumptions in the actuarial valuation. Deficiency cost is amortized over 30 years, similar to a 30-year mortgage, and for pension benefits, entirely paid for by the City.

Contributions for retiree medical benefits are made by the City and employees in the ratio of one-to-one for both Plans. Contributions for retiree dental benefits are made by the City and employees in the ratio of three-to-one in the Police and Fire Plan and in the ratio of eight-to-three in the Federated System.

The following table illustrates the two Plans' Schedule of Funding Progress as of the most recent actuarial valuation.

Schedule of Funding Progress

HEALTHCARE	Valuation Date	Actuarial Value of Assets*	Liabilities	Actuarial Unfunded Liability	Funded Ratio
Federated	6/30/2006	$ 81,288,000	$ 702,939,000	$ 621,651,000	12.0%
P&F	6/30/2006	38,381,000	851,217,000	812,836,000	5.0%
Total		**$ 119,669,000**	**$ 1,554,156,000**	**$ 1,434,487,000**	**8.0%**
PENSION	**Valuation Date**	**Actuarial Value of Assets***	**Liabilities**	**Actuarial Unfunded Liability**	**Funded Ratio**
Federated	6/30/2007	$ 1,622,851,000	$ 1,960,943,000	$ 338,092,000	82.8%
P&F	6/30/2007	2,365,790,000	2,372,386,000	6,596,000	99.7%
Total		**$ 3,988,641,000**	**$ 4,333,329,000**	**$ 344,688,000**	**92.0%**

* *Includes gain/loss smoothing, if any.*

Source: P&F Healthcare: CAFR 2006-07, Segal Report 2/21/2007; P&F Pension: Segal Actuarial Valuation 1/31/2008
Federated Healthcare: CAFR 2006-07, GRS Report 2/28/2007; Federated Pension: GRS Actuarial Valuation 1/2/2008

While all actuarial assumptions could generate deficiencies, the two actuarial assumptions that typically generate the most significant deficiencies are:

1. Investment risk, which is the risk that the plan will not achieve its stated rate of return assumption, 8.75% gross rate of return assumption for the Police & Fire Plan and 9.00% gross rate of return for the Federated System;

2. Mortality risk, which is the risk that retired members survive and receive pensions for longer than anticipated by the actuary.

Deficiency cost is amortized over 30 years, similar to a 30-year mortgage, and for pension benefits, paid entirely by the City. The following paragraphs illustrate how the deficiency cost could affect the City's contribution level. Admittedly the following is an oversimplification of actuarial methodology and calculations; however, the illustration is valid.

For the last ten years ending September 30, 2008, combined, the Plans underperformed the actuarially assumed rates of return by roughly $1.7 billion, of which roughly $0.7 billion predate the stock market crash of the third quarter of 2008. Normally, large underperformance over periods such as ten years or longer is an indication that the actuarial assumption, in this case the rates of return, 8.75% gross rate of return assumption for Police & Fire Plan and 9.00% gross rate of return for the Federated System, are inappropriately high.

An UAL relating to the actuarial rate of return assumption of roughly $1.7 billion would be created once all the investment losses are smoothed in; the total UAL consists of surpluses or deficiencies relating to all assumptions. The City will be responsible for making annual payments sufficient to pay interest on the UAL and to amortize the UAL over approximately 30 years.

The adoption of a more conservative investment return assumption will increase Normal Cost of the Plans, but decrease the total cost of the Plans and reduce the potential for additional increases in the UAL.

c) Discussion on Best Practices

Academic studies show that pension plans that follow best practices deliver the promised benefits at a lower cost. On a typical pension plan, an industry rule of thumb is that if the annual investment rate of return can be increased by 0.1%, the plan's liability decreases by roughly $100 million for plans with total liability of approximately $5.0 billion. Using this rule of thumb, the City's contribution rate would drop by about 1.0% of payroll, and the employees' contribution rate would drop by roughly 0.2%.

Pension plan best practices fall into the following three categories: governance, investments, and administration.

1. Governance is by far the most important area to focus a study of best practices since it directly impacts both investments and administration.

Technical skills are required to understand the complex issues that are present in the governance of the Plans. The combination of highly technical rules for pension administration and the need to understand the use of actuarial science in the measurement of present and future pension plan liabilities requires an experienced and highly trained Board member to effectively govern the plan.

While some may argue that the purpose of the Board is to set policy and that technical aspects are handled by trained professionals, a lack of understanding of the finer points of governance, administration, or investments means that a Board member may not be able to ask meaningful questions or fully understand the implications of a recommended course of action. Consequently, ineffective policies and inferior plan governance result. Inferior plan governance always leads to suboptimal decisions and higher costs for the City.

Recent court cases also highlight problems with the current construct of the Plans' Board membership. The ongoing Lexin (San Diego) case involves a Board with composition similar to the existing Police & Fire and Federated Boards and demonstrates issues that arise with Boards whose membership have potential conflicts of interest. Issues of potential conflict of interest can be resolved through changes to Board membership and improved internal Board governance procedures.

Over the years, there have been numerous conflicts between the Boards and City Administration that highlight the perception that the Board membership represents various constituencies rather than plan participants as a whole. Board members are currently perceived as being "representative" of a particular nominating group, even though each trustee must act as a fiduciary on behalf of all participants and beneficiaries rather than a "representative" of a particular nominating group. In addition, requirements for Trustees to be a "member" of the nominating group rather than "nominated by" the underlying group leads to potential conflicts of interest and limits the expertise and quality of trustees to individuals in the member pools who are willing to serve on the Boards.

One example of governance leading to suboptimal decisions and higher costs for the City is the issue of active money manager performance. This memo has pointed out in the performance section that active managers have detracted from the Plans' performance. Typically investment consultants are reluctant to recommend the termination of an active manager without making the same recommendation to all clients, which often implies that the consultant will allow the manager to underperform for a length of time. Knowledgeable Trustees can provide direction to the consultant on this issue to ensure no underperforming manager is retained for an excessive period of time.

Since proper governance is the key that leads to professionalism and excellence in all areas of practice, a consultant who has seen the governance structures of many different plans is in the best position to advise the City as the plan sponsor regarding the necessary governance changes.

2. The two retirement plans have made a number of changes toward best practices in their investment programs during the past year. The Federated System expanded the contract with its investment consultant to include full service consulting and adopted a new asset allocation in January 2008. The new allocation increases the allocation to alternative investments.

   The Police & Fire Plan replaced their investment consultant in April 2008 and adopted a new asset allocation in June 2008. The new asset allocation increases the allocation to alternative investments, and includes absolute return, real assets, private equity, and opportunistic strategies.

   - Had the Plans previously diversified their asset allocations to include alternative investments their rankings would very likely have been top quartile across the time periods considered. For example, the San Bernardino County Employees' Retirement Association ("SBCERA"), which began implementing an alternative investments strategy in 2003, outperformed its Policy Index by 1.9% and ranked in the 18th percentile at one-year, 2.0% at three-years (ranked in the 3rd percentile), and 0.9% at five-years (ranked in the 3rd percentile). SBCERA's nine-member Board consists of the County Treasurer (ex officio member), four members appointed by the San Bernardino County Board of Supervisors, two members elected by "General" members, one member elected by the "Safety" members (along with an Alternate), and a member elected by "Retired" members. SBCERA outperformed the San Jose Plans' returns by significant margins. Best practices do in fact translate into higher investment returns and lower contributions for all parties.

   During the year, the San Jose Plans hired a Chief Investment Officer, an Investment Officer, and a Senior Accountant. The Chief Investment Officer is an actuary and a former investment consultant. The Investment Officer is a Ph.D. and a former Director of Research for an investment consulting firm. The Senior Accountant is a former accounting manager of a private equity-owned firm.

3. Recent administrative best practices include the retention of the Segal Company in April 2008 to perform a review of Retirement Services administrative practices and HIPAA compliance; an ongoing audit of City payroll contributions to the retirement plans by the Plans' independent auditor, Macias Gini & O'Connell, LLP; approval of a staff request to conduct a review and develop a request for proposals to determine whether the Pension Gold processing software used by the Retirement Services Department is the best and lowest cost solution going forward; and a review of all insurance coverage for the Plans and their assets. Additionally, there has been renewed emphasis on ensuring that all calculations and procedures are in compliance with the Municipal Code. This lead to the recalculation of the Federated Supplemental Retirement Benefit Reserve ("SRBR") to at least 2005 and possibly further back in time to account for excessive transfers and potential overpayments in prior years.

As noted above, best practices in plan governance will yield the greatest benefits. Governance impacts all aspects of pension plan operations and leads to professionalism, excellence, and ultimately increased returns for the Plans.

EVALUATION AND FOLLOW-UP

This memorandum is provided as an informational item and may be updated upon the City Council's request.

PUBLIC OUTREACH/INTEREST *(Not Applicable)*

- ☐ **Criterion 1:** Requires Council action on the use of public funds equal to $1 million or greater. **(Required: Website Posting)**
- ☐ **Criterion 2:** Adoption of a new or revised policy that may have implications for public health, safety, quality of life, or financial/economic vitality of the City. **(Required: E-mail and Website Posting)**
- ☐ **Criterion 3:** Consideration of proposed changes to service delivery, programs, staffing that may have impacts to community services and have been identified by staff, Council or a Community group that requires special outreach. **(Required: E-mail, Website Posting, Community Meetings, Notice in appropriate newspapers)**

COORDINATION

This memorandum has been coordinated with the City Manager's Office, the City Auditor's Office, the City Attorney's Office, the Office of Employee Relations, and Human Resources.

CEQA

Not a project.

Russell U. Crosby, DIRECTOR
Retirement Services

For questions please contact Ronald R. Kumar, Financial Analyst, at (408) 392-6708.

ATTACHMENT 3

SEGAL

THE SEGAL COMPANY
120 Montgomery Street Suite 500 San Francisco, CA 94104-4308
T 415.263.8200 F 415.263.8290 www.segalco.com

March 25, 2009

Mr. Russell Crosby
Director
City of San Jose Police and Fire Department Retirement Plan
1737 North First Street, Suite 580
San Jose, CA 95112-4505

Re: Projection of Contribution Rates Under Different Scenarios (Retirement Plan Only)

Dear Russell:

As requested by your office, we have projected the employer and the employee's contribution rates under different future market rates of return as well as different investment return assumptions for the Retirement Plan. The projected contribution rates under the Baseline scenario (discussed below) for the Retiree Health Plan are provided in a separate report.

Description of the Scenarios Studied

In order to have level and predictable plan costs from one year to the next, the Board of Retirement has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, any market value returns that are either below or above the assumed rate of investment return (currently 8% per year) are recognized over five years and as a result, the asset value and the resulting contribution rates are more stable. In addition, to avoid the smoothed Actuarial Value of Assets (AVA) from getting too far away from the Market Value of Assets (MVA), there is a market value corridor that limits the AVA to be no greater than 120% and no less than 80% of the MVA.

In this report, we have analyzed the impact of: (1) increasing contribution rate requirements brought about by unfavorable past and hypothetical future market rates of return since the last valuation date as of June 30, 2007; (2) increasing contribution rate requirements that would result if the current 8% assumed rate of investment return assumption used in the June 30, 2007 valuation were to be changed to 7.5% starting with the June 30, 2009 valuation; and (3) eliminating the 80% to 120% market value corridor starting with the June 30, 2009 valuation.

A description of the scenarios studied is summarized in the chart below.

	Rate of Investment Return Assumed in Valuation	Net Rate of Return (Plan Year)				MVA Corridor Applied
		07/08	08/09	09/10	10/11 and thereafter	
Baseline	8.00%	-5.89%(1)	-30.00%(2)	8.00%(3)	8.00%	Yes
Scenario 1	7.50%	-5.89%	-30.00%	7.50%	7.50%	Yes
Scenario 2	7.50%	-5.89%	-30.00%	7.50%	7.50%	No
Scenario 3	7.50%	-5.89%	-35.00%	0.00%	7.50%	Yes
Scenario 4	7.50%	-5.89%	-35.00%	0.00%	7.50%	No

(1) This was the net rate of return for plan year 07/08 as provided by the Retirement Department and used by Segal without review. According to the Retirement Department, it was calculated by taking the -5.10% gross rate of return, reduced by 0.55% in administrative and investment expenses and by 0.24% in benefit related payments from the Supplemental Retiree Benefit Reserve (SRBR).

(2) This was the net rate of return from July 1, 2008 through February 28, 2009 as provided by the Retirement Department and used by Segal without review. According to the Retirement Department, it was calculated by taking the -29.31% gross rate of return for the first eight months of plan year 08/09, reduced by 0.55% in administrative and investment expenses and by 0.14% in benefit related payments from the SRBR. Implicit in the -30.00% net rate of return assumption was that the market return would be flat (i.e., 0%) for the last four months of plan year 08/09.

(3) According to the Retirement Department, the Plan has to earn an 8.90% gross rate of return in order to yield an 8.00% net rate of return because the 8.90% gross return has to be reduced by 0.60% in administrative and investment expenses and by 0.30% in benefit related payments from the SRBR.

Actuarial Assumptions Used in the Projection

Other than the investment return assumptions described above, it is assumed that all future actuarial experience would match the assumptions adopted by the Board of Retirement for the June 30, 2007 retirement plan valuations. For the purpose of the projection, we have also made a simplifying assumption that an annual (rather than the current biennial) actuarial valuation

would be performed effective with the June 30, 2009 valuation and that the valuation would establish the contribution rate requirements for the plan year that begins 12 months following the date of the valuation.

Results

For the Baseline and each of the four scenarios, we have provided the following results:

- Projection of the employer rates from the June 30, 2007 to the June 30, 2027 actuarial valuations. The results are separated into two exhibits based on the rate of return used under each scenario for plan year 08/09. Exhibit 2a includes the results for the Baseline and Scenarios 1 and 2 (assuming a net rate of return of -30% for plan year 08/09), and Exhibit 2b includes the results for Scenarios 3 and 4 (assuming a net rate of return of -35% for plan year 08/09).

- Projection of the Unfunded Actuarial Accrued Liability (UAAL) for the retirement plan from the June 30, 2007 to the June 30, 2027 actuarial valuations. These results are displayed separately in Exhibit 3a for the Baseline and Scenarios 1 and 2 and in Exhibit 3b for Scenarios 3 and 4. In each year, any additional UAAL as a result of the unfavorable investment return experience has been amortized over the Board of Retirement's current policy of 16 years.

- Projection of the funded percentage for the retirement plan from the June 30, 2007 to the June 30, 2027 actuarial valuations. These results are displayed separately in Exhibit 4a for the Baseline and Scenarios 1 and 2 and in Exhibit 4b for Scenarios 3 and 4.

Exhibit 1 provides a consolidated summary of the projected results for the current and the next five years. This summary shows the employer rate, the UAAL and the funded percentage listed above for the baseline and the four scenarios. We have also included the employee's contribution rates for the next five years, as well as the ratio of AVA to MVA. This last ratio is used to show the effect of the market value corridor.

Below is a summary of the key results from the projections:

1. Under the Baseline scenario, it is anticipated that the AVA would be limited to 120% of the market value corridor in the June 30, 2009 valuation. This means that any market losses after the AVA exceeds 120% of the MVA would have to be fully recognized in developing the employer's contribution rate as of the June 30, 2009 valuation.

2. Under the Baseline scenario, the employer contribution rate for the retirement plan is expected to almost double from 22.5% of payroll developed in the June 30, 2007 valuation to 44.6% developed in the June 30, 2009 valuation for an increase of 22.1% of payroll.

   Please note that in projecting the contribution rates for the employer, we have not taken into account a provision in the Municipal Code that would allow the transfers of up to 5% of the accrued principal balance of the SRBR to buydown one-tenth of the increase in the City's contribution rate caused by poor market/investment return of the Fund. Those transfers would have a negligible impact on the results of this study.

3. Under Scenario 1, if the Board of Retirement were to decrease the 8.0% assumed rate of investment return assumption used in the June 30, 2007 valuation to 7.5% effective with the June 30, 2009 valuation, there would be an immediate increase in the employer and the employee contribution rates of 8.2% and 1.1% of payroll, respectively.

   The Scenario 1 contribution rates are expected to be higher in the short-term when compared to the Baseline. However, in the long term, the contribution rates under Scenario 1 are about the same as those under the Baseline, in spite of the assumption under Scenario 1 that the Plan would earn an annual market return of 7.5% effective 09/10 and is 0.5% less than that assumed under the Baseline.

4. Under Scenario 2, we have removed the 80-120% market value corridor that we have applied in determining the maximum amount that the AVA is allowed to deviate from the MVA in Scenario 1. Note that, relative to Scenario 1, the June 30, 2009 contribution rate is smaller by 17.5% of payroll. However, in the long term, the contribution rates under Scenario 2 will end up higher than those of Scenario 1 to recover the market losses as well as to make up for the time value of money due to the delay in contributions.

5. Under Scenario 3, the contribution rates will be higher than those under Scenario 1 because of the more unfavorable market rates of return assumed for plan years 08/09 and 09/10 assumed for Scenario 3.

6. Under Scenario 4, the MVA corridor has been removed. Note that, relative to Scenario 3, the June 30, 2009 contribution rate is smaller by 21.6% of payroll. However, in the long term the contribution rates under Scenario 4 will be higher than those under Scenario 3 for the same reasons stated in item 4.

   Note that we include results under Scenarios 2 and 4 with no MVA corridor to illustrate the impact of the MVA corridor, and not because removing the MVA corridor is necessarily a viable policy option.

Market Value Corridor and the Actuarial Standard of Practice

In 2007, the Actuarial Standards Board adopted Actuarial Standard of Practice (ASOP) No. 44. That standard requires that the "actuary should select an asset valuation method that is designed to produce actuarial values of assets that bear a reasonable relationship to the corresponding market values."

In particular, the ASOP goes on to say that the qualities of an asset valuation method should include the following:

> "3.3(b) The asset valuation method is likely to produce actuarial values of assets that, in the actuary's professional judgment, satisfy both of the following:
>
> 1. The asset values fall within a reasonable range around the corresponding market values. For example, there might be a corridor centered at market value, outside of which the actuarial value of assets may not fall, in order to assure that the difference from market value is not greater than the actuary deems reasonable.
>
> 2. Any differences between the actuarial value of assets and the market value are recognized within a reasonable period of time. For example, the actuary might use a method where the actuarial value of assets converges toward market value at a pace that the actuary deems reasonable, if the investment return assumption is realized in future periods.
>
> In lieu of satisfying both (1) and (2) above, an asset valuation method could satisfy section 3.3(b) if, in the actuary's professional judgment, the asset valuation method either (i) produces values within a sufficiently narrow range around market value or (ii) recognizes differences from market value in a sufficiently short period."

The application of this standard in relation to recent market events is still under review and discussion.

Other Considerations

As the Retirement Department is aware, even though removing the Market Value Corridor would reduce contribution rate volatility for the next couple of the plan years, a change in the asset smoothing method (or any other funding methodology change) will not have a long-term impact on Plan costs (except for the time value of money effect noted above). The Plan's ultimate costs are determined by the benefits and expenses paid less actual investment income. Since an asset smoothing method affects neither benefits nor expenses, it will not reduce the Plan's true costs. The table of projected contribution rates shows that any short term current contribution savings will have to be made up in the future, plus interest.

Finally, we emphasize that projections, by their nature, are not a guarantee of future results. The modeling projections are intended to serve as illustrations of future financial outcomes that are based on the information available to us at the time the modeling is undertaken and completed, and the agreed-upon assumptions and methodologies described herein. Emerging results may differ significantly if the actual experience proves to be different from these assumptions or if alternative methodologies are used. Actual experience may differ due to such variables as demographic experience, the economy, stock market performance and the regulatory environment.

Except as noted, all the calculations are based on the June 30, 2007 actuarial valuation results including the participant data and actuarial assumptions on which that valuation was based. The valuation and these projections were completed under the supervision of Andy Yeung, ASA, MAAA.

Please let us know if you have any question regarding this letter and/or the enclosures.

Sincerely,

Paul Angelo, FSA, MAAA, FCA
Senior Vice President & Actuary

Andy Yeung, ASA, MAAA
Vice President & Associate Actuary

/bqb
Enclosures

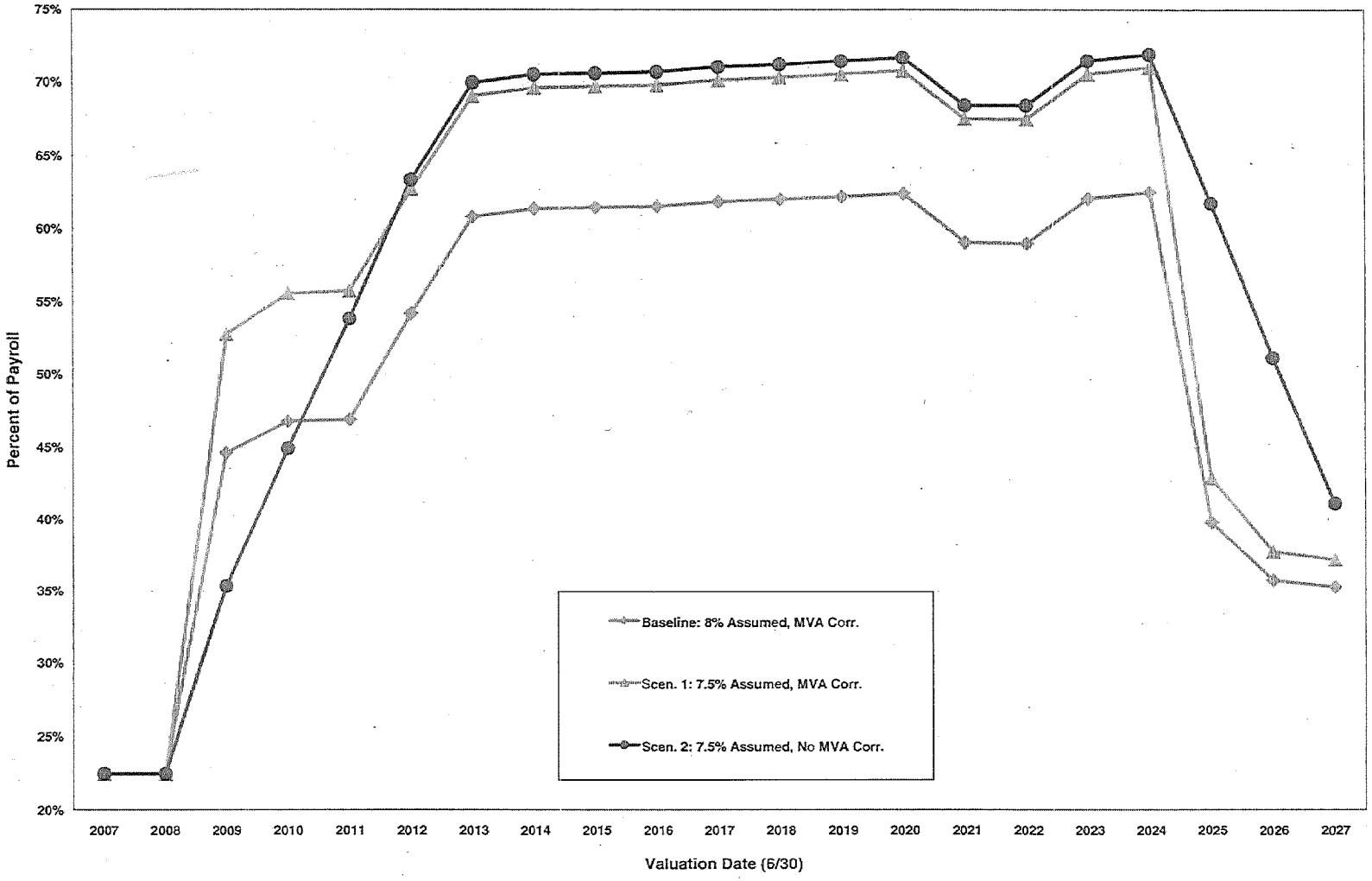
Exhibit 1: Summary of Projected Results for Next 5 Years

($ in millions)

Valuation Date (6/30)	2007	2008	2009	2010	2011	2012
Plan Year	08/09	09/10	10/11	11/12	12/13	13/14
Baseline: Assumed Rate of Investment Return at 8% per year, 120% MVA corrider applied						
Net Rate of Return at -5.89% for plan year 2007/2008, -30% for 2008/2009, and 8% per year thereafter						
Employer Rate	22.5%	22.5%*	44.6%	46.8%	46.9%	54.2%
Employee Rate	8.3%	8.3%*	8.3%	8.3%	8.3%	8.3%
UAAL	$ 7	$ (64)	$ 642	$ 699	$ 694	$ 917
Funded Percentage	100%	103%	76%	75%	77%	71%
Ratio of AVA to MVA (before corridor)	89%	104%	150%	136%	123%	109%
Scenario 1: Assumed Rate of Investment Return at 7.5% per year, 120% MVA corrider applied						
Net Rate of Return at -5.89% for plan year 2007/2008, -30% for 2008/2009, and 7.50% per year thereafter						
Employer Rate	22.5%	22.5%*	52.8%	55.6%	55.8%	62.8%
Employee Rate	8.3%	8.3%*	9.4%	9.4%	9.4%	9.4%
UAAL	$ 7	$ (64)	$ 820	$ 897	$ 888	$ 1,105
Funded Percentage	100%	103%	71%	70%	72%	68%
Ratio of AVA to MVA (before corridor)	89%	104%	150%	137%	123%	109%
Scenario 2: Assumed Rate of Investment Return at 7.5% per year, no MVA corrider						
Net Rate of Return at -5.89% for plan year 2007/2008, -30% for 2008/2009, and 7.50% per year thereafter						
Employer Rate	22.5%	22.5%*	35.3%	44.9%	53.8%	63.4%
Employee Rate	8.3%	8.3%*	9.4%	9.4%	9.4%	9.4%
UAAL	$ 7	$ (64)	$ 302	$ 593	$ 872	$ 1,177
Funded Percentage	100%	103%	89%	80%	73%	66%
Ratio of AVA to MVA	89%	104%	150%	137%	123%	109%
Scenario 3: Assumed Rate of Investment Return at 7.5% per year, 120% MVA corrider applied						
Net Rate of Return at -5.89% for plan year 2007/2008, -35% for 2008/2009, 0% for 2009/2010,						
and 7.50% per year thereafter						
Employer Rate	22.5%	22.5%*	57.8%	65.6%	66.1%	69.3%
Employee Rate	8.3%	8.3%*	9.4%	9.4%	9.4%	9.4%
UAAL	$ 7	$ (64)	$ 969	$ 1,198	$ 1,196	$ 1,282
Funded Percentage	100%	103%	66%	61%	63%	63%
Ratio of AVA to MVA (before corridor)	89%	104%	160%	153%	134%	114%
Scenario 4: Assumed Rate of Investment Return at 7.5% per year, no MVA corridor						
Net Rate of Return at -5.89% for plan year 2007/2008, -35% for 2008/2009, 0% for 2009/2010,						
and 7.50% per year thereafter						
Employer Rate	22.5%	22.5%*	36.2%	47.6%	58.6%	70.1%
Employee Rate	8.3%	8.3%*	9.4%	9.4%	9.4%	9.4%
UAAL	$ 7	$ (64)	$ 326	$ 676	$ 1,020	$ 1,387
Funded Percentage	100%	103%	89%	78%	68%	59%
Ratio of AVA to MVA	89%	104%	160%	153%	134%	114%

*Contribution rate calculated in the June 30, 2007 valuation.

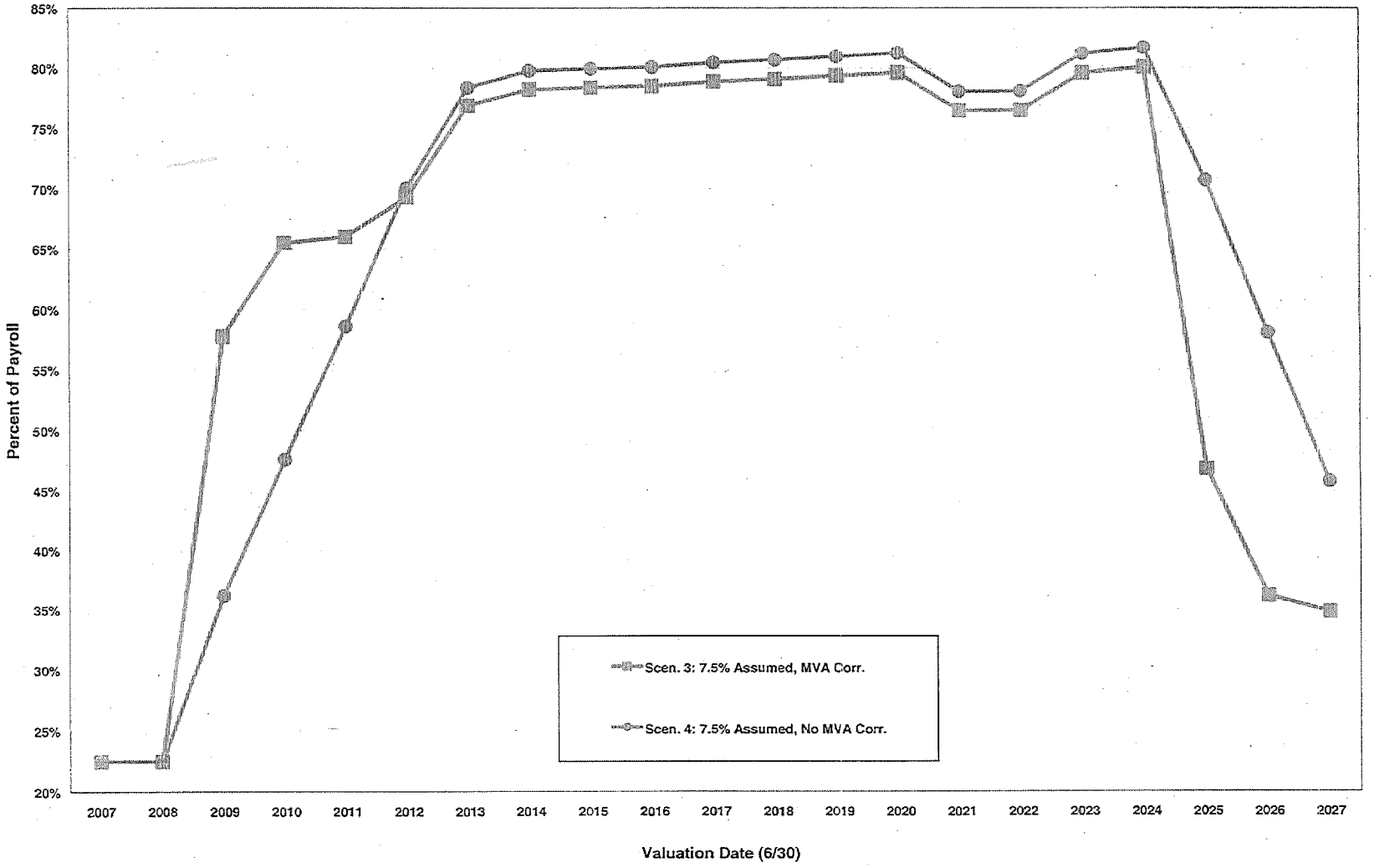
Exhibit 2a: Projected Employer Rates



Valuation Date (06/30)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Baseline: 8% Assumed, MVA Corr.	22.5%	22.5%	44.6%	46.8%	46.9%	54.2%	60.9%	61.4%	61.5%	61.6%	61.9%	62.1%	62.3%	62.5%	59.1%	59.0%	62.1%	62.6%	39.8%	35.8%	35.3%
Scen. 1: 7.5% Assumed, MVA Corr.	22.5%	22.5%	52.8%	55.6%	55.8%	62.8%	69.1%	69.7%	69.8%	69.8%	70.2%	70.4%	70.6%	70.8%	67.6%	67.6%	70.6%	71.0%	42.9%	37.8%	37.2%
Scen. 2: 7.5% Assumed, No MVA Corr.	22.5%	22.5%	35.3%	44.9%	53.8%	63.4%	70.0%	70.5%	70.6%	70.7%	71.1%	71.2%	71.5%	71.7%	68.5%	68.5%	71.5%	71.9%	61.8%	51.2%	41.1%

Baseline: Net market rate of return: -5.89% (07/08), -30% (08/09), and 8% per year thereafter.
Scenario 1: Net market rate of return: -5.89% (07/08), -30% (08/09), and 7.50% per year thereafter.
Scenario 2: Net market rate of return: -5.89% (07/08), -30% (08/09), and 7.50% per year thereafter.

Exhibit 2b: Projected Employer Rates



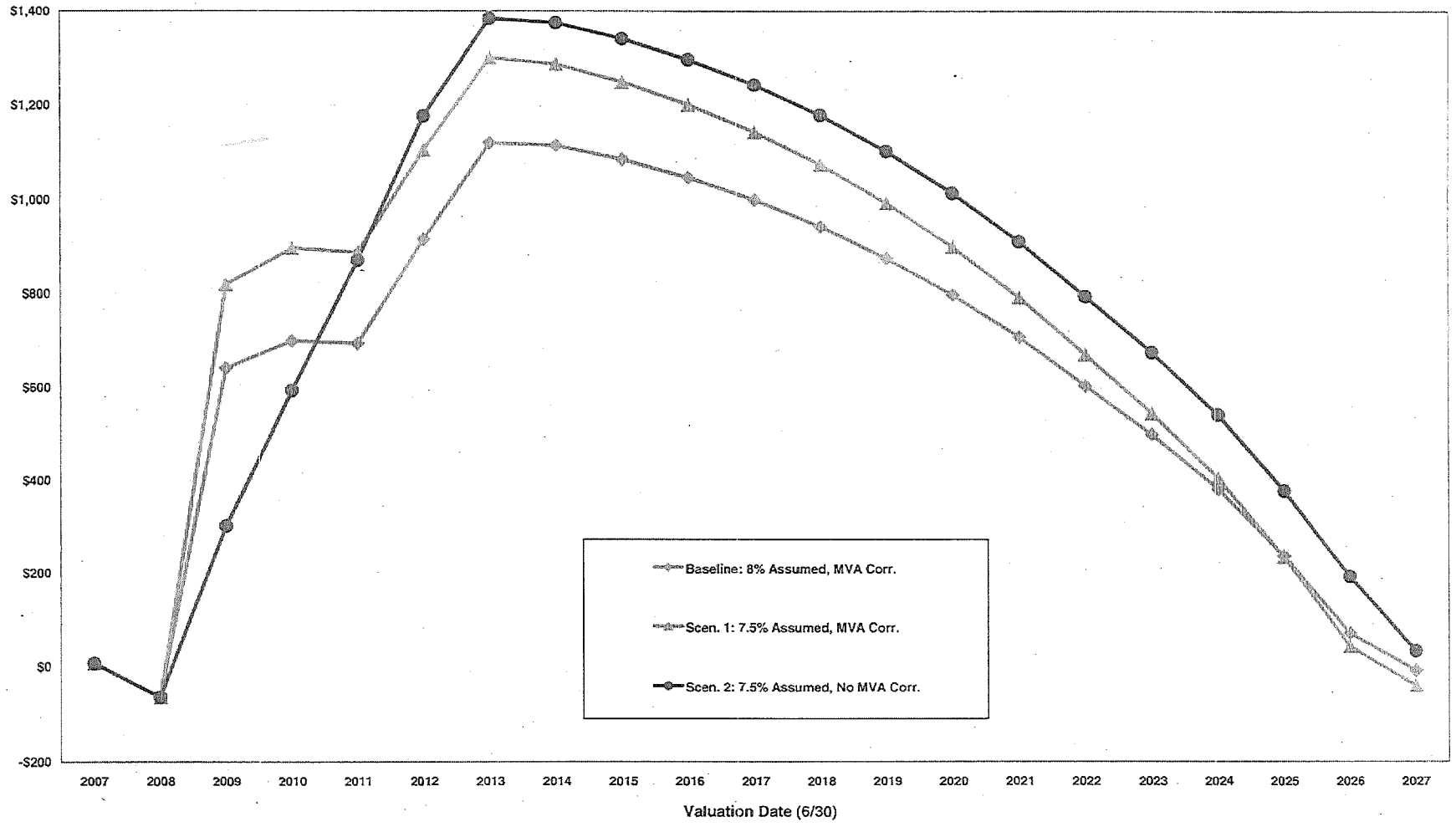
Valuation Date (06/30)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Scen. 3: 7.5% Assumed, MVA Corr.	22.5%	22.5%	57.8%	65.6%	66.1%	69.3%	76.9%	78.3%	78.4%	78.6%	78.9%	79.1%	79.4%	79.7%	76.5%	76.5%	79.6%	80.1%	46.8%	36.2%	34.8%
Scen. 4: 7.5% Assumed, No MVA Corr.	22.5%	22.5%	36.2%	47.6%	58.6%	70.1%	78.4%	79.8%	79.9%	80.1%	80.4%	80.6%	80.9%	81.2%	78.1%	78.1%	81.2%	81.7%	70.7%	58.1%	45.8%

Scenario 3: Net market rate of return: -5.89% (07/08), -35% (08/09), 0% (09/10), and 7.50% per year thereafter.

Scenario 4: Net market rate of return: -5.89% (07/08), -35% (08/09), 0% (09/10), and 7.50% per year thereafter.

Exhibit 3a: Projected UAAL

($ in millions)

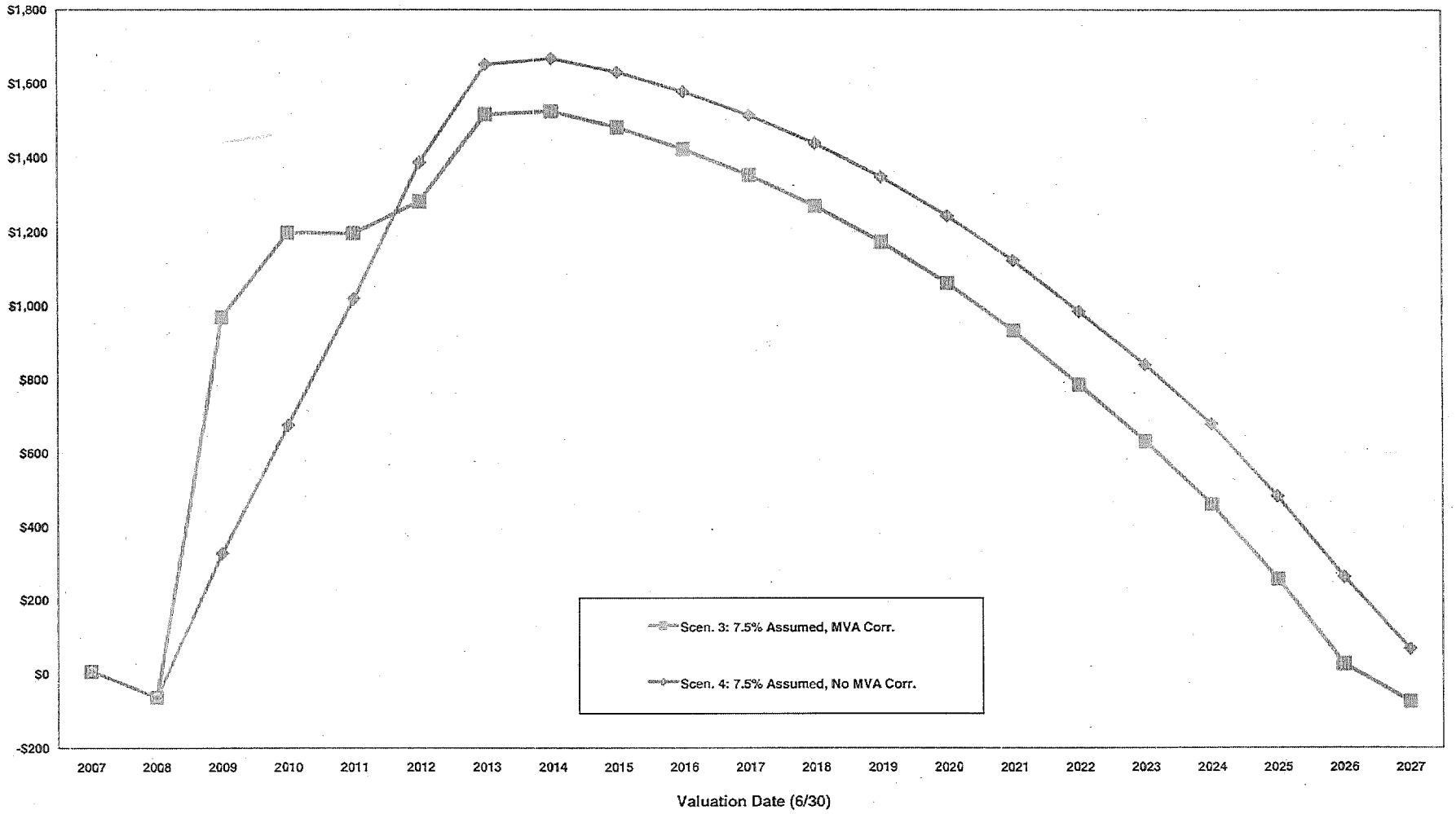


Valuation Date (06/30)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Baseline: 8% Assumed, MVA Corr.	7	(64)	642	699	694	917	1,121	1,116	1,086	1,048	1,000	944	877	799	708	604	499	382	236	71	(8)
Scen. 1: 7.5% Assumed, MVA Corr.	7	(64)	820	897	888	1,105	1,301	1,288	1,250	1,201	1,143	1,074	993	900	792	670	544	404	235	43	(39)
Scen. 2: 7.5% Assumed, No MVA Corr.	7	(64)	302	593	872	1,177	1,384	1,375	1,341	1,297	1,243	1,179	1,102	1,014	912	795	675	541	378	193	33

Baseline: Net market rate of return: -5.89% (07/08), -30% (08/09), and 8% per year thereafter.
Scenario 1: Net market rate of return: -5.89% (07/08), -30% (08/09), and 7.50% per year thereafter.
Scenario 2: Net market rate of return: -5.89% (07/08), -30% (08/09), and 7.50% per year thereafter.

Exhibit 3b: Projected UAAL

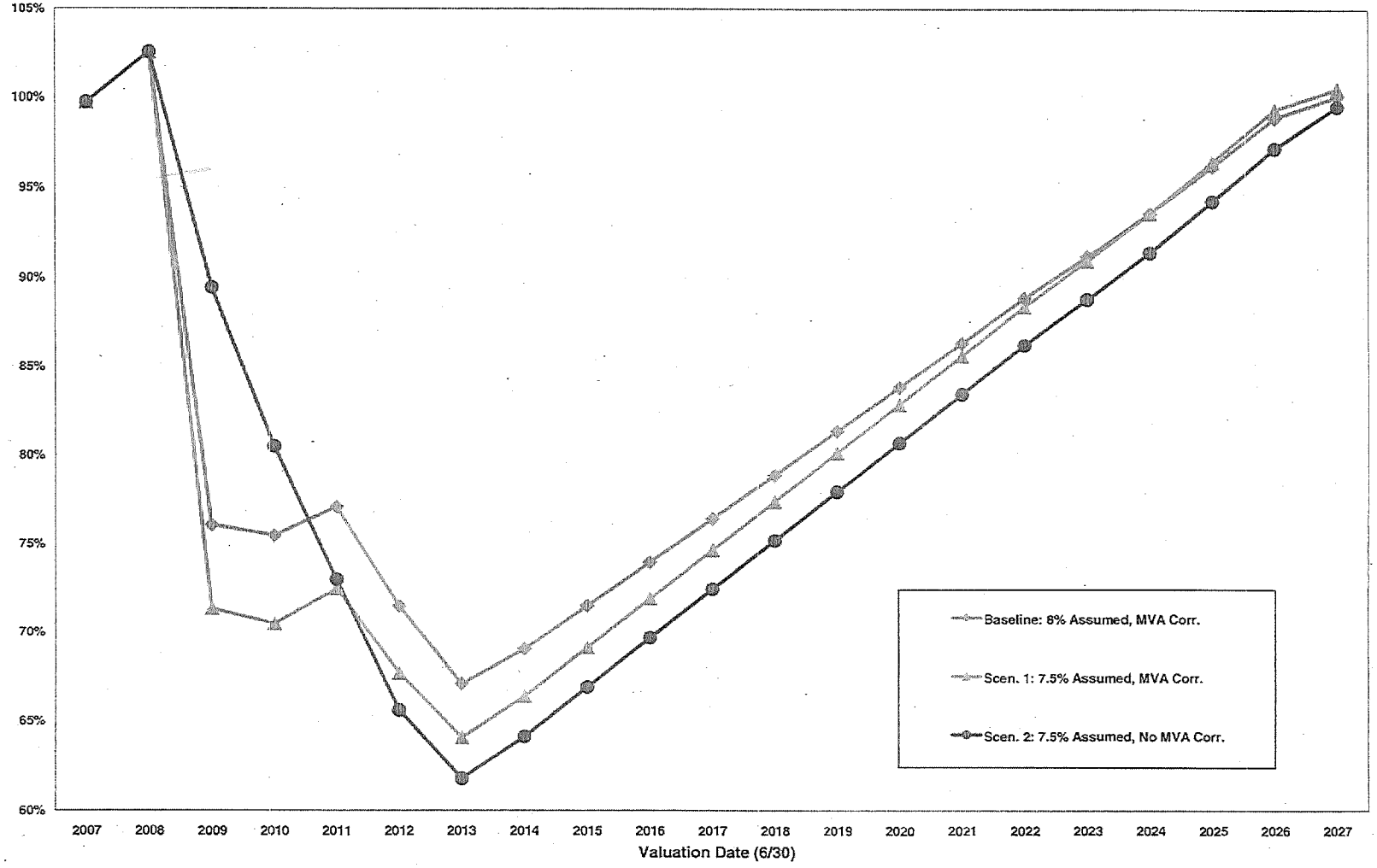
($ in millions)



Valuation Date (06/30)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Scen. 3: 7.5% Assumed, MVA Corr.	7	(64)	969	1,198	1,196	1,282	1,517	1,526	1,482	1,423	1,354	1,271	1,174	1,062	933	786	633	462	258	27	(75)
Scen. 4: 7.5% Assumed, No MVA Corr.	7	(64)	326	676	1,020	1,387	1,651	1,667	1,629	1,577	1,514	1,439	1,349	1,244	1,124	985	841	679	483	262	66

Scenario 3: Net market rate of return: -5.89% (07/08), -35% (08/09), 0% (09/10), and 7.50% per year thereafter.
Scenario 4: Net market rate of return: -5.89% (07/08), -35% (08/09), 0% (09/10), and 7.50% per year thereafter.

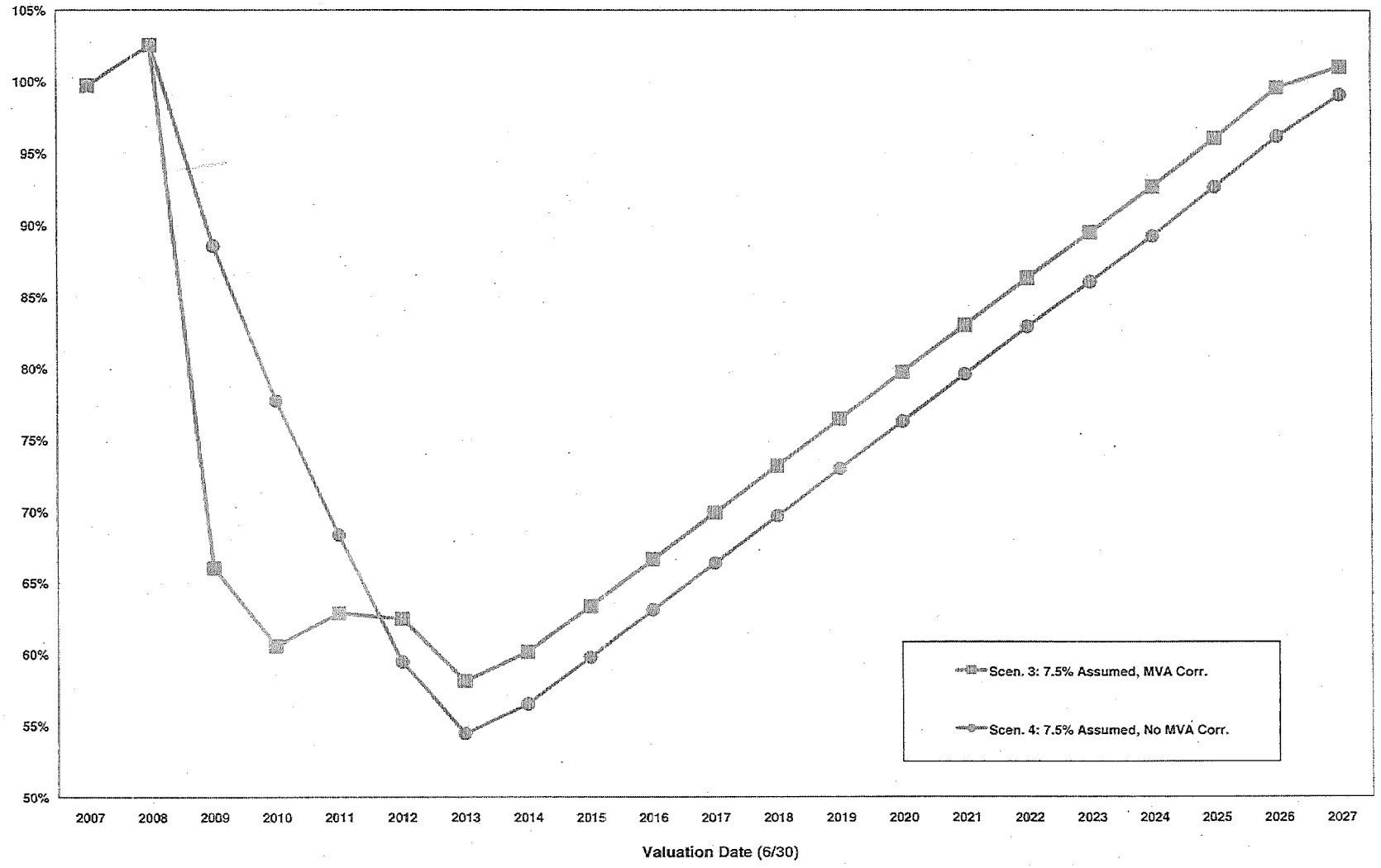
Exhibit 4a: Projected Funded Percentage



Valuation Date (06/30)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Baseline: 8% Assumed, MVA Corr.	100%	103%	76%	75%	77%	71%	67%	69%	71%	74%	76%	79%	81%	84%	86%	89%	91%	94%	96%	99%	100%
Scen. 1: 7.5% Assumed, MVA Corr.	100%	103%	71%	70%	72%	68%	64%	66%	69%	72%	75%	77%	80%	83%	86%	88%	91%	94%	96%	99%	101%
Scen. 2: 7.5% Assumed, No MVA Corr.	100%	103%	89%	80%	73%	66%	62%	64%	67%	70%	72%	75%	78%	81%	83%	86%	89%	91%	94%	97%	100%

Baseline: Net market rate of return: -5.89% (07/08), -30% (08/09), and 8% per year thereafter.
Scenario 1: Net market rate of return: -5.89% (07/08), -30% (08/09), and 7.50% per year thereafter.
Scenario 2: Net market rate of return: -5.89% (07/08), -30% (08/09), and 7.50% per year thereafter.

Exhibit 4b: Projected Funded Percentage



Valuation Date (06/30)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Scen. 3: 7.5% Assumed, MVA Corr.	100%	103%	66%	61%	63%	63%	58%	60%	63%	67%	70%	73%	77%	80%	83%	86%	90%	93%	96%	100%	101%
Scen. 4: 7.5% Assumed, No MVA Corr.	100%	103%	89%	78%	68%	59%	54%	56%	60%	63%	66%	70%	73%	76%	80%	83%	86%	89%	93%	96%	99%

Scenario 3: Net market rate of return: -5.89% (07/08), -35% (08/09), 0% (09/10), and 7.50% per year thereafter.
Scenario 4: Net market rate of return: -5.89% (07/08), -35% (08/09), 0% (09/10), and 7.50% per year thereafter.