

**Comments of Richard Whitney, T. Rowe Price Group, Inc.,  
Presented at the Target Date Fund Joint Hearing, June 18, 2009**

Good morning, Chairman Schapiro and Deputy Secretary Harris. My name is Richard Whitney. I am Vice President and Director of Asset Allocation at T. Rowe Price Group, Inc., and lead the team responsible for the T. Rowe Price Retirement Funds. On behalf of T. Rowe Price, thank you for this opportunity to present our views regarding the important topic of “target date funds” and your efforts to determine if additional guidance on such products is needed. As an industry leader in investing for retirement, T. Rowe Price shares your concern for ensuring that retirement plan participants have access to products and services that allow for their success.

**Factors in the Design of Target Date Funds**

T. Rowe Price Retirement Funds are designed to make retirement investing easier and more successful for participants both during the accumulation stage, when they are saving for retirement, and during the post-retirement stage, when they are managing their savings to last through their lifetimes. Our design is based on the concept that a single fund, focused on the expected retirement date of an individual, can be a suitable investment for life.

Much of the controversy around target date funds comes from the dispersion of performance in the near-dated funds seen in 2008. This dispersion arises largely from differing objectives at retirement – some funds are designed to enable investors to gradually draw down their balances over time, while others are designed to facilitate transferring lump-sum balances to other income generating strategies, such as annuities. Both objectives are reasonable, but

they place different demands on participants and lead to dramatically different investment designs and most important, dramatically different equity weightings.

The following testimony will discuss four major points regarding the construction of target date funds that are used in our own design and management. It is my hope to leave you with an understanding of the fundamental thinking, processes and testing behind our decisions. We believe that plan sponsors and their participants benefit from a competitive marketplace that ensures the development and availability of a variety of retirement date products designed with the best thinking of portfolio specialists.

The four points are:

- The source of uncertainty for retirement investors is multi-faceted – including market risk, inflation risk and longevity risk. Focusing solely on short term market volatility will leave investors vulnerable to other risks. There is no strategy that is optimal for all of these risks at the same time.
- Participant behavior – in particular, contribution and withdrawal rates and how participants behave under stress – can have a powerful impact on financial success.
- Satisfactory outcomes will come only through sound financial advice provided through investment vehicles that simplify the actions required by participants.

- Plan participants should understand their investments, and we support industry efforts to adopt model disclosure principles to ensure that plan participants understand the essential features of their investments.

Our first point is that a good investment strategy requires a tradeoff between different kinds of risk, such as market risk (short-term and long-term), inflation risk, and longevity risk.

Recent events have focused attention on market risk. From its October 2007 peak to the market low on March 6, 2009, the S&P 500 lost 57% of its value. This was the second-worst market performance on record, exceeded only by the early years of the Great Depression. The crisis also impacted fixed income markets, causing losses in all but the most conservative sectors, such as U.S. Treasuries.

The collapse in equity market values is exceptional, but not unprecedented, when viewed in its historical context. It is not unprecedented because we saw similar bear markets in the 1970s and in the Great Depression. It is exceptional only because contractions of such magnitude are nevertheless rare. Even including the most recent experience through April, 2009, the S&P 500 total return has exceeded intermediate term government bonds 83% of the time when looking at 10 year holding periods, and 98% of the time when looking at 20 year periods.<sup>1</sup> In addition, when stocks do outperform bonds, they often do so by a wide margin. This so-called “Equity Risk Premium” is well-established based on actual market experience, and corroborated by a sound theoretical analysis, which shows higher average equity return represents suitable compensation for the higher short term risk equity investors assume.

---

<sup>1</sup> Based on overlapping rolling periods constructed from monthly returns (Ibbotson data)

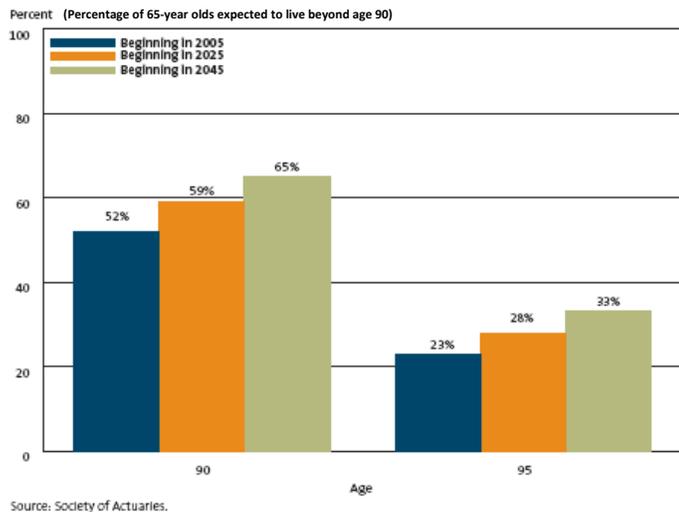
Equity as an asset class is so attractive because long term investors can dramatically reduce the likelihood of underperforming bonds while still “harvesting” this risk premium, simply by holding on to their assets. Among all of the higher return asset classes, equity remains the only one that has sufficient liquidity and potential for diversification to execute this simple “buy and hold” strategy in a way that is scalable for millions of retirement investors.

While recent experience has understandably led many of us to over-emphasize the short-term volatility of equity markets versus their long term benefits, it also tempts us to under-emphasize the longer-term challenges participants face in funding their retirement years. However, those risks also remain substantial. The erosion of purchasing power by inflation, for example, continues to be a serious long-term threat. Assuming a relatively conservative 3% inflation rate (well below the actual 4.1 percent average of the last 60 years), the real value of retirement assets will be cut in half in just 23 years. Thus, an income stream of \$40,000 a year must grow to \$80,000 a year over this period to provide the same standard of living.

Rising life expectancy means the duration of income needed from retirement savings is increasing. Average life expectancy at age 65 is approaching 20 years, implying that a substantial portion of the population needs to plan for a retirement that lasts even longer. Today, the chance that one member of a couple in their 60s will live beyond 90 is more than 50%, according to the Society of Actuaries, and there is almost a 25% chance that one spouse will live to 95. As illustrated by Figure 1, these statistics are expected to continue climbing, so that by 2045, the likelihood of at least one spouse living to age 90 is expected to reach 65%. In

short, it is realistic to expect that many retirees will spend 30 or more years in retirement. Because the most elderly are likely to need expensive custodial care or other support services, retirees generally are likely to need greater financial resources in the later years of their retirement - not less.

**Figure 1: Longevity is an Underlying Driver of Retirement Risk**



After considering all these factors, it is clear to us that an appropriate asset allocation strategy for a retirement portfolio involves a trade off between the risk of short-term portfolio volatility and the risk that long-term returns will be insufficient to meet post-retirement income needs. A strategy focused on volatility, with an accompanying reduction in equity, increases the risk that assets will not grow adequately to fund a long retirement. When also considering the typical rates of saving, the need for significant equity exposure to generate adequate long term income becomes even stronger. At the same time, we understand that investor's tolerance and capacity to bear risk varies as they age, and so we manage the degree of market risk through the use of a glidepath, or declining equity exposure over time. The glidepath tends

to match portfolio volatility to the declining risk tolerances typically exhibited by investors as they age.

The second point is that participant behavior can significantly influence their financial success. While most observers focus on 2008 as a test for the various asset allocation solutions available to investors, the current episode provides as important a test for the behaviorally friendly design that target date funds are intended to offer. And now, amid the emergence of signs of economic stabilization, consultants, plans sponsors and 401(k) providers have recently had an opportunity to assess the crisis's impact on actual participant behavior.

By and large, the picture that emerges is one where participants on the surface appear to have "stayed the course," and the actual incidence of changes to either asset allocation or contribution levels (for better or for worse) is much smaller than even experienced observers would have expected.<sup>2</sup> To be sure, it is likely that this outcome is driven substantially by investor inertia, which may be working in investors' favor here. However, there are also indications that target date fund investors have so far been even less likely to make changes to their strategy than investors with more of a "do-it-yourself" approach to their retirement asset allocation. These reports are confirmed by what we at T.Rowe Price have been observing in the plans we serve and they indicate that, while the short term market environment has been challenging for their asset allocation approach, target date funds are so far passing the test as far as their behavioral value proposition.

---

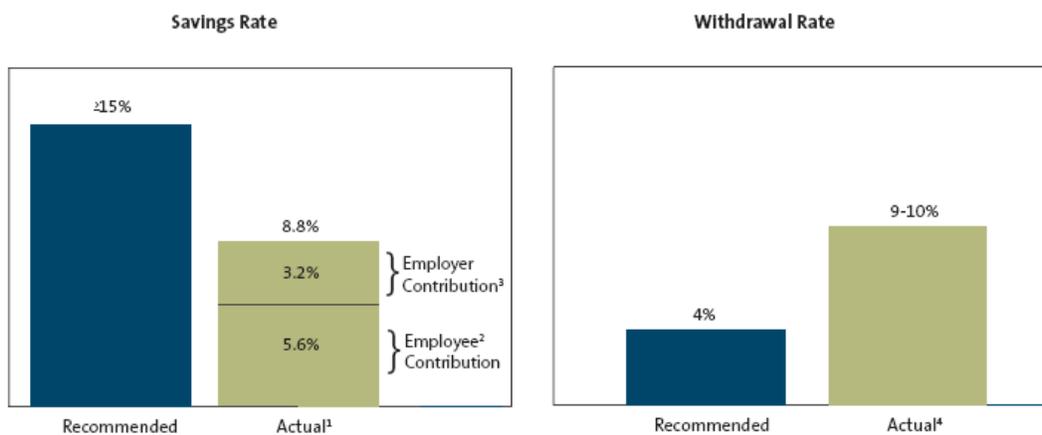
<sup>2</sup> See for example "401(k) Investors Ignored Market Turmoil, Studies Show," published June 1, 2009 on Ignites ([www.ignites.com](http://www.ignites.com)).

These results are especially encouraging because financial planning research generally indicates that the impact of participant behavior (understood here to mean contribution rates during accumulation or withdrawal rates in retirement) can rival the asset allocation itself in terms of its impact on retirement outcomes. Financial planning research at T.Rowe Price recommends a 15% contribution rate and a withdrawal rate no more than 4% in retirement, adjusted for inflation. Provided a reasonable asset allocation, following such a strategy consistently will usually be associated with a successful retirement in the vast majority of cases. However, even small departures from these rules of thumb can impact retirement success quite dramatically, and in ways that cannot be “fixed” by the redeeming features of a prudent asset allocation. To give just one example, as illustrated by Figure 3, while a 4% withdrawal rate may succeed more than 90% of the time with a balanced asset allocation, that likelihood can drop to less than 50% if the retiree withdraws 6% of the portfolio instead. Therefore, while it is tempting in the current environment to focus on asset allocation and its impact on portfolio balances over the short term, it remains important to keep in mind that investor behavior, and especially contribution rates, remains one of the most important determinants for retirement balances over the long run.

While participant experience around the investment strategy is encouraging, Figure 2 illustrates that the typical participant could better manage their contributions and withdrawals. Most retirement savers don’t set aside enough, saving only an average 9% of salary, and economic pressures are leading many employers to reduce their matching contributions, putting further pressure on funding adequacy. Retired participants also are drawing on their assets at potentially unsustainable rates. The spending rate for the average retiree is now

between 9% and 10% of portfolio value, far more than the recommended 4%. Improvements on these factors will have a dramatic impact on retirement success.

**Figure 2: Plan Participant Behavior**



<sup>1</sup> Profit sharing/401(k) Council of America 51<sup>st</sup> annual series (09/2008)  
<sup>2</sup> Non-highly compensated workers  
<sup>3</sup> 401(k) plan only  
<sup>4</sup> T. Rowe Price plans (60-69 years old with installment distributions).

The third point is that retirement funds are constructed to encourage sound financial behavior. The T. Rowe Price Retirement Funds were developed in response to the observation that many individuals do not have the time or expertise to construct an investment allocation strategy to see them through retirement. This concern is often heightened for participants in retirement plans who are presented with multiple investment options from which to choose. Such individuals tend to either sabotage their investment strategy by moving their account balances from fund to fund in reaction to market fluctuations or to suffer from investment paralysis—a failure due to inertia to diversify their investments or to rebalance accounts into more age appropriate investment allocations as they get closer to retirement age.<sup>3</sup> Also, many

<sup>3</sup> The literature documenting this type of participant behavior is widely available. *See, for example*, Agnew Sunden, “Portfolio Choice and Trading in a Large 401(k) Plan,” *American Economic Review*, 93(1):193-215 (2003); Mitchell, Olivia S., Gary R. Mottola, Stephen P. Utkus, and Takeshi Yamaguchi, “The Inattentive Participant: Portfolio Trading Behavior in 401(k) Plans.” Pension Research Council Working Paper 2006-05. Philadelphia, PA.: Wharton School.

investors, on their own, would reactively flee a sector with negative performance rather than rebalance their sector weights so they can recover their losses when that sector recovers. Our Retirement Funds were not conceived in a vacuum, but reflect the real-world challenges of participants as conveyed to us by plan sponsors.

The fourth point is that plan participants should understand their investments and how they fit into their overall planning for retirement. In most cases, consultants and/or advisors assist plan sponsors in selecting target date funds that are appropriate to the needs of their plan. From our experience, sponsors and consultants are very engaged in reviewing our products' glidepath, underlying investments, and related risks and compare such factors against those of other products in evaluating target date funds for their plans. While we believe this analysis allows sponsors to fully understand the theory and practice of target date funds, we also know that a key to the success of a long term plan is a suitable level of confidence by participants to stay with their strategy during challenging times. Accordingly, we support efforts to adopt model disclosure rules so that plan participants will benefit from improved understanding of their investments.

## Designing the T. Rowe Price Retirement Funds' Glidepath

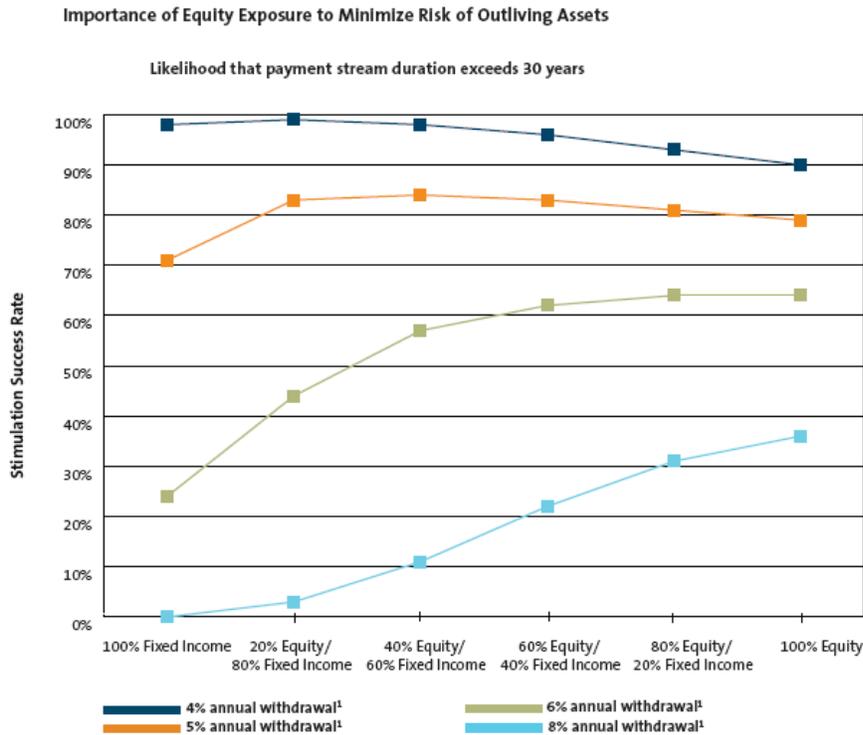
In response to the concerns listed above, the T. Rowe Price Retirement Funds investment strategy - and most importantly, the asset allocation glidepath - was developed to serve during an investor's working career, as assets are accumulating, as well as throughout retirement, as assets are drawn down and converted to income. Our design objective is to provide a substantial likelihood that the resulting income stream will outlast its beneficiary.

To evaluate our design, we conducted Monte Carlo analysis to simulate prospective results, and coupled this with an analysis of actual market experience during the last 80 years. We ran thousands of simulation exercises to estimate the likelihood of sustaining income over a 30-year time horizon, given varying levels of equity exposure, withdrawal rates and market environments. These simulations are a useful technique to deal with the uncertainty of estimating future results across a wide variety of potential environments and investment strategies. As Figure 3 illustrates,<sup>4</sup> our quantitative modeling exercises show that, under a conservative 4% withdrawal assumption, participants have a high probability of success in maintaining an income stream for at least 30 years using many different asset allocation strategies. However, the probability of success declines steeply as the withdrawal rate is increased. Higher equity exposure significantly improves expected success, especially at withdrawal rates of 6% or more.

---

<sup>4</sup> The projections or other information generated by our proprietary Monte Carlo model regarding the likelihood of various investment outcomes shown in Figures 3 and 4 are based on assumptions and are therefore hypothetical in nature, do not reflect actual investment results, and not guarantees of future results. These results are not predictions, but they should be viewed as reasonable outcomes. Source: T. Rowe Price Associates, Inc.

**Figure 3: The Distribution Phase<sup>5</sup>**



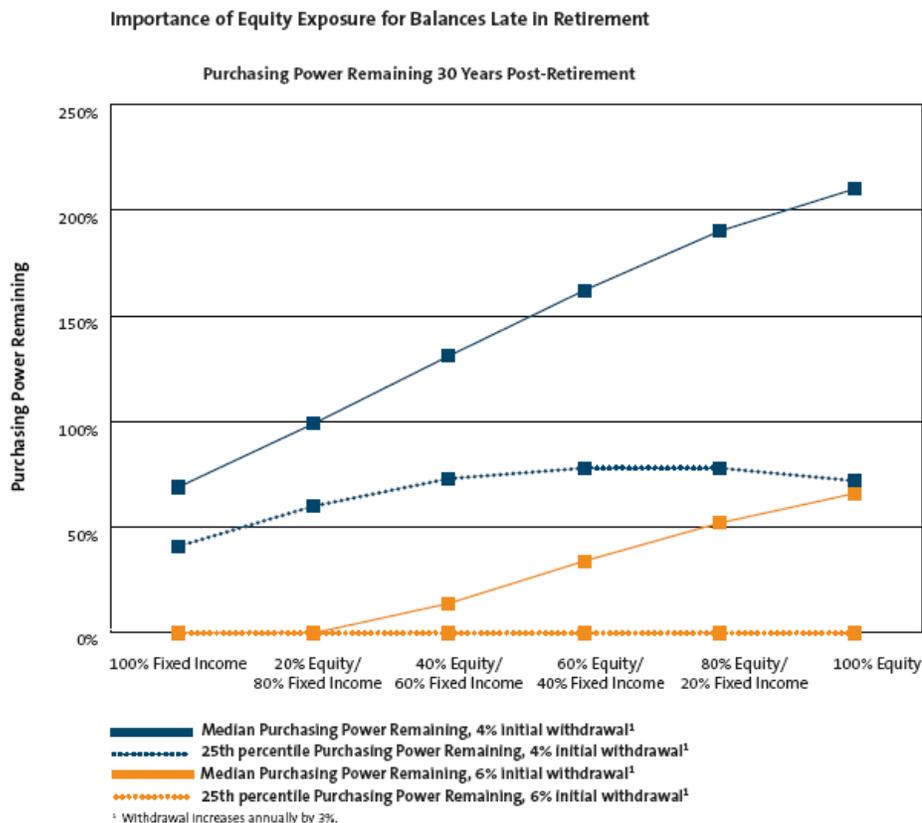
While sustaining an income stream over a long horizon is critically important, it is not the only consideration. The assumption that retirees will steadily withdraw a certain percentage each year, without allowing for the possibility of major spending increases, is simply

<sup>5</sup> The investment analysis presented is a subset of a broader analysis that evaluated the impact of differing asset allocation strategies over 30-year time horizons, assuming initial withdrawal rates ranging from 4% to 8%. The primary asset classes used for the analysis are stocks, bonds, and cash. An effectively diversified portfolio theoretically involves all investable asset classes, including equities, bonds, real estate, foreign investments, commodities, precious metals, currencies, and others. Since it is unlikely that investors will own all of these assets, we selected the ones we believed to be the most appropriate for long-term investors. The initial withdrawal amount is the percentage of the initial value of the investments withdrawn in the first year. In subsequent years, the amount withdrawn grows by an assumed 3% annual rate of inflation. Success rates (having a non-zero balance remaining in the portfolio at the end of retirement) and purchasing power remaining are based on simulating 10,000 possible market scenarios and various asset allocation strategies. The underlying long-term assumptions in excess of assumed inflation are as follows: 1.0% expected real return of cash, 3.5% expected real return for intermediate-term investment-grade fixed income, and 3.5% expected equity risk premium over intermediate-term investment-grade fixed income, all in annual terms. These assumptions do not reflect a forward-looking forecast of market returns, but represent central tendencies of the modeled market scenarios.

unrealistic. The need for additional savings as a hedge against unexpected increases in living costs is an equally important factor in alleviating shortfall risk.

In additional modeling exercises, we studied the ability of different asset allocation strategies to maintain purchasing power – defined as an inflation-adjusted measure of an investor's wealth as a percentage of the initial balance – at the end of a 30-year retirement. The ability to sustain wealth through retirement provides a vital financial cushion to cover unplanned expenses, such as medical care or the possibility of living longer than expected. Once again, as Figure 4 shows, we have found that higher equity exposure tends to consistently provide larger ending balances.

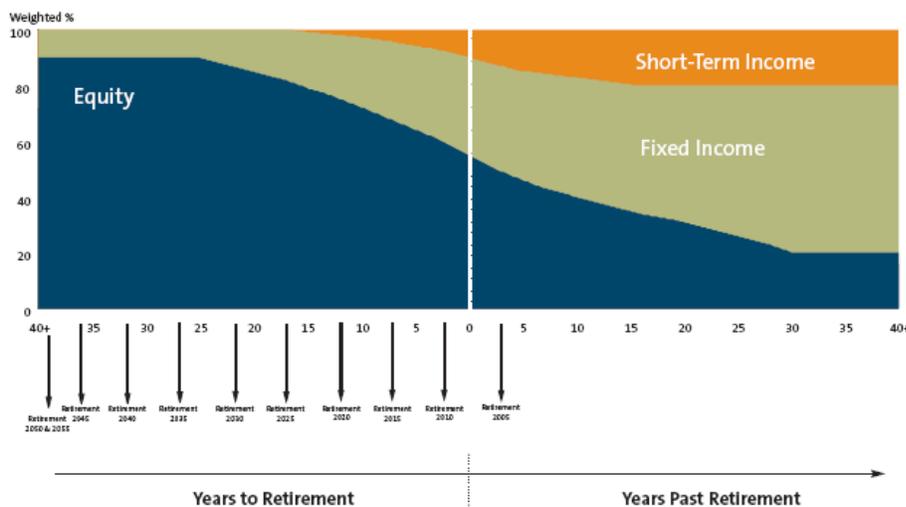
**Figure 4: The Impact of Equity Exposure on Portfolio Balances in Retirement**



Retirees need to protect the purchasing power of their assets to provide a cushion against unexpected liabilities and reduce the risk of outliving their resources. Here too, our simulations indicate that higher equity exposure increases the probability of success. Assuming a 3% inflation rate, a 4% withdrawal rate and 40% equity exposure, the median portfolio within a distribution of potential outcomes is projected to increase in inflation-adjusted value over a 30-year period, while even a 6% withdrawal rate can be sustained by the median portfolio without exhausting resources.

The resulting asset allocation strategy is represented in a glidepath that starts out with 90% in equities for participants more than 25 years from retirement, gradually reduces to about 55% by the age of 65, 35% by age 80, and finally to a 20% equity exposure by age 95.

**Figure 5: The Retirement Funds' Glidepath**



For participants who adhere to recommended saving and withdrawal guidelines, a high-equity glidepath offers two key benefits: a high probability they will not outlive their assets, and an expense cushion in retirement. Furthermore, for participants who follow the more typical

pattern of lower savings and higher withdrawal rates, the substantial exposure to equities increases the probability of maintaining assets through retirement, relative to allocations with lower equity exposure. Additionally, the glidepath redistributes market risk over time – exposing younger participants to higher levels and gradually reducing it as their time horizons grow shorter.

We recognize that no asset allocation strategy can ensure success for all retirees in all time periods. Based on our analysis, we have constructed a glidepath that supports a defined post-retirement spending objective in roughly 90% of performance simulations, assuming a 4% initial withdrawal rate adjusted annually for inflation and a 30-year time horizon. However, the same analysis implies a possibility of failure. Extreme market conditions, such as those seen in the current financial crisis, may produce such an outcome for some participants. But our research also shows that a long-term retirement strategy designed primarily to neutralize the risk of extreme events is likely to leave most participants poorly positioned in the vast majority of probable outcomes.

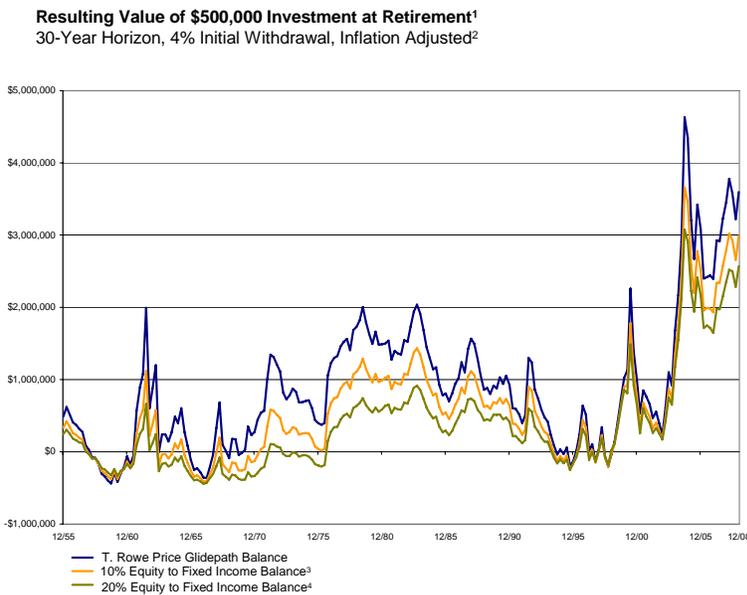
### **Historical Analysis Provides Confirmation**

Does the equity exposure hypothesis developed through quantitative modeling withstand historical scrutiny? Put another way, would participants have fared better in past markets using a higher equity glidepath or an approach with less equity exposure? We tested this question by examining rolling 30-year time periods (using quarterly returns) from 1925 through 2008 to determine the ending balance of a portfolio after a 30-year retirement. We assumed a 4% initial withdrawal rate, adjusted annually for inflation. We compared a high-

equity glidepath, in which equity allocations declined from 55% at retirement to 20% in year 30 following retirement, to glidepaths that moved from 45% equities to 20% (Glidepath A), and from 35% to 20% (Glidepath B), over the same 30-year periods.

The analysis confirmed the essential results of our quantitative modeling (See Figure 6). This chart shows the inflation-adjusted value after 30 years of a portfolio worth \$500,000 at retirement. The higher-equity glidepath showed a significantly greater probability of success--not depleting assets for 30 years in 84% of time periods and providing larger ending balances in 95% of time periods, relative to the two lower-equity glidepaths. The median ending balance across all time periods was nearly 90% higher than under Glidepath A and more than three times higher than under Glidepath B.

**Figure 6: Historical Analysis of Alternative Glidepaths**



Equity = S&P 500 Index, Fixed Income = 1926-1972 U.S. IT Gov't Index; 1973-1975 LB Gov't/Corp Index; 1976-Present Barclays U.S. Aggregate Index (formerly Lehman Brothers U.S. Aggregate Index), Cash=U.S. 30 Day T-Bills.

<sup>1</sup> Positive balances reflect surplus assets at the end of a 30-year retirement horizon. Negative balances reflect the shortfall amount needed to fund the specified withdrawals.

<sup>2</sup> Assumes withdrawal increases annually by the % change in the Consumer Price Index for All Urban Consumers (CPI-U), not seasonally adjusted (if greater than 0%) or by 0% (if annual % change of CPI-U is negative).

<sup>3</sup> T. Rowe Price Glidepath with equity allocation reduced by 10% and fixed-income allocation increased by 10%, with minimum equity allocation of 20%.

<sup>4</sup> T. Rowe Price Glidepath with equity allocation reduced by 20% and fixed-income allocation increased by 20%, with minimum equity allocation of 20%.

Source: Ibbotson Associates, T. Rowe Price.

Capital market history confirms that greater equity exposure has produced higher portfolio values in the overwhelming majority of periods. Moreover, the return advantage from substantial exposure to equities was accompanied by a limited increase in downside risk relative to the lower-equity allocations. In every time period in which the high-equity glidepath was unable to maintain assets for 30 years, the lower-equity approaches were also unsuccessful. This highlights the reality that in poor structural economic environments, it will be difficult for most asset allocation strategies to be successful because returns on most if not all financial assets are likely to be poor.

For recent or prospective retirees who saw their portfolios decline sharply in the recent bear market, the historical record may provide comfort, as it demonstrates the potential for recovery over lengthy retirement time horizons. For example, even an investor who retired in 1972 – on the eve of the severe 1973-74 bear market – ultimately would have benefited from a high-equity glidepath. While his or her portfolio clearly would have underperformed over the following two years, by the end of the investor’s 30-year retirement horizon in December 2002 he or she would have had over \$235,000 in assets remaining, versus just \$178,000 for an investor with a 45% equity glidepath and less than \$171,000 for one with a 35% equity glidepath. Moreover, these results don’t reflect the fact that the investor with higher equity exposure would likely have entered the ‘73-‘74 bear market with a larger portfolio, thanks to pre-retirement gains from the bull markets of the 1960s and early 1970s.

## Conclusions

- Rigorous research has led us to one overriding conclusion: A higher equity glidepath most effectively addresses the longer-term challenges of retirement investing, such as longevity risk, inflation risk and the tendency of many participants to save too little while working and withdraw too much after retirement. By maintaining sufficient equity exposure, participants can increase the probability of maintaining assets over a 30-year retirement, while redistributing market risk to more closely match their evolving preferences.
- We do not believe that recent events in the U.S. or global markets necessitate a dramatic change in expectations for the decades ahead. Although daunting in the short term, the results of the financial crisis to date have not diminished our confidence in the long-term benefits of higher equity exposure in retirement portfolios. The historical experience has been that bear markets have occurred with regularity but stocks have always rebounded, providing higher returns than other asset classes over the long term – nearly 10% a year on average since 1926 for large-cap US stocks, roughly double the 4.6% rate of return for fixed income assets.
- With their behaviorally friendly design, target date strategies can help keep participants invested through up and down markets, preventing market-timing decisions that can damage long-term returns. This approach doesn't require participants to make difficult – and risky – investment decisions, such as choosing asset allocations and knowing when

to change their equity exposure or rebalance. All investment decisions are handled automatically through the strategies' research-based design.

- Since the financial crisis began, our experience has been that the vast majority of T. Rowe Price retirement plan participants have stuck with their target date asset allocations. This encourages our belief that the target date approach can and will help participants achieve their retirement objectives in the long run.
- Individual circumstances differ, and a high-equity glidepath may not be appropriate for participants who plan to withdraw large lump sums at retirement, either to fund an annuity or to make a major purchase, such as a retirement home. However, we believe it would be a mistake for participants to shift money from their target date strategies to cash or stable value investments in response to severe market volatility. After-inflation returns on cash instruments, such as Treasury Bills, historically have been quite low. Moreover, participants would greatly increase their risk of missing a future market upturn, reducing their long-term returns.

I'd welcome any questions you have.