

Defensive Equity Sector Model Portfolios Methodology

What is a Model Portfolio?

A model portfolio is an investment strategy that attempts to closely match the asset allocation of a selected Target Asset Mix (TAM). A TAM is one of several different asset allocations among stocks (domestic and foreign), bonds, and short-term investments. TAMs are created based on historical risk and return characteristics for stock, bond, and short-term investment asset classes. A model portfolio may attempt to match a selected TAM in a way that emphasizes a unique investment goal (e.g. generating income, reducing volatility, etc.). The investments included in a model portfolio often consist of mutual funds, or in the case of variable annuities “subaccounts”, selected by an investment adviser. Model portfolios are intended to be used as examples investors can consider when attempting to choose investments that will align with a selected TAM. While a model portfolio is intended to be consistent with the asset allocation of a selected TAM, it may not match that TAM exactly. Model portfolios are not designed to maximize returns or predict the highest-performing fund or group of funds.

Keep in mind that as with all investments, there is risk that a model portfolio may not achieve its stated objective.

Overview

The Fidelity Personal Retirement Annuity (“FPRA”) Defensive Equity Sector Model Portfolios (“the Model Portfolios”) are intended to serve as examples of how, based on an identified TAM, assets could be allocated by FPRA contract owners who are seeking to manage the downside risk of the stock portion of their portfolio over the long term while seeking to minimize impact to return potential. Downside risk is the risk that a security or portfolio of securities will decline in value. Drawdown is a measure of downside risk, and is defined as the difference between the peak (high) and trough (low) of a security’s price, or portfolio of securities. A drawdown from a security’s or portfolio’s high to its low is considered its drawdown amount. When measured as a percentage, it is the drawdown amount divided by the reference price—or the peak price.

The equity market is composed of the stock of thousands of companies. To analyze and better understand market dynamics, the financial services industry often groups companies based on their types of business. These groups are typically called sectors. Investing in sectors can provide investors with targeted investment exposure. The most common classification – the Global Industry Classification Standard (GICS®) – breaks the equity universe into 11 different sectors. Some sectors have low correlations to each other, and in many cases very low correlations to each other. Correlation is a statistical measure of the degree to which two securities or basket of securities move in relation to each other. Low correlation means various sectors offer differentiated exposure to the market.

Differentiation in this context refers to varied risk and return profiles as well as economic sensitivities. This differentiation means that over time certain sectors have significantly lower risk profiles and, when studied historically, different drawdowns. More defensive sectors—like utilities, health care and consumer staples—tend to be generally less economically sensitive and have typically exhibited both less volatility over time and smaller drawdowns than the other sectors.

A sector fund is designed to provide exposure to companies in a given sector. Investing a portion of a broadly diversified portfolio's equity allocation in a combination of sector funds, that each focus on a different defensively oriented sector, can provide lower downside risk than investing solely in any one sector, or the broader stock market that would exhibit exposure across all sectors. For the right client, leveraging traditionally defensive sectors within the stock portion of a portfolio may offer an opportunity to manage some of the downside risk while continuing to seek the same level of long-term growth. It's important to keep in mind that, because of their narrow focus, some sector funds can be more volatile than diversified equity funds and that a sector fund may not closely track its given sector.

Note that FPRA is a low-cost tax deferred variable annuity, and that the Model Portfolios were created specifically with tax deferral and low-cost in mind; implementing a similar strategy in a higher cost annuity or in a taxable account may not be appropriate. For additional FPRA product information (e.g., fees, subaccounts), please review the FPRA product prospectus.

About the Model Portfolios' Developers

Fidelity Management & Research Company ("FMR"), the investment adviser for Fidelity's family of mutual funds, is responsible for the development of the portfolios. FMR created the Model Portfolios based on a subset of the Target Asset Mixes (TAMs) developed by Strategic Advisers, Inc. ("SAI"). SAI is a registered investment adviser that provides a range of asset allocation offerings to help its clients' meet their investment objectives. These include managed accounts, wealth management, trust services, and financial planning tools. FMR and SAI are Fidelity Investments companies.

These Model Portfolios were developed for FPRA, which is issued by Fidelity Investments Life Insurance Company and in New York, only by Empire Fidelity Investments Life Insurance Company. Fidelity Brokerage Services and Fidelity Insurance Agency, Inc. are the distributors.

What are the Defensive Equity Sector Model Portfolios?

The Model Portfolios represent four distinct drawdown-focused model portfolios comprised of funds available in Fidelity Personal Retirement Annuity as of the date of this document. Each Model Portfolio consists of the same five funds (three sector funds, a stock index fund, and a bond fund), which are weighted differently for each Model Portfolio according to the TAM the Model Portfolio is attempting to match. The Model Portfolios were created with the primary goal of managing the downside risk within the stock portion of each Model Portfolio's TAM.

The Model Portfolios are intended to be used with FPRA's annual automatic rebalance feature to help address portfolio drift. If you choose to implement a Model Portfolio, it is your responsibility to elect this feature, and when doing so to choose the fund allocations that align with the selected Model Portfolio.

What Are the Asset Mixes of the Portfolios?

In order to help control the risk one assumes, it is critical that your portfolio provides an appropriate mix of investments.

A more aggressive portfolio (one with a higher stock allocation) generally represents higher risk, especially in the short term, but higher potential long-term returns. Conversely, a less aggressive portfolio (with a lower allocation to stock and higher bond allocation) generally represents less short-term risk, but potentially lower long-term returns. When evaluating the appropriateness of different asset mixes, you should take into consideration your investment horizon, financial situation, risk tolerance and any other factors you consider important. While past performance does not guarantee future results, history has shown that diversifying your assets among different asset classes can potentially improve the long-term performance of your portfolio. However, it is important to remember that certain asset types involve greater risk than others. Diversifying your investments across asset classes, industry sectors, and international funds helps minimize your overall exposure to sudden market swings that may cause sudden changes in the price of investments. However, it does not ensure a profit or guarantee against loss.

A TAM is one of several different asset allocations among stocks (domestic and foreign), bonds, and short-term investments. TAMs are created based on historical risk and estimates of long-term asset class returns. The TAMs developed by SAI represent nine significantly different allocations that are intended for different investor profiles with different investment objectives, risk tolerances, and time horizons. Each TAM defines a target level of long-term risk. Four of the nine TAMs developed by SAI are shown in the table below.

Asset Class Target Asset Mix (TAM)	Domestic Stock	Foreign Stock	Bonds	Short Term
Balanced	35%	15%	40%	10%
Growth	49%	21%	25%	5%
Aggressive Growth	60%	25%	15%	0%
Most Aggressive	70%	30%	0%	0%

In developing the Model Portfolios, FMR established a set of model benchmark weights (hereafter referred to as "Asset Mixes") designed to reflect the risk/return characteristics of a corresponding TAM. The four Asset Mixes for the Defensive Equity Sector Model Portfolios are defined below.

Asset Mixes	Stock	Bonds
Balanced	50%	50%
Growth	70%	30%
Aggressive Growth	85%	15%
Most Aggressive	100%	0%

How the Model Portfolio Is Generated

The Model Portfolio construction process is composed of a series of three well-defined steps, based in part on each TAM:

Step 1: FMR identified the 20 time periods between 1962 and 2017 that the S&P 500[®] Index (“S&P 500”) experienced its largest drawdowns from peak to trough based on monthly data. For the same timeframe of the S&P 500 drawdown, we also determined the performance of each sector within the S&P 500.

Step 2: For each drawdown period, FMR calculated the odds of a sector outperforming the S&P 500 (odds of outperformance), the relative outperformance of each sector versus the S&P 500 (severity of outperformance) and the average absolute drawdown by sector. The average absolute drawdown is the sum of each drawdown experienced by a sector during each of the 20 periods divided by 20.

Step 3: FMR chose the 3 sectors with the highest probability of outperformance during the periods where the market suffered its largest 20 drawdowns, and equally weighted them. The severity of outperformance and average absolute drawdown were used as a tie-breaker when two sectors had the same odds of outperformance.

Resulting Portfolio:

Optimization and Model Portfolio Construction

1. Equally weight the three sectors with the highest probability of outperformance during periods when the market suffered its largest drawdowns dating back to 1962¹.
2. Modify resulting portfolio weights so that sector funds do not individually exceed 10% of the portfolio or when combined, equal more than 30% of the total allocation (whole percentages are used to make portfolios easier to implement). For example, instead of allocating approximately 28% to each of the three sector funds within the Aggressive Growth portfolio, 10% is allocated to each fund (30% Max Sector fund weight/ 3 sector funds = 10%).
3. Combine sector weights with investment in Fidelity VIP Index 500 fund to scale stock exposure up to meet Asset Mix weights. For example, 55% is allocated to the Fidelity VIP Index 500 Fund in the Aggressive Growth Portfolio so that the total allocation to stock equals 85% (30% + 55%)².
4. Use balance of portfolio to satisfy bonds allocation needs prescribed by appropriate asset mix. For example, in the Aggressive Growth Asset Mix listed below, a 15% weighting to bonds. Using the Fidelity VIP Investment Grade Bond fund provides exposure to high quality fixed income securities in keeping with the defensive posture of the model.

¹ Note that Health Care was selected as opposed to Energy, since although they have equal *odds of outperformance*, Health Care's *severity of outperformance* is greater and its *absolute drawdown* is lower.

² Note that each Model Portfolio's combined allocation to the three sector funds is intended to be as equally weighted as possible to the Model Portfolio's Fidelity VIP Index 500 fund allocation. Therefore, the Balanced Model Portfolio is allocated 24% to Fidelity VIP sector funds and 26% to Fidelity VIP Index 500 fund, as opposed to 30% to Fidelity VIP sector funds and 20% to Fidelity VIP Index 500 fund, which the methodology would otherwise allow.

The Asset Mixes and Fund Allocations for the Defensive Equity Sector Model Portfolios are defined below:

Asset Mixes	Stock	Bonds
Balanced	50%	50%
Growth	70%	30%
Aggressive Growth	85%	15%
Most Aggressive	100%	0%

Source: FMR

Fund Allocations	Fidelity Sector VIP Funds	Fidelity VIP Index 500	Fidelity VIP Investment Grade Bond
Balanced	24%	26%	50%
Growth	30%	40%	30%
Aggressive Growth	30%	55%	15%
Most Aggressive	30%	70%	0%

Source: FMR

Sector Fund Allocations	Fidelity VIP Utilities	Fidelity VIP Consumer Staples	Fidelity VIP Health Care
Balanced	8%	8%	8%
Growth	10%	10%	10%
Aggressive Growth	10%	10%	10%
Most Aggressive	10%	10%	10%

Source: FMR

The model portfolio construction process uses an optimization approach to select and weight a set of candidate investment options whose overall risk characteristics, when viewed as a portfolio, are similar to those of the TAM.

Limitations and Risks

When evaluating if specific funds and allocation weights in a Model Portfolio may be appropriate for your FPRA contract, be sure to consider other assets, income and investments (e.g., savings accounts or other retirement accounts). You should also consider other funds, including non-Fidelity funds, which are available within FPRA.

Investing in a variable annuity involves risk of loss — investment returns and contract value are not guaranteed and will fluctuate.

As you consider whether these Model Portfolios are appropriate for your situation, keep in mind that stock markets, especially foreign markets, are volatile and can decline significantly in response to adverse issuer, political, regulatory, market, or economic developments. A sector fund may have additional volatility because it can invest a significant portion of assets in securities of a small number of individual issuers. Each sector fund is also subject to the additional risks associated with its particular industry.

Past performance does not guarantee future results. Investment return and principal value will fluctuate, so you may have a gain or loss when shares are sold. We cannot guarantee that the Model Portfolios will meet any of your goals.

Updates to the Model Portfolios

The Model Portfolios displayed are current as of the date of this document. FMR periodically reviews the allocations, and it is possible it may make changes to the allocations in the future. It is your responsibility to return periodically to see if FMR has changed the allocations of the Model Portfolio you have selected, and if there are changes, to rebalance your portfolio and, if selected, update your FPRA automatic rebalance elections accordingly. Fidelity will not proactively contact you if a Model Portfolio changes nor will it update your FPRA automatic rebalance elections to align with any changes to a Model Portfolio.

IMPORTANT ADDITIONAL INFORMATION

Before investing, consider the investment objectives, risks, charges, and expenses of the variable annuity and its investment options. Contact Fidelity for a prospectus or, if available, a summary prospectus containing this information. Read it carefully.

This information is intended to be educational and is not tailored to the investment needs of any specific investor.

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