

.....

PORTFOLIO & RISK ANALYTICS

A Bloomberg Professional Service Offering

CAPTURE INSIGHT

Bloomberg

CONTENTS

02 INTRODUCING BLOOMBERG PORTFOLIO & RISK ANALYTICS

03 TOTAL INTEGRATION

04 UNDERSTAND AND DRIVE PERFORMANCE

06 SEAMLESS ANALYSIS

08 UNDERSTAND YOUR PORTFOLIO'S RISK STRUCTURE

10 EASILY CREATE YOUR DESIRED PORTFOLIO

12 TURN DESKTOP PORTFOLIO ANALYTICS INTO FIRM-WIDE SOLUTIONS

13 ONE SOURCE

TAKE CONTROL OF THE ANALYTICS, DATA AND 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.

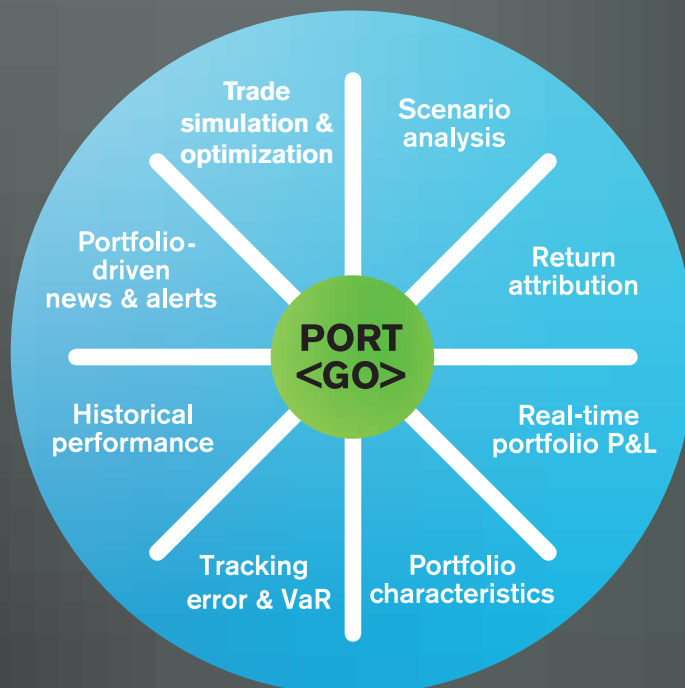
INTRODUCING BLOOMBERG PORTFOLIO & RISK ANALYTICS ////////////////

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 optimal portfolio and targeted-risk 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.



TOTAL INTEGRATION

CUSTOMIZE YOUR PORTFOLIO WORKFLOW FOR ULTIMATE CONTROL

Our user-friendly and intuitive Portfolio & Risk Analytics solution is fully customizable and integrates your portfolio holdings with performance and risk analytics, as well as with Bloomberg's comprehensive market and security data, to streamline your workflow. Everything you need, including flexible charting and news indicators, is one click away in PORT <GO>.

SEE THE BIG PICTURE FOR THE BROADEST CONTEXT

Start with your current portfolio holdings or load historical data to understand your portfolio's historical performance versus your benchmark. From performance and performance attribution to portfolio characteristics and risk, PORT <GO> provides you with a vast array of choices—past, present and future—with which to analyze and measure your portfolios.

PAVE THE WAY FOR FIRM-WIDE TRANSPARENCY AND CONTROL

As part of the premium offering, implement Bloomberg's Portfolio & Risk Analytics capabilities 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.



Experience the power of the Bloomberg Professional service
anytime and anywhere on your Blackberry,[®] iPhone,[®] iPad[®]
or other mobile device with Bloomberg AnywhereSM.

UNDERSTAND AND DRIVE PERFORMANCE

This suite of tools for fixed-income and equity portfolios gives you the ability to transform Bloomberg's data and analytics into a powerful tool for monitoring, measuring

and driving performance. Our Portfolio & Risk Analytics platform features a series of clearly labeled tabs, each corresponding to a distinct function.



PORT <GO> – Intraday tab
Start your day by monitoring the intraday performance of your portfolios in real time

REAL-TIME MONITORING

- » Custom views enable you to dissect and display portfolio information in multiple formats, including tables, historical charts and heat maps
- » Track intraday performance on an absolute basis or relative to a benchmark, including those tracking ETFs and public funds
- » Monitor individual slices of your portfolio by industry sector, geography, market capitalization or any of the many customizable options
- » Assign an index or custom benchmark to identify relative allocation and performance differences



PORT <GO> – Performance tab
Seamlessly transition to performance to see how your portfolio has performed over time

HISTORICAL PERFORMANCE ANALYSIS

- » Identify the sectors or holdings that have exhibited the best risk/return trade-off and how this performance compares with your portfolio's benchmark
- » Analyze your portfolio from a specific date or particular time periods such as one day, one month and YTD
- » 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> – Attribution tab
Understand the sources of your portfolio's historical performance on an absolute or relative basis

PERFORMANCE ATTRIBUTION

- » Analyze relative performance results by examining factors including curve effect, allocation effect, security selection effect and currency effect
- » Easily drill down for full data transparency to gain a greater understanding of the data driving returns, such as capital events and dividends
- » Calculate selection and allocation effects for equity portfolios
- » Calculate the impact of yield curve movements for fixed-income portfolios

SEAMLESS ANALYSIS

Bloomberg's Portfolio & Risk Analytics solution centralizes the critical data and analytics you need to monitor and manage your investment 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 investment portfolio and how it compares to a benchmark as of a specific date or as a time series trend

AGGREGATED PORTFOLIO CHARACTERISTICS

- » Aggregate by any classification, such as sector, duration bucket, country or a custom sector scheme that you define
- » View the top or bottom 10 instruments within your portfolio based on criteria such as percentage of market weight, P/E or duration
- » Chart characteristics to see your relative exposures versus the benchmark



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

PORTFOLIO NEWS AND 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



PORT <GO> – Characteristics tab
Easily right-click on any security to run popular single-security analytics such as YAS <GO> and OAS1 <GO>

FIXED-INCOME CHARACTERISTICS

- » Full integration with market-standard single-security analytics and complete fundamental data
- » Full access to Bloomberg's evaluated pricing source (BVAL) to mark-to-market your fixed-income portfolio
- » Full access to Bloomberg's comprehensive security master database

UNDERSTAND YOUR PORTFOLIO'S RISK STRUCTURE //

Bloomberg's Portfolio & Risk Analytics solution offers market risk tools, including advanced analytics, to help manage and measure market-related risk exposures.

PORT <GO> is your portal to a selection of portfolio risk statistics, including stress tests, tracking error and absolute/relative 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

- » Bloomberg's fully transparent fundamental risk factor models provide global coverage across fixed-income and equity positions
- » Understand the amount and sources of risk to which the portfolio is exposed

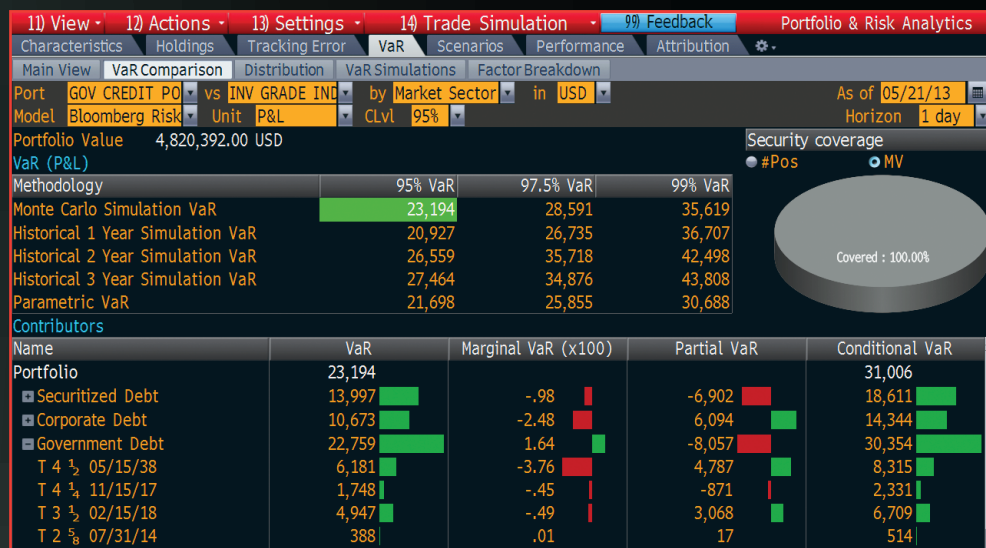
- » Use the factor P&L feature to attribute performance in terms of risk factors
- » Only Bloomberg provides the ability to click through to the underlying fundamental data for full risk data transparency



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 custom scenarios aligned to gain greater insight into your portfolio's risk and validate current portfolio exposures



PORT <GO> – VaR tab
Measure your portfolio's ex-ante risk using the methodology that best suits your needs

VALUE-AT-RISK

- » Effectively manage your portfolio risk by easily determining the overall impact of changes in investment strategy
- » Utilize three different approaches to VaR (Monte Carlo, Historical and Parametric) across multiple confidence levels to calculate theoretical profits and losses
- » View your portfolio's entire P&L in graphical and tabular form for easy analysis
- » VaR offers historical and Monte Carlo methods that are updated nightly to provide the most up-to-date risk estimates for your portfolio

EASILY CREATE YOUR DESIRED PORTFOLIO

Bloomberg's flagship application for equity and fixed income investment portfolio analysis includes fully integrated portfolio construction tools: Trade Simulation

and Portfolio Optimization features. Easily and rapidly evaluate your portfolios to identify trades that will ensure you make the best investment decisions.

11) View - 12) Actions - 13) Settings - 14) Trade Simulation - 99) Feedback Portfolio & Risk Analytics													
TRADE SIMULATION ENABLED													
Optimizer Add Simulated Holdings Save/Trade Settings													
Intraday Holdings Characteristics Tracking Error VaR Scenarios Performance Attribution													
Main View Summary Factors Risk Bets Trends Exposures Factor P&L													
Port STRATEGIC GRO vs SPX Index by GICS Sectors in USD										As of 05/22/13			
Model US Equity Funda										Horizon 1 Year			
Name	Inc	Simulated Wgt	Orig Wgt (%)	Wgt +/-	Buy/Sell	% Wgt	Gross Total Risk	Active Weight	Contribution (%)	Beta			
						Port +/-	+/-	+/-	+/-	Port			
STRATEGIC GROWTH		100.00	100.00	0.00		100.00	0.00	127.35	2.17	100.00	0.93		
Cash		4.75	4.47	0.29		4.75	4.75	4.75	0.00	0.00	0.00		
USD		4.75	4.47	0.29	96,479.31	4.75	4.75	4.75	0.00	0.00	0.00		
Consumer Discretionary		13.68	13.97	-0.29		13.68	1.81	19.16	0.97	18.40	0.92		
AMAZON.COM INC		4.00	1.60	2.40	2,997.00	4.00	3.34	3.34	0.86	3.15	0.89		
COMCAST CORP-CLASS A		1.63	1.63	0.00		1.63	0.89	0.89	0.16	-2.02	0.92		
GAMESTOP CORP-CLASS A		1.09	1.09	0.00		1.09	1.06	1.06	0.40	-1.68	1.33		
HOME DEPOT INC		2.00	4.69	-2.69	-11,463.00	2.00	1.21	1.21	0.23	-1.34	0.79		
NEWS CORP-CL A		1.48	1.48	0.00		1.48	1.04	1.04	0.19	-2.56	0.94		
TARGET CORP		1.48	1.48	0.00		1.48	1.17	1.17	0.22	-1.25	0.79		
YUM! BRANDS INC		1.98	1.98	0.00		1.98	1.77	1.77	0.42	-3.05	0.99		
Consumer Staples		10.26	10.26	0.00		10.26	-0.46	15.70	0.70	10.34	0.64		
COCA-COLA CO/THE		0.76	0.76	0.00		0.76	-0.33	0.33	0.05	0.48	0.55		
CVS CAREMARK CORP		2.39	2.39	0.00		2.39	1.90	1.90	0.35	-0.73	0.66		
HILLSHIRE BRANDS CO		0.67	0.67	0.00		0.67	0.67	0.67	0.14	-1.65	0.80		
HJ HEINZ CO		0.69	0.69	0.00		0.69	0.53	0.53	0.08	-0.92	0.61		
MONDELEZ INTERNATIONAL ...		1.61	1.61	0.00		1.61	1.24	1.24	0.22	-1.80	0.68		
WAL-MART STORES INC		4.15	4.15	0.00		4.15	3.28	3.28	0.56	0.48	0.61		
Energy		9.13	9.13	0.00		9.13	-1.56	8.08	0.52	11.04	1.25		
BAKER HUGHES INC		0.60	0.60	0.00		0.60	0.46	0.46	0.13	-2.06	1.41		
CHEVRON CORP		1.50	1.50	0.00		1.50	-0.14	0.14	0.03	0.53	1.16		
EXXON MOBIL CORP		2.76	2.76	0.00		2.76	-0.03	0.03	0.01	0.10	1.14		
Turnover: 5.08% Zoom - + 75%													

PORT <GO> - Trade Simulation Enabled

Analyze tracking error based on simulated trades

REBALANCE YOUR PORTFOLIO

» 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>

1) Run 2) Tasks 3) Settings 9) Analyze in PORT Portfolio Optimization

Port GOV CREDIT PORTFOLIO Bmrk INV GRADE INDEX Risk Model Bloomberg Risk Model Backtest Enabled

Setup Frontier Trades

1. Goals Add Goal

Action Field

Minimize Active Total Risk

2. Trade Universes Add Universe

Rule Source Security List

Trade List Favorites Current Benchmark

3. Constraints Add Frontier Add Constraint Delete

Constraint Field	Constraint Group	Relative	Unit	Min	Max	Trade-Off
Turnover	Portfolio	Init. Portfolio	%		30	
Option Adjusted Duration	Portfolio	Benchmark		-0.1	0.1	

4. Security Properties

Cash (USD Currency) Min 0% Max 100% Long Positions Only Clear All Export

Security	Relative	Min Weight(%)	Max Weight(%)	Max Trade	Lot Size
Default for all securities	Init. Portfolio	-5	5		1
Click or drag to override def	None				

PORT <GO> – Optimization

Choose from the Optimizer's global tasks menu or define your own goals and constraints

ITERATE THROUGH MULTIPLE TRADE IDEAS

- » Construct your portfolio directly through the PORT <GO> application, leveraging Bloomberg's built-in Optimizer and Trade Simulation capabilities
- » Build custom tasks using numerous parameters or select from predefined tasks to optimize your goals and constraints

1) Run 2) Tasks 3) Settings 9) Analyze in PORT Portfolio Optimization

Port GOV CREDIT PORTFOLIO Bmrk INV GRADE INDEX Risk Model Bloomberg Risk Model Backtest Enabled

Setup Frontier Trades

Optimization Summary Status Success Goal Summary

Goal	Initial Value	Final Value
Active Total Risk	0.26	0.09

Turnover(%) 30 Trade Value 1,446,290

of Buys 9 Value of Buys 723,145

of Sells 7 Value of Sells 723,145

Proposed Trades

Security	Name	Trade	Quantity	Init. Weight (%)	Opt. Weight (%)	Wgt Diff
FG A95407	FG A95407	Buy	26,066	0	0.4	0.4
PETBRA 5 3/4 01/20	PETBRA 5 3/4 01/20/20	Buy	14,085	0	0.33	0.33
T 4 3/4 05/15/39	T 4 3/4 05/15/39	Buy	10,291	1.02	1.28	0.26
FN 995515	FN 995515	Buy	3	0	0	0
USD	USD	Buy	0.02	0	0	0
WFC 5 1/4 08/01/14	WFC 5 1/4 08/01/14	Sell	-22,391	5.23	4.74	-0.5
HPQ 4 3/4 06/02/14	HPQ 4 3/4 06/02/14	Sell	-34,118	5.1	4.35	-0.75
TWX 6 1/2 11/15/36	TWX 6 1/2 11/15/36	Sell	-42,277	1.9	0.83	-1.07

Portfolio and Group Constraint Results

Group	Field	Relative	Min	Max	Initial Value	Final Value	Warning
PORTFOLIO	Turnover	INIT_PORTFOLIO		30		30	
PORTFOLIO	Option Adjusted Duration	BENCHMARK	-0.1	0.1	-1.09	-0.1	(1)

PORT <GO> – Optimization Output

The Optimizer delivers suggested trades for analysis with resulting active total risk

IDENTIFY THE TRADES TO MEET YOUR INVESTMENT OBJECTIVES

- » Iterate through multiple versions of hypothetical trades to construct your optimal portfolio
- » Leverage Bloomberg's Transaction Cost Analysis model to incorporate market impact in your optimization routine
- » Utilize your custom security-level expected returns as an input to the Optimizer to drive your optimization results
- » Rebalance your portfolio to reach a target duration objective

TURN DESKTOP PORTFOLIO ANALYTICS INTO FIRM-WIDE SOLUTIONS /////

FIRM-WIDE SOLUTIONS

Bloomberg's Firm-Wide Portfolio Analytics solution builds on our desktop analytics by providing firm-wide controls & privileging, thus streamlining integration from internal systems, and centralized distribution of reports. The result is consistent analytics and a controlled solution for your entire firm. The Firm-Wide solution is an add-on package to the Bloomberg Professional service.



INTEGRATION AND IMPLEMENTATION

- Implementation Specialist
- Integration Architect
- Inbound System-to-System Integration
- Daily Automation
- Data Integrity Report

ADMINISTRATION AND CONTROL

- Role-Based Permissions
- Audit and Control of User Access
- Audit of Entity Changes
- Shared Views

FIRM-WIDE DATABASE

- Portfolio, Benchmark & Classifications
- Single Point of Analytic Master Data
- Custom Data & Fixed Income Pricing
- Firm-Wide Proxy

ANALYTICS AND REPORTS

- Portfolio and Benchmark Analytics
- Adobe® PDF and Microsoft® Excel Formats
- Scheduled Reports Delivered via Email and FTP

ONE SOURCE



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.

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.

//

Beijing
+86 10 6649 7500

Dubai
+971 4 364 1000

Frankfurt
+49 69 9204 1210

Hong Kong
+852 2977 6000

London
+44 20 7330 7500

Mumbai
+91 22 6120 3600

New York
+1 212 318 2000

San Francisco
+1 415 912 2960

São Paulo
+55 11 3048 4500

Singapore
+65 6212 1000

Sydney
+61 2 9777 8600

Tokyo
+81 3 3201 8900