

Portfolio VaR Contributions Feature Factsheet

Overview

Value-at-risk (VaR) is a well-known, universally recognized measure of portfolio risk, providing investors and managers insight into their potential investment loss at some confidence interval. Managers often want to know their overall portfolio VaR, as well as how each asset in the portfolio contributes to the overall risk. Stylus Pro 11.0 now provides the ability to perform this analysis*.

In Practice

1. The Portfolio Analysis block in mpi Stylus includes a number of new analytics that may be computed both on a portfolio and its underlying assets. VaR, Marginal VaR and Conditional VaR (CVaR) at both 95% and 99% confidence intervals.
2. Using this block, one can see the additive contributions of each asset in the portfolio to the total risk. The pie chart to the right illustrates one way to view how the 99% CVaR contributions of each asset sum to the overall portfolio CVaR of 12.15%.
3. These new analytics extend to the group and subgroup level, allowing the one to see the VaR contributions by region, sector or similar characteristic.

Benefits

- Better understand the overall risk of portfolios
- Gain insight into the risk breakdown of portfolios
- Assess the impact of changes in positions on portfolio risk

Additional Information

On the [Stylus Pro 11.0 website](#) you will find these additional resources:

- Demo Study
- Video
- VaR User Guide

* Advanced Package Required

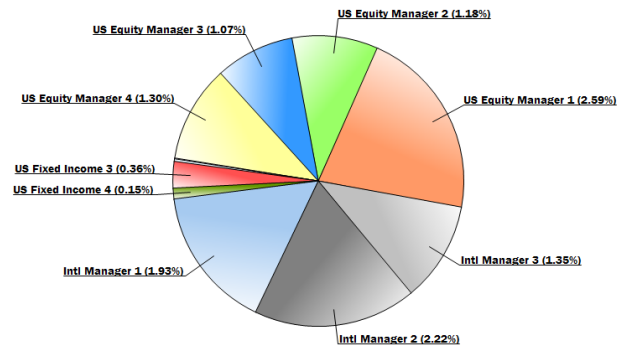
New Portfolio Analysis Statistics

Portfolio Analysis Hide zero fields ✕

Portfolio Underlying Assets: Portfolio Primary Group: Value(%) Use custom labels

Holdings Annual Return (a) Annual Return (g) Total Return Current Risk
 Average Risk Scaled Return (a) Scaled Return (g) Scaled Current Risk Scaled Average Risk
 95% VaR 99% VaR 95% Marginal VaR 99% Marginal VaR 95% CVaR
 99% CVaR

Asset Contributions to Portfolio VaR



Portfolio Group VaR

	95% VaR
International Stock	3.32
Foreign Large Value	1.16
Intl Manager 1	1.16
World Stock	2.16
Intl Manager 2	1.34
Intl Manager 3	0.82
US Stock	3.73
Large Value	1.53
US Equity Manager 1	1.53
Large Growth	2.20
US Equity Manager 2	0.73
US Equity Manager 3	0.66
US Equity Manager 4	0.81
Taxable Bond	0.38
Intermediate Government	0.03
US Fixed Income 1	0.01
US Fixed Income 2	0.02
Intermediate-term Bond	0.36
US Fixed Income 3	0.25
US Fixed Income 4	0.10



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Additional Information

- Component VaR for each asset is the additive contribution of that asset to the portfolio VaR. Conditional VaR (CVaR) is a measure of the expected loss when the VaR number of crossed, providing insight into the tail of the return distribution. CVaR was added to the Stylus module in the VaR analytic block as well in Stylus Pro 11.0. Marginal VaR represents the change in total portfolio VaR if an asset's or group's weight is changed by one percentage point. See the VaR User Guide for deeper explanation of the calculations.
- It is important to note that MPI measures VaR in a top-down manner, using the results of returns-based analysis. Traditionally, VaR is applied in a bottom-up setting where instrument holdings are known. The top-down approach dovetails nicely with other analysis in mpi Stylus Pro, while providing means to compute VaR in instances when no underlying holdings are available. See the VaR User Guide for additional insight.
- Another addition to the Portfolio Analysis block is "standalone" analytics. This option allows one to easily compare return, risk and VaR contributions for assets or groups with those same fields computed on the asset or group outside the portfolio as a separate manager. Combining the VaR contribution, standalone VaR and weight gives insight into how much of the VaR contribution is based on the position size, overall riskiness of the position, or its correlation with other assets.

	Holdings	95% VaR Contribution	95% VaR
Intl Manager 1	9.00	0.90	10.35
Intl Manager 2	12.00	0.95	7.97
Intl Manager 3	7.00	0.49	7.26
US Equity Manager 1	15.00	1.00	6.99
US Equity Manager 2	6.00	0.50	8.55
US Equity Manager 3	7.00	0.47	6.95
US Equity Manager 4	8.00	0.57	7.20
US Fixed Income 1	10.00	-0.02	1.07
US Fixed Income 2	8.00	-0.01	1.02
US Fixed Income 3	12.00	-0.01	1.30
US Fixed Income 4	6.00	-0.01	1.18