Six Keys to Understanding the New TSP Mutual Fund Window

BY RICK KEAST

Foreword by Elizabeth Inman, ChFEBC®

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Have Questions?

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Foreword by Elizabeth Inman:

Former Federal Employee

Very little information was available throughout my career working at the United States Postal Service when it came to investing in the TSP funds. In fact, my career mirrored what so many say is their source of information for TSP: fellow employees. I remember asking certain co-workers how they were investing, AND I remember certain co-workers I NEVER would ask, frankly, because I did not want them to know just how little I understood about the TSP.

Recently, I've spoken to dozens of Federal workers all the way from the IRS, USPS, Social Security, FAA, VA and several other agencies and they all say the same thing: they do not understand how to know what funds to invest their money. In fact, in the past six months, though I speak with hundreds of federal employees, I have only had TWO tell me they were very confident they had the right mix of funds in their own TSP.

Just in time for the brand new 5,000 mutual fund options being added to the Thrift Savings Plan, comes this much-needed eBook from one of the country's leading strategist, Rick Keast. I am forever grateful Mr. Keast share's his knowledge and insight with all of my Federal family so we can benefit from his knowledge.

This is a book every TSP participant needs. The timing of the eBook is perfect!!

Download your free copy today from our website: www.febcnow.com and do not hesitate to call my office for a free 15 minute visit about this book 1-833-693-3388.

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Overview:

The purpose of this technical paper is to provide information on the benefits of using the TSP Mutual Fund Window (or "window") to improve your retirement outcome. The window allows TSP participants to allocate funds in their account to more than 5,000 mutual funds. Additionally, the current TSP core funds will still be available under the plan. So, a simple menu of six core funds (grouping the Lifecyle funds into one fund choice) will become a not-so-simple menu of over 5,000 funds to choose from (see the graphic below)!

A mutual fund window is a type of self-directed brokerage account that gives individuals the ability to buy shares of mutual funds through a broker-dealer that has been selected by their retirement plan or by one of their retirement plan's service providers. Unlike a plan's core funds, the investments available through a brokerage account are not ordinarily vetted by a plan fiduciary to determine whether they are prudent investments.

The TSP Mutual Fund Window will make available 5,000 new investment opportunities to TSP participants. If a participant uses the window, there are additional fees and requirements as detailed below:

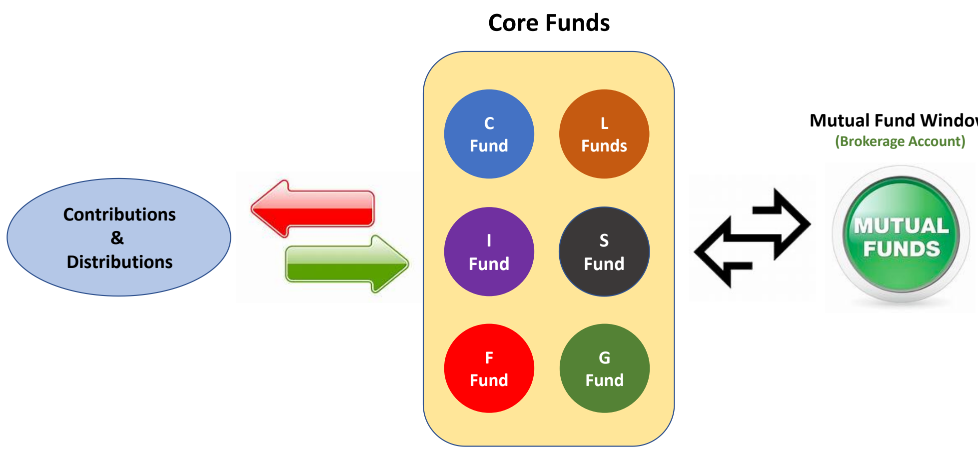
- Limited to 25% of your TSP account value.
- $40,000 minimum account balance to qualify.
- Minimum of $10,000 initial transfer to the window.

- $55 annual fee to ensure that use of the window does not indirectly increase TSP administrative expenses for TSP participants who choose not to use the window.
- $95 annual maintenance fee.
- $28.75 per trade fee.
- Additional mutual fund management fees and expenses, commonly called the expense ratio.

Fear not! A mutual fund window is not a new concept inside of a retirement plan. Self-directed brokerage accounts ("SDBA") or brokerage windows have been available in many retirement plans since the 1990s and roughly 40% of company 401(k) retirement plans offer one[1].

How do I setup the TSP Mutual Fund Window?
To use the window, all you must do is sign a form that you acknowledge the added risks. Next, a brokerage account will be established and then you can choose to transfer money from your TSP account to the brokerage account. Your cash in the brokerage account, will always be invested in a money market fund until you decide to purchase shares in one or more mutual funds.

You can only transfer money between the mutual fund window brokerage account and your core TSP account. Your future contributions will still be invested in the current TSP core funds. In other words, you cannot make future contributions to the mutual funds in your mutual fund window brokerage account (see the diagram below).



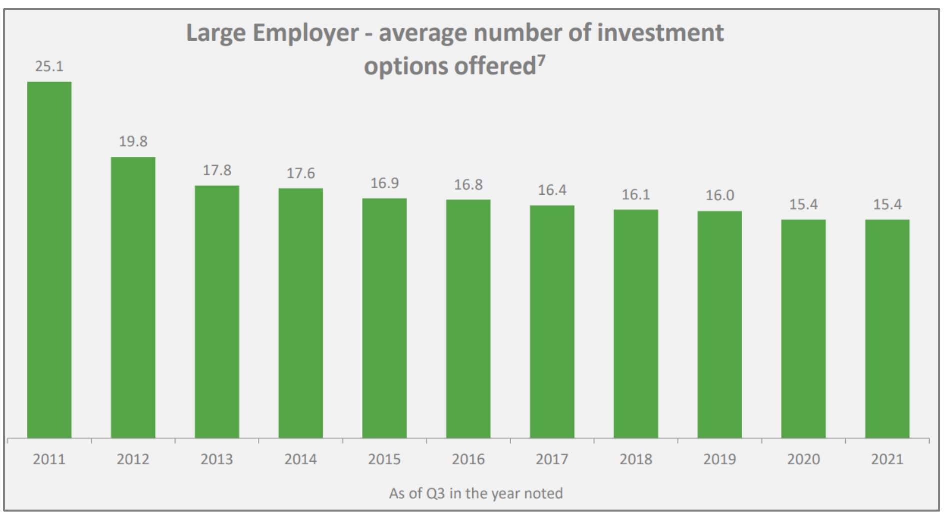
If you need to withdraw money from your TSP account and you do not have enough in your core funds, you must transfer the amount needed from your mutual fund brokerage account to your core funds. All transaction that are available in the TSP, are made to your core funds and not the mutual fund window brokerage account.

Following are the six techniques of using the TSP Mutual Fund Window that can provide you with a better financial outcome in retirement.

Key #1: More investment choices to participate in various market cycles.

With only six core funds available in the TSP (lumping the lifestyle funds into one core fund since most participants will select one lifestyle fund), the core funds in the TSP plan are very limiting. Most retirement plans have more. The TSP Mutual Fund Window allows you to access virtually every mutual fund that you can use to focus your portfolio with asset classes that do well in certain market cycles. For example, if we are in a bull market, you can be in large growth or information technology mutual funds that have historically outperformed the S&P 500 during growth cycles. However, with the TSP core funds, the C Fund may be the best option, but it will most likely underperform growth and technology.

In its third-quarter 2021 retirement report, Fidelity Investments said that the largest corporate defined contribution plans it administers now offer fewer than sixteen investment options in their core lineup, down from twenty-six investment options in 2010. The analysis considers the plan's target-date fund series as a single fund (target-date funds are offered in a group, with each target-date fund tailored for a particular retirement year). Large plans are those with approximately $500 million or more in plan assets (see the chart below)[2].



Let us examine the TSP core funds and see how much diversification and breadth across the markets they cover.

What is a style box?

A style box is a graphical representation of a mutual fund's characteristics. The financial services research provider Morningstar, Inc. popularized this tool by placing it alongside its well-known mutual fund ratings system, which ranks mutual funds by assigning them between one and five stars. As a result, many mutual fund investors have become familiar with the style box and its use as a tool for evaluating mutual funds[3].

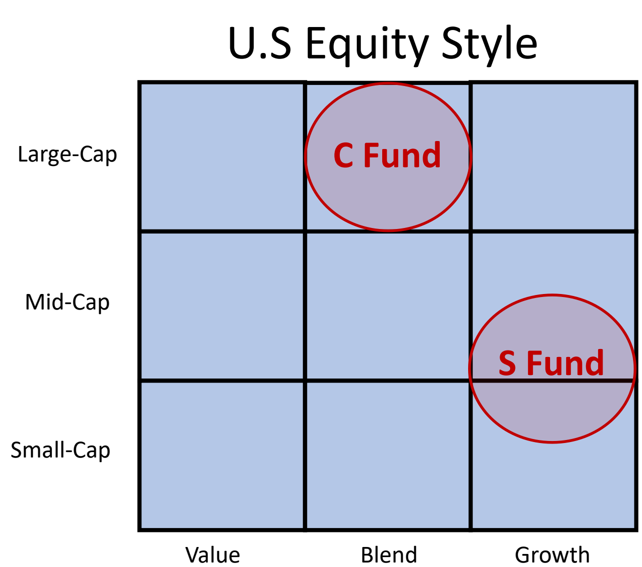
U.S Equity Style Box

The U.S. equity style box is designed to assist in the evaluation of securities and is the best-known and most popular type of this tool. Morningstar's domestic equity style box, shown below, provides a simple equity classification system.

The vertical axis is divided into three categories, which are based on market cap. Market capitalization refers to the total dollar market value of a company's outstanding shares of stock. Commonly referred to as "market cap," it is calculated by multiplying the total number of a company's outstanding shares by the current market price of one share. For mutual fund evaluations, Morningstar's proprietary market cap evaluation methodology is used to rank the underlying stocks in each mutual fund to determine the fund's market cap. Of the 5,000 stocks in Morningstar's U.S equity database, the top 70% are categorized as large-cap. The next 20% are classified as a mid-cap, and the remaining stocks are classified as small-cap.

The horizontal axis is also divided into three categories and is based on valuation. Valuation is the analytical process of determining the current (or projected) worth of an asset or a company. There are many techniques used for calculating a valuation. An analyst placing a value on a company looks at the business's management, the composition of its capital structure, the prospect of future earnings, and the market value of its assets, among other metrics. Once again, the underlying stocks in each mutual fund portfolio are reviewed. The price-to-earnings ("P/E") and price-to-book ("P/B") ratios are used as the basis of a mathematical calculation that results in the classification of each stock as growth, blend, or value. The term blend is used to describe stocks that exhibit both growth and value characteristics.

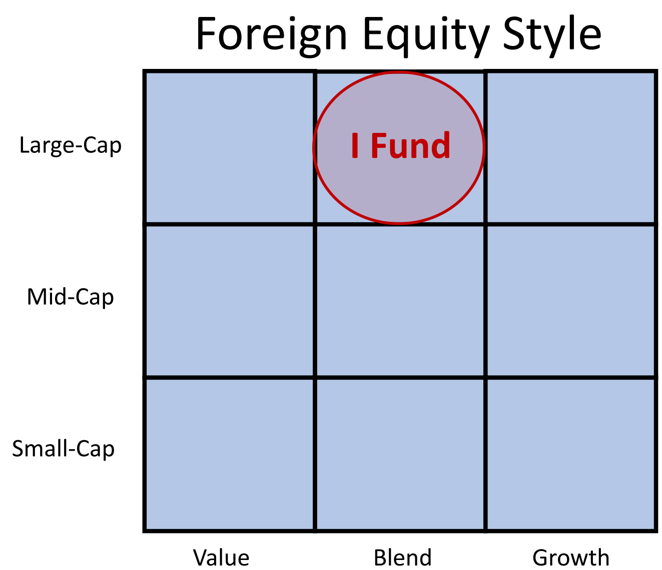
The diagram below shows the U.S equity style box, and you can see which style boxes are covered by the TSP core funds. The C Fund and S Fund only cover the large-cap blend and Small/mid-cap growth style boxes.



Foreign Equity Style Box

The foreign equity style box looks exactly like the U.S. equity style box, with a market cap on its vertical axis and valuation along the horizontal axis. Although they look alike, they use different specifications for determining market caps and valuations. In the foreign equity style box, market caps are based on the median market cap of assets in a particular fund, with each asset being measured and factored into the whole. The valuations use the price-to-cash-flow ratio rather than P/E, which makes for easier comparison between securities, because earnings data may be calculated differently from country to country.

The diagram below shows the foreign equity style box, and you can see which style boxes are covered by the TSP core funds. The I Fund, which is the only international core fund in the TSP, just covers the large-cap blend style box.

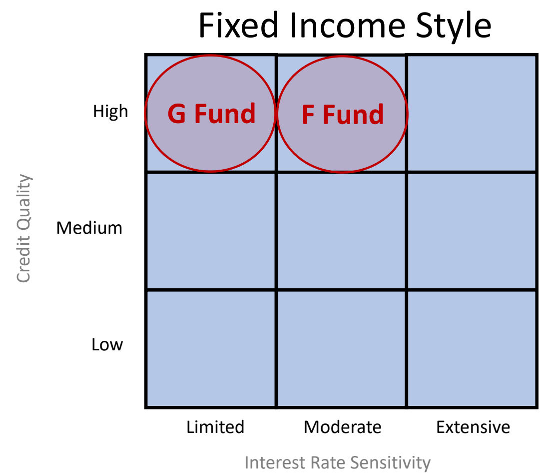


Fixed Income Style Box

In addition to equity style boxes, there is a style box for fixed income investments. Like the equity style boxes, the fixed income style box can be used to categorize investments into one of nine categories. It measures credit quality on its vertical axis, rating investments as high, medium, or low. The horizontal axis rates interest rate sensitivity, as measured by the duration of the bonds in the portfolio, or maturity. Interest rate sensitivity is a measure of how much the price of a fixed income asset will fluctuate because of changes in the interest rate environment. Securities that are more sensitive have greater price fluctuations than those with less sensitivity.

Duration categories include short, intermediate, and long. Each underlying bond in a fund's portfolio has a distinct credit quality rating and a set maturity date, making categorization easy. The maturity date is the date on which the principal amount of a note becomes due. On this date, which is printed on the certificate of the bond in question, the principal investment is repaid to the investor, while the interest payments that were regularly paid out during the life of the bond, end. The maturity date also refers to the termination date, or due date, on which an installment loan must be paid back in full.

The diagram to the right shows the fixed income style box, and you can see which style boxes are covered by the TSP core funds. The G Fund covers the high credit quality since it is backed by the federal government with limited interest rate sensitivity. The F Fund covers the high credit quality with moderate interest rate sensitivity.



What are stock sectors?
According to the Global Industry Classification Standard ("GICS"), there are eleven economic stock sectors (see the green diagram below) that are further subdivided into twenty-four industry groups, sixty-eight industries and 157 subindustries. The GICS was developed by Morgan Stanley Capital International ("MSCI") and Standard & Poors ("S&P") in 1999 to help global companies and investors compare and sort stocks. The system is used by MSCI indexes and has been modified many times since its inception to account for major shifts in the global economy[4].

Energy
Companies that make a profit from oil, natural gas, and coal fit into the energy sector. This includes companies that help locate, mine, produce, refine, or market fuel. The profitability of this stock sector relies on the price of crude oil, but stock prices tend to be stable and often pay large dividends.

Materials
Companies that process raw materials fit into the materials sector. These companies typically sell to other businesses at the head of the supply chain. They provide manufacturing staples like oil, natural gas, metal, paper, and chemicals.

Industrials
The industrial sector consists of companies that produce aircraft, agriculture equipment, and industrial machinery. These companies tend to generate positive cash flow and pay regular dividends.

Consumer discretionary

Businesses in the consumer discretionary sector include companies that sell nonessential services and products to consumers. These are services and products consumers purchase with discretionary income, which is the portion of their income left after paying taxes and essential living expenses. Businesses in this sector include automobile, retail, hotels, restaurants, and luxury goods.

Consumer staples

The consumer staples sector is filled with companies that manufacture and distribute essential goods and services like food, household goods, and personal care products. This sector is especially well-positioned to weather recessions because people continue to purchase these goods and services, even during an economic downturn.

Healthcare

The healthcare sector is made up of four major areas: medical services, healthcare equipment, biotech services, and pharmaceuticals. These businesses are typically well-positioned to weather the ups and downs of the market.

Financials

The financial sector includes banks, insurance providers, and real estate firms. Revenue generated in this sector is directly correlated with interest rates on mortgages and other loans and they tend to do better in a rising rate environment.

Information technology

Information technology companies manufacture, develop, and distribute software and electronics. This sector is deeply rooted in high technology corridors across the U.S.

Telecommunication services

Media, entertainment, and communications companies form the backbone of the telecom sector. This sector primarily includes internet service providers, streaming services, and cable companies.

Utilities

Businesses in this sector provide water, gas, and electricity. These businesses have little competition thanks to the excessive cost of entry but the prices they charge are strictly controlled by local governments. Like consumer staples, an investment in the utilities sector is considered defensive and usually can navigate through market downturns because of how essential utilities are.

Real estate

The real estate sector includes developers, management firms, and real estate investment trusts ("REITs"). These companies own and operate commercial real estate that primarily includes apartment buildings, shopping malls, and office parks. Rental income and property value provide revenue and shareholders receive dividends.

The TSP does not have any stock sector funds as a core investment. Stock sectors offers you the opportunity to really diversify your TSP account. The stock market can be impacted by a variety of factors, including world events, inflation, exchange rates, interest rates, and global politics. Spreading investments across multiple stock sectors can help you reduce portfolio risk when a major event impacts the stock market. Instead of concentrating your TSP account in one or a couple of the core funds, spread your account across multiple stock sectors and industries to potentially improve the upside of your account or mitigate downturns triggered by market volatility.

The TSP Mutual Fund Window provides more asset classes to choose from for greater diversification.

Key #2: Net returns outweigh the added costs of the window.

The discussion of mutual fund expenses has been the hottest topic in retirement plans over the last twenty years. In fact, every time you hear that a retirement plan is being taken to court, it is always about the high expenses of the mutual funds and never about the performance of the funds.

The expenses of a mutual fund are important, but it is not the most important variable when assessing mutual funds. Too many investors focus only on the expenses instead of the net return. It is important to note that funds report the performance of the fund net of fees and expenses.

Mutual funds are required to publish their expenses in a prospectus and on their web sites. The total expense of a mutual fund is called the expense ratio, which is stated as an annual percentage of the total assets in the fund. A mutual fund's expenses include portfolio management fees, general operating costs, and marketing expenses. Expense ratios range from less than 0.10% for large index funds to more than 2% percent for smaller funds that have high internal expenses.

The investment return reported by a mutual fund is always calculated net of expenses.

If a fund reports an annual gain of 10%, investors receive 10% on their money. From a reported return point of view, it does not matter whether the fund has a 0.5% expense ratio or a 2.5% expense ratio. To earn that 10% for investors, the low-cost fund manager had to earn 10.5% on the portfolio. But the more expensive fund's portfolio generated a 12.5% gross return to pay investors 10%[5].

As mentioned earlier, the TSP core funds only cover a few asset classes that make up the broader market. The TSP Mutual Fund Window allows you to take advantage of areas in the market that may be doing better than others.

S&P 500 SECTORS - HISTORICAL RETURNS (%)

Last Update: 30 April 2022

Cells with red background indicate returns lower than the US Inflation recorded in the same period. US Inflation is updated to Mar 2022. Waiting for updates, inflation of Apr 2022 is set to 0%. Current inflation (annualized) is 1Y: 7.87% , 3Y: 4.08% , 5Y: 3.33% , 10Y: 2.30%

ETF	1M	3M	6M	1Y	3Y(*)	5Y(*)	10Y(*)
Information Technology (XLK)	-11.02	-12.53	-12.12	1.98	22.89	22.56	18.65
Healthcare (XLV)	-4.89	-0.41	-1.96	8.55	15.37	13.37	15.12
Consumer Discretionary (XLY)	-11.96	-11.80	-18.78	-8.41	11.77	13.82	15.06
[Benchmark] S&P 500 (SPY)	-8.78	-8.14	-9.69	0.04	13.77	13.57	13.56
Financials (XLF)	-9.94	-11.30	-13.53	-3.19	9.47	10.13	12.78
Industrials (XLI)	-7.61	-5.25	-8.30	-5.39	8.70	9.46	12.08
Consumer Staples (XLP)	2.31	2.66	10.21	14.30	13.34	10.00	11.49
Materials (XLB)	-3.54	1.06	0.78	4.21	16.29	12.10	11.04
Utilities (XLU)	-4.30	3.59	8.05	9.19	9.87	9.98	10.84
Real Estate (XLRE)	-3.56	-1.00	-1.15	11.23	12.30	11.55	10.01
Communication Services (XLC)	-14.13	-19.93	-26.11	-23.71	6.56	3.44	7.74
Energy (XLE)	-1.69	15.05	33.70	59.06	10.79	7.16	4.20

Source: Lazy Portfolio ETF

(*) annualized

The chart to the left, shows the historical returns of the S&P 500 sectors. While the S&P 500 has a 10-year average return of 13.56%, the consumer discretionary, healthcare, and information technology sectors have higher average returns. The information technology sector has been the best performing sector over the past 10 years with an average return of 18.65%.

To put that into perspective, the technology sector has outperformed the S&P 500 by an average of 5.09% each year over the last 10-years.

Why focus on net returns?

TSP participants are extremely fortunate in that the expense ratio of the core funds are extremely low. They range between 0.04% - 0.06%. The top performing TSP core fund is the C Fund with a 5-Year average return of 13.62% (as published on the tsp.gov web site). As a comparison, the information technology sector's 5-Year average return is 22.56%.

The chart to the right shows what a $100,000 investment would have gained over the last five years if invested in the C Fund and the technology sector. As you can see, the technology sector outperformed the C Fund by a net percentage of 8.99% per year, yielding an additional $44,936!

5-Year Return Comparison - 5/1/2017 to 4/30/2022

	C Fund	Technology
Expense Ratio	0.043%	0.100%
5-Year Average Return	13.62%	22.56%
5/1/2017 Investment	$100,000	$100,000
5-Year Return Income	$68,315	$113,300
5-Year Expense Ratio Costs	($288)	($783)
5-Year Trading Fees	$0	($29)
5-Year Annual Maintenance Fees	$0	$475
4/30/2022 Balance	$168,027	$212,963
5-Year Return	68.03%	112.96%
5-Year Additional Gain		$44,936
Average Annual Increase in Return - Net of Expenses		8.99%

Source: Information for the C Fund came from the TSP.gov web site. Information for the Technology example came from Morningstar.com. Net return calculated from 5/1/2017 to 3/31/2022 and assumed that $100,000 was invested on 5/1/2017. Used the 5-Year average return of 13.62% for the C Fund as published on 5/1/2022 from the TSP.gov site. Used the 5-Year average return of 22.56% for the Technology Select Sector SPDR® ETF (XLK) mutual fund for the "Technology" example as published on Morningstar.com on 5/1/2022. No contributions or distributions during the 5-year period. 5-Year expense ratio costs are calculated using 100% of the beginning balance plus one-half of the 5-Year return income. 5-Year trading fees and 5-Year annual maintenance fees are rounded up.

Key #3: Transfer the maximum to the window.

In the "TSP Millionaire" book, there are charts that show how much you need to contribute based on your age, compensation, and when you want to retire to become a TSP millionaire. Now that you can use the TSP Mutual Fund Window to gain access to 5,000 mutual funds, we want to show similar charts here and how you can improve your financial outcome in retirement.

Example #1 – "Joe Early" starting at age 25 and retiring at age 65:

1. Age when joining the TSP: **25**
2. Age at retirement: **65**
3. Starting annual compensation: **$45,000**
4. Annual % increase in compensation: **2%**
5. Annual pre-tax contribution: **5%**
6. Annual agency match: **4%**
7. Average annual performance of the TSP core funds (ages 25-49) and allocated 25% L Income Fund, 50% C Fund, and 25% S Fund: **10.64%**
8. Average annual performance of the TSP core funds (ages 50-65) and allocated 50% G Fund and 50% C Fund: **7.81%**
9. Transfer $25,000 to the TSP Mutual Fund Window once the TSP balance reaches: **$100,000**
10. Average annual performance of the TSP Mutual Fund Window using the technology sector (net of window fees): **18.16%**
11. Average annual performance of the TSP Core Funds and TSP Mutual Fund Window (ages 25-49) and allocated 25% L Income Fund, 50% C Fund, and 25% technology fund (net of window fees): **12.37%**
12. Average annual performance of the TSP Core Funds and TSP Mutual Fund Window (ages 50-65) and allocated 50% G Fund, 25% C Fund, and 25% technology fund (net of window fees): **8.93%**

When running this option, we assumed that an aggressive portfolio was used for the first 24 years (ages 25-49) and then a moderate portfolio was used for the remaining 15 years until retirement.

As you can see in the chart on the next page, if Joe just uses the core funds, he will reach the millionaire status by age 56.

However, if he transfers $25,000 to the TSP Mutual Fund Window when his balance reaches $100,000 (at age 36 in this example), he will reach the millionaire status by age 52!

TSP Millionaire - Hypothetical Account Balance

Age	Compensation	Annual Contribution	1% Automatic Employing Services Contribution	Agency Match	Total Contribution	Total Account Balance Without Mutual Fund Window	Account Balance TSP Core Funds	Account Balance Technology Sector	Total Account Balance Mutual Fund Window
25	$45,000	$2,250	$450	$1,800	$4,500	$4,739	$4,739		$4,739
26	$45,900	$2,295	$459	$1,836	$4,590	$10,078	$10,078		$10,078
27	$46,818	$2,341	$468	$1,873	$4,682	$16,081	$16,081		$16,081
28	$47,754	$2,388	$478	$1,910	$4,775	$22,822	$22,822		$22,822
29	$48,709	$2,435	$487	$1,948	$4,871	$30,380	$30,380		$30,380
30	$49,684	$2,484	$497	$1,987	$4,968	$38,845	$38,845		$38,845
31	$50,677	$2,534	$507	$2,027	$5,068	$48,315	$48,315		$48,315
32	$51,691	$2,585	$517	$2,068	$5,169	$58,900	$58,900		$58,900
33	$52,725	$2,636	$527	$2,109	$5,272	$70,720	$70,720		$70,720
34	$53,779	$2,689	$538	$2,151	$5,378	$83,909	$83,909		$83,909
35	$54,855	$2,743	$549	$2,194	$5,485	$98,614	$98,614		$98,614
36	$55,952	$2,798	$560	$2,238	$5,595	$114,999	$89,999	$25,000	$114,999
37	$57,071	$2,854	$571	$2,283	$5,707	$133,246	$105,586	$29,540	$135,126
38	$58,212	$2,911	$582	$2,328	$5,821	$153,554	$122,951	$34,904	$157,856
39	$59,377	$2,969	$594	$2,375	$5,938	$176,146	$142,287	$41,243	$183,530
40	$60,564	$3,028	$606	$2,423	$6,056	$201,266	$163,805	$48,733	$212,538
41	$61,775	$3,089	$618	$2,471	$6,178	$229,187	$187,740	$57,583	$245,322
42	$63,011	$3,151	$630	$2,520	$6,301	$260,209	$214,351	$68,040	$282,391
43	$64,271	$3,214	$643	$2,571	$6,427	$294,665	$243,928	$80,396	$324,323
44	$65,557	$3,278	$656	$2,622	$6,556	$332,921	$276,786	$94,996	$371,782
45	$66,868	$3,343	$669	$2,675	$6,687	$375,387	$313,278	$112,247	$425,525
46	$68,205	$3,410	$682	$2,728	$6,820	$422,511	$353,794	$132,631	$486,425
47	$69,569	$3,478	$696	$2,783	$6,957	$474,793	$398,765	$156,717	$555,482
48	$70,960	$3,548	$710	$2,838	$7,096	$532,785	$448,667	$185,176	$633,844
49	$72,380	$3,619	$724	$2,895	$7,238	$597,096	$504,029	$218,805	$722,833
50	$73,827	$3,691	$738	$2,953	$7,383	$651,400	$551,064	$258,539	$809,604
51	$75,304	$3,765	$753	$3,012	$7,530	$710,099	$601,927	$305,490	$907,417
52	$76,810	$3,840	$768	$3,072	$7,681	$773,539	$656,918	$360,967	$1,017,886
53	$78,346	$3,917	$783	$3,134	$7,835	$842,093	$716,364	$426,519	$1,142,883
54	$79,913	$3,996	$799	$3,197	$7,991	$916,164	$780,616	$503,975	$1,284,590
55	$81,511	$4,076	$815	$3,260	$8,151	$996,186	$850,051	$595,496	$1,445,548
56	$83,141	$4,157	$831	$3,326	$8,314	$1,082,626	$925,079	$703,639	$1,628,718
57	$84,804	$4,240	$848	$3,392	$8,480	$1,175,991	$1,006,139	$831,419	$1,837,559
58	$86,500	$4,325	$865	$3,460	$8,650	$1,276,824	$1,093,706	$982,405	$2,076,112
59	$88,230	$4,412	$882	$3,529	$8,823	$1,385,711	$1,188,293	$1,160,810	$2,349,102
60	$89,995	$4,500	$900	$3,600	$9,000	$1,503,286	$1,290,449	$1,371,613	$2,662,062
61	$91,795	$4,590	$918	$3,672	$9,179	$1,630,231	$1,400,771	$1,620,698	$3,021,469
62	$93,631	$4,682	$936	$3,745	$9,363	$1,767,281	$1,519,900	$1,915,017	$3,434,917
63	$95,503	$4,775	$955	$3,820	$9,550	$1,915,229	$1,648,528	$2,262,784	$3,911,311
64	$97,414	$4,871	$974	$3,897	$9,741	$2,074,930	$1,787,399	$2,673,705	$4,461,104
65	$99,362	$4,968	$994	$3,974	$9,936	$2,247,306	$1,937,319	$3,159,250	$5,096,569
Total		**$140,873**	**$28,175**	**$112,698**	**$281,745**	**$2,247,306**	**$1,937,319**	**$3,159,250**	**$5,096,569**

The data for the TSP Core Funds came from the TSP.gov web site. The data for the Technology Sector came from Morningstar.com. In this hypothetical TSP account scenario, the participant starts contributing at age 25 through age 65. Their annual compensation starts at $45,000 per year and increases 2% each year thereafter. In this hypothetical scenario, the participant contributes at 5% of compensation starting at age 25 and continues at the same contribution rate through age 65. The agency matching contributions is based on 4% of annual compensation. This hypothetical account scenario incorporates an annualized personal rate of return for the TSP core funds of 10.64%, net of TSP account expenses, for the age range from 25 through age 49 and participant and agency contributions for the year they are contributed have an annualized personal rate of return of 1/2 of the 10.64%. This hypothetical account scenario incorporates an annualized personal rate of return for the TSP core funds of 7.81%, net of TSP account expenses, for the age range from 50 through age 65 and participant and agency contributions for the year they are contributed have an annualized personal rate of return of 1/2 of the 7.81%. This hypothetical account scenario incorporates an annualized personal rate of return for the technology sector of 18.16%, which is a net return and includes all expenses associated with utilizing the TSP Mutual Fund Window. This hypothetical account scenario does not have loans or withdrawals taken from the account. Your own account may earn more or less than this example. This information is intended to be educational and is not tailored to the investment needs of any specific investor.

Most importantly, Joe Early will have an additional $2,849,263 in his TSP account at retirement.

Example #2 – "Jenny Later" starting at age 40 and retiring at age 62:

1. Age when joining the TSP: **40**
2. Age at retirement: **62**
3. Starting annual compensation: **$75,000**
4. Annual % increase in compensation: **2%**
5. Annual pre-tax contribution: **10%**
6. Annual agency match: **4%**
7. Average annual performance of the TSP core funds allocated 25% L Income Fund, 50% C Fund, and 25% S Fund: **10.64%**
8. Transfer $25,000 to the TSP Mutual Fund Window once TSP balance reaches: **$100,000**
9. Average annual performance of the TSP Mutual Fund Window using the technology sector (net of window fees): **18.16%**
10. Average annual performance of the TSP Core Funds and TSP Mutual Fund Window allocated 25% L Income Fund, 50% C Fund, and 25% technology fund (net of window fees): **12.37%**

When running this option, an aggressive portfolio was used for the entire 20 years (ages 40-62) since Jenny started contributing later in life and only had 22 years to save for retirement.

Because Jenny started contributing to the TSP at age 40, she does not have as many years to save for retirement. That is why she must start contributing 10% of her paycheck and investing in an aggressive portfolio for the entire 22 years before retirement.

As you can see in the chart on the next page, if Jenny just uses the core funds, she will reach the millionaire status by age 61.

However, if she transfers $25,000 to the TSP Mutual Fund Window when her balance reaches $100,000 (at age 46 in this example), she will reach the millionaire status by age 60. However, she will have $93,461 more in her account.

This example shows you that you can still reach the TSP millionaire status, but you must contribute more each paycheck to make up for the lost time that you did not save.

TSP Millionaire - Hypothetical Account Balance

Age	Compensation	Annual Contribution	1% Automatic Employing Services Contribution	Agency Match	Total Contribution	Total Account Balance Without Mutual Fund Window	Account Balance TSP Core Funds	Account Balance Technology Sector	Total Account Balance Mutual Fund Window
40	$75,000	$7,500	$750	$3,000	$11,250	$11,849	$11,849		$11,849
41	$76,500	$7,650	$765	$3,060	$11,475	$25,195	$25,195		$25,195
42	$78,030	$7,803	$780	$3,121	$11,705	$40,203	$40,203		$40,203
43	$79,591	$7,959	$796	$3,184	$11,939	$57,054	$57,054		$57,054
44	$81,182	$8,118	$812	$3,247	$12,177	$75,950	$75,950		$75,950
45	$82,806	$8,281	$828	$3,312	$12,421	$97,112	$97,112		$97,112
46	$84,462	$8,446	$845	$3,378	$12,669	$120,788	$95,788	$25,000	$120,788
47	$86,151	$8,615	$862	$3,446	$12,923	$147,250	$119,590	$29,540	$149,130
48	$87,874	$8,787	$879	$3,515	$13,181	$176,800	$146,197	$34,904	$181,102
49	$89,632	$8,963	$896	$3,585	$13,445	$209,772	$175,913	$41,243	$217,156
50	$91,425	$9,142	$914	$3,657	$13,714	$246,535	$209,073	$48,733	$257,806
51	$93,253	$9,325	$933	$3,730	$13,988	$287,498	$221,051	$57,583	$278,633
52	$95,118	$9,512	$951	$3,805	$14,268	$333,115	$259,597	$68,040	$327,637
53	$97,020	$9,702	$970	$3,881	$14,553	$383,886	$302,546	$80,396	$382,941
54	$98,961	$9,896	$990	$3,958	$14,844	$440,365	$350,370	$94,996	$445,366
55	$100,940	$10,094	$1,009	$4,038	$15,141	$503,166	$403,596	$112,247	$515,843
56	$102,959	$10,296	$1,030	$4,118	$15,444	$572,969	$462,804	$132,631	$595,435
57	$105,018	$10,502	$1,050	$4,201	$15,753	$650,523	$528,637	$156,717	$685,354
58	$107,118	$10,712	$1,071	$4,285	$16,068	$736,661	$601,807	$185,176	$786,983
59	$109,261	$10,926	$1,093	$4,370	$16,389	$832,303	$683,100	$218,805	$901,905
60	$111,446	$11,145	$1,114	$4,458	$16,717	$938,467	$773,388	$258,539	$1,031,928
61	$113,675	$11,367	$1,137	$4,547	$17,051	$1,056,278	$873,635	$305,490	$1,179,125
62	$115,948	$11,595	$1,159	$4,638	$17,392	$1,186,983	$984,908	$360,967	$1,345,875
Total		**$216,337**	**$21,634**	**$86,535**	**$324,506**	**$1,186,983**	**$984,908**	**$360,967**	**$1,345,875**

Source: The data for the TSP Core Funds came from the TSP.gov web site. The data for the Technology Sector came from Morningstar.com. In this hypothetical TSP account scenario, the participant starts contributing at age 40 through age 62. Their annual compensation starts at $75,000 per year and increases 2% each year thereafter. In this hypothetical scenario, the participant contributes at 14% of compensation through age 62. The agency matching contributions is based on 4% of annual compensation. This hypothetical account scenario incorporates an annualized personal rate of return for the TSP core funds of 10.64%, net of TSP account expenses. For the year they are contributing, the contribution amount has an annualized personal rate of return of 1/2 of the 10.64%. This hypothetical account scenario incorporates an annualized personal rate of return for the technology sector of 18.16%, which is a net return and includes all expenses associated with utilizing the TSP Mutual Fund Window. This hypothetical account scenario does not have loans or withdrawals taken from the account. Your own account may earn more or less than this example. This information is intended to be educational and is not tailored to the investment needs of any specific investor.

Most importantly, Jenny Later will have $158,892 more in her TSP account at retirement.

The TSP Mutual Fund Window gives you fund choices to provide a better financial outcome in retirement.

Key #4: More flexibility to trade when you want.

Compared to most retirement plans, the TSP is somewhat limited in being able to frequently move your account balance amongst the core funds. You are allowed two interfund transfers ("IFTs") in a calendar month. After that, you can only transfer money into the G Fund.

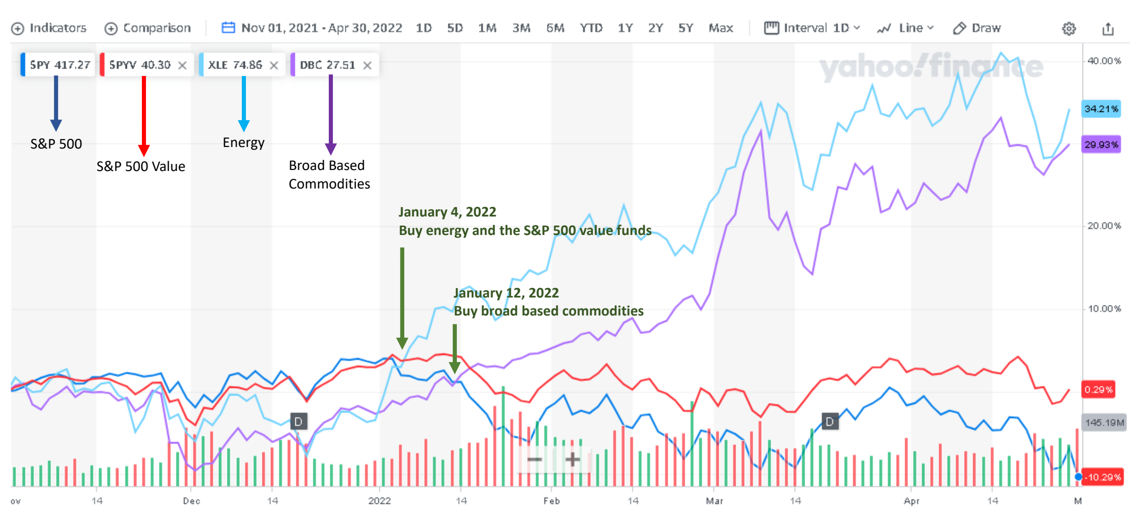
However, the TSP Mutual Fund Window does not have any trading restrictions, so you can buy and sell mutual funds any day that the market is open. When you do trade a mutual fund, you will receive that day's closing price.

A mutual fund's net asset value ("NAV") represents a fund's per share market value. It is the price at which investors buy (bid price) fund shares from a fund company and sell them (redemption price) to a fund company. A NAV computation is undertaken once at the end of each trading day based on the closing market prices of the securities held by the mutual fund.

Being able to move into and out of mutual funds that represent various asset classes is critical in today's market. Markets can move very quickly, and asset classes can become favorable or unfavorable in a matter of days.

Let us examine how quickly asset classes can change. The chart below shows the S&P 500 over the period from 11/1/2021 to 4/30/2022, which is a 6-Month time frame. If you look at the beginning of 2022 (1/4/2022 green arrow), you can see the S&P 500 starting to turn negative, while at the same time energy and the S&P 500 value asset classes start to outperform. Additionally, around 1/12/2022, commodities broad basket starts to outperform the S&P 500 as well. During this time, the S&P 500 was down 10.29%, while the other three asset classes had a positive return.

Asset Class Changes



Source: Yahoo Finance.

The importance of this illustration is really three-fold:

1. In a matter of two weeks, the S&P 500 went from very favorable in 2021, to unfavorable in 2022.
2. The S&P 500 value, energy, and commodities broad basket asset classes are not available as a TSP core fund. You can only get these in the TSP Mutual Fund Window.
3. To capitalize on the asset classes that turned favorable, you would have made two trades in the month of January.

The TSP Mutual Fund Window provides flexibility in trading to make moves quickly when market cycles change.

Key #5: Added offense for calm markets and extra defense for volatile markets.

Tactical asset allocation is an active management portfolio strategy that shifts the percentage of assets held in various asset classes to take advantage of strong market segments. This strategy allows portfolio managers to create extra value by taking advantage of certain situations in the marketplace. Most tactical asset allocation strategies use a quantitative investment model (or "algorithms") to take advantage of imbalances among different asset classes.

Many times, algorithms are developed to determine when the portfolio is in "risk on" mode, meaning that it is in growth orientated equities, or it is in "risk off" mode and invested in defensive asset classes. The proprietary process we developed is called "Risk-Guard™." To learn more about it, you can read the technical paper, "TSP Risk-Guard™ Overview." You can find it at www.febcnow.com.

Tactical asset allocation is the process of taking an active stance in managing a portfolio and adjusting long-term target weights over a certain time to capitalize on market or economic opportunities. For example, tactical shifts may come within a particular asset class. Assume the 45% allocation of equities consists of 30% for C Fund and 15% for S Fund. If the outlook for the S Fund (small-cap stocks) does not look favorable, you can use the TSP Mutual Fund Window to find an asset class that does have a favorable outlook, such as information technology.

Tactical asset allocation is at the core of our investment philosophy to actively manage downside risk. Our primary objective is to limit the downside and capture a good portion of the upside in the market.

When markets are relatively calm, our algorithms will be in "risk-on" mode to have the opportunity to capture additional upside potential. When we are "risk-on," we will look at those asset classes that tend to outperform the market. These "offense" asset classes may include:

- Information Technology
- Healthcare
- Consumer discretionary
- Foreign and emerging markets

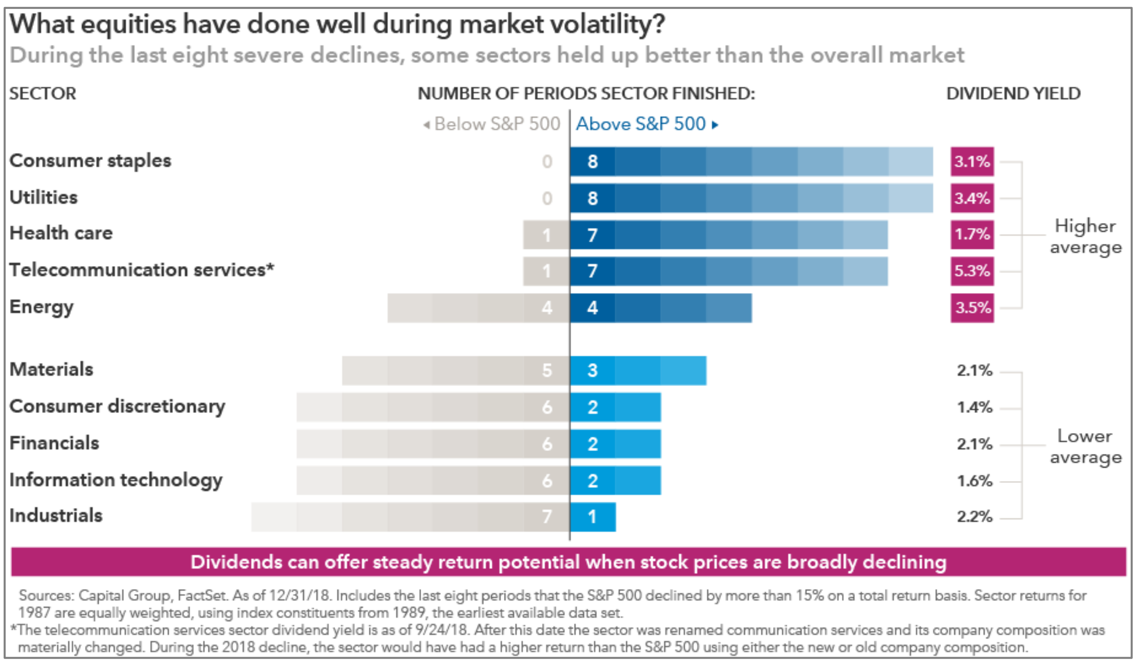
Our definition of downside risk management is that we will look to invest in asset classes that are not correlated to the market, and we look for the opportunity to capture positive performance in a down market. In other words, when the market is in a downward trend, the algorithms will move to a "risk off" position, which means that we will move into asset classes that have historically done well in down markets. These "defense" asset classes may include:

- Treasuries
- Consumer Staples
- Utilities

- Healthcare
- Commodities Broad Basket
- Precious Metals

The underlying premise is that up trending markets tend to see much lower volatility and that is when you want to stay invested for as long as possible. Down-trending markets tend to see much higher volatility. It is important to note that we are not trying to time the market and pick market tops or bottoms or change with every 5-10% correction. Most strategies that try to pull this off end up overtrading and underdelivering. The Risk-Guard™ strategy is set up to avoid a severe loss like what happened in 2008 when stocks dropped 30-50%. You can never time these moves perfectly but the goal is to miss most of the huge drawdowns.

The chart below shows the asset classes that have done well when there has been a 15% or more market decline in the S&P 500. The chart shows the last eight periods when the S&P 500 was down 15% or more.



Tactical asset allocation is an effective means to limit your portfolio risk. During time periods when growth assets are overvalued, a tactical asset allocation strategy allows you to allocate your investments to those asset classes that have done well in down markets. When designed properly and executed successfully, tactical asset allocation portfolios have two distinct advantages.

1. They mitigate risk by going to "risk off" mode during severe bear markets.

2. They can enhance returns, by going to "risk on" mode when markets are realizing a higher-than-normal level of trending.

Tactical asset allocation's primary investment objective is to mitigate a portfolio's decline during severe bear markets. It is important to appreciate that the objective is to mitigate and not eliminate severe declines.

So let us examine how you can leverage the TSP Mutual Fund Window to have the opportunity to go after more upside in a relatively calm market and potentially limit the downside exposure when there is market volatility.

Example #1 – Play "offense" when the markets are relatively calm.

1. Net return calculated from 5/1/2017 to 4/30/2022 (5-years).
2. $100,000 invested on 5/1/2017.
3. Used the Technology Select Sector SPDR® ETF (XLK) for the "Technology" example.
4. Used the PGIM Jennison Global Opportunities R6 (PRJQX) mutual fund for the "World Large Stock Growth" example.
5. For the TSP mutual fund window, 75% was invested in the C Fund, 15% in the Technology example, and 10% in the World Large Stock Growth example.
6. No contributions or distributions during the 5-year period.

When markets are relatively calm, you want to capture as much of the upside as possible. As you can see in the chart below, by using the TSP Mutual Fund Window, you can increase your TSP account balance even after the added fees are taken into consideration. In this example, the window was able to increase the average annual return by $20,572 or 2.45% per year.

Offense Comparison - 5/1/2017 to 4/30/2022

			Mutual Fund Window			
	C Fund		C Fund	Technology	World Large Stock Growth	Total
5/1/2017 Investment	$100,000		$75,000	$15,000	$10,000	$100,000
5-Year Return Income	$68,315		$51,236	$25,343	$13,885	$90,464
5-Year Expense Ratio Costs	($288)		($216)	($138)	($703)	($1,058)
5-Year Trading Fees (once at purchase)	$0		$0	($29)	($29)	($58)
5-Year Annual Maintenance Fees	$0		$0	($375)	($375)	($750)
4/30/2022 Balance	**$168,027**		**$126,020**	**$39,800**	**$22,778**	**$188,598**
5-Year Return	68.03%		68.03%	165.34%	127.78%	88.60%
5-Year Additional Gain						$20,572
Average Annual Increase in Return - Net of Expenses						2.45%

Source: The data for the C Fund came from the TSP.gov web site. The data for the Technology and World Large Stock Growth examples came from Morningstar.com. Net return calculated from 5/1/2017 to 3/31/2022 and assumed that $100,000 was invested on 5/1/2017. Used the 5-Year average return for the C Fund as published on the TSP.gov site. Used the 5-Year average return for the Technology Select Sector SPDR® ETF (XLK) mutual fund for the "Technology" example as published on the Morningstar.com web site. Used the 5-Year average return for the PGIM Jennison Global Opportunities R6 (PRJQX) mutual fund for the "World Large Stock Growth " example as published on the Morningstar.com web site. No contributions or distributions during the 5-year period. 5-Year expense ratio costs are calculated using 100% of the beginning balance plus one-half of the 5-Year return income. 5-Year trading fees and 5-Year annual maintenance fees are rounded up.

Example #2 – Play "defense" when the markets are volatile.

1. Net return calculated from 1/1/2022 to 4/30/2022 (4-Months).
2. $100,000 invested on 1/1/2022.
3. TSP Core Funds Only: 100% in the C fund and G Fund starting 1/1/2022 to 4/30/2022.
4. Used the PIMCO CommoditiesPLUS® Strategy Instl (PCLIX) mutual fund for the "Commodity Broad Basket" example.
5. Used the Fidelity® Select Utilities (FSUTX) mutual fund for the "Utilities" example.
6. For the TSP mutual fund window, 75% was invested in the G Fund, 12.5% in the Commodities Broad Basket example, and 12.5% in the Utilities example.
7. No contributions or distributions during the 4-Month period.

When markets are volatile, you want to invest in defensive oriented funds. As you can see in the chart below, by using the TSP Mutual Fund Window to diversifying amongst defensive mutual funds available in the window, you can have a positive return when the C Fund lost 12.97% over this time. It is critical to note that the G Fund had a 0.65% return during this volatile period, and by adding a commodities broad basket fund and a utility fund, the TSP account balance increased by $16,346 or 3.44% compared to a loss of $12,909 or 12.91% in the C Fund.

Defense Comparison - 1/1/2022 to 4/30/2022

			Mutual Fund Window			
	C Fund		G Fund	Commodities	Utilities	Total
1/1/2022 Investment	$100,000		$75,000	$12,500	$12,500	$100,000
4-Month Return Income	($12,896)		$498	$2,752	$471	$3,721
4-Month Expense Ratio Costs	($13)		($11)	($34)	($31)	($76)
4-Month Trading Fees	$0		$0	($29)	($29)	($58)
Annual Maintenance Fees	$0		$0	($75)	($75)	($150)
4/30/2022 Balance	$87,091		$75,487	$15,114	$12,836	$103,437
4-Month Return	-12.91%		0.65%	20.91%	2.69%	3.44%
4-Month Additional Gain						$16,346
4-Month Increase in Return - Net of Expenses						3.44%

Source: The data for the C Fund and G Fund came from the TSP.gov web site. The data for the Commodities and Utilities examples came from Morningstar.com. Net return calculated from 5/1/2017 to 3/31/2022 and assumed that $100,000 was invested on 5/1/2017. Used the 5-Year average return for the C Fund as published on the TSP.gov web site. Used the 5-Year average return for the Technology Select Sector SPDR® ETF (XLK) mutual fund for the "Technology" example as published on the Morningstar.com web site. Used the 5-Year average return for the PGIM Jennison Global Opportunities R6 (PRJQX) mutual fund for the "World Large Stock Growth " example as published on the Morningstar.com web site. No contributions or distributions during the 5-year period. 5-Year expense ratio costs are calculated using 100% of the beginning balance plus one-half of the 5-Year return income. 5-Year trading fees and 5-Year annual maintenance fees are rounded up.

The TSP Mutual Fund Window allows you to play offense or defense depending on the market conditions.

Key #6: Use a financial advisor to implement this plan

At this point, you see the tremendous value in the TSP Mutual Fund Window and are eager to act and start implementing these techniques to create a better financial outcome in retirement. Acting is certainly not an easy step, and it will come with many trials and tribulations.   But the key to success is to get started.

Implementing a plan for the TSP Mutual Fund Window is an especially crucial step and it may seem daunting to make the right choices amongst 5,000 mutual funds. That is why it is so important to find a financial advisor that utilizes the Risk-Guard™ process for both the TSP core funds and the window - they both must be considered.

Give the TSP Mutual Fund Window a try!

You have nothing to lose by giving our process a try. We have made it easy for you to get started. When you think about it, we are really acting as co-fiduciaries with you. For our part, you can count on us to deliver the following:

- A free 30-day trial. In fact, you never get charged for the first month of service.

- A complimentary analysis and risk number you can keep (even if you do not use our service).

- If you do use our service, we do it all for you.

- If you are not 100% satisfied, you can stop the service any time, virtually instantly, no questions asked.

- The cost is 1% per year, based on the total value of your account.

- If you do not want to move your TSP account to an IRA or some other place, we will manage it at the TSP for as long as you want to keep it there.

Have Questions?

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Acknowledgements

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About the Author

Rick Keast is the President and Chief Compliance Officer of Redhawk Wealth Advisors, Inc. Redhawk is an SEC registered investment advisor located in Minneapolis, Minnesota. Mr. Keast is responsible for the operations and overall performance of the firm, as well as oversees the regulatory and compliance functions and the investment committee for the firm. He has over 30 years of experience in the financial services industry and has worked with financial advisors throughout the country to help them build their practices.

Mr. Keast has a proven track record in the financial services industry for developing revenue-producing relationships and delivering key customer solutions. He developed the first 401(k) offering with exchange traded funds in 2005 working with Capital One ShareBuilder. He has also served as the lead consultant working with major Fortune 500 firms such as PepsiCo, Frito-Lay, Pizza Hut, Taco Bell, Continental Airlines, Merrill Lynch, State Street, CONAGRA, and Textron. Prior to joining Redhawk, Mr. Keast held various management positions with ExpertPlan, PAi, Merrill Lynch, KPMG Consulting, and William M. Mercer.

Mr. Keast earned his bachelor's degree from Northern Illinois University and an MBA from Lake Forest Graduate School of Management. He also holds the Accredited Investment Fiduciary ("AIF®") designation from Fi360. Mr. Keast is the author of the book "Freedom to Soar, Your Guide to a Better Financial Outcome" which was published in 2020 and the "TSP Millionaire" published in 2021.