



MABEL
INSIGHTS

PERFORMANCE CALCULATION METHODOLOGY

This document is intended for financial advisers who wish to learn more about the custom portfolio calculation methodology.

[Abstract](#)

This paper outlines the formulas used when calculating performance.

Gaurav Gupta, CFA
Director

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Purpose

Mabel Insights provides advisers with the ability to create custom portfolios and calculate performance.

Advisers can then compare a custom portfolio, of stocks, ETFs and funds, to a DFM and their investment solutions.

Objective

Calculate the performance of a portfolio, net of fees, which may include stocks, ETFs and funds, in a selected currency.

Methodology

In this section we show the calculation methodology for stocks, ETFs, funds, foreign exchange rates and the portfolio return.

Stocks

We use the adjusted monthly close prices. This is the closing price after adjustments for all applicable splits and dividend distributions.

ETFs

We use the adjusted monthly close prices. This is the closing price after adjustments for all applicable splits and dividend distributions.

Funds

We use the total return. This includes all distributions and capital re-organisation.

Foreign Exchange

We use the monthly closing price exchange rate between two currencies.

Cash

Cash is assumed to have a zero return. Our research suggests that different custodians have different policies, therefore we cannot accurately reflect a cash return. If the user wishes to have a return for cash, they can use a money market fund which best matches their expected cash return.

Portfolio Return

We calculate the portfolio performance based on an initial investment of 100 units at the start date of the custom portfolio.

The 100 units are then distributed between the investments selected in the custom portfolio by the user selected weighting.

The formula used to adjust a foreign currency to the base currency is shown below:

$$\text{Base Currency Holding Return} = (1 + \text{foreign holding monthly return}) + (1 + \text{exchange rate monthly return})$$

Monthly returns are adjusted to the base currency selected. An example of this is shown below:

	USD Returns	USD Returns	USD Returns	USD Returns	GBP Return		GBP Return	GBP Return	GBP Return	GBP Return	GBP Return
Date	Investment 1	Investment 2	Investment 3	Investment 4	Cash	USD-GBP	Investment 1	Investment 2	Investment 3	Investment 4	Cash
30/09/2020	-10.25%	-13.91%	-6.74%	-8.76%	0.00%	3.44%	-7.16%	-10.94%	-3.53%	-5.62%	0.00%
30/10/2020	-6.00%	-9.55%	-3.74%	-3.58%	0.00%	-0.24%	-6.23%	-9.77%	-3.97%	-3.81%	0.00%
30/11/2020	9.55%	46.27%	6.01%	4.34%	0.00%	-2.80%	6.48%	42.17%	3.04%	1.42%	0.00%
31/12/2020	11.46%	24.33%	3.90%	2.81%	0.00%	-2.49%	8.68%	21.23%	1.31%	0.25%	0.00%
29/01/2021	-0.55%	12.45%	4.29%	-1.56%	0.00%	-0.26%	-0.81%	12.16%	4.02%	-1.82%	0.00%
26/02/2021	-7.97%	-14.87%	0.41%	-3.53%	0.00%	-1.60%	-9.44%	-16.23%	-1.19%	-5.07%	0.00%
31/03/2021	0.73%	-1.12%	1.46%	0.04%	0.00%	1.02%	1.76%	-0.12%	2.49%	1.05%	0.00%
30/04/2021	7.62%	6.21%	6.96%	12.07%	0.00%	-0.27%	7.33%	5.93%	6.67%	11.76%	0.00%
28/05/2021	-5.05%	-11.87%	-0.76%	-7.05%	0.00%	-2.71%	-7.62%	-14.26%	-3.45%	-9.57%	0.00%
30/06/2021	9.91%	8.71%	8.50%	6.74%	0.00%	2.72%	12.90%	11.67%	11.45%	9.64%	0.00%
30/07/2021	6.50%	1.10%	5.17%	-3.27%	0.00%	-0.55%	5.91%	0.54%	4.59%	-3.81%	0.00%
31/08/2021	4.25%	7.06%	6.16%	4.30%	0.00%	1.11%	5.41%	8.25%	7.34%	5.46%	0.00%

Source: Mabel Insights, for illustrative purposes only.

The units distributed to the holding is then multiplied by the holding's monthly returns. The formula used is shown below:

$$\text{New unit value} = \text{Previous unit value} * (1 + \text{holding monthly return})$$

We next calculate the new portfolio value, which is the sum of all units.

The portfolios monthly return is calculated using the below formula:

$$\text{Monthly return} = ((\text{new unit value}/\text{old unit value}) * (1 - \text{annual management fee})^{(1/12)}) - 1$$

1, 3 and 5 years performance is calculated using the below formula:

$$1/3/5 \text{ performance} = (1 + \text{monthly return } 1) * (1 + \text{monthly return } 2) * (1 + \text{monthly return } 3) \dots$$

Disclaimers

Not Investment advice

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