PORTFOLIO & RISK ANALYTICS PORT <GO>

BETTER PORTFOLIO DECISIONS

Bloomberg

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TAKE CONTROL OF THE ANALYTICS, DATA & NEWS THAT IMPACT YOUR PORTFOLIO

Bloomberg's Portfolio & Risk Analytics solution helps portfolio managers achieve their objectives by providing unmatched transparency into their portfolio's performance, characteristics, risk and more.

From one location, a series of powerful, integrated equity and fixed income tools deliver consistent insight, enabling you to create and execute differentiating investment strategies.

INTRODUCING BLOOMBERG PORTFOLIO & RISK ANALYTICS

PORT <GO> - POWERING YOUR PORTFOLIO MANAGEMENT & RISK STRATEGIES

As a portfolio manager, your performance depends on various factors. You must manage and anticipate changes in complex markets every day, plan for every possibility and execute accordingly. You also need a flexible plan for responding to economic, financial and political changes. The challenges have never been greater.

Bloomberg's Portfolio & Risk Analytics solution for investment professionals empowers you with the tools required to successfully implement your portfolio investment and risk management strategies. Our platform will help you make quicker, more informed decisions and enable you to measure market-related and security-specific risk exposures for your portfolios.

At Bloomberg, we are committed to continuously adding greater clarity to your investment decision making and to ensuring that you feel completely confident in these critical decisions. Our Portfolio & Risk Analytics solution is fully integrated with the Bloomberg Professional® service—at no additional fee—providing unparalleled access to the broad range of sophisticated tools required by today's asset managers.

ACTIVE PORTFOLIO MANAGEMENT SOLUTION

PAST

- » Backtesting
- » Performance Attribution
- » Historical Performance
- » Characteristics
- » Historical Risk

PRESENT

- » Real Time P&L
- » Portfolio Driven News and Alerts
- » Portfolio Characteristics
- » Excel and PDF Reporting
- » Mobile Access

FUTURE

- » Tracking Error
- » Value-at-Risk
- » Scenario Analysis
- » Trade Simulation
 - » Forward Looking Risk

ANALYZE YOUR PORTFOLIO'S HISTORICAL PERFORMANCE

Bloomberg's Portfolio & Risk Analytics solution gives you the ability to analyze the historical performance of your equity, fixed income or multi-asset portfolio on an absolute basis or relative to a benchmark. You can identify the sources of your portfolio's absolute or excess return by asset class, sector, geographic region, a custom classification, and even based on Bloomberg's multi-factor risk model.



PORT <GO> - Performance

See how your portfolio has performed over time on an absolute basis or relative to your benchmark

HISTORICAL PERFORMANCE ANALYSIS

- » Use the Performance Tab to examine the historical cumulative performance of your portfolio relative to its benchmark
- » Easily change the analysis time frame to hone in on a specific sub-period or visualize long term performance patterns
- » Examine standard deviation, beta, realized tracking error and dozens of other commonly used risk/ return measures
- » Gain insight into the drivers of historical risk and performance



PORT <GO> – Performance Attribution

Understand the sources of your portfolio's historical performance based on sector and security bets

PERFORMANCE ATTRIBUTION

- » Analyze your active portfolio performance results by examining allocation effect, security selection effect and currency effect
- » Break down your portfolio by asset class, sector, geographic region, duration, credit quality or any other custom classification
- » Calculate the impact of yield curve movements and spread effect on your fixed income portfolio's historical performance relative to its benchmark
- » Drill down for full transparency into the data used to calculate the returns, such as capital events, accrued interest and cash flows



PORT <GO> Factor-Based Attribution
Analyze the sources of your

Analyze the sources of your portfolio's historical performance based on Bloomberg's multi-factor risk models

FACTOR-BASED PERFORMANCE ATTRIBUTION

- » Explain portfolio performance in terms consistent with your ex-ante risk management approach by leveraging Bloomberg's multi-factor risk models fully integrated with historical performance attribution
- » Security returns are decomposed into the portion coming from exposure to risk model factors, such as industry, country, style, currency, curve and spread, and the portion coming from selection effect



PORT <GO> – Transactions-Based Attribution Understand how your transactions and transacted price levels impacted the portfolio's total return over a historical time period

TRANSACTIONS-BASED ATTRIBUTION

- » Quickly identify which trades contributed/detracted from total return
- » Isolate transaction returns at the instrument level
- » Analyze Transaction Effect, which quantifies the contribution to return due to historical trades

MONITOR TODAY'S PERFORMANCE & NEWS IN REAL-TIME

With PORT <GO> you can monitor the intraday performance of your equity, fixed income or multi-asset portfolio in real-time as well as quickly access the news which is most impacting your portfolio today. Immediately

identify today's top and bottom return contributors. Keep track of your portfolio's performance even when you are out of the office by running Bloomberg Anywhere on your mobile device.



PORT <GO> – Intraday Performance Monitor your portfolio's intraday performance relative to the prior day's close prices

REAL-TIME MONITORING

- » Track how your portfolio is performing today on an absolute basis or relative to a benchmark
- » Quickly identify the top and bottom return contributors for your portfolio by security, by industry, or by any other classification
- » Display the intraday cumulative return chart or heat map for a visual representation of today's activity
- » For fixed income securities, PORT <GO> leverages the numerous intraday pricing feeds available via the Bloomberg terminal, including MSG1 pricing



PORT <GO> – News Pop-up Instantly view the stories relating to and impacting your portfolio with Bloomberg News®

PORTFOLIO NEWS & ALERTS

- » Bloomberg's ever-expanding news content is fed by more than 60,000 sources, including global press releases, broker research and blogs
- » Alerts and unlimited keyword criteria can be applied to your portfolios, ensuring that every piece of news and research critical to you is captured
- » Sort your portfolio news with up to 11 different filters, including "User Activity," which uniquely shows the stories of most interest to other users in the Bloomberg community

BLOOMBERG BRIEF RISK NEWSLETTER

Portfolio managers, treasurers and risk professionals with Bloomberg terminals have a resource in the form of a weekly risk e-newsletter launched in June 2011. Titled Bloomberg Brief Risk, this publication combines original news, data and commentary on topics such as hedging, portfolio allocation and funding strategies. Bloomberg

Brief Risk also contains interviews with risk officers and portfolio managers at fund companies, corporations and other institutions. Bloomberg terminal customers enjoy complimentary access to the newsletter. Non-terminal customers may access via paid subscription.



Monitor your portfolio's intraday performance anytime and anywhere on your Blackberry,[®] iPhone,[®] iPad[®], Android or other mobile device with Bloomberg Anywhere.

EVALUATE YOUR PORTFOLIO'S CURRENT STRUCTURE

Bloomberg's Portfolio & Risk Analytics solution centralizes the critical data and analytics you need to understand the structure of your portfolios. Display the fundamental metrics you care about most, such as P/E and dividend

yield for equity portfolios or effective duration for fixed-income portfolios. Create your own growth or trend metric leveraging Bloomberg's vast fundamentals database.



PORT <GO> -Characteristics tab Analyze the fundamental characteristics of your portfolio that matters most

AGGREGATE PORTFOLIO CHARACTERISTICS

- » Analyze key equity or fixed income characteristics of your portfolio and see how they compare to a benchmark on a specific date or as a time series trend
- » Aggregate these measures by any classification, such as a sector, country, or any custom scheme that you define
- » Upload your own custom data and display alongside Bloomberg data
- » Chart characteristics to see your relative exposures versus the benchmark



PORT <GO> - Cash Flows Understand the projected cash flows of your portfolio®

PORTFOLIO CASH FLOWS

» Display the projected income generated by your portfolio over a time specified horizon in both chart and table form » Cash flows are based on Bloomberg Dividend Forecast (BDVD) for equity instruments, coupon and principal payments for fixed income instruments



PORT <GO> – Liquidity Risk Analyze your equity portfolio's structure in terms of the overall liquidity of your positions

LIQUIDITY RISK

- » Understand your equity portfolio's liquidity based on the average or total days to liquidate all or a portion of your positions
- » Quickly identify the most illiquid stocks in your portfolio as well as the concentration of your portfolio's market value in more vs. less liquid securities
- » Customize your liquidity risk analysis based on a specified participation rate and average trading volume history
- » Analyze your portfolio's liquidity horizon based on the length of time it would take to liquidate a preset percentage of the portfolio's total market value

UNDERSTAND YOUR PORTFOLIO'S FUTURE RISK EXPOSURES

Bloomberg has developed fundamental risk factor models to help you measure and analyze portfolio risk through multiple lenses, including tracking error, stress testing, and VaR.



PORT <GO> Tracking Error tab

Analyze your portfolio's ex-ante (predicted) risk by using one of Bloomberg's multi-factor risk models

TRACKING ERROR

- » Fully transparent fundamental risk factor models provide global, multi-asset class coverage across all of your positions
- » More informative risk decomposition using market standard as well as custom classifications
- » Calculate risk in absolute terms or relative to your benchmark, another portfolio, fund or index
- » Only Bloomberg provides the ability to click through to the underlying fundamental data for full risk data transparency



PORT <GO> - Scenarios tab Stress test your portfolio and identify sensitivities to selected market risk factors

SCENARIO ANALYSIS

- » Evaluate your portfolio using a variety of historical stress scenarios—such as the global financial meltdown in 2008 or the Libyan oil crisis in 2011
- » Create your own custom stress tests to gain greater insight into your portfolio's risk and validate current portfolio exposures



PORT <GO> - VaR tab Analyze the tail risk of your portfolio using the latest risk modeling techniques

VALUE-AT-RISK

- » Global multi-asset class security coverage, with Stress Matrix Pricing on derivatives for more accurate VaR forecasts
- » Ability to measure the VaR impact on proposed trades using Trade Simulation mode and optimization
- » Support for Monte Carlo, Historical, and Parametric VaR Methods across multiple confidence levels to calculate the maximum expected loss
- » Robust proxy capability to assist in exception handling

SIMULATE TRADES & OPTIMIZE YOUR PORTFOLIO

Bloomberg's flagship application for portfolio analysis includes fully integrated portfolio construction tools. Trade Simulation and Portfolio Optimization allow you to easily and rapidly identify trades that will ensure you make the best investment decisions.



PORT <GO> Trade Simulation

Analyze how your portfolio's characteristics and risk structure would change based on your potential trades

TEST THE IMPACT OF YOUR TRADE IDEAS

- » Evaluate potential trades or edit existing positions by using the Trade Simulation functionality
- » Analyze in real time the impact of hypothetical trades across the entire analytical suite of portfolio tools available within PORT <GO>



PORT <GO> - Optimization Leverage PORT's built-in Portfolio Optimization capabilities to construct your optimal portfolio

DISCOVER YOUR PORTFOLIO'S OPTIMAL CONSTRUCTION

- » Iterate through multiple versions of hypothetical trades to build an efficient frontier of optimal portfolios
- » Upload your custom security-level expected returns or any other data as inputs to the Optimizer
- » Leverage Bloomberg's Transaction Cost Analysis model to incorporate market impact into your test
- » Backtest your strategy to create a model portfolio and analyze its historical performance in PORT <GO>



PORT <GO> Optimizer Results

The Optimizer delivers suggested trades for analysis with resulting active total risk or any other optimization goal

IDENTIFY THE TRADES TO MEET YOUR INVESTMENT OBJECTIVES

- » Easily identify the best set of trades that will give your portfolio the exposures that you want it to have
- » Analyze your hypothetical portfolio which incorporates these trades seamlessly in PORT <GO>

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SEAMLESSLY INTEGRATE YOUR POSITIONS FOR ANALYSIS

SECURELY UPLOAD YOUR PORTFOLIO HOLDINGS FOR ANALYSIS IN PORT <GO>

Integration & Implementation

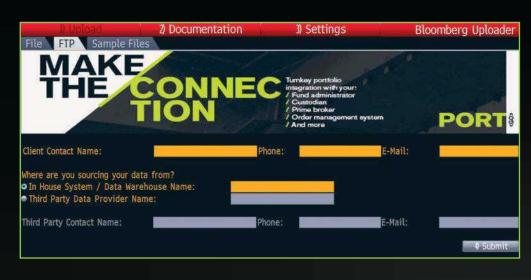
Upload your portfolio data in three ways to integrate your portfolio holdings on the Bloomberg Professional service to use for PORT <GO>.

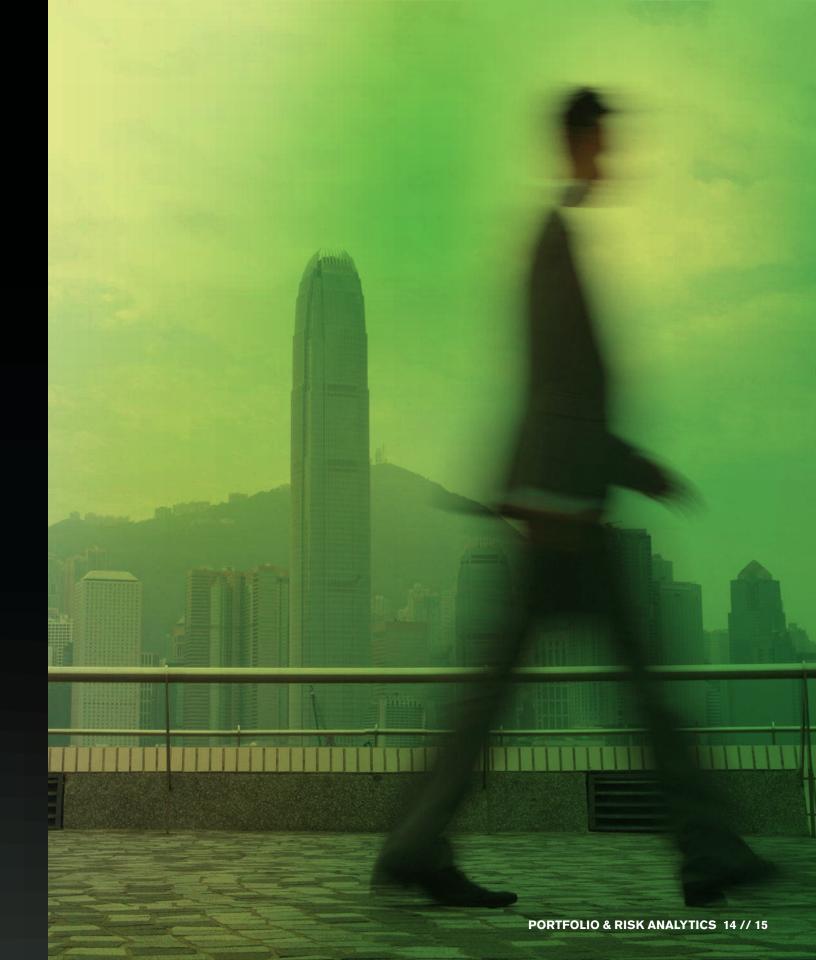
- » Manually enter or drag and drop your portfolio from a file to the Portfolio Administration tool, PRTU <GO>
- » Performance a manual one-time upload or schedule an upload using the Bloomberg Upload tool, BBU <GO>
- » Your portfolio data can be pre-integrated with the Bloomberg Professional® service> providing turnkey access to the portfolio analytics, news and alerts that are crucial to managing your business smoothly and efficiently through BBU <GO> via SFTP protocol.

Our team of portfolio integration specialists can help you get started.

PAVE THE WAY FOR FIRM-WIDE TRANSPARENCY & CONTROL

As an extension to the core portfolio analytics features offered on the Bloomberg Professional service, PORT <GO> analytics can be utilized across your entire firm for a holistic view of your organization's global investment activities. Your senior management team—from Risk Managers to the Chief Investment Officer—can obtain unparalleled insight and transparency into the firm's investments, resulting in a new and complete level of confidence and protection for your organization.





ABOUT THE BLOOMBERG PROFESSIONAL SERVICE

The founding vision in 1982 was to create an information services, news and media company that provides business and financial professionals with the tools and data they need on a single all-inclusive platform. The success of Bloomberg is due to the constant innovation of our products, unrivaled dedication to customer service and the unique way in which we constantly adapt to an ever-changing marketplace. The Bloomberg Professional service is a powerful and flexible tool for financial professionals—whatever their needs—in cash and derivatives markets as diverse as equities, currencies, commodities, money markets, government and municipal securities, mortgages, indices, insurance, and legal information. The Bloomberg Professional service seamlessly integrates the very best in real-time data, news and analytics.

In addition, Bloomberg users benefit from on-demand multimedia content, extensive electronic trading capabilities and a superior communications platform. Bloomberg customers include influential decision makers in finance, business and government. Business and financial professionals recognize the Bloomberg Professional service as the definitive tool for achieving their goals because it offers unparalleled assistance and functionality on a single platform for a single price.

Real Service from Real People When You Need It.

Our 24/7 industry-leading customer service teams in 160 countries around the world will help you fully leverage the analytics and data on the Bloomberg Professional service.



To learn more about what Bloomberg's Portfolio & Risk Analytics solution can do for you, visit BPRA <GO> on the terminal or send an email to our team at: portsolution@bloomberg.net.

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