

The Asset Allocation Decision

A. Steps in the portfolio management process and IPS

There are essentially four steps in the portfolio management process.

Step 1: Creation of the IPS – This requires that the portfolio manager determine the goals, risk tolerance and constraints of the investor over the investment horizon and state them clearly in an Investment Policy Statement (IPS), which becomes the guide map for execution as well as feedback on performance of the portfolio strategy.

Step 2: Analysis and projection of capital market conditions – This step requires that capital markets be analyzed in terms of their opportunities as well as risks. This involves economic, political and financial conditions analysis with a view to forecasting future trends. Its interaction with the investor's IPS determines the investment strategy.

Step 3: Implementation of the investment strategy – Based on the inputs derived in step 2 and the client's IPS guidelines, construct an optimal portfolio which can be expected to achieve the investor's goals within the constraints of the IPS. Portfolio should be consistent with the risk tolerance of the investor as specified in the IPS. This requires allocation of portfolio into asset classes, countries, industries and specific securities based on their risk-return tradeoffs and appropriateness for the portfolio.

Step 4: Monitoring and updating the strategy – In a dynamic world, it is imperative that a close watch be kept on the performance of the portfolio to ensure that it does not deviate from the established goals and constraints of the IPS. With changing market conditions, the investment strategy may need to be revised, which would include reallocation of funds among asset classes and securities etc. If the investor's circumstances also change as measured by her future needs, current wealth and risk tolerance, the IPS should be revised to ensure that it reflects the investor's goals and constraints at all times.

Investment policy statement (IPS): An IPS is absolutely necessary in the portfolio management process. It lists an investor's goals and constraints, and becomes the blueprint or the roadmap for the investment strategy. By following the IPS, the portfolio manager is able to direct investments along the desired path and seek the required return to meet the client's future needs, while adhering to the constraints and risk tolerance limits specified in the IPS. These reasons can be itemized as below:

- 1. Specify realistic goals:** The process of creation of an IPS helps an investor understand and learn about the following –
 - *their own needs* – often investors are unaware of what they need. They specify or articulate their needs as a *lot of money* or *instantaneous rewards*.

By focusing on their needs they understand what future rates of return their lifestyle may require.

- *realistic and achievable goals* – by focusing on their future needs and existing gaps in funding those needs, they can set realistic goals and perhaps scale back their perceived needs in light of their resources and circumstances.
 - *risk tolerance* – this is an area where even the experts can falter. Risk tolerance is an economic construct but it is rooted in the mind of the investor and has psychological connotations. It deals with how an individual perceives risk in terms of its impact on him or her. How they can deal with that impact and how they react to the uncertainty inherent in financial markets. This reflection is itself an education for an investor as he or she learns about him- or herself.
 - *their constraints* – investors become aware of the constraints impacting their desires and investment actions. What is appropriate for one investor may not be appropriate for another. For example, some strategies make sense for low-tax bracket individuals but not for high-tax bracket individuals.
 - *financial markets* – the potential offered by financial markets varies over time and economic conditions such as business cycle, monetary policy, war, turmoil etc. play an important role. By learning about the inner workings of the financial markets, an investor is able to understand what is realistically feasible in terms financial goal attainment. Vacuous statements such as “I want to be rich” no longer make sense.
 - *role of risk and return in investing* – many investors underestimate or even ignore the risk inherent in financial and capital markets. Media portrayals of average annual returns, say of 10 or 11%, stick in people’s minds as if they are guaranteed returns. The reality is that annual returns are volatile and the average stock market returns are only available to long-term investors. Furthermore, the positive relationship between risk and return tells us that if an investor desires higher returns, she will have to hold greater risk in her portfolio – there is no free lunch!
- 2. Set standards for performance evaluation** – An IPS sets an objective standard or benchmark against which to judge the future performance of a portfolio managed by an external party. The key is to specify risk-adjusted benchmarks and then evaluate whether the IPS guidelines were followed or not. A low risk client would not use a high-risk benchmark and vice-versa. In fact, the portfolio manager and the client should agree on the benchmark before the investment process begins. If a manager violates the IPS guidelines or deviates from them, even for short periods, that would be grounds for his dismissal even if he turns in superior performance. The goal of an IPS is to impose discipline on both the client and the manager. If there are any deviations, irrespective of the result, some of the goals or constraints would have been violated, perhaps exposing the client to risk conditions beyond her realm of tolerance. The IPS becomes the basis of client-manager communications.
- 3. Other advantages** – an IPS while imposing discipline on a very complex process in the world of uncertainty, also offers the following additional benefits:

- *prevents unethical and inappropriate behavior:* the IPS lays down what types of investments a manager can or cannot buy for the portfolio or what types of risks can be borne in the process. Any violation of these guidelines can be considered managerial misconduct. An IPS not only deters such tendencies, minimizing potential problems, but also provides an objective standard for judging such actions and settling disputes if they arise later.
- *provides continuity and smooth transition:* portfolio managers are often replaced due to promotions, transfers and outright dismissals. When a new manager takes over, an IPS guides him in the management of the client's portfolio without causing any delays and disruptions to the portfolio management process. In other words, an IPS facilitates a smooth and seamless transition from one manager to the next and prevents monitoring and performance evaluation delays.

B. Investment objectives

Investment objectives: The positive relationship between risk and return tells us that higher return can only be earned at the cost of higher risk exposure. If a client does not understand this relationship and instructs the portfolio manager to earn a 14% annual return over the next five years, she may be unaware that given her risk tolerance, this may be too high a return to seek, without imposing an inordinate amount of risk on her portfolio. Thus, risk tolerance is an integral part of a return objective and frames the return in the client's personal context. In the absence of a risk tolerance specification, a manager may invest in securities that are too risky from the viewpoint of a client's ability to tolerate risk.

Risk tolerance: Risk aversion is an economic construct rooted in the psychology of an individual – how he or she reacts to risk. It is impacted by several observable factors pertaining to an individual:

- **wealth** – greater wealth enables a person to tolerate greater risk as loss may not be devastating.
- **expected income** – greater expected income spurs an individual to take greater risks as higher incomes can offset losses.
- **age** – older individuals have shorter horizons and as a result have a shorter time frame. If they incur a substantial loss, they may not have enough time to make up that loss before their life expectancy runs out.
- **family situation** – a family with younger children reduces the risk taking ability of an individual due to current needs becoming a priority. A sick relative or a parent who needs long-term care also tempers risk taking ability.

C. Return objectives and constraints

Return objectives: Each of the following strategies cater to an investor with a different set of objectives and risk tolerances.

- **Capital preservation:** Investors are highly risk averse and they require a rate of return no less than the rate of inflation to preserve the purchasing power of their portfolio. It

may also be used by individuals who need their capital in the short run for a down payment on a house, a significant purchase, or for tuition or medical bills. The emphasis is on real return.

- **Current income:** Investors' focus on current consumption as their employment income may be insufficient to fund their consumption needs. Retirees would fall into this category. They do not emphasize price appreciation or capital gains in their portfolio, and are primarily invested in fixed income securities.
- **Capital appreciation:** Investors have a high degree of risk tolerance and seek aggressive strategies for value appreciation. They usually have long-term horizons and do not need current income. They may be saving for retirement or college tuition for their children.
- **Total return:** This strategy falls somewhere between current income and capital appreciation as it promises a mix of both. The risk tolerance of such investors is moderate. Sources of return include price appreciation as well as reinvestment return on dividend and interest income.

Investment constraints: The following five constraints reflect special circumstances of an investor, which need to be addressed in an IPS, and should be taken into account when forming a client's portfolio.

- **Liquidity:** An investor may need money from her portfolio to pay for her consumption needs, for an upcoming down payment on a house or a car, or to pay a tax bill. This requires that a portion of the funds in a portfolio are invested in securities that can be sold quickly at or close to their fair value. Such securities are known as liquid securities. Liquidity needs of investors vary. They are also influenced by an investor's time horizon, which is discussed next.
- **Time horizon:** The shorter the time horizon the greater the need for liquidity and greater the risk aversion of the investor. Thus, an IPS needs to address this constraint and take the interaction between time, liquidity needs and risk tolerance into account. In most cases, individuals have multiple time-horizons – time until kids graduate from college (horizon 1); time until a sick or elderly relative or parent who is being cared for passes on (horizon 2); time until retirement (horizon 3); and retired life until the end of life expectancy (horizon 4). Portfolio construction has to provide for liquidity needs corresponding to each time horizon.
- **Tax concerns:** Taxes are usually a very complicated issue – both in terms of taxability of income in general and their application to investment accounts. In the US, the tax code favors capital gains over ordinary income – the former are taxed at a lower rate. Furthermore, the code is revised constantly and affects investment strategies already in place, which require reassessment. The following issues and concepts are important when dealing with taxes:

1. *Marginal tax rate vs. average tax rate* – The marginal tax rate refers to the tax rate on an additional dollar of income, whereas, the average tax rate refers to the total tax paid divided by total income. For example, Mike has an income of \$100,000. The last dollar of income was taxed at 40%. His marginal tax rate is 40%. Mike paid a total tax of \$26,500 (marginal tax rate increased with income), his average tax rate is 26.5% ($= 26,500 \div 100,000$).
2. *Capital gains taxes* – In the US, capital gains are taxed only when they are realized, i.e., securities are sold. Unrealized capital gains are not taxed. If an individual dies and leaves her investments to her heirs, the heirs get a stepped up basis and are not taxed – the value of the securities on the date of her death become the cost or basis for future capital gains calculations for tax purposes. This means that an entire lifetime of capital gains can escape taxation!
3. *Reduced capital gains taxes*: After 2001, in the US, if an individual buys securities and holds them for at least five years, his capital gains tax rate would be 18%. For investors in lower tax brackets (15%) the capital gains tax rate drops even further to 8%.
4. *Tax-exempt securities*: In the US, certain securities are tax-exempt from federal or state taxes or both. Income from federal securities such as T-bills and T-bonds is not taxed at the state level. Income from municipal securities is not taxed at the federal level. If an individual resides in the state whose municipal securities she has bought, she may also be exempt from state income taxes. These tax exemptions only pertain to interest income.

If a taxable security offers a 10% return and an individual is in the 40% marginal tax bracket, her after-tax return will be 6% ($= 10\% \times 0.60$), or,

$$\text{After-tax return} = \text{Taxable return} \times (1 - \text{Marginal tax rate})$$

If a tax-exempt security offers more than 6%, then it would be a prudent investment for this investor. One can also compute the equivalent taxable yield on a municipal security. The computation is reversed. A muni bond offering 3% is equivalent to a fully taxable yield of 5% ($= 3\% \div 0.6$), or,

$$\text{Equivalent taxable yield} = \text{Tax-exempt yield} \div (1 - \text{Marginal tax rate})$$

5. *Tax deferred investments*: The US tax code allows individuals to contribute \$2,000 (increasing gradually to \$5,000), tax deductible, to Individual Retirement Accounts (IRAs). Income and capital gains are taxed at the ordinary income tax rate when withdrawn. Capital gains are not treated favorably under this plan. Individuals, who expect to be in low tax brackets upon retirement, would find this attractive. Pension contributions, 401(k) and 403(b), variable annuities and company retirement plans are treated similarly.

The US tax code also allows individuals to contribute \$2,000 (increasing to \$5,000 in phases) to a Roth IRA. However, the contributions are non-tax deductible. If an individual waits at least five years before making withdrawals (after age 59 ½), all capital gains and income earned are received tax free.

The preceding discussion provides **guidance** for the following **tax planning** issues:

- *Diversification*: If a portfolio is not well-diversified due to its concentration in a few stocks, perhaps an employer's stock, a diversification strategy should weigh capital gains taxes, i.e., a cost, against benefits of diversification, i.e., reduced risk.
- *Municipal securities*: Tax-exempt securities should be recommended on the basis of the tax status of the client. They are appropriate for individuals in high tax brackets.
- *Roth IRA vs. regular IRA*: Depending upon the projected tax status of an individual upon retirement, a Roth IRA may be preferred over a regular IRA despite the loss of tax deductibility of the contribution under the latter. The advantage of tax free withdrawals at retirement may outstrip the tax savings at the time of contribution to a regular IRA. Both IRAs are self-directed plans.
- *Tax deferred retirement plans vs. taxable accumulation*: Withdrawals from 401(k) and employer plans as well as variable annuities are taxable in full at the ordinary income tax rate, which does not distinguish between capital gains and income. It may be preferable for an individual to save in a taxable account instead of a tax-deferred account because in the former case, capital gains will be taxed at a lower rate. This may offset the advantage of letting one's portfolio grow at a tax-deferred rate, especially when the investor is in a high tax bracket, has high risk tolerance, and is seeking capital appreciation instead of income in the retirement portfolio.

Each of the above issues should be viewed with reference to the tax constraint of the individual as stated in the IPS. There is no cookie-cutter one-shoe-fits-all approach to investment tax planning.

- **Legal and regulatory factors**: Financial markets are heavily regulated in all countries around the world. Furthermore, portfolio managers and trustees are considered fiduciaries of their clients and are expected to act in the latter's best interests. Regulations also govern the management of trusts. Additionally, institutional portfolio management which includes pension plans, endowments, foundations, and insurance company portfolios – all have their separate legal and regulatory constraints. Trading on inside information is outlawed and is punishable by fines and jail time in the US, which should serve as a caution to those who come across inside information as part of their normal duties.

- **Unique needs and preferences:** In addition to the above constraints, clients may have special situations that are not covered elsewhere. For example, it includes carry forward losses, aversion of the client to certain investments – especially those based on moral considerations etc. Maintenance needs of a sick parent or a relative would fall into this category. If a portfolio is heavily invested in an employer's stock and is undiversified, it would also fall into this category. For an institutional portfolio, if a donor of an endowment places restrictions on how the contribution can be invested or liquidated, it would show up as a regulatory constraint as well as a unique circumstance here.

D. Importance of asset allocation

Asset allocation decision: The asset allocation decision entails the determination of asset classes to be included in a portfolio and the weights that should be assigned to those asset classes. The IPS contains both these components. Guideline or IPS weights are also known as *policy* weights. Empirical studies have shown that as much as 40 percent of the cross-sectional variation of return among funds can be attributed to their asset allocation decisions. Furthermore, for those funds that were actively managed, the fund's return lagged the policy return, indicating that the managers have very little market timing ability, i.e., skill to move in and out of asset classes when their price trends are about to change. At the individual fund level, studies have found that 90 percent of a fund's return over time can be explained by its asset allocation decisions. In conclusion, asset allocation decisions are very important in achieving the policy goals of the client or the investor.

Cultural effects: Investors in different countries and regions of the world invest differently due to their cultural, social and economic backgrounds. For example, in Germany, which has a high proportion of aging population, workers do not like to invest in equities, which represent less than 10 percent of an average portfolio. While the availability of generous pensions reduces the need for higher returns, Germans traditionally also display a greater degree of risk aversion. On the other hand, populations of US and UK have a much lower average age, which is reflected in higher equity ownership. Due to the high level of inflation in the UK and a push by the government for greater equity ownership, Britons hold almost 80% of their portfolio assets in the form of equity. Hong Kong nationals, due to their greater risk tolerance for risk, invest even more than Britons in equities. A study by AIMR revealed that there is a strong but positive relationship between inflation and equity holdings in an economy. Thus, cultural, political, economic, social and demographic differences between countries result in different asset allocations.

Quick Review

Portfolio management process: The portfolio management process is streamlined in a formal investment policy statement (IPS), specific to an investor. Its components are – risk and return objectives and five constraints. Constraints include liquidity needs, time horizon, tax situation of the investor, regulatory concerns and unique circumstance not covered elsewhere. The process

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includes creation of an IPS, analysis and projection of future and current capital market conditions, implementation of the investment strategy, and monitoring and evaluation of the investment strategy as conditions and the investor's needs change

Need for a policy statement: An IPS is required to specify a set of realistic goals that will meet an investor's future consumption needs, to set objective standards for measuring the performance of portfolio managers with clearly specified benchmarks, to provide continuity in portfolio management when managers turn over, and to minimize unethical and inappropriate actions on the part of portfolio managers.

Investment objectives: The two investment objectives are specified in terms of risk and return, which are the most important variables in the determination of an individual's optimal portfolio. Risk tolerance puts a limit on how much risk an individual can bear in her portfolio, since an investor's appetite for higher returns is usually unbounded.

Factors affecting risk tolerance: These factors are – current wealth, expected future income, age and remaining life span, stage of life, including family situation.

Return objectives: Broad return objectives include – capital preservation, emphasis on current income, desire for capital appreciation, and focus on total return (capital gains and cash income). These objectives need to be translated into specific and measurable goals in the IPS. Different objectives imply different risky strategies for an investor's portfolio.

Investment constraints: IPS constraints focus a portfolio manager's attention on factors that go beyond risk and return in determining the optimal portfolio for a client. In the real world, with multi-period time horizons, liquidity needs may arise over time, tax situation of the client may nullify advantages of certain investment strategies, unique circumstances may force the portfolio to be tilted in a certain direction to meet the unique needs, and legal and regulatory concerns may prohibit certain types of strategies or investments.

Asset allocation: Asset allocation decision is one of the most important decisions when implementing an IPS. It has been shown that almost 40% of cross-sectional variance in returns of funds is due to their asset allocation differences. At an individual fund level, asset allocation explains almost 90 percent of the return over time. Furthermore, active fund managers do not display superior market timing skills as measured with the help of their asset allocation decisions. When it comes to investing across different countries and regions of the world, demographics, social, economic, political and cultural differences play an important part in asset allocation choices.