LINKING INVESTMENTS TO YOUR LIFE

A GUIDE TO ACHIEVING *YOUR FINANCIAL GOALS*™

Ann Terranova, CFP®

Founder & Advisor, Union Financial Partners, San Francisco, CA

Stephen J. Huxley, Ph.D.

Chief Investment Strategist, Asset Dedication

Professor of Business Analytics, University of San Francisco

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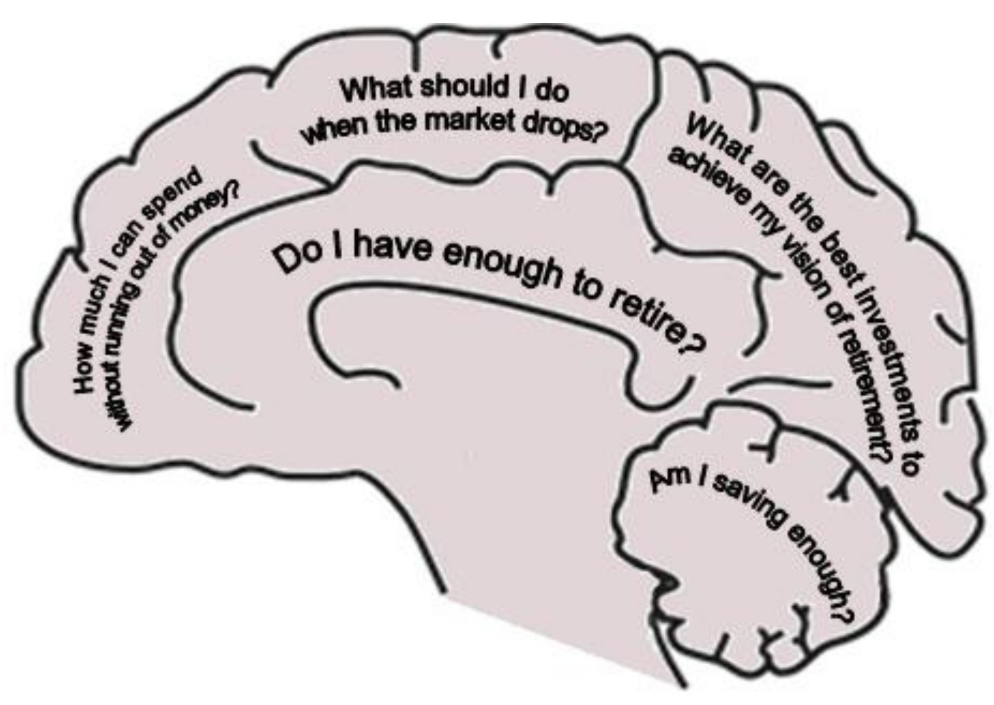
INTRODUCTION

When you think about investing and retirement does your head fill with questions? Concerns? Uncertainty? Or are you just bewildered and do not know how to assess your financial situation and set yourself on a path to reach *your financial goals*?

This guide will define explicit financial goals and show how to link each goal to specific investments, specific investment portfolios in fact. This powerful method greatly helps assure the success of achieving each individual goal, and all of your goals. You will also learn how to best assure successful attainment of each of *your financial goals* including how to take advantage of the predictability of bonds to generate a *retirement paycheck* and create a time buffer for your faster growing but more volatile stock investments. Three methods and techniques are presented that will enable you to set explicit financial goals, engineer investments to meet those goals, and consistently monitor the status of your investments relative to your explicit financial goals so that you can keep them on track if they drift off course. An added benefit of this approach, as you will also learn, is that this method also greatly helps you to effectively manage and cope with market volatility.



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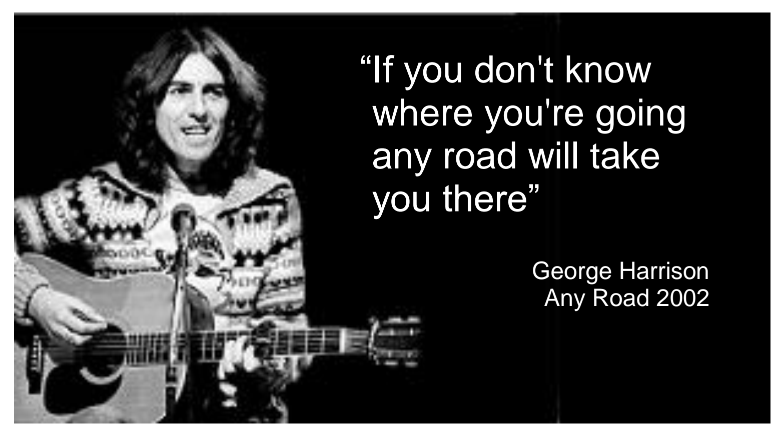
THE IMPORTANCE OF FINANCIAL PLANNING

If you want to take control of your investments, you need to know where you are heading, and that means having a comprehensive financial plan. We often see people who have put together an investment portfolio before they have done any financial planning and without any knowledge about portfolio construction. Late Beatle George Harrison sang in "Any Road" - "If you don't know where you are going, any road will take you there". Investing without a plan is like going on a trip without a map; you will end up somewhere, but where you do end up might be somewhere that you do not want to be!



Establishing explicit financial goals with target timeframes is essential. Motivational speakers Zig Ziegler, Stephen Covey, and others profess that goals should be explicit and **SMART**: **S**pecific, **M**easurable, **A**ttainable, **R**ealistic and **T**imely. Working with a professional Certified Financial Planner™ (CFP®) and/or a reputable Investment Advisor to establish your own SMART goals, financial plan, and investment strategy will result in a strong foundation for achieving goals and financial security.

Your financial goals change depending on where you are in life. **The three basic financial phases (or stages) of your life with regard to financial planning are the: *accumulation phase, pre-retirement phase,* and *retirement phase*.** In each phase, you have a unique perspective and different financial issues. In the accumulation phase, you are usually concerned with saving up to buy a house, fund college education(s) for your children, and fund a comfortable lifestyle throughout your retirement. In the pre-retirement phase, hopefully you have done some planning and are prepared; otherwise you are likely to realize that retirement is coming soon and that you need to accelerate your savings efforts. In the retirement phase, the main concern is living comfortably from income provided from your investments and not running out of money. As your goals evolve through these phases, so too should your investments, always seeking the fulfillment of your needs and goals. And, as will be presented later in this guide, attaining each specific goal can be done, and should be done with an explicitly dedicated investment portfolio.

Brokerage statements often calculate periodic gain and loss performance and provide comparisons of portfolio performance to leading market indexes. It is of course refreshing to know that your portfolio is meeting or exceeding market returns (i.e., based on common indexes, such as the S&P 500 Index). Knowing your portfolio's performance relative to a common benchmark will not help you assess if the growth of your investments are on course to achieving your own specific financial goals, such as the ideal retirement that you envision. In other words - comparisons to market indexes do not facilitate evaluating the status of your future financial goals and the linkage of those goals to specific investments. We believe, and will articulate in this document, that the absence of specific goals, the omission of portfolio returns, and linking investment returns to specific goals is common and a seriously flawed method of managing investments! Anyone who invests to achieve specific future goals must have a frame of reference so that they can evaluate the performance and status of their investments with regard to achieving their financial goals. This information enables you to

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adjust and correct if necessary. It also provides you with an up-to-date awareness that you are systematically and successfully progressing toward your goals that instills the confidence to stick with your investment strategy, especially through periods of turbulent market volatility.

YOUR FINANCIAL GOALS & MARKET VOLATILITY

Fact: financial markets are volatile. Another fact: successfully coping with market volatility will help you to maximize the growth of your wealth. Interspersed with steady long-term increases markets have and will continue to both fluctuate and decline for periods of time. However, history and academic studies prove time and again that if you stay the course, you are best positioned to capture market gains. Anxiety over market declines, macro economic conditions, and world events is common. It is natural and normal to be concerned about such events, however making anxiety-induced investment decisions is often a costly error. As investment timeframes increase, interim fluctuations disappear as investment portfolios increase in value; **which is to say, that over long periods, volatility is a not a factor.** By dedicating specific assets with volatility characteristics that match the timeframes of each of your explicit financial goals, you can negate (or "immunize") a specific investment portfolio from volatility. This will become clear after reading the subsequent sections. **The key take-away point here is that focusing on attaining *your financial goals* and hence on the performance and trajectory of your investment portfolio is a powerful way for you to focus and what is important and only on what you can control, and neither focus on nor be distracted by relatively small and ultimately inconsequential deviations due to normal market volatility.**

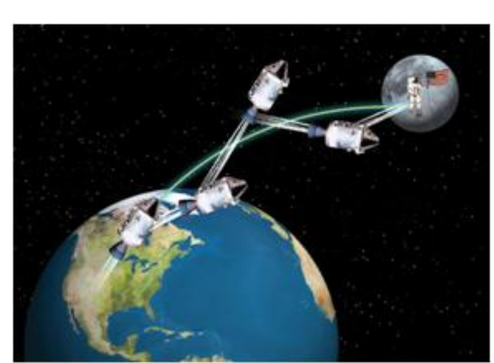
The Asset Dedication® method, presented in this guide, provides a cogent method to engineer specific investment portfolios to meet specific goals.

The Critical Path® technique, presented next, provides a crucially important frame of reference that enables you to keep your investments on track and aligned with your plans for spending your money throughout your lifetime. **It is an essential tool for successfully tracking and managing your journey along your personal financial roadmap. Using the critical path technique to manage your investments toward and attaining *your financial goals* is in fact the way to keep from being distracted by market volatility!**

Following a "Critical Path"

The Apollo missions had a *goal* - to go to the moon and back. They also had a *plan* to assure success because they knew the spaceships would frequently wander off course while traveling between the earth and the moon. The *plan* required the crew to constantly monitor their position relative to their goal and make adjustments to their trajectory. Intermittent deviations (or *volatility*) of their trajectory did not matter because the crew adhered to their plan. They achieved success by having the capability, knowledge, and discipline to mostly remain on course, resulting in successfully reaching their goal by following not a perfect path, but rather by following a "critical path".

– Peak Performers, Dr. Charles Garfield



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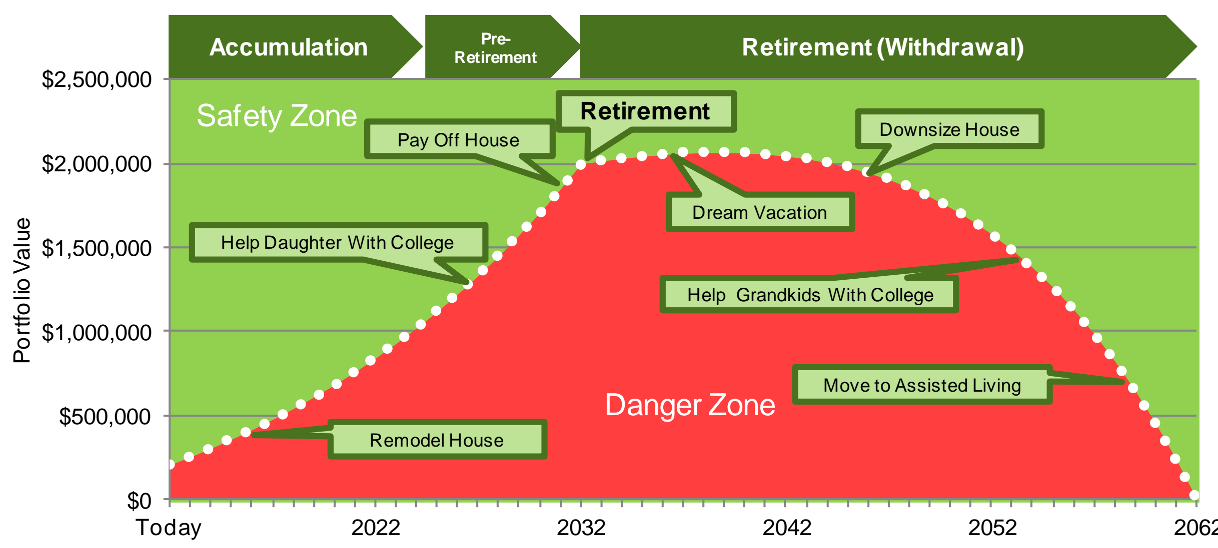
USING THE CRITICAL PATH TECHNIQUE TO TRACK AND TUNE YOUR INVESTMENTS

This same technique, the Critical Path® technique, can be used to help you successfully reach *your financial goals*. In other words, **your goal as a successful goals-based investor is to identify and manage toward explicit financial goals by defining your goals, planning for success, plotting the critical path toward your goals, and managing your investments by reviewing their performance relative to each goal's critical path, and making adjustments if and when necessary.** Like the example of space travel described in the caption above, knowing where your portfolio should be and where you are at any point in time, enables you to make appropriate adjustments throughout your life so that you can effectively steer toward *your financial goals* and therefore have the best chance of reaching those financial goals.

In the diagram below, the Critical Path leading to theoretical yet typical financial goals is represented by the white dotted line that indicates where your portfolio value needs to be at any point in time throughout your life in order to meet *your financial goals* expressed within your financial plan. If the value of your portfolio is at or above the line, you are in the "Safety Zone." Your portfolio is performing as planned or better, and you are on track to meet *your financial goals*. But if the value of your portfolio falls into the red "Danger Zone" during any phase, the portfolio is falling behind and you may need to take action to correct your course.



Three salient phases (or stages) of a person's life with regard to financial planning are the: *accumulation phase, pre-retirement phase,* and *retirement phase.* As an individual's goals evolve through these phases, so too should their investment program, always seeking the fulfillment of their goals.

The financial phases of a person's lifetime have a natural and typical timeframe, with short-term, intermediate, and long-term goals. When matching investments to your specific financial goals, the timeframe for achieving each goal is a key consideration. Each of the basic phases of a person's life (*the accumulation phase, the pre-retirement phase,* and the *retirement phase*) vis-à-vis their financial goals are explored in detail throughout the remainder of this guide.

The Critical Path technique presented in this guide is a great tool for monitoring your progress and to guide your investments toward your goals, optimize your returns, and systematically

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reduce market risk. The information that you can readily glean from a Critical Path chart enables you (and/or your investment manager) to make timely necessary course corrections. It is also important to know what rate of return each portfolio/account is achieving at specific periods, such as quarterly, annually, and over specific time periods such as three years, five years, ten years, etc. Although the rate of return is not automatically provided with most brokerage account reports, it is essential information. If the rate of return is not provided, ask your brokerage or investment manager for it, or learn how to calculate either the Internal Rate of Return (IRR) or the Holding Period Return (HPR) for your investments (the latter, HPR, is simpler to calculate). Once calculated, your investment returns need to be compared to a relevant benchmark. For example, a cash account should be earning a competitive, prevailing interest rate. Equity investments should approximate the return of the S&P 500 Index or whatever index is most similar to the equities that dominate your portfolio.

An experienced and qualified financial planner and investment manager can set up these tracking systems, help you to calculate the rate of return of your investments, and will help interpret this information for you on a regular basis. They also have the expertise to identify when specific corrections are necessary and will advise you accordingly.

USING THE ASSET DEDICATION METHOD TO ENGINEER INVESTMENT PORTFOLIOS

The Asset Dedication method links specific investments to explicit goals within a financial plan. Separate portfolios are engineered to match the investments to specific goals within a financial plan. This method an invaluable tool to help you achieve explicit financial goals such as how much money you need and when you need it. The amount needed and the timeframe when it is needed determines the allocations of cash, bonds, and stocks within a goal-specific portfolio. The timeframe impacts the specific bonds and equities to be used to manage volatility and risk.

Many people save and/or invest based on advice from friends and family, hunches, news headlines, and other non-rigorous methods. The typical result is that they end up with some return (or even losses) on their invested assets and try to make the best with what they have at some future date when they need cash to fund major purchases as well as when they need to generate income throughout their retirement. The Asset Dedication method is a valuable alternative to such ad-hoc methods; first necessitating one or more specific goals, then engineering an investment portfolio to directly target each explicit goal.

Financial goals therefore must be identified and quantified, that is - the amount of money and when it is needed. An example of such a (long-term) goal could be that you want to grow $300,000 to $2,000,000 in 25 years to coincide with when you plan to retire. Using the Asset Dedication method you would engineer a dedicated investment portfolio to achieve this specific goal. Continuing this theoretical example with a 25-year period until the start of retirement, it is likely that you will have other short-term and intermediate goals along the way … the Asset Dedication method gives you a framework to engineer specific investment portfolios to achieve each individual goal. It is therefore likely that you will have several goal-specific investment portfolios at a given time working independently to achieve each specific goal. The beauty of this method is that an adjustment within each investment portfolio and the completion of each specific goal including the ultimate liquation of one of your investment portfolios does not disturb the other investment portfolios from working toward their dedicated goals. Several examples of how the Asset Dedication method can be applied are provided later in this guide.

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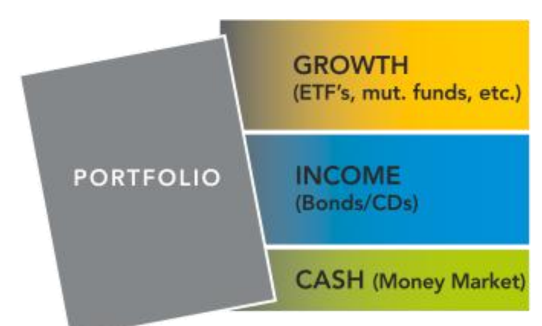
LINKING YOUR INVESTMENTS TO YOUR GOALS

You must first identify and quantify specific goals in a financial plan. Next, you will need to establish an investment strategy that includes three interrelated functional components (sub-portfolios): a *Cash Portfolio*, an *Income Portfolio*, and a *Growth Portfolio*. The ratio or mix of these sub-portfolios and the composition within each sub-portfolio is set in accordance with your stage of life and your specific goals. The precise composition of the holdings within each sub-portfolio as well as your overall investment portfolio is influenced by your individual circumstances, which is why establishing (SMART) goals and creating a financial plan are essential to successful investing.



Create 3 sub-portfolios dedicated to achieve your specific goals, and use specific investment types in each sub-portfolio that are matched to your goals.

The purpose of the Cash Sub-Portfolio is to fund near-term needs and to cover emergencies. The Cash component of your overall investment strategy and holdings is not intended to generate returns. Generating returns is the role of the other two sub-portfolios, discussed next.

The Income Sub-Portfolio contains bonds to provide stability during your accumulation phase and income during your retirement phase. Bonds will generally return more than cash but less than stocks over time. When you buy a bond, you are lending your money to whoever issued the bond, generally a government agency or corporation. The loan must be repaid and therefore has less risk than stocks. If held to maturity, the face value and coupon interest the bond is designated to pay can be predicted with reasonable certainty. Bonds held to maturity represent one of the few cases were the future can be predicted. But all bond investments are not the same. Bond mutual funds differ significantly from actual bonds. Most bond mutual funds trade bonds (essentially betting on interest movements) and therefore do not hold bonds to maturity to capture the return of the ("face value") invested capital. As will be demonstrated later, recapturing the invested capital is essential to income-generating investment strategies.

The Growth Sub-Portfolio is composed of mostly or all stocks (equities) that deliver the greatest potential for growing wealth. A diversified suite of equities should be chosen, where diversification is across several dimensions, such as: company size (large cap, mid cap, small cap), category (value, growth, blend), geography (US, Developed International, Emerging Markets) and time (short, intermediate, or long term).

Short-term goals typically have a timeframe of 1 to 3 years. These goals include having a cash reserve to cover emergencies, having money for vacations, a major purchase (such as a car), a down payment on a home, etc. The investment portfolio that matches these goals is going to be comprised of cash (and/or cash equivalents). Even though your cash assets may be earning very little or no interest, cash is the investment of choice to assure that your spending needs are met regardless of the current state of the financial markets. The other salient reason for explicitly allocating cash is so that uses of cash do not disturb the desired goals of the other sub-portfolios. It is sometimes reasonable for a small portion of a portfolio tuned for short-term goals to be held in an Income Portfolio (bonds) and/or a Growth Portfolio (stocks), but rarely more than 10% is allocated to each of these non-cash asset types. The

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choices of bonds and equities invested for short-term goals should be chosen with relatively low volatility characteristics to assure that cash is available when needed.

Investment Allocation Ranges for Short-Term Goals

Short term goals typically have a time horizon of 1 to 3 Years. The achievement of short-term goals is best accomplished with cash that is not impacted by market volatility.

Intermediate goals cover the timeframe between the Short-Term and the Long-Term. Intermediate timeframes are typically in the range of 4 to 20 Years. These goals can include a future purchase of property, funding college education and weddings for your children, starting a business, or to meet wealth management goals to achieve desired lifestyle choices. Intermediate goals have a moderate timeframe that allows typical market volatility to settle to a reasonable rate of return, therefore the ratios held in the Income and Growth Sub-Portfolios are increased and become a larger proportion of your overall investment portfolio.

Investment Allocation Ranges for Intermediate Goals

Cash 0% - 50%

Income 25% - 50%

Growth 25% - 75%

Intermediate goals (typically spanning 4 to 20 years) include all financial goals between the Short-Term and Long-term timeframes. Intermediate goals have a longer time horizon and hence a longer holding period. Some volatility within this timeframe can be tolerated to achieve the desired growth.

Long-term goals typically span from the current day to 20 years out and further. The most common long-term goal is funding a comfortable retirement that for most people is 20 to 40 years into the future. You must also consider typical life expectancies; you are likely to be enjoying your retirement for 30 or more years. Achieving long-term goals necessitates that you act accordingly in the accumulation phase of your life, especially when those goals include funding a retirement period of 30 or more years! Market volatility during such long timeframes is essentially irrelevant, so you should be “aggressive” and set your Growth Sub-Portfolio to contain at least 60% equities and other high return investments. Bonds too may be appropriate if specific long term objectives can be identified that can be met by their returns. The types of equities used to grow your wealth for retirement may themselves be “aggressive” ... you should consider equities that offer higher expected returns over long timeframes, such as: small cap, value, international, and emerging markets.

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Investment Allocation Ranges for Long-Term Goals (e.g., You Retirement Portfolio)

Income 0% - 40%	Growth 60% - 100%

Retirement is perhaps the most salient long-term goal. Investing for long-term goals enables you to be more aggressive and concentrate your investments in equities. You can also be more aggressive with the specific choices of equities to maximize the growth of your wealth over long timeframes.

If you are not comfortable to create, implement, and manage your investments in accordance with these techniques and strategies, you should seek assistance from a professional advisor such as a Certified Financial Planner™ (CFP®) and/or an experienced investment manager. Bear in mind that goal-based financial planning tightly integrated with investment strategies is not provided by all professional advisors, especially broker-dealers that represent or work for large brokerage firms. We therefore advise you to concentrate your search on "fee-only" advisors and interview them accordingly.

The subsequent sections of this guide provide specific details with examples for each of the three financial phases that occur in everyone's lifetime. To skip to the section that pertains to your current situation or otherwise interests you most, click on one of the following topic-heading links:

A. Accumulation Phase
B. Pre-retirement Phase
C. Retirement Phase

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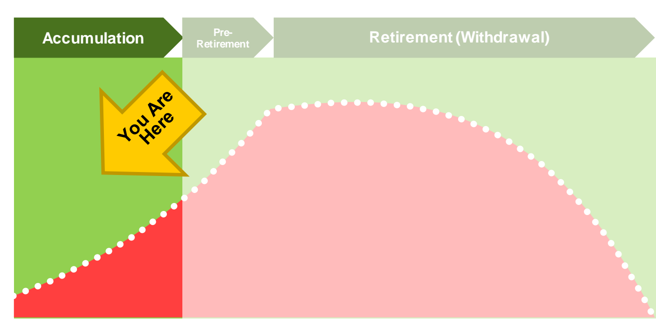
THE ACCUMULATION PHASE

In the accumulation phase, you should earn and save as much money as possible, building wealth "for your future." During the accumulation phase, your focus should be on setting lifetime financial goals, including ultimate retirement. Family issues regarding home purchase, insurance, college savings, etc. are also a big part of the planning process during the accumulation phase.



Buying a home and saving for your children's college education and your retirement are common goals and activities during the accumulation phase.

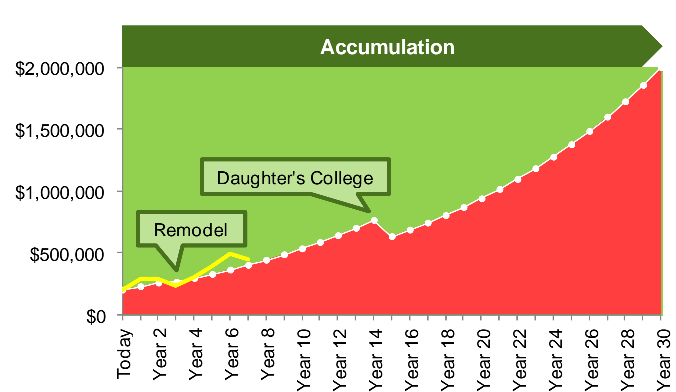
Saving, investing, and growing wealth are critically important in this phase. A practical and even an ambitious monthly savings goal should be identified in the financial planning process. If your employer and/or your spouse's employer offer a qualified savings plan, we highly recommend contributing to the fullest extent. Any money not needed for immediate spending should be diverted to your investments to maximize the long-term growth of your wealth. The total amount to be invested should be allocated to each sub-portfolio to support your specific short-term, intermediate, and long-term financial goals. Also, during the Accumulation Phase it is essential to monitor cumulative progress towards each specific financial goal so that you can make appropriate and timely adjustments and corrections. Consider the following example …

EXAMPLE – PORTFOLIO ENGINEERED FOR THE ACCUMULATION PHASE

Consider a young family that has the following goals and a total of $200,000 already saved.

- $15,000 for a short-term goal to grow to $25,000 in 3 years for remodeling their house
- $15,000 for an intermediate-term goal to grow to $200,000 to be used in 15 years to help pay college expenses for their 3 year-old child
- $170,000 to grow to $2 million in 30 years for long- term goals and fund their retirement

How much must this family save each month and how should they invest those savings to reach these specific goals? The answer is they would need to save and invest at least $1,200 per month as detailed below. Although the savings to be invested start out at $1,200 per month, each year the amount contributed to the investment program must be increased at the rate of inflation. All savings and goal calculations use a 3% annual inflation rate (the amount they have to save and invest in the second year will be increased by a rate of 3% to $1,236,



The Critical Path® technique enables this family to track their progress towards their goals. The yellow line shows their actual progress.

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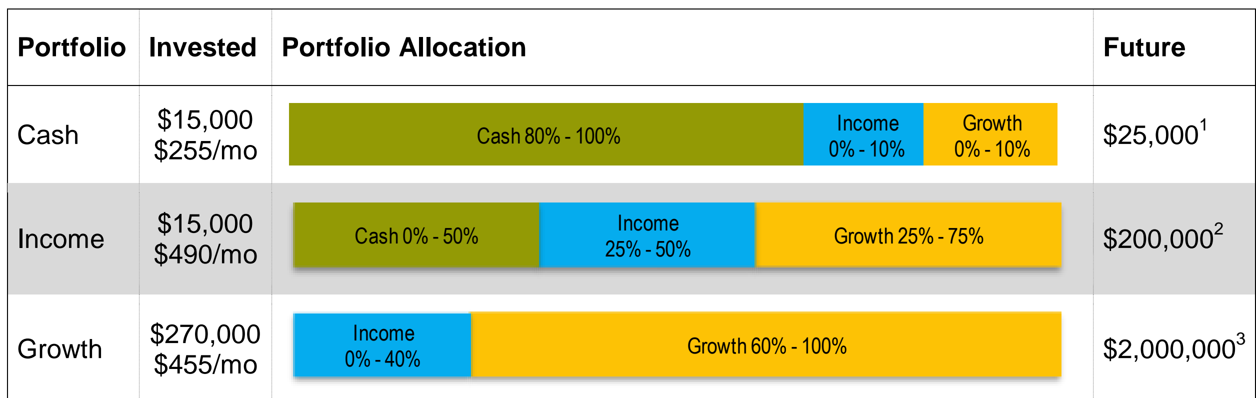
and so on; the long-term rate of inflation in the US is 3%). If they receive cost of living salary/earnings raises that increase by at least the same rate of inflation, there will not be any impact to their spending and lifestyle.

Asset Dedication method of Matching Investments to Financial Goals; Accumulation Phase Example



Portfolio	Invested	Portfolio Allocation	Future
Cash	$15,000 $255/mo	Cash 80% - 100% / Income 0% - 10% / Growth 0% - 10%	$25,000[1]
Income	$15,000 $490/mo	Cash 0% - 50% / Income 25% - 50% / Growth 25% - 75%	$200,000[2]
Growth	$270,000 $455/mo	Income 0% - 40% / Growth 60% - 100%	$2,000,000[3]

[1] Short-term Cash Sub-Portfolio: $15,000 + $255/month for 3 years, 1% return (interest) = $25,000
[2] Intermediate Income Sub-Portfolio: $15,000 + $490 per month for 15 years, 6% return = $200,000
[3] Long-term Growth Sub-Portfolio: $270,000 + $455 per month for 30 years, 7% return = $2,000,000
Total savings needed: $255+$490+$455 = $1,200 per month.

Monthly contributions of $1,200 (annually adjusted for inflation) will put this family on a course toward reaching each of their financial goals. Because each goal has a different timeline, the Asset Dedication method dictates a mix of assets that matches the identified growth requirement of each portfolio component … with short-term goals met by cash, and long-term goals met by growth-oriented equities. Intermediate goals are met by a somewhat evenly blended mix of cash, bonds, and "moderately aggressive" equities.

Their short-term goal (to grow $15,000 to $25,000 in 3 years for remodeling) requires very short-term investments. If we assume that money will earn about 1% returns from interest, they would need to save about $255 per month. This portfolio is most appropriately invested 80% to 100% in Cash to meet short-term goals, and assuming a 1% per year interest returns on their savings, their $15,000 savings plus deposits will grow to $25,000.

Their intermediate-term goal (to grow $15,000 to $200,000 in 15 years for college)) requires systematic monthly deposits of $490 added to their investments that should be moderately invested so that it will earn at least 6% per year. Including the initial $15,000, this portfolio will accumulate to $200,000 in 15 years. The bonds and equities must be selected such that there is a high probability of achieving a 6% average annualized return.

Their long-term goal (to grow $170,000 to $2 million in 30 years) to fund their retirement requires systematic monthly deposits of $454 (including employer-matched contributions in their sponsored savings plan) so that their Growth Sub-Portfolio will achieve a reasonable target return of 7%. This portfolio is therefore heavily concentrated with a growth component because the time horizon is typically longer than 20 years (allowing the investor to be more aggressive with their investments) and the need for cash is addressed by the other components. The bonds and equities must be selected such that there is a high probability of achieving a 7% average annualized return. The long-term savings ideally would be in an employer-sponsored

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qualified savings plan such as a 401(k), IRA, 403(b), or 457 Plan. Even if their employer does not contribute "matching funds", the required $454 per month of savings only reduces their net take-home pay by approximately $300 because of the pre-tax benefits of qualified savings plans (assuming that 35% of their gross wages would have been paid to state and federal taxes).

By tracking the progress of their overall portfolio and sub-portfolios relative to their specific goals using the Critical Path technique they can know whether they are on course or not. That information allows them to readily make adjustments or corrections at any time. To further this example - if they see that the value of their Growth Sub-Portfolio is significantly exceeding its target, they might make the following adjustments: decrease contributions to the growth component and increase contributions to another component, such as the income component thereby increasing the amount invested for college allowing their children to attend a higher caliber university. Or, instead, they might decide to take that luxury vacation that they always dreamed of. Conversely, if they see that the value of their Growth Sub-Portfolio is dropping significantly below its target, they will need to increase the amount that they save and increase their contributions to that component each month to get back on track.

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THE PRE-RETIREMENT PHASE

In the pre-retirement phase, it is essential to know or estimate your target retirement date, factor in typical life expectancies, develop a realistic spending budget throughout your retirement, and then calculate the size and composition of your investments so that when you retire those investments will last as long as they need to.

In the pre-retirement phase, they will need to review their target retirement date, develop a retirement budget, and calculate how much they will need to have in their investment account when they retire. An aggressive savings plan may become a necessity if they have not given it proper planning attention before.

It is all too common that people do not put forth such efforts and in fact delay addressing their financial situation until their planned retirement is only a few years away. It is at this time in some people's lives that they become fully aware that the stark reality that retirement is looming. They may frantically ponder how to (begin to) plan and save for a comfortable retirement. Studies prove this point. One example is the "2012 Retirement Confidence Survey: Job Insecurity, Debt Weigh on Retirement Confidence, Savings" published by the Employee Benefit Research Institute. It reveals that 56% of workers say they and/or their spouse have not tried to calculate how much money they will need to have saved by the time they retire so that they can live comfortably throughout their retirement. Such surveys and our own experience with clients also suggest that too many people defer planning and investing in their future because:

- Planning is difficult and they do not know how to get started.
- They fear it is too late for planning and saving. People in this situation and with this mindset often exacerbate their situation by making poor financial decisions.
- They naively and mistakenly think that an employer sponsored retirement savings plan, such as a 401(k) plan, or Social Security is all that is needed.

In response to each of the issues listed above …

- Getting started can be easy with assistance readily available from a professional Certified Financial Planner who will provide sound ongoing advice, guidance, and an individualized financial plan with a corresponding custom investment strategy.
- It is never too late to start planning and investing. At this stage of life (with a relatively short time horizon ahead) planning and professional advice are critically important to make the best possible financial decisions. Mistakes at this stage can be catastrophic because there is relatively little time to recover. If you are in this situation, it is strongly recommended that you seek the advice and services of an objective and unbiased professional advisor, such as a Certified Financial Planner.

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- While we strongly advocate taking full advantage of employer-sponsored qualified savings plans, the limited investment options typically available within these plans is among the reasons why focusing your entire investment strategy on such plans is neither comprehensive nor ideal. Such plans should be an important component of an overall investment strategy, but not the entire strategy. A professional Certified Financial Planner can advise and help you to develop an appropriate overall comprehensive investment strategy and properly diversify your entire suite of investments inclusive of your holdings within employer-sponsored retirement savings plans.

The preceding issues aside, you will need to develop and maintain a monthly savings program similar to what was presented in the 'accumulation' phase. You will still create and manage a Cash Sub-Portfolio, an Income Sub-Portfolio, and a Growth Sub-Portfolio. However, your Growth Sub-Portfolio will receive the largest share of the savings that you invest because it is intended to fund your retirement and any other long-term financial goals. Your cash reserve, generally speaking, should already have been established, and your intermediate goals have likely been satisfied (i.e., you already have purchased a home and funded college).

Since you are in the Pre-Retirement phase it is uncommon to need to receive income from your portfolio. This means you can reinvest the interest returned from the bonds you are holding prior to your actual retirement; the reinvested interest should be channeled into your Growth Sub-Portfolio. Your Income Sub-Portfolio during your pre-retirement phase therefore becomes a "Deferred Income Sub-Portfolio." The strategy here is to match the maturities of your bonds to coincide with the start of your retirement and provide income when you need it (to replace paychecks). If you decide to postpone retirement, you should reinvest the proceeds of the maturing bonds in other bonds that will mature at later dates to extend your income stream.

The following three objectives pertain to using individual bonds within the Income Sub-Portfolio during the Pre-Retirement phase:

1) Provide stability before retirement, making the volatility of the Growth Sub-Portfolio more tolerable

2) Deliver a specific and predictable stream of income for the first several years of your retirement, while also protecting the principal of your original investment

3) Ease the transition into retirement psychologically by providing a predictable replacement for your paycheck that you can build in advance

The Growth Sub-Portfolio during your Pre-Retirement phase should be engineered to deliver the best chance of reaching your target net worth at the start of your retirement. The choice and characteristics of the assets (and the corresponding volatility) should be chosen to match the remaining time until retirement and the desired target value of your Growth Sub-Portfolio. The timeframe in this phase is shorter, unlike the accumulation phase described earlier (which has a very long timeframe that tends to nullify market volatility over time). Equity price volatility and portfolio value fluctuations therefore are often more visible in this phase, which can be unsettling. Some tolerance for volatility is necessary, however, for most people in this phase to achieve the investment growth targets needed to achieve their financial goals. This is especially true for those who start their investment programs late and/or have target goals that are a bit of a stretch. In other words - depending upon your circumstances it may not be a matter of what

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degree of volatility you "like" but what you must be willing to accept in order to reach your goals … higher returns come only with higher volatility. Alternatively you can lower your goals, alter your lifestyle, and/or cut back on your spending.

EXAMPLE – PORTFOLIO ENGINEERED FOR THE PRE-RETIREMENT PHASE

Consider a mature couple in the Pre-Retirement phase that wants to retire in 8 years and calculates that their Growth Sub-Portfolio needs to grow to $1,000,000. They like the idea of owning their house free-and-clear once they retire and therefore have an intermediate goal to pay off their $400,000 home mortgage by the time they enter retirement. They have $550,000 in their 401(k) savings plan for retirement and $175,000 in a brokerage account; they want to use the latter to pay off the mortgage. They also possess and want to maintain a cash reserve for emergencies of $25,000.

Under these circumstances this particular couple needs to save and invest at least $1,330 per month as detailed below. This will be increased each year at the rate of inflation. All savings and goal calculations use a nominal and typical 3% annual inflation rate (the amount they have to save and invest in the second year will be increased by 3% to $1,370, and so on).

Asset Dedication method of Matching Investments to Financial Goals; Pre-Retirement Phase Example

Portfolio	Invested	Portfolio Allocation	Future
Cash	$25,000 $0/mo	Cash 80% - 100% / Income 0% - 10% / Growth 0% - 10%	$25,000[1]
Income	$715,000 $925/mo	Cash 0% - 50% / Income 25% - 50% / Growth 25% - 75%	$400,000[2]
Growth	$550,000 $405/mo	Income 0% - 40% / Growth 60% - 100%	$1,000,000[3]

[1] Short-term Cash Sub-Portfolio: $25,000 + monthly additions to replenish any money withdrawn from the account.
[2] Intermediate Income Sub-Portfolio: $175,000 + $925 per month for 8 years, 6% return = $400,000
[3] Long-term Growth Sub-Portfolio: $550,000 + $405 per month for 8 years, 7% return = $1,000,000

Monthly contributions of $1,330 to an investment program (annually adjusted for inflation) will put them on a course toward reaching each of their financial goals. Because each goal has a different timeline, the Asset Dedication approach dictates a mix of assets that matches the identified growth of each portfolio component, with their short-term goals met by cash, and long-term goals met by growth-oriented equities. Intermediate goals are met by mostly "moderately aggressive" equities and some bonds for stability.

Their short-term goal ($25,000 in cash reserves) is already set aside. They only need to replenish that reserve as needed to maintain a balance of $25,000. It is also likely they will earn some small return, whatever the prevailing interest rates are for cash and cash equivalents.

Their intermediate-term goal to pay off their home mortgage requires systematic monthly deposits of $925 and investments that will achieve a target return of least 6% per year to grow

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their $175,000 to $400,000 in 8 years. Because equities are volatile and less predictable over an 8 year period, concentrating solely in equities is too risky of a strategy, therefore the Income Sub-Portfolio will be structured to contain between 25% and 75% equities. To meet the $400,000 goal, equities with low volatility characteristics and hence relatively lower expected returns will be used along with bonds to meet the needed annualized 6% return. The bonds and equities must be selected such that there is a high probability of achieving a 6% average annualized return.

Their long-term goal to grow $550,000 to $1,000,000 in 8 years for retirement requires systematic monthly deposits of $405 and investments that will achieve a target return of 7%. This portfolio is therefore more heavily concentrated with a Growth Component because the timeframe is relatively short at 8 years. This means they must tolerate volatility and accept some risk to meet this aggressive goal. If they fail to meet their goal, they may need to postpone retirement or revise their plan, or both. They have already set aside $25,000 cash so they can omit the Cash Component for this sub-portfolio, and concentrate heavily on equities with some bonds for stability.

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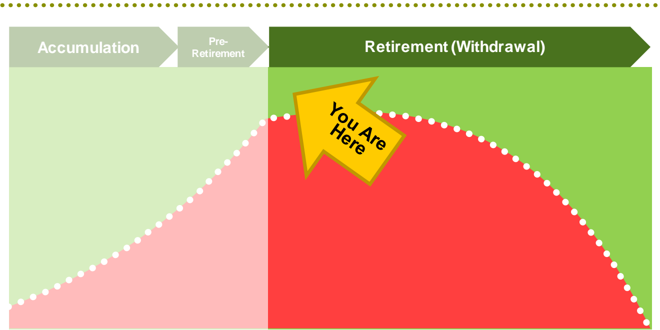
THE RETIREMENT PHASE

Planning and investment portfolio management in the Retirement phase requires that you structure your investments to become a "Paycheck Portfolio." The investment strategy here is to provide you, as a retiree, with regular ongoing income for your living expenses. Such a strategy not only delivers needed ongoing income but also the peace of mind necessary to fully enjoy the retirement you have worked so long and hard to reach. Using the Asset Dedication method will help you to construct an investment portfolio that matches both your timeline and the specific annual cash flows needed for income throughout your retirement.



Investing in the retirement phase means enabling your investment portfolio to provide you with a recurring "paycheck." The Asset Dedication strategy matches your investments to accommodate your timeline and your actual income needs.

Planning for the Retirement phase begins with a key date - your actual or estimated last day of work. Once the final day of work passes and you celebrate with a well-deserved retirement party, you no longer have an opportunity to accumulate money from earnings. You are now a "retiree" and will need to establish a new "paycheck." This new paycheck will come from the funds that you have accumulated. Your withdrawals (paychecks) must be sustainable throughout your retirement. Your new paycheck must be considered along with other likely and possible sources of retirement income, such as Social Security, pensions, and other sources of income (rental property, part time work, etc.). You will also need to be mindful of required mandatory distributions if you have assets in any qualified savings plans because the penalties assessed by the government/IRS for missing distributions are costly. If you do not need any or all of a particular distribution you will want to allocate and/or reinvest it appropriately.

Life expectancy too must be factored into your retirement planning. Actuaries (statistical analysis to calculate insurance risks and premiums) have determined that there is a 5% chance that people in their mid-60's will live beyond their mid-90's. Primarily to avoid the catastrophic running-out-of-money scenario, a 30-year time horizon is used as the common assumption for life expectancy for retirement planning purposes.

Careful planning is critical so that you do not run out of money because your assets and sources of income are most likely fixed. You must make carefully calculated decisions about how much you can spend, adjusted for inflation, throughout your retirement. Two common mistakes to avoid are: spending too little or spending too much. Some people spend too little and suffer needless frugality and worry, passing up a once-in-a-life dream vacation or failing to provide gifts to their heirs (and perhaps experience those gifts with them). Conversely, some people will spend too much, and catastrophically run out of money.

There is a "middle ground" between these two extremes - establishing an optimal spending level. Given the consequences, it is well worth applying the necessary time and analytical effort to calculate your optimal spending level. Certified Financial Planners are trained to perform what is called "consumption modeling" to calculate and establish a sustainable portfolio withdrawal rate for you. They will also help you manage your required mandatory distributions if

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that applies to your situation. A rule-of-thumb for sustainable annual withdrawals is that the withdrawal in the first year should not exceed 5% of the net worth of your investment portfolio. For the second and subsequent years, the amount withdrawn should be adjusted for inflation such that the total amount withdrawn is less than or equal to what was withdrawn in the first year increased by the prior year's rate of inflation. By way of example, if you withdrew a total of $50,000 in your first full year of retirement and inflation for that year was 3%, then the second year's withdrawal should not exceed $50,000 + $1,500 = $51,500.

EXAMPLE – PORTFOLIO ENGINEERED FOR THE RETIREMENT PHASE

Designing an investment program to match the needs of a retiree requires specialized knowledge and skills. Because every retiree is facing a very different situation the specifics of each plan will vary somewhat, however a general framework for a successful retirement investment program includes the following 8 steps:

1) Calculate The Annual Income Needed: Calculate the annual income needed to fund the lifestyle they hope for from their investment portfolio and, using reasonable return assumptions, determine whether the income needed is within a sustainable annual withdrawal rate (i.e., 4% to 5%). The annual withdrawal rate should be increased annually to adjust for inflation (a rate of 3% is a good estimate for annual inflation). If the withdrawal rate is too large, then lifestyle choices must be adjusted to decrease spending.

2) Create Separate Retirement Sub-Portfolios: Create the specific sub-portfolios with the approximate allocations as shown below: Cash (5%), Income (35%), and Growth (60%). The Cash Sub-Portfolio is to be funded to a level that provides for immediate living expenses for the coming year (the next 12 months) plus an additional buffer for emergencies. The Income Sub-Portfolio is to be funded to a level and invested (in bonds) so that it provides predictable income over the next 5 to 10 years. The Growth Sub-Portfolio is to be funded to a level and invested (in equities) so that it provides the returns needed to replenish the Income Sub-Portfolio so the overall investment portfolio lasts for 30 or more years (assuming annual inflation adjusted withdrawals at the sustainable rate calculated in the first step).

Asset Dedication method of Matching Investments to Financial Goals; Retirement Phase Example

Creating sub-portfolios makes it is easy to understand and manage your investments to fund your retirement. A Cash Sub-Portfolio is for the money you need right away. An Income Sub-Portfolio invests in individual bonds to generate predictable cash flows that replace your paycheck for several years (usually 5 to 10 years). A Growth Sub-Portfolio is invested in stocks and other long-term investment instruments to provide growth over time that will enable you to replenish your Income Sub-Portfolio so that it can continue to provide you with ongoing recurring ("paycheck") income.

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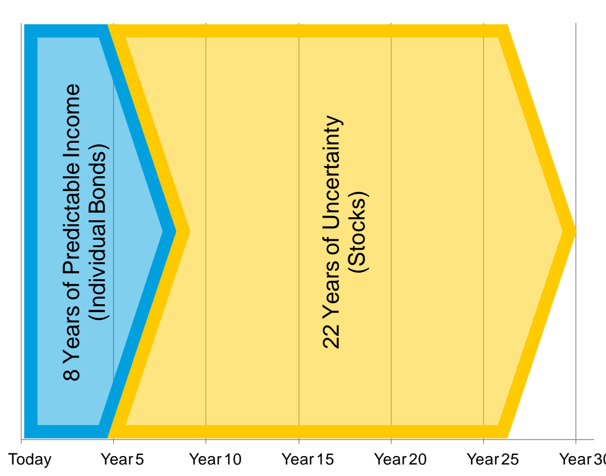
3) Determine the Number of Years for the First Income Sub-Portfolio: The retirement portfolio is generally set up to last 30 years and the Asset Dedication strategy protects the income stream for 5 to 10 year spans. Using the previously mentioned rule-of-thumb, the first annual withdrawal amount should not exceed 5% of the initial value of the overall investment portfolio. Each year of protected income therefore consumes approximately 5% of the portfolio's value, so a 35% allocation to the Income Sub-Portfolio will be needed to generate income for approximately 7 years. A first year is being funded from the Cash Sub-Portfolio, which means the first 8 years of your retirement are covered by following this plan.

4) Purchase and Hold Bonds in Your Income Sub-Portfolio: Individual bonds used to implement the Income Sub-Portfolio are chosen to precisely meet your calculated cash flow targets and to achieve the best return; bonds with the highest credit rating should be selected. Completing this strategy requires that all bonds are held to maturity and are to be purchased to mature at the end of Year-1, Year-2, and so on, up though and including Year-7. An investment manager who has experience with bonds can assist you with this strategy if need be. We are explicitly recommending purchasing and holding individual bonds and recommending against purchasing bond mutual funds. Holding individual bonds to maturity is a key element of this retirement strategy. Individual bonds are the investment of choice because they provide protection of principal, control over cash flows, and predictability of income. It is important to understand that when each bond is held to maturity, its intervening values are irrelevant. Bond values may go up or down temporarily and be shown on a monthly statement as being worth more or less if sold at that time. But its face value and coupon - the amount it will pay at maturity and its interest payments - will never change. This predictability and certainty of bond payments protects your income stream for living expenses no matter what happens in the market. Because of this absolute predictability, bonds are often referred to as "fixed income securities." In the world of finance, the Income Sub-Portfolio is called an "immunized" portfolio - the cash flows generated from such a portfolio are immunized from the volatility of the market, just like a vaccination immunizes us from a disease.

The figure (shown at right) illustrates this overall strategy. Once the Income Sub-Portfolio is implemented, the first 8 years of the 30 year timeframe is addressed and adequately funded with a predictable cash flow. The remaining 22 years must now be addressed, which will be the role of the Growth Sub-Portfolio. This latter sub-portfolio is dedicated to providing the returns that are necessary to replenish the Income Sub-Portfolio for 22 years. By following the 5% annual withdrawal rule-of-thumb, there is a 95% probability that an investment portfolio engineered as described here will be successful. However, due to market volatility and investment value fluctuations, there is some manageable risk that the portfolio may under-achieve its goal. The Critical Path technique will be very helpful throughout this period; serving as an



Predictable income is provided by Individual bonds in the Income Sub-Portfolio held to maturity for the first 8 years of a projected 30 year retirement. Equities in the Growth Sub-Portfolio are not predictable, can experience significant price volatility, and should be monitored using the Critical Path technique.

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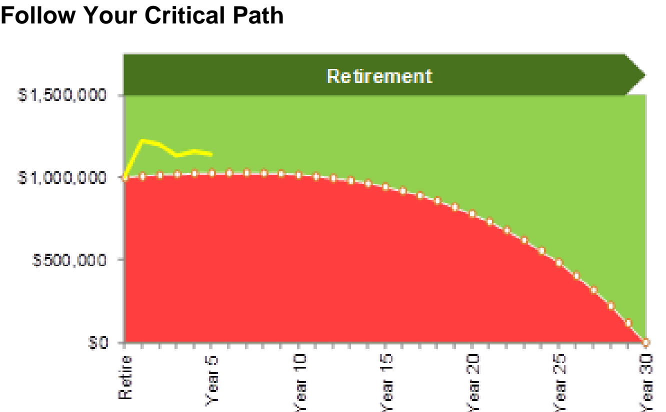
early warning system, as shown below, so that you can make adjustments to your spending to avert running out of money.

5) Determine the Composition of the Growth Sub-Portfolio: You must determine the composition of the Growth Sub-Portfolio so that the returns it generates will replace the income in future years as your bonds are consumed. The precise composition of the equity investments within the Growth Sub-Portfolio is matched to the length of the timeframe chosen. The choice of appropriate investments will vary by relative timeframe, for example the equities chosen for a 5-year timeframe will be different than those for a 10-year timeframe.

6) Chart Your Critical Path: The Critical Path technique serves as a guide and monitoring tool to assist you with your investment and spending decisions. Your Critical Path chart plots where your portfolio needs to be over your chosen retirement timeframe (30 years for this example, but is often a target age [i.e., 100]). The main purpose is to make sure your overall portfolio is on track to do what it was intended to do. The key to success is to maintain a strong disciplined approach to managing your investments and not fall prey to common behavioral mistakes such as getting scared and selling during market declines instead of riding through the recovery and enjoying the inevitable gains. For many investors, the Critical Path method and monitoring system is most useful in proving a frame of reference for tracking your portfolio's progress towards your future goals. The real-time information and feedback lets you know that your investment program is indeed working, increasing the likelihood you will continue on a successful course.

Follow Your Critical Path



Using the Critical Path technique to monitor your portfolio frames your investments in the context of your progress towards you financial goals (in your financial plan). You are enabled to make critical and timely decisions to improve your chances that your money will last as long as you need it to. The white line represents your financial goals (the "Critical Path") and the yellow line represents the actual progress.

7) Roll Your Income Sub-Portfolio: At the end of each year, you will need to review the status of your investments to decide whether or not to extend or "roll" your Income Sub-Portfolio. As each bond matures, you will withdraw and spend the proceeds along with the interest payments from the other bonds still in that sub-portfolio. The bonds remaining in the Income Sub-Portfolio are to be held and mature so that they will cover the subsequent remaining years. If the value of your investment portfolio lies in the Safety Zone (above the Critical Path line), then your investment strategy is meeting or exceeding your goals and plan. In this situation it is safe and advisable to replace the recently matured bond by liquidating a small portion of your Growth Sub-Portfolio and using those proceeds to purchase a new bond set to mature at the back-end of the retirement timeframe to retain the income stream at the same length as it was originally engineered. This technique is referred to as "rolling the portfolio forward"; it systematically removes some risk from your overall investment portfolio, thus further insuring predictable future income. If you are

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uncomfortable implementing this yourself, we recommend that you seek assistance from a professional advisor. By the way, if your investments are significantly outperforming *your financial goals*, in addition to reducing some future risk as described above, you may also want to consider splurging on travel or other luxuries, or gifting money to heirs.

This review process must be repeated every year. The goal is to make sure the value of your investment portfolio stays at or above your Critical Path. Per this example, you will want to maintain a constant 8-year span of protected needed income that is isolated or "immune" from market volatility (the 8-year period fits within the general guideline of 5 to 10 years). If the value of the overall investment portfolio falls below its Critical Path, you (or your investment manager) can defer rolling and wait another year (or more, conceivably up to seven years more in this example) to replenish the Income Sub-Portfolio. This active flexibility to roll forward or not roll forward is a major advantage that individual bonds, if used correctly, can provide (and that bond mutual funds or other investment instruments cannot).

8) Enjoy Retirement! You have put forth the effort (perhaps with the assistance of trained professional advisors) to assure successfully funding your retirement at the spending levels necessary to afford your lifestyle choices. You therefore should also receive from these methods and techniques the peace of mind necessary for an enjoyable retirement.

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SUMMARY

Investing your money methodically and wisely is the essential foundation of achieving *your financial goals*, including a comfortable worry-free retirement. Investing wisely and methodically are common axioms and are preached often by most financial advisors. Using individual investment portfolios dedicated to specific goals, however, is less commonly known, practiced, and preached. We have shown how an overall investment strategy should be and can be engineered to meet various financial goals, including when you are striving to achieve several goals at the same time although each goal is likely to have a different timeframe. The Asset Dedication method makes achieving multiple concurrent financial goals manageable and successful; each financial goal is accomplished by a dedicated investment sub-portfolio that does not disturb other investment sub-portfolios from working toward their intended goal.

As has also been advocated and shown in this guide, successful investing must include an ability to monitor your investments so that you can guide them toward your goals, optimize your returns, and systematically reduce market risk. The specific and novel approach described for monitoring your investments in direct relation to your specific financial goals is the "Critical Path" technique.

Another fundamental is solid, forward-looking "lifetime" financial planning so that each investment sub-portfolio can be specifically created, implemented, and individually managed to meet a corresponding financial goal, such as: a dollar amount needed at a certain future date (e.g., $250,000 needed in 10 years), and/or recurring income needed over a period of time (e.g., $2,000 needed each month for 25 years).

The examples provided show how to use the tools presented and align with the three common stages of your life - accumulation, pre-retirement, and retirement. These examples include typical scenarios that you have or will face in each of these respective phases.

Summing things up in simple layman's terms, you must have a roadmap to reach any intended destination; you must be able to know where you are along your journey so that you can make timely and appropriate course corrections; and you must have a reliable method to assure that your journey is indeed and assuredly proceeding from point-A to point-B. Financial planning, the Critical Path technique, and the Asset Dedication method, respectively, are the interrelated tools you need to use. These tools along with assistance and coaching from professional advisors such as a Certified Financial Planner will empower you to have the peace-of-mind that you will arrive at your desired destination - the attainment of ***your financial goals***.

Ann Terranova is a Certified Financial Planner™ and founder of Union Financial Partners, Inc., a financial planning and registered investment advisory (RIA) firm in San Francisco. (www.ufpartners.com) Ann has been helping individuals, families and businesses reach their financial goals for over 25 years.

Stephen J. Huxley, PhD is Chief Investment Strategist at Asset Dedication LLC (www.assetdedication.com), and Professor at the University of San Francisco, where he teaches Data Analysis, Decision Modeling, and Personal Finance. He co-authored the book *"Asset Dedication" with J. Brent Burns* (McGraw-Hill, 2005).

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