

Review
Report
Appendix
2020

Attitude to Risk Methodology

The value of all investments can go down as well as up, and there is a risk you could get back less than the amount paid into an investment. The more risk a person is willing to take with their investments, the higher their potential return - but the greater their chance of loss. Lower risk investments, on the other hand, offer greater security but lower potential returns. Part of making the right investment choices involves assessing your capacity for risk and your appetite for risk and the possible loss.

When discussing risk, we use a risk and rating approach to defining your current attitude to risk. We look at several issues and break this down into a simple format for you to understand as detailed below:

1. Asset Allocation and the characteristics of each risk portfolio.
2. Capacity for loss, including potential losses and expected returns.
3. Your Age as this will affect your capacity for loss.
4. Investment Timescale and the amount of time before access to savings.
5. Risk Questionnaire assesses your capacity and appetite for risk.

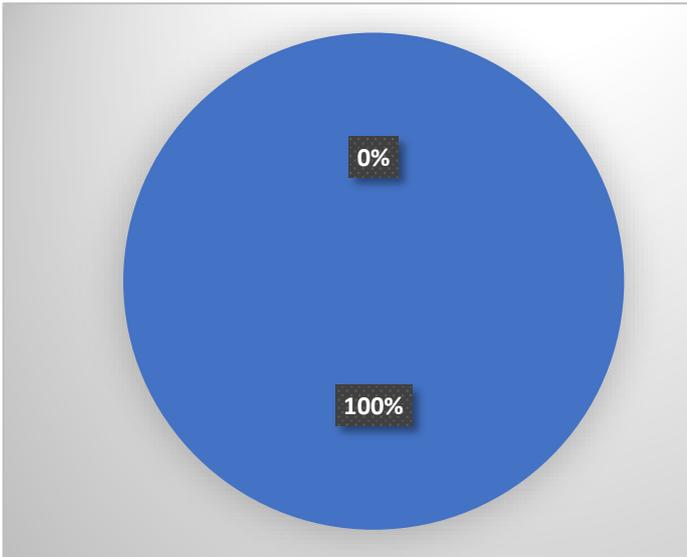
Asset Allocation

Looking at the non-equity and equity content of a portfolio and how each portfolio would react to market movements is the starting point of the process.

In an ideal world, all investments would achieve your growth and income requirements; however, there is a likelihood that losses will occur in your investment timeframe.

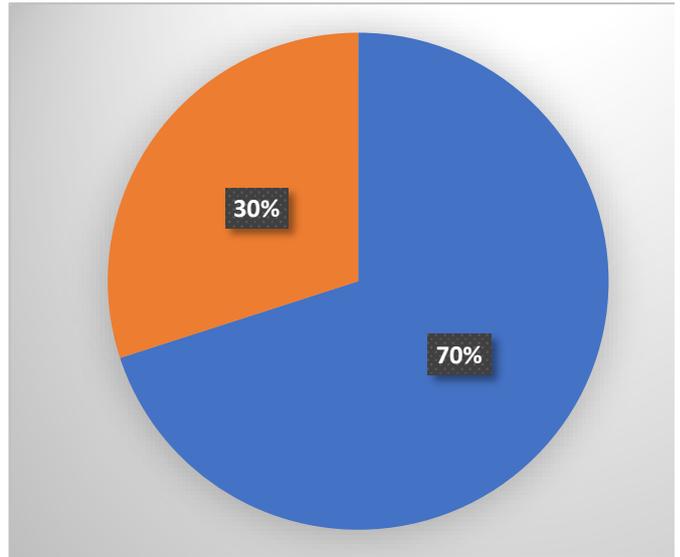
Asset class	Key characteristics	Potentially suitable for
Equities	The potential for capital growth, and may offer income through the payment of dividends. You can choose to invest in the UK and overseas companies.	Medium-to-long-term investors (five years plus).
Bonds	Can provide a steady and reliable income stream with potential for capital growth and usually offers a higher interest rate, or yield, than cash. Including UK government bonds (gilts), overseas government bonds, and company loans (corporate bonds).	Short, medium or long-term investors.
Property	Provides the benefits of diversification through access to properties in the retail, office, industrial, tourism and infrastructure sectors. You can invest in both UK and international property.	Medium-to-long-term investors (five years plus).
Cash	May be suitable for short-term needs, such as an impending down payment on a new home. Usually includes higher interest-paying securities, as well as bank and building society accounts or term deposits (a cash deposit at a financial institution with a fixed term).	Short-term investors (up to three years).

Risk Level 1 to 2 (No Risk Portfolio)



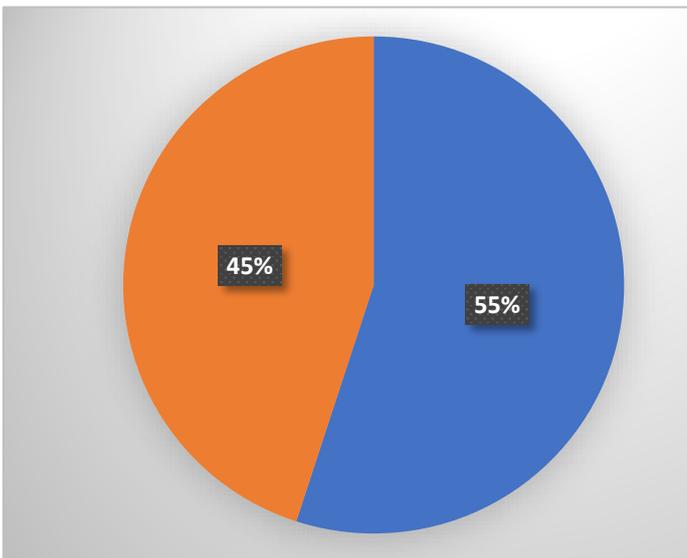
An investor is probably very concerned about the possibility of losing money. They would probably prefer their investment to go up and down less and make more modest returns than risk losing money for higher returns.

Risk Level 3 (Cautious Portfolio)



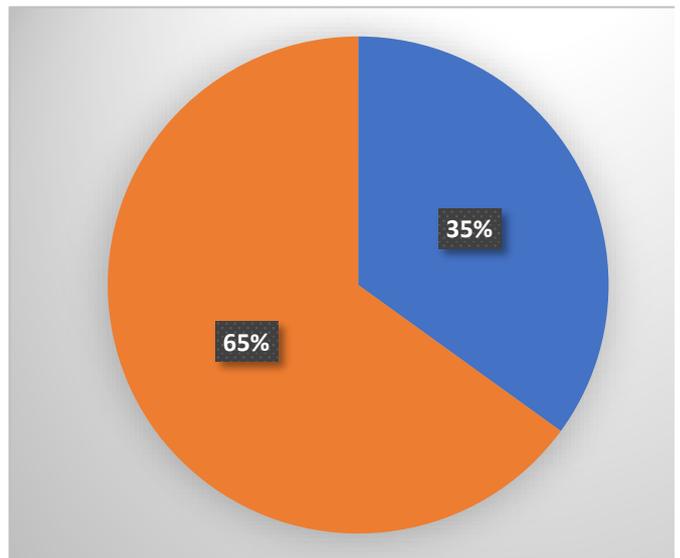
An investor is probably concerned about the possibility of losing money but does not want to ignore the possibility of making higher returns completely. They possibly wish to greater returns that are offered by bank accounts and other low-risk investments

Risk Level 4 (Moderate Portfolio)



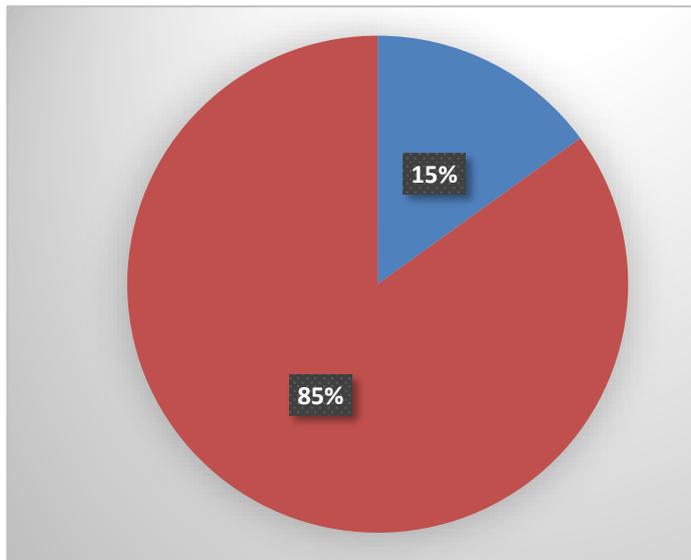
An investor is probably concerned about the possibility of losing money, but do not want to ignore the possibility of making higher returns completely. They probably want greater returns that are offered by bank accounts and other low-risk investments.

Risk Level 5 (Balanced Portfolio)



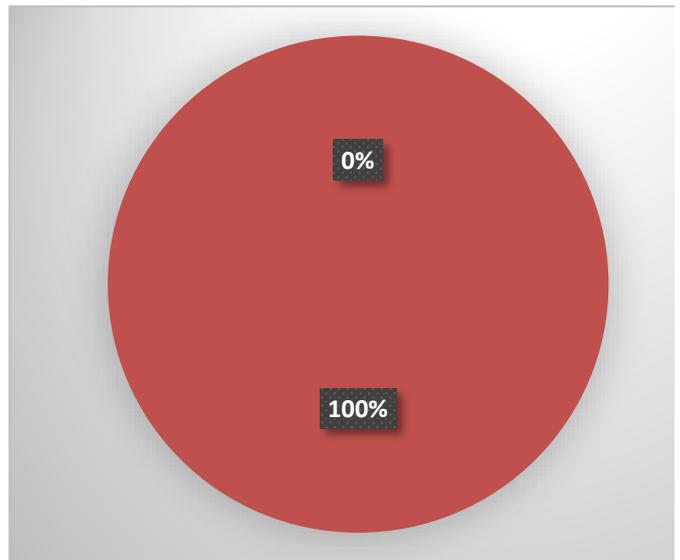
An investor would probably prefer their investment to go up and down less and make more modest returns than risk losing money for higher returns. However, they are probably prepared to accept some falls to make higher returns.

Risk Level 6 to 7 (Market Risk Portfolio)



An investor would probably concentrate on getting higher returns on their investments. However, they are still probably concerned about too many rises and falls and, as a result, the possibility of losing money.

Risk Level 8 to 10 (Adventurous Portfolio)



An investor would probably concentrate on getting higher returns on their investments. However, they are still probably concerned about too many rises and falls and, as a result, the possibility of losing money.

100% Equity with a heavy weighting in the UK, Pacific (excl Japan), and Emerging Markets

Capacity for Loss

Portfolio Assumed Growth Rates

Assumed growth rates for portfolios excluding all cost, i.e. a moderate portfolio (4) would potentially grow by 4.94% per year excluding inflation and charges.

3	4	5	6	7	8	9	10
3.81%	4.94%	6.03%	6.89%	7.72%	8.37%	8.99%	9.50%

Portfolio Assumed Loss Rates – Maximum Drawdown Credit Crunch

The maximum potential loss of each portfolio if adverse market conditions applied, from a peak to a trough, i.e. from its highest point to its lowest point excluding inflation and charges.

3	4	5	6	7	8	9	10
-13.98%	-21.92%	-28.51%	-34.00%	-38.16%	-41.12%	-42.86%	-44.80%

Therefore, a moderate portfolio (4) with an investment value of £100,000.00 could potentially reduce to £78,080.00.

The maximum drawdown is the maximum loss from a peak to a trough of a portfolio before a new peak is attained, i.e. buying equity at the highest price and selling at the lowest price. It is effectively the historical worst-case loss of a portfolio.

We have calculated this using weekly data from the sector averages of the underlying funds from 31/10/2007 to 03/03/2009. This portfolio was rebalanced twice a year in November and May. The price of the FTSE 100 fell by 47.75% and the return from an investment tracking the FTSE 100 over the period was -44.79% before costs (the difference is due to dividends).

Portfolio Beta

Beta is a measure of the volatility or risk of a fund or portfolio in comparison to its peer group or portfolio benchmark.

Portfolio	Minimum Beta v FTSE 100	Maximum Beta v FTSE 100
No Risk	0.00	0.00
Cautious	0.20	0.30
Moderate	0.35	0.45
Balanced	0.50	0.65
Market Risk	0.70	0.85
Adventurous	0.90	1.10

FE Risk Score

FE Risk Scores define risk as a measure of volatility relative to the UK Leading 100 shares, which has a risk rating of 100 and rebased to sterling.

Portfolio	Minimum 1 Year Score	Maximum 1 Year Score
No Risk	0	0
Cautious	20	30
Moderate	35	45
Balanced	50	65
Market Risk	70	85
Adventurous	90	110

Portfolio Expected Return Methodology

The Capital Asset Pricing Model (CAPM) is a theoretical model of the relationship between expected risk and return. The foundation for CAPM is that investors demand higher investment returns for taking higher risks. Expected returns are not guaranteed returns, but, might better be viewed as possible or potential returns.

CAPM says that the expected return of an asset is equal to the risk-free return, such as the return on a short-term treasury, plus a risk premium. Expected return calculation as follows:

Expected Return Formula = Risk-free Return + Risk Premium = $R_f + \beta [E(R_m) - R_f]$

Market Return	Risk-Free Return	Portfolio Beta	Risk-Free Return
1 Year FTSE 100 Total Return	- Short Dated UK Gilt Yield	X Portfolio Beta v FTSE 100 Total Return	- Short Dated UK Gilt Yield

The formula may look overly complicated, but, when we take a closer look at each component, it starts to make sense. R_f is for the risk-free interest rate earned by leaving your money in risk-free assets like short-term UK Gilts. The short nature of these instruments makes their values relatively insensitive to interest rate fluctuations.

Current Portfolios Expected Returns

1. **Portfolio Expected Return** is the gross/net return used to calculate the expected return of a given portfolio over the time frame detailed using the indices below.
2. **Gross return** would be the expected return of a given portfolio if there were no charges at all.
3. **Net Return** based on the average Adviser, Product and Fund Charge for each portfolio.

Portfolio Expected Returns Year Ending December 2019

Portfolio Expected Return ⁽¹⁾	IRR Expected Gross Return 2019 ⁽²⁾	IRR Expected Net Return 2019 ⁽³⁾
Cautious Risk Level 3	4.81%	3.05%
Moderate Risk Level 4	7.31%	5.49%
Balanced Risk Level 5	9.81%	8.01%
Market Risk Level 6-7	14.17%	12.34%
Adventurous Risk Level 8-10	18.98%	17.03%

Portfolio Risk Indices Used to Calculate Expected Returns*	2019
Return of FTSE 100 Index Net of Dividends	12.10%
Total Return of FTSE 100 Index Including Dividends	17.32%
Average UK Government Short Dated Gilt Yield	0.64%

Portfolio	Adviser Charge	Platform Charge	Total Fund Charges	Total
Level 3	1.00%	0.37%	0.39%	1.76%
Level 4	1.00%	0.37%	0.45%	1.82%
Level 5	1.00%	0.37%	0.43%	1.80%
Level 6-7	1.00%	0.37%	0.47%	1.84%
Level 8-10	1.00%	0.37%	0.55%	1.95%

Portfolio Expected Returns Year Ending December 2018

Portfolio Expected Return ⁽¹⁾	IRR Expected Gross Return 2018 ⁽²⁾	IRR Expected Net Return 2018 ⁽³⁾
Cautious Risk Level 3	-1.47%	-3.39%
Moderate Risk Level 4	-2.92%	-4.92%
Balanced Risk Level 5	-4.37%	-6.40%
Market Risk Level 6-7	-7.28%	-9.37%
Adventurous Risk Level 8-10	-9.70%	-11.74%

Portfolio Risk Indices Used to Calculate Expected Returns*	2018
Return of FTSE 100 Index Net of Dividends	-12.48%
Total Return of FTSE 100 Index Including Dividends	-8.73%
Average UK Government Short Dated Gilt Yield	0.95%

Portfolio	Adviser Charge	Platform Charge	Total Fund Charges	Total
Level 3	1.00%	0.37%	0.55%	1.92%
Level 4	1.00%	0.37%	0.65%	2.02%
Level 5	1.00%	0.37%	0.66%	2.03%
Level 6-7	1.00%	0.37%	0.72%	2.09%
Level 8-10	1.00%	0.37%	0.67%	2.04%

Portfolio Volatility

A statistical measure of the dispersion of returns for a given fund or market index. Volatility can either be measured by using the standard deviation or variance between returns from that same security or market index. Commonly, the higher the volatility, the riskier the security.

Current Portfolio Volatility Range

Portfolio	Minimum 1 Year Volatility	Maximum 1 Year Volatility
Cautious Risk Level 3	5.20	7.80
Moderate Risk Level 4	7.80	10.40
Balanced Risk Level 5	10.40	13.00
Market Risk Level 6-7	13.00	18.20
Adventurous Risk Level 8-10	18.20	28.00

Additional Things to Consider

Age

The younger you are, the more time you have to make up any losses from risky investments - so your investment portfolio can carry a higher risk. However, as you grow older, your risk sensitivity changes - as should your asset allocation, and this is illustrated in the table below.

Age	Low Risk	Cautious	Moderate	Balanced	Market Risk	Adventurous
20-30	✓	✓	✓	✓	✓	✓
30-40	✓	✓	✓	✓	✓	✓
40-50	✓	✓	✓	✓	✓	✓
50-60	✓	✓	✓	✓	✓	
60-70	✓	✓	✓	✓		
70-80	✓	✓	✓			
80+	✓	✓				

Investment Timescale

The amount of time before access to savings is needed crucial to judging the level of risk taken with them. The longer the timeframe, the more the danger of poor returns outweighs the risk of loss. By contrast, those needing access to their money within a few years are likely to attach heavy importance to capital security. Someone saving for fewer than three years should stay clear of shares, or any equity-linked investment, as they run a higher risk of getting back less than they invest.

Years	Low Risk	Cautious	Moderate	Balanced	Market Risk	Adventurous
< 1	✓					
1-3	✓					
3-5	✓	✓				
5-8	✓	✓	✓			
8-11	✓	✓	✓	✓		
11-14	✓	✓	✓	✓	✓	
14 +	✓	✓	✓	✓	✓	✓

Risk Questionnaire

Utilising a risk questionnaire by Distribution Technology which uses a scientific and psychometric approach to determine your appetite for risk. The outcome is based on a score of 1 to 10 and mapped into the six portfolios detailed below.

Risk Score	Low Risk	Cautious	Moderate	Balanced	Market Risk	Adventurous
1-2	✓					
3	✓	✓				
4	✓	✓	✓			
5	✓	✓	✓	✓		
6-7	✓	✓	✓	✓	✓	
8-10	✓	✓	✓	✓	✓	✓

Investment Strategy

Portfolio Asset Range

In general terms, strategic asset allocation is taken on portfolios; however, there is an element of tactical asset allocation on the active portfolios. The tactical approach gives us an aspect of being over or underweight in a particular asset class due to market sentiment or a change in a specific market outlook, i.e. being overweight in cash and underweight in equities due to unfavourable market sentiment in equities.

Portfolio Construction

There are three classifications of portfolio management strategies that can be used.

- Active management - using analysis in an attempt to achieve above-average returns.
- Passive management – an investment strategy is established which should not require active intervention but will be self-maintaining. Passive management does not attempt to outperform the market or sector.
- Core Satellite – This is a mixture of the above strategies and is used in contracts with limited funds available in the contract.

Depending on your requirements and risk category, when constructing a portfolio, a Top-down approach to portfolio management is taken.

Top-down Management

The three stages of top-down portfolio management are: -

- Asset Allocation.
- Sector Allocation.
- Individual Fund Selection.

Fund Strategy

When selecting individual funds utilising the research tools outlined in appendix 3 of this report, a technical and fundamental analysis approach is used.

Fundamental & Technical Analysis

Fundamental analysis is a method evaluating a fund that entails attempting to measure its intrinsic value by examining related economic, financial and other qualitative and quantitative factors. Fundamental analysis attempts to study everything that can affect the funds value, including macroeconomic factors (like the overall economy and industry conditions) and company-specific factors (like financial condition and management).

Technical analysis involves analysing statistics generated by past fund prices and performance. Technical analysis looks for peaks, bottoms, trends and patterns that affect a fund's performance and then make buying and selling decisions.

FE Crown Fund Ratings

FE Crown Fund Ratings enable investors to distinguish between funds that are strongly outperforming their benchmark and those that are not.

The top 10% of funds will be awarded five FE Crowns, the next 15% receiving four Crowns and each of the remaining three quartiles will be given three, two and one Crown(s) respectively.

Rebalanced twice a year in January and July, the rating takes into account three key measurements to derive a fund's performance: alpha, volatility and consistently strong performance.

FE Crown Fund Ratings are frequently used by professional advisers to screen for the best performing funds in a sector, and at a fact sheet, the level is used as part of an adviser's paper trail to show thorough and rigorous research has been undertaken.

How are FE Crown Fund Ratings calculated?

FE builds up a score based on analysing a fund's performance over the last three years. The score is made up of three components – alpha, relative volatility, and consistently good performance.

From October 2011, FE has enhanced the Ratings to use more closely-targeted benchmarks where sectors are too diverse, improving the quality of the calculations and removing dependence on the nature and size of fund sectors.

Assigning an FE Crown Fund Rating

Within each grouping, funds are assigned ratings based on their total scores, according to the following distribution:

- the top 10% - five FECrowns
- the next 15% - four FE Crowns
- the next 25% - three FE Crowns
- the next 25% - two FE Crowns
- the bottom 25% - one FE Crown

Total Return Methodology

Total Return (Simple Return) & Internal Rate of Return (IRR)

The total return on investment is straightforward and easy. It tells the investor the percentage gain or loss on an asset based on its purchase price. When the return is calculated on your wrap portfolio, we do not take into account the timing of new money into your investment.

The calculation in simple terms is as follows:

$$\begin{array}{rcc}
 \text{Return Before} & \frac{P1 - P0 + I}{P0} & \text{Return After Charges} \\
 \text{Charges} & \text{-----} & \text{-----} \\
 = & & = \\
 & & \frac{P1 - P0 + I}{P0}
 \end{array}$$

- P0 Opening Portfolio Value & Money in P1
- Closing Portfolio Value
- I Money out
- C Tax & Charges Internal

Rate of Return (IRR)

This also shows the overall return achieved. The calculation divides Total Gain/Loss by the sum of Opening Value and Purchases and Sales. Unlike the Simple Return, the IRR version will take account of the length of time a client held the investment and the length of time to which each transaction related.

The IRR calculation looks at the net gain/loss and attributes the gain/loss to all if the transactional activity has occurred in the period; each transaction is given its weighting (or time-factor) according to the proportion of the period the transaction applied. The IRR methodology assumes that all transactions have performed at the same rate over the period but for varying lengths of time.

How It Works/Example:

The formula for IRR is:

$$0 = P_0 + P_1/(1+IRR) + P_2/(1+IRR)^2 + P_3/(1+IRR)^3 + \dots + P_n/(1+IRR)^n$$

Where P_0, P_1, \dots, P_n equals the cash flows in periods 1, 2, ... N, respectively; and IRR

If you require any more information, go to our website <https://pwssp.co.uk>