



OFFICE OF INSPECTOR GENERAL

UNITED STATES POSTAL SERVICE

Postal Service Retiree Funds Investment Strategies

White Paper

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OFFICE OF INSPECTOR GENERAL

UNITED STATES POSTAL SERVICE

Executive Summary

The U.S. Postal Service participates in three retirement plans: the Civil Service Retirement System (CSRS), the Federal Employee Retirement System (FERS), and the Postal Service Retiree Health Benefits Fund (PSRHBF). The first two are pension plans, and the third is set up to prefund and provide retiree health benefits. These plans are restricted to government trust funds invested solely in U.S. Treasury securities. They are often regarded as riskless in the sense that there is virtually no possibility of loss of principal. However, the trade-off for this safety is a low rate of return that has a high probability of not generating adequate investment income to meet all the future obligations of the funds. Currently, the total funding level for all three funds is at 82 percent, and all three funds are underfunded to varying degrees. The CSRS and the FERS are over 90 percent funded (91 and 97, respectively), but the PSRHBF is only 50 percent funded.¹

This funding shortfall can be addressed in a number of ways — by lowering the liabilities, increasing the assets, or some combination of both. In fact, there are efforts currently in place to address this underfunding. On the liabilities side, there are postal reform bills that would lower the PSRHBF liability by requiring all postal retirees to enroll in Medicare Parts A and B.² In addition, the Office of Personnel Management (OPM)

is pursuing a change in rules that would allow it to use postal-specific assumptions in its liability estimates. If successful, this will lower the liability in all three funds.³ On the assets side, a bill in the House⁴ proposes to allow a portion of the PSRHBF to be invested more aggressively in index funds.⁵

This paper focuses solely on exploring ways to improve the asset returns on all three funds. The U.S. Postal Service Office of Inspector General retained Segal Consulting (Segal), experts in actuarial science and pension plan management, to explore options to improve the funding situation on the assets side. Segal identified six alternative investment strategies — three traditional portfolios comprising publicly traded stocks and bonds and three alternative portfolios which include traditional investments as well as non-traditional asset classes such as high yield bonds, private real estate, and other investments. For both, they offer a low-risk, medium-risk, and high-risk option. In general, the higher the risk, the higher the potential return.

To be able to compare the potential performance of the portfolios, Segal uses stochastic simulation models⁶ to estimate how the current strategy and the six proposed portfolios will perform over a 20-year investment horizon for each of the three retirement funds. Segal assumes the Postal Service

¹ U.S. Postal Service *2016 Report on Form 10-K*, dated November 15, 2016.

² Improving Postal Operations, Service, and Transparency Act of 2015, S. 2051 and The Postal Service Reform Act of 2017, H.R. 756, Section 8903c.

³ Update for Measuring Pension and Retiree Health Liabilities (Report Number [FT-AR-17-007](#), dated May 2, 2017).

⁴ The Postal Service Financial Improvement of 2017, H.R. 760.

⁵ For example, stocks and interest-bearing securities.

⁶ A tool for estimating probability distributions of potential outcomes by allowing for random variation in one or more inputs over time. The random variation is usually based on fluctuations observed in historical data for a selected period using standard time-series techniques.

and its employees make the projected contributions, including amortization payments, and that outflows from the fund occur as the OPM projected. Table 1 shows the median (50th percentile, or the middle of a range of values) results of Segal’s proposed portfolios. All of Segal’s proposed portfolios outperform the current strategy. While the current strategy would result in a

deficit, the CSRS and the FERS would be fully funded under all of the proposed alternatives. In addition, although the two conservative portfolios would not fully fund the PSRHBF, the deficit under these two portfolios would be less than it would be under the current investment strategy, as shown in Table 1.

Table 1. Estimated Surplus (Deficit) After 20 Years – 50th Percentile

Portfolio	Risk Level	CSRS	FERS	PSRHBF
Current Investment				
<i>Special purpose treasuries</i>	Very Conservative	(31)	(40)	(57)
	Conservative	5	8	(29)
Traditional				
<i>Publicly traded stocks and bonds</i>	Medium Risk	58	63	1
	High Risk	114	119	35
Alternative				
<i>Publicly traded stocks and bonds plus non-traditional asset classes including high yield bonds, emerging market bonds, private real estate, private equity, and multi-asset solutions</i>	Conservative	44	51	(6)
	Medium Risk	124	127	40
	High Risk	193	198	78

Source: Segal Consulting Analysis.

A sound investment strategy alone is not enough. Segal recommends a three-tier governance structure, each having a separate but related purpose. The first tier deals with overall fund investment strategy. The second tier focuses on implementation issues. The third tier deals with the day-to-day management of the investments.

This paper is a proof of concept analysis. We do not advocate a specific investment plan as it is impossible to determine which alternative portfolio would be the best since this is a subjective

judgment based on a fund management’s appetite for risk. More importantly, that appetite may, and even should, differ among the three retiree funds, as they are in different stages in terms of funding levels, expected contributions and expected pay-outs. Further, the Postal Service, with the OPM, would need to seek legislative change, in most cases, to modify its current investment strategy.⁷ However, the analysis in this paper suggests that the current, supposedly low-risk, investment strategy may ironically be the riskiest of all. It may be cautious to a fault.

⁷ In each of its six prospective investment portfolios, Segal featured purchases of inflation-protection securities, such as Treasury Inflation Protected Securities offered by the U.S. Department of Treasury. The Secretary of the Treasury has legal authority to invest retirement fund assets in Treasury Inflation Protected Securities, following a required determination that such investments are within the public interest.

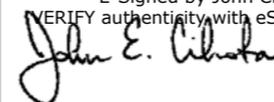
Transmittal Letter



OFFICE OF INSPECTOR GENERAL
UNITED STATES POSTAL SERVICE

September 20, 2017

MEMORANDUM FOR: JOSEPH CORBETT
CHIEF FINANCIAL OFFICER AND
EXECUTIVE VICE PRESIDENT

E-Signed by John Cihota
VERIFY authenticity with eSign Desktop 


FROM: John E. Cihota
Deputy Assistant Inspector General
for Finance, Pricing and Investments

SUBJECT: White Paper Report - Postal Service Retiree Funds
Investment Strategies (Report Number FT-WP-17-001)

This report presents the results of our review of Postal Service Retiree Funds Investment Strategies (Project Number 17BG002FT000).

We appreciate the cooperation and courtesies provided by your staff. If you have any questions or need additional information, please contact Lorie Nelson, Director, Finance, or me at 703-248-2100.

Thank you in advance for your time and consideration.

Attachment

cc: Corporate Audit and Response Management

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Observations

A primary reason for these funding shortfalls is that commitments are growing at a faster rate than assets.

Introduction

The U.S. Postal Service participates in three retirement benefits programs.⁸ The Civil Service Retirement System (CSRS) is a defined benefit pension plan for employees hired before 1984. The Federal Employees Retirement System (FERS), which began in 1984, is another retirement plan that includes as a component a defined benefit pension program for its participants.⁹ The Federal Employee Health Benefits Program provides health insurance benefits to postal retirees. All three programs are forms of deferred compensation.¹⁰

The Postal Service and its employees make routine bi-weekly payments into the Civil Service Retirement and Disability Fund (CSRDF), which resides at the U.S. Department of Treasury (Treasury) and is managed by the Office of Personnel Management (OPM). Pension payments to CSRS and FERS postal retirees are made out of this fund.

Until 2017, the Postal Service has funded its retiree health benefits on a pay as-you-go basis. Under pay-as-you-go, the Postal Service pays for its portion of the retiree health insurance premiums of current retirees. Prior to 2006, no money was set aside for future retirees. The Postal Accountability and Enhancement Act of 2006 (PAEA) required the Postal Service to prefund its retiree health benefits by making annual contributions to a newly established Postal Service Retiree Health Benefits Fund (PSRHBF).¹¹ Like the Civil Service Retirement and Disability Fund, the PSRHBF is held by the Treasury and managed by the OPM.

[Table 2](#) shows the assets and liabilities for these three funds as reported by the Postal Service in its fiscal year (FY) 2016 10K report.¹² All three funds are currently underfunded, meaning that the estimated liabilities or commitments to its future retirees exceed the assets set aside in the three funds. For example, the 2016 CSRS funding shortfall is \$17.5 billion on an asset base of \$174.4 billion. The FERS 2016 funding shortfall is \$3.8 billion on an asset base of \$112.1 billion. The PSRHBF is underfunded by \$52.1 billion on an asset base of \$51.9 billion. The total shortfall across all three funds is \$73.4 billion.

A primary reason for these funding shortfalls is that commitments are growing at a faster rate than assets. Assets of all three funds are invested very conservatively in special issue Treasury bonds that are regarded as risk-free in the sense that there is no possibility for a loss of principal. This beneficial aspect comes at a price — low investment returns.¹³ The rate of return for the three retirement programs differs somewhat because of the timing of investments. The CSRS earned 4 percent in 2016. The FERS earned 3 percent, and the PSRHBF earned 3.1 percent.¹⁴ Yields have fallen over time as yields on Treasury (and non-Treasury) securities have been in long-term decline.

⁸ All three programs extend benefits to retirees' families in one form or another. The use of the word "retiree" herein includes these other plan beneficiaries.

⁹ FERS also includes a defined contribution plan and social security benefits.

¹⁰ *Update for Measuring Pension and Retiree Health Liabilities* (Report Number [FT-AR-17-007](#), dated May 2, 2017).

¹¹ Public Law Number 109-435.

¹² U.S. Postal Service *2016 Report on Form 10-K*, dated November 15, 2016.

¹³ The effective yield on special issue Treasuries can be higher than on marketable Treasuries, and usually is higher for short- and intermediate- term securities.

¹⁴ U.S. Postal Service *2016 Report on Form 10-K*, dated November 15, 2016.

The pre-payment schedule was aggressive, and once the Great Recession hit, it became impossible to meet.

Table 2. 2016 Projected Assets and Liabilities for Postal Service Retirement Funds (\$ Billions)

Fund	End of Fiscal Year 2016			
	Liabilities	Assets	Funding Shortfall	Funding Percentage
PSRHBF	\$104.0	\$51.9	\$52.1	50%
CSRS	\$191.9	\$174.4	\$17.5	91%
FERS	\$115.9	\$112.1	\$3.8	97%
Total	\$411.8	\$338.4	\$73.4	82%

Source: USPS 10-K 2016; column totals do not sum due to rounding. Projections in italics.

This paper is a demonstration of a proof of concept for an alternative investment strategy. The U.S. Postal Service Office of Inspector General (OIG) asked Segal Consulting (Segal), experts in actuarial science and pension fund management, to pursue the concept of alternative investment strategies. We tasked Segal with proposing diversified investment portfolios appropriate for each of the three retirement plans. Segal assumed the Postal Service and its employees make the projected contributions, including amortization payments, and that outflows from the fund occur as the OPM projected.

The Postal Service Retiree Health Benefit Fund

The largest funding shortfall by far is in the PSRHBF. Unlike the two pension funds that have been receiving regular contributions from active fund members and the Postal Service for a while now, the PSRHBF is relatively new and has received no infusion of funds (other than interest on its Treasury investments) since 2010. In addition to moving \$20 billion from the CSRS surplus (\$17 billion) and an escrow account (\$3 billion) to the newly established PSRHBF, the PAEA included a pre-funding schedule to build the fund's assets in transition to leaving the pay-as-you-go system.¹⁵ This schedule called for annual payments of between \$5.4 billion and \$5.8 billion from 2007 to 2016.¹⁶ These payments, which totaled \$55.8 billion, were not actuarially based and were separate from the Postal Service's payments to cover the premiums for current retirees' health insurance.

The pre-payment schedule was aggressive, and once the Great Recession hit, it became impossible to meet. Postal Service mail volume declined 28 percent from 213 billion pieces in 2006 to 154 billion pieces in 2016. The financially depleted Postal Service made only \$17.9 billion of the PAEA payments into the PSRHBF before stopping the payments altogether in 2011.¹⁷ Congress reduced the 2009 payment from \$5.4 to \$1.4 billion to prevent the Postal Service from having an extreme liquidity crisis.¹⁸ Had the Postal Service been able to make the full schedule of payments, all other things being equal, the PSRHBF would have reached \$93.6 billion in 2016, about \$42 billion greater than its actual level.¹⁹ Furthermore, fund assets would have been higher had interest rates not continued to decline for the 10-year period.

Starting in FY 2017, payments for current retirees' insurance premiums are paid out of the fund, and the Postal Service pays into the fund the amount of additional retiree health expenses attributable to current year operations (known as normal costs) plus a payment to eliminate the unfunded liability using a 40-year amortization schedule.²⁰

¹⁵ *Status Financial Outlook, and Alternative Approaches to Fund Retiree Health Benefits* (Report Number [GAO 13 112](#), dated December 4, 2012).

¹⁶ Public Law 109-435, Section 803.

¹⁷ *Status Financial Outlook, and Alternative Approaches to Fund Retiree Health Benefits* (Report Number [GAO-13-112](#), dated December 4, 2012).

¹⁸ *Ibid.*

¹⁹ OIG calculation based on data from U.S. Postal Service Reports 10K, 2007 through 2016.

²⁰ Public Law 109-435, Section 803.

Even if interest rates begin to have an upturn soon, it will offer little in the way of relief for underfunding.

Congressional Concern

Congress recently considered legislation to address the funding shortfall of the PSRHBF. The House has active pending legislation this Congress, and the Senate had similar pending legislation in the previous Congress. Both the Senate and House postal reform bills would establish a new health benefit system for postal employees and retirees that will require eligible Postal Service retirees to enroll in Medicare Parts A and B.²¹ The new health insurance plans presumably would have lower premiums because Medicare — into which the Postal Service and its employees have paid more than \$30 billion — would be the primary payer to hospitals and doctors.²² These Medicare provisions will greatly reduce the PSRHBF liability.²³ Any additional unfunded liabilities would be covered by an amortization schedule. The Senate bill would base the amortization on a funding target of 80 percent while the House bill would seek to achieve full funding status (100 percent).²⁴

A separate bill in the House proposes to allow a portion of the PSRHBF to be invested more aggressively in index funds²⁵ modeled after those established for Thrift Savings Fund investments.²⁶ These index funds include a mix of Treasury securities and private sector index funds.

Segal's Investment Portfolios

The OIG asked Segal to consider alternative portfolios for investing the retiree funds, designed to provide higher rates of return with an acceptable level of risk. Of course, it is not possible to know what Postal Service management would find to be an acceptable level of risk. In addition, risk acceptance may vary by the type of retiree fund and its current status. Similar to how retirees may vary their retirement portfolio by focusing on more and more conservative options as they near retirement, the investment choices for the retiree funds will vary depending on the timing of payments in and out of the fund, as well as funding status. For example, the CSRS is closed to new entrants, is currently over 90 percent funded, and may call for a more conservative investment approach. For this reason, six portfolios are offered for consideration. These portfolios should be viewed as examples of investment strategies, not as specific recommendations.

Current Investment Strategy

To begin, Segal examined the current investment approach. Under the current system, each year the OPM redeems and purchases a set of special issue Treasury securities. The securities range in maturity from 1 to 15 years. Because of the downward drift of interest rates over time, the average return on the package of securities purchased today is less than the average return of the set of securities redeemed. This investment strategy smooths out the impact of year-to-year interest changes on the portfolio, but it also imparts a certain inertia in the return on the overall portfolio. This smoothing means that any significant increase in interest rates today would be mitigated by the low returns on bond investments from the previous 14 years. Therefore, even if interest rates begin to have an upturn soon, it will offer little in the way of relief for underfunding.

The Paradox of the Riskless Investment

Special issue Treasury securities are guaranteed to be redeemed at par; there is no risk of losing investment principal. There is very low risk that the Treasury will not make its scheduled interest payments. Accordingly, special issue Treasuries are often

²¹ Improving Postal Operations, Service, and Transparency Act of 2015, S. 2051, and The Postal Service Reform Act of 2017, H.R. 756, Section 8903c.

²² *Accomplishing Postal Reform in the 115th Congress – H.R. 756, the Postal Reform Act of 2017 Before the House Oversight and Government Reform Committee*, 115th Cong. (2007) (statement of Megan Brennan, Postmaster General and Chief Executive Officer of the U.S. Postal Service).

²³ U.S. Postal Service 2016 *Report on Form 10-K*, dated November 15, 2016.

²⁴ Improving Postal Operations, Service, and Transparency Act of 2015, S. 2051, and The Postal Service Reform Act of 2017, H.R. 756.

²⁵ For example, stocks and interest-bearing securities.

²⁶ The Postal Service Financial Improvement of 2017, H.R. 760.

The low returns on Treasuries have a high probability of not generating adequate investment income to meet the funds obligations. The OPM investment strategy may be cautious to a fault.

regarded as a riskless investment. Segal notes that even these riskless Treasuries carry some measure of investment uncertainty. The principal on the special issue Treasury securities in the baseline portfolio may be guaranteed, but over time the returns will vary to reflect Treasury bond market conditions. Furthermore, Segal identifies a potential pitfall: the low returns on Treasuries have a high probability of not generating adequate investment income to meet the obligations of the funds, given the current contribution policy. The OPM investment strategy may be cautious to a fault.

Appropriate levels of investments in other asset classes, such as corporate bonds and equities, can boost the rate of return on these retirement funds with what is likely to be acceptable risk. It is for this reason that a best practice of retirement investment professionals is to recommend a diversified portfolio of assets in a retirement investment strategy.²⁷

Two Sets of Three Diversified Portfolios

Segal considers a variety of asset classes, each with its own assumed rate of return and standard deviation. Generally speaking, the higher the rate of return, the higher the risk, the higher the standard deviation. Table 3 lists the assumed rates of return and standard deviations for each asset included in the analysis.

Relatively safe assets such as inflation-linked Treasury securities have a low rate of return and standard deviation. Riskier assets such as private equity have more than three times the rate of return (10.9 percent) and a significantly higher level of risk as measured by a standard deviation of 24.5 percent.

Table 3. 20-Year Rates of Return and Standard Deviations Assumptions by Asset

Asset Class	Asset	Compound Return	Standard Deviation
Fixed Income	Inflation-Linked Securities	3.3%	5.5%
	Core Fixed Income	3.6%	5.0%
	High Yield	6.2%	12.5%
	Emerging Markets Debt	6.6%	10.5%
	Municipal Bonds	5.0%	6.0%
	Global Fixed Income	2.9%	8.2%
	Long-Term Fixed Income	3.0%	11.5%
Equity	U.S. Equity	7.2%	18.5%
	Developed Equity	7.5%	21.0%
	Emerging Markets Equity	9.4%	24.0%
Alternatives	Private Equity	10.9%	24.5%
	Real Estate	5.9%	12.0%

Source: Segal Consulting.

²⁷ One example is the U.S. Government's TSP. The TSP clearly recommends diversification beyond government securities and even offers several so-called Lifecycle funds that automatically adjust investments among asset classes as the investor moves toward retirement age.

The Sharpe ratio is a statistic that compares the expected return to the amount of risk of a given portfolio — the higher the Sharpe ratio the better trade-off between risk and return.

Using these assets, Segal considers two types of diversified portfolios — traditional and alternative. The traditional portfolios invest to varying degrees in Treasuries, corporate bonds, and public equities. There are three traditional portfolios: low-risk, medium-risk, and high-risk. The low-risk portfolio has a higher proportion of conservative investments such as inflation-linked securities than the higher risk portfolios. With this relative safety, of course, comes a lower overall expected return. The portfolios are indicative of the choices fund managers must make to satisfy the inherent trade-off between investment returns and the existing risk appetite.²⁸ A second set of alternative portfolios adds in alternative investment classes, such as high yield bonds, emerging market bonds, private real estate, private equity, and multi-asset solutions.

Table 4 summarizes the expected rate of returns, standard deviations, and Sharpe ratios of each of the portfolios. Standard deviation is a measure of how much the results can vary. The higher the standard deviation, the higher the variation in the results and, therefore, the higher the risk. The Sharpe ratio is a statistic that compares the expected return to the amount of risk of a given portfolio — the higher the Sharpe ratio, the better the trade-off between risk and return.²⁹

Table 4. Portfolio Asset Allocation and Performance Measures (20-Year Horizon)

	Current	Traditional Portfolios			Alternative Portfolios		
	Very Conservative	Low Risk	Medium Risk	High Risk	Low Risk	Medium Risk	High Risk
Compound Rate of Return	3.3%	4.5%	5.4%	6.3%	5.3%	6.4%	7.3%
Standard Deviation	4.2%	6.1%	8.7%	12.0%	6.2%	9.0%	12.1%
Sharpe Ratio	0.05	0.24	0.30	0.31	0.38	0.40	0.40

Source: Segal Consulting.

The current portfolio of special issue Treasury securities has the lowest rate of return at 3.3 percent and the lowest level of risk as measured by a standard deviation of 4.2 percent. The low-risk traditional portfolio invests 60 percent in inflation-linked Treasury securities, 20 percent in higher yield securities and only 20 percent in stocks. It has a return of 4.5 percent and a relatively low level of risk as measured by its standard deviation of 6.1 percent. Contrast this with the high-risk alternative portfolio, with only 20 percent invested in inflation-linked securities and 20 percent invested in riskier, high-yield alternative investments such as private equity and real estate.³⁰ This portfolio has an expected return of 7.3 percent with a standard deviation of 12.1 percent.

Segal evaluates the potential performance of each portfolio by using a statistical simulation model to estimate how much each of the retiree plans will be funded in a 20-year period.³¹ The simulations take into account the mean return on each asset, the standard deviation of the asset returns, and an algorithm that rebalances the portfolio’s asset allocation.³²

Table 5 displays the results of this simulation, by showing the estimated surplus or deficit by percentile. The percentiles represent the percent of outcomes above and below that level. The 50th percentile represents the median or, in other words, the dollar

²⁸ Risk appetite is routinely described as the maximum amount of risk an investor will tolerate comfortably.

²⁹ The Sharpe ratio is calculated by taking an asset’s return, subtracting a risk-free rate of return and dividing by the standard deviation of the asset returns.

³⁰ The remaining 60 percent is in stocks and higher yield bonds.

³¹ Segal uses a Monte Carlo analysis with 2,000 trials.

³² Rebalancing is important because continual strong performance in a risky asset class can expose the overall portfolio to higher risk that is desired. When an asset class reaches a certain threshold, some of it is redistributed to the one or more other asset classes to keep the portfolio’s risk level in line with the overall investment strategy.

The analysis highlights a significant downside to the current investment strategy: it will likely result in all three retiree funds having funding deficits in 20 years.

All six portfolios clearly perform better than the current baseline for all three funds.

amount whereby one-half of the outcomes exceed the dollar amount and one-half of the outcomes are below the dollar amount. One could think of the 95th percentile as the best possible outcomes (this is when the funds do well),³³ and the 5th percentile as the worst outcomes (this is when the funds perform poorly).³⁴

The analysis highlights a significant downside to the current investment strategy: it will likely result in all three retiree funds having deficits in 20 years. In terms of the 50th percentile, the CSRS fund will be \$31 billion underfunded, the FERS will be \$40 billion underfunded, and the PSRHBF will be \$57 billion underfunded. This highlights the point that although the current investment in special issue Treasuries is considered to be a very low-risk investment strategy, in today's low yield environment, it produces a significant shortfall as measured by the median deficit across all three funds.

Table 5. Summary of Simulation Results — Surplus (Deficit) After 20 Years (\$ Billions)

Portfolio	Risk Level	CSRS			FERS			PSRHBF			
		Bottom 5%	Median 50%	Top 95%	Bottom 5%	Median 50%	Top 95%	Bottom 5%	Median 50%	Top 95%	
Current Investment											
<i>Special purpose treasuries</i>	Very Conservative	(90)	(31)	23	(129)	(40)	41	(174)	(57)	33	
Traditional	Conservative	(69)	5	107	(84)	8	130	(155)	(29)	86	
	<i>Publicly traded stocks and bonds</i>	Medium Risk	(75)	58	297	(90)	63	300	(144)	1	165
	High Risk	(81)	114	584	(100)	119	550	(138)	35	289	
Alternative	Conservative	(44)	44	174	(55)	51	199	(138)	(6)	118	
	<i>Publicly traded stocks and bonds plus non-traditional asset classes including high yield bonds, emerging market bonds, private real estate, private equity, and multi-asset solutions</i>	Medium Risk	(49)	124	428	(51)	127	423	(122)	40	231
	High Risk	(68)	193	784	(68)	198	731	(116)	78	386	

Source: Segal Consulting Analysis.

As seen in Table 5, all six portfolios clearly perform better than the current baseline for all three funds. Even the most conservative portfolio, the traditional low-risk portfolio, is likely to generate better financial outcomes than the baseline over the 20-year period. With this conservative portfolio, at the 50th percentile, the CSRS would be \$36 billion better off than with the current strategy, the FERS would be \$48 billion better off, and the PSRHBF would be \$28 billion to the better.

³³ In other words, 5 percent of the outcomes exceeded that dollar amount.

³⁴ In other words, 5 percent of the outcomes equaled or were less than that dollar amount.

Portfolios with a smaller share of fixed income investments (the high-risk portfolios) provide opportunity for higher returns. Note, however, that they also can result in larger deficits. It is important to note that none of these higher risk portfolios have downside risks as high as the current strategy. This can be seen by looking at the bottom 5th percentile in [Table 5](#). All the portfolios show a deficit at the 5th percentile; however, the largest deficit is under the current strategy.

While we are not advocating for any one type of investment plan, it is important to point out that one of the reasons the traditional portfolios perform so well is that Segal chose to include assets that are linked to inflation, such as inflation-linked treasury securities.³⁵ This has the advantage of better aligning asset growth with liability growth, as inflation is a part of what drives the growth for both the CSRS and the FERS obligations. This holds true for a lesser degree for the PSRHBF.

Another way to assess the various investment options is to consider the probability that each of the retiree programs is fully funded (assets greater than or equal to liabilities) at the 20-year time horizon. In other words, given that we do not know what market conditions will actually occur, what is the probability that the market will result in the three retirement plans being fully funded. One could view this as a weighted average of the results shown above. Table 6 depicts the probability of each retiree program being fully funded. Under the current strategy, the probabilities of being fully funded are low, between 14 percent for the PSRHBF and 21 percent for the FERS. Simply by moving to the low-risk traditional portfolio, the probabilities increase rather dramatically. The probability that CSRS would be fully funded more than triples to 54 percent. For the FERS the increase more than doubles, from 21 percent to 55 percent. Moreover, for the PSRHBF the probability increases from 14 percent to 33 percent. Moving to riskier portfolios increases the probabilities further.

Table 6. Probability of Retirement Plans Being Fully Funded after 20 Years

	Current	Traditional Portfolios			Alternative Portfolios		
	Very Conservative	Low Risk	Medium Risk	High Risk	Low Risk	Medium Risk	High Risk
CSRS	17%	54%	71%	76%	78%	86%	85%
FERS	21%	55%	72%	77%	76%	87%	87%
PSRHBF	14%	33%	51%	62%	47%	64%	71%

Source: Segal Consulting.

Treasury Inflation Protected Securities

Treasury Inflation Protected Securities (TIPS) are attractive investments for the CSRS and FERS, which provide annual CPI based cost-of-living adjustments to retirees, and for the PSRHBF, which has exposure to health care premium inflation. TIPS are, therefore, a core component of Segal’s six portfolios, with asset allocations ranging from 20 percent to 60 percent. The Secretary of the Treasury has authority under current law to allow the OPM to invest retirement assets in TIPS, provided the Secretary determines that such investments would be in the public interest. Such a determination is supported by the Military Retirement Fund’s \$535.5 billion of TIPS purchased directly from Treasury.³⁶ The OIG believes the Postal Service could negotiate with the OPM and Treasury to incorporate a TIPS investment strategy into the CSRDF and PSRHBF.

³⁵ See “[Treasury Inflation Protected Securities](#)” for further information.

³⁶ Much like the OPM, the Military Retirement Fund invests only in Treasury securities that are purchased directly from the Treasury. According to its *Audited Financial Report for FY 2016*, “[t]he current Military Retirement Fund investment strategy is to maintain a portfolio allocation of 75-90 percent [TIPS] to partially hedge against any future inflation.”

Segal recommends a three-tier governance structure, each having a separate but related purpose.

Governance

The alternative investment portfolios demonstrate that there is ample opportunity for decreasing the unfunded liability of the three postal retirement programs simply by pursuing a responsible, diversified investment strategy. However, there is always a concern that such a change could be mismanaged. While private sector retirement funds are required to be managed with a fiduciary responsibility to fund participants according to Employee Retirement Income Security Act of 1974 (ERISA), currently public entities are exempt from this requirement.³⁷ This paper clearly contemplates that the Postal Service retiree funds will be managed in the best interests of fund participants.

With this in mind, we asked Segal to describe a governance structure that reflects best practices in pension investment management. To meet that fiduciary responsibility, Segal recommends a three-tier governance structure, each having a separate but related purpose.

- First Tier (Strategic) – The first tier deals with overall fund investment strategy. A governing board makes high-level policy decisions that it is empowered to review and modify. This board defines long-term strategic goals, the level of risk tolerance, liquidity constraints, the target mix of investments and the ranges of expected return, and whatever investments that are prohibited.
- Second Tier (Implementation) – The second tier of governance is comprised of committees of the board, and these focus on implementation issues following the policies set by the first tier. These committees have staff and advisors to manage such aspects of the fund management as manager selection and monitoring, investment rebalancing rules, vendor negotiations, and performance measurement.
- Third Tier (Tactical) – The third tier consists of individuals that deal with the day-to-day management of the investments, following the rules and guidelines set by the first and second tiers.

Benchmarked Funding Levels

In June 2012, the OIG compared Postal Service funding of retirement liabilities with funding levels in the following sectors: federal (excluding the Postal Service), military, state governments in the U.S., and companies listed in the Fortune 1000.³⁸ For this paper, the OIG updated its prior work, again comparing Postal Service funding levels for retiree health care benefits and pensions within these same sectors.

The Postal Service funded 50 percent of its retiree health benefits liability as of September 30, 2016. By contrast, the federal government did not fund its retiree health benefits, the military³⁹ was funded at 27 percent, and state governments were funded at 3 percent.⁴⁰ Of the 45 percent of Fortune 1000 companies that managed retiree health benefits, 39 percent - 174 companies - funded at least a portion of their associated liabilities, and their median funding level was 54 percent.⁴¹

³⁷ Public Law 93-406, 88 Stat. 829, codified in part at 29 U.S.C. § 18.

³⁸ *Pension and Retiree Health Care Funding Levels* (Report Number [FT-MA-12-002](#), June 18, 2012).

³⁹ Military retiree health care contributions are paid into the Medicare-Eligible Retiree Health Care Fund. The fund pays the liabilities under the Department of Defense retiree health benefits programs for military retirees and their dependents and survivors who are Medicare-eligible.

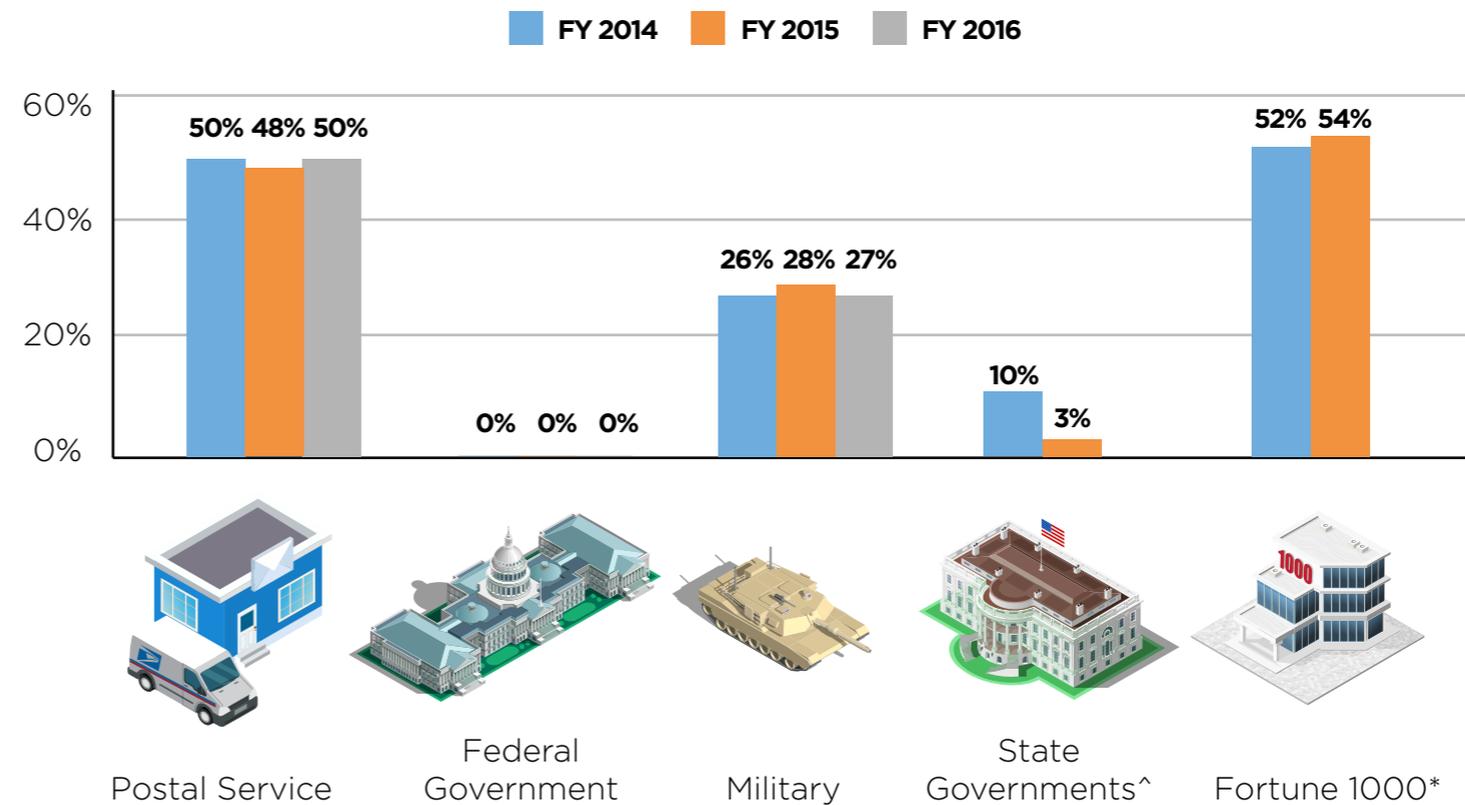
⁴⁰ Data at the state level were limited to 20 states with data for 2015 and 21 states with data for 2014.

⁴¹ For our purposes, a company is classified as offering retiree health benefits if it is still managing health benefit plan obligations for retirees. Many retiree health benefit plans are closed to new entrants.

While the Postal Service, federal government, and military funding levels for retiree health benefits have remained relatively consistent since the FY 2012 OIG analysis, the state government funding level has plummeted from 30 percent in FY 2009 to 3 percent in FY 2015, and the Fortune 1000 companies funding level has increased substantially from 37 percent in FY 2010 to 54 percent in FY 2015.

Figure 1 shows the latest retiree health benefit funding levels for these sectors, based on available data.

Figure 1. Comparison of Retiree Health Benefit Funding Levels



[^]FY 2016 data unavailable as of July 2017; available data: 20 states for 2015 and 21 states for 2014.
^{*} FY 2016 data unavailable as of July 2017.

Source: OIG analysis.

As of September 30, 2016, the Postal Service had funded 93 percent of its pension liabilities. By contrast, the federal government funded 44 percent of its pension liabilities and the military⁴² funded 40 percent, both as of September 30, 2016. The state governments had an aggregate funding level of 66 percent.⁴³ Among the Fortune 1000 companies that offered defined benefit pension plans, funding levels were 81 percent.⁴⁴

⁴² Military pension contributions are paid into the Military Retirement Fund.

⁴³ Survey of 103 state pension plans that reported data for 2016 and 131 for two prior years (some states have more than one pension plan).

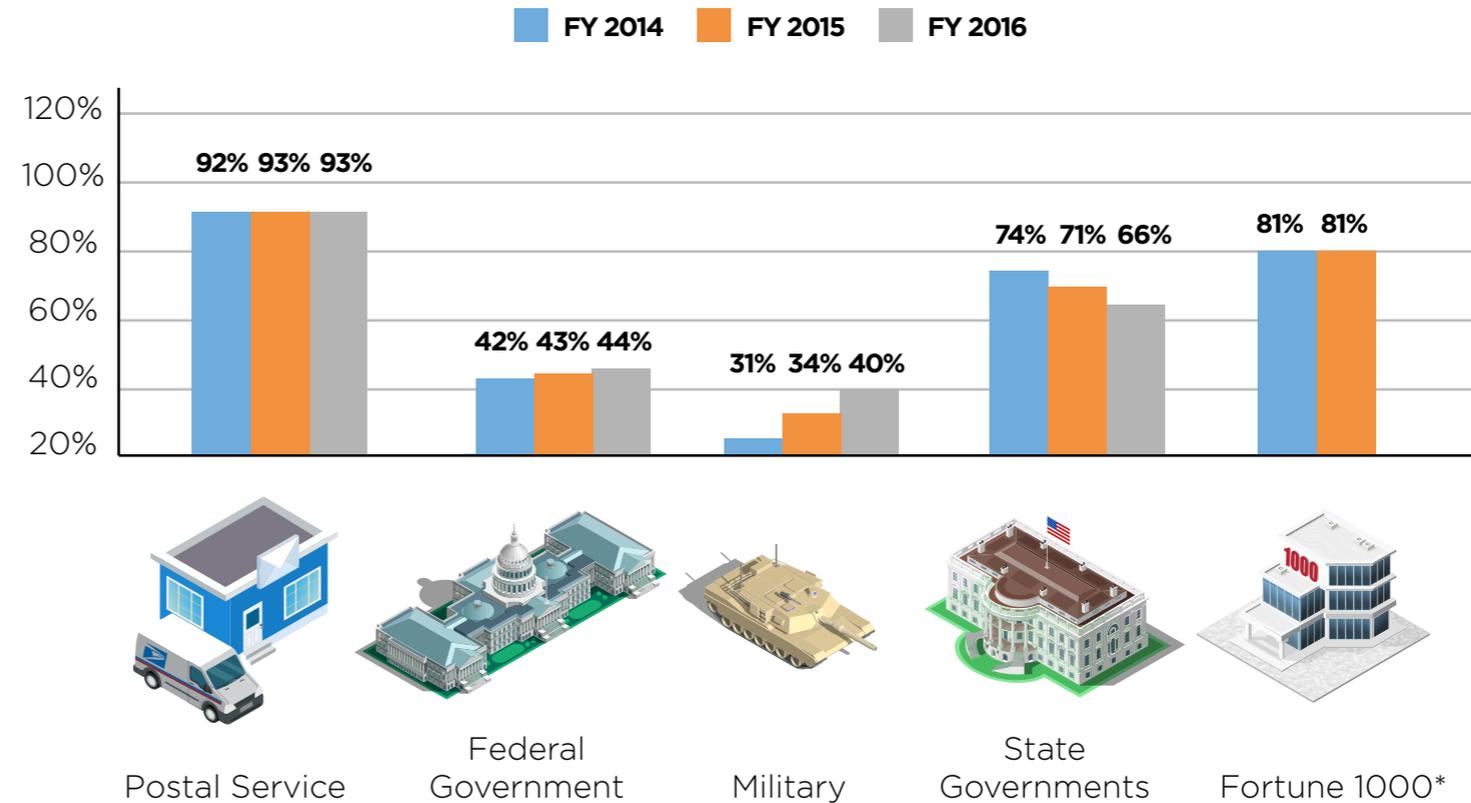
⁴⁴ Among the Fortune 1000 companies, 410 sponsored defined benefit pension plans.

Benchmarking shows the Postal Service has funded its pension plans at substantially higher levels than other entities. Additionally, the Postal Service has funded its retiree health benefits at higher levels than all public sector organizations, and similarly to the private sector.

While the federal and state governments and Fortune 1000 companies funding levels for pensions have remained relatively consistent since the FY 2012 OIG analysis, the Postal Service funding level has significantly decreased from 105 percent in FY 2011, while the military funding level has significantly increased from 27 percent in FY 2011.⁴⁵

Figure 2 shows the latest pension funding levels for these sectors, based on available data.

Figure 2. Comparison of Pension Funding Levels



* FY 2016 data unavailable during preparation of this document

Source: OIG analysis.

Benchmarking shows the Postal Service has funded its pension plans at substantially higher levels than other entities. Additionally, the benchmarking shows the Postal Service has funded its retiree health benefits at higher levels than all public sector organizations, and similarly to the private sector. Many entities in the public and private sectors fund these future liabilities at well less than 100 percent.

Recent Problems with Other Pension Funds

We are aware of high profile cases in which public and private pension funds are in a state of distress. One should not dismiss the idea of changing the investment strategy of the Postal Service because of these high profile cases.⁴⁶ The problems facing the

⁴⁵ The increase resulted from the Department of Defense making amortization payments on the unfunded pension liability.

⁴⁶ Imogen Rose-Smith, "Dallas Has a Pension Problem," *Business Insider*, November 24, 2016; Chris Matthews, "California's Pension Funding Crisis Just Got Worse," *Fortune*, July 19, 2016; and Katie Lobosco, "273,000 Union Workers and Retirees Brace for Pension Cuts," *CNN Money*, May 2, 2016.

Postal Service and the problems facing the private and public entities with these distressed pension funds are entirely different. The trouble these distressed pensions face is often one of over-promising outcomes. They all differ from the three retirement systems discussed in this report in that none of them is deliberately invested only in very low yielding Treasury securities. If they had been, other things being equal, they would likely have been in extreme financial duress long ago. However, it is because of situations such as these that we are urging that a strong governance model be adopted. Furthermore, as discussed above, while the six portfolios examined by Segal are not a solution for all problems, they do increase the probability of the retirement funds being fully funded.

Conclusion

This paper lays out alternative investment strategies for the three Postal Service retirement plans. One should regard this paper as a proof of concept analysis.⁴⁷ We do not advocate a specific investment plan but clearly show that even a small increase in portfolio diversification is likely to lead to improved financial performance, and a reduction in unfunded liabilities. We cannot say how much of an improvement will result because we cannot foresee how markets will perform in the future and we cannot determine which portfolio would be preferred by the governing boards of the funds. Some non-postal pension funds are revising their investment targets downward after over-promising returns. The situation of the Postal Service is different — one of investing in under-performing assets.

Many of the options discussed in this paper would require legislative change before they could be implemented by the Postal Service and its retirement plan administrator, the OPM. In the interim, however, the Postal Service could work with the OPM and Treasury to determine the feasibility of investing some portion of its retirement fund assets in TIPS. This investment does not require legislative change but does require a determination by Treasury that such investments are within the public interest. If that determination is made, the rate of return on Postal Service retirement assets could increase.

Management's Comments

Management appreciated the OIG's research on alternative investment strategies that could improve assets returns. Management stated that the options presented in this white paper would require legislative change and will consider the options when reviewing future business strategies.

See [Appendix](#) for management's comments in their entirety.

Evaluation of Management's Comments

The OIG considered management's comments responsive to the issues offered in this white paper. While we do agree that legislative change is needed for most of the options presented in this white paper, management has the authority to invest retirement assets in TIPS, provided Treasury determines such investments are within the public interest. If so, this could increase the rate of return on investments without legislative action.

⁴⁷ Due to the long-term nature of this modeling, none of the observations and conclusions would be affected by adjusting the starting point a year later.

Appendix: Management's Comments

JOSEPH CORBETT
CHIEF FINANCIAL OFFICER
EXECUTIVE VICE PRESIDENT



September 8, 2017

LORI LAU DILLARD
DIRECTOR, AUDIT OPERATIONS

SUBJECT: Postal Service Retiree Funds Investment Strategies (FT-WP-17-DRAFT)

Thank you for the opportunity to respond to the final review draft of the white paper, *Postal Service Retiree Funds Investment Strategies*. We appreciate the research you have provided and the alternate investment strategies that could improve asset returns in the three retirement plans: the Civil Service Retirement System, the Federal Employee Retirement System, and the Postal Service Retiree Health Benefits Fund.

As you correctly noted in your work, the options presented in this paper would require legislative change before they could be implemented by the Postal Service and our retirement plan administrator, the Office of Personnel Management.

We continually review our business strategies and will consider your report findings where feasible.



Joseph Corbett

475 L'ENFANT PLAZA SW
WASHINGTON, DC 20260-5000
202-268-5272
FAX: 202-268-4364
www.usps.com



OFFICE OF
**INSPECTOR
GENERAL**
UNITED STATES POSTAL SERVICE

U.S. Postal Service Office of Inspector General
1735 N. Lynn Street
Arlington, VA 22209

Telephone: 703-248-2100
www.uspsoig.gov

For media inquiries, contact Agapi Doulaveris
Telephone: 703-248-2286
adoulaveris@uspsoig.gov