City and County of San Francisco
Civil Grand Jury 2011-2012

INVESTMENT POLICIES AND PRACTICES OF THE SAN FRANCISCO EMPLOYEES' RETIREMENT SYSTEM

June 2012

Superior Court of California, County of San Francisco
Civic Center Courthouse
400 McAllister Street, Room 008
San Francisco, CA 94102
(415) 551-3605

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THE CIVIL GRAND JURY

California state law requires that all 58 counties impanel a Grand Jury to serve during each fiscal year (Cal. Const., Art. I, § 23; Cal. Penal Code, § 905). In San Francisco, the presiding judge of the Superior Court impanels two grand juries. The Indictment Grand Jury has sole and exclusive jurisdiction to return criminal indictments. The Civil Grand Jury scrutinizes the conduct of public business of county government.

The function of the Civil Grand Jury is to investigate the operations of the various officers, departments and agencies of the government of the City and County of San Francisco. Each civil grand jury determines which officers, departments and agencies it will investigate during its term of office. To accomplish this task the grand jury is divided into committees which are assigned to the respective departments or areas which are being investigated. These committees visit government facilities, meet with public officials, and develop recommendations for improving City and County operations.

The 19 members of the Civil Grand Jury serve for a period of one year from July 1 through June 30 the following year, and are selected at random from a pool of 30 prospective grand jurors. During that period of time it is estimated that a minimum of approximately 500 hours will be required for grand jury service. By state law, a person is eligible if a citizen of the United States, 18 years of age or older, of ordinary intelligence and good character, and has a working knowledge of the English language.

Applications to serve on the Civil Grand Jury are available by contacting the Civil Grand Jury office:

- by phone (415) 551-3605 (weekdays 8:00 a.m. - 4:30 p.m.).
- in person at the Grand Jury Office, 400 McAllister St., Room 008, San Francisco, CA 94102.
- by completing an online application (available at http://www.sfsuperiorcourt.org/index.aspx?page=312), and mailing it to the above address.

CITY AND COUNTY OF SAN FRANCISCO
CIVIL GRAND JURORS
2011-2012
(AS OF DATE OF PUBLICATION)

Umung Varma, Foreperson

Helen Blohm	Sharon Gadberry	Mort Raphael
Mark Busse	Ossie Gomez	Jack Saroyan
Mario Choi	Arlene Helfand	Earl Shaddix
Matthew Cohen	Lewis Hurwitz	Jack Twomey
Kay Evans	Todd Lloyd	Gregory Winters
Allegra Fortunati	Jean Ninos	Sharon Yow

WITNESSES

With regard to witnesses who provide testimony to the Civil Grand Jury to aid it in its investigation, **California Penal Code § 929** provides that:

> As to any matter not subject to privilege, with the approval of the presiding judge of the superior court or the judge appointed by the presiding judge to supervise the grand jury, a grand jury may make available to the public part or all of the evidentiary material, findings, and other information relied upon by, or presented to, a grand jury for its final report in any civil grand jury investigation provided that the name of any person, or facts that lead to the identity of any person who provided information to the grand jury, shall not be released. Prior to granting approval pursuant to this section, a judge may require the redaction or masking of any part of the evidentiary material, findings, or other information to be released to the public including, but not limited to, the identity of witnesses and any testimony or materials of a defamatory or libelous nature.

The intention of the California State Legislature in enacting **Penal Code § 929** is to encourage full candor in testimony in Civil Grand Jury investigations by protecting the privacy and confidentiality of those who participate in an investigation of the Civil Grand Jury.

REQUIRED RESPONSES

California Penal Code § 933(c) provides deadlines for responding to this report:

> No later than 90 days after the grand jury submits a final report on the operations of any public agency . . . the governing body of the public agency shall comment to the presiding judge of the superior court on the findings and recommendations pertaining to matters under the control of the governing body, and every elected county officer or agency head for which the grand jury has responsibility . . . shall comment within 60 days to the presiding judge of the superior court . . . on the findings and recommendations pertaining to matters under the control of that county officer or agency head and any agency or agencies which that officer or agency head supervises or controls. In any city and county, the mayor shall also comment on the findings and recommendations. All of these comments and reports shall forthwith be submitted to the presiding judge of the superior court who impaneled the grand jury.

California Penal Code § 933.05 provides for the manner in which responses to this report are to be made:

> (a) For purposes . . . as to each grand jury finding, the responding person or entity shall indicate one of the following:
> (1) The respondent agrees with the finding.
> (2) The respondent disagrees wholly or partially with the finding, in which case the response shall specify the portion of the finding that is disputed and shall include an explanation of the reasons therefor.
> (b) For purposes . . . as to each grand jury recommendation, the responding person or entity shall report one of the following actions:
> (1) The recommendation has been implemented, with a summary regarding the implemented action.
> (2) The recommendation has not yet been implemented, but will be implemented in the future, with a timeframe for implementation.
> (3) The recommendation requires further analysis, with an explanation and the scope and parameters of an analysis or study, and a timeframe for the matter to be prepared for discussion by the officer or head of the agency or department being investigated or reviewed, including the governing body of the public agency when applicable. This timeframe shall not exceed six months from the date of publication of the grand jury report.
> (4) The recommendation will not be implemented because it is not warranted or is not reasonable, with an explanation therefor.

EXECUTIVE SUMMARY

The San Francisco Employees' Retirement System is a public pension fund created by the San Francisco Charter and organized for the benefit of the employees and retirees of the City and County of San Francisco and all independent government agencies under it. A Board of four appointed and three elected members govern the pension fund. The Charter mandates the use of prudent investments to ensure that City employees have guaranteed retirement benefits over their lifetimes. When shortfalls occur, the City of San Francisco, as the employer, contributes funds annually to cover anticipated future liabilities. As of June 30, 2011, the Fund is more than $2 billion short.

Investment policies and practices are of critical importance. Public pension funds across the nation are underfunded and the City's is no exception. The San Francisco pension fund is valued at $14.9 billion and actuaries estimate the funding level needs to be over $18 billion to continue meeting benefits. Part of the reason for the underfunding is the severe investment loss suffered in 2008-2009. Over that time, the fund's assets shrank from $17.4 billion to a low of $11.1 billion. Actuaries predict the City's contributions could increase to between $557 million and $708 million per year over the next five years to make up the shortfall. The Jury recommends active dialogue and contingency planning to anticipate and prevent this range of shortfalls.

The Jury finds the City's retirement fund, like other public pension funds, has over-estimated its future returns relative to its last five and ten years' record of investment returns. Pursuing high estimated returns leads to a policy of high-risk and volatile investment policies.

Every source we interviewed believes pension funds are compelled to chase high returns in order to recover losses. Expectations are for a repeat of the successful recovery after the Dot.Com losses of 2001. Thus far, this has not been the case. Various academic comparisons and investigative reports have examined returns of pension plans over the last 20 years. Surprisingly, those few plans that invested conservatively have enjoyed returns that met or exceeded the returns of funds with riskier portfolios.

The Jury cannot of course recommend an investment policy for the pension fund. However, we do recommend that the San Francisco Employees' Retirement System Board conduct a review of its investment strategy that includes a "failure analysis" which should have been done after the 2008-2009 fund losses.

BACKGROUND

A review of the 2010 and 2011 Annual and Actuarial Reports for the San Francisco Employees' Retirement System (the "Fund," also referred to as the "System" or "SFERS") prompted our concerns. The San Francisco Civil Grand Jury (the Jury) decided to investigate the Fund's investment policies and practices to assess and determine their compliance with obligations under the City Charter. Three prior investigations of San Francisco Employees' Retirement System by past Juries in 2008, 2009, and 2010, focused on the growth of pension benefits provided to retirees but none have shined a light on investment policy and its effect on City contributions to the Fund.

The City Charter established the Fund and created the San Francisco Employees' Retirement System Board (the Board).[1] The Board consists of seven members: one from the Board of Supervisors, three appointed by the Mayor, and three elected by the active and retired members of the Fund. The Board members are the trustees overseeing and assuring the long-term viability of the Fund to pay the obligations to San Francisco's retirees.

The California Constitution grants the Board full authority and fiduciary responsibility for investment of monies and administration of the Fund.[2] Under the City Charter, the Board is the sole authority and judge of conditions under which members of the Fund receive and continue to receive benefits.[3] It retains exclusive control over the administration and selection of investments for the Fund. The Board determines how much City, County, and District contributions are sufficient to provide for the payment of all benefits to all members.

Three sources support the Fund: employee contributions, contributions from the City, and earnings from the Fund's investments. The Fund, currently valued at approximately $15 billion, is the source of retirement benefits for over 28,000 employees and more than 24,000 retirees. The Fund is twice the size of the entire annual budget of the City and County of San Francisco.

The Fund has suffered considerable losses over the last five years. It sank from a high of $17.4 billion in 2007 to a low of $11.1 billion in 2009. The Board did not do a "failure analysis" investigation after this loss. The 2010 and 2011 Actuarial Reports[4] predict annual City contributions to the Fund. The City's contributions will rise annually until at least 2015. The Fund's Annual Reports[5] describe an investment policy with the potential to expose the Fund to further disastrous losses in the future.[6]

METHODOLOGY AND APPROACH

The Jury reviewed the Fund's Annual Reports, Auditor's Reports and Actuarial Reports for the fiscal years ending June 30, 2010, and June 30, 2011. We also reviewed news media articles, academic reports, institutional investor newsletters, studies, websites, bloggers, and materials provided for Board meetings from staff and consultants. The Jury interviewed Board members, auditors, staff, City Attorneys, investment consultants, academic professionals, some of the Mayor's staff, local government employees, and union leaders.

During the course of our investigation, the Jury encountered difficulty obtaining information surrounding the Fund's investment program and its results due to a lack of transparency. In contrast, the California Public Employees' Retirement System (CalPERS) includes on their website a much greater amount of updated investment information, analysis, and news for members and the public.[7]

The Jury was surprised to find that monthly investment returns for the Fund were not publicly available on the Internet. Per the Fund's policy, information we obtained was only available by personal requests to the Fund's Executive Secretary. The materials issued to the Board prior to monthly Fund meetings were our best resource. The Jury requested, obtained, and reviewed meeting materials from January 2011 to May 2012. The names of the Fund's investment managers, investment consultants, and companies in which the Fund invests were difficult and time-consuming to acquire. The Fund's staff resisted giving the Jury contact information for their outside consulting firms. Only by approaching the firms' representatives attending Board meetings was the Jury able to request interviews. Two of the three firms asked refused requests for interviews.

DISCUSSION

I. Investment Policies and Practices

A. Underfunding

The City's Charter requires a 100% funding ratio for the Fund.[8] Using the Actuarial Value of Assets, the Fund's 2011 Annual Report shows the funding level is approximately 88%, 12% short of mandated contribution levels or $2.3 billion. Actuarial value is a number the Board uses to estimate the assumed investment return rate in the future (see section B). The Market Value is the actual number for the assets in the fund. Using a market value of approximately 84%, the unfunded liability increases to 16% or $3.0 billion (see Table 1). The actuarial funding level assumes annual investment returns of 7.66% per year over the next 20 years. This rate of return is considerably higher than the Fund's annual average return for the past ten years of 6.01%. The current investment return for the 2012 fiscal year-to-date is a negative (-0.9%) rate of return.

Valuation Date	**July 1, 2011**	**July 1, 2010**
Fiscal Year End Value (millions)	**2013**	**2012**
Actuarial Liability	$ 18,598.7	$ 17,643.4
Actuarial Value of Assets	$ 16,313.1	$ 16,069.1
Unfunded Actuarial Liability (actuarial value)	$ 2,285.6	$ 1,574.3
Funding Ratio (actuarial value)	87.7%	91.1%
Market Value of Assets	$ 15,598.8	$ 13,136.8
Unfunded Liability (market value)	$ 2,999.9	$ 4,506.6
Funding Ratio (market value)	83.9%	74.5%

Table 1. Valuation Results[9]

The Board accepted, without comment, question, or statement, the Actuary's report projecting scenarios of additional needed future City contributions that could exceed 35% of the City's total payroll. When the Jury asked Board members and staff if they thought the system is underfunded, they disagreed. One board member was not worried since "we are better off than most other funds," while another stated, "It's not really a concern unless it is at least 20% short." One staff member said, "as long as the City is willing to make up the shortfall, it is not *technically* underfunded." Board members, in interviews, indicated they believe the Actuary's scenarios for future investment losses are for report purposes only, hypothetical and not of any real concern.

The Fund for the past three years has been underfunded. In order to bring the funding to the mandated 100% level, the City must increase its contributions. In 2011, the City contributed $338 million. The amount has grown, in 2012, to $433 million. Figure 1 illustrates the City's expected contributions as a percentage of salaries since 2004. For the years 2004 to 2007 the Board approved not requiring employees or the City to make contributions since the Fund was overfunded.[10] The rise from 2010 to 2013 is mainly due to the "amortization of Unfunded Actuarial Liability" (the UAL). The UAL amortization is the City's expected payment to cover the funding shortfall due to investment losses. Payments are annual and increase over time, until 2015.

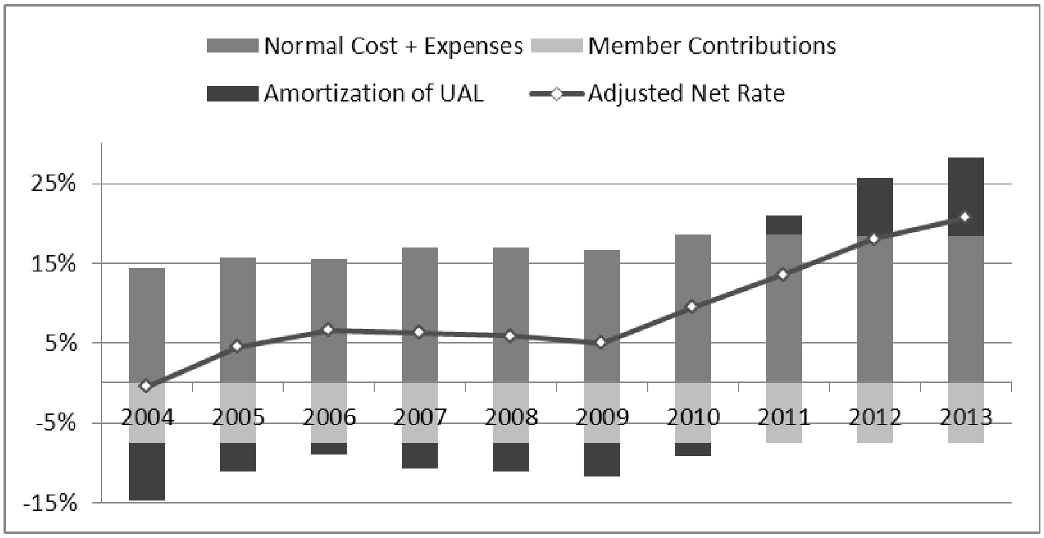

Figure 1. Historic Cost as a Percentage of Pay[11]

The Stanford Institute for Economic Policy Research issued a study titled "An Assessment of the San Francisco Unfunded Pension and Retirement Healthcare Liabilities."[12] The author found that "[o]n a market value basis, San Francisco's Fund would need to earn an average annual return of 11.5% for the next 18 years to achieve just a two-in-three probability of meeting its retirement obligations." The study recounted that:

> Between 1999 and 2011, San Francisco pension costs, which have grown at an average annual rate of 23.5%, increased faster than spending on public assistance (6.1%), public protection (5.4%), health and sanitation (2.6%), public ways and facilities (.17%), recreation and cultural services (4.1%) and miscellaneous functions (3.8%).[13]

The author also predicted that contributions by the City to the Fund along with health benefits would exceed $500 million per year until 2015. If the Fund's investments fail to meet the current expectations, annual contributions could exceed $600 million. The Board members we interviewed had not read this study and told the Jury that these types of studies are unfounded, discredited, and irrelevant.

B. Investment Return Assumption

The funding level for the Fund depends on a number of unknowable future events, such as: life span of beneficiaries, employment rates, future contributions, salary levels, changes in benefits, and estimates of the Fund's future investment returns. Assumed investment returns are a significant aspect of this calculation. An increase in returns will result in a corresponding decrease in the need for City contributions.

The Board relies on an investment-consulting firm to recommend the "investment return rate assumption" (the Assumed Rate) and professes not to know how the number is calculated. The consulting firm told the Jury its formula is proprietary, and will not divulge it to the Board or the Jury. The Board approves the Assumed Rate for the Actuary to use in estimating funding levels. Estimated funding levels determine the amount, if any, the City, as the employer, will have to pay into the Fund. Currently, the approved Assumed Rate is 7.66% through 2013, decreasing to 7.5% over the remaining 17 years. Decreasing the assumed rate results in the City increasing its contribution and vice versa. The Board receives recommendations from the consultant in February each year to set the Assumed Rate for use in the next fiscal year.

Also in February, the Board sets the City's contribution rate for the next fiscal year. That number is based on the final earnings results from the preceding fiscal year, which ends on June 30. During the Fund's February 2012 Board meeting, the Actuary cautioned the Commissioners that the high annual return the Fund achieved and reported for Fiscal Year 2010-2011 was "the luck of the calendar." In that Fiscal Year, the Fund's returns fluctuated wildly. From July 2010 to June 2011, the Fund "earned" 22%, or about $2 billion. In the next three months, $1 billion of Fund value was lost. By December, at the half-way point in Fiscal Year 2011-2012, the Fund showed a loss of nearly 5%. Setting a contribution rate based upon eight-month-old data appears to be an unsound practice in view of the market volatility experienced over the last five years.

San Francisco is not alone in using an unrealistically optimistic Assumed Rate. *The New York Times* reported in the article "Public Pensions Faulted for Bets on Rosy Returns," that "[w]hile Americans are typically earning less than 1% interest on their savings accounts, and watching their 401(k) balances yo-yo along with the stock market, most public pension funds are still betting they will earn annual returns of 7% to 8% over the long haul."[14] The article quotes Michael Bloomberg, Mayor of New York City, commenting on similar rate adjustments in his city, "This is going from an absolutely hysterical, laughable 8%, to indefensible 7% or 7.5%." He went on to say, "if I can give you one piece of financial advice: If somebody offers you a guaranteed 7% on your money for the rest of your life, you take it and just make sure the guy's name is not Madoff."

The British Government's Financial Services Authority (FSA)[15] recommends a much lower Assumed Rate for all funds:

> The projected returns are central to estimates over a 10 to 15 year period. It is crucial that projection rates are set at a realistic level so that investors are not misled. Today's independent research indicates that our maximum projection rates should be reduced.[16]

Elected Board members dissented when the Fund's Board approved the slightly decreased Assumed Rate in early 2012. The Jury asked the elected members why they did not support lowering the Assumed Rate, and each had a different response. One Board member said "It is just hope for the future" and "It is based on return averages for the last 25 years," this despite the fact that in the last ten years returns were lower as stated in the SFERS Annual Reports for 2010 and 2011. Another stated, "You can't predict the future from the past." Finally, one of the Board members exclaimed, "It's just a number!"

Year	5-years	10-years
2010	2.73%	2.80%
2011	4.20%	6.22%

Table 2. Investment Portfolio Performance Annualized Returns for the periods ending 6/30/2010 and 6/30/2011

C. Investment Risk

The Fund currently utilizes the "Yale Model" of investing, which it followed in the mid-1980s after public funds were allowed to invest in high-risk investments.[17] Yale University was one of the first institutional investors to participate in high-risk investing, and their method for "beating the market" with high returns became a model for many other funds. Until Proposition 21 passed in 1984,[18] California law limited public pension funds to investing in either bonds or "blue chip" stocks.[19] Prior to 1984, public pension funds grew steadily with minimum volatility, thus assuring a secure and predictable source of funds for retirees. The main mechanism for assuring growth returns in a low-risk, low-return environment was to take advantage of compound interest.

Soon after Proposition 21 passed, and until 2001, pension funds saw a greater return on their investments. In turn, pension funds provided more benefits, based on the assumption that the market would continue to grow. Despite the Dot.Com market crash of 2001, pension funds continued investing in the high-risk "Yale Model."[20] In fact, optimism was so high that between 2004 and 2007, neither employees nor the City paid contributions into the system because the system was "overfunded." After the market crash of 2008-2009, the market value of the Fund's investments fell from $17.4 billion in 2007 to $11.1 billion in 2009, a loss of almost 36% (see figure 2). Prior to and after the crash, the Fund's investments included not just public equities but such alternative investments as foreign equities, foreign bonds, real estate limited partnerships, commodities, venture capital, private equities, and distressed debt. Also included were derivatives such as collateralized mortgage-backed securities, credit swaps, and securities loans.

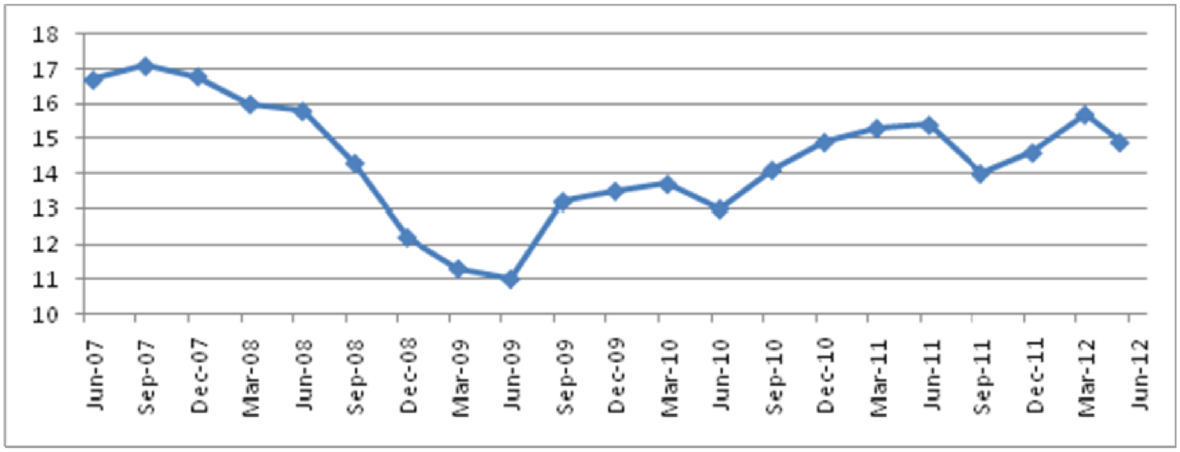

Figure 2. Monthly Assets June 2007 – May 2012[21]

Even after losing over one-third of the Fund's value, the Board did not conduct a "failure analysis" or investigate the reasons for this enormous loss. The Board did not openly question the policies and practices that led up to the crash and the severe financial impact it had on the Fund. Board members serving at the time of the crash told the Jury that the Fund's policies did not have anything to do with the losses. They offered no explanation as to how they reached this conclusion or why it would not happen again. The Jury inquired about any studies they knew of that would support their continuing use of this investment policy. No Board member cited any studies, reports, research, or other authority for this position.

Opinions vary regarding the appropriate level of risk for public funds. The Jury did an extensive search for factual evidence of the success of various investment policies. We found recent studies from Stanford University, the Upjohn Institute, *The New York Times,* and Ibbotson Associates. The reports researched whether a low-risk investment policy could equal or exceed a high-risk investment policy. While San Francisco's Fund was not the subject of any of the reports, the conclusions of these studies are directly applicable to the Fund's investment policies and practices as they examined large public and private pension funds.

Stanford Institute for Economic Policy Research reviewed CalPERS' investment returns from 1984 until 2009. During this period, CalPERS followed the Yale Model of aggressive high-risk investing. The study compared CalPERS' returns to a hypothetical low-risk portfolio pursued over the identical 25 year period. The authors found only a negligible (0.1%) increase in overall returns gained from investing in high-risk assets[22] (see figure 3). Both the report and CalPERS responses are on the CalPERS' website.[23] CalPERS read and reviewed this report and made it available to the public. San Francisco ignored the study of their Fund from the same Institute, had no response to it, and did not make it public.

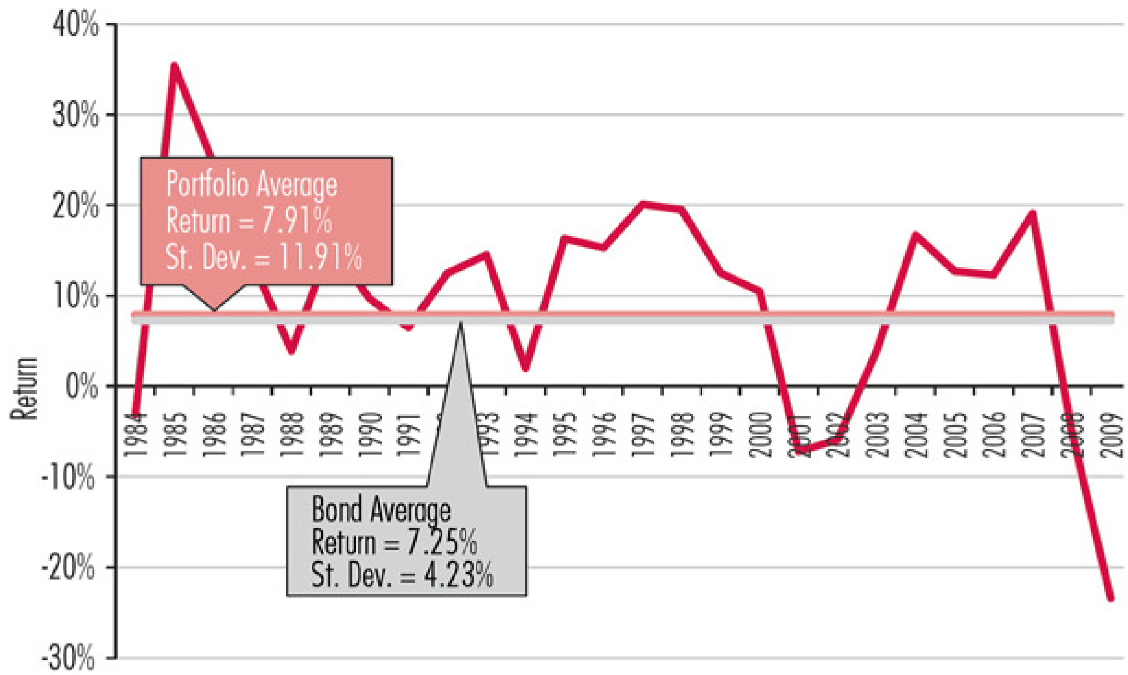

Figure 3. CalPERS Returns vs. Bond Average[24]

A recent investigative report from *The New York Times* titled "Pensions Find Riskier Investments Fail to Payoff" found that pension funds investing in more alternative investments have the highest risk level of all investment portfolios.[25] Contrary to expectations, these funds had poorer returns than those that remained in traditional investments. The average annual return for funds with the riskiest investment portfolio was 4.1% over the last five years, and the average return for funds with the lowest risk was 5.3%. The study concluded that high risk equaled less gain. San Francisco's Fund was not part of this study. However, the five-year average return rate for the San Francisco Fund, containing alternative investments, was 4.2% placing it in the lower return bracket. Surprisingly, quite a few funds that had done well with low-risk investing nevertheless intend to switch to the high-risk model.

The Upjohn Institute also found this phenomenon in another study.[26] In over 100 pension funds reviewed, they noted, "even if a fund made a higher return with a low-risk portfolio, there was still pressure to change from the conservative policy to assume more risk." Economists refer to this trend as the "herd mentality."

There are, however, contrary reports. The Ibbotson *SBBI Classic Yearbook* concludes that a high-risk investment policy is superior, over the long term, over low risk policy.[27] Based on historical returns for stocks and bonds, the *Yearbook's* charts show Treasury Bills and long-term bonds went up at a lower rate than large and small company stocks over a 70-year period ending in the year 2010. This reference is widely quoted as support for the high-risk investment policy.

It is important to note that Ibbotson's information is an historical tracking of stock and bond returns not a comparison of actual returns of pension funds.

These studies provide a different perspective on the San Francisco Fund. Replicating those studies would require updating the Fund's investment information and using San Francisco actuarial data for analysis. Such studies would determine the degree the above findings apply to the San Francisco Fund and need to be undertaken.

II. Findings

F1. The San Francisco Employees' Retirement System Pension Fund is currently underfunded by more than $2 billion.

Responses requested from the Mayor, Board of Supervisors, Controller, San Francisco Employees' Retirement System Board, and San Francisco Employees' Retirement System Executive Director.

F2. The San Francisco Employees' Retirement System Board did not complete a "failure analysis" subsequent to the funding loss suffered in 2008-2009.

Responses requested from the Mayor, Board of Supervisors, Controller, San Francisco Employees' Retirement System Board, and San Francisco Employees' Retirement System Executive Director.

F3. The City must pay increasing contributions to the Fund due to underfunding.

Responses requested from the Mayor, Board of Supervisors, Controller, San Francisco Employees' Retirement System Board, and San Francisco Employees' Retirement System Executive Director.

F4. The increases in pension contributions by the City are growing at a faster rate than expenditures on most other City services since 1999.

Responses requested from the Mayor, Board of Supervisors, Controller, San Francisco Employees' Retirement System Board, and San Francisco Employees' Retirement System Executive Director.

F5. The Fund can artificially reduce the City's estimated liabilities by increasing its investment return assumptions for future years.

Responses requested from the Mayor, Board of Supervisors, Controller, San Francisco Employees' Retirement System Board, and San Francisco Employees' Retirement System Executive Director.

F6. The unrealistically high, assumed investment return rate of 7.66% is driven by concern for the mandated member and City contributions, with little regard for prudent management.

Responses requested from the Mayor, Board of Supervisors, Controller, San Francisco Employees' Retirement System Board, and San Francisco Employees' Retirement System Executive Director

F7. Studies show that public funds with low-risk investment policies perform as well as or better than those with high-risk policies.

Responses requested from the Mayor, Board of Supervisors, Controller, San Francisco Employees' Retirement System Board, and San Francisco Employees' Retirement System Executive Director.

III. Recommendations

R1. San Francisco Employees' Retirement System Board address the $2 billion dollar underfunding of the San Francisco Employees' Retirement System Pension Fund by forming a high-level task force with City officials, a panel of experts, community groups, and the public to develop courses of action.

Responses requested from the Mayor, Board of Supervisors, Controller, San Francisco Employees' Retirement System Board, and San Francisco Employees' Retirement System Executive Director.

R2. Adopt a realistic and consistent formula for estimating the assumed expected investment return rate.

Responses requested from the Mayor, Board of Supervisors, Controller, San Francisco Employees' Retirement System Board, and San Francisco Employees' Retirement System Executive Director.

R3. The San Francisco Employees' Retirement System Board undertake an in-depth investigation and "failure analysis" study of its investment policy and report its findings to its members and to the public.

Responses requested from the Mayor, Board of Supervisors, Controller, San Francisco Employees' Retirement System Board, and San Francisco Employees' Retirement System Executive Director.

R4. Investigate, quantify and address all the major risks in the portfolio and make this information public.

Responses requested from the Mayor, Board of Supervisors, Controller, San Francisco Employees' Retirement System Board, and San Francisco Employees' Retirement System Executive Director.

R5. Investigate less volatile and risky investment policies that would attain sufficient returns for the San Francisco Employees' Retirement System Pension Fund.

Responses requested from Mayor, Board of Supervisors, Controller, San Francisco Employees' Retirement System Board, and the San Francisco Employees' Retirement System Executive Director.

R6. Replicate the Stanford, Upjohn, and *The New York Times* evidence-based comparison studies using San Francisco data, to apply their findings to the San Francisco Employees' Retirement System Pension Fund.

Responses requested from the Mayor, Board of Supervisors, Controller, San Francisco Employees' Retirement System Board, and San Francisco Employees' Retirement System Executive Director.

CONCLUSION

The Jury finds that the San Francisco Employees' Retirement System Fund is pursuing a high-risk investment model adopted over 28 years ago. The Fund continues to rely on the "Yale Model" even after the 2008-2009 losses left the Fund short. To make up for the losses, City contributions to the Fund have ballooned to $433 million in 2012. Those contributions will continue to rise until at least 2015. This expense will divert money from other essential City services. Continuing high-risk investments create the possibility of further losses which will require even higher City contributions.

The Jury recommends the Fund investigate and formulate long- and short-term contingency plans to reduce exposure to future losses. The assumed investment return rate employed by the Fund is unrealistically high. Efforts to meet this high rate lead to high-risk investment policies and practices. The Jury recommends the Fund adopt a reality-based assumed investment return rate that accurately predicts the funding needed for guaranteed benefits of present and future retirees.

Most importantly, the Jury recommends the Fund undertake a serious and thorough investigation of their investment policies and practices. High volatility investing is not desirable for a public fund that exists to provide predictable, secure and safe funding levels for retirees far into the future. Current studies question the widely and long-held assumption that public funds must engage in high-risk investing to meet their funding needs.

ENDNOTES

[1] City and County of San Francisco Charter, Article XII.

[2] Constitution of the State of California, Article XVI, §17.

[3] City and County of San Francisco Charter, Article XII, §12.100.

[4] William Hallmark and Kenneth Kent, "Cheiron Presentation to the Retirement Board of SFERS," January 2012.

[5] *San Francisco Employees' Retirement System Annual Report for Fiscal Year Ended June 30, 2010*.

[6] *San Francisco Employees' Retirement System Annual Report for Fiscal Year Ended June 30, 2011*.

[7] CalPERS website, www.calpers.ca.gov.

[8] City and County of San Francisco Charter, Article XII.

[9] The Actuarial figures are as of June 30, 2011. Updated figures will not be available until January 2013. William Hallmark and Kenneth Kent, "Cheiron Presentation to the Retirement Board of SFERS," January 2012. The actuarial value is lower to account for the contribution debt owed by the city amortized over time and for higher benefits in future.

[10] Per interviews with SFERS Board members.

[11] 2012 Actuary Report to the San Francisco Employees' Retirement System Board.

[12] Joe Nation, "An Assessment of San Francisco's Unfunded Pension and Retiree Health Care Liabilities," Stanford Institute of Economic Research, March 15, 2011.

[13] *Ibid.*

[14] Mary Williams Walsh and Danny Hakim, "Public Pensions Faulted for Bets on Rosy Returns," *The New York Times,* May 27, 2012.

[15] Ben Moshinsky, "Pension, Insurance Firms Must Reduce Return Estimates, FSA Says," *Bloomberg* Apr 10, 2012, http://www.bloomberg.com/news/2012-04-10/pension-insurance-firms-must-reduce-return-estimates-fsa-says.html.

[16] Peter Smith, Former Head of Investments at the Financial Services Agency of the British Government as quoted by R A McCleod & Co., "Investment project rates must be set at a realistic level, says FSA," April 2012. http://www.ramcleod.co.uk/site/news/801337367.html.

[17] Rick Ferri, "The Curse of the Yale Model," *Forbes*, April 2012 http://www.forbes.com/sites/rickferri/2012/04/16/the-curse-of-the-yale-model/.

[18] Proposition 21 amended Section 17 of Article XVI of the California Constitution.

[19] CalPensions, "Pension Crisis: Did Prop 21 Pave the Way?," 2010, http://calpensions.com/2010/07/01/pension-crisis-did-prop-21-pave-the-way/.

[20] *Ibid*.

[21] Provided by SFERS staff per requested by the Jury (June 2012); unaudited from August 2011 to May 2012.

[22] Howard Bornstein, *Going for Broke: Reforming California's Public Employee Pension*, Stanford Institute for Economic Policy Research, April 2, 2010.

[23] CalPers website.

[24] Howard Bornstein, *Going for Broke: Reforming California's Public Employee Pension*, Stanford Institute for Economic Policy Research, April 2, 2010.

[25] Julie Creswell, "Pensions Find Riskier Funds Fail to Pay Off," *The New York Times*, April 2012.

[26] N. Mohan, and T. Zhang, "An analysis of risk-taking behavior for public defined benefit plans," *Upjohn Institute Working Paper* 112-179, November 2011.

[27] *SBBI Classic Yearbook* , www.corporate.morningstar.com/ib/asp/detail.aspx?xmlfile=1409.xml. SBBI stands for Stocks, Bonds, Bills, & Inflation.

RESPONSE MATRIX

Pursuant to **Penal Code § 933.05**, the Civil Grand Jury requests responses as follows:

	Findings						
Respondent	F1	F2	F3	F4	F5	F6	F7
Mayor	X	X	X	X	X	X	X
Board of Supervisors	X	X	X	X	X	X	X
Controller	X	X	X	X	X	X	X
San Francisco Employees' Retirement System Board	X	X	X	X	X	X	X
San Francisco Employees' Retirement System Executive Director	X	X	X	X	X	X	X

	Recommendations					
Respondent	R1	R2	R3	R4	R5	R6
Mayor	X	X	X	X	X	X
Board of Supervisors	X	X	X	X	X	X
Controller	X	X	X	X	X	X
San Francisco Employees' Retirement System Board	X	X	X	X	X	X
San Francisco Employees' Retirement System Executive Director	X	X	X	X	X	X

APPENDIX

Glossary of Terms

Actuarial Report: An analysis of funding needed for payment of benefits, based on a number of assumptions such as salaries, number of employees, ages and life spans of employees and retirees, length of service of employees, inflation rate, benefit guarantees, and expected return on investments.

Alternative Investments: An Investment Allocation category that is mostly Private Equity investments in Venture Capital and Buyout portfolios.

Amortization: Payment of a loan or debt in installments over time. Also depreciation of an asset over time.

Auditor's Report: Recorded in the annual report, SFERS auditor's report tests to see if an organization's financial statements comply with Generally Accepted Accounting Principles. This is sometimes referred to as the clean opinion.

Collateralized Mortgage-Backed Securities: Derivative investments created by aggregating mortgages into pools and then selling interests that entitle owners to payments over time until the underlying debt is retired.

Commodities: Commodities are any marketable items produced to satisfy wants or needs. Examples include minerals such as iron ore, crude oil, and coal, and agricultural products such as coffee beans, rice, and wheat.

Compound Interest: The additional interest rate received when returns are invested over the long term. The formula for calculating compound interest is at http://www.thecalculatorsite.com/finance/calculators/compoundinterestcalculator.php.

Credit Default Swaps (CDS): A financial swap agreement that the seller of the CDS will compensate the buyer in the event of a loan default or other credit event. The buyer of the CDS makes a series of payments to the seller and, in exchange, receives a payoff if the loan defaults.

Derivative: A derivative instrument is a contract between two parties that specifies conditions (especially the dates, resulting values of the underlying variables, and nominal amounts) under which payments are to be made between the parties. Derivatives have been used to mask credit risk from third parties while protecting derivative counterparties.

Distressed Debt: A debt security in an unprofitable company that is likely to go bankrupt. This is considered to be a high-risk security with the potential for high returns because financial distress often precedes complete restructuring, which could keep the company from bankruptcy, or at least liquidation, enabling the security to be paid in full.

Failure Analysis: The process of collecting and analyzing data to determine the cause of a failure.

Funding Ratio: The Actuarial Liability divided by the Actuarial or Market Value of Assets.

Hedging: Reducing the risk on an investment by investing in another asset. Used frequently by institutional day traders (investment fund managers). For example, one could either perform a trade (future or forward) that is a promise to sell at a future price, or invest in an asset that is likely to negatively correlate with your original investment.

Investment Return Rate Assumption: This is a prediction as to what the future returns will be on the investments of the fund. In SFERS this is determined by a vote of the Board.

Investment Risk: The risks that an investor takes that the value of an asset will fall below the amount paid for the asset.

Private Equity: Private Equity (PE) Firms (also called "buyout firms") purchase controlling interest in non-public companies and then manage them in order to make them more profitable. They make the purchase with a combination of institutional investors who become limited partners, and bank loans on the credit of the purchased company itself. During the time they are managing the assets (the firms they control), the return on investment is estimated by an accounting firm hired by the PE firm itself, and the limited partners pay 2% per year, for up to 10 years, until the investment is "realized." Then any profits are shared between the PE firm first, which takes 20% of the profits, and the institutional investors. Although the press includes many articles, pro and con, about the success and the social consequences of PE, there are very few comparative studies, as the information on the investments is unregulated and a highly protected secret.

Real Estate Limited Partnerships: A limited partnership in which limited partners provide capital, and the general partner in turn manages the development of real estate, e.g., to build an apartment complex or housing subdivision. The general partner uses the investment money from the limited partners to sell or rent the property.

Securities Loan: The act of loaning a stock, derivative, or other security to an investor or firm. The borrower puts up collateral - cash, security or a letter of credit. The title or ownership of the security is transferred to the borrower.

Unfunded Actuarial Liability (UAL): The values of the benefits already earned exceed the assets in the fund.

Venture Capital: Private Equity investments in start-up firms.

Volatility: A statistical measure of the disparity of returns for a given security or market index. Low volatility means that an index remains relatively stable day-to-day. High volatility means that the price fluctuates wildly.

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