Thrift Savings Plan

Guide to TSP Investments

March 1998

Federal Retirement Thrift Investment Board

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Introduction

In the Thrift Savings Plan (TSP), as in most similar retirement savings plans, the responsibility for choosing among investment options rests with each participant. The investment choices you make will probably have a significant effect on the income available to you in retirement.

The TSP is administered by the Federal Retirement Thrift Investment Board. Although the Board cannot give personal investment advice, this booklet can help you with your TSP investment decisions by providing information about investment approaches, the TSP investment funds, and how the funds are administered.

TSP participants frequently ask what factors they should consider in making investment decisions. For example, many participants want to know what we think about the direction of interest rates and likely stock market trends over the coming months. However, no one can predict the future. It is more productive to understand the basics of how the TSP funds work and how similar investments have performed historically than to attempt to forecast short-term market trends. You should also consider your other assets and income, including your home, Social Security, and estimated income from annuities and other investments, before deciding how to invest your TSP account. We encourage you to read books and articles on investing for retirement. Many should be available at your public library. Exposure to a variety of information and opinions should help you select the long-term investment strategy that is right for you.

The best place to start learning about TSP investments is the *Summary of the Thrift Savings Plan for Federal Employees*, a comprehensive presentation of all the features of the TSP. The Plan Summary is available from your personnel office. You should read the Plan Summary before making any TSP investment decisions.

This booklet is intended for TSP participants who have read the Plan Summary but want more information on the TSP investment options and TSP investment operations and procedures. The booklet has three sections and a glossary. The first section discusses long-term investment approaches and techniques. The second section presents the historical performance and management of the three TSP investment funds: the Government Securities Investment (G) Fund, the Common Stock Index Investment (C) Fund, and the Fixed Income Index Investment (F) Fund. The third section describes the operations of the TSP funds, including monthly valuation and the interfund transfer process. The glossary contains definitions of investment and financial terms used throughout the booklet. The information in this booklet was updated as of December 31, 1997. Updated investment performance is contained in the *TSP Highlights* mailed with your semiannual Participant Statement.

We hope that this booklet will be a useful supplement to the Plan Summary for those participants who seek a greater understanding of investment principles and the TSP investment funds and their administration.

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I. Investment Considerations and Approaches

Long-term Investment Considerations

To develop an investment approach for your TSP account, you should consider several factors: your investment objective, your time horizon, diversification, risks and returns of the TSP investment options, and the effect of inflation and taxes. All of these factors will affect the decisions you make for investing your TSP account and are discussed in the following sections. While these factors also apply to your investment decisions outside the TSP, the discussion in this booklet is limited to TSP investments.

Your Investment Objective

Your investment objective is the first factor to consider, because the purpose of your savings should influence how you invest your money. The TSP is a retirement savings plan, so your investment choices should be made with that long-term objective in mind. There may be times before retirement when your TSP investment objective temporarily becomes a short-term objective. For example, if you decide to borrow from your TSP account to purchase a house or to pay for education expenses, you might change your investment strategy. Your investment objective usually changes as your time horizon shortens.

Your Time Horizon

In general, your time horizon is the number of years you have until retirement — or later, if you will not need to withdraw your TSP assets when you retire. Thus, if you are 40 years old and you want to withdraw your TSP account at age 65, your time horizon is 25 years.

After you have determined your time horizon, you have to consider how to invest your money. In doing this, you should evaluate the potential for return relative to the risk of loss offered by each option. In general, the greater the potential for large returns, the higher the risk of large losses. This relationship is generally true because the financial markets reward investors for accepting the possibility of losses by offering higher returns than can be achieved with less risky investment alternatives.

Whether you should take the risk of loss for the possibility of increased returns depends to a large extent on your time horizon. Generally, the longer the money will remain invested, the more willing you may be to accept the risk of loss. This is because over long investment periods an investor has a better chance to recoup any short-term investment losses suffered during the period.

For example, if you need money for retirement in 2 years and your investment experiences a 10% loss in the first year, you will need a gain of approximately 11% in the next year to regain the amount lost in the first year. If you are 5 years from retirement and lose 10% in the first year, there are 4 years during which the loss may be regained. Of course, there is no assurance that the market will cooperate with gains in the second, third, fourth, or fifth year. In fact, there could be losses in each of the next 4 years.

Diversification

One of the fundamental principles of investing is diversification. Diversification is the spreading of investments among different securities to reduce the volatility (fluctuation in the price of securities) and credit risk (risk of nonpayment of principal or interest) of your overall holdings. You can diversify among a variety of securities (stocks, bonds, and money market instruments) or among different types of similar securities (different companies or industries in the U.S. stock market; U.S. Treasury, corporate, and mortgage-backed securities; or intermediate and long-term maturities in the bond market).

The objective of diversification across markets is to reduce the risk of volatility and poor performance in one type of security by investing in other types of securities that tend to move in opposite directions under a variety of economic conditions. Diversification is also important within the same market. In the stock market, it is important to invest in a diverse group of stocks representing companies in a variety of industries to reduce the impact of changing economic conditions on one or several industries. In general, as the number of stocks of different companies in your portfolio increases, the more diversified your portfolio becomes. In the bond market, diversification results from investing in bonds in different sectors of the market with varying maturities and credit quality.

While diversification does not insulate you from losses on particular investments, it can reduce the risk of incurring large losses on your entire portfolio. In a retirement savings plan, where you are building a large portfolio that will be invested for a long time, diversification is an important principle to consider. You should think about your other sources of retirement income and the risk associated with your other assets or investments when deciding on the appropriate level of risk for your TSP account.

Risks and Returns of TSP Investment Options

Because it is impossible to predict future stock or bond market movements, investors often consider past performance to evaluate the relative risks and returns of investment alternatives. You should review performance over many years to observe how the investment performed in a variety of economic conditions; however, there is no guarantee that the performance will be repeated in the future.

The three TSP investment options permit participants to invest in the three major financial markets: the money market (short-term debt securities), the equity market (common stocks), and the bond market (longer-term debt securities). Each of the three funds has different investment characteristics and risks, which provides the opportunity for broadly diversified investments. The three funds are described briefly below. A detailed description of the three funds appears on pages 13 – 22 .

Government Securities Investment (G) Fund — The G Fund is invested in short-term nonmarketable U.S. Treasury securities guaranteed by the full faith and credit of the U.S. Government. There is no possibility of loss of principal from default by the U.S. Government and, thus, no credit risk. The current Board policy of investing in only short-term securities also eliminates the risk of loss from fluctuations in the value of securities as a result of changes in overall market rates of interest (market risk). G Fund earnings are composed entirely of interest income on the securities. G Fund interest is reinvested by the Board as it is received from the U.S. Treasury.

Common Stock Index Investment (C) Fund — The C Fund is invested in a Standard & Poor's 500 (S&P 500) stock index fund. The S&P 500 index consists of 500 stocks representing approximately 72% of the market value of the U.S. stock markets. Historically, the primary source of earnings has been the net changes in the prices of the stocks, although dividend income is a major component of earnings. Because the C Fund is broadly diversified (that is, invested in many companies in many different industries), the effect of poor performance in a company or group of companies in one industry is reduced. However, losses occur as the S&P 500 index declines in response to changes in overall economic conditions.

Fixed Income Index Investment (F) Fund — The F Fund is invested in a Lehman Brothers Aggregate (LBA) bond index fund. The LBA index represents a large and diversified group of securities in the major sectors of the U.S. bond markets: U.S. Government, corporate, and mortgage-backed securities. Although gains or losses in principal resulting from changing market interest rate levels can make up a sizable portion of F Fund earnings in any one year, in the long run, interest income on the securities is likely to be the dominant component of earnings. Although the risk of nonpayment of interest or principal is relatively low, the possibility exists that a corporate bond or mortgage-backed security issuer could default on the payment of interest or principal. The effect of such a default in the corporate or mortgage-backed securities sector is reduced because a large portion of the F Fund is invested in securities guaranteed by the U.S. Government, and the corporate sector contains a large number of securities issued by a wide variety of large corporations.

Historical Performance of TSP Investment Options

Chart 1 shows the performance of G Fund-related securities, the S&P 500 index (C Fund), the LBA index (F Fund), and inflation each year from 1976 – 1997. Chart 2 provides the annual performance of G Fund-related securities, the S&P 500 index, and inflation from 1961 – 1997. (Performance data for the LBA index are available only from 1976 and for the G Fund-related securities only from 1961.) Charts 1 and 2 illustrate that the G Fund is the safest of the three funds because its returns are the most stable and there are no negative returns.

Chart 1 shows that the F Fund is riskier than the G Fund because the returns are more volatile (that is, they tend to vary more from year to year) and because there is the potential for negative returns. In 1994, for example, the F Fund return was – 3.0%.

As shown in Charts 1 and 2, the C Fund is the riskiest of the three investment alternatives, i.e., the most volatile. There were a number of years when a large loss or gain was followed by a large move in the opposite direction in the next year.

Chart 1

G Fund, S&P 500 Index, LBA Index, and Inflation
1976 – 1997

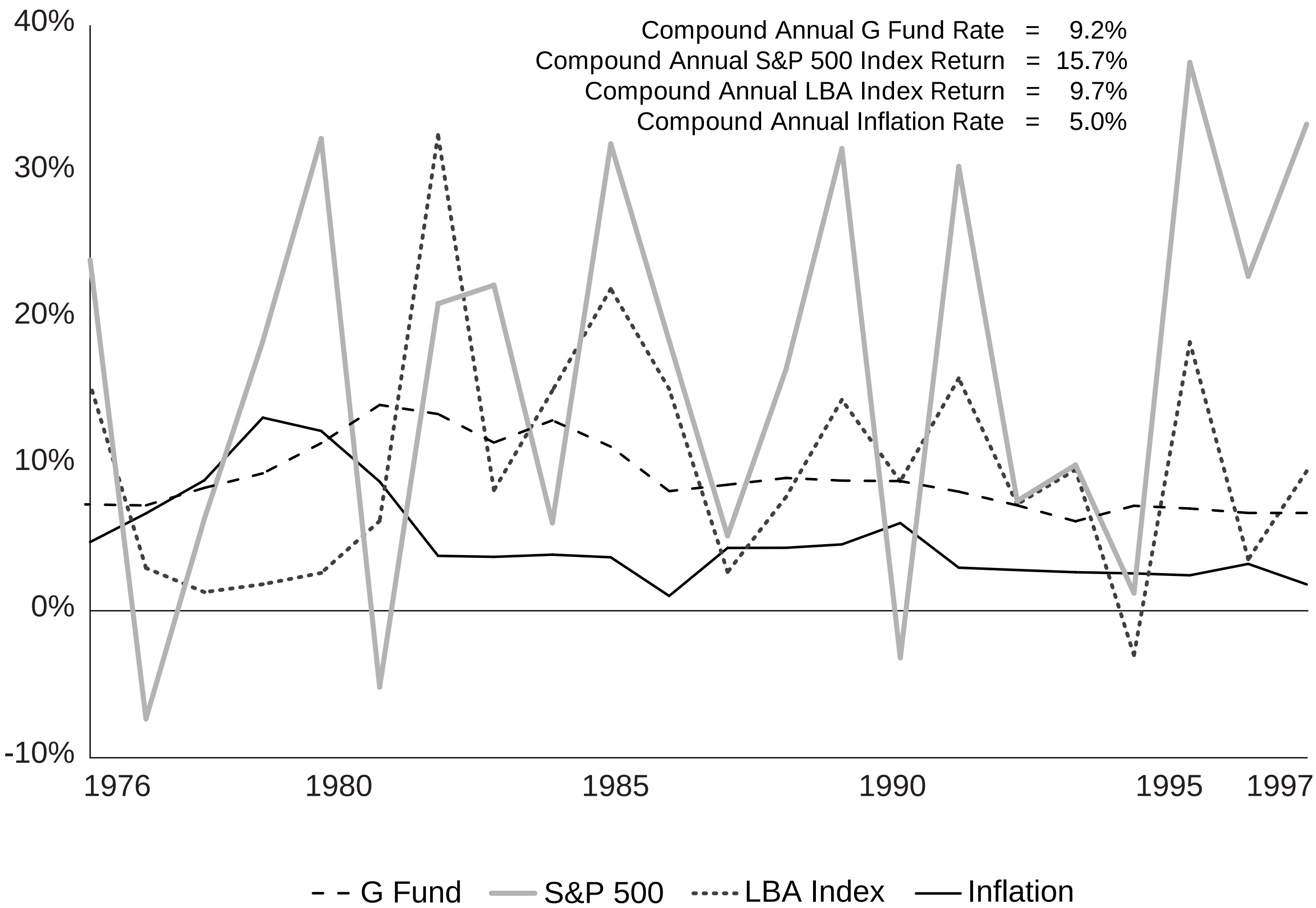
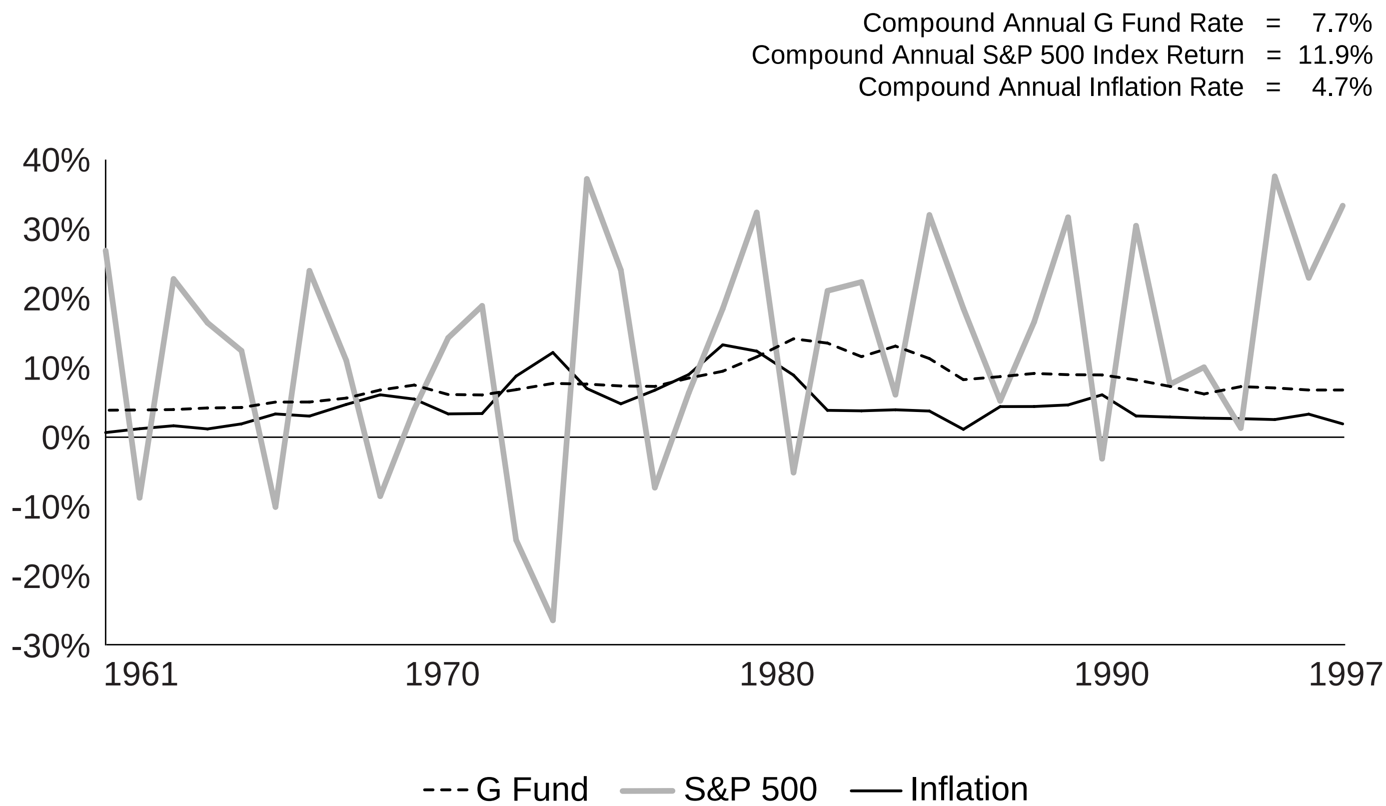


Chart 1 shows that the compound annual return for the period from 1976 – 1997 was 9.2% for the G Fund-related securities, 15.7% for the S&P 500 index, and 9.7% for the LBA index. While the S&P 500 provided a substantially greater return over the 22-year period, the chart shows that there were several individual years during the period when the S&P 500 return was much lower than the G Fund or LBA return. There were 3 years in which the S&P 500 index return was negative.

As Chart 2 shows, from 1961 – 1975 there were 5 years when the annual S&P 500 return was negative.

Chart 2

G Fund, S&P 500 Index, and Inflation
1961 – 1997



Balancing Risks and Returns

The G, C, and F Funds offer you the diversification opportunities described on page 2. The C and F Funds provide broad diversification between the U.S. stock and bond markets. In addition, the C and F Funds offer you diversity within the stock and bond markets. Standard & Poor's Corporation selects stocks for the S&P 500 index that are representative of the companies and industries in the U.S. stock market. Lehman Brothers selects bonds for the LBA index that reflect the different sectors of the bond market and different maturities within those sectors. The short-term G Fund securities complement the longer-term maturities in the LBA index to provide full coverage of the U.S. fixed-income markets.

Thus, you can follow the principle of diversification in your TSP account by choosing an investment mix of the G, C, and F Funds with which you are most comfortable. You may invest in the riskier C and F Funds for the potential of attractive returns, with the knowledge that the S&P 500 index and LBA index are widely diversified portfolios. You can offset the risk of stock and bond market losses by also investing in the risk-free G Fund.

Although there is no guarantee that the past performance of the S&P 500 index is an indicator of future performance, the historical S&P 500 index returns do show that the investor who remained invested in the S&P 500 index over long periods generally was rewarded with a higher return than investors in fixed-income securities such as those contained in the LBA index and the G Fund.

Appendix 1 contains the total rates of return for the past 10 years for G Fund-related securities, the S&P 500 index, and the LBA index. For the actual monthly and annual total rates of return of the G, C, and F Funds since 1988, see Appendix 2.

The Effect of Inflation and Taxes on Your TSP Savings

In addition to your investment objectives, time horizon, and the risk-versus-return relationship of TSP investment alternatives, you should consider the effects of inflation and taxes on the purchasing power of the money you are saving for retirement.

Inflation

The Consumer Price Index (CPI) represents the change in the price of a basket of consumer goods and is a common measure of the inflation rate. The U.S. economy has experienced inflation every year since 1954. An item that cost $10 in January 1955 cost $60.46 in December 1997, based on the CPI rates during the period. The purchasing power of your investments will be reduced by cumulative inflation unless you earn a rate of return high enough to offset inflation. Although it is impossible to predict future inflation rates, it is instructive to look at historical inflation rates under a variety of economic conditions.

Chart 1 above compares the rate of change in the CPI (inflation) to the returns of the securities in the G Fund, S&P 500 index, and LBA index. The CPI increased an average of 5.0% per year from 1976 – 1997. However, as Chart 1 shows, the compound annual returns of the three TSP investment alternatives were greater than the compound annual inflation rate. Chart 2 illustrates that over the past 37 years the S&P 500 index has produced, on average, a return 7.2 percentage points higher than the annual inflation rate, while the average G Fund return was 3.0 percentage points higher than inflation.

Taxes

The TSP offers substantial tax advantages compared with most other investment alternatives available to you. Income taxes on TSP contributions are deferred, reducing your tax bill for the current year. Income taxes on the earnings in your account are also deferred, allowing substantial additional growth in compound earnings over the years compared to an investment where earnings are subject to income taxes each year.

However, amounts withdrawn from your TSP account will be subject to income taxes. This means that in addition to the reduction of the purchasing power of your TSP account because of inflation, taxes will further reduce the retirement income available to you from your TSP account.

Using a simplified 1-year example, which ignores the long-term tax benefits of the TSP, assume you invest $100 at 10% for a year in which inflation is 6% and your marginal tax rate is 40% (Federal, state, and local income taxes). Your net return after taxes and inflation will be zero, in which case you will have just maintained the purchasing power of your $100 investment. It is partly the risk of loss in purchasing power that leads many financial experts to advise individuals to place at least some of their long-term investments in the stock market. Despite the volatility of the stock market, stock market investments have done a better job of preserving purchasing power in most long periods compared with other investment alternatives.

You may not know what your tax rate is going to be when you retire or how you will choose to withdraw funds from the TSP. Nor can you predict inflation or investment returns in coming years. The simple example outlined above, however, realistically portrays the conditions faced by many individuals in the last 20 years. Therefore, you should consider inflation expectations and your personal tax situation in your financial planning for retirement.

Making Your TSP Investment Decisions

When making your TSP investment decisions among the G, C, and F Funds, you should consider your age, your total financial situation (including your estimated income from other investments and other retirement benefits), and your retirement plans.

Generally, if you are relatively young (in your 20s or 30s), you are in a position to accept the risk of short-term losses in exchange for the potential of higher long-term returns. Therefore, you may want to consider investing a large portion of your TSP account in the C Fund and a moderate portion in the G and F Funds. C Fund investments may help you keep ahead of inflation, and F Fund investments will balance overall returns when market interest rates, and thus G Fund rates, are declining.

If you expect to receive substantial income from other investments or from CSRS or FERS basic annuities and Social Security, which include cost-of-living increases, you may conclude that you will have sufficient purchasing power in retirement and that you should defer withdrawing your TSP account until long after retirement. In such circumstances, even though you may be close to retirement age, your investment horizon may be so long that you may choose to allocate a significant share of your TSP account to the C Fund. If you are nearing retirement age and you expect that you will need all or most of your TSP account immediately upon retirement, you may want to consider reducing your C and F Fund balances and increasing your G Fund balance.

If you have other large investments in common stocks outside of the TSP, you may wish to diversify by investing your TSP account largely in the G or F Funds. If you are going to borrow a large portion of your account through the TSP loan program, you may want to follow a conservative strategy of investing in the G Fund before borrowing from your account to ensure that the amount you intend to borrow is not exposed to short-term swings in the stock or bond market.

Chart 3 illustrates the returns from various combinations of G Fund, S&P 500 (C Fund), and LBA (F Fund) investments, based on their compound annual returns during the 22 years from 1976 – 1997. The returns ranged from 9.2% for G Fund investments to 15.7% for C Fund investments.

Chart 3

Portfolio Mix of G Fund, S&P 500, and LBA
Compound Annual Returns 1976 – 1997

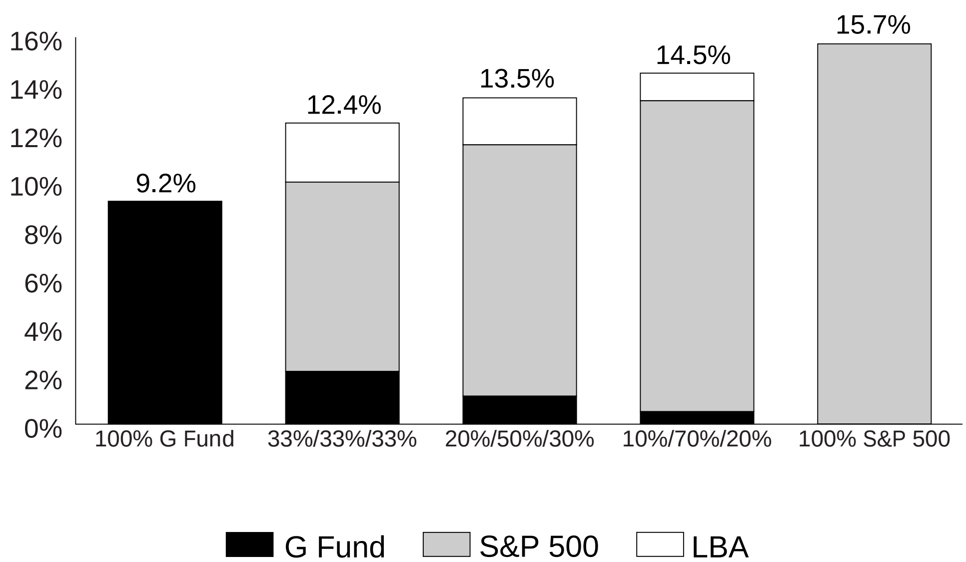
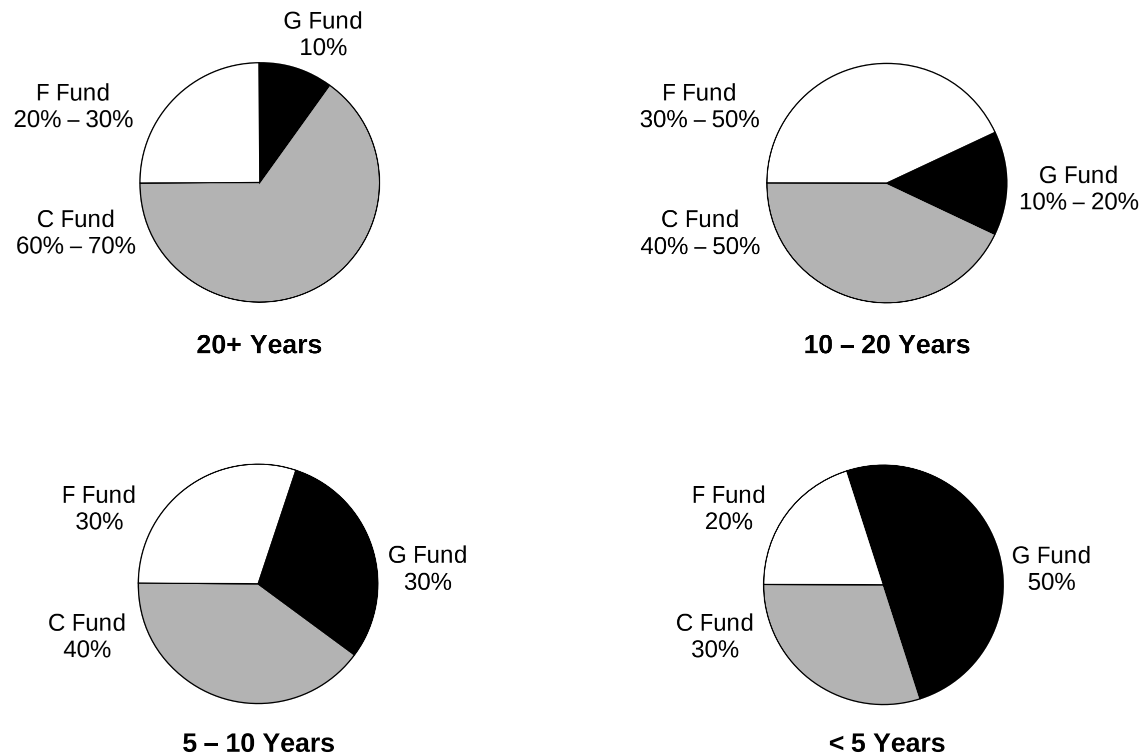


Chart 4 summarizes some possible investment combinations based on time horizon — the number of years until retirement or later if you will not need to withdraw your TSP assets at retirement. **These allocations are presented for illustrative purposes only; they are not presented as investment advice or recommendations by the Board.** Your investment choices depend on your individual financial situation and your willingness to accept the possibility of losses in the C and F Funds.

Chart 4 **Investment Choices by Time Horizon**



The money in your TSP account is yours, and you are the only person who knows what is the right investment strategy for you.

Investment Techniques

Once you have decided how to invest your money, you must decide how to implement your strategy. You have two ways to affect the investment of your account. You can reallocate the distribution of your existing TSP balances by interfund transfers, and you can allocate your future payroll contributions to the funds of your choice. Regardless of your investment strategy, you should review your TSP investment mix from time to time to determine whether your financial position is in line with your retirement plans.

Interfund Transfers

Interfund transfers are a useful tool to adjust your investment mix. When considering an interfund transfer, it is often better to make several small interfund transfers over a long period rather than one large interfund transfer. This strategy should reduce the risk of loss from large changes in market prices at the time of your transfer. If the stock or bond market suffers a big loss in the month in which you make a large transfer and you are moving money out of the C or F Fund into the G Fund, you will suffer a large one-time loss. In the reverse situation, if you are transferring money into the C or F Fund and the stock or bond market has moved up dramatically, you might be investing at peak prices.

You might think you can avoid this situation by carefully timing your interfund transfer in anticipation of expected stock or bond market movements. However, stock and bond market movements can take market experts by surprise, and it is unlikely that you will be able to predict consistently the turning points in the markets. Also, interfund transfers take place once a month, so you cannot move money "instantly" among the TSP funds in response to short-term events.

Market Timing — Investors engage in market timing when the investors move money from one investment to another based on their opinion as to the likely performance of those investments in the near future. Market timing is usually motivated by the belief that one can make profits during periods of good investment performance and avoid losses during periods of poor performance by skillfully switching money among different investments. For market timers, investing is reduced to a game in which one constantly tries to be in the right place at the right time. If the investor guesses correctly often enough, the result may be better investment returns than those for investors who "buy and hold" the same investments. While it is certainly possible to "beat the market" by market timing for short periods, most investment experts believe such success is highly unlikely consistently over long periods.

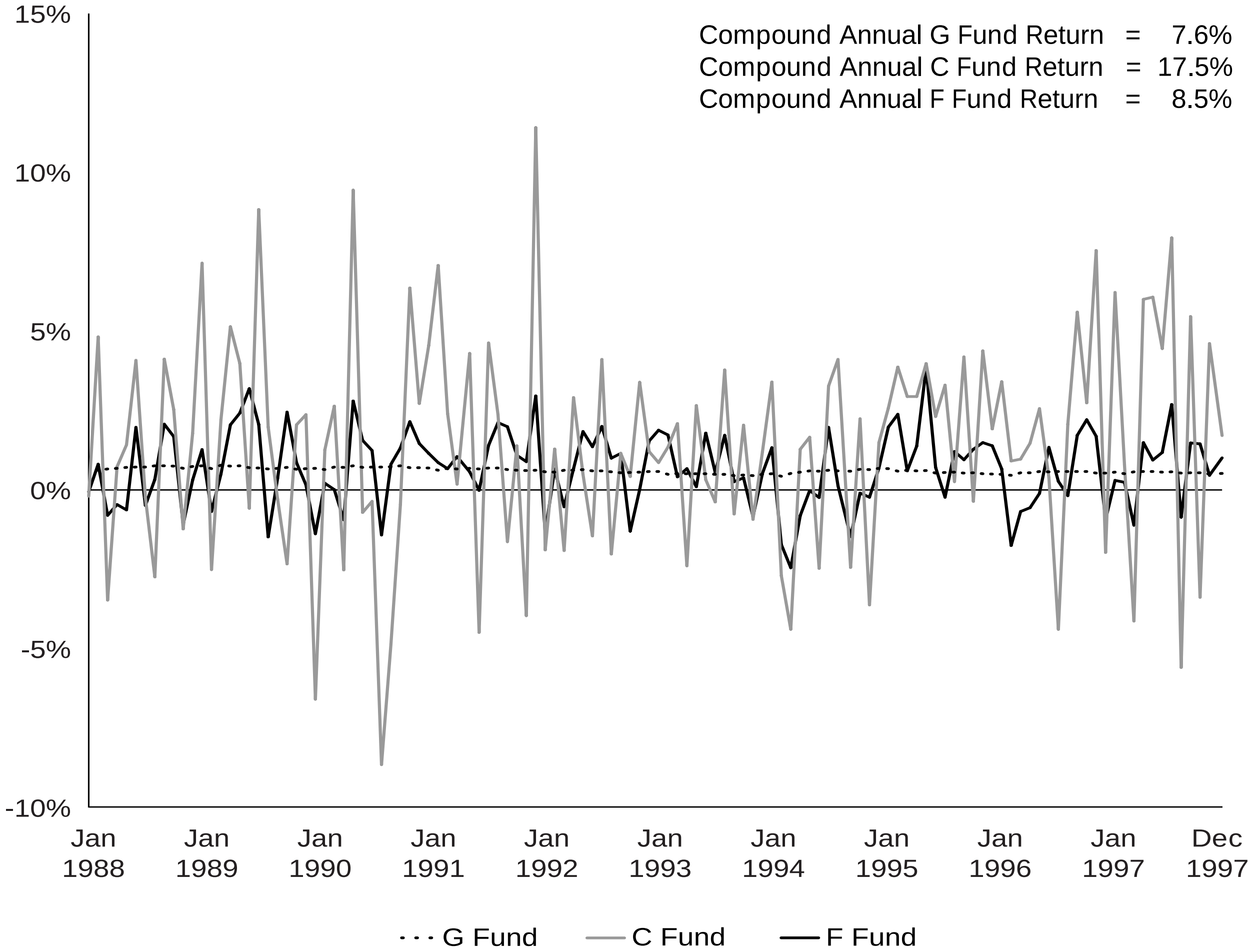
Stock and bond investments can experience short periods of several months in which dramatic and unexpected swings occur. For example, in 1980 the LBA index lost 8.8% from January through February, gained 18.9% from March through June, and lost 5.3% from July through December. The S&P 500 index has shown even more dramatic swings. From September through November 1987, the S&P 500 index lost 29.6% of its value. In the next 3 months (December 1987 – February 1988), the S&P 500 index gained more than 17.2%.

The experience of the C and F Funds provides similar examples of rapid market movements. As Chart 5 shows, from January 1988 through December 1997, C Fund monthly returns ranged from a high of 11.4% in December 1991 to a low of – 8.7% in August 1990. Between June and October 1990, the C Fund lost 14.4% and then gained 30.9% from November 1990 through May 1991. From February through December 1994, the C Fund lost 2.0%, but rallied in 1995 with a 37.4% return. The F Fund has not been as volatile as the C Fund, but its monthly returns have ranged from 3.8% in May 1995 to – 2.4% in March 1994. Of course, the G Fund has been a steady performer, always producing positive returns.

As these examples illustrate, large market movements can occur rapidly. By the time the market timer reacts to the situation, the market may be moving in the opposite direction. If you miss one or two brief upswings in a decade, your investments may underperform the average market return for the entire period. Depending on the particular signals that spur a market timer to action, the market timer may capture some upswings and may avoid some downswings, but these switching tactics are highly unlikely to be successful consistently over long periods.

Chart 5

G, C, and F Fund Monthly Returns
January 1988 – December 1997



Allocating Future Contributions

Allocating future payroll contributions to the funds of your choice avoids the market-timing risks associated with interfund transfers. This strategy is called dollar cost averaging. In the long run, you may benefit from this slower, more conservative approach to achieving your investment mix, rather than moving your money on 1 day through an interfund transfer. You can use dollar cost averaging to change your TSP investment mix gradually through your investment allocations on the Election Form (TSP-1). You can change your investment election on Form TSP-1 during the semiannual TSP open seasons which are May through July and November through January.

Dollar Cost Averaging — Dollar cost averaging is a long-term “buy and hold” strategy of investing fixed dollar amounts at regular intervals over time. The investor buys more shares when market prices are low and fewer shares when market prices are high. Dollar cost averaging thus results in lowering the average cost per share of the investments. The following chart is an example of the advantage of dollar cost averaging.

Period	Investment Amount	Share Price	Shares Purchased
1	$ 200	$ 50	4
2	$ 200	$ 40	5
3	$ 200	$ 20	10
4	$ 200	$ 40	5
Totals	$ 800	$150	24

- Average market price per share = $150/4 = $37.50 over the 4 periods
- Investor's cost per share = $800/24 = $33.33

The success of dollar cost averaging depends on regular investing over a long period of time regardless of price fluctuations. It will only result in lowering the average cost per share if investments continue when share prices are dropping. The same amount of money will buy more shares when prices are lower. This is what causes the investor's weighted average share price to be lower than the market average share price. In the above example, if $800 were invested at one time rather than over four periods, the only period that the investor would have successfully "timed the market" was the third period. In the first, second, and fourth periods, the share price is higher than the average price obtained by dollar cost averaging.

TSP participants can take advantage of dollar cost averaging by contributing to the C and F Funds through payroll deductions. The C Fund is invested in the Barclays Equity Index Fund, and the F Fund is invested in the Barclays U.S. Debt Index Fund. Although participants in the C and F Funds do not, individually, own units of the Barclays funds, the C and F Funds do own units of the Barclays Equity Index Fund and the Barclays U.S. Debt Index Fund, respectively. The unit values of the two Barclays funds and the security prices of stocks and bonds associated with the regular C and F Fund purchases are invisible to participants. Dollar cost averaging takes place at the C and F Fund level and the results are included in individual TSP accounts. Therefore, by regular contributions to the C Fund or F Fund, participants share proportionately in all C or F Fund investments and thus benefit from dollar cost averaging. Dollar cost averaging does not occur in the G Fund because the value of G Fund securities is fixed and does not fluctuate.

While dollar cost averaging does not protect investors against losses when stock or bond markets are declining, it does reduce the risk of investing by ensuring that stock and bond purchases are made at a variety of prices, buying more shares at lower prices and fewer shares at higher prices. Dollar cost averaging also eliminates the risk of investing all your money in the stock or bond market at market peaks.

II. TSP Investment Fund Management

The G, C, and F Funds are passively managed. Passive investment management is generally defined as a strategy of investing in a diversified portfolio in which a "buy and hold" strategy is pursued. In contrast, active investment management strategies often involve the selection of securities in response to or in anticipation of economic trends (market timing) or selection of securities based on identification of companies or industries that are undervalued or offer good growth potential. The assumption underlying active investment management is that securities selected on the basis of certain criteria will "beat the market."

Indexing is a common form of passive management in which securities are held in proportion to their representation in the stock or bond markets. The philosophy of indexing is that over the long term it is difficult to beat the average return of the market. Because securities are held based on their market representation, indexing does not require research on individual companies or individual securities. Also, securities in the indexes generally are not changed frequently, which means securities are bought and sold less often, resulting in low trading costs. As a result, the investment management fees and trading costs incurred from following a passive indexing style generally are substantially lower than similar costs associated with active management.

G Fund

The G Fund consists exclusively of investments in short-term nonmarketable U.S. Treasury securities specially issued to the TSP by the U.S. Treasury. The U.S. Treasury holds the assets of the G Fund in trust. Currently, maturities range from 1 day on business days to 4 days over holiday weekends. Such daily investments are in book-entry form and do not involve any transaction costs to the TSP. The G Fund rate is set once a month by the U.S. Treasury, and all G Fund investments earn interest at that rate for the month. The Board pursues a strategy of investing the G Fund in short-term securities regardless of the G Fund rate. As a result, the value of G Fund securities does not fluctuate. Thus, when the monthly G Fund rate goes up, G Fund earnings increase; when the G Fund rate declines, G Fund earnings decrease.

All investments in the G Fund earn interest at a statutory rate that is equal, by law, to the average of market yields on U.S. Treasury marketable securities outstanding with 4 or more years to maturity. The G Fund rate is calculated by the U.S. Treasury using the closing market bid prices (the prices at which dealers are willing to buy securities) of approximately 100 U.S. Treasury securities on the last day of the previous month. These market prices are used to calculate the yield of each security. The yield of each security has a weight in the G Fund rate calculation based on the market value of each security (dollar amount outstanding of the security times the current market price).

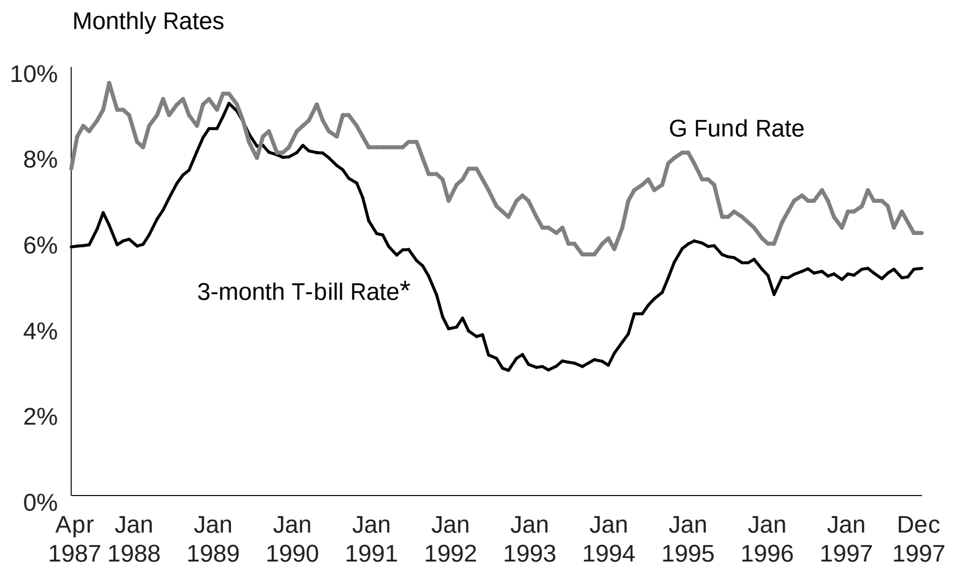
The larger the dollar amount outstanding for a security, the larger the weight in the calculation. Thus, the G Fund rate is a weighted average of yields on approximately 100 Treasury marketable notes and bonds with a weighted average maturity of approximately 14 years. (The G Fund rate formula is the same as that used for the calculation of the interest rate for the investments of the Social Security Trust Funds and the Civil Service Retirement Trust Fund.)

The G Fund rate calculation and the Board's policy of investing exclusively in short-term securities result in investors' receiving a longer-term rate on short-term securities, while avoiding the market risk associated with longer-term securities. Generally, long-term rates are higher than short-term rates; therefore, G Fund securities generally yield a higher rate of return than short-term marketable Treasury securities available to private investors. However, G Fund rates of return may well be lower than those of the C and F Funds over the long term.

To demonstrate this, the G Fund can be compared with 3-month marketable Treasury securities (T-bills). Chart 6 illustrates the G Fund yield advantage over 3-month T-bills from April 1987 (when the G Fund began) through December 1997. The unique G Fund interest rate averaged 1.9 percentage points per year more than 3-month Treasury bill rates during the period.

Chart 6

G Fund Yield Advantage
April 1987 – December 1997



* Source: Federal Reserve Statistical Release G.13
(Yields expressed on a coupon-equivalent basis)

All TSP contributions are invested in the G Fund on the day that the contributions are credited to participant accounts. The Board invests the contributions that are processed each day directly with the Treasury, thus avoiding any trading costs.

C and F Funds

By law, the C Fund must be invested in a stock index fund. The objective of the C Fund is to match the performance of the index. The Board has chosen to invest the C Fund in the stocks in the S&P 500 index, which tracks the overall performance of the major companies and industries in the U.S. stock markets. As prices of the stocks of the companies in the S&P 500 index rise and fall, the S&P 500 index and C Fund returns will rise and fall. The C Fund gives participants the opportunity to diversify their investments and to earn the relatively high investment return that stocks can provide over the long term, while lessening the effect that the poor performance of an individual stock or industry will have on overall investment performance. **The C Fund remains fully invested in the stocks in the S&P 500 index regardless of stock market movements or general economic conditions.**

By law, the F Fund must be invested in fixed-income securities, and the Board has chosen to invest the F Fund in a bond index fund. The objective of the F Fund is to match the performance of the U.S. bond market. The F Fund is invested in the bonds in the LBA index, which tracks the overall performance of the U.S. bond market. As interest rates rise, bond prices fall. This is because, when interest rates rise, the coupon rate (rate at which interest is paid) on new securities is higher than the coupon rate on older securities. Therefore, the price investors are willing to pay for the older securities must decline to make the yields of the older securities equal to the returns available on the new securities. During periods of rising interest rates, the bonds in the LBA index, and thus the F Fund, can be expected to experience losses. During periods of falling interest rates, when bond prices are rising, the LBA index and the F Fund will experience gains. Therefore, the F Fund returns will move up and down with the returns in the bond market. No attempt is made to remove F Fund investments from the bond market during periods of losses (that is, during periods of rising interest rates). The F Fund offers the opportunity for increased rates of return relative to the G Fund over the long term, especially in periods of generally declining interest rates. **The F Fund remains fully invested in the bonds in the LBA index regardless of conditions in the bond market or the economy.**

The asset managers of the C and F Funds are selected through a competitive bidding process. Proposals from prospective asset managers are evaluated on objective criteria that include ability to track the index, low trading costs, fiduciary record, experience, and fees.

The Board has contracts with Barclays Global Investors, a company owned by Barclays PLC, to manage C and F Fund assets. Barclays holds the C and F Fund assets in trust and acts as the investment manager.

Barclays is the oldest and largest investment manager of index funds in the United States, with $500 billion in assets. The contracts were effective January 1, 1996, and expire on December 31, 1998, with options to extend the contracts for an additional 2-year period.

S&P 500 Index

The C Fund is invested in the Barclays Equity Index Fund, and the F Fund is invested in the Barclays U.S. Debt Index Fund. The Equity Index Fund and U.S. Debt Index Fund are commingled trust funds in which the assets of public and corporate tax-exempt employee benefit plans are combined and invested together. Barclays keeps separate accounting records for each plan that is in the Equity Index Fund and the U.S. Debt Index Fund. As of December 31, 1997, 269 employee benefit plans were invested in these funds.

The two Barclays funds are not mutual funds and are not open to individual investors. They are open only to tax-exempt employee benefit plans.

Because the C and F Fund assets are held in trust by Barclays, they are not assets of Barclays or any entity of Barclays; rather, they are assets of the Thrift Savings Fund. The money in the C and F Funds cannot be used to meet the financial obligations of Barclays or any related companies. **Therefore, the C and F Fund assets are protected from any adverse financial situation involving Barclays or any of its subsidiaries or affiliates.**

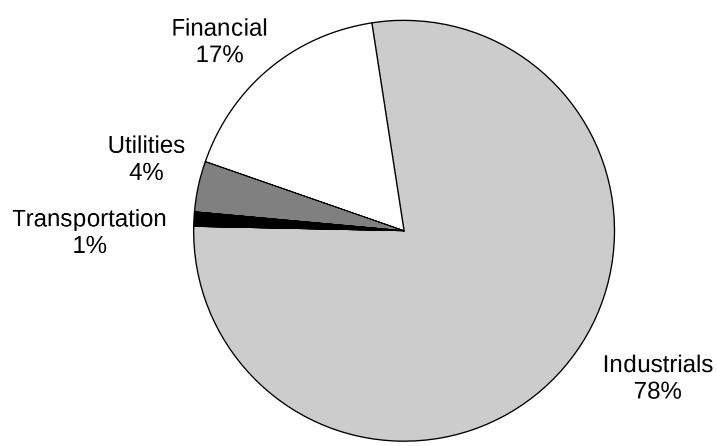
Barclays is a fiduciary with respect to C and F Fund assets. This means that it must act solely in the interests of the participants and beneficiaries whose assets it holds in trust. Barclays is subject to a variety of laws and audits designed to protect pension plan assets. Barclays' operations are subject to review by the Office of the Comptroller of the Currency, the Securities and Exchange Commission, the Federal Reserve, and the Department of Labor. In addition, the Equity Index Fund and the U.S. Debt Index Fund are audited annually. Barclays personnel are bonded, and Barclays has a fiduciary insurance policy which covers breaches of fiduciary responsibility.

The C Fund is invested in the Barclays Equity Index Fund which tracks the S&P 500 index. The S&P 500 index was designed by Standard & Poor's Corporation to provide a representative measure of stock market performance. The index includes common stocks of 500 companies that are traded in the U.S. stock markets, primarily on the New York Stock Exchange. These stocks represent 103 separate industries grouped into four major sectors: industrials, utilities, financial, and transportation. The percentage composition of the S&P 500 by major industry group is shown in Chart 7. The stocks in the S&P 500 make up approximately 72% of the market value of the U.S. stock markets.

The 500 companies in the index are selected by S&P primarily based on the companies' representation of their industry groupings. S&P does not select companies because the firms are expected to have superior stock price performance relative to the stock market in general or to other stocks. S&P's sole objective is to maintain the S&P 500 index as a representative measure of U.S. stock market performance. If a company in the S&P 500 index is taken over by or merged with another company, S&P will remove the company from the index and add another firm in its place. Although mergers and acquisitions are the most common reasons for changes to the S&P 500 index, S&P also removes companies from the index which file for protection under the Federal bankruptcy laws because of financial failure.

Chart 7

S&P 500 Index
Major Industry Groups*



*As of December 31, 1997

The weighting of stocks in the S&P 500 index is based on each stock's total market value, that is, its market stock price per share times the number of shares outstanding, relative to the market value of the other stocks in the index. As a result, the S&P 500 is considered a "big company" index, and the largest companies in the index represent the largest portion of the index. As of December 31, 1997, the largest 100 companies in the S&P 500 represented 66% of the S&P 500 market value.

Many of the stocks in the S&P 500 index are household names, such as General Motors, McDonald's, and Walt Disney. The 20 largest companies in the index, as of December 31, 1997, are listed in Chart 8.

Most of the companies in the S&P 500 index pay dividends. The dividend yield (dividends divided by current market price) for the S&P 500 index as of December 31, 1997, was 1.6%. This means that, at December 31 market prices, annual dividend income equals approximately 1.6% of the market value of the S&P 500 index. Of course, the dividend yield varies with stock prices. Assuming relatively stable dividend payments, the dividend yield will rise when stock prices fall and decline when stock prices rise. Thus, dividend income provides a cushion when S&P 500 stock prices are dropping.

Chart 8

Largest Companies in S&P 500 Index

December 31, 1997

(Based on the Total Market Value of the Company
Relative to the Total Market Value of the Index)

Rank	Company	Percent of Total Value of the S&P 500 Index	Cumulative Percent
1	General Electric Company	3.18	3.18
2	Coca Cola Company	2.18	5.36
3	Microsoft Corporation	2.06	7.42
4	Exxon Corporation	2.00	9.42
5	Merck & Company, Inc.	1.69	11.11
6	Royal Dutch Petroleum Co.	1.54	12.64
7	Intel Corporation	1.52	14.17
8	Philip Morris Companies, Inc.	1.45	15.62
9	Procter & Gamble Company	1.42	17.04
10	IBM Corporation	1.35	18.39
11	AT&T Corporation	1.32	19.70
12	Pfizer, Inc.	1.28	20.98
13	Bristol-Myers Squibb Company	1.25	22.22
14	Wal-Mart Stores	1.18	23.40
15	Johnson & Johnson	1.17	24.57
16	Lilly (Eli) & Company	1.02	25.60
17	American International Group	1.01	26.61
18	Bell Atlantic Corporation	0.94	27.54
19	Du Pont (E.I.)	0.90	28.44
20	SBC Communications, Inc.	0.89	29.33

Percentages do not add due to rounding.
Source: Standard & Poor's Corporation

Barclays Equity Index Fund — As of December 31, 1997, the Barclays Equity Index Fund contained $91.6 billion, of which the TSP was $29.9 billion. The Equity Index Fund holds common stocks of all the companies represented in the S&P 500 index. (A small portion of Equity Index Fund assets, principally dividend income and small cash balances, is invested in S&P 500 index futures contracts.)

Although the Equity Index Fund is not a mutual fund, it operates in a similar manner. The Equity Index Fund accepts contributions and disburses withdrawals daily. C Fund contributions are invested in the Equity Index Fund four times each month, approximately once a week. C Fund contributions are invested by the Board in the G Fund upon receipt until they are invested in the Equity Index Fund. Interfund transfers are made on the last business day of the month.

C Fund contributions buy units of the Equity Index Fund at a unit value that is based on the closing S&P 500 index market prices on the day the investment is made. Assuming level cash flows, the C Fund buys more units of the Equity Index Fund when stock prices are low and fewer units when stock prices are high. Each unit of the Equity Index Fund represents a proportionate share of all the stocks held in the Equity Index Fund.

The Equity Index Fund incurs trading costs when it purchases or sells stock in the stock market. When trading costs are incurred, they reduce the amount of the C Fund contributions invested in the Equity Index Fund, thus reducing the total return to C Fund participants. However, because of the large asset size and the large number of clients in the Equity Index Fund, many C Fund purchases (or sales) of Equity Index Fund units are partially or fully exchanged with the units of other clients who are selling (or buying) units.

Full unit exchanges occur when the amount being purchased by the TSP is less than or equal to the amount being withdrawn by other clients from the Equity Index Fund. When C Fund purchases are fully exchanged with other clients' withdrawals, the C Fund pays no trading costs. Partial unit exchanges occur when the amount being purchased by the TSP is more than the amount being withdrawn by other clients from the Equity Index Fund. When C Fund purchases are partially exchanged, the C Fund pays trading costs on only that portion of the purchase that must be executed in the stock market.

LBA Index

The F Fund is invested in the Barclays U.S. Debt Index Fund which tracks the LBA index. The LBA index was designed to measure the performance of the major bond markets in the United States and to represent the broadest sectors of the bond markets. The LBA index consists of high quality fixed-income securities, with maturities of more than 1 year, representing the U.S. Government, mortgage-backed securities, and corporate sectors of the U.S. bond market. The percentage composition of the dollar amounts of the LBA index as of December 31, 1997, by sector, is shown in Chart 9. Also shown are the percentages of the types of securities that make up each sector.

The U.S. Government sector represents 50% of the index and includes the Treasury (43%) and Agency (7%) sectors. The Treasury sector contains all public obligations of the U.S. Treasury with maturities of at least 1 year and an outstanding par value of at least $100 million. The

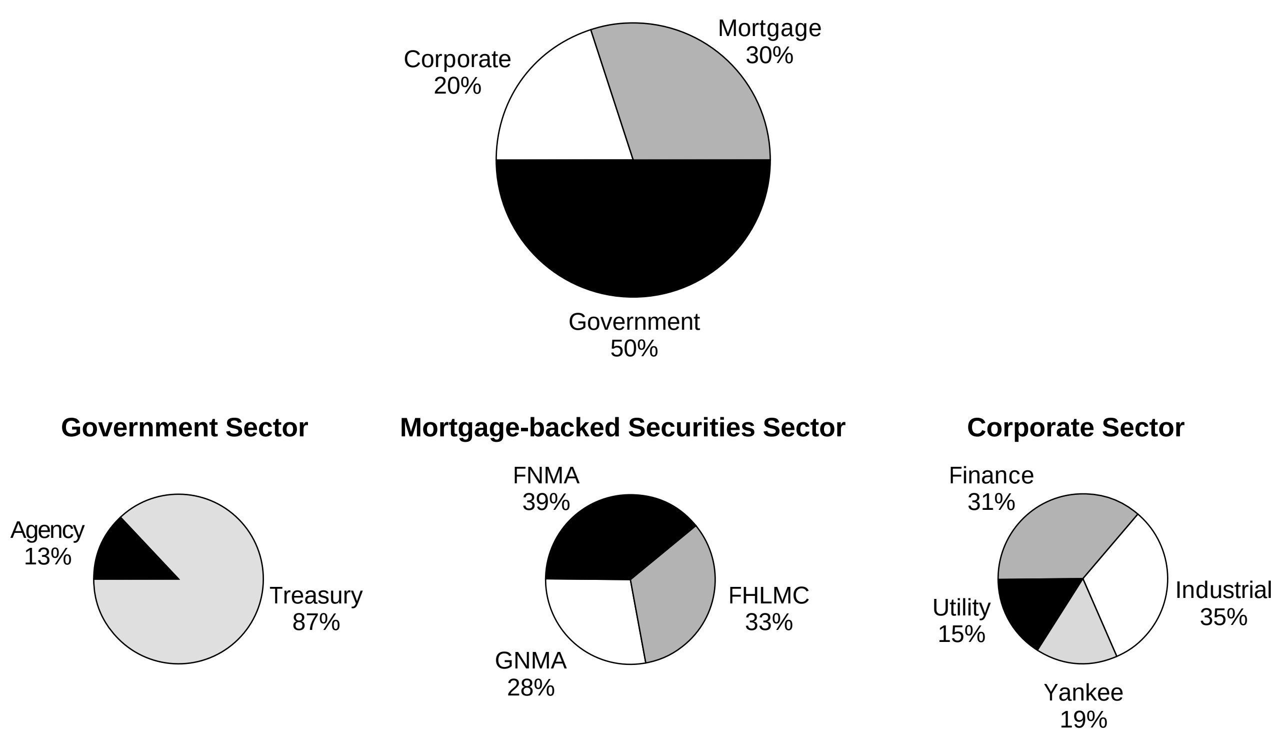
Agency sector is made up of all publicly issued obligations of federally sponsored agencies such as the Federal Home Loan Bank System and the Federal Farm Credit Bank System with maturities greater than 1 year and an outstanding par value of at least $100 million.

Mortgage-backed securities constitute approximately 30% of the LBA index. These securities include fixed-rate, pass-through securities backed by residential mortgage pools of the Government National Mortgage Association (GNMA or Ginnie Mae), Fannie Mae, and the Federal Home Loan Mortgage Corporation (FHLMC or Freddie Mac). Mortgage-backed pass-through securities are those in which investors own an interest in a pool of mortgages that serves as the underlying asset; investors receive a *pro rata* share of the cash flows, through an intermediary, from the monthly payments of mortgages in the pool.

The mortgage pools underlying Ginnie Mae pass-through securities contain FHA-insured or VA-guaranteed mortgages. Ginnie Mae guarantees the payment of interest and principal on its pass-through securities, and these Ginnie Mae securities are backed by the full faith and credit of the U.S. Government. Ginnie Mae pass-through securities represent 28% of the mortgage-backed securities sector.

Chart 9

LBA Bond Index
Bond Market Sectors*



*As of December 31, 1997

Fannie Mae and Freddie Mac are federally sponsored agencies. However, because Fannie Mae and Freddie Mac mortgage-backed securities are not explicitly guaranteed by the U.S. Government, yields on these securities are slightly higher than the yields on Ginnie Mae mortgage-backed securities. Fannie Mae and Freddie Mac securities represent 39% and 33% of the mortgage-backed securities sector, respectively.

The corporate sector represents 20% of the LBA index and contains all publicly issued, fixed-rate, investment-grade securities of U.S. companies in many different industries with maturities of at least 1 year and an outstanding par value of at least $100 million. Investment-grade securities are fixed-income securities rated at least BBB by Standard & Poor's Corporation or Baa by Moody's Investors Service. The corporate sector also includes Yankee bonds, which are U.S. dollar-denominated securities issued or guaranteed by foreign or international entities in the United States.

On December 31, 1997, the LBA contained 6,333 notes and bonds. The average LBA index coupon rate was 7.2%, which means that on an annual basis interest income will equal approximately 7.2% of the face value of the securities in the LBA index. The average LBA index maturity was 8.7 years, which means that the average security in the index will be outstanding for 8.7 years before it is redeemed at face value by the issuer. New issues are added continuously to the LBA index, and older issues drop out as they approach maturity. Maturities of the notes and bonds in the LBA index range from 1 to 30 years.

Barclays U.S. Debt Index Fund — As of December 31, 1997, the Barclays U.S. Debt Index Fund contained $15.7 billion, of which the TSP was $3.0 billion. Because the LBA index contains such a large number of securities, it is not feasible for the U.S. Debt Index Fund to invest in each security in the index. As a result, Barclays uses mathematical models to select a representative sample of the various types of U.S. Government, corporate, and mortgage-backed securities included in the overall index. Within each sector, Barclays selects securities that, as a whole, produce the same average coupon rate and average maturity as the LBA index. The performance of the U.S. Debt Index Fund is evaluated by comparing how closely its returns match those of the LBA index.

Although the U.S. Debt Index Fund is not a mutual fund, it operates in a similar manner. The U.S. Debt Index Fund accepts contributions and disburses withdrawals on two opening dates each month, approximately mid-month and the last business day of the month. F Fund contributions are invested by the Board in the G Fund upon receipt until the next mid-month or month-end opening date. Interfund transfers are made on the last business day of the month.

On an opening date, F Fund contributions buy units of the U.S. Debt Index Fund at a unit value that is based on the closing LBA index market prices on that day. Assuming level cash flows, the F Fund buys more units of the U.S. Debt Index Fund when bond prices are low and fewer units when bond prices are high. Each unit of the U.S. Debt Index Fund represents a proportionate share of all the notes and bonds held in the U.S. Debt Index Fund.

The U.S. Debt Index Fund incurs trading costs when it purchases or sells notes and bonds in the bond market. When trading costs are incurred, they reduce the amount of the F Fund contributions invested in the U.S. Debt Index Fund, thus reducing the total return to F Fund participants. However, because of the large asset size and the large number of clients in the U.S. Debt Index Fund, many F Fund purchases (or sales) of U.S. Debt Index Fund units are partially or fully exchanged with the units of other clients who are selling (or buying) units.

Full unit exchanges occur when the amount being purchased by the TSP is less than or equal to the amount being withdrawn by other clients from the U.S. Debt Index Fund. When F Fund purchases are fully exchanged with other clients' withdrawals, the F Fund pays no trading costs. Partial unit exchanges occur when the amount being purchased by the TSP is more than the amount being withdrawn by other clients from the U.S. Debt Index Fund. When F Fund purchases are partially exchanged, the F Fund pays trading costs on only that portion of the purchase that must be executed in the bond market.

G, C, and F Fund Earnings

At the end of each month, the Board calculates earnings separately for the G, C, and F Funds. G Fund earnings consist entirely of the interest earned in the G Fund for the month. C and F Fund earnings each consist of the components shown in Chart 10 and described in this section.

Chart 10 **Components of G, C, and F Fund Earnings**

	G Fund	C Fund	F Fund
Gross Earnings		Capital gain/loss	Capital gain/loss
	Interest	Dividends	Interest on notes and bonds
		G Fund interest and STIF* interest	G Fund interest and STIF* interest
		Securities lending income	Securities lending income
– Expenses	TSP expenses	TSP expenses	TSP expenses
		Management fees	Management fees
		Trading costs	Trading costs
= Net Earnings	**Net Earnings**	**Net Earnings**	**Net Earnings**

*STIF: Barclays' short-term investment fund

Components of Earnings

Capital gain or loss — The C and F Fund monthly capital gain or loss represents the change in the prices of the stocks in the Equity Index Fund and the notes and bonds in the U.S. Debt Index Fund, respectively, from the prior month end through the current month end, as well as the change in the prices of the stocks and the notes and bonds purchased during the month. Barclays uses the closing S&P 500 index and LBA index market prices on the last business day of the month to calculate the month-end value of the C and F Fund assets.

Dividend/interest income — Barclays credits dividend income to the C Fund during the month. The dividend income is reinvested in the Equity Index Fund and included in the unit value. Barclays also credits interest income to the F Fund during the month. The interest income is reinvested in the U.S. Debt Index Fund and included in the unit value.

Interest on short-term investments — The third component of C and F Fund earnings is interest earned on short-term investments while C and F Fund contributions are awaiting investment in the Equity Index Fund and the U.S. Debt Index Fund, respectively. C and F Fund contributions earn interest in the G Fund until they are transferred to Barclays. Before depositing the money in the Equity Index Fund and the U.S. Debt Index Fund, Barclays temporarily invests it in a short-term investment fund. Interest from both these short-term investments is added to C and F Fund earnings.

Securities lending income — The fourth component of C and F Fund earnings is securities lending income. Securities lending income comes from the short-term lending of stocks in the Equity Index Fund and notes and bonds in the U.S. Debt Index Fund, respectively, to a select group of brokers. The brokers put up collateral, primarily cash and Treasury securities, totaling 102% of the market value of the securities. The collateral is monitored for the life of the loan to ensure that its value does not fall below 102% of the market value of the borrowed securities. The cash collateral is invested in short-term money market instruments and in certain other short-term investments, such as interest rate swaps. Securities lending income largely offsets or exceeds investment management fees and thus reduces costs.

Barclays credits securities lending income to the C Fund and to the F Fund during the month. This income is reinvested in the Equity Index Fund and the U.S. Debt Index Fund and included in the unit values. The dividends that accrue on the borrowed stocks and the interest that accrues on the borrowed notes and bonds are also paid to the Equity Index Fund and the U.S. Debt Index Fund, respectively.

Administrative expenses — G, C, and F Fund monthly earnings are reduced by each fund's proportionate share of net TSP administrative expenses. C and F Fund earnings are also reduced by the Barclays investment management fees. The result is net earnings, which are allocated to all G, C, and F Fund participants in proportion to the size of their account balances. Because of the deduction of expenses, the actual G Fund total rates of return will generally be slightly less than the total rates of return for G Fund-related securities. (For more information on administrative expenses, see page 32.)

Comparing C and F Fund Returns with the Index Returns

The C and F Fund monthly returns vary from the S&P 500 index and LBA index monthly returns for four reasons. First, C and F Fund returns are shown after the deduction of TSP accrued administrative expenses, investment management fees, and trading costs. The index returns are shown before deduction of expenses.

Second, the C and F Fund monthly returns are dollar-weighted. This means the monthly returns reflect net earnings on the changing balances invested during the month. Because there generally is more money invested in the C and F Funds at the end of the month, the C and F Fund monthly returns are weighted toward the stock and bond market returns occurring in the latter part of the month. The index returns are time-weighted. This means they assume constant dollar balances throughout the month.

Third, C and F Fund contributions awaiting investment in the Barclays funds are invested in the G Fund. This G Fund interest may result in slight differences between the C and F Fund monthly returns and the index monthly returns.

Fourth, there may be small differences in returns between the Barclays funds, in which the C and F Funds are invested, and the underlying indexes.

Each month the Board publishes the returns on the C, F, and G Funds for the most recent 12 months. The returns assume unchanging balances (time-weighting) from month to month except for the crediting of earnings. The returns also assume that earnings are compounded on a monthly basis. The index returns for the last 12 months are also time-weighted, that is, they assume constant dollar balances invested throughout the period. Thus, the last 12-month returns represent the return on the money in your account which was invested in the fund for the entire 12-month period.

Earnings Calculation

The monthly rates of return for each fund are calculated by dividing the net earnings by the amount in each fund entitled to receive earnings for that month (the prior month-end balance plus one-half the current month's contributions (deposits) and loan payments). The rates of return are then applied to all participant accounts. They are applied to your prior month-end balance (for each fund in which you have invested) plus one-half of the sum of your current month's contributions and loan payments to that fund. Your entire account balance at the start of each month (prior month-end balance) receives full credit for that month's earnings. Contributions and loan payments for the current month are divided in half because all contributions to your account are credited for half a month, regardless of when in the month the record keeper received them. Because contributions and loan payments are received and invested throughout the month, they are invested in the G, C, and F Funds for varying lengths of time during the month in which they are processed. To treat all participants equally and consistently, the earnings allocation calculation assumes that one-half of the amount of each contribution or loan payment credited during the month is invested for the full month.

You can check the monthly net earnings credited to your account by multiplying the rate of return for the month by the prior month-end balance plus one-half the sum of the contributions and loan payments for the current month. A step-by-step explanation of this procedure is presented in the TSP Fact Sheet "Calculating Participant Earnings on TSP Investments" in Appendix 3.

Sources of TSP Investment Performance Information

You have several sources of information about the performance of TSP funds: the *TSP Highlights*, the ThriftLine, the TSP Web site, and the TSP Fact Sheet on C, F, and G Fund Monthly Returns.

You receive a complete history of G, C, and F Fund performance in the ***TSP Highlights*** which is sent with your semiannual Participant Statement (in late May and November).

You can also obtain monthly TSP rates of return from the ThriftLine described in Appendix 6. The **ThriftLine** provides the returns for the most recent month and the most recent 12-month period for the G, C, and F Funds. The information is generally updated by the 7th business day of the month. The telephone number of the ThriftLine is (504) 255-8777 (not a toll-free number). You can obtain the current and historical rates of return from the **TSP Web site** at http://www.tsp.gov.

Your agency can provide you with a copy of the TSP Fact Sheet **"C, F, and G Fund Monthly Returns."** It contains the C, F, and G Fund monthly returns, as well as the S&P 500 stock index and Lehman Brothers Aggregate bond index returns. The Fact Sheet also provides the returns for the last 12 months and the annual returns for the past 5 years. A sample Fact Sheet is provided in Appendix 4.

At the beginning of each month, the Board announces the statutory G Fund interest rate for the month. The G Fund interest rate announced at the beginning of each month is the statutory interest rate expressed on a *per annum* basis, that is, the rate that you would receive if your G Fund investments were invested at that rate for 1 year. You can estimate the monthly G Fund return by dividing the annual rate by 12, for example, 6.0% ÷ 12 = .50%. The interest rate is not adjusted for administrative expenses, compounding, or the method used to allocate earnings to participant accounts. In contrast, the monthly returns contained on the ThriftLine or in the Fact Sheet represent the actual returns, after expenses, on your investments in the G Fund for that month.

Appendix 5 describes how the Board calculates the last 12-month and compound annual returns provided in TSP publications.

You can follow the performance of the C Fund between monthly updating of the ThriftLine, TSP Web site, or Fact Sheets. Because the C Fund tracks the S&P 500 index, the S&P 500 index is a good proxy for C Fund performance, and you can follow the index in your newspaper. The percentage change in the index value from the end of the prior month to the end of the current month is the approximate return of the C Fund. Please note that the daily S&P 500 index values do not include the reinvestment of dividends. As a result, the C Fund returns, which do include the reinvestment of dividends, will be higher than the published S&P 500 index values.

The example in Chart 11 shows how to estimate the C Fund return. The example shows the calculation of the December 1997 C Fund return, but you can use this method to estimate the C Fund return for any length of time.

Chart 11

How to Track C Fund Performance

Calculation of December 1997 C Fund Return

Closing S&P 500 Index Value*		
November 30, 1997	=	955.40
December 31, 1997	=	970.43
Percent Change	=	((970.43 – 955.40) ÷ 955.40) x 100 = 1.57%
Annual Dividend Yield**	=	1.61%
Monthly Dividend Yield	=	1.61% ÷ 12 = .13%
Estimated C Fund Return	=	1.57% + .13% = 1.70%
Actual C Fund Return	**=**	**1.71%**

* Available in most daily newspapers.

** Calculated by Standard & Poor’s Corporation. The S&P 500 annual dividend yield has ranged from approximately 1.6% to 3.9% from 1988 through December 1997.

As of the date of this booklet, newspapers do not publish the daily LBA index values or returns. However, you can use other information to track the performance of the F Fund. In Section C of *The Wall Street Journal*, there is a table called Bond Market Data Bank. The last section of the Major Indexes listing in the table is “Broad Market.” The “Domestic Master” line in this section is representative of the performance of the LBA index. The example in Chart 12 shows how to estimate the F Fund return using the Domestic Master index values. The example shows the calculation of the December 1997 F Fund return, but you can use this method to estimate the F Fund return for any length of time.

Chart 12

How to Track F Fund Performance
Calculation of December 1997 F Fund Return

Closing LBA-Equivalent Index Value*

November 30, 1997	=	753.78
December 31, 1997	=	761.73
Percent Change	=	((761.73 – 753.78) ÷ 753.78) x 100 = 1.05%
Estimated F Fund Return	=	1.05%
Actual F Fund Return	**=**	**1.01%**

* Domestic Master line in Broad Market section of the Bond Market Data Bank table in Section C of *The Wall Street Journal.*

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III. TSP Operations

Monthly Valuation

The TSP is a monthly-valued plan, which means that the value of the assets in your account is determined once a month, as of month end. Your account is valued through the crediting of earnings. Once earnings are credited to your account, a variety of other transactions, including loans, withdrawals, and interfund transfers, can take place. **Money can only be removed or transferred among the G, C, and F Funds after your account has been valued. Because account values are only known as of month end, disbursements and interfund transfers must occur immediately after earnings have been allocated and the value of accounts is known.**

On the month-end valuation date (the last business day of the month), the anticipated amount of loans and withdrawals from the C and F Funds is removed from the stock and bond markets to avoid market exposure (and possible losses) between month end and the time the money is paid out to participants in the following month. The cash needed for pending loans and withdrawals is removed from the stock and bond markets on the last business day of the month and invested in the G Fund until disbursement in the following month.

Under current investment practices, money in the G Fund is invested in special short-term Treasury securities, which do not fluctuate in value. There is no risk that the value of G Fund investments will change between the month-end valuation date and the next month's disbursement date. The G Fund interest earned on anticipated loan and withdrawal amounts for the month in which loans and withdrawals are disbursed is allocated to all TSP participants.

The amounts associated with interfund transfer requests are also moved among the investment funds on the last business day of the month. The record keeper provides the Board with the amount of money moving in and out of the G, C, and F Funds. The net transfer amounts are included in the investments made in the Equity Index and U.S. Debt Index Funds on the last business day of the month.

The process of account valuation, through the crediting of earnings, and the posting of the other transactions occur during the monthly processing cycle. These actions ensure that participants remove or transfer only the amount available in their accounts. Removing money from your account or making interfund transfers at any other time during the month would result in the removal or transfer of unvalued, and thus incorrect, amounts. Thus, participants who had no such transactions would absorb partial-month gains or losses attributable to the amounts withdrawn, loaned, or transferred.

All of the transactions processed during the monthly processing cycle, including earnings, affect account balances as of the end of the month preceding the month in which they are processed. They are shown on your Participant Statement as month-end transactions and are reflected in the month-end balance.

The month-end balance shown on your Participant Statement represents the current market value of your C or F Fund investments on that date. This number is comparable to the amount obtained by multiplying the number of shares held in a mutual fund by its current net asset value per share. Thus, the monthly crediting of earnings adjusts the value of C and F Fund investments just as the change in net asset value adjusts the value of shares held in a mutual fund. The month-end G Fund balance represents cumulative contributions and earnings in your account.

The value of TSP account balances is **only** known once a month, as of month end. Therefore, there is **only one** account balance each month, and that is the month-end account balance shown on your Participant Statement and provided on the ThriftLine.

Monthly Processing Cycle

Although earnings are credited to participants as of month end, the actual allocation of earnings and valuing of accounts does not occur until the following month during the monthly processing cycle. The approximately 1-week delay between the end of the month and the allocation of earnings occurs because the final earnings reports for the C and F Funds are not received from the asset manager until the 4th business day after month end. Also, the allocation of earnings requires considerable computer time for a plan with as many accounts as the TSP.

After earnings are credited and the value of each participant's account has been established, other transactions are processed. All transactions are processed based on the amount in your account after earnings have been credited. The following transactions are processed after earnings in the monthly processing cycle:

Restored forfeitures and earnings
Earnings corrections
Adjustments
Forfeitures
Refunded excess deferrals
Court-ordered payments
Minimum distributions
Withdrawals
Loans
Interfund transfers

Month-end balances are then calculated after processing the above transactions. Loan and withdrawal checks generally are mailed within 3 days after the monthly processing cycle.

Interfund Transfer Process

An interfund transfer is the movement of some or all of your existing account balance among the G, C, and F Funds. You may move all or part of the money in your account from one fund to any other fund. An interfund transfer is different from the allocation of future contributions that you make on your Election Form (TSP-1) because the interfund transfer is a one-time transaction that involves only money that is already in your account. It does not affect the allocation of future contributions.

The TSP record keeper executes an interfund transfer in response to your request. You can make an interfund transfer in any month that you wish, without an annual limit. You request changes in terms of the percentage of your account balance that you want invested in each of the three funds after the transfer is completed. You cannot request to have specific dollar amounts moved.

Interfund transfers are made on the last business day of each month at the closing prices of the S&P 500 index and LBA index on that day. Transfer requests received by the TSP record keeper by the 15th of the month will be effective on the last day of that month. If the 15th day of the month falls on a weekend or holiday, the deadline will be the next business day. If an interfund transfer request is received after the deadline, the transfer will be made effective at the end of the following month. After your transfer has been made, the TSP record keeper will send you a Confirmation of Interfund Transfer (TSP-31).

Before deciding to make an interfund transfer, you should consider carefully the advantages and risks involved in investing in each of the three TSP funds. The TSP is not responsible for investment results. You must sign a one-time statement acknowledging that you understand and accept the risks of investing in the C or F Fund before you invest in either fund.

The ThriftLine, (504) 255-8777, is the most efficient way to request an interfund transfer. With the ThriftLine, your request is recorded immediately, avoiding mailing and processing time. You can use the ThriftLine to request an interfund transfer if you have previously invested in the C or F Fund or have a signed Acknowledgement of Risk form on file with the record keeper. If you have not, you can use the ThriftLine to have an Acknowledgement of Risk form mailed to you. The Fact Sheet "Using the ThriftLine" in Appendix 6 describes how to use the ThriftLine.

You can also submit an Interfund Transfer Request (TSP-30) to the TSP Service Office at the address on the form. You can obtain the form from your agency or, if you have left Federal service, from the TSP Service Office.

Administrative Expenses

Major expenses of the TSP include the development and operating costs of the record keeper's computer system and service office and the printing and mailing of publications and Participant Statements. There are two sources of funds used for operating the TSP. The first source is forfeitures of any non-vested Agency Automatic (1%) Contributions. FERS employees who leave Federal service before they are vested in the TSP (generally before completing 3 years of Federal service) forfeit the Agency Automatic (1%) Contributions and earnings on those contributions. The second source is earnings on participant and agency contributions. When forfeitures are not sufficient to pay all expenses, a portion of the earnings is used to pay the balance of accrued administrative expenses.

Administrative expenses, after forfeitures, are deducted from the monthly earnings of the G, C, and F Funds. Net administrative expenses (after forfeitures) are charged to the three funds in proportion to their respective balances on the last day of the prior month. Investment management fees of the C and F Funds are not reduced by forfeitures and are borne exclusively by the participants investing in those funds.

The effect of net administrative expenses on the rates of return of the three funds is measured by the expense ratio of each fund. The C and F Fund expense ratios include investment management fees. The monthly expense ratio is the total monthly accrued administrative expenses charged to each fund divided by the average fund balance used in calculating the monthly earnings for allocation to participant accounts.

The annual expense ratio is the total expenses (net of forfeitures) for the year divided by the average monthly fund balance used in earnings allocation. Your share of TSP net administrative expenses is based on the size of your account balance. As the G, C, and F Fund balances have grown, the expense ratio has declined.

The expense ratios for the G, C, and F Funds for 1988 – 1997 were:

	G Fund	C Fund	F Fund
1988	.34%	.29%	.30%
1989	.21%	.20%	.23%
1990	.11%	.13%	.13%
1991	.13%	.15%	.16%
1992	.13%	.14%	.15%
1993	.12%	.13%	.14%
1994	.10%	.11%	.12%
1995	.09%	.10%	.11%
1996	.08%	.09%	.10%
1997	.07%	.07%	.08%

The 1997 G Fund expense ratio of .07% means that your 1997 G Fund earnings were reduced approximately $.70 for every $1,000 in G Fund account balance. Similarly, your C and F Fund earnings were reduced approximately $.70 and $.80, respectively, for every $1,000 in C and F Fund account balances.

Appendices

G Fund-Related Securities, S&P 500 Index, and LBA Index Rates of Return 1988 – 1997

Year	G Fund-Related Securities	S&P 500 Index	LBA Index
1988	9.19%	16.61%	7.89%
1989	9.01	31.69	14.53
1990	8.97	(3.10)	8.96
1991	8.26	30.47	16.00
1992	7.32	7.62	7.40
1993	6.23	10.08	9.75
1994	7.29	1.32	(2.92)
1995	7.10	37.58	18.47
1996	6.80	22.96	3.63
1997	6.80	33.36	9.65
1988 – 1997 Compound Annual Rate of Return	**7.69%**	**18.05%**	**9.18%**

Numbers in ( ) are negative.

G, C, and F Fund Rates of Return
1988 – 1997

The monthly G, C, and F Fund returns represent the actual total rates of return used in the monthly allocation of earnings to participant accounts. The returns are shown after deduction of accrued TSP administrative expenses. The C and F Fund returns also reflect the deduction of trading costs and accrued investment management fees.

Months	G Fund	C Fund	F Fund*
1988			
January**	.69%	(.20%)	(.06%)
February	.62	4.82	.81
March	.66	(3.47)	(.80)
April	.68	.73	(.46)
May	.71	1.42	(.63)
June	.72	4.08	1.97
July	.72	(.24)	(.49)
August	.76	(2.74)	.33
September	.76	4.12	2.07
October	.75	2.53	1.68
November	.68	(1.23)	(1.09)
December	.74	1.78	.31
Annual Return	**8.81%**	**11.84%**	**3.63%**
1989			
January	.76%	7.14%	1.27%
February	.67	(2.51)	(.68)
March	.78	2.21	.50
April	.75	5.14	2.05
May	.76	3.98	2.42
June	.70	(.58)	3.19
July	.69	8.83	2.06
August	.66	1.98	(1.48)
September	.68	(.29)	.37
October	.71	(2.33)	2.45
November	.65	2.05	.86
December	.67	2.37	.16
Annual Return	**8.81%**	**31.03%**	**13.89%**

* From 1988 through 1990, the F Fund was invested in the Barclays Bond Index Fund, which tracks the Lehman Brothers Government/Corporate bond index.

** The first C and F Fund investments in the Barclays Equity Index Fund and the Barclays Bond Index Fund, respectively, occurred on January 29, 1988.

Numbers in ( ) are negative.

Appendix 2 (2)

Months	G Fund	C Fund	F Fund*
1990			
January	.68%	(6.59%)	(1.38%)
February	.64	1.26	.21
March	.72	2.64	.01
April	.71	(2.52)	(.94)
May	.76	9.44	2.80
June	.71	(.71)	1.56
July	.72	(.36)	1.24
August	.72	(8.65)	(1.42)
September	.73	(4.85)	.81
October	.76	(.46)	1.32
November	.70	6.36	2.15
December	.70	2.72	1.46
Annual Return	**8.90%**	**(3.15%)**	**8.00%**
1991			
January	.69%	4.55%	1.15%
February	.62	7.07	.86
March	.68	2.40	.67
April	.66	.18	1.05
May	.68	4.30	.57
June	.66	(4.49)	(.01)
July	.69	4.63	1.40
August	.69	2.37	2.12
September	.64	(1.63)	1.99
October	.62	1.39	1.09
November	.61	(3.96)	.89
December	.62	11.41	2.96
Annual Return	**8.15%**	**30.77%**	**15.75%**
1992			
January	.57%	(1.89%)	(1.35%)
February	.56	1.29	.66
March	.62	(1.91)	(.53)
April	.62	2.91	.67
May	.64	.49	1.84
June	.60	(1.45)	1.36
July	.60	4.11	2.00
August	.57	(2.02)	1.00
September	.54	1.15	1.15
October	.55	.42	(1.30)
November	.56	3.39	.01
December	.58	1.21	1.54
Annual Return	**7.23%**	**7.70%**	**7.20%**

Months	G Fund	C Fund	F Fund*
1993			
January	.58%	.86%	1.88%
February	.49	1.35	1.73
March	.52	2.09	.41
April	.51	(2.39)	.67
May	.51	2.66	.10
June	.51	.32	1.79
July	.49	(.38)	.55
August	.49	3.78	1.72
September	.45	(.76)	.26
October	.47	2.04	.38
November	.45	(.93)	(.84)
December	.49	1.20	.52
Annual Return	**6.14%**	**10.13%**	**9.52%**
1994			
January	.51%	3.40%	1.33%
February	.43	(2.70)	(1.72)
March	.52	(4.39)	(2.45)
April	.56	1.28	(.81)
May	.60	1.66	(.02)
June	.59	(2.47)	(.24)
July	.62	3.27	1.97
August	.60	4.11	.13
September	.59	(2.44)	(1.47)
October	.65	2.24	(.10)
November	.64	(3.62)	(.23)
December	.68	1.49	.69
Annual Return	**7.22%**	**1.33%**	**(2.96%)**
1995			
January	.67%	2.58%	1.98%
February	.59	3.87	2.38
March	.62	2.94	.60
April	.60	2.94	1.38
May	.61	3.98	3.84
June	.53	2.31	.71
July	.55	3.30	(.23)
August	.56	.26	1.21
September	.53	4.19	.95
October	.54	(.36)	1.28
November	.51	4.38	1.49
December	.50	1.92	1.39
Annual Return	**7.03%**	**37.41%**	**18.31%**

Appendix 2 (4)

Months	G Fund	C Fund	F Fund*
1996			
January	.49%	3.41%	.66%
February	.46	.91	(1.75)
March	.54	.97	(.68)
April	.54	1.47	(.56)
May	.58	2.56	(.11)
June	.57	.38	1.34
July	.58	(4.39)	.27
August	.58	2.07	(.18)
September	.58	5.60	1.72
October	.58	2.74	2.21
November	.53	7.54	1.69
December	.53	(1.97)	(.93)
Annual Return	**6.76%**	**22.85%**	**3.66%**
1997			
January	.56%	6.22%	.30%
February	.51	.79	.24
March	.57	(4.13)	(1.11)
April	.58	6.00	1.49
May	.58	6.07	.94
June	.56	4.45	1.18
July	.57	7.94	2.69
August	.53	(5.59)	(.86)
September	.54	5.46	1.48
October	.54	(3.38)	1.45
November	.50	4.61	.46
December	.52	1.71	1.01
Annual Return	**6.77%**	**33.17%**	**9.60%**

THRIFT SAVINGS PLAN FACT SHEET

Calculating Participant Earnings on TSP Investments

This Fact Sheet has been prepared to help you calculate your monthly earnings as reported on your semiannual Thrift Savings Plan (TSP) Participant Statement. The TSP consists of three funds:

- Government Securities Investment (G) Fund
- Common Stock Index Investment (C) Fund
- Fixed Income Index Investment (F) Fund

Net earnings for each month are calculated separately for the G, C, and F Funds. Your share of the net earnings from each fund is credited to your account as of the last day of the month.*

To calculate the earnings allocated to your account for any month, first add one-half of the deposits and loan payments for the month to your month-end balance for the preceding month. Then multiply that sum by the rate of return for the month you are calculating (as reported on your Participant Statement).

Loans and withdrawals affect your account for the calculation of earnings at the end of the month, but are disbursed in the middle of the following month. You do not receive any earnings on the amount of a loan or withdrawal for the month in which it was disbursed.

Interfund transfers are effective as of the last day of the month. Beginning with the following month, the amounts transferred receive earnings for the full month in the fund to which the money was moved.

As a guide to calculating your earnings, follow the steps in the example on the back of this Fact Sheet, which is based on G Fund rates of return. You can calculate earnings on C and F Fund investments in the same manner.

* Net earnings for each fund consist of the earnings of the fund minus accrued administrative expenses. Expenses that are attributable only to the C and F Funds are charged solely to those funds. General TSP administrative expenses are reduced by forfeitures of the Agency Automatic (1%) Contributions from the accounts of nonvested participants covered by the Federal Employees' Retirement System (FERS) who have left Government service. The remaining expenses are charged to the three investment funds in proportion to their respective balances on the last day of the prior month.

Sample Participant Statement

Detail of G Fund Account Activity

Activity Code	Payroll Office	Pay Date	Process Date	G Fund
MONTH-END BALANCE		APR 1995	(Beginning Balance)	15,000.00
D	47000016	05/10/95	05/10/95	90.00
D	47000016	05/24/95	05/24/95	90.00
E				92.04
MONTH-END BALANCE		MAY 1995		15,272.04
D	47000016	06/07/95	06/07/95	90.00
D	47000016	06/21/95	06/21/95	90.00
E				81.41
MONTH-END BALANCE		JUN 1995		15,533.45
D	47000016	07/05/95	07/05/95	90.00
D	47000016	07/19/95	07/19/95	90.00
E				85.92
L				2,000.00 –
MONTH-END BALANCE		JUL 1995		13,799.37
D	47000016	08/02/95	08/03/95	90.00
D	47000016	08/16/95	08/17/95	90.00
D	47000016	08/30/95	08/30/95	90.00
E				78.03
T				3,405.65 –
MONTH-END BALANCE		AUG 1995		10,741.75
D	47000016	09/13/95	09/14/95	90.00
D	47000016	09/27/95	09/27/95	90.00
P	47000016		09/29/95	50.00
E				57.54
MONTH-END BALANCE		SEP 1995		11,029.29
D	47000016	10/11/95	10/11/95	90.00
D	47000016	10/25/95	10/25/95	90.00
P	47000016		10/31/95	50.00
E				60.17
MONTH-END BALANCE		OCT 1995		11,319.46

D = Deposit
E = Earnings
L = Loan
P = Monthly loan payment summary
T = Interfund transfer

Pay date is the date reported by your payroll office for deposits. **Process date** is the date deposits and loan payments were processed to your account by the TSP recordkeeper.

G Fund Rates of Return* May 1995 – October 1995

May	0.61%	August	0.56%
June	0.53%	September	0.53%
July	0.55%	October	0.54%

*Actual rates of return after administrative expenses

Procedure to Calculate Earnings on G Fund Contributions

May Calculation

Calculate ½ May contributions:

Add May contributions	$	90.00
	+	90.00
		180.00
Divide sum in half	÷	2
		90.00
Use April Month-End Balance		15,000.00
Add ½ May contributions	+	90.00
		15,090.00
Multiply by May return	×	0.0061
May earnings	**$**	**92.04**

June Calculation

Calculate ½ June contributions:

Add June contributions	$	90.00
	+	90.00
		180.00
Divide sum in half	÷	2
		90.00
Use May Month-End Balance		15,272.04
Add ½ June contributions	+	90.00
		15,362.04
Multiply by June return	×	0.0053
June earnings	**$**	**81.41**

July Calculation

Calculate ½ July contributions:

Add July contributions	$	90.00
	+	90.00
		180.00
Divide sum in half	÷	2
		90.00
Use June Month-End Balance		15,533.45
Add ½ July contributions	+	90.00
		15,623.45
Multiply by July return	×	0.0055
July earnings	**$**	**85.92**

August Calculation

Calculate ½ August contributions:

Add August contributions	$	90.00
		90.00
	+	90.00
		270.00
Divide sum in half	÷	2
		135.00
Use July Month-End Balance		13,799.37
Add ½ August contributions	+	135.00
		13,934.37
Multiply by August return	×	0.0056
August earnings	**$**	**78.03**

September Calculation

Calculate ½ September contributions and loan payments:

Add September contributions and loan payments	$	90.00
		90.00
	+	50.00
		230.00
Divide sum in half	÷	2
		115.00
Use August Month-End Balance		10,741.75
Add ½ September contributions and loan payments	+	115.00
		10,856.75
Multiply by September return	×	0.0053
September earnings	**$**	**57.54**

October Calculation

Calculate ½ October contributions and loan payments:

Add October contributions and loan payments	$	90.00
		90.00
	+	50.00
		230.00
Divide sum in half	÷	2
		115.00
Use September Month-End Balance		11,029.29
Add ½ October contributions and loan payments	+	115.00
		11,144.29
Multiply by October return	×	0.0054
October earnings	**$**	**60.17**

The *pro rata* share of monthly earnings that you calculate for your account may not equal your exact earnings. This is because your actual earnings are calculated using 8-decimal-place rates of return rather than the 2-decimal-place rates of return shown on your Participant Statement. Net earnings for individual accounts are then rounded down to the nearest penny, and the residual amounts are included in earnings to be allocated to all accounts the following month.

THRIFT SAVINGS PLAN FACT SHEET

C, F, and G Fund Monthly Returns

January 1998

Months	C Fund	S&P 500 Stock Index	F Fund	Lehman Brothers Aggregate Bond Index	G Fund
1992 **(Jan. – Dec.)**	**7.70%**	7.62%	**7.20%**	7.40%	**7.23%**
1993 **(Jan. – Dec.)**	**10.13%**	10.08%	**9.52%**	9.75%	**6.14%**
1994 **(Jan. – Dec.)**	**1.33%**	1.32%	**(2.96%)**	(2.92%)	**7.22%**
1995 **(Jan. – Dec.)**	**37.41%**	37.58%	**18.31%**	18.47%	**7.03%**
1996 **(Jan. – Dec.)**	**22.85%**	22.96%	**3.66%**	3.63%	**6.76%**
1997					
January	6.22%	6.25%	.30%	.31%	.56%
February	.79	.78	.24	.25	.51
March	(4.13)	(4.11)	(1.11)	(1.11)	.57
April	6.00	5.97	1.49	1.50	.58
May	6.07	6.09	.94	.95	.58
June	4.45	4.48	1.18	1.19	.56
July	7.94	7.96	2.69	2.70	.57
August	(5.59)	(5.60)	(.86)	(.85)	.53
September	5.46	5.48	1.48	1.48	.54
October	(3.38)	(3.34)	1.45	1.45	.54
November	4.61	4.63	.46	.46	.50
December	1.71	1.72	1.01	1.01	.52
1997	**33.17%**	33.36%	**9.60%**	9.65%	**6.77%**

Percentages in ( ) are negative.

The C Fund is invested in the Barclays Equity Index Fund which tracks the S&P 500 stock index. The F Fund is invested in the Barclays U.S. Debt Index Fund which tracks the Lehman Brothers Aggregate bond index. The G Fund is invested in special issues of U.S. Treasury securities.

The monthly C, F, and G Fund returns represent net earnings for the month, after deduction of accrued administrative expenses. The C and F Fund returns also reflect the deduction of trading costs and accrued investment management fees.

The C, F, and G Fund monthly returns are dollar-weighted: they reflect net earnings on the changing balances invested during the month. The C, F, and G Fund returns for the last twelve months assume, except for the crediting of earnings, unchanging balances (time-weighting) from month to month and assume earnings are compounded on a monthly basis.

The C and F Fund returns vary from the index returns because of C and F Fund expenses, changing balances in the C and F Funds, and differences in returns between the Barclays funds and the underlying indexes. The index returns are time-weighted: they assume constant dollar balances invested during each month and throughout the period.

Future performance of the three funds will vary and may be significantly different from the returns shown above. See the “Summary of the Thrift Savings Plan” for detailed information about the funds and their investment risks.

Federal Retirement Thrift Investment Board

Calculation of Period and Compound Annual Returns

The calculations for **period returns** (last 12-month returns) on the TSP Fact Sheet on C, F, and G Fund monthly returns and the **compound annual returns** shown in TSP publications are shown below.

Period Returns

Using the TSP Fact Sheet "C, F, and G Fund Monthly Returns," it is possible to calculate returns for any fund for any period of time. The following example shows the calculation of the 1997 C Fund return using the monthly C Fund returns from the Fact Sheet in Appendix 4.

Step 1 Convert percentages to decimals (move the decimal point 2 places to the left) and add 1. You must add "1" to the returns and multiply the resulting factors together to include the effect of monthly compounding. If you just add the returns together, you ignore the effect of compounding.

January	6.22%	=	.0622	+	1	=	1.0622
February	.79%	=	.0079	+	1	=	1.0079
March	(4.13%)	=	–.0413	+	1	=	.9587
April	6.00%	=	.0600	+	1	=	1.0600
May	6.07%	=	.0607	+	1	=	1.0607
June	4.45%	=	.0445	+	1	=	1.0445
July	7.94%	=	.0794	+	1	=	1.0794
August	(5.59%)	=	–.0559	+	1	=	.9441
September	5.46%	=	.0546	+	1	=	1.0546
October	(3.38%)	=	–.0338	+	1	=	.9662
November	4.61%	=	.0461	+	1	=	1.0461
December	1.71%	=	.0171	+	1	=	1.0171

Step 2 Multiply the factors together:

1.0622 x 1.0079 x .9587 x 1.0600 x 1.0607 x 1.0445 x 1.0794 x .9441 x 1.0546 x .9662 x 1.0461 x 1.0171 = **1.3317**

Step 3 Subtract 1 and multiply by 100 to convert the product to a percentage:

(1.3317 – 1) x 100 = .3317 x 100 = **33.17%**

When calculating period returns, the Board uses the actual 8-decimal place returns used in the allocation of earnings, rather than the 2-decimal place returns shown on the Fact Sheet. Therefore, you may get slightly different results due to rounding.

Compound Annual Returns

The Board provides compound annual returns when showing investment performance for 10 years. The compound annual return represents the average annual return for the period. An example of the calculation using the S&P 500 index returns from 1988 through 1997 (see Appendix 1) is provided below.

Step 1 Convert percentages to decimals and add 1. As with period returns, it is necessary to add "1" to the annual returns and multiply the resulting factors together to include the effect of compounding. Calculating the simple average (adding the returns and dividing by 10) ignores the effect of compounding.

1988	16.61%	=	.1661	+	1	=	1.1661
1989	31.69%	=	.3169	+	1	=	1.3169
1990	(3.10%)	=	–.0310	+	1	=	.9690
1991	30.47%	=	.3047	+	1	=	1.3047
1992	7.62%	=	.0762	+	1	=	1.0762
1993	10.08%	=	.1008	+	1	=	1.1008
1994	1.32%	=	.0132	+	1	=	1.0132
1995	37.58%	=	.3758	+	1	=	1.3758
1996	22.96%	=	.2296	+	1	=	1.2296
1997	33.36%	=	.3336	+	1	=	1.3336

Step 2 Multiply the factors together:

1.1661 x 1.3169 x .9690 x 1.3047 x 1.0762 x 1.1008 x 1.0132 x 1.3758 x 1.2296 x 1.3336 = **5.2573**

Note: If you subtract 1 from the result of this step (5.2573 – 1 = 4.2573), and multiply by 100 (4.2573 x 100 = 425.73%), you get the cumulative return for the period.

Step 3 Take the nth root (where n equals the number of years in the period) of the result of Step 2.

$$\sqrt[10]{5.2573} = 5.2573^{1/10} = \mathbf{1.1805}$$

Step 4 Subtract 1 and multiply by 100:

(1.1805 – 1) × 100 = **18.05%**

18.05% equals the compound annual return for the S&P 500 index as shown in Appendix 1. You may get slightly different results due to rounding.

THRIFT SAVINGS PLAN
FACT SHEET

Using the ThriftLine
(504) 255-8777

The ThriftLine is an interactive voice response system for the Thrift Savings Plan (TSP). It is available 24 hours a day, 7 days a week, from a touch-tone telephone (not toll free). The ThriftLine offers you monthly rates of return for the three TSP funds, your monthly account balance, the status of your loan request, and the date your withdrawal was paid. Also, you can use the ThriftLine to make, change, or cancel an interfund transfer. A diagram of the ThriftLine features is presented on page 2.

What Plan information is available? When you call the ThriftLine, you can get the most recent rates of return for each of the three TSP investment funds. These rates are updated following the TSP monthly processing cycle, generally by the seventh business day of the month. In addition, you can get information about new policies and changes in procedures.

How can I get information about my own account? First, you must enter your Social Security number and your Personal Identification Number (PIN). (This step is required to safeguard your account information.) Then, you can obtain information about your account balance, or you can check on the status of your loan request or the date your withdrawal was paid. You can also make an interfund transfer or change your PIN. These procedures are described below.

How can I request a new PIN? To change your PIN to a 4-digit number of your choice, select Account Activity from the Main Menu. Follow the instructions to enter your Social Security number and your current PIN; then select PIN Change from the Account Activity Menu. Enter your new PIN and confirm it by entering it again. Your new PIN is effective immediately.

What if I can't remember my PIN? If you have lost or forgotten your PIN, you will not be able to gain access to your account until the TSP sends you a new one. Using the ThriftLine, you can request a new PIN after you enter your Social Security number. Your new PIN will be sent to the address in your TSP record. You should receive your new PIN in the mail within two weeks. At that time, you may change your new PIN, if you wish, to one of your own choosing. (Note: If your address is not current, contact your agency if you are employed or, if you have left Federal service, complete Form TSP-9, Change of Address for Separated Participants.)

What is an interfund transfer? An interfund transfer changes the balances of your TSP account that are invested in the three TSP funds. An interfund transfer affects only money already in your account; it does not affect the way your future payroll contributions are invested. You can make an interfund transfer in any month you wish, without an annual limit. (Future payroll contributions can only be changed by submitting Form TSP-1, Election Form, during a TSP Open Season.)

How do I make an interfund transfer on the ThriftLine? If you have **ever** invested in the C or F Fund, you can use the ThriftLine to request your interfund transfer instead of submitting Form TSP-30, Interfund Transfer Request. Choose the Account Activity module from the Main Menu. Follow the ThriftLine instructions and enter the percent of your total account balance that you want invested in each fund. Percentages must be in mutiples of 5 percent and must total 100. *Be sure to stay on the line to confirm the percentages or your transfer will not be processed*.

(Continued on page 2)

If you have **never** invested in the C or F Fund, you must file a statement with the TSP acknowledging that you understand there is investment risk in these funds before you can request an interfund transfer. You can use the ThriftLine to have Form TSP-32, Acknowledgement of Risk for ThriftLine Interfund Transfers, sent to you. Submit Form TSP-32 to be able to make interfund transfers on the ThriftLine in the future.

What are the advantages of using the ThriftLine for interfund transfers? First, it's easy to use. There are no forms to fill out. Also, your request is recorded immediately. When you use the ThriftLine, you avoid mailing and processing time and the uncertainty of the effective date associated with paper requests.

What is the deadline for requesting interfund transfers on the ThriftLine? The deadline is the same as for paper requests, but you have more flexibility because you don't have to worry about your request getting delayed in the mail. If you make your call before midnight (Central Time) on the 15th of the month, your request will be effective as of the last day of that month. (If the 15th day of the month falls on a weekend, holiday, or other nonbusiness day, the deadline will be midnight, Central Time, on the next business day.) Requests made after the midnight deadline will be effective as of the last day of the following month.

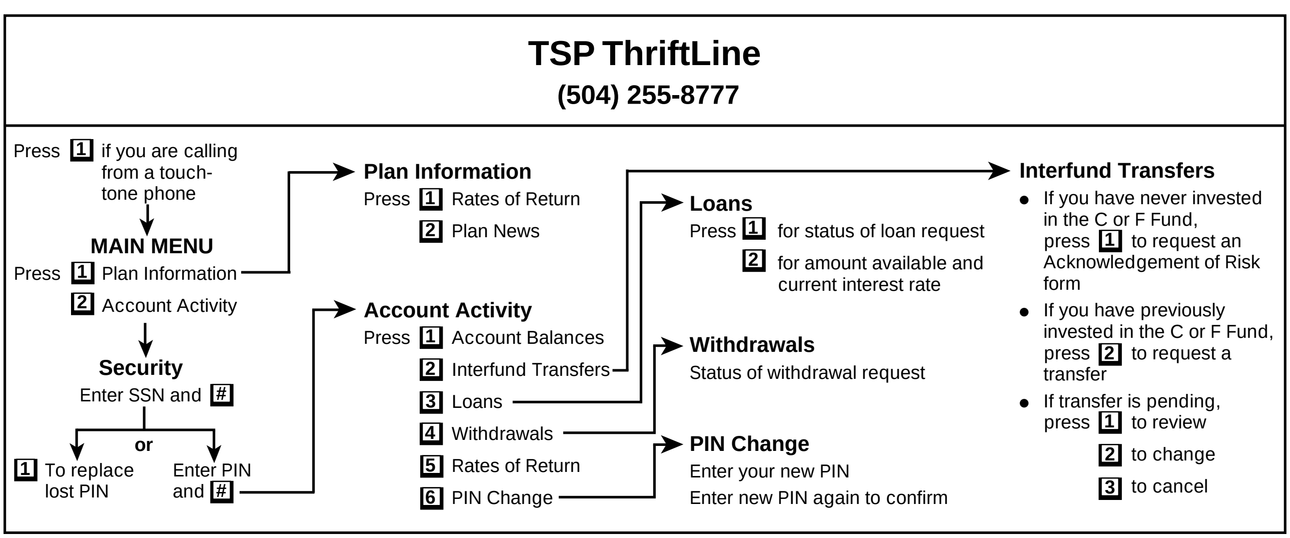
How will I know my request has been processed? Within 10 days of your request, you will receive a confirmation of your request providing the date and time of your call, the allocation you requested, and the date the transfer will be effective. By the end of the month following the transfer, you will also receive a confirmation from the TSP showing the new allocation and your balances in each fund.

Can I use the ThriftLine to change or cancel a request? You may use the ThriftLine to change or cancel (or simply to review) a pending interfund transfer request. You must call by the 15th of the month. *Again, be sure to stay on the line to confirm your new percentages or cancellation, or your change will not be effective.* The TSP will send you a confirmation of the new request or the cancellation. By using the ThriftLine for all of your interfund transfer activity, you can change or cancel a request right up to the deadline on the 15th of the month.

However, if you request an interfund transfer on Form TSP-30, you may not be able to change or cancel it on the ThriftLine because, although your Form TSP-30 may be received before the deadline, it may not be entered into the system until after the deadline. Your call cannot alter a request that has not yet been entered. You should not mix paper and ThriftLine requests. **We recommend that you use the ThriftLine for ALL your interfund transfer activity.**

What can the ThriftLine tell me about TSP loans? If you are considering getting a loan from your TSP account, you can call the ThriftLine to get the current interest rate. The ThriftLine will also tell you how much you are eligible to borrow. If you have a loan request pending, you can get information about the status of your loan request.

What can the ThriftLine tell me about my withdrawal request? If you have separated from Federal service and you have filed a withdrawal request, the ThriftLine can tell you the date your payment was made.



Glossary

Accrued interest: Interest calculated on a fixed-income security, such as a bond, from the date of issue or from the last coupon date to the present.

Active management: A term used broadly to describe investment managers whose strategy focuses on identifying and purchasing securities that are likely to perform better than the market average in the future.

Ask: The price at which a dealer is willing to sell a security.

Asset allocation: Choosing among asset classes such as stocks and bonds.

Bid: The price at which a dealer is willing to purchase a security.

Bond: A debt security issued by a government entity or a corporation to an investor from whom it borrows money. The bond obligates the issuer to repay the amount borrowed on a stated maturity date and, traditionally, to pay interest at a fixed rate at regular, usually 6-month, intervals until maturity. Bonds generally have maturities of more than 10 years at the time they are issued.

Bond rating: The rating of corporate bonds according to their relative investment qualities. Bond ratings are performed by rating services such as Moody's Investors Service and Standard & Poor's (S&P) Corporation. Ratings are based on a credit analysis of the issuer and measure the likelihood that the issuer will make interest and principal payments when due. The bonds rated in the top four categories, ranging from AAA (S&P) or Aaa (Moody's) to BBB (S&P) or Baa (Moody's), are considered investment-grade bonds. Bonds rated below BBB or Baa are considered speculative and are sometimes called "junk bonds."

Capital gain (loss): The amount by which the sale price or current market price of a security exceeds (gain) or is less than (loss) the purchase price. A gain or loss is "realized" when the security is sold. However, in stock and bond funds, even unrealized gains and losses must be recognized and accounted for whenever the fund is valued.

Capitalization: The total market value of a security or group of securities. The market capitalization of a stock in the S&P 500 index equals the current market price of the stock multiplied by the number of shares of stock outstanding. The capitalization of the S&P 500 is the sum of the capitalization values of all 500 stocks in the index.

Collateral: The property that a borrower pledges to secure a loan. Collateral may be seized by the lender if the borrower defaults.

Common stock: Equity securities, issued as ownership shares in a publicly held corporation. Shareholders have voting rights and may receive dividends based on their proportionate equity holdings.

Compound annual return: The average annual return of an investment over a specified time period that includes the effect of compounding.

Consumer Price Index (CPI): The index calculated by the U.S. Bureau of Labor Statistics representing the price of a basket of goods for all urban consumers. Changes in the index measure the rate of inflation in the U.S.

Coupon rate: The annual interest rate on the principal amount of a bond that the issuer promises to pay the bondholder.

Credit risk: The risk, generally associated with corporate bonds, that a borrower will default on a scheduled payment of principal or interest.

Default: The failure of a bond issuer to pay interest or repay principal in full when scheduled.

Diversification: Spreading investments among different securities types, issuers, and/or geographic regions to reduce exposure to any one source of investment risk.

Dividend: A company's payment to common stock holders, usually quarterly. Unlike bond coupon payments, stock dividends are not obligatory. Generally, dividends represent a portion of corporate earnings and in the long term are dependent on the business or economic success of the corporation.

Dividend yield: Dollar amount of dividends per share divided by the current price per share of common stock.

Dollar cost averaging: The practice of investing a fixed amount of money in a security or in a fund at regular intervals regardless of market conditions. The objective is to remove the temptation to invest too much during the euphoria of a booming market or to sell in panic during a market slide. Buying (for the same number of dollars) more shares when prices are lower and fewer shares when prices are higher results in a lower average cost per share if the discipline is maintained over time.

Dollar-weighted return: The rate of return calculated by taking the sum of dividend or interest income and capital gains minus capital losses and expenses for a period, and dividing that sum by the amount invested at the start of the period plus new investments during the period or by the average amount invested during the period.

Expense ratio: A fund's total expenses, usually for a year, including management fees if applicable, divided by average fund assets during the period.

Exposure: The risk of gain or loss resulting from changes in securities prices. Refers to interest rate exposure in the case of the F Fund, or general stock market exposure in the case of the C Fund.

Face value: See par value.

Federal agency securities: The collective term for securities issued by the two broad categories of Federal agencies — those owned by the Federal Government and those sponsored by it but owned privately — to raise capital for specific sectors of the economy such as housing, agriculture, and education.

Federal Home Loan Mortgage Corporation (FHLMC, or Freddie Mac): A stockholder-owned corporation established by Congress in 1970 to increase the availability of mortgage money for home buyers. It buys mortgages from a variety of lenders so lenders can use the funds to make new mortgages. FHLMC replenishes its cash by issuing mortgage-backed securities, which it guarantees.

Fannie Mae: Established by Congress in 1938 and converted to a stockholder-owned corporation in 1968, the purpose of which is to provide credit for low- to middle-income home buyers by raising funds in securities markets. Fannie Mae provides liquidity to the mortgage market through mortgage-backed securities guarantees on pools of mortgage loans originated by various lenders.

Fixed-income securities: Notes, bonds, and similar debt instruments. Although the interest they pay is a fixed amount, the market values of the securities are not. Market values or prices fluctuate and, therefore, so do their yields and total returns.

Government National Mortgage Association (GNMA, or Ginnie Mae): Established in 1968 as a Government corporation within the U.S. Department of Housing and Urban Development to increase liquidity in the secondary market for Government-backed residential mortgages by attracting new, nontraditional sources of capital for such loans. GNMA originated mortgage-backed securities (MBS) with its guaranty program in 1970. GNMA MBSs are issued by approved private lenders, collateralized by Federal Housing Authority (FHA)-insured and Veterans Administration (VA)-guaranteed mortgages, and backed by the full faith and credit of the United States.

Index: Generally, a number calculated to represent a simple measure or indicator of performance over time of the prices of securities or trends in the values of economic variables such as inflation.

Indexing: The practice of assembling a portfolio of securities with the goal of achieving an investment return equal or similar to the return of the target index.

Index fund: A fund that attempts to match the investment return of a market index such as the S&P 500 by holding securities in proportion to their representation in the index.

Interest rate: The annual rate of return available from income (interest payments) on the face value of a fixed income security.

Investment-grade bond: A bond receiving one of the top four ratings from a well-known rating service (i.e., Baa or higher from Moody's Investors Service, BBB or higher from Standard & Poor's Corporation).

Lehman Brothers Aggregate Bond Index (LBA): An index containing all publicly issued, nonconvertible domestic debt, with at least 1 year to maturity and an outstanding par value of at least $100 million, of the U.S. Government, its agencies, and Government-sponsored enterprises; corporate debt guaranteed by the U.S. Government; domestic debt of industrial, utility, and financial corporations; Yankee bonds; and all fixed rate mortgage-backed securities guaranteed by GNMA, FHLMC, and FNMA. The index includes over 6,000 securities. The corporate securities all have a rating at least Baa by Moody's Investors Service, BBB by Standard & Poor's Corporation, or BBB by Fitch Investors Service. The F Fund began to track the LBA in January 1991.

Lehman Brothers Government Corporate Bond Index (LBGC): The government and corporate components of the LBA bond index. Excludes mortgage-backed securities. Between January 1988 and December 1990, the objective of the F Fund was to track the performance of the LBGC.

Market: A general reference to the practices or methods by which investors, brokers, and dealers interact to buy and sell securities at competitive prices. The term "market" often refers to the secondary market where most trading takes place, as opposed to the primary or original issue market.

Market price: The price at which a security can be purchased or sold at a given time. Generally, the current price a securities broker, dealer, or other investor is willing to pay for a security.

Market risk: The characteristic of fixed-income securities that prices decline when interest rates rise and rise when interest rates decline. Market risk, also referred to as volatility, is greater with longer-term securities. Market risk also refers to price fluctuations in stocks.

Market value: The price at which a security is trading and could presumably be purchased or sold.

Maturity: The length of time from issue date until the date on which an issuer is obligated to repay the principal of a fixed-income security.

Money market: The market in which short-term debt instruments (Treasury bills, commercial paper, certificates of deposit, etc.) are issued and traded.

Mortgage-backed securities (MBS): Securities designed to attract additional capital resources for residential mortgages by expanding the secondary market for them. A typical MBS represents an interest in a pool of millions of dollars of conventional or Government-backed mortgages. MBS investors receive monthly "pass-through" of principal and interest payments, as well as unscheduled principal payments from home owners who prepay their mortgages, and the principal of foreclosed mortgages.

Mutual fund: The popular designation for an investment company that pools the money of investors for investment in a professionally managed portfolio of securities. An open-end mutual fund may issue an unlimited number of shares and stands ready to redeem (buy back) any investor's shares at the current net asset value (NAV) per share at any time.

Net asset value (NAV): Generally, the worth of one share of a fund. The sum of all securities and other investments held by the fund minus any liabilities or obligations payable by the fund, divided by the total number of shares of the fund outstanding.

Nonmarketable: A security that cannot be resold to other investors. For example, various Treasury obligations, including G Fund securities and U.S. Savings Bonds, are issued by the Treasury Department to specific investors. The Treasury will redeem the security in accordance with its terms but the security cannot be resold to another investor.

Offer: See *Ask*.

Opening date: The date a fund is open to accept contributions or withdrawals. It is also the date on which securities are bought or sold.

Par value: The principal amount an issuer will repay at maturity. The current market price of a bond may be higher or lower than the par value.

Passive management: Generally, buying and holding a well-diversified portfolio, in many cases designed to represent a broad market index. Passive strategies usually do not attempt to identify and buy only securities thought to offer exceptional future performance possibilities. Passive strategies are often based on the premise that it is difficult, if not impossible, to forecast future trends accurately in securities prices. Management fees and trading costs are generally lower in passively managed funds.

Principal: The face amount, the amount borrowed, or the par value of a debt security.

S&P 500 index: The Standard & Poor's Corporation common stock index of 500 industrial, financial, utility, and transportation companies, by market capitalization. The S&P 500 has become the equity market index most commonly used by institutional investors and retirement plan sponsors, including the TSP's C Fund.

Sector: A group of securities that are similar with respect to maturity, type of issuer, credit rating, and/or coupon.

Securities: General term for a variety of financial instruments, including stocks and bonds.

Short-term securities: Usually refers to securities with maturities of 1 year or less which are purchased by money market funds.

Time-weighted return: Return of an investment for any period that includes the effect of compounding. Assumes a fixed amount was invested for the entire period and excludes the effect of new investments or withdrawals during the period.

Total return: The growth (or decline) in the value of an investment, calculated to include all income, reinvestment of income, and capital gains or losses. It is the most comprehensive measure of the results obtained by an investor from an investment and the most meaningful measure of performance for comparing various investments. Total return should not be confused with interest rates or yield measures, which are generally not as useful in comparing investments. Total returns covering a number of periods are expressed as compound annual returns.

Trading costs: The costs involved in purchasing or selling a security. A stock trade may require payment of a brokerage commission. The prices of most stocks and bonds also include a dealer or market-maker spread. In addition, a spread above or below current market price (known as market impact) is often required to complete a trade depending on the size of the trade and current market supply and demand conditions.

Treasury bill: A U.S. Treasury security, generally maturing in 13, 26, or 52 weeks from issue date. Purchased at prices below face value (i.e., at a discount), Treasury bills do not pay interest as such. An investor's return is the difference between the price paid when purchased and the proceeds received when the bill matures.

Treasury bond: A U.S. Treasury security, maturing more than 10 years from issue date. Interest is paid semiannually.

Treasury note: A U.S. Treasury security, maturing from 2 to 10 years from issue date. Interest is paid semiannually.

Unit value: Mutual funds are generally divided into units or *pro rata* shares of the securities held by the fund. Unit value is generally equal to the net asset value or the price of each share in the fund.

Valuation: The process of determining the current value or worth of an investment account, security, or fund.

Volatility: Changes in the prices of various types of securities and in investment performance of those securities over a period of time. The more the price of a security fluctuates, the greater is the volatility of that security. Securities with the greatest volatility generally are considered the riskiest investments.

Yankee bond: A bond issued in the U.S. market by a foreign organization, payable in dollars, and registered with the U.S. Securities and Exchange Commission (SEC).

Yield or current yield: The income received annually from an investment, usually as interest or dividends, expressed as a percentage of its market price. Yield should not be confused with total return. It can be misleading to focus on the yield of investments that do not have a fixed value, such as stocks, or of investments where the principal may be fixed but the market value can fluctuate, such as bonds.