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>> Mayor Reed: Good afternoon. I'd like to call this council meeting to order. This is a study session on future retirement costs, and we'll have a couple of presentations and some time for council discussion, as we usually do at study sessions, but we are not asking the council to make any decisions today. This is background information for decisions that we have to make on a regular basis as we are dealing with retirement issues and budget. And just looking backwards in time a little bit, our annual retirement costs have jumped from $73 million ten years ago to $245 million this year, that's what we paid. And we have had service cuts throughout the city as we cut 2,000 people from our workforce, from 7400 down to 5400. And the City's share of retirement cost now exceed 50% of payroll, and retirement costs consume more than 20% of the General Fund. and of course retirement costs for employees are going up as well. Today we're talking about future retirement costs because as big as the cost increases have been they're projected by the actuaries for the independent retirement boards to increase for another dozen years or so. Just how much they will go up cannot be known for certain because we're talking about the future. And it all depends on what happens with a lot of factors that are beyond our control. In most cases. But what we do know is that the cost of the benefits is the cost of the benefit and assumptions don't change the ultimate cost. And we want to make sure that all of our retirees get paid what they've earned and accrued and we provide services to our residents and taxpayers. And that's why we've got to look ahead to the potential future costs of retirement, because it's such a big factor in our budget, that we just have to be prepared as we go forward. So with that, I'm going to turn it over to our city staff, who will start the presentation.

>> Alex Gurza: Good afternoon, mayor, members of the city council, Alex Gurza, deputy City Manager. With me this afternoon, members of my staff, Jennifer Schembri, Gina Donnelly, Aracely Rodriguez. I also wanted to take a moment to introduce the city's consulting actuary, John Bartel with Bartel Associates, who is going to give part of the presentation this afternoon. We are going to share making the presentation, and then open it up to any questions the mayor and the council may have. So first, as we do frequently when we talk about retirement benefits, we want to let everyone know there is a tremendous amount of information available about the city's retirement benefits, actuarial reports, staff reports available on the city's Internet site that can be found by clicking on city departments, on employee relations under the City Manager's office, and there is a link to retirement benefits information, and again, a large volume of information about retirement.. The presentation we're going to make this afternoon will be available on the Internet, as well. So in terms of the agenda today, the Rules

Committee approved a memo from the mayor, memo dated February 27th, that requested that the staff work with, obviously, an actuary, which is Mr. John Bartel, to develop scenarios or answers to scenarios that were in that memo and part of the presentation today is to give the results of those calculations in terms of those scenarios. We're also going to review information about what are our current retirement costs, we're going to review the costs that have been developed already by the board's actuaries in terms of projections on future retirement costs and then Mr. Bartel is going to talk specifically about the issue of volatility and leveraging that we have seen exist in the Police and Fire retirement plan specifically. So to start out, we're going to start out as I mentioned with the retirement cost scenarios from the February 27th memorandum as requested by the rules committee, and this particular slide lists exactly what the scenarios were that were requested. And I won't read them all but Mr. Bartel is going to talk about those. These five scenarios and just to give you some sense of what those are, some are changing the assumptions that are currently used, and for example in the first one, which was rather than the current earnings assumption also called the discount rate of 7.5, what would the cost be if we were on a risk free rate, on down the line of the scenarios and with that I'm going to turn it over to Mr. Bartel to cover these scenarios.

>> Great, thank you very much. So these numbers correspond to the request numbers, so the first one, using a risk-free rate, we are using as a proxy for that rate a 4% discount rate. And dropping from the 7.5 for the health care trend question, we're using 10% for 30 years, followed by the valuation assumptions. And then for the investment return, we're using minus 12.5 for two years getting to the 25% reduction. And then half of the systems assumed, 7.5 for the next ten years and then on the wage increase assumptions this unfortunately is a little bit more complicated. There are two, the systems have two assumptions for wage increases. There's a wage inflation assumption and for the Federated plan, that's a 3.25 increase. For the Police and Fire plan, they actually have an assumption that is a 0% increase for two years. And then going to the 3.5% increase. So what we've done here is to use a 7% incremental increase for Police and Fire, 7 percentage points, and then 6.5 for Federated, beyond '14-15 no additional increases, and then for the other salary increases, which are merit-longevity increases, we doubled the assumption for two years and then kept the assumptions the same for '14-15. And then number 5 showing the combined impact of all, just a quick comment on that one. The item number one which is using the risk free rate we're really pulling that out of item number 5. The idea really is to take into

account anticipated events and I don't know that many people believe the retirement system is going to earn 4%. So when you see the combined impact, you will not see item number 1 included in those. And what you see on slide 8 are the results of our responses to the request for the pension plan, and current 7.5%, there is a 1.5 billion unfunded liability. Using the risk free rate, you can see the numbers there, I won't go through all of the detail. If a risk-free rate was used, that $1.5 billion number would increase by $3.8 billion. So each of those columns shows the increase over the current 7.5% assumption. If you go to the recession, an increase of about 4.6 billion, double wage increases, about 2.7 million increase again in the unfunded liability, the combination really of 3 and 4 getting to a little less than a $5 billion increase. And you can see the impact on the contribution rates, and the city dollar contribution, all of these presumed that we know about those events in advance. So we're showing those in today's dollars, if you will. And then if we look at the retiree health care piece on slide 9, again, 7.5%, the current unfunded liability about $1.5 billion, using a risk-free rate increases that by 1.2, the recession or the poor investment return has a much lower impact on retiree health care, because you don't have a lot of money set aside to take care of retiree health care. So very simply, if you don't have much money set aside, a 25% loss just doesn't impact your funded status. You can see the impact there, the double-digit health care would increase the numbers 1.5 billion, combination of, again, questions 3 and 2, get to about a $1.8 billion increase in the unfunded liability. Again, you can see the contribution rate, and increase in the dollar contribution numbers there.

>> Alex Gurza: Okay, the next section of the presentation was to review presentation that the city council has already seen. I'll go through this relatively quickly. Retirement costs, retirement contributions for 12-13 in rates. Without going through them all you'll see that their -- the police rates and fire rated and Federated separated by city employee and pension retiree health care. So if you go to the bottom line grand total column that's the total contribution rate both of from the city and employees for '12-13. So for police we have an 85% contribution rate, fire, 82.83, and Federated, 65. For those who may be listening that aren't used to these rates, what that means is if you have somebody who earns, we'll take just as an example, $100,000 a year, that means an extra 85,000 for a police officer would have to be set aside by both the city and employees in that particular year. So it's a rate based on what we call pensionable pay, that that gets added to. So those are the rates that have been set by the boards for 12-13. Terms of the unfunded liability. What this chart 12 compares is the unfunded liability as calculated again by the board's actuaries from 11-12 to 12-13. Again separated similarly

pension for Federated and Police and Fire, you can see from one year to the next in terms of unfunded liability stayed between 1.4 to 1.5 billion for unfunded liability. Then when you look at retiree health care, 1.3 billion to 1.39 for one year to the next. If you look at the grand total of unfunded liability, in 11-12 it was 2.7 billion and in 12-13 approximately $2.9 billion in unfunded liability. In terms of the future retirement costs, as we have stated many times, the only known retirement contributions are those in the current year that we're in. But actuaries do project forward in terms of costs. And Cheiron, both the actuary for Police and Fire and Federated has developed those costs tar in the actuarial reports provided to the boards. And we did want to point out again this note that Cheiron has provided when they give projections. And the current projections state they are based on the June 30th, 2011 valuations which are the most current valuations that are most recently completed and the projections assume that all assumptions are exactly met since June 30th of 2011, and are exactly met each and every year into the future. Now, why is that important? As we know as we talk about how many different assumptions actuaries use including the earnings assumption, longevity, salary increases, et cetera, and the projections assume that all of those assumptions are going to be exact true. So for example, the fact that they predicted they're going to earn 7.5%, the projections that the board's actuary has used assume that they will meet -- earn 7.5% each and every year. To the extent these projections aren't right whether in the positive or negative those actual projections will vary once we get to the particular year. It's a very important point. So this chart here, is now an updated chart, based on the -- for the five-year projection that includes pension and retiree hearing. When of when we had the study session back in February we didn't have all the numbers yet because the Police and Fire retiree health care valuation had not been completed and approved by the board. We now have these numbers so this is just the city side of the contribution rate. So you see in 12-13 the city will have to contribute $251 million into both plans and then going all the way out to five years, 16-17 at $325 million. Last year this chart did look dint. The numbers were higher as everyone knows but the comparative year is 15-16. Because as we do five year projections it always adds one year over to the right. And so last year when the estimate was $431 million that was in fiscal year '15-16 which now shows 320. So part of Mr. Bartel's presentation is going to include why did the number now, why is it not projected to go up as much as it was before, so why is it 320 now, as opposed to the 431 million that was anticipated in '15-16 a year ago. Now again, these are charts that we did show to the city council in the February study session so I won't spend much time on that. This comes directly from the board's actuaries valuations. They present them in a couple of different ways, both in dollar contributions as well as contribution rates. These are the ones that show them in dollar contribution. So this is Federated looking 20 years out. And what I want to take a moment to explain is the red line. You notice the red line, it says 2010 valuation baseline. That was what the projection showed a year ago, based on the 2010 valuation. And now, the yellow numbers are the ones that reflect the projections based on the 2011 calculation. So you'll see that the City's contribution rates are still going up. Except just not as much as they were a year ago. So the slope is still slightly less. What's interesting to compare is the very next slide that will show you the Police and Fire numbers. And the thing that's very different as you'll note in this slide versus the slide before is the red line. The red line was the one that was based on the 2010 valuation, and really, the interesting thing is the difference between the yellow line and the red one. So let me just go back here, one slide back, and you can see the slope of the line is still going up. But it's just slightly less. But you see the very big difference between the line just one year later. And again, Mr. Bartel is going to try to explain why this occurred. Why is there such a difference in Police and Fire and Federated. We know for example both plans had a similar reduction both in pay and in number of people. It was a 24% reduction in total payroll that happened not just in one plan but in both plans. This is a slide we've shown the city council many times, and that is as we've embarked on pension reform. And presented decisions for the city council to make on defined benefit pension plans. We have presented to the council what we consider to be a key question which is how much risk is the city and the taxpayers willing to take on defined benefit retirement plans for employees? We think it's a critical question and similarly how confident would the city council like to be that any cost estimates, any cost estimates of what things are going to cost in the future, how confidential would you like to be that they're going to be correct? We put out these four, would you like to be 100% confident, 75%, 50-50, or 25%? That's a key question we presented to the city council. Now I'm going to turn it back to Mr. Bartel.

>> Thank you very much. What you see on this particular slide is a looking at one of the assumptions. The investment return commonly referred to as the discount unit rate assumption. So this is information put together by Cheiron, and if you just kind of look at this table, what this says is the 50% confidence level, meaning Cheiron would expect, as you go forward into the future, half of the time, actual investment return will exceed 7.26%, and half of the time it will fall below 7.26%. Now, the current discount rate is 7.5%. So there is an inherent modest expectation that investment return, in the long run, will actually be below what they are using for the assumed

discount rate. So that's number one. What this also shows is confidence levels associated with a rate of return higher or lower. So for example, if we look at the 75th confidence level, what that means is, Cheiron is expecting three quarters of the time the actual investment return in the long run will exceed 5.6%. And so this is a -- what you might think of as sort of a distribution of probabilities over a relatively long period of time. And so using these confidence levels, Cheiron or any actuary, could go ahead and project a range of contributions for the city. In other words, the question really becomes, how volatile will the City's contribution rate or contribution dollar amounts be based upon this range of investment earnings? So that kind of leads us to the question of volume volatility. One thing I would encourage you all to stick in your head if you forget everything I've said but remember this point, it may very well be the most important point you can remember. And that is, your contribution rates will be volatile as time goes by. That is, we're going to show a little bit why, we've got some volatility indicators, we're going to look at your Police and Fire plan, relative to the ratio of assets to payroll, we're going to look at the ratio of the actuarial liability to payroll, and then we'll look at how much of the liability is due to the active employees. And in fact, those first two, if we just kind of settle on those for a moment, those are particularly important. Because if you have a volatility index, whether we're talking about asset or liability that equals 10, you have assets divided by payroll, that's ten, or you have liability divided by payroll and that's ten, then you somewhere a 10% gain or loss, then your gain or loss in that particular year is one year's worth of of payroll. Let me say that again. If you have a 10% -- if you an index that's 10, you have a 10% gain or loss, that means your gain or loss in that particular year is equal to one year's worth of payroll. So in my mind, that's a very big number. If you have a gain or loss equal to one year's payroll that's going to generate some volatility. So here's away you see. This happens to be your Police and Fire, the liability, volatility index, the actuarial accrued liability divided by payroll, and what you see if you go back to '93 -- excuse me, '83 -- you have a relatively low ratio, below 4. And then as you get to 2007, that -- you are exceeding a ratio of 10 to 1. And then you go out to the most recent two valuations, you went from a volatility index of 13 to a volatility index of almost 18. So let me tell you just one more time: What that means is, as your liability changes, as the actuary is making changes to the assumptions, positive or negative, you should expect that volatility relative to payroll, and you're making your contribution relative to payroll will change a lot from one year to the next. And then we look at the asset volatility a little more bouncing around. Because the assets bounce around a lot more than one valuation to the them. Your asset volatility you're almost 15 to one volatility of assets to payroll. So again a very high volatility of assets. Cheiron has put together a comparison of your numbers to other agencies around the country. How do I describe this? You all are off the chart. Your ratios are extremely high, compared to an awful lot of agencies. Particularly high for Police and Fire. Then what I refer to as the maturity index really is an indication of the total actuarial liability divided by the -- divided by the active liability. The higher the ratio, the lower the actives make up in terms of the total liable. So what that really means is, the more mature your plan is, you have two-thirds of your liability, about, that are for people who are no longer working at the city, retirees. So that's another way to think of this is, if you think about this from a 401(k), 457 account, if you're setting money aside for your own retirement, you all are a retiree. Your plan is at the point where you are very mature, you have far fewer actives compared to liability -- to the liability for retiree. And that has consequences. One of the consequences is, continued volatility. What we're showing on slide 25 is just an example of the difference in the leveraging. From the Police and Fire versus the Federated plan. These are in contribution rate. So if you -- and all they are is, what would the contribution rate be if you drop the discount rate from 7.5 to 6.75. To give you an indication, the Police and Fire total rate goes up by almost 20 percentage points. On the other hand, the Federated goes up, but about 9, 9.5 percentage points. So the increase in the rate is much more dramatic, for the Police and Fire, than it is for the Federated. That's really because the maturity of that plan, the ratios those indices we just looked at are much higher. So that's sort of the facts of the situation. A logical question really is, well, what if anything can you do about that? And so we've put together several bullet points. I'd like you to -- I apologize for hitting on this particular one again. But plan for volatility in your contribution rates. Your numbers are not going to be, I can promise you, the numbers will not be what the actuary's projecting that they're going to be. They're going to be higher or lower, that's true of any retirement system. For you all, the distance or the dispersion around that expected number is going to be greater than for most systems. So you will see volatility in projections of numbers. From one year to the next. Because of events that have happened. You should not just request one set of numbers. You should request the system's actuary to give you a range, a -- think of it in terms of those discount rate confidence levels going from, say, 25 to 75. I don't think you want a wide range, because it's not clear to me how valuable that would be. But if you have a range in contributions that go from 25 to 75%, what that means is, there is a 50% expectation that the actual number will fall within that range. There is no guarantee that it will fall within that range. But even a wide range of 25 to 75, only gives you 50% confidence that your actual number will fall within that range. You also should have the actuaries update that information relatively frequently. You should consider more conservative discount rates. So I'm not the only actuary talking about this. It is easy for me to make this statement because I don't have to meet your -- you know, meet your budget and payroll issues. But there has, over the past several years, one of the things we really see is a chasing of investment return. So in other words, the actuary says well, under the current investment mix you're going to get 7.25 rate of return. And the investment mix tries to be a little more aggressive to get to that investment return and the actuary increases the discount rate and you have this circular action that ends up with a chasing of investment return, which is not much different than if you are an individual coming up to retirement for a mature plan, using -- having all your retirement money in equities. And what that really means is, if you happen to catch that right, if your timing is good, things are awfully nice. On the other hand, if you happen to catch that timing wrong, things are not so nice. So what you're really do is relying on the timing for that. Now, I do want to be clear here. I'm not an investment advisor. You ought to not turn to me for investment advice. What I am suggesting you do is think about where you are on the maturity open that scale of brand-new starting to save for retirement versus coming up at retirement. And then I think you ought to consider whether the investment mix should be less aggressive than what it is, because that really drives the volatility, if you will. Consider having an amortization of 20 years or shorter. 20 years is about the cutoff for at really being able to pay off your unfunded liability in a reasonable period of time.

>> Alex Gurza: And with that, that's the end of our presentation, and we'd be happy to entertain any questions of the council.

>> Mayor Reed: I had just a couple of questions to start. Could I just have John Bartel think about going back to the discount rate issue, and the assumption is an average of 7.5%. Does that assume it's going to be 7.5% evenly every year, does it account for the fact that some years it might be zero and some years it might be 15? How does that affect the analysis?

>> When the actuary goes off and does the calculation, we -- this is going to sound strange. But we ignore volatility in that number. The assumption is, 7.5% next year, 7.5% the year after that, exactly. So there is no -- the development takes into account the volatility but the actual calculation does not.

>> Mayor Reed: The reason I ask the question is that Stanford institute for economic research institute published a paper last year in which they ran monte Carlo simulations, whatever that is, and you can probably tell us what that is, and they concluded that even if we got the relatively high rates of returns, we still wouldn't have enough money. And it's because -- I think it's because some years it's zero some years it's 15 and it doesn't work out to be even. So a Monte Carlo simulation, can you explain that?

>> Yeah. What they are doing is creating a distribution of investment return over time. So they're taking into account that volatility of the investment market. So if you think about this for a second, this is a little simplistic. But if you think about this, if you earn 10% one year, and minus 10 the next, you don't have an average return of zero. You have an average return that's actually below zero. Because of the compounding effect. So I believe their analysis really did that simulation of what those rates of return were going to be. Now, I have not recently looked at that report, so I'm not sure I could expand any further than that, though.

>> Mayor Reed: Well, as it relates to what we're doing, so the Cheiron projection, 7.5% even, ultimately they crank influence and give us a number that they think we should pay in, well, they require us to pay in. But that doesn't consider this volatility issue, which is another reason why the number's never going to be as projected, I guess, it will be something different.

>> I think that's right. Also if you go back to one of the earlier slides, that confidence level, that 7.25 that you saw with the 50% confidence level, really, Cheiron is suggesting that 7.25 really is the 50 %confidence number. That does, the way they developed that number, it would really take into account the compound nature, the volatility of the numbers.

>> Mayor Reed: Another question about volatility, I'm trying to figure out how we operationalize your recommendations, et cetera, on volatility, and I'm really trying to figure out the impact of hiring people. Because we do have aspirations of rebuilding the services, hiring more police officers and more firefighters and more employees, but I can't right now figure out whether that is going to have a big impact or it's just going to be sort of average or something.

>> So I'm going to do my best to give you a reasonably succinct answer that may or may not be satisfactory. So I'm hoping it will be. Who you hire matters a little bit. And what you're going to see is, as you hire people, what will happen is, your contribution -- if you increase staffing levels, and all you're really doing is hiring new people, what you're going to see is, no change in your unfunded liability. Because the new people aren't bringing any prior service with them. And so you will see a reduction in your contribution rate, because you're paying your unfunded liability over a larger payroll base and the new people have a tendency to be younger. And they have a tendency to be a little less expensive. Assuming for the moment we're talking same benefit levels. So what you would see is, contribution rates coming down, but the dollar amount actually going up because you have to pay for those new people. The dollar amounts going up but they wouldn't be quite relational as you might think. Your contribution rate, the increase in the dollar amount is going to be not very dramatic. Because those new people are less expensive. On the other hand, if you have folks that you're hiring back, that have been out of work, but are former public sector employees, those folks may have a little bit larger increase than a brand-new employee, because they will be a little bit older, and they will carry some prior service with them. I wouldn't expect that to be very significant, though.

>> Mayor Reed: Okay, well I wish Jennifer Maguire well in trying to figure out the cost of things are to cost out different things because it seems to have gotten even more complicated that be it was in past years. Because of the volatility issue. Councilmember Constant.

>> Councilmember Constant: Thank you. Just a few questions. You know, both boards have been having discussions about trying to derisk the plans, and the associated reductions in the assumed rate of return. So both made moves to the 7.5%. There was quite a bit of discussion about whether they should go to 7.25%. And the overall consensus of both wards is, they have oget there, they just don't want to do it rapidly. As the boards continue to ratchet down their assumed rate of return, and I'm hooking at slide number 25 right now, as we see that move into the 6s and both boards have had a discussion of in the 6s but nobody has reached a target specifically where they're going yet as they lower their rate of return my assumption is that they would also be lowering the risk of their investments so that they have a better opportunity of achieving that rate of return. Do you

agree with a statement, I think it was Cheiron made, that it's almost like chasing your tail, because one -- can you explain that concept? Because I'm not as eloquent as you guys in explaining what it really does but I would like to have my colleagues have the benefit of that discussion.

>> Yes, let me do my best. And let me maybe do this with a element of an antedote. I was in a meeting with an investment advisory a couple of weeks ago. And investor was making an assumption on rate of return an with where that was going to be one of the board members asked the investment advisor, well we've talked about risk, we've talked about volume at the time. We think -- looks like your targeting 7.25 investment return assumption and the investment advisor's response was yes, because that's what the actuary says the investment return assumption is going to be. My response was, the last thing you want is an actuary to tell you something that will drive how you're going to invest. But, that's absolutely how the investment advisors think about it. That is exactly the opposite of how actuaries think about it. Because when we do is we look at the investment mix. We look at the volatility of each of those investments and we put that into our analysis, and come up with an expected rate of return. So we would say, the investment conversation should be between the investment advisor and the board to talk about what sort of volatility there is, than will drive the chasing of the tail is exactly what has gone on, and when you combine that with the fact that many systems are looking at very big investment losses, from 2008-2009, so their funded ratio is quite low, and they look at, well, shoot, the only way we can get that investment back is by being actually more aggressive. And that's sort of all in the mix as well. So I hope I kind of -- I'm not sure whether I explained it the same way Cheiron did or not. But that's really what's going on here.

>> Councilmember Constant: Very similar. And I think that's one of the important things that as we look at this, there's so many moving parts. And when the investment changes, then the actuary changes. But then the asset allocation may get changed which may then change the discussion. Which maybe they come back and you get that circular motion. But what we know right now is that that circular motion is driving the assumed rate of return down. And that's where the discussions are. And I think a lot of that has come, quite frankly, over the discussion of the probability of rushes understand. Do we want a 50% or greater chance of those returns or not. When I look at this for example leveraging issue and I look at this as being a potential direction the boards would take because they both talked about getting below 7%. One of the boards, I forget which one since I sit through both of their

meetings, talked about getting down to sim 6.6 or 6.65 or something like that. This may be a better question for Alex or somebody else. If we saw the change in contribution rate from the 50 to 59 based on our payroll Alex what would we be looking at in dollars if that decision just got made?

>> Alex Gurza: Councilmember Constant, we don't have that -- we'd probably caught it based on the rates, assuming how many employees you have, we don't have that escalated at this point.

>> Councilmember Constant: I'm just assuming if today's workforce if the boards made that decision what would that equate to in dollars? And I think that that will just show what we're talking about, what these changes in returns can mean. And then I want to go back to the discussion that the mayor started with the compounded nature of the actuarial projections. And when I say counting I mean the compounding rate of return of the investments. Since it is a volatile return environment, and it's very difficult to pinpoint where it's going to go, some of the things we do know is what has happened to our individual funds. We can look at the performance and say since these decisions have been made, this is the performance. And I'm looking right now just for reference on page 6 of the investment performance analysis for the period ending December throughput that was presented to the Police and Fire plan by NEPC which is their consultant on the investments. And it states that over the past five years the fund returned 1.5% per annum, ranking in the 71th percentile . And for the one-year period ending December 31st, 2011, the fund returned minus .9%, trailing the policy benchmark by 2.9% and ranking in the 99th percentile of its peers. So when we see actual performance like this, in a given year, what does that do to the fund when we look at the next valuation cycle? Assuming that it doesn't rebound and this continues for this period. Are we expected to see extremely volatile contribution rates as a result of that? If we have one bad year? And this suspect bad compared to some of the recent historical numbers we've had. If we continue this six month trend, what will you see about investment volatility, I'm not talking about investment volatility.

>> Yeah so I can't give you a precise answer.

>> Councilmember Constant: Right.

>> But thought, that both boards, take into account asset smoothing and smooth gains and losses. So let me say that -- having said that, though, you will likely see, if it continues, more volatility in the Police and Fire numbers than you will in the Federated numbers. Because that is a more highly leveraged plan. So you will certainly see upward pressure on the rates, if that continues.

>> Councilmember Constant: Okay. And then at a recent board meeting, I believe it was the study session for Police and Fire board. The actuary Cheiron made a comment, somewhat to the effect that the -- the Board of Trustees should be more concerned with contribution rate volatility and managing that, than investment volatility. And I just wanted to get your opinion of a statement like this and how you feel that contribution volatility can be addressed by the retirement boards and their decisions.

>> It is a very difficult question for retirement system boards to come to gripples with. It's a very difficult question for plan sponsors to come to grips with. Which is more important? You know, marking to what you believe is market, or controlling volatility? And so you can see, as you go around the state, extreme examples of one versus the oat. I am -- my person opinion is that when you focus too much on contribution volatility, smooth out contributions, then you run the risk, particularly in a poor investment environment, of not really getting to the point where you're really adequately paying your unfunded liability off. So I I am a fan of paying very close attention to what are you really doing, and how are you getting there? Now, that's not really a direct answer to your question. But I will tell you, the methodology that both systems have for asset smoothing, bears some reasonably -- a reasonable period of time getting back to the recognition of market. So unless this board's changed what they're doing, you would hear me say what they are doing is, very reasonable right now. So I captain -- I don't know whether the context was, changing that to mitigate volatility at the expense of paying the unfunded liability off or not, I just don't know.

>> Councilmember Constant: Okay. And then I want to compare slides 16 and 17 again. I know you Website through them fairly quickly. 16 is the chart of Federated pension 20 year projections and Police and Fire is on 17. And one of the striking differences, as you look at the Federated one that was just up, is it's kind of a gradual increase over time and kind of continues in that way. And when you look at the Police and Fire you see a

significant dropoff. Now, that's related to the amortization period, with Police and Fire being at 16 and Federated being at 30, is that correct?

>> Federated is a little shorter than 30 on an average. Because they have -- they went to a 30 year amortization a few years ago. My recollection is, they're about 26 left. But you're right. About that difference.

>> Councilmember Constant: So it's 27 but they also have a layered scheme as well.

>> That's right.

>> Councilmember Constant: So this new one is layered on top.

>> That's right.

>> Councilmember Constant: When we look at this new one even if we were completely right, and the 7.5% return happened each year from now until 2026, because that's where the peak hits in Police and Fire, if you look at the contribution rate today, it's $96 million on the city side and 2026 it's $102 million and if you look at the previous chart and you look at Federated you're talking 90 million and oops, 107 million I'm sorry in 2012 because these are off by one year from each other. And 2026 is $172 million. Even if the boards got everything completely right, what I'm seeing here is that our contribution rates would go from $203 million a year, to $364 million a year, is that correct? Is that how you would --

>> No, I think that -- the only word I would change is, you used the word rate. I would think of this as a dollar contribution.

>> Councilmember Constant: That's what I meant. The city's dollar contribution over this period, from 2012 to 2026.

>> Alex Gurza: And also, Councilmember Constant, only thing to add is this is pension only. As people want to compare numbers it does not include retiree health care.

>> Councilmember Constant: So just so that we're all on the same page, since we know that we're not going to get the 7.5 every single year, that delta that you were talking about, you actually lose a dollar or 1% of your money. That could have significant effect on where this number goes if we don't achieve that 7.5% on average.

>> We have not done that calculation, and I would not want to give you a number, because I'm not sure that what I might call significant, somebody else would, would not. So --

>> Councilmember Constant: But it would change.

>> It would certainly change. And if 7.25, the numbers would be higher in the outyears. No question.

>> Councilmember Constant: And that was getting to my next point. As the retirement boards continue to ratchet down their assumed rate of return, whether they just go to 7.25 and stop or 7.25 or 7.15 or whatever they may do, that will increase the size of these yellow bars in the outyears, is that correct?

>> Do you mind if I change your words a little bit?

>> Councilmember Constant: Please.

>> It will certainly change the projection.

>> Councilmember Constant: Okay.

>> One of the things that is very important to understand, though, is if the investment mix remains the same, the population are going to retire, and mature, and pass away, so the actual number will be there, will be the same. It

is the expectation that's going to be a little bit different. I think the way I would phrase it is, the 7.25 might be characterized as a more realistic cost of the plan rather than the 7.5.

>> Councilmember Constant: Okay, fair enough. And I guess my final comment or perhaps it might end up being a question by the time I finish it. When you Merry Christmas the 20-year time horizon for amortizations and we have one at 16 and one at 27-ish, when you say that 20-year amortization, are you saying that based on just the best practice, or are you saying that in terms of intergenerational transfers of debt to new employees. What's the basis of that 20-year comment?

>> Without getting into a long conversation --

>> Councilmember Constant: We have until 5:00, don't worry.

>> I am a fan of having amortization periods not be shorter than 15. Because that creates volatility. Or longer than 20. Because when you go longer than 20, you have the generational issue, you also have an issue of whether or not you really are adequately paying down your unfunded liability. The -- one thing I would point you to is, when you look at the Police and Fire plan, we've talked about leverage. We've talked about volatility of that particular plan. One of the things I really didn't say was, the funded ratio for that plan, that plan is better funded. Why is it better funded? Very simply, this is way overly simplistic. Not because the investment return has been that much better. Not because experience has been that much better. It's that amortization policy. That it is a shorter amortization period designed to pay off the unfunded liability. So that's really what I'm saying is, if the goal is to pay the unfunded liability off, having that period be 15 to 20, falls on -- it's hard to argue that that is not best practice.

>> Councilmember Constant: Okay. And then my really final comment, sorry I probably said that three times so far. We focused most of our discussions at least so far on the rate of return. We had a little bit of discussion in your presentation about wage inflation. All of these are factors that go into the actuarial assumption. Just for everybody, because I know we have people who watch us and everyone is trying to get a grip on what these

actuarial assumptions mean and they don't mean and how they affect things. Can you just briefly give us a list of -- it's commonly referred to in our discussion as the levers that are in the actuarial evaluation. Can you talk about the levers.

>> Key 1 is that discount rate and the discount rate, I don't want to be too complicated here, actually has two components to it. It's got the inflation component and it's got the real rate of return above inflation. Now, the reason why actuaries split it into those two is that inflation component is also included, in the salary increase. So there is the inflation that impacts the rate of return. There is the inflation that impacts salary increases. And then there is the salary inflation above general inflation. That impacts the numbers. Those are some of the key factors. Having said that, though, other factors are mortality, how long will people live and get these benefits? That matters, you're going to discover, as actuaries get our head around mortality and where is mortality going, that that will be an exciting actuarial topic. And then, rate of retirement. When will people retire? When are people expected to retire? If you think about the nature of your plans, that matters a lot. Particularly, again, for Police and Fire. And the later people retire, the earlier people retire, that lever of when are people going to retire, also has an impact. There are other levers, again, sounds like I'm singling out Police and Fire. I don't mean to. But rates of disability, in-service disability, have a big impact on Police and Fire, much less of an impact on the Federated plan. Termination rates, also, have an impact. Those are sort of the primary levers. And that's really what an actuary is doing, is kind of going down and moving those levers up or down.

>> Councilmember Constant: Great. And then there's also the minor ones whether someone is going to be married in retirement, children and all those other things.

>> That's right. One of the other things we haven't talked about on retiree cost, is where will the cost of the retirement plans cost, where will health care costs go.

>> Councilmember Constant: Or look like.

>> Right.

>> Councilmember Constant: You used exciting and actuarial in the same sentence, did you?

>> I did.

>> Mayor Reed: Exciting and mortality, that's a triple tip there.

>> There you go.

>> Mayor Reed: Councilmember Pyle.

>> Councilmember Pyle: Thank you, mayor. I've been on this council for a little over seven years and I still can't wrap my head around it. This is what I'm hearing is some very tightly controlled figures, and what it is we have to do to make that all work. What I'm not hearing, and what I do want to hear more about is, the investment strategies. I have no clue what any of our unions or our groups invest in. Nothing. Nothing to tell me that they're sound, wise investments that will have a good rate of return. I don't know about the employment opportunities. I don't know how many do we have left, keeping up with the latest figures, and how did that affect what we have, are we going to continue with a recession or are we going to rebound? What are the age factors? I have no idea. Is there a median age in this city, I wouldn't know what it is. If somebody asked me that, I have no clue what are the mortality rates. All of these I would think would have some influence, not to mention world economy, world peace, world oil reserves my frustration is, that we have this huge problem that's going to take decades for us to resolve. And it won't happen in the time that any of us are on the council. But I don't see us rising above the situation and looking at external factors that could make a difference. I hope that's somewhat clear. And actuarials I guess don't necessarily do that.

>> Well, certainly some of your questions are -- we have answers to, we could talk -- I just -- I'm sorry I don't have it in front of me, what life expectancy might be in each of the systems. We could talk about the average age and

the average service and the distribution of your population. But again, I don't have that at my fingers. So some of the questions you're answering actuaries rarely talk about word peace, just so you know.

>> Councilmember Pyle: Well, it does have an effect on all this.

>> But so we -- some of those questions are very knowable, and -- but I just don't have it at my fingertips.

>> Alex Gurza: Councilmember Pyle, investments the two boards do a tremendous amount of work on the investments. They actually have a subcommittee where they spend hours talking about the investments.

>> Councilmember Pyle: But I have no good assurance these are good investments.

>> Alex Gurza: Consider making a future presentation and asking the boards an the Department of Retirement services, to investment strategies but I want toshier you I know the board has put a tremendous amount of effort into looking at the investments and especially with the reconstituted boards with people that have tremendous amount of experience they spend a lot of time talking about this issue and we'd be happy to try to facilitate a discussion with the council about that.

>> Councilmember Pyle: As a side effect, the health care benefits have an extraordinary amount of influence in reference to what happens here. So at one point we started programs to try to help employees to think more substantially about their health and what they could do to decrease factors that do lead to greater health care costs. I don't know if that's still continuing, either. I mean that certainly is something that may have a more lasting effect.

>> Alex Gurza: Yes, Councilmember Pyle, you're referring to wellness efforts.

>> Councilmember Pyle: Yes.

>> Alex Gurza: Clearly it is an area that unfortunately, with the budget cuts, there have been some reductions in that effort. Although our health care coverage provides wellness efforts in those plans. So we are trying to make sure that our that are provided.

>> Councilmember Pyle: We don't have any data to indicate that there has been a difference do we?

>> Alex Gurza: I can go back and review the issue as it relates to health care and the impact on retiree health care. Because of our particular benefit it is 100% tied to the cost of the premium. Because we provide our retirees who qualify with 100 possess of the lowest price plan. So howeverful for example Kaiser goes up every year that is directly passed on to the cost of the system. So how much health care goes up, you're absolutely correct is a very, very significant factor in the retiree health care cost.

>> Councilmember Pyle: Thank you.

>> Mayor Reed: Councilmember Chu.

>> Councilmember Chu: Thank you, mayor. I just had some questions on page 6 and 7. I probably wasn't paying much attention. On number 3 bullet you indicated that investment return is negative 12.5, for two years. This is for 2011 and 12.

>> Fiscal year ending 12 and 13.

>> Councilmember Chu: Fiscal these are the answers to the questions the Rules committee asked so we don't want anybody to think that these investment returns have happened or are projected. The Rules Committee asked us to escalate what would happen if these things happen so it's very, very important that we want to make sure that --

>> Councilmember Chu: Thank you very much for clarifying because that really got me confused.

>> Alex Gurza: Yes, if I could go back here it's worth looking at. Slide 5, this is what the staff was directed to calculate and so what the following slides were, is Mr. Bartel's explanation of how he did that. So that particular one that you are referring to Councilmember Chu is number 3 here that was requested by the Rules Committee.

>> Councilmember Chu: Okay, what is the investment urine return for the 12-13, what is the projected return for 12-13?

>> Alex Gurza: 7.5%.

>> Councilmember Chu: 7.5.

>> Alex Gurza: The Cheiron projections assume that the plan will earn exactly 7.5% for 12-13 and every year into the future.

>> Councilmember Chu: 7.5 PERS happens to be the discount rate or the rate of return we're talking about.

>> Alex Gurza: Yes. Exactly, the words investment return and discount rate for our purposes are synonymous.

>> Councilmember Chu: Okay, page 8, 7, I'm sorry, are there salary increases, you say double assumptions. Could you clarify that?

>> Yes. First of all let's talk about what other salary increases are. In addition, those are longevity, merit, those sorts of increases that you all when you hire people goes through a separate increase early in their career, depending upon which steps that we're talking about. Those assumptions they are generally speaking not a large component of the total salary increase assumptions.

>> Councilmember Chu: So the double assumption is the step increase, no?

>> Well it's -- it's double the assumption used in the Cheiron actuarial valuation. So if people at the age of ten years of service, was age 35, were expected to get an additional quarter of a percent, we assumed an additional half of a percent. employee wage increases occur at twice the rate assumed by the boards.

>> Councilmember Chu: I see.

>> Alex Gurza: So that's what this is, and Mr. Bartel is indicating how he went about doing that and the following slides have the answers to those scenarios.

>> Councilmember Chu: So the rest of the presentation is based on this assumption?

>> Alex Gurza: Actually not the rest of the presentation, only this chart, slide 8 and 9.

>> Councilmember Chu: Okay.

>> Alex Gurza: 8 and 9 are simply the answers to those scenarios. The rest of the presentation has nothing to do with these scenarios.

>> Councilmember Chu: I see, the question for the Police and Fire, the wage increase 6.75% which is also a hypothetic number, because I understand that the Police and Fire have zero increase for the next five years.

>> Alex Gurza: I think there's two different things. The 6.75 vg the 7.5. The 6 of 75 is a calculation we have been using from a year ago based on council direction based on when we provided you partel was talking about. What if it's 7.5 which is what the board uses? What if it's 6.75. Salary increases are two different assumptions.

>> Councilmember Chu: Having me identify the wage increase and salary increase, two different things, wage, saltary?

>> The wage inflation is the general inflation plus an amount above general inflation that wages are expected to go up. The other salary increases are reasons salaries go up other than cost of living. Other than inflation. And so again, that, the numbers there really are can, those are the numbers we use, those are the assumptions we use to respond to question number 4.

>> Councilmember Chu: Okay, I'm fine with that, thank you. The number 8 is recession and lost decade. Is that unfunded liability?

>> Are you talking about the --

>> Councilmember Chu: The recession quote and unquote lost decade.

>> That's the terminology utilize in the question that was raised. So if you go back for a moment to -- go back to that particular -- oh, shoot. If you go back to question number 3, the lost decade terminology is directly from that question. So it's meant, that column is meant to answer that question. What would happen? What would the liabilities be if this happened?

>> Councilmember Chu: Okay, right, thank you very much. Final question is, I'm just very impressed that you would be able to do the 20 years projection. I'm talking about page 17. I wonder if we -- City of San José must have done one in 2002. Their 20 years projection, I'm just curious, if we compare the projection chart similar to this one, which was done in 2002, versus the today's 20-year projection chart, I'm just curious to find out what is the discrepancies there?

>> Alex Gurza: Councilmember Chu, one thing I want to clarify again. These projections are not done by Mr. Bartel. These are done directly from a presentation of Cheiron in terms of looking at 20 years out. What's extraordinarily difficult to project a few years out more or less 20. Beyond if we have a similar 20-year projection from 2003. I know I showed you a page from a former Police and Fire actuary that had a projection out, I can

certainly redistribute that. I think that was a 2001 projection and it had a most probable scenario and it had a pessimistic I believe or worst-case scenario I think they called it. And the message from that one was that we had actually achieved the worst case scenario in. I think that's what that shows, when you are looking that far out how are the projections especially given the volatility that we now know exists. Turn it over to Mr. Bartel and ask if he has any other comments.

>> I think that's an excellent example of you should 30 of these projections as not being certain. You should in fact particularly for Police and Fire.

>> Councilmember Chu: I was trying to do.

>> You should think of them as being much interior volatile than councils in the past have.

>> Councilmember Chu: I'm just trying to find out if I'd be able to compare with it, the projections in ten years, I kind of give I my self or a certain knowledge certainty, you know? If we have that I'll appreciate if I can get a copy of it. Are.

>> Alex Gurza: Councilmember Chu, we will certainly city council at the February study session, so this is done by the actuarial firm of William N. Mercer who was at the time the actuary for the Police and Fire. They were doing a study in 2001, on the SRBR supplemental retire ebenefits reserve, around then, you see it starts out with fiscal fiscal year 1999 and goes all the way to 2024. The reason I showed council in slide is what struck me in going back and looking at it whether or not we were closer to the, worse case. I do recall this presentation that when I looked at if worst case I was stunned with the height of the numbers and say, gee? How could we get to that worst case? Let's look at the worst case, whether you want to look at SRBR or not, you can look to see that it started with an 18 be 2024 projecting a 71. 'and you see us below, at the very bottom of the slides, you see here around 57%, so what did they project, we would be about 2012. Well, 2012 wasn't exactly on there but let's just look at 2009. Where the worst case is about 40% of approximately, so we are also worse than the worse case so you could proare project into 2021. And were they accurate? And unfortunately in this case were they more

accurate was the worst case. Going up to the slight on the screen here to the right that you mentioned Councilmember Chu, where will we be in 2031, how contract it my, will we know. In this 50-year projection, Mr. Bartel suggested we not start to develop. Everything turns out exactly as the actuaries now predict. That it all earns 7.5% and everything turns out as predicted. That's the challenge that we're now living in, the projections don't turn out to be anywhere where we want. Being optimistic, that's why Mr. Bartel is suggesting somewhat of a reasonable range that then the city can plan on and use rather than on relying that this is going to be correct.

>> Councilmember Chu: Thank you.

>> Mayor Reed: Councilmember Oliverio.

>> Councilmember Oliverio: Thank you, mayor Reed. Tom, I appreciate all the work on the presentation today. I wanted to you kind of give a critique. So on a personal review I want to prepare for my retirement. I want to be able to saver money so I don't have to rely on someone else and I want to make sure it's going to be here literally a guaranteed rate of return so I can put money away so that based on where I live be comfortable or survive. On the other side of the fence, I don't believe in debt I don't want a 30-year mortgage, I want a 20-year mortgage. That's the way I feel about a financially secure household. Same token if I want my city to be scurry don't want to have to put a future generation, to have a higher bill or request higher taxes to pay for decisions I couldn't make earlier. And I want a lower scout rate that's nearly guaranteed and if I beat it awesome I can just have more in the pension fund and make it that much more secure and that I'd rather not pay things out over too long but a shorter period of time. Can you offer any critique of that point of view?

>> The -- I actually -- what you will hear me say is very, very similar to that. The only critique I might have is, on the guaranteed rate of return. And that is, I understand how the individual might want that. But you have a large pool, a large pool of assets here, and so I will suggest that rather than looking at a guaranteed rate of return, you look at something that is in terms of determining your contribution rates, determining what you're paying, something that is modestly conservative, relative to how you have your investment set. Rather than going to a 90 or 95% confidence, I don't know that you used those words but I may have heard that a little bit, I might go to a 55

or 60% confidence level. Not quite to a -- you know, a guaranteed rate of return. So that would be -- other than that, I actually don't think that's very different at all from what I'm suggesting. Shorter amortization period, that 15 to 20-year period. That in my mind, hems deal with the intergenerational equity issue. Slightly more conservative, gets more money into the fund, pays it off, if you achieve that higher rate of return, and if you don't, then you've built a little bit of a cushion in there. So I think I agree, in principle, with what you're saying.

>> Councilmember Oliverio: Thank you and appreciate the feedback and I think today's study session helps provide the public with some idea of the volatility and the complexity to a pension system and I think that's why so many corporations have abandoned them because there's this overlying amount of work that must go on to maintaining the system. Outside of what we pay, we have to have a lot of people to manage it and do all the things that it takes, and you don't have that type of responsibility with a 401(k) type system. It seemed to be less complicated. It is what it is, it is what we have and I look into the future that you know some day that maybe our second tier will have a 401(k), employer match, which is simpler. We don't have to manage them, I know it takes decades to close funds, but I think this gives a flavor to the individuals out there the complexity and why the costs are -- both the contribution rate, the dollar cost, whatever, are extremely difficult to deal with. I just want to say that Councilmember Pyle's comments earlier, much of the things wanted or desired are actually availability via online, on the retirement board Websites to see what type of finances, what instruments are being used for those investments. And then it's just a lot of reading. And then again, it's you.

>> City Attorney Doyle: What good is its? It's the same way you would look at reviewing any investment for yourself or what a city invests in, it's just a matter of research, multiple people might disagree on the value of a certain investment or certain municipal bond or a certain corporation or certain Reit. That's why we have these boards set up. Thank you.

>> Mayor Reed: Councilmember Herrera.

>> Councilmember Herrera: Thank you, mayor. Thank you for the presentation. I wonder if you could comment on the -- on what value you see that we're gaining in looking at the Rules Committee requests in terms of hooking at these assumptions?

>> I'm going to -- I could not quite hear the question. Would you repeat it please.

>> Councilmember Herrera: I wondered if you could comment. We're looking at some scenarios you've gone over based on some requests from the Rules Committee and these are things that might happen. And you've gone over those scenarios. From your perspective what's the best value that we can gain as a council here looking at these numbers and looking at these projections in terms of what-if scenarios?

>> Yes, let me maybe start out, by saying thing number 1 is the thing that I've really been trying to say, and that is, the volatility in the numbers. I think you can see that in these numbers. That's number 1. Number 2, in item number 4, is a way to look at item number 4 is, what would happen, and that's the -- the employee wage increases. One way to look at that particular question is, well, what would happen if the -- if the reduction in employee wages came back. In other words, if -- if you sort of think about what would the impact be, and you look at that particular one, and the answer is, costs go up a lot. And so they came down a lot. When those wage concessions happened, and they would go back -- they would go up a lot if they came back. So that is sort of point number 2 that I would take. And the other is, I would hate to call those a worst case scenario, but this and of themselves are scenarios that may be on the edge, if you will, of whether or not they are at all likely to occur.

>> Councilmember Herrera: So the one you would say would maybe be most realistic, or not that they couldn't all happen but I'm trying to get an idea of what the likelihood of something like -- of these happening and the things that we should be concerned about. Because we are looking at scenarios that might happen and what the impact would be.

>> We -- I'm hoping you're not hearing me tell you what the likelihood of each of these scenarios is because I certainly don't know. But having said that, when you look at number 4, that might -- that's the wage increase. That is just in order of magnitude closer to a possibility, if you will.

>> Councilmember Herrera: Okay. And in number 2, increases in medical cost continue at double-digit rates. Is that what our current increase is right now? Alex, is it double digit?

>> Alex Gurza: Yes for San José and for everyone else, health care costs have been growing for near double digits for quite a long time. And obviously one of the questions people always ask is how long can it continue that way and it's very difficult to know what the rates will be in the future. Unfortunately they continue to rise significantly. Whether they will continue for that long, I mean, that's a very large question.

>> Councilmember Herrera: The discount, as you said the current discount is 7.5%, I think that's Police and Fire. Is that both boards now?

>> Both boards went to 7.5, that's correct.

>> Councilmember Herrera: The chances of them each achieving that, you had a chart that talked about the chances on page 19. So it would be -- it would be less than 50%, am I --

>> That's correct.

>> Councilmember Herrera: A chance of it actually -- what would be the chance of actually hitting that?

>> We -- I don't -- it would be conjecture for me to tell you. But it's certainly going to be between the 50th and 60 -- excuse me 50th and 40th but I don't really know what the precise number would be.

>> Councilmember Herrera: And again I guess it's over time we have the same fixed newspaper but we don't really know what the total cost is until we pay out the benefits basically, right?

>> Absolutely correct.

>> Councilmember Herrera: So when I'm looking at page 21 and we talk about the volatility and that seems to be one of the big messages you're telling us today, to expect that, if we were to use did levers you're talking about and ratchet things to a more conservative level how much would we dispel the volatility? And then I want you to answer that also, in terms of us increasing our number of employees, probably in a new plan and looking at as you said possibly younger and not occurring -- not having if same benefit levels or that they need it is expensive because they're younger and --

>> Let me take the first question. One thing that is important for you all to understand. And that is, if you are more conservative on the discount rate assumption assumption, you are not reducing volatility. Just to be clear, you're not reducing volatility. What you are doing though is planning for a component of that volatility. So let me say this a little bit differently, and use kind of a budget example. If I think I need to spend $1,000 a month on a particular personal budget item, then -- but I don't have certainty that it's going to be a thousand dollars every month, could be volatile. So here's what I would do. I would take $1200, pay my thousand, take the two and set it aside, and take into account to mitigate that future volatility. So what you're hearing me say is, in terms of using a more conservative discount rate, doesn't eliminate the volatility. It allows you planning --

>> Councilmember Herrera: To manage?

>> -- to manage that volatility. That's absolutely what it is. And the second question, we did not do that analysis, so I don't think I can answer that question really, without doing additional work.

>> Councilmember Herrera: I guess that could change the picture, though. Because what I see in slide 21, and what I think I'm seeing, is a picture of having fewer employees, andthis liability spread over fewer employees. And less people being able to pay, being able to pay that. I know I'm simplifying things here.

>> No I think you're --

>> Councilmember Herrera: Total liability to actual liability, shrinking number of employees and this big liability we have to pay. So it seems if we are able to hire more folks and we change that balance at some point that's going to reset itself, right?

>> All I'm saying is we have not done that analysis. So without doing that analysis I don't think I could do an adequate job to quantify it.

>> Councilmember Herrera: I just want to make sure I'm thinking about it in the right way. Thank you.

>> Mayor Reed: Councilmember Kalra.

>> Councilmember Kalra: Thank you. The -- first of all I just wanted to on that slide there I just wanted to point out that I mean, and I understand the point, and I think we all agree that we have to approach expectations or projections with cautiousness. But you know at the time the SRBR from my understanding, we were talking about closer to the height of the market and then ten to 12 years of recession, a dropout around this time and then of course the recession that hit more recently. So I think we can imagine in retrospect that we are probably going to be closer to the worst case than this scenario. To use that as an example of what we expect in the future is not necessarily valuable. I understand if point --

>> Alex Gurza: Councilmember Kalra, that's not our point.

>> Councilmember Kalra: Okay.

>> Alex Gurza: The point of showing this is the difficulty of making projections and the confidence level of know where you're going to be especially 20 years out. And I think that what -- at least I hear Mr. Bartel saying is it's even more difficult now because of the leveraging issue to project with any level of accuracy the range will be wider. This is the point we're Macing. I think Mr. Bartel do you want to clarify that?

>> That's exactly right. If I could just expand on that for just a moment. Terminology is really important. You would I think, I would be more than a little surprised if Cheiron, the systems, each system actuary, ever used the term worst case scenario I'll bet Cheiron has learned, worst case scenario, you should, no matter even if you are projecting with 95% confidence, that doesn't mean that you're going to be there. And so that projection and the volatility, if those projections really were done now with the range and there was something that might refer to as a worst case scenario it's going to be a very, very big number.

>> Councilmember Kalra: Okay. And the projections that we're going through today are based on theup 30th, are 2011 valuation. Did that valuation take into account the 10%? That was the one that did, right?

>> Yes.

>> Councilmember Kalra: The one we got the final numbers towards late fall. I just want to make sure. And then you know, talking about first of all some of the scenarios, and I -- and it needs to be pointed out and if it has been I think clarified a few times now by Alex, that those are questions that were posed. These aren't things that are going to happen. These are not things that are projected to happen. They're simply questions and scenarios, that were posted by the rules Committee not by the actuary not by the retirement director not by the City Manager's office,s very important especially people in the public are watching that again, it's a doomsday scenario in some sense that we don't want to give any sense of that that's what is being predicted. So particularly we talk about the -- well actually, Mr. Bartel you made researches of some of these things being on the elk of whether or not they would occur or not. So these are scenarios that would be clearly bad for the city but are very much in the category of pretty bad case scenarios, not worst case scenarios.

>> If I could maybe give you an example there, if we look at the scenario where the investment return is particularly bad, the lost decade, hard to believe that if that was the case, salary increases would continue in the direction. So there was no adjustment in that scenario to salary increases.

>> Councilmember Kalra: Okay.

>> So it's -- I mean it's a -- it's an exercise.

>> Councilmember Kalra: I understand. But I think that the question is, what the value of the exercise is. For us in making our decision when we have actuaries, we have a retirement board, we have an retirement board actuary that are making their estimation not waived on pill tomorrow that's invented where we all live to be 120 years old. Why don't we put that in there and see what that does to our -- because, for example, when we consider three or four together it is not a developmental duct wage increases we have seen recently we have frozen salaries. And so the point is certainly of the whole double wage increase suggestion, that is under council's control. There is some control over that and the reality is we have given an increase double to what it's expected in a deep recession, I think anyone who does that would expect his ticket right out of office. It's not nothing that numbers out there, you know the Rick flee rate is another one. The risk free rate has been it is credited in so many ways, it's not something that is used. I don't know there is -- and please correct me if I'm wrong, I don't believe there's any plan that -- any plan that uses a risk free rate, any public plan that uses a risk free rate. I know that private plans, that are required to use lower rate, but that's because they're federally assured, risk free rate. That's not -- I mean it's good to look at, certainty in everything that's not how these plans are done, it's not how it's done in the real world, private sector, public sector, that's not how it's done. It's great to put that number there, although it's going to go from 1.five to $3.5 billion some the likelihood of the actuary to suck that is just -- it's not something that's going to happen.

>> I think would I agree with that. If you look at slide 19, what you would -- what you would see is that a risk-free rate even the term risk-free rate I'm not a big fan of that term.

>> Councilmember Kalra: I understand.

>> Because there is a 90% or whatever the right number is, confidence level that the actual return would exceed that. But there's a 10% chance it might get worse than that. But we would -- to the best of my knowledge nobody contributes based on ar-free rate.

>> Councilmember Kalra: And so I raise that because you know, we spent a lot of our time here today talk going these scenarios which aren't -- this is not what we're dealing with right now in terms of fact, in terms of what the plan is ughing ising in terms of what the numbers are showing. Again we fall into that same trap where putting numbers out there that cause fear, we've seen what's happened to our bond rating and so on. It's not -- I don't think it's a responsible way for us to attack the very challenging issue I think we should do with the facts that are many the table. You use the best suggestions we can, actuarial standards but not you know, not standards that are not accepted or that they're not being practiced. Just you know to have this large number kind of pop up on a screen.

>> Alex Gurza: Councilmember Kalra. We were asked to provide these scenarios.

>> Councilmember Kalra: I ups, it's not a criticism -- (laughing) as we prepared and talked to Mr. Bartel, you can look at the number of slides after that, we spent the -- to be honest with you most of them were questions from the council. Our presentation 90% of more know we face in current correction, what the actuary thinks it does, the leveraging situations it does. Leveraging issue sod --

>> Councilmember Kalra: I appreciate that, a lot of the questions or colts have dealt with these scenarios rather than the work you put in into what the actual projections are, so I just want to point that out and you know, I think it's much more helpful to talk about what the actualities are and the suggestion that you may want to be at tbiemp% rather than 50% confidence level, those are sound suggestions to take into account and I'm sure time and boards take into account the suggestions from their actuaries as well when it comes to confidence levels and

that's more ordinary, that's the more ordinary pomegranates surface done. I just wanted to point that out. Some of the scenarios that are suggested, I just -- it just concerns me, it just concerns plea that we spend so much time on these scenarios, we spend so much time on what ifs and could ifs when we have experts that have the opportunity to do projections in the way that they are accustomed to doing. In regards to the kind of going forward, and 4.5% and 7.5% at the assumed rate, and it's not -- I mean it's been referred to a few that's also done, that projection really is a lock term projection that there's a long term projection that it's going to be 7.5%, not necessarily going to be indicated that it's going to be 7.5 per year but it will go up and down and that's the general projection over the long term period.

>> Well, let me do my best to be clear on this one. The actuary does the calculation. They are assuming seven and a half every year.

>> Councilmember Kalra: And that goes I understand that .

>> The liability is based on 7.5 the next year, 7.5 the year after that, that's what I understood from the mayor to me.

>> Councilmember Kalra: And how, how soon can we -- or how soon can we expect updated pension numbers with the kind of the completion of the next fiscal year, last time we had the June 30th, I imagine it will be June 30th again, so it will be another kind of fall, interim projection that may give us an update, annual I know is a pretty routine update considering volatility and considering the fact that a lot of projections are decades, 20, 30 years out. But can we expect updated numbers, sometime this --

>> Alex Gurza: Yes, Councilmember Kalra the boards normally go through the valuation process in the fall and sometimes based on questions that they have they have to come back in following meetings and sometimes then by the time they get the rates it can be the end of the year or the beginning of cherp year 2013. I don't know if at all they are going to accelerate that process but we will certainly stay in touch with the boards and find out what the plan is for the next valuation.

>> Councilmember Kalra: I want to thank the City Manager, obviously the City Manager is not here and Ed in her stead for the that of course, that was one of the purposes of setting today's meeting. And the question I have regarding it seems like -- the question I have I guess is a follow-up to the response that was put in the info memo, that given the fact that there wasn't -- that -- and as City Manager I think put well, you want free flowing discussions during study sessions and so on that it wasn't a number that had been analyzed at that point. Subsequent to that not just the mayor but a number of us as councilmembers go to community meetings we give out you know information and included in that is the the Mayor's Budget Message and mayor's data and all that. At any point, was -- and I know the City Manager indicated museum of times well that wasn't the number that Alex was using or that the budget office was using. At any point was there a not to actually tell us to tell the number really shouldn't be relied on in that manner? And that may not be a question anyone can answer right now. That's kind of a follow-up given the answer the City Manager has provided is okay, that's great and I appreciate that answer, but then it was a number that was being used and again, this does not help us going forward I understand that. But it does go to the questions that were asked to be answered today, as far as you know now that we have that answer from the City Manager's office that this is a follow-up. So if that could be related to Deb and you know if there is -- if there was nothing said and that was you know it wasn't thought of in that accepts and it wasn't considered then that's fine. But that's kind of a follow-up to the fact that since it was a number that was being -- that was publicly being used as to whether there was a thought from the staff's side to tell us, to tell the mayor, to tell us that hey, you know, that probably isn't a -- probably isn't a wise thing to using that as a worst case scenario for whatever reason going forward. That's what raised my worried that these numbers will now be used not by the mayor or anybody here but now that the numbers are public that someone could look at them and say hey, you know, if we use a risk free rate we could use an almost rules committee put forward and are not actual city projections and so going forward, I know that the City Manager's office, that we have numbers and projections that Mr. Bartel has provided and those are the ones I hope we can rely on and just have all the facts on the table and be able to discuss it and not worry about you know, not worry about any confusion as was indicated earlier by Councilmember Chu, when we first started discussing these numbers.

>> Mayor Reed: Let me respond to a custom things that Councilmember Kalra raised. First I think the staff did an excellent job of explaining why the numbers presented today were presented. That's very clear Nobody should be confused that they were answering questions that were posed to them as a result of a Rules Committee direction. So I think it's -- they've identified that and the presentation so no one should think that this is anything other than a question. You raised a couple of points that I want to respond to specifically with questions. The first is why analyze anything with regard to a risk free rate of return? You said that nobody's think about that, nobody apples doing that. Well that's not exactly accurate bought because the government accounting standards board is spending a lot of time trying to figure out what rules they are going to impose on us in terms of how we use our rates of return and it is certainly possible within the proposed rules that they're going to require us to calculate liabilities based on a risk free rate of return. That's being discussed. And many people are advocating for that. So I think it's useful to know what that would mean to us if we have to do those calculations, so you've seen a rough estimate of that here and these are nothing more than estimates, answering a specific question. But it's not certainly out of the realm of possibility that we're going to need to know those numbers in the future even though I think the retirement boards believe they're going to get a much better rate of return than 4%. That's not totally within their control. And if Greece defaults on its sovereign debt, drags Europe into recession, drags us back into recession, we could have some negative years. And thus the question about what happens if we have a 25% loss, essentially a repeat of the 08-09 numbers? While I think that's a low probability I'm certainly not going to make any predictions how well Greece is going to do in paying its sovereign debt or how well Europe will do avoiding that kind of collapse. But it is a scenario. We've already lived through that scenario, seen a very big impact on our rates so the answer is to give you an order of magnitude of some of the things that are beyond our control that are beyond the board's control and that we have to worry about. I know that people don't like to talk about the pessimistic scenario and I too don't like to use worst case scenario because it seems there's always a possibility that it could be worse. People don't like to talk about the pessimistic scenario but I think we have an obligation to consider it and try to figure out the probabilities and the 50% probability versus the 75% probability and that's what we're doing. Of course, ultimately we don't get to decide what the contribution rates are, those are decided by the retirement boards and the retirement boards don't get to decide what the cost is. The cost of the benefit is the cost of the benefit and ultimately we have to have the funds necessary to pay our people what they've earned and accrued and this exercise today is to give us some idea of what we need to do, and the things

we need to consider in order to be prepared to pay our people what they've earned and accrued when they have retired. And so that's why we've asked these questions. And it's useful information, I think. But I don't want anybody to think that these are official predictions, by Mr. Bartel or Mr. Gurza or anybody else. They're not my official predictions either. Just answers to the questions giving us an order of magnitude of the kinds of impacts of things that may or may not happen but we have to consider.

>> Councilmember Kalra: Mr. Mayor if I can follow up, since it was a follow-up to my questions. I understand that and I appreciate you pointing, making that clear, as Alex has, as well. And you know, I raise it only because the public may not be aware that these are questions from the Rules Committee as some of us may. But one regarding regarding the GASB or others that may ask us to look at the risk free rate of return. GASB rejected that. And my understanding is that there was hundreds of letters that were submitted to GASB. There was one that you pointed out by the local government auditors which suggested that risk free discount rate be used. Of course auditors are looking at city finances not one actuary suggested that. Again I understand you're just asking the question to be answered just so we know what the answer is. I just want to -- I don't think that that's something that we can expect any time soon. It doesn't seem from GASB's actions that it is something that is going to happen any time soon. As far as scenarios, there are pessimistic and they're optimistic and I don't suggest we do either. I think we should know what the scenarios are but using the actuarial standards of what can be expected and using a range from there what our comfort level level is not only a more actuarially sound approach but doesn't lend itself in creating an environment that we are looking at a more pessimistic scenario, although I understand you raised that because we have to be able to pay our bills and I get that. We sometimes get mixed up here projections based upon what the councilmembers are afraid might happen versus fact and what the actuaries suggest as to how we should approach it. And I want to make sure that we always, as much as possible, focus on the facts that are at hand, as well as the actuarial suggestions. Keeping and it doesn't mean we can't ask questions, doesn't mean we can't ask for other potential scenarios. But you know, there's a renal why actuaries do their job the way they do and make the suggestions they do. And so they're the experts in it and you know, so that's why I think that we just should focus more on that rather than just simply the recession comes back next year or if you know double digit health care cost for 30 years I think that would bankrupt the country. I

think our economy would collapse if that happened. But you know we know what we would have to do if that hatches happened to us or what the cost would be. Thank you.

>> Mayor Reed: Councilmember Constant.

>> Councilmember Constant: Thanks. I don't want to belabor, the worst case, best case, pessimistic, optimistic, but I think Alex showed us decision based on that or not is a whole 'nother thing but I think we have an obligation to look at best -- worst and pretty much everything in between. I did want to say that cheiron has started providing ranges of contribution rates. So the boards will be getting that, and I'm sure that will make its way to us. I'll make sure it makes it to us as a council. There are a few things that I'd like to -- a couple of slides I want to bring up because I think they'll help illustrate a couple of points. And these are slides that were provided at the Police and Fire retreat. This is how Cheiron illustrates what the pension fund is. It's kind of like the toilet tank. I don't think they intentionally made it a toilet tank.

>> Mayor Reed: It's a little fuzzy on my screen.

>> Councilmember Constant: It it does have a toilet flapper but it is not a toilet. Basically what it says here if you see the two blue pipes, that's the money that goes into the system from the employer and the employee. And it creates a fund that is added to by the investment earnings which is in the yellow. And that fund has a small amount as a percentage of expenses that come out of the little red valve on the left. And the real cost of the retirement system is the benefit payments that come out of the big valve at the bottom. The red valve. I think the only thing they miss is, I would add a siphon valve for investment losses. Because it would be nice if it was only a one way valve going in but we know investment losses come out of that as well. I think every time they present to the boards, virtually every time, they present this picture to remind everybody that that's what affects the pension system. So I just put it up so my colleagues can see that. And then on the next slide, and I just wanted to -- I brought this up during one of our -- my council updates. And this is their explanation of why we seem to have got hit so hard in our pension system during this last downturn. And it had to do with the highest level of assets we had, the riskiness the retirement liabilities, all the things you see here. But if you can go to the next page, I think

one of the things that really kind of struck home to me the most is when we talk about these assumed rate of returns, and that chart on the bottom showing that back in the '70s, when our fund had a more modest benefit, the assumed rate of return that was used was pretty low, in the 5.75 rate. And at that time, the yield on a ten year treasury which is one of the least risky investments, that you could just put your money in that relatively Rick-free vehicle. And you could make money. And then, as the boards increased their rate, that happened at the same time that the yield open the ten-year treasury went down. And what the bottom shows you, the implied risk premium, that's kind of the gap you have to make up between the two. And I think when we're talking about rates of return, and volatility, and risk, and all those other things, it's helpful to take a look at this, to see, because when I look at this, it's the gap of the performance that you have to have in the plan. And John, if there's anything you can add, I didn't actually describe it the best way.

>> No, actually I thought you did a very, very nice job. I absolutely agree, that the slides you put up there are right on, right on point. In particular, the bullet points on the previous slide, the word ever, at the end of each bullet point, I really agree with that.

>> Councilmember Constant: Okay. And I think that's -- I know there's been some questions on why I provide the updates. And I wanted to bring the slides because usually I bring the verbal update but it really ties into what we're talking with specifically today on the rates of return and the risk and things like that. And I think you can comfortably say we may not fund our plan at a risk free rate of return but I think looking at the obligations at that risk-free rate really helps us assess our plan. Because we know that it's a good baseline and I think that's why GASB talked about it and that's why some so many people when they're trying to compare pension funds in the different reports will use that because it's a standard benchmark. I know there was a comment made that you know, the only reason they do it, in the private plans, is because those private plans are federally ensured. And that's why the government puts regulations on them. Make no mistake about it. Our plans are insured too, it's no, sir by the federal government, it's by our taxpayers. That insurance premium is paid in very high dollars in libraries and parks and community centers and layoffs. So we are self assured. And when you're self-assured insured, rate for OPEB valuations, the other post employment valuations because those health care valuations are not funded. And because of the non-funding, they require that Rick free rate of return. And when you look at our

funding ratios getting lower and lower and especially if the assumed rate of return is lowered, our funding ratio will go lower and you'll see us talking more and more about that. Then Alex you gave us that page in the beginning that you have all the retirement documents on. Do you have listens to the CAFRs there, do you where we put our money. The CAFRs have a statement of investment policy, they talk about a lot of the different holding baskets and stuff like that. If not, I think it would be a good place.

>> Alex Gurza: Councilmember Constant I don't believe we directly have links but we can do so. From our page we linked to the Department of Retirement services site which last CAFRs.

>> Councilmember Constant: I know I get the CAFRs every year because I'm on the boards and I'm not sure if they are distributed to the council. If they're not I would suggest we do so that everyone gets it. Because it is a very clear representation of where we are. And I just want to remind that as I give my updates Dennis and I the Clerk's office and I will be working to make sure there's links to all these reports so when you want to see the investment performance and I kind of raised up this big report that I was referencing earlier, I think it's important because you can go in here and you can see all of the policy benchmarks and all of the different things about the managers and everything. And all of this stuff is on the retirement board Website, but you have to look for it. And I'm going to do my best to make sure that as I give my updates it will be easier for you to obtain that information and get it.

>> Alex Gurza: I think in addition, part of the City Auditor's audit one of her recommendations was to provide more regular reports to the city council. I do know that we do provide periodic reports to the Public Safety, Finance and Strategic Support committee. If you are not receiving the CAFRs we can certainly provide links to the CAFRs to the full council.

>> Mayor Reed: I have a request from the public to speak take that now. Anybody who wants to speak put it in now. Yolanda Cruz.

>> My name is Yolanda Cruz. I'm the president of ask me MEF. Here we go again. The mayor is using the same discredited think tank reports and memos that he used in the past written by former politician and faulty work that the state treasurer rye signed from it maybe Sefer should stand for Stanford institute to yourself. About his December report on San José he is extremely outdated information cherry picked time frames and exaggerated challenges and gave examples of where Federated employees gave a pension of 91% of pay. Let me remind you that the San José Federated pensions are limited to 75% of pay. And that only happens if an employee works 30 years, and they receive zero in Social Security. His reports are full of poor and inaccurate assumptions that make it worthless except as a political weapon. Perhaps that's why it was used in the measure B arguments. If you are really trying to get solid factual answers about future requirement costs why are you bringing shoddy inaccurate information to the council? It's sad that this is all about politics now. I guess the efforts to destroy retirement security always was. I want to let you know that I only have two minutes so I'm going to address two things. First of all the facts. My union took a 12% reduction in pay. Since January 1st of this year, there is no SRBR allocated to my bargaining unit which is one of the lowest units in the city. However the City Manager, the retirement director and the rest of her senior management staff along with other much higher paid bargaining groups still have this option and it's also interesting that you say that the 10% reduction in pay is included in the actuarial valuation. When in fact you said to us, that it was not. And that there really was no way that the actual numbers that are in the valuation are used. Maybe you use the 10% reduction for moving forward but the numbers you use now are don't reflect the reduction in pay. Thank you.

>> Mayor Reed: That concludes the public testimony. Councilmember Rocha.

>> Councilmember Rocha: Thank you, mayor. I'm sorry, I thought I had my light often and I didn't. I had a question, I'm not sure who I should attribute this to or ask this to, whether it's City Manager or retirement or L.A.X. Slide 22, year into this job I'm trying to understand as far as these are laid out I see a majorities of these really applicable to the retirement boards not us plans for volatility are any of these others any policy issues that the council should be focused on.

>> Alex Gurza: Councilmember Rocha, you are exactly right to point out council the independent retirement boards are the ones that have the decision making authority over most of these things, like you pointed out except for seeking a range. But this is -- Mr. Bartel's advice to us and to you as the plan sponsor. In future discussions by the council one of the things we could do is communicate with the boards on these items and have a discussion with them about that. As this plan sponsor. But ultimately, what investment earnings they choose, or the amortization periods, all those are the decisions of the independent retirement boards.

>> Councilmember Rocha: Okay. And your advice is in my opinion going to always be on the conservative side? You're never going to suggest to use an example of a mortgage gu on a 50 year mortgage and paying them higher interest rate or more over the long haul it's always going to be conservative. And to take that into account you know I'm trying to weigh that and what's the alternative? There really isn't an alternative except to approach it on a conservative level and be safe rather than sorry on all these. So is there another opinion that we should be seeking as a council? Not that yours isn't right, but you know, I'm left with what alternative, I guess is what I'm asking you.

>> Well, let me maybe --

>> Councilmember Rocha: And I'm simplifying and generalizing, obviously, it's much more complex than just that statement.

>> Over the years, I think I've discovered for my clients that almost without exception, bad news is more painful than good news is pleasurable. In other words, when you --

>> Councilmember Rocha: Just like in life.

>> There you go. So when you put them on the teeter-totter, right, they don't have equal weight. And so is it an accurate description that these are a little conservative? No, I think that is accurate. That these are a little

conservative, I don't -- I don't believe they are a lot conservative. I'm not suggesting you set your contribution rate with a 90% confidence limit.

>> Councilmember Rocha: I wasn't suggesting that either.

>> To, no, I didn't hear you say that. Are they a little conservative? Yes, I think they are. But I think that's because the necessitate of these numbers is that if you're wrong, and the nulls are higher than you think, then that is more painful than it would be if it, you know, would be pleasurable if it wept the other way. So I think that's the nature of these. Now, I'm sure, I have a high degree of confidence, that you could bring somebody else in here, who would -- who would tell you no, you know, 50% confidence level is the way to go, or, you know, just to be clear, right now, you're contributing at below a 50% confidence level. And that doesn't mean you're going to fall off a cliff. You're not. The world won't come to an end. It's not, you know, but I am worried that your contribution rate will go up more than you will expect it to in that scenario. So that's -- I think it's absolutely an accurate description of what I'm saying. It is -- we are being a little conservative here, no question about it.

>> Councilmember Rocha: Thank you for that, and thank you for your honesty, thank you mayor.

>> Mayor Reed: I think we're done. At least I have no more requests to speak, no more cards from the public, we've done that. Anything else from the staff that we forgot to discover? We are done, we are adjourned.