



Office of Inspector General | United States Postal Service

## Audit Report

# Treasury Inflation-Protected Securities

Report Number FT-AR-19-003 | November 26, 2018



# Table of Contents

- Cover
- Highlights..... 1
  - Objective ..... 1
  - What the OIG Found..... 1
  - What the OIG Recommended ..... 1
- Transmittal Letter ..... 2
- Results..... 3
  - Introduction/Objective ..... 3
  - Background..... 3
  - Finding #1: Investing in Treasury Inflation-Protected Securities..... 4
    - Recommendation #1 ..... 8
    - Recommendation #2 ..... 8
  - Management’s Comments..... 8
  - Evaluation of Management’s Comments ..... 9
- Appendices ..... 11
  - Appendix A: Additional Information..... 12
  - Scope and Methodology ..... 12
  - Prior Audit Coverage ..... 12
  - Appendix B: Management’s Comments..... 13
- Contact Information ..... 16

# Highlights

## Objective

The U.S. Postal Service participates in three retirement plans: The Civil Service Retirement System (CSRS), the Federal Employees Retirement System (FERS), and the Postal Service Retiree Health Benefits (RHB). The first two are pension plans, and the third is set up to fund RHB premiums.

The U.S. Office of Personnel Management (OPM) administers these programs, including measurement of liabilities and, in conjunction with the U.S. Department of the Treasury (Treasury), management of retirement investments. These plans are restricted to government trust funds invested solely in fixed-rate U.S. Treasury securities, which 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, especially if inflation increases.

Returns on Postal Service retirement investments have declined in recent years. More importantly, Postal Service retirement investments offer only limited protection against higher inflation. Unlike fixed-rate Treasury securities, however, Treasury Inflation-Protected Securities (TIPS) investments increase in step with inflation, thereby countering the effects of higher inflation on underfunded liabilities.

Currently, the total funding level for all three funds is at 76 percent, and all three funds are underfunded to varying degrees. The CSRS and the FERS are about 87 percent funded, but the RHB Fund is only 44 percent funded.

Our objective was to determine the impact of investing Postal Service retirement fund assets in TIPS.

## What the OIG Found

Through investments in TIPS, the Postal Service could effectively reduce the risk that inflation poses to Postal Service retirement liabilities. While current investments offer only limited protection against higher inflation, TIPS are contractually linked to inflation and would mitigate the effects of higher inflation on pension deficits. Additionally, investments in TIPS could increase the returns on the three funds. We estimate the Postal Service retirement funds could earn about \$1.4 billion annually over the next two years by exchanging a portion of its fixed-rate retirement assets for TIPS.

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. While unprecedented for the Postal Service, such a determination is supported by the Military Retirement Fund's \$564.4 billion of TIPS purchased directly from Treasury. In addition, the military's Medicare-Eligible Retiree Health Care Fund held \$230 billion, or 79 percent of its assets, in TIPS at the end of June 2018.

## What the OIG Recommended

We recommended management:

- Determine a strategy regarding the allocation of the Postal Service CSRS, FERS, and RHB fund investments in TIPS.
- Request approval from the Secretary of Treasury and the OPM to redeem fixed-rate Treasury securities in the Postal Service's retirement funds and invest proceeds and other fund inflows in TIPS Securities.

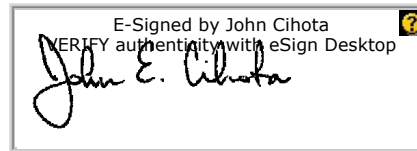
# Transmittal Letter



OFFICE OF INSPECTOR GENERAL  
UNITED STATES POSTAL SERVICE

November 26, 2018

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



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

**SUBJECT:** Audit Report - Treasury Inflation-Protected Securities  
(Report Number FT-AR-19-003)

This report presents the results of our audit of Treasury Inflation-Protected Securities (Project Number 18BG013FT000).

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.

Attachment

cc: Corporate Audit Response Management

# Results

## Introduction/Objective

This report presents the results of our self-initiated audit of Treasury Inflation-Protected Securities (TIPS) (Project Number 18BG013FT000). U.S. Postal Service retirement assets are invested in fixed-rate U.S. Treasury securities (Treasuries), managed by the U.S. Office of Personnel Management (OPM), in conjunction with the U.S. Department of Treasury (Treasury). Our objective was to determine the impact of investing Postal Service retirement fund assets in TIPS. TIPS are securities whose principal is adjusted by changes in a Consumer Price Index (CPI). With inflation (a rise in the CPI), the principal increases, protecting the investor against inflation. With deflation, the principal decreases. However, at maturity, investors receive the adjusted principal or the original principal, whichever is greater. This provision protects the investor against deflation. See [Appendix A](#) for additional information.

## Background

The Postal Service participates in three retirement benefits programs.<sup>1</sup> 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.<sup>2</sup> The Federal Employees Health Benefits Program provides health insurance benefits to postal retirees.

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***“Our objective was to determine the impact of investing Postal Service retirement fund assets in TIPS.”***

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Along with other federal agencies, the Postal Service and its employees make routine bi-weekly payments into the Civil Service Retirement and Disability Fund (CSRDF), which resides in Treasury and is managed by the OPM and Treasury. Pension payments to CSRS and FERS postal retirees are made out of this fund.

Although the OPM accounts for the CSRDF as a single fund, and does not maintain a separate account for each participating U.S. government employer, the Postal Accountability and Enhancement Act of 2006 (PAEA)<sup>3</sup> required certain disclosures regarding obligations and changes in net assets as if the funds were separate. These disclosures include annual returns on Postal Service CSRS and FERS assets, which are identical to annual returns on government-wide CSRS and FERS assets. This result implies that the Postal Service owns the equivalent of a certain share of CSRDF assets, which is the same percentage for every separate Treasury security owned by the CSRDF. As the CSRDF's value is dependent on the cash flows of all participating federal agencies, the Postal Service's share may fluctuate. At the end of fiscal year (FY) 2017, Postal Service investments accounted for 31.6 percent of the CSRDF.<sup>4</sup>

Until FY 2017, the Postal Service funded its retiree health benefits (RHB) on a pay-as-you-go basis. Under pay-as-you-go, the Postal Service paid its portion of the retiree health insurance premiums for current retirees. Additionally, the Postal Service was not required to set aside future retirees' health benefits until FY 2007, when the PAEA established both the RHB Fund and annual payment requirements through FY 2016. Starting in FY 2017, premiums are now paid out of the RHB Fund. Like the CSRDF, the RHB Fund is managed by the OPM and Treasury.

[Table 1](#) shows the assets and liabilities for the Postal Service's three retirement funds as reported in its FY 2017 10K report. All three liabilities are currently underfunded, meaning that the estimated liabilities or commitments to its future retirees exceed the assets set aside in the three funds. The deficits across all three funds total \$104.3 billion.

<sup>1</sup> 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.

<sup>2</sup> FERS also includes a defined contribution plan and Social Security benefits.

<sup>3</sup> Public Law Number 109-435.

<sup>4</sup> The U.S. Postal Service Office of Inspector General (OIG) calculation was based on the OPM's projected values for Postal Service CSRS and FERS investments, and other data provided by the OPM.



**Table 1. FY 2017 Assets and Liabilities for Postal Service Retirement Funds (in Billions)**

Fund	Liabilities	Assets	Deficit	Funded Ratio
RHB	\$112.1	\$49.8	\$62.3	44%
CSRS	\$196.0	\$169.7	\$26.3	87%
FERS	\$131.9	\$116.2	\$15.7	88%
<b>Total</b>	<b>\$440.0</b>	<b>\$335.7</b>	<b>\$104.3</b>	<b>76%</b>

Source: Postal Service 10-K, FY 2017; CSRS and FERS are projected amounts.

In prior work performed for the OIG, Segal Consulting (Segal) constructed and simulated results from six proof-of-concept retirement investment portfolios. TIPS were a component of each asset portfolio. Allocations to TIPS ranged from 20 percent to 60 percent in the different portfolios, along with stocks, bonds, and other investments typically held by retirement funds.<sup>5</sup> Segal based its TIPS allocations on the retirement liabilities' exposure to inflation. Specifically, CSRS and FERS provide annual CPI-based cost-of-living adjustments (COLA) to retirees,<sup>6</sup> and the RHB Fund has exposure to health care premium inflation.

The Postal Service, with the OPM and Treasury, would need to seek legislative change, in most cases, to modify the current investment strategy. However, the Secretary of the Treasury has statutory authority to allow the OPM to invest retirement assets in TIPS, provided the Secretary determines that such investments would be in the public interest. This audit explores opportunities to improve returns on Postal Service retirement assets through purchases of TIPS, and to mitigate the risk that higher inflation will increase its underfunded

retirement liabilities. For this audit, we retained Segal to assess how various allocations to TIPS might affect projected levels of underfunded retirement liabilities under scenarios that include variations in future inflation and interest rates.

### Finding #1: Investing in Treasury Inflation-Protected Securities

At the end of FY 2017, Postal Service retirement liabilities exceeded retirement assets by more than \$100 billion. This total includes estimated shortfalls of \$26.3 billion for the CSRS, \$15.7 billion for the FERS, and \$62.3 billion for the RHB Fund.

The Postal Service's three retirement funds are invested very conservatively in special issue, fixed-rate Treasuries that are regarded as risk-free in the sense that there is no possibility for a loss of principal.<sup>7</sup> This beneficial aspect comes at a price — low investment returns.<sup>8</sup> The CSRS and FERS earned 4.1 percent and 3.0 percent in FY 2016, respectively, and the RHB Fund earned 2.8 percent in FY 2017.<sup>9</sup> The rate of return for the three retirement programs differs somewhat because of the timing of investments, but yields on the three funds have fallen over time, as a reflection of the long-term trend in the market for Treasuries. Through FY 2016, returns on CSRS investments declined in 17 of 20 years, and returns on FERS investments declined in 18 of 20 years. At the end of FY 2017, CSRDF investments carried a 2.83 percent weighted average yield. Returns on the RHB Fund have declined in each of the 10 years ended FY 2017, and the Fund carried a 2.72 percent weighted average yield at the end of FY 2017.

***“The CSRS and FERS earned 4.1 percent and 3.0 percent in FY 2016, respectively, and the RHB Fund earned 2.8 percent in FY 2017.”***

<sup>5</sup> *Postal Service Retiree Funds Investment Strategies* (Report Number FT-WP-17-001, dated September 20, 2017).

<sup>6</sup> The OPM uses different formulas for calculation of CSRS and FERS COLAs. Segal incorporated these different formulas into its modeling. The OPM also bases COLAs on a slightly different CPI than the one used to calculate inflation compensation on TIPS.

<sup>7</sup> Special issue Treasury securities are available only to federal trust funds and are designated as nonmarketable.

<sup>8</sup> At the time of issuance, the effective yield on special issue Treasuries can be higher than on marketable Treasuries, and usually is higher for short- and intermediate-term securities.

<sup>9</sup> U.S. Postal Service, *2017 Report on Form 10-K*, dated November 14, 2017. Annual returns on CSRS and FERS are available through the end of FY 2016, while annual returns on the PSRHF are available through the end of FY 2017.

The OPM and Treasury rebalance retirement assets once annually, at the end of June, generally ensuring that similar amounts of assets mature in each of the next 15 years. This laddering approach can be beneficial, but one consequence is limited protection against rising inflation. Even if market interest rates rise with inflation, the yields on existing Postal Service retirement assets can rise only gradually. Due to the laddering of investment maturities, only 7 percent (1/15) of the investments would be replaced with higher-yielding investments in any year, leaving 93 percent (14/15) of investments with unchanged yields.

For example, Figure 1 shows the potential effects of the laddering of the Postal Service’s CSRDF. Assuming an investment yield of 3.1 percent on future cash flows and scheduled maturities in each year after FY 2018 (blue line), the current yields (red line) and maturity structure do not prevent the returns on the CSRDF (green line) from falling further, through 2024, before increasing only gradually, reaching about 3.1 percent in 2033.

**Figure 1. Current Strategy Baseline Return Profile**



Source: Segal Consulting.

Due to the laddering of investments, in high inflation environments, the Postal Service’s pension deficits could rise substantially due to increased benefits payments stemming from higher COLAs. The RHB deficit could be similarly affected, with rising premium payments due to increases in health care inflation.

While current investments offer only limited protection against higher inflation, TIPS are contractually linked to inflation and would mitigate the effects of higher inflation on pension deficits.<sup>10</sup> Additionally, investments in TIPS could increase the returns on the three funds. As always, strong governance would be an important component of long-term asset management.

To compare the potential performance of various allocations between TIPS and fixed-rate Treasury securities, Segal used stochastic simulation models<sup>11</sup> to estimate funding levels based on different approaches to acquiring TIPS for CSRS, FERS, and the RHB funds. Additionally, the model varied the potential returns and inflation rate from year to year. Further, Segal assumed the Postal Service and its employees would make all post-FY 2017 projected contributions to retirement funds, including amortization of amounts past due as of the end of FY 2017, and that outflows from the retirement funds would occur as projected by our second contractor, Korn Ferry.<sup>12</sup> As shown in Tables 2 and 3, these approaches included, over a 20-year investment horizon: (1) 0 percent (current practice); (2) 100 percent of future cash flows only; and (3) 100 percent of assets, including future cash flows. Segal’s simulations created model outcomes within percentiles that range from 5 percent to 95 percent. Percentiles represent the percent of model outcomes above and below that level. The 50th percentile represents the median, or the dollar amount whereby one-half of the outcomes exceed the dollar amount and one-half of the outcomes are at or below the dollar amount. One could think of the 95th percentile as the best possible outcomes (this is when the funds do well),<sup>13</sup> and the 5th percentile as the worst outcomes (this is when the funds perform poorly).<sup>14</sup> Table 2 shows the results’ surpluses and deficits after 20 years. Table 3 shows the results’ funded ratios after 20 years.

10 The CSRS and FERS COLAs are based on the CPI for Urban Wage Earners and Clerical Workers (CPI-W). TIPS are contractually linked to a different index, the CPI for All Urban Consumers (CPI-U). Segal found that the CPI-W and CPI-U are highly correlated.

11 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.

12 For FY 2017 and FY 2018, the Postal Service determined they did not have sufficient cash to make any of the OPM-requested retirement payments.

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

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

**Table 2. Summary of Simulation Results – Surplus (Deficit) After 20 Years (in Billions)**

TIPS Allocation Strategies	CSRS				FERS				RHB			
	Percentile			Funded Status <sup>15</sup> Range	Percentile			Funded Status Range	Percentile			Funded Status Range
	Bottom 5%	Median 50%	Top 95%		Bottom 5%	Median 50%	Top 95%		Bottom 5%	Median 50%	Top 95%	
Current (0%)	(\$97)	(\$43)	\$6	\$103	(\$177)	(\$61)	\$32	\$209	(\$207)	(\$63)	\$31	\$238
New Cash Only	(\$91)	(\$43)	(\$7)	\$84	(\$135)	(\$61)	(\$2)	\$133	(\$186)	(\$63)	\$12	\$198
Existing Assets (100%) and New Cash	(\$53)	(\$36)	(\$20)	\$33	(\$110)	(\$57)	(\$7)	\$103	(\$171)	(\$61)	\$7	\$178

Source: Segal Consulting.

**Table 3. Summary of Simulation Results – Funded Ratio After 20 Years**

TIPS Allocation Strategies	CSRS				FERS				RHB			
	Percentile			Funded Status Range	Percentile			Funded Status Range	Percentile			Funded Status Range
	Bottom 5%	Median 50%	Top 95%		Bottom 5%	Median 50%	Top 95%		Bottom 5%	Median 50%	Top 95%	
Current (0%)	0%	42%	110%	110%	50%	77%	115%	65%	30%	66%	127%	97%
New Cash Only	0%	42%	89%	89%	60%	77%	99%	39%	36%	66%	110%	74%
Existing Assets (100%) and New Cash	37%	51%	69%	32%	65%	79%	97%	32%	41%	68%	106%	65%

Source: Segal Consulting.

<sup>15</sup> Funded Status represents the difference between the plan's assets and its liability. Funded status is measured in both dollar terms (Assets minus Liabilities) as well as a percentage (Assets / Liabilities). Funded status explicitly recognizes the risk embedded in the plan's liabilities.



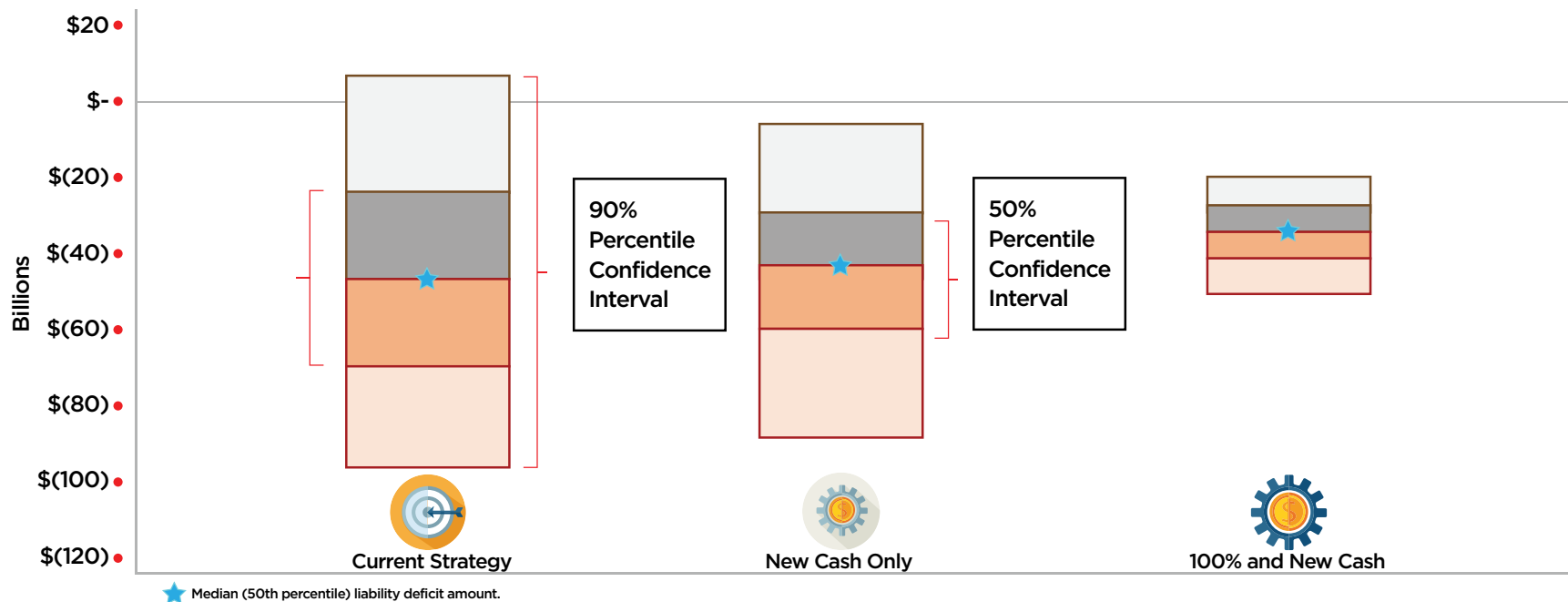
As seen in Table 2, under the three TIPS allocation strategies, the median projected deficits for CSRS range from \$36 billion to \$43 billion.<sup>16</sup> The value of TIPS is found in the Funded Status Range column: Its values present measures of risk, with larger values denoting higher risk. For example:

- The current allocation strategy for CSRS assets could produce a \$6 billion surplus after 20 years (Top 95 percent). However, this would come at the risk of a \$97 billion deficit after 20 years (Bottom 5 percent).

- With no assets in TIPS, the CSRS deficits have a projected range of \$103 billion after 20 years. However, with all assets in TIPS, the projected CSRS deficits face much lower risk of extreme outcomes, as shown by a range of \$33 billion.<sup>17</sup>

The risk reduction generated by applying only future CSRS cash flows to TIPS purchases is limited, as evidenced by its \$84 billion range, which is about 2.5 times the range produced by investing 100 percent of CSRS assets and cash flows in TIPS. See Figure 2, which shows the significant risk reduction that TIPS investments could provide.

**Figure 2. CSRS Funded Ratio at the 20-Year Horizon**



Source: Segal Consulting.

<sup>16</sup> The lower deficit produced by a 100 percent allocation to TIPS was primarily the byproduct of a timing mismatch and was not based on any expectation that returns on TIPS and fixed-rate Treasury securities would differ substantially over time.

<sup>17</sup> For this analysis, the OIG and Segal used actuarial projections produced by Korn Ferry, starting with values as of September 30, 2017. We assumed that retirement payments not made by the Postal Service as of September 30, 2017, would be amortized over time. In addition, the OIG and Segal assumed the Postal Service would make all projected retirement payments in 2018 and future years. We did not adjust amortization payments to reflect calculations of future funding deficits.

The results shown for the FERS and RHB may be similarly analyzed. However, key differences exist among the three retirement funds. The CSRS plan is closed to new entrants; therefore, future contributions are limited. In light of this, the risk mitigation of investing new cash in TIPS is also limited. With 100 percent allocation of existing assets and new cash to TIPS, significant risk reduction can be gained. Conversely, the FERS and RHB plans are open to new entrants. Since the plans are projected to grow, TIPS are more quickly introduced into these portfolios in the New Cash Only scenarios. This improves risk mitigation relative to the CSRS results.

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***“Investing all assets and new cash in TIPS continues to be the best scenario for risk reduction.”***

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Investing all assets and new cash in TIPS continues to be the best scenario for risk reduction. While current CSRS, FERS, and RHB Fund investments offer only limited protection against higher inflation, TIPS are contractually linked to

inflation and would mitigate the effects of higher inflation on pension deficits. Additionally, investments in TIPS could increase the returns on the three funds. We estimate the Postal Service retirement funds could earn about \$2.8 billion over the next two years<sup>18</sup> by exchanging fixed-rate retirement assets for TIPS.<sup>19</sup>

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. While unprecedented for the Postal Service, such a determination is supported by the Military Retirement Fund's \$564.4 billion of TIPS purchased directly from Treasury.<sup>20</sup> In addition, the military's Medicare-Eligible Retiree Health Care Fund held \$230 billion, or 79 percent of its assets, in TIPS at the end of June 2018.<sup>21</sup>

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<sup>18</sup> \$2,781,473,463 represents the amount the Postal Service is (or was) entitled to receive but was underpaid or not realized because policies, procedures, agreements, requirements, or good business practices were lacking or not followed. May be recoverable or unrecoverable.

<sup>19</sup> For retirement assets maturing from 2023 through 2032, we identified securities with fixed-rate yields of 2.50 percent or less, and compared them to the projected returns on TIPS (2.0 percent inflation plus projected TIPS yields ranging from 0.71 to 0.81 percent). These identified securities comprised 53 percent of total retirement assets.

<sup>20</sup> 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 2017*, “The current [Military Retirement Fund] investment strategy is to maintain a portfolio allocation of 75-90 percent [TIPS] to partially hedge against any future inflation.”

<sup>21</sup> U.S. Department of Defense, Medicare Eligible Retiree Health Care Board of Actuaries meeting, August 3, 2018.

### **Recommendation #1**

We recommend the **Chief Financial Officer and Executive Vice President** determine a strategy regarding the allocation of the U.S. Postal Service Civil Service Retirement System, Federal Employees Retirement System and Retiree Health Benefits Fund investments in Treasury Inflation-Protected Securities.

### **Recommendation #2**

We recommend the **Chief Financial Officer and Executive Vice President** request approval from the Secretary of Treasury and the U.S. Office of Personnel Management (OPM) to redeem fixed-rate Treasury securities in the U.S. Postal Service retirement funds and invest proceeds and other fund inflows in Treasury Inflation-Protected Securities.

## **Management's Comments**

Management generally agreed with the finding and recommendations but disagreed with the monetary impact. Management stated that TIPS would diversify the retirement asset funds and could reduce inflation risk. Management commented that traditional retirement fund investments would be more desirable than TIPS, if allowed by current law. Management is working with Treasury and the OPM to better understand the existing investment planning process and possible strategies that could increase returns on retirement asset investments.

Management acknowledged the Secretary of Treasury is authorized to deviate from current practice to allow the OPM to invest retirement assets in TIPS only in circumstances that are “in the public interest.” Management believes the use of “public interest” refers to the general U.S. taxpayer and not to the Postal Service.

Additionally, management stated the primary benefit of TIPS is to provide a partial hedge against future inflation but does not believe it is possible to predict the course of inflation in the general economy. Management is also concerned with the limitation of TIPS maturities to 5, 10, and 30-years, as opposed to Treasury securities which can be matched to the expected cash needs of the retirement funds.

Regarding monetary impact, management stated the OIG's calculation of additional income is not solely due to TIPS investments and that the gain could equally be generated by replacing lower earning fixed-rate Treasury securities with higher yielding ones. They believe it is impossible to predict that the retirement funds' investment income will increase due to diversification and stated that TIPS would only realize a \$2.8 billion return over 2 years if the exact circumstances and assumptions the OIG used in its calculation occur. Finally, management stated the monetary impact is mischaracterized as revenue loss to the Postal Service. They stated that a change to the retirement asset investment policy would only impact the Postal Service's income and cash flow through a reduction in amortization expense for the unfunded liabilities, which they estimate at about \$200 million.

Regarding recommendation 1, management has begun discussions with Treasury and will consult with the OPM to review the investment policies of the retirement funds. Additionally, management will discuss any diversification using TIPS with the U.S. Postal Service Board of Governors and other stakeholders. Management agreed that, ultimately, the decision lies with the Secretary of the Treasury in consultation with the OPM. Management plans to finalize their actions by September 30, 2019.

Regarding recommendation 2, management stated that it is premature to commit to requesting any change in the investment policies of the retirement funds without completing the analysis required by recommendation 1. In subsequent correspondence, management stated they expect to complete their actions by September 30, 2019.

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

## Evaluation of Management's Comments

The OIG considers management's comments responsive to the recommendations in the report. Our report was limited to investments in TIPS and, as such, did not discuss traditional investments for retirement funds.

Ultimately, the decision for the Postal Service to invest in TIPS rests with the Secretary of Treasury, as does the interpretation of "public interest." However, the Postal Service's interests are often consistent with broad public interest. In the Postal Service's annual report (Form 10-K), they point out that the U.S. economy benefits greatly from the Postal Service and the businesses that provide the printing and mailing services that it supports. The Postal Service believes that mail disruption would cause undue hardship to businesses and consumers, and in the event of a cash shortfall, the U.S. government would likely prevent the Postal Service from significantly curtailing or ceasing operations. Reducing the risk that inflation poses to the funding of Postal Service retirement liabilities is, along the same lines, in the public interest.

Regarding inflation predictions, we relied on the Treasury or bond market's collective expectation of inflation going forward and validated with expert consultants (Segal) that TIPS yields were in line with market yields. While no one can predict inflation with complete accuracy, we believe the market's prediction is unbiased and investing in TIPS would mitigate the effects of higher inflation on pension deficits.

We acknowledge management's concerns with the limitation of TIPS maturities. However, management's concerns apply only to maturities of TIPS that Treasury sells through regularly scheduled auctions. Our analysis incorporated the wide range of TIPS maturities available in the secondary market. At the end of August 2018, outstanding TIPS totaled \$1.4 trillion, with maturities in each year from 2019 through 2029, in 2032, and in 9 of the following 16 years.<sup>22</sup> In our analysis, we did not propose any change to the \$109 billion of fixed-rate Postal Service retirement investments scheduled to mature through 2022.

We continue to believe our calculation of monetary impact is appropriate. We do not believe that equivalent monetary impact could reasonably be generated

<sup>22</sup> Monthly Statement of the Public Debt of the United States, August 31, 2018, pages 8-9.

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by replacing lower earning fixed-rate Treasury securities with higher yielding ones. That scenario would still leave Postal Service retirement assets without any contractual, automatic mitigation of higher inflation's impact on retirement liabilities. Further, our monetary impact was calculated using an investment diversification of TIPS and Treasury securities (53 percent investment in TIPS and 47 percent investment in fixed-rate Treasury securities). We believe this balance would provide substantial flexibility to make further changes. Finally, our categorization of monetary impact is in accordance with our definition of revenue loss as outlined in our internal procedures and used consistently in our audit work.

For recommendation 2, we agree that management should determine an allocation strategy for retirement asset investments prior to requesting approval from the Secretary of Treasury and the OPM to redeem Treasury securities and invest in TIPS. In subsequent correspondence with management, we understand this work will be performed concurrently, with a target implementation date of September 30, 2019.

All recommendations require OIG concurrence before closure. Consequently, the OIG requests written confirmation when corrective actions are completed. Recommendations 1 and 2 should not be closed in the Postal Service's follow-up tracking system until the OIG provides written confirmation that the recommendations can be closed.

# Appendices

Click on the appendix title below to navigate to the section content.

- Appendix A: Additional Information ..... 12
  - Scope and Methodology ..... 12
  - Prior Audit Coverage ..... 12
- Appendix B: Management’s Comments ..... 13



# Appendix A: Additional Information

## Scope and Methodology

Our scope included Postal Service retirement assets as of September 30, 2017. To achieve our objective, we:

- Contracted with Korn Ferry U.S. Government Consulting Services (Korn Ferry) for actuarial and cash flow projections for CSRS, FERS, and the RHB Fund.
  - Actuarially projected the CSRS and FERS liabilities starting with FY 2017 using Postal Service-specific demographic assumptions and the OPM's projections for wage growth, investment returns (discount rate) on Postal Service CSRS and FERS investments, and CPI inflation.
  - Actuarially projected the RHB Fund liability starting with FY 2017, using Postal Service-specific demographic assumptions and the OPM's FY 2017 discount rate and projections for health care premium inflation.
- Contracted with Segal for projections of Postal Service retirement assets and liabilities under different scenarios for inflation and interest rates.
  - Analyzed projections of returns on Postal Service retirement assets and resultant projected investment balances for CSRS and all underfunded retirement liabilities.
- Obtained listing of investments for government-wide CSRDF to determine the Postal Service's share of the CSRDF and complete list of holdings in RHB Fund.
- Reviewed the OPM and Treasury investment practices for the CSRDF and RHB Fund.
- Reviewed the Secretary of the Treasury's authority with respect to the investment of CSRDF and RHB Fund assets.

We conducted this performance audit from May through November 2018 in accordance with generally accepted government auditing standards and included such tests of internal controls as we considered necessary under the circumstances. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our finding and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our finding and conclusions based on our audit objective. We discussed our observations and conclusions with management on October 15, 2018, and included their comments where appropriate.

We did not perform tests of internal controls over the retirement programs or investments, as it was not our objective to provide assurance on the effectiveness of the related internal controls. Absence of internal controls testing did not significantly affect our audit finding and conclusions. The scope of this audit was to consider investing Postal Service retirement assets in TIPS. We did not plan to consider or report on the reliability of the OPM's data. However, we performed reasonableness and validity tests on projections of inflation and TIPS yields. We determined that the data were sufficiently reliable for purposes of this report.

## Prior Audit Coverage

Report Title	Objective	Report Number	Final Report Date	Monetary Impact
<i>Postal Service Retiree Funds Investment Strategies</i>	To determine alternatives to the current investment strategy of investing retirement assets by using a diversified portfolio to include bonds, equities, and alternative investments.	FT-WP-17-001	09/20/2017	None

# Appendix B: Management's Comments

CHIEF FINANCIAL OFFICER  
EXECUTIVE VICE PRESIDENT



October 31, 2018

MONIQUE COLTER  
DIRECTOR, AUDIT OPERATIONS

SUBJECT: Draft Audit Report – Treasury Inflation-Protected Securities  
(Report Number FT-AR-19-DRAFT)

The Postal Service agrees with the report's conclusion that the addition of Treasury Inflation-Protected Securities (TIPS) to the investment portfolios of the pension and retirement health benefits (RHB) funds administered by the U.S. Office of Personnel Management (OPM) and invested by the Secretary of the Treasury would increase the level of diversification of the funds and could reduce the risk posed by inflation. Given current law, the Treasury can invest in TIPS (under certain circumstances) but it cannot invest in more traditional pension fund assets. If a broader spectrum of financial investments were available under current law, TIPS would likely not be of great interest. We are seeking clarity from the Treasury Department and OPM as to how the existing investment planning works, and possible other strategies that could be employed to maximize return on the funds' investments.

The investment of assets of the Civil Service Retirement and Disability Fund (CSRDF) are governed by 5 USC §8348, which spells out the limitations under which funds are invested as follows:

(c) The Secretary [of the Treasury] shall immediately invest in interest-bearing securities of the United States such currently available portions of the Fund as are not immediately required for payments from the Fund. The income derived from these investments constitutes a part of the Fund.

(d) The purposes for which obligations of the United States may be issued under chapter 31 of title 31 are extended to authorize the issuance at par of public-debt obligations for purchase by the Fund. The obligations issued for purchase by the Fund shall have maturities fixed with due regard for the needs of the Fund and bear interest at a rate equal to the average market yield computed as of the end of the calendar month next preceding the date of the issue, borne by all marketable interest-bearing obligations of the United States then forming a part of the public debt which are not due or callable until after the expiration of 4 years from the end of that calendar month. If the average market yield is not a multiple of  $\frac{1}{4}$  of 1 percent, the rate of interest on the obligations shall be the multiple of  $\frac{1}{4}$  of 1 percent nearest the average market yield.

(e) The Secretary may purchase other interest-bearing obligations of the United States, or obligations guaranteed as to both principal and interest by the United States, on original issue or at the market price only if he determines that the purchases are in the public interest.

The statutory language regarding Postal Service Retiree Health Benefits Fund (PSRHBF) investments is similar.

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Any changes to the investment policy of the funds must be coordinated with both OPM and U.S. Treasury. Ultimately, the decision as to the proper investments for the funds resides in the Secretary of the Treasury. As noted above, the Secretary is obliged to deviate from the provisions of 5 USC §8348(d) only in those circumstances that are deemed to be "in the public interest." We believe the public interest, in this case, refers to the general taxpayer of the United States, not to the Postal Service or any other governmental entity or program.

The primary benefit of TIPS, as noted by the Department of Defense Military Retirement Fund, which invests heavily in TIPS, is to provide a partial hedge against future inflation. This hedge comes at a price, of course, and that price is generally paid in the form of lower yields than fixed rate government securities of similar duration. Attempting to predict the value of the "insurance" inherent in TIPS is predicated upon one's ability to predict the course of inflation in the general economy, which is not possible, even in the short-term and is certainly unlikely over a 20 – 30 year projection period. If future inflation were higher than the implied rate of inflation embedded in fixed rate Treasuries, then a TIPS investment would outperform fixed rate Treasuries. However, if future inflation were at or below the expected rate of inflation at the time of issuance of the securities, then the TIPS investment would underperform fixed rate Treasuries.

Further, if not held to maturity, a TIPS investment can lose money, unlike the special issue Treasury securities in which the funds are currently invested, which can be redeemed at par value on or before maturity. This is potentially a concern with investments in the RHB and pension funds, as TIPS are only currently available in 5, 10, and 30-year maturities, while the special issue Treasuries in which the funds are currently invested can be matched to the expected cash needs of the funds.

#### **Monetary Impacts**

The Postal Service disagrees with the finding of monetary impact. First, some of the calculated additional investment income for the funds is not caused solely by investing in TIPS. The portion of the gain that results from replacing lower income special purpose Treasuries with TIPS could just as easily be generated by replacing these lower earning special-purpose Treasuries with higher yielding special-purpose Treasuries. Second, as we stated above, we believe that diversification should reduce volatility, but that it is impossible to predict that the funds' investment income will increase due to this diversification. Third, the OIG's projection that the pension and RHB funds would realize a \$2.8 billion two-year incremental return is also based on assumptions about the future course and stability of inflation and interest rates (OIG assumes a constant 2% annual rate) as well as the real rate of return on TIPS, which can vary significantly over time. In their analysis, OIG's contractor assumes a real yield on TIPS of between 0.67% and 0.81 percent. Over the last five years, the real yield on 10-year TIPS has been much more volatile, varying from -0.06% to 1.09. Unless the exact circumstances projected by the OIG come to pass, the \$2.8 billion savings will not occur.

It must also be pointed out that the monetary impact is mischaracterized as a revenue loss to the Postal Service. In fact, any change to the investment policy of the funds would impact the Postal Service's income and cash flow through a reduction in amortization expense for the unfunded liability. Even using OIG's calculated \$2.8 billion incremental return, we estimate that the reduction in the annual amortization expense would be approximately \$200 million.

#### **Recommendation 1:**

**We recommend the Chief Financial Officer and Executive Vice President determine a strategy regarding the allocation of the U.S. Postal Service Civil Service Retirement System, Federal Employees Retirement System and Retiree Health Benefits Fund investments in Treasury Inflation-Protected Securities.**



We agree with this recommendation, but ultimately, this decision lies with the Secretary of the Treasury in consultation with OPM. The Postal Service has begun discussion with the Treasury Department and will consult with OPM and the Treasury, as appropriate, to review the investment policies of the funds. We will seek their input, and weigh the pros and cons. Ultimately, should we recommend a diversification into TIPS; we would need to discuss this matter with other stakeholders, including our Board of Governors.

Target Implementation Date: September 30, 2019

Responsible Official: Vice President, Finance and Planning

**Recommendation 2:**

**We recommend the Chief Financial Officer and Executive Vice President request approval from the Secretary of Treasury and the U.S. Office of Personnel Management (OPM) to redeem fixed-rate Treasury securities in the U.S. Postal Service retirement funds and invest proceeds and other fund inflows in Treasury Inflation-Protected Securities.**

It is premature to commit to requesting a change in the investment policy of the pension and RHB funds without first completing the analysis required by recommendation 1 above.



Joseph Corbett

cc: CARM Manager



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