



Vanguard

LifeTarget Portfolios

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VERSION CONTROL

Version	Date	Author	Description	Track Changes?
V1.0	09/11/2023	Isaac Black	Initial document	N
V1.1	22/11/2023	James Miller	Review	N



1. INTRODUCTION

EValue Limited (“EV”) owns the Funds Risk Assessor solution, which can be used to measure the risk rating of an investment fund or portfolio of investment funds. Vanguard wishes EV to supply data output from Funds Risk Assessor, classifying their manual funds and/or solutions against EV’s standard risk rating models, in order to understand how the investment funds and/or solutions that it makes available, are risk rated by Funds Risk Assessor.



2. GENERAL OVERVIEW

The funds were added from the EV fund database as 3 separate portfolios in FRA, as specified by Vanguard.

2.1 Content

This report details the data output from Funds Risk Assessor, rating Vanguard's chosen funds against EV's Standard 1-5, 1-7 and 1-10 risk rating scales; and across differing terms of 5, 10, 15, 20 and 25 years.



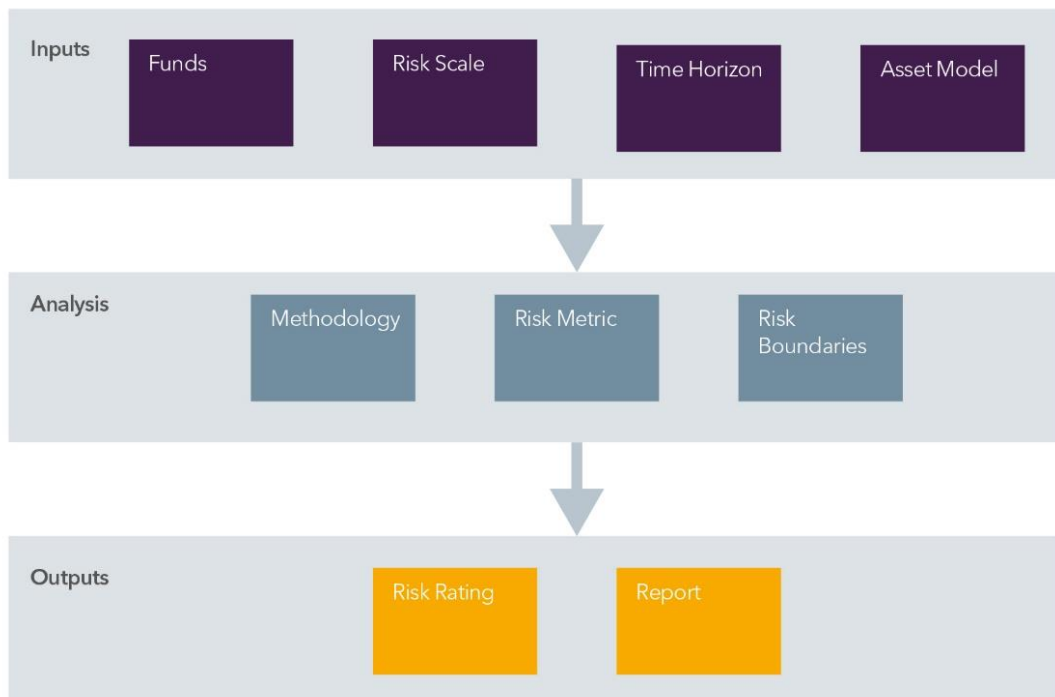
3. HOW DO WE RISK RATE YOUR FUND OR PORTFOLIO?

3.1 Risk Rating Process

Funds Risk Assessor can risk rate any investment proposition whether an individual discretionary fund, a model portfolio or any other central investment proposition. It does this by applying a consistent and robust approach to determining the risk of the fund compared to the asset allocation benchmarks from any standard risk profiling questionnaire or process.

It is important to assess the risk of funds and portfolios prospectively because volatility measures from the recent past are not a reliable guide to the future (for example, low volatility in equity returns in the years running up to the credit crunch was followed by high volatility in subsequent years). To measure risk prospectively, a very wide range of potential economic scenarios generated by a stochastic asset model are used to measure volatility over selected durations.

The risk rating process can be summarised as follows:





3.2 Inputs

Funds

The funds to be included in the assessment will be added from the FE fund feed in the FRA tool, as specified by Vanguard.

Additional funds which do not appear in publicly available information, such as in-house managed funds, can be added to the assessment by specifying the assumed asset allocation of these funds.

The asset allocation of the funds is used to assess objectively the degree of investment market risk to which the fund is currently exposed. There are no subjective judgements made about the investment manager's ability to add future value (for example, high returns for a lower level of risk).

Risk scale

In order to calculate a risk rating, a scale to compare the risk against must be set.

Funds Risk Assessor uses target asset allocations supplied with a risk questionnaire to determine the position on the risk scale against which the funds selected can be assessed using their underlying asset split.

The system has the following pre-set asset allocation targets that can be used:

1. EV Standard 5
2. EV Standard 7
3. EV Standard 10

Although it is possible to set up other benchmark asset allocations, we have used the EV Standards as agreed.

Time horizon

Different asset classes display different relative risk over different time horizons. The risk assessment of funds depends upon the time horizon considered for the investment. For the purpose of this report we have used the time horizons of 5, 10, 15, 20 and 25 years.



Asset model

In order to assess the risk of the fund, the potential performance and its future variability are projected using stochastic forecasts generated from the EV asset model, which underlies the Funds Risk Assessor tool.

3.3 Analysis

Methodology

The risk measure of the selected target asset allocation is calculated. These risk measures are then used as the benchmark for assessing the portfolio or fund. For example, a portfolio or fund with the same risk measure as the risk category 6 benchmark would be rated 6, whilst one with a risk measure mid-way between the risk category 6 and 7 benchmarks would be given a risk rating of 6.5.

3.4 Outputs

Risk rating

For the risk assessment, Funds Risk Assessor will calculate a decimal risk score as described above.

The decimal risk score is shown on a pictorial scale as follows:



Risk scores are calculated as a decimal but rounded to the nearest whole number risk category, so that decimal risk scores between 5.50 and 6.49 will be rated as risk category 6.

If the arrow in the diagram is directly under the risk rating number, the portfolio's volatility exactly matches the target risk. The example above shows how a decimal risk rating score of 6.3 out of 10 is shown.



4. RESULTS

4.1 General

The tables on the following pages illustrate the risk meter displays for the risk rating exercise. We have modelled at the highest term for each term range requested i.e., 5, 10, 15, 20 and 25 years.



Risk Benchmark EV Standard 1-5









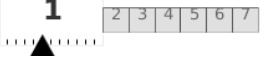





Risk ratings (scale 1-5) Data Generated by Fund Risk Assessor

Name of Fund	5 Years	10 Years	15 Years	20 Years	25 Years
Vanguard LifeTarget Defensive	<p>2.24</p>	<p>1.01</p>	<p>0.90</p>	<p>0.87</p>	<p>0.84</p>
Vanguard LifeTarget Cautious	<p>2.70</p>	<p>1.78</p>	<p>1.22</p>	<p>0.97</p>	<p>0.93</p>
Vanguard LifeTarget Moderate	<p>3.32</p>	<p>2.72</p>	<p>2.27</p>	<p>1.93</p>	<p>1.51</p>



Risk Benchmark EV Standard 1-7



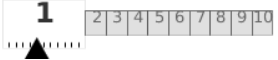




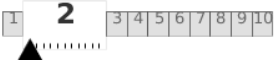
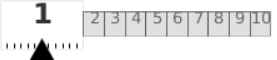






Risk ratings (scale 1-7) Data Generated by Fund Risk Assessor

Name of Fund	5 Years	10 Years	15 Years	20 Years	25 Years
Vanguard LifeTarget Defensive	 2.90	 1.02	 0.90	 0.87	 0.84
Vanguard LifeTarget Cautious	 3.58	 2.20	 1.35	 0.97	 0.93
Vanguard LifeTarget Moderate	 4.51	 3.59	 2.93	 2.39	 1.78



Risk Benchmark EV Standard 1-10

Risk ratings (scale 1-10) Data Generated by Fund Risk Assessor

Name of Fund	5 Years	10 Years	15 Years	20 Years	25 Years
Vanguard LifeTarget Defensive	 3.85	 1.03	 0.90	 0.87	 0.84
Vanguard LifeTarget Cautious	 4.90	 2.81	 1.54	 0.97	 0.93
Vanguard LifeTarget Moderate	 6.29	 4.91	 3.90	 3.11	 2.18



Disclaimer

This report is prepared with due care and skill for Vanguard by EV using approved market data feeds or fund asset allocations as provided by the Customer. EV determines a fund's risk rating by projecting future outcomes using simulations generated by its proprietary asset model and based on the fund's high level asset allocation. These projections of outcomes are forward looking over a range of durations from 5 to 25 years. From these outcomes the risk of the fund is determined by comparison to a set of risk benchmarks. EV's risk rating methodology is only focused on the range of potential outcomes at different durations and does not incorporate all risks which a fund may be subject to, for example, but not limited to, credit risk, liquidity risk, concentration of risk within asset classes, manager business risk, political and other specific risks associated with the way the fund is managed. Customers and third parties using EV's risk ratings should ensure the limitations of risk ratings are understood by their clients. EV does not endorse or recommend any investment solution to Vanguard or to third parties. EV shall use reasonable care skill and care to ensure that any report is accurate, but will not be held liable for any loss or damage suffered by any third party as a result of that third party's reliance on any report supplied.