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Successful Investing

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What's New At Empirical

- As a reminder, the Empirical Client Appreciation Event will be held on July 27th at Salty's on Alki. To RSVP, please visit **www.ewmreply.com .**
- Recently Lorne Enquist CPA/PFS, MPAcc joined Empirical. As a result, Empirical will be offering tax preparation services to clients-only for the 2011 tax year. Speak with your advisor for details.
- Within the next month, a new Empirical office will be opening at 1135 Broadway Plaza, Suite 101 in Tacoma, WA!
- To sign up for the Client View Portal or to receive ***paperless*** statements going forward, please email Simon Liu at techsupport@empiricalfs.com. For a visual overview of the Client View Portal, please go to **client.empiricalfs.com**.
- Follow us on Twitter and Facebook for the latest news, developments and research.
- Tune into Empirical Investing Radio every Thursday at 2PM PST on the VoiceAmerica business channel: *business.voiceamerica.com*

this issue

looking ahead

Custom Bond Strategies to Fit Your Needs ♦

"A dividend payment is merely putting money in one of your pockets by taking it out of another."

Merton Miller

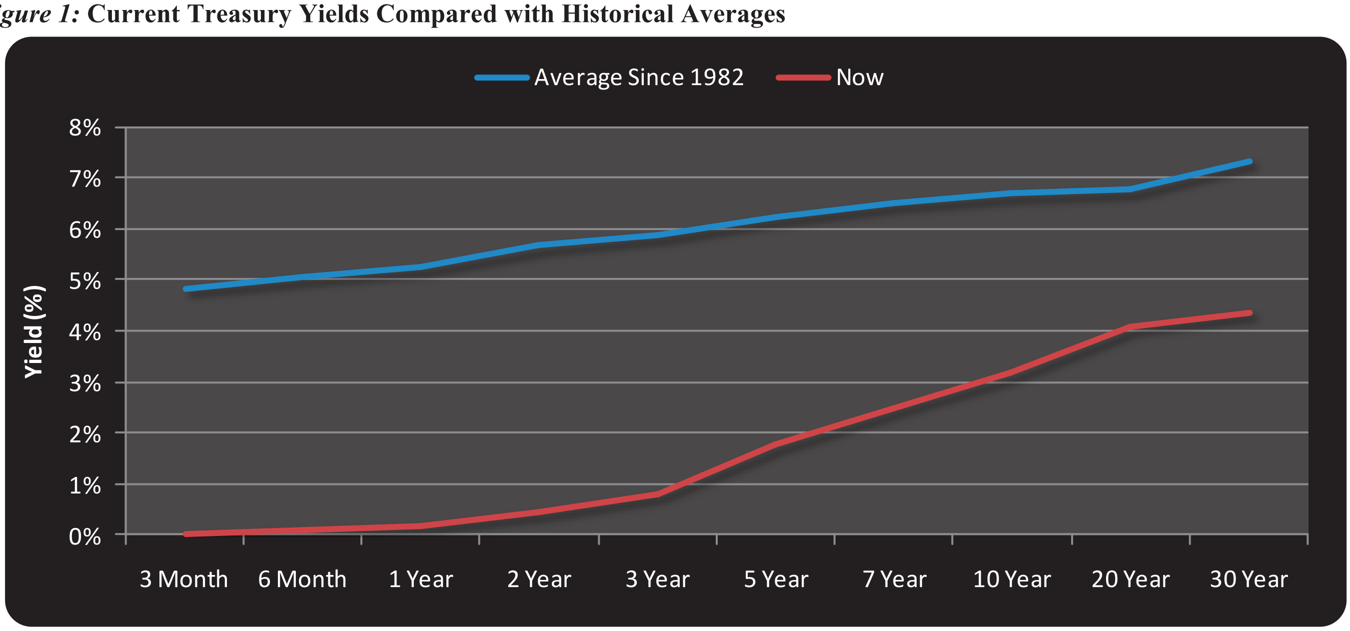
Dividends and Debt

With bond yields so low these days, many investors are worried that their portfolios will not produce enough income to meet their needs. In this letter, we examine the current fixed income environment, and how it is affecting the strategy of different investors. In particular, many investors are considering the replacement of low yield fixed income with higher yield equities that also have the potential of rising in value. We will look at whether stocks paying high dividends are a good alternate strategy. And finally, we will discuss what we believe is the most appropriate mindset to view current yields and their impact on your portfolio.

The Current Fixed Income Environment

Today's Treasury yields are much lower than historical averages, as can be seen in **Figure 1**. Recent returns of fixed income have been high as a direct result of Treasury yields falling to current lows. Five-year Treasuries have had an inflation-adjusted return of 4.7% over the past five years, more than double the historical average of 2.3%.[1] We

Figure 1: **Current Treasury Yields Compared with Historical Averages**



Current Treasury yields as of 6/30/2011. Source: Federal Reserve

[1]Five-year Treasury returns provided by Ibbotson & Associates. Returns as of 5/31/2011. Historical average returns go back to January 1926.

examine five-year Treasuries because our fixed income portfolio has an average maturity of about five years.

A Commonly Proposed Solution: High-Yielding Stocks

The merits of dividend-paying stocks have been discussed in the New York Times[2], the Wall Street Journal[3], Barrons[4] and CNN Money[5]. Investors who are living off of portfolio income are receiving meager interest payments because fixed income yields are at historic lows. Many market pundits suggest that stocks paying a high dividend are good alternatives: retirees can receive higher income than they would from bonds, and unlike bonds that pay out a fixed value at maturity, stocks have historically risen in value.

High dividend-paying stocks are also publicized as safer and less risky than other assets. In the CNN Money article, an analyst at Morningstar is quoted as saying that dividend stocks offer "higher real returns and relatively low risk." Part of the lower risk level is attributed to the higher amount of income shareholders receive every quarter. This income can help offset a drop in stock value. For example, a 5% decline in the stock price could be offset by a 5% annual dividend. Also, stocks that have been paying dividends for a long time are usually well-established companies with profitable business units.

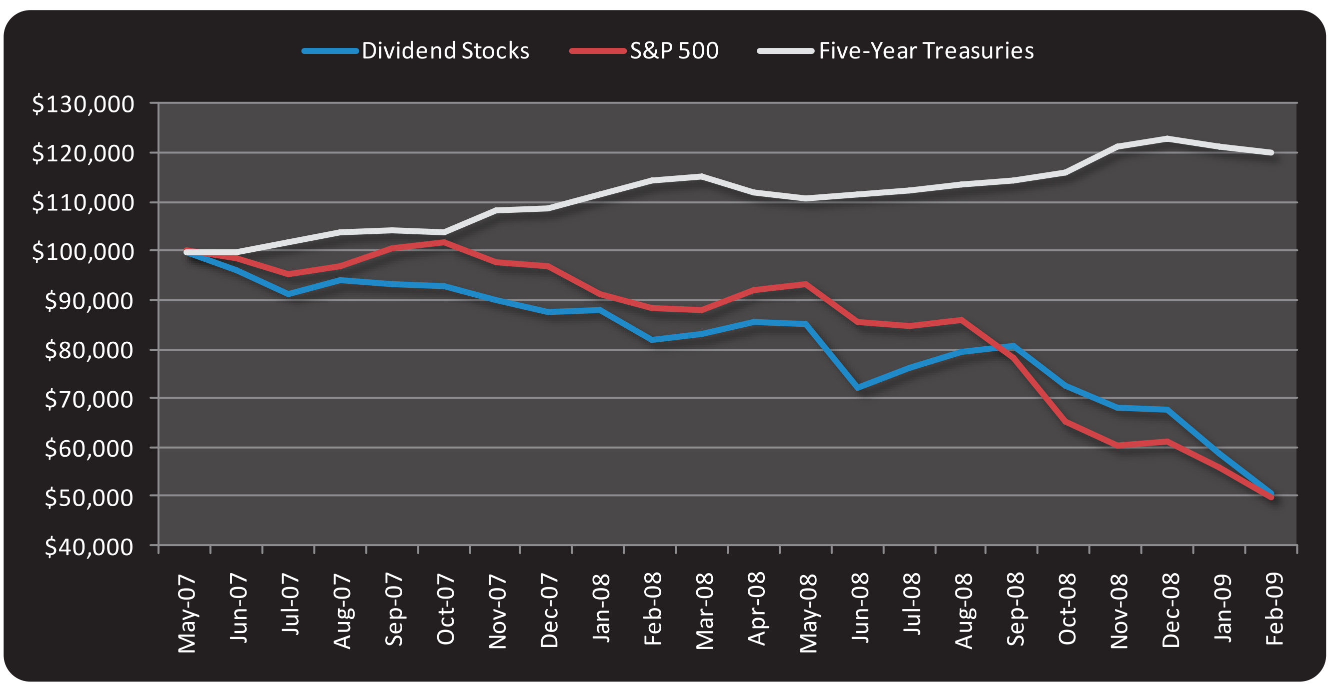
How Much Protection Do Large Dividends Provide?

At this point, established dividend-paying firms may seem safe, but how well have they done in the past? The best representation of dividend-paying stocks is the S&P High Yield Dividend Aristocrats Index. It is composed of firms that have increased their dividend payment annually for the last 25 years. This means that these companies have paid shareholders more and more every year despite recessions and financial crises of the past generation. As you would expect, many of the firms that make up the High Yield Dividend Aristocrats are well known success stories, such as Wal-Mart, Johnson & Johnson and Coca-Cola. The companies also have a higher yield than the market as a whole: 3.7% versus 1.8% for the S&P 500 index[6]. If any index represents safe, high-quality dividend-paying stocks, it is this one.

Yet, during the recent financial crisis, dividend stocks (as represented by the S&P High Yield Dividend Aristocrats Index) were just as risky as the rest of the stock market. As **Figure 2** shows, dividend stocks fell 48%, even after accounting for their large dividend payments. The S&P 500 index fell an equivalent amount. Treasuries rose sharply in value just as other asset classes were declining rapidly. Specifically, five-year Treasuries rose 19% over the time period while stocks paying a dividend offered no protection over the general stock market decline.

Of course, it is not fair to compare the worst decline with a period where Treasuries did quite well. With record government deficits and the Federal Reserve's aggressive monetary policy, many people worry that interest rates could rise to the double digit levels of the early 1980s. What would that mean for the bond markets? The period from 1954

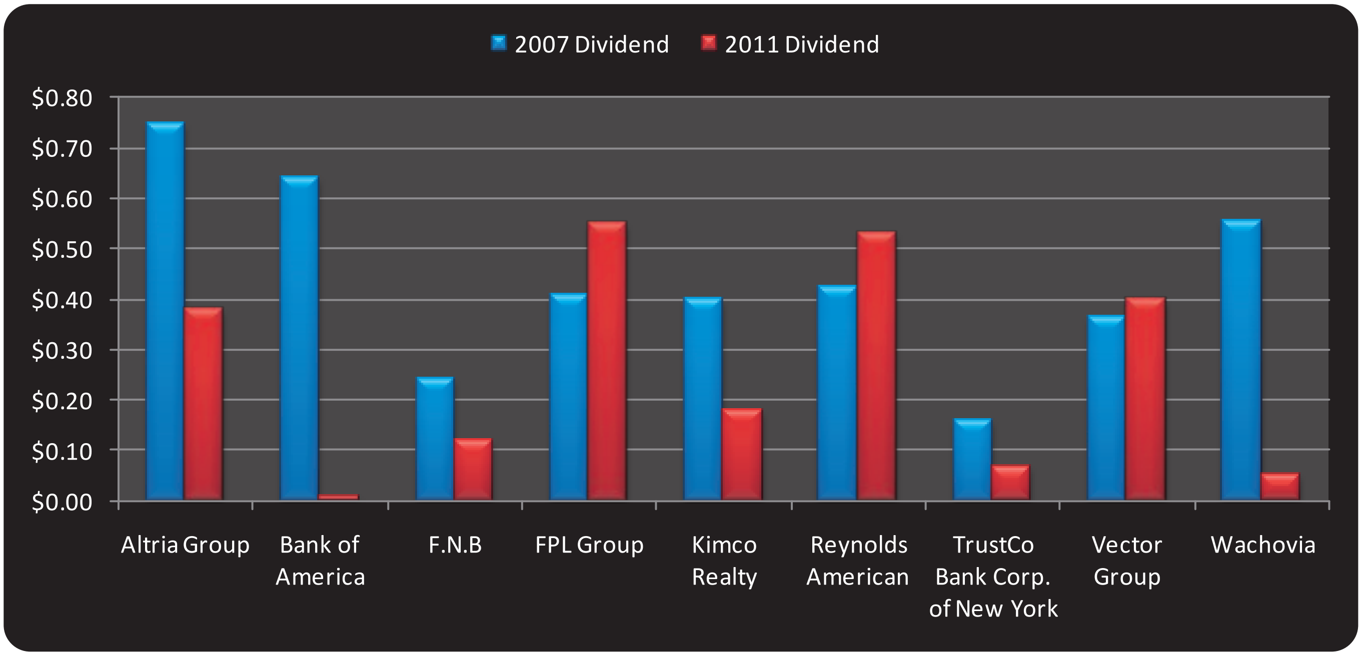
Figure 2: **Growth of $100,000 in Dividend Stocks Compared With Treasuries During the Financial Crisis**



Growth of $100,000 May 2007 – February 2009. Dividend stocks represented by the S&P High Yield Dividend Aristocrats Index. Source: State Street Global Advisors. S&P 500 Index data provided by Standard and Poor's. Five-year Treasury notes data provided by Ibbotson & Associates.

[2]Sullivan, Paul. (2011, June 3). Assessing the Value of Owning Dividend-Paying Stocks. *The New York Times*.
[3]Levisohn, Ben. (2011, June 4). New Strategies for Dividends. *The Wall Street Journal*.
[4]Paikert, Charles. (2011, June 4). Make the Income Flow. *Barron's*.
[5]Yousuf, Hibah. (2011, June 9). Fed up with Treasury yields? Try dividend stocks. *CNN Money*.
[6]Source: S&P High Yield Dividend Aristocrats Factsheet from Standard and Poor's. 12/31/2010

Figure 3: **Many "Top Dividend Stocks of 2007" Have Since Slashed Dividends**



Wachovia was purchased by Wells Fargo on 12/31/2008. Source: Yahoo Finance.

through 1981 is a good example of skyrocketing interest rates. During those years interest rates on five-year Treasuries rose from less than 2% to nearly 16%. Five-year Treasuries experienced their worst decline in the history of the asset class, when they fell 8.9% in 8 months (July 1979-February 1980).[7] Dividend-paying stocks lost nearly half their value in the recent crisis, showing that stocks, even high-yielding ones, can be riskier than bonds by a long shot.

How did stocks that pay reliable dividends year after year fall just as much as other companies? The problem is that dividends are entirely at the discretion of company management. A stock that has been paying dividends for years can decide at any moment to cut or cancel its dividend payment. This is in contrast to payments from a corporate bond, where the company is legally obligated to pay interest unless the company goes bankrupt. Treasury bonds are even safer, the risk of them not paying back bondholders is considered essentially zero (despite recent congressional wrangling on the debt limit).

As an illustration of how fragile dividend payments can become, we look at how high yielding stocks performed during the recent financial crisis. In July of 2007, The Street published an article listing the top nine high-yielding stocks[8] that were supposed to provide stability through their constant and rising dividend payments. It turns out that these dividends were not nearly as safe as they seemed. As of 2011, six of the nine companies have lower dividends than in 2007 despite the stock market's significant recovery, as shown in **Figure 3**. Even counting the three companies with increased dividends, the average dividend of the nine has declined 37%. In addition, Bank of America and Wachovia are currently paying dividends that are less than 10% of what they paid four years ago. The performance of dividend-paying stocks during the financial crisis contradicts the oft-repeated idea that dividends provide downside protection when stocks fall.

Dividend-Paying Stocks Have Had Higher Returns, But So Do All Value Stocks

One reason many investors are keen on high dividend stocks is because they are expected to have higher returns. Historically, dividends have made up just over half of historical total returns[9]. It seems logical that stocks with a higher dividend would provide investors with a higher return, and in fact, this is the case. You can divide stocks into two categories, those that pay a large dividend and those that pay a small dividend. The stocks that pay a large dividend are considered "cheap" (or "value stocks" in financial jargon). Stocks with a small dividend are considered "expensive" (or "growth stocks"). Historically, "cheap" value stocks have performed significantly better than "expensive" growth stocks, when ranked by dividends.

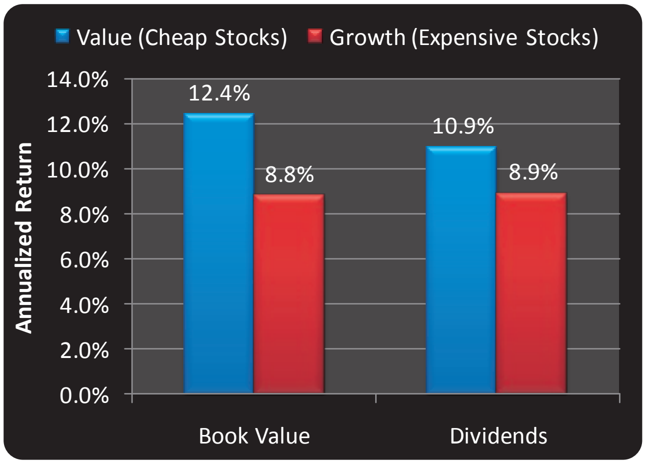
However, just as you can categorize stocks as "cheap" or "expensive" using their dividend, you can also sort by other characteristics. Another common way to value stock is by using the accounting book value. This book value can be found in the annual report of every stock, and is the value of the assets of the company, minus any debt.

While evaluating both characteristics are good ways of separating high performing stocks from low performing stocks, as can be seen in **Figure 4**, using book value is much better. The "cheap" stocks, as determined by book value, have had returns 3.6% higher every year than "expensive" stocks. When compared using dividends, this difference is only 2%.

Why are dividends not as powerful in separating high and low performing stocks? One explanation is that not as many

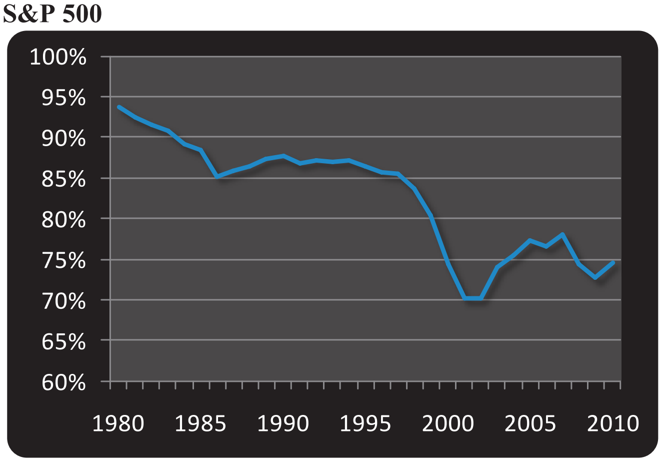
[7]Asset class data exists through 1926. Source: Ibbotson & Associates
[8]Altucher, James. (2007, July 31). Top 10 High-Yield Dividend Stocks. *The Street*.
[9]US Stocks, 1871-2006. Source: Siegel, Jeremy. (2008). *Stocks for the Long Run Fourth Edition*. McGraw-Hill.

Figure 4: **Separating Value and Growth Stocks Using Book Value and Dividends (1928-2010)**



Source: Kenneth R. French

Figure 5: **Percentage of Stocks that Pay a Dividend in the S&P 500**



Source: Standard and Poor's

stocks pay a dividend today. As shown in **Figure 5**, the percentage of stocks in the S&P 500 that pay a dividend has declined from 94% in 1980 to 75% today. For Small Cap stocks, the decline has been much more drastic. One Fama and French paper showed that the percentage of Small Cap stocks paying a dividend fell to about 15%[10].

If and when the Bush tax cuts on dividends expire, the tax disadvantages of dividends will be even larger, because dividends will be taxed at a higher rate than capital gains.

Now, there are several other measurements that can be used to separate "cheap" and "expensive" stocks. Two common ones are company profits and cash flow. Evidence shows that while book value is the best way to separate high performing stocks from low performing stocks, profits and cash flow work well, too.[11] One disadvantage of using these measurements is that they are more volatile than book value or dividends. So, a portfolio based on these criteria will need to trade more often, incurring transaction costs. However, comparing book value, dividends, profits or cash flow are just four different ways to determine the same thing: how cheap a stock is. You can use any or all of them to build a portfolio with historically higher returns.

Investing for Growth or Income, Does It Really Matter?

Investment strategies marketed toward non-professional investors are often labeled either growth (designed to increase in market value) or income (designed to pay out cash). Younger investors who are adding money to their portfolios are steered towards growth strategies, such as stocks that do not pay dividends. Retirees who are withdrawing money from their portfolio are recommended dividend-paying stocks and bonds that consistently distribute cash, but have less potential for capital appreciation. Does this dichotomy between growth and income even make sense?

When transaction costs are high, a dividend or interest payment can be an efficient way for an investor to receive cash from their investment. They receive income without incurring transaction costs or reducing the value of their principal. These days, with very liquid stock markets and historically low (even free for some ETFs) brokerage commissions, it is very cheap to create cash from your portfolio by selling shares. So, this argument no longer makes sense. At Empirical, we try to minimize transaction costs by creating cash while trading for other purposes, such as portfolio rebalancing.

Still, most investors would prefer to live off of dividend payments rather than sell shares. An important part of investment folklore suggests that investors should avoid "dipping into principal." Withdrawing only portfolio income seems like a safe way to avoid exhausting the investment portfolio itself. However, receiving a dividend and selling shares for income are fundamentally the same thing. Academic studies show that when a company pays a dividend, its stock price declines by an equivalent amount[12]. Thus the investor is left with a dividend check, but a lower-valued stock. In essence, receiving a dividend is "dipping into principal" because the value of your principal declines by exactly the amount of the dividend. As Merton Miller said, "a dividend payment is merely putting money in one of your pockets by taking it out of another."[13]

Will Low Bond Yields Derail My Retirement?

If measuring portfolio income is not a good strategy for determining how much you can safely spend, what is? First, portfolio performance should always be judged by *total return*, or the combination of dividends and capital appreciation. Second, portfolio returns vary year-to-year, so it is impossible to gauge the success of an investment plan over only one year. Informed equity investors know to expect bad years and good years, as well as bad decades and good decades. Fixed income investors should expect the same. Over the past few years, fixed income returns have been above average. With today's low yields, they may be below

[10]Fama, Eugene & French, Kenneth. (2001). Disappearing Dividends: Changing Firm Characteristics or Lower Propensity to Pay? *Journal of Financial Economics*. *60*(1), 3-43.
[11]Fama, Eugene & French, Kenneth. (1992). The Cross-Section of Expected Stock Returns, *Journal of Finance*. *68*(2), 427-465.
[12]Boyd, John & Jagannathan, Ravi. (1994). Ex-Dividend Price Behavior of Common Stocks. *Review of Financial Studies*. 7(4), 711-741.
[13]Miller, Merton. *Do Dividends Really Matter?* Selected Paper No. 57.

average over the next few years. However, most people have investment time frames that are over 20 years long. With yields currently below historical averages, they will probably grow to be above average in the future.

Empirical clients are given a retirement plan that tests whether their investment strategy will be successful under thousands of different scenarios; some scenarios yielding good returns and some scenarios yielding bad returns. Just as your retirement plan is designed to experience random ups and downs in the stock market, it is designed with high yielding and low yielding fixed income environments in mind. If you are worried about today's low interest rates, speak with your financial advisor about how they impact your financial plan.

Conclusion

Many of the questions we receive from clients (such as the merits of dividend stocks) come from popular themes in the financial media. Earlier in this article, we listed four mainstream financial publications discussing the benefits of dividend-paying stocks. Since these articles address a common investor concern, they were likely popular with readers. Yet, none of the journalists analyzed the issue using the most comprehensive data or the most rigorous academic studies. We often find, in the financial press, that reporters are good at identifying a hot topic but not so good at performing an in-depth analysis. If you find anything that interests or concerns you, please let us know. Our job is to perform the thorough investigations seldom found in the mainstream financial media.

Financial Planning: Social Security

Long-time clients and readers of our newsletters have likely noticed that we take an empirical approach to investing, as reflected in our previous topics. To us, this means we apply a scientifically rigorous framework in which we make investment decisions. In addition, this discipline carries over to our financial planning advice as much as possible.

As part of our retirement planning process, we frequently help clients work through a decision involving Social Security. Recently, this has become a more poignant topic, as it has become clear that the Social Security program has some problems. This leads some people to think about excluding all Social Security benefits from retirement plans, while others anticipate taking it as soon as possible, for fear that benefits will not be available when it comes time to collect.

In this letter, we want to address the question: "will Social Security be around?" And also provide a framework from which we can determine when to take Social Security.

Will Social Security Be Around?

Currently, over 50 million Americans receive monthly Social Security checks. For two-thirds of these recipients, Social Security is their single largest source of income during retirement. This makes Social Security extremely important for a large part of the population, and in time, it will affect nearly all Americans.

Most Americans are aware that there are problems with the current Social Security program. In fact, the most recent annual report from the Social Security Board of Trustees shows that the fiscal health of the Social Security Program has further deteriorated since the previous report a year ago. This is primarily due to slower-than-expected revenue growth and an increase in estimated life expectancy. This year (2011), for the first time, Social Security benefits paid will exceed total revenue collected from employee FICA taxes. Based on the latest projections, the Social Security Trust Fund is projected to be exhausted in 2036 (versus 2037 in the previous projection). The most important question is: what will happen to benefits paid by the program if and when the Social Security Trust Fund is actually depleted?

Interestingly, the depletion of the Social Security Trust Fund may have a far less severe financial impact than you might think. The reason? Social Security payments are primarily funded by current tax revenues collected from workers. The purpose of the trust fund is to pay the differences between promised benefits and collected revenues. Due to the ongoing Social Security tax system, the majority of Social Security benefits will still be paid, even without the Trust Fund.

Of course, any shortfall in paying benefits is still significant. However, it is important to understand that if the Social Security Trust Fund is depleted, it does not mean that payments will stop, and benefits drop to zero. Even without the Trust Fund after 2036, it is estimated that Social Security will be able to continue paying 77% of promised benefits without any changes to the program[14].

Practically speaking, the "fixes" needed to equalize incoming tax revenue and outgoing benefits are not difficult to figure out (though politically speaking it is a different matter). For example, if payroll taxes were increased gradually from the current level of 15.30% to 16.70% by the year 2084, this alone would bridge the gap[15]. Therefore, it is very likely that Congress will enact some relatively simple adjustments to the program before the Social Security Trust Fund is projected to run out, as they did in the 1980's - the last time our Social Security system needed a tune-up.

Because the adjustments needed to continue promised benefits are relatively small, we believe your time and energy is best spent determining how to maximize your Social Security benefits.

When to Take Social Security?

One view is that Social Security should be taken as early as possible due to fears that people will not live long enough to benefit, or fears about the system running out of money. An opposing view is that Social Security should be deferred because it provides protection against unexpected longevity; after all, we are living longer these days. Which view is correct? The answer may depend on which side of your brain you use to make the choice.

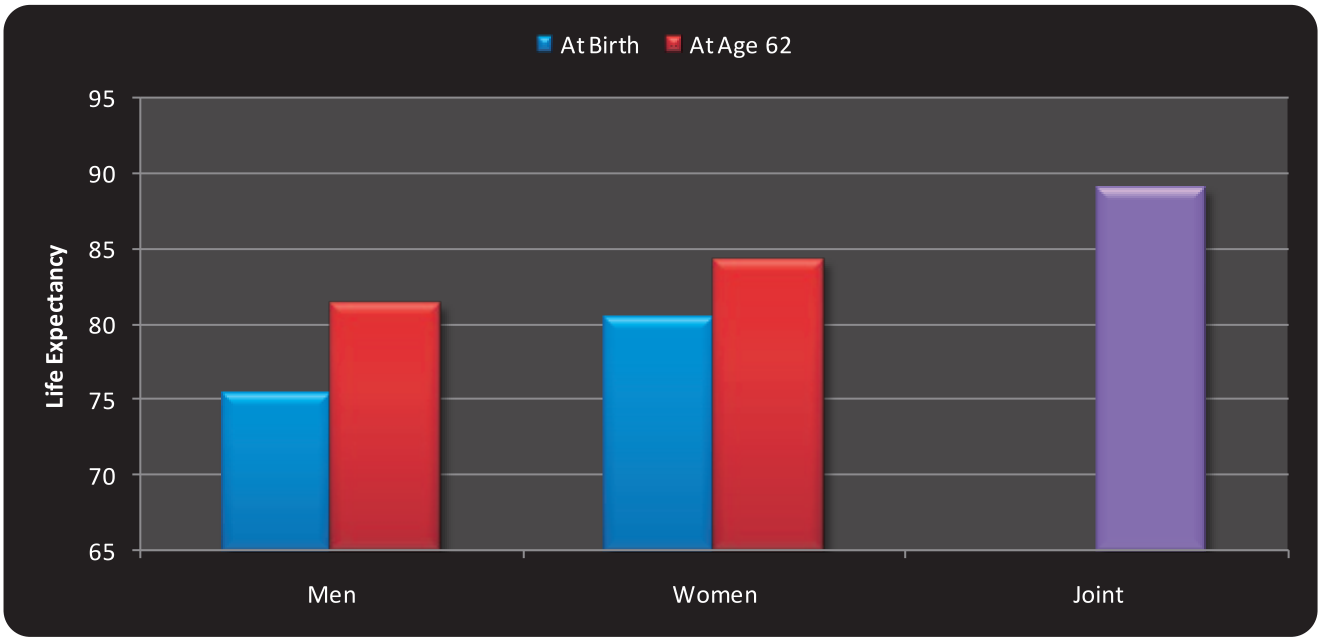
In the relatively new field of Neuroeconomics, scientists describe two sides of our brains that are programmed to help

[14] 2011 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disabitly Insurance Trust Funds. Page 21
[15] 2011 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disabitly Insurance Trust Funds. Page 21

us answer difficult questions. One side is "reflexive" and the other is "reflective." Reflexive thinking comes from the emotional side of the brain, which is often guided by intuition and gut instincts. Reflective thinking has more to do with logic and analysis than emotions. In many ways, the two systems work well together, attempting to balance the need for quick, accurate and rational decision making (For more on this see Jason Zweig's Your Money and Your Brain).

-quoted life expectancy at birth for men (75.2 years) and women (80 years). For example, as shown in **Figure 6**, while a male at birth can expect to live to be 75 years old, a 62 year old male can expect to live to age 83 (eight years longer!). Similarly, a female at birth can expect to live to age 80 where a 62 year old woman can expect to live to age 86 (six years longer!). Further, when looking at joint life expectancy, there is a greater than 50% chance that one spouse currently at age 62, will live to age 89.

Figure 6: **Life Expectancy Increases As You Age**



Source: Social Security Administration

For questions like "when should I take Social Security?" it is far easier to go with your gut than actually sit down and run the numbers. After all, it takes time and energy to review your Social Security statement, calculate your breakeven age and then look at a mortality table to find the likelihood of reaching that age. The issue is that, sometimes "going with our guts" will not give us the best results. To help us with this concern, we have created a two step process to help guide decision making in this important area.

Step # 1 - Breakeven Analysis

Determining the breakeven point is a relatively easy Time Value of Money calculation, and it answers the fundamental question: How long do I have to wait before I will collect more money by deferring payments compared to taking them earlier? Of course, the actual dollar amounts will vary based on whose earnings record we are evaluating, or if we are single, married or divorced. The calculations can be further complicated if we are evaluating benefits for a married couple where both spouses independently qualify for Social Security. Conceptually, this is fairly straight forward, but it still requires running the numbers to know exactly where the breakeven point is. Once this is complete, we can move to the next step.

Step # 2 – Life Expectancy

As we age, we are more likely to live longer. Therefore, it is not sufficient for people at Social Security age to use the often

Does this mean that everyone should postpone Social Security? No. It does, however, provide a framework from which to make a well informed choice. Once the breakeven age and life expectancy are determined, then your personal factors such as current health status and family history can be discussed and evaluated.

Social Security Planning Implications

While the future is always unknown, delaying Social Security does help reduce uncertainty around longevity risk. Social Security also lowers portfolio withdrawal needs in two important ways, thus reducing portfolio risk during retirement:

- Social Security payments increase by 8% per year for every year payments are deferred until age 70 (that is a guaranteed 8% per year return)

- Social Security payments adjust for inflation throughout retirement, acting like "inflation insurance"

The combination of these unique properties is most likely to benefit investors during a period in which we are living longer, facing higher, future inflation, and possibly lower investments returns. As a result, the decision to delay becomes more desirable, not only because we can reasonably expect to live beyond the breakeven point, but because delaying provides significant risk management benefits when they are needed most.

Conclusion

Our objective with this discussion is to provide a step by step framework for choosing how to incorporate your Social Security benefits into your comprehensive retirement plan. We believe that understanding the impact of one decision can be best measured by its effects on the entire retirement plan. This means that while the ultimate decision of when to take Social Security will vary from person to person (depending on personal circumstances and objectives); the process that was used to reach the decision is the same. If you have questions about when to take Social Security or how it can be best incorporated into your retirement plan please contact your Empirical advisor.

Sincerely,

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