

**S&P
Capital IQ**

Alpha Factor Library User Guide

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Contents	
Introduction	1
Alpha Factor Library Overview	1
Before You Begin	1
System Requirements	1
Basic Terms and Functions	1
Navigation	2
Common Functions	5
Application Overview	6
Settings	7
General Settings	8
Universe Settings	8
Chart Settings	9
Country Default Universe Settings	9
Custom Regimes	9
Market Overview	11
Market Snapshot	12
Style Summary	14
Sector Summary	15
Average Q1-Q5 Spread by Sector %	16
Month-to-Date Returns, Year-to-Date Returns, Long-Term Average	17
What's Working	18
Current	19
Historical	20
Quant Calendar	21
Regime Monitor	22
Summary	23
Calendar	24
Description	24
Summary	25
Current vs. Historical	26
Creating Custom Regimes	27
Country Monitor	29
Monthly Report	30
IC (Information Coefficient) Summary	30
Annual Returns	31
My Daily Report	32
Screening & Analysis	33
Screening	34
Comparison	36
Summary Tab	37
By Sector Tab	39
Country Comparison	40
Scatterplot	43
Style Plot Tab	43
Time Plot Tab	44
S&P Capital IQ Alpha Models	45
Multifactor Models	46
Detail	46
List	46
Additional Functionality	47
Private Library	49
Factor Catalog	49

View Custom Factors	49
Create New Factors	53
Edit Existing Factors	62
Control Panel	64
Upload Proprietary Factor Data	65
Map Factor Data	67
Job Status Summary	71
Proprietary Data Manager	72
Factor Catalog	73
Factor Search	73
Factor Catalog	74
Detail	74
List.....	75
Daily Report	76
Summary.....	78
Cross-Sectional Tab.....	78
By Sector Tab.....	80
Return	82
Quintile Returns Tab.....	82
Q1-Q5 Spreads Tab	83
Daily Returns Tab.....	84
Hit Ratio % Tab	86
Batting Average % Tab	87
IC (Information Coefficient).....	89
Information Coefficients Tab.....	90
Information Ratio Tab	91
Sector	93
Timeseries Tab	93
Lattice Tab	94
Average Returns % Tab	95
Information Coefficients Tab.....	96
Information Ratio Tab	97
Counts Tab.....	98
Sector Return Spread Percentage	99
Seasonality	100
Seasonality Tab	101
Monthly Tab	102
Regime	104
Quintile Returns Tab.....	105
ICs Tab.....	106
Current vs. Historical Tab.....	107
Transitions Tab	108
Returns	109
ICs Tab.....	110
Regime Details	111
Turnover	112
Monthly Quintile Turnover Timeseries	113
Average Rank Turnover by Holding Period	114
Trailing Twelve Months Turnover %	115
Correlation	116
Positive / Zero / Negative.....	116
Coverage	118
Counts Tab.....	119

Distribution Tab	120
Correlations.....	121
Formulation.....	122
Industry Factors.....	125
Factor Display.....	126
Research Articles	127
Style Indicators.....	129
Detail	129
List.....	130
Revision History	131
Index	133

Introduction

Alpha Factor Library Overview

S&P Capital IQ's Quantamental Research team aims to provide unique and thorough research services to our clients. The Alpha Factor Library research and delivery application hosts information on global factors and models providing users with state-of-the-art, quantitative equity research tools with full transparency on factor definitions and raw data.

The Alpha Factor Library application is built on a factor library where each factor represents a simple investment strategy. The Alpha Factor Library uses a combination of S&P Capital IQ's point-in-time data and Compustat® fundamental data with ClariFI® as the calculation engine. Point-in-time data provides a data snapshot as the market would have seen it at a specific date in time to help avoid survivorship and look-ahead bias. Compustat data standardization allows for company data to be comparable across different industries and over time.

Before You Begin

System Requirements

For the best performance of the Alpha Factor Library, please make sure you have the following on your computer:

- Windows XP or above
- 512MB memory
- Windows Internet Explorer 7 and higher, or the latest version of Firefox
- Screen resolution of at least 1024 x 768
- Adobe Flash Player 9.0

Basic Terms and Functions

Universe: A Universe refers to a population of investable stocks. In the Alpha Factor Library, most universes are typically popular indices, such as S&P and Russell. All factors have been tested over a variety of large, small, value, growth, and individual sector universes.

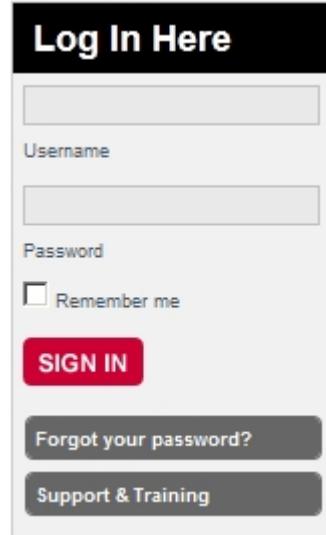
Style: A Style refers to a group of stocks categorized by a common characteristic (e.g., value stocks, growth stocks).

Sector: A Sector refers to stocks grouped according to Global Industry Classification Standard (GICS) classification.

Navigation

Login

To login to the Alpha Factor Library in the S&P Capital IQ platform, follow the steps below:

<p>1. Go to www.capitaliq.com.</p> <p>2. Enter your Username and Password. (Note: You may also select Remember me if you want your user name and password to be stored.)</p> <p>3. Click Sign In.</p> <p>If you have troubles with your password, click "Forgot your Password?"</p>	 <p>The image shows a "Log In Here" form. It has fields for "Username" and "Password", a "Remember me" checkbox, a "SIGN IN" button, and links for "Forgot your password?" and "Support & Training".</p>
--	---

Your personalized dashboard will appear.

The **Alpha Factors** tab appears at the top of the page.



Click the **Alpha Factors** tab to access the application.

Note: If you click the **Alpha Factors** tab without selecting an individual section listed in the sub menu, you will be taken to the Market Snapshot page. (This section is discussed in more detail in the next chapter.)

If you mouse over the **Alpha Factors** tab, the functions of the Alpha Factor Library display.

The screenshot shows the top navigation bar with several tabs: Coverage, Projects, Research Manager, Portfolios, Alpha Factors, and Read. Below the bar, there are three main sections:

- Factor Catalog** (underlined):
 - Price Momentum
 - Historical Growth
 - Analyst Expectations
 - Earnings Quality
 - Valuation
 - Capital Efficiency
 - Size
 - Volatility
- Factor Screening** (underlined):
 - Screening
 - Comparison
 - Country Comparison
 - Scatterplot
- Alpha Factor Library** (underlined):
 - Welcome
 - My Settings
 - Research Articles

Below these sections are two more groups of links:

- Industry Factors** (underlined):
 - Banks
 - Retail
 - Oil and Gas
- Market Overview** (underlined):
 - Market Snapshot
 - What's Working
 - Quant Calendar
 - Regime Monitor
 - Country Monitor
 - Monthly Report
 - My Daily Report
- CIQ Alpha Models** (underlined):
 - US Growth
 - US Value
 - US Momentum
 - US Quality
- Private Library** (underlined):
 - Factor Catalog
 - Control Panel
 - Job Status

The sidebar contains a hierarchical menu structure:

- Market Overview**
 - Market Snapshot
 - What's Working
 - Quant Calendar
 - Regime Monitor
 - Country Monitor
 - Monthly Report
 - My Daily Report
- Screening & Analysis**
 - Screening
 - Comparison
 - Country Comparison
 - Scatterplot
- CIQ Alpha Models**
 - US Growth
 - US Value
 - US Momentum
 - US Quality
- Private Library**
 - Factor Catalog
 - Control Panel
 - Job Status
- Factor Catalog**
 - All Categories
 - Price Momentum
 - Historical Growth
 - Analyst Expectations
 - Earnings Quality
 - Valuation
 - Capital Efficiency
 - Size
 - Volatility
- Industry Factors**
 - Banks
 - Retail
 - Oil and Gas
- Research Articles**
- Style Indicators**
- Settings**
- User Guide**

At the bottom of the sidebar, there is a link: **Expense Code: Assign**.

Within each area in the Alpha Factor Library you will always see the full menu option on the left side of the page.

This menu option displays links to each of the sections in the Alpha Factor Library. To expand or collapse the sections under the main menu items (e.g., **Market Overview**, **Screening & Analysis**, **CIQ Alpha Models**, **Private Library** or **Factor Catalog**), click the "+" or "-" symbols. Select the desired function and click once to go directly to that section in the application.

Note: The CIQ Alpha Models and Private Library capabilities are licensed separately. For more information, please contact client support at:

Email: clientsupport@capitaliq.com

Phone:

U.S. & Canada: +1 888 806 5541 or +1 212 438 1070

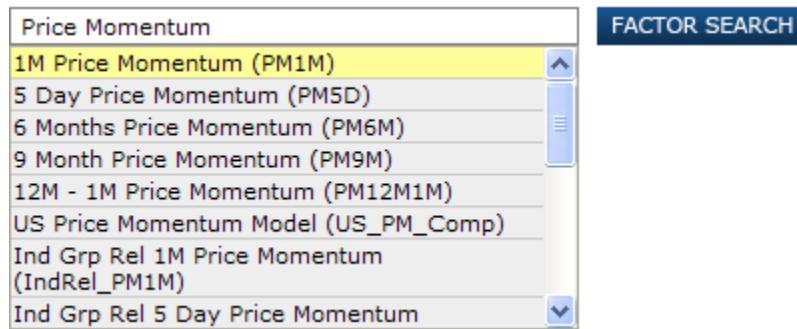
United Kingdom: +44 (0) 20 7176 1234

Factor Search Navigation

On all pages of the Alpha Factor Library, you will see **FACTOR SEARCH** in the upper right corner.



This function allows you to manually enter any factor code or factor name directly in the text box. Simply begin typing to retrieve all related factors.



Common Functions

Various areas throughout the application allow you to modify how the data is displayed. Following is a description of these common functions.



: Click this icon at any time to export your data and results to a Microsoft® Excel spreadsheet.



: Select **Full Screen** to enlarge the image of the data. Press the **Esc** key to return to the Alpha Factor Library screen.

Custom period:

12-31-1986

- 10-26-2011

: Enter a custom time period to view specific dates in history. The factor library contains point-in-time data from January 1, 1987 to present.

Zoom:

MAX

10Y

5Y

1Y

YTD

3M

: View data for a predetermined time frame (e.g., 10 years, 5 days).

Academic Citations

Academic citations provide additional information related to the factor. The citations are hyperlinked to the cited research paper when available. You may also mouse over the icon to view an abstract of the paper.

ACADEMIC CITATIONS:

- 1) Damodaran, A., *Investment Valuation*, John Wiley, 1996
- 2) Damodaran, A., *Return on Capital (ROC), Return on Invested Capital (ROIC) and Return on Equity (ROE): Measurement and Implications*, Working Paper, 2007
- 3) Modigliani, F. and M. Miller, *The Cost of Capital, Corporation Finance and the Theory of Investment*, The American Economic Review, 1958
- 4) Modigliani, F. and M. Miller, *Corporate Income Taxes and the Cost of Capital: A Correction*, The American Economic Review, 1963
- 5) Weston, J. F. and T. E. Copeland, *Managerial Finance (Ninth ed.)*, The Dryden Press, 1992

[Go to Citations Page](#)

Application Overview

The Alpha Factor Library consists of seven main areas: **Market Overview**, **Screening & Analysis**, **CIQ Alpha Models**, **Private Library**, **Factor Catalog**, **Industry Factors**, and **Research Articles**.



The **Market Overview** area enables you to view data for select investment style groups for a specific index and a custom time period and then evaluate the summary statistics and view returns for a given universe.

The **Screening & Analysis** area enables you to screen by multiple criteria and compare the results.

The **CIQ Alpha Models** blend industry and company fundamental analysis with robust quantitative validation to guide profitable, intuitive stock selection strategies.

The **Private Library** enables you to create custom factors to add to your factor library.

The **Factor Catalog** area contains the library of factors along with detailed statistics on each factor.

The **Industry Factors** section contains factors representing the most frequently reported items in the Banking, US Retail, and Oil and Gas industries.

The **Research Articles** section enables you to access all research published by the S&P Capital IQ Quantamental Research team.

Note: The CIQ Alpha Models and Private Library capabilities are licensed separately. For more information, please contact client support at:

Email: clientsupport@capitaliq.com

Phone:

U.S. & Canada: +1 888 806 5541 or +1 212 438 1070

United Kingdom: +44 (0) 20 7176 1234

The following chapters describe these areas and the information available in each section.

Settings

The Alpha Factor Library settings can be personalized for each application user. Setting your preferences allows you to customize your general settings, charts, profile, and password options.

To modify your personal settings, click **Settings** which is displayed in the left-hand column of links.



The screenshot shows a vertical navigation menu on the left side of a web application. The menu items are organized into sections, each preceded by a small square icon:

- Market Overview**
 - Market Snapshot
 - What's Working
 - Quant Calendar
 - Regime Monitor
 - Country Monitor
 - Monthly Report
 - My Daily Report
- Screening & Analysis**
 - Screening
 - Comparison
 - Country Comparison
 - Scatterplot
- CIQ Alpha Models**
 - US Growth
 - US Value
 - US Momentum
 - US Quality
- Private Library**
 - Factor Catalog
 - Control Panel
 - Job Status
- Factor Catalog**
 - All Categories
 - Price Momentum
 - Historical Growth
 - Analyst Expectations
 - Earnings Quality
 - Valuation
 - Capital Efficiency
 - Size
 - Volatility
- Industry Factors**
 - Banks
 - Retail
 - Oil and Gas
- Research Articles**
- Style Indicators**
- Settings** 
- User Guide**
- Expense Code: Assign

Following is a description of the options available in Settings.

General Settings

This group of settings allows you to select, up front, which index, sector, time period, etc., you would like to use as your defaults throughout the application. By using these settings, you will eliminate time spent changing standard information in each section as your Settings will be carried through for you.

General Settings	
Index:	S&P 500
Sector:	Cross Sectional
Holding Period:	1 Month
Time Period:	From 1990
Formula Data Source:	Compustat

Index: Select an index, region or country benchmark from the dropdown list.

Sector: Select a sector of stocks to be analyzed. Click the dropdown to screen on Cross Sectional, Sector Neutral, or an individual GICS sector of stocks (e.g., Energy, Financials, and Health Care).

Holding Period: Select the length of time each stock is held in the portfolio from date of purchase to date of sale.

Time Period: Select a time frame over which to view the data. The results will show the average for this period.

Formula Data Source: Select the sources from which the data is to be obtained (e.g., Compustat fundamentals, S&P Capital IQ point-in-time data set, and Charter Oak point-in-time data set).

Universe Settings

Universe Settings	
Groups:	All Groups
Universes:	Asia Asia ex Japan Australia Austria Belgium BMI - EAFE
	Add » «Remove
	Favorite Universes (max 5): (Empty list)

Groups: Select a group of stocks to be analyzed from the dropdown list.

Universes: Select the population of investable stocks you wish to add to your list of favorite universes. (The field displays the populations of investable stocks in the group you selected previously.)

Add: Use this function to add the selected universe to your list of favorite universes. You can add up to 5 different universes.

Remove: Use this function to remove universes from your list of favorite universes.

Chart Settings

This group of settings allows you to select the factor styles you would like to view on the Market Snapshot Page and the Factor Summary Page. By using these settings, you'll only see the information you want to see when working with the application.

Chart Settings			
Market Snapshot Page:			
<input checked="" type="checkbox"/>	Analyst Expectation	<input checked="" type="checkbox"/>	Capital Efficiency
<input checked="" type="checkbox"/>	Earnings Quality	<input checked="" type="checkbox"/>	Historical Growth
<input checked="" type="checkbox"/>	Price Momentum	<input checked="" type="checkbox"/>	Size
<input checked="" type="checkbox"/>	Valuation	<input checked="" type="checkbox"/>	Volatility

Country Default Universe Settings

Country Default Universe Settings	
Country	Default Universe
 United States	S&P 500 ▾

Default Universe: Select the default universe from the dropdown list.

Save or **Cancel** **Save / Cancel:** Save or cancel your selections.

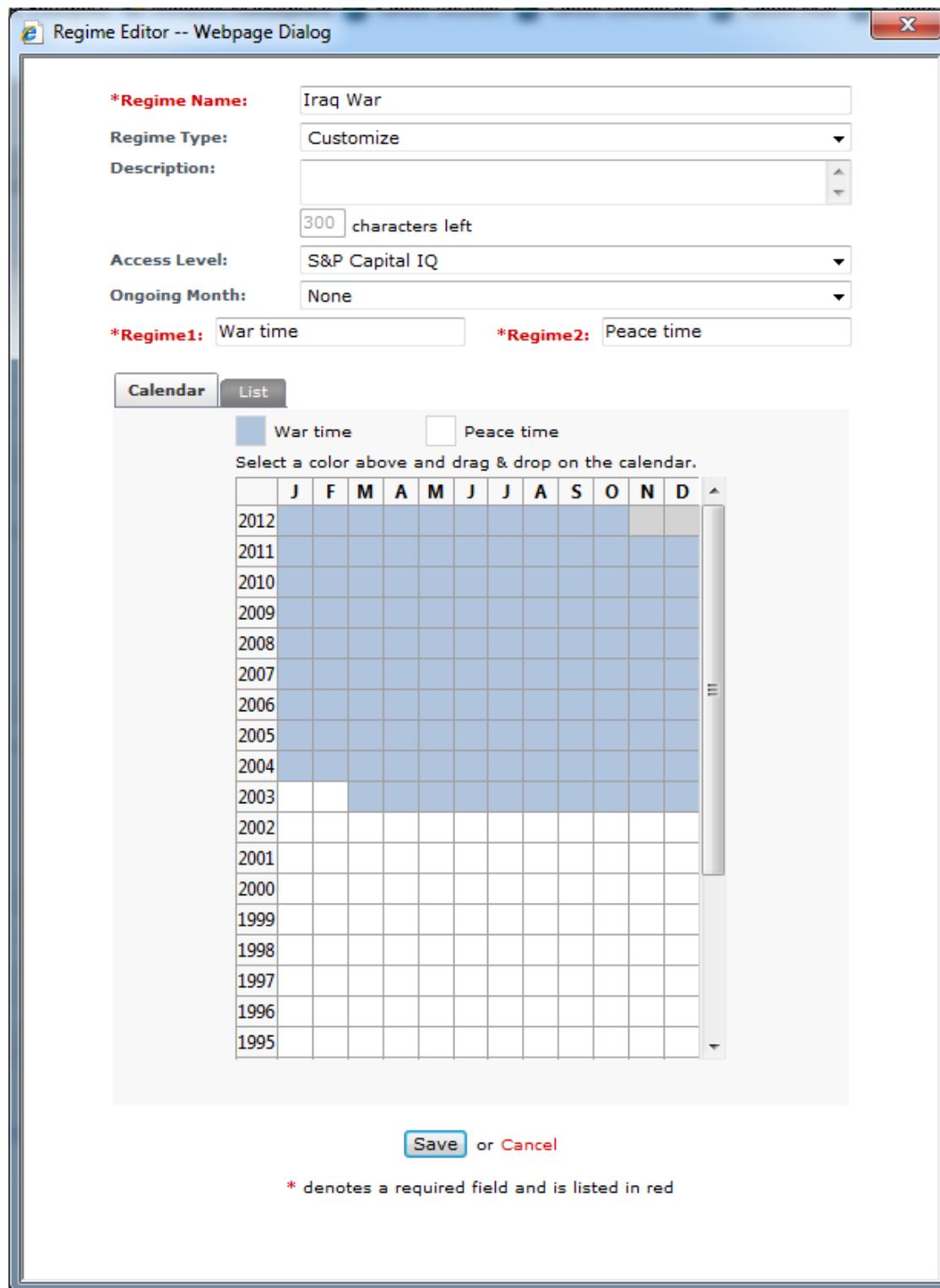
Custom Regimes

You can define and customize your own regimes to be used in regime-related pages in your Alpha Factor Library.

To create the regime from your settings, follow the instructions below:

Custom Regimes	
New Regime	

Click **New Regime** to display the Regime Editor Dialog.



Type a **Regime Name**, label the two regimes (**Regime1** and **Regime2**), select the colored box for a regime, and click or drag and drop to the appropriate cells to represent the timing of the regime on the calendar. When finished, click **Save** (or **Cancel**).

Market Overview

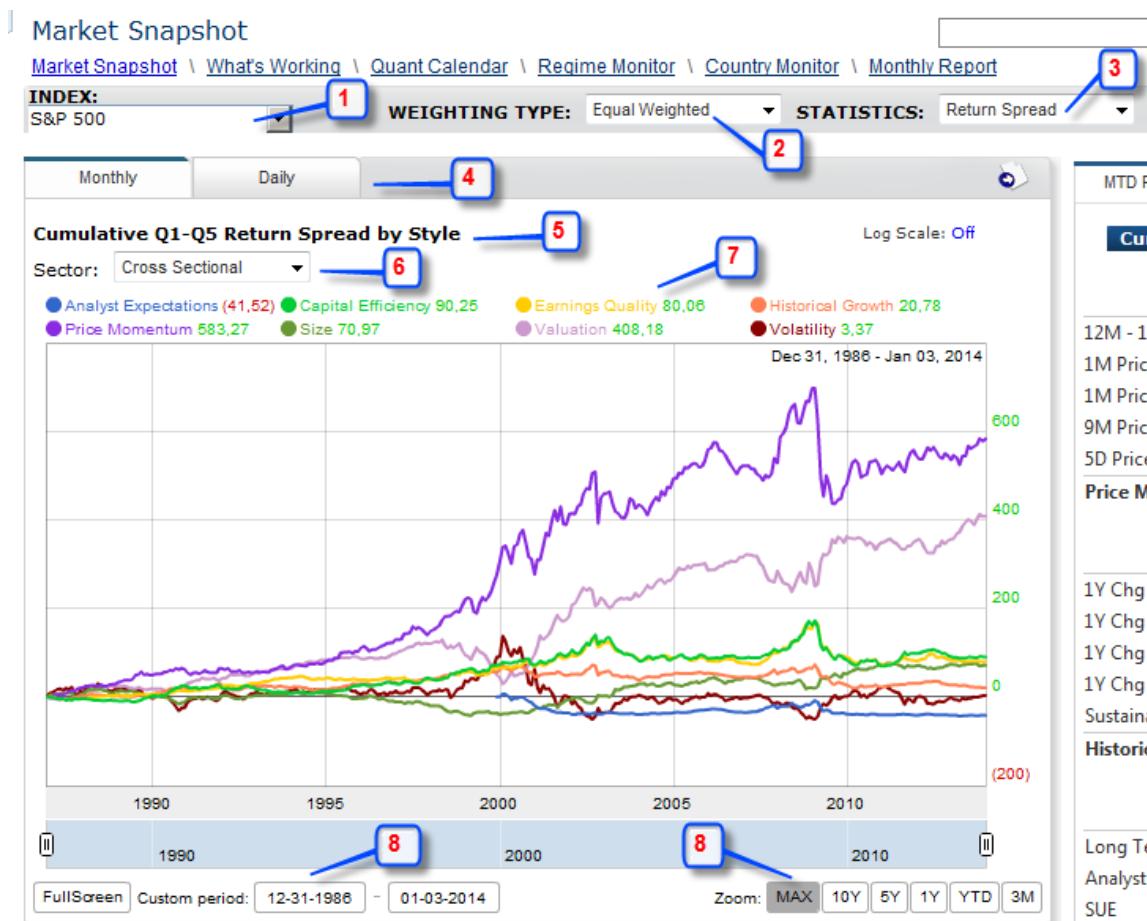
Once you click on the Alpha Factors tab at the top of your Capital IQ page, you are taken to the main Alpha Factor Library area, or **Market Overview**. The initial section that will display is Market Snapshot.

The following pages explain the sections falling under Market Overview.

- **Market Overview**
 - Market Snapshot
 - What's Working
 - Quant Calendar
 - Regime Monitor
 - Country Monitor
 - Monthly Report
 - My Daily Report

Market Snapshot

The Market Snapshot section displays style-level statistics at the universe level. S&P Capital IQ's Quantamental Research team has built style-level indicators by picking representative factors from each style category and equal-weighting the factor ranks. Because a strategy is measured by returns, the Alpha Factor Library groups stocks into quintile portfolios based on their ranks in a respective universe. In the factor library, Q1-Q5 refers to the quintile buckets, with quintile 1 (Q1) representing the portfolio of stocks expected to outperform (longs), and quintile 5 (Q5) representing the portfolio of stocks expected to underperform (shorts).



1 **Index:** Select an index, region or country benchmark from the dropdown list.

2 **Weighting Type:** Select Equal Weighted or Cap Weighted.

3 **Statistics:** Select Return Spread, Q1 Abs Return or Q5 Abs Return.

-  **Monthly Spread / Daily Spread:** Select the appropriate tab.
-  **Cumulative Q1-Q5 Return Spread by Style:** Refers to the top quintile (Q1) minus bottom quintile (Q5) cumulative monthly return spread for any given style. The spread is calculated by taking a long position in the top quintile stocks, or top 20%, and shorting the bottom quintile for each style proxy.
-  **Sector:** Select a sector of stocks to be analyzed. Click the dropdown to screen on Cross Sectional, Sector Neutral, or an individual GICS sector of stocks (e.g., Energy, Financials, and Health Care).
-  **Style Factor List:** Add or remove any factor group from the chart by clicking on the colored dots.
-  **Time Period:** Select a time frame over which to view the data. The results will show the average for this period.

Style Summary

The Style Summary shows detailed data on cross-sectional or universe-relative spread, and sector-neutral or sector-relative spread for the period selected. The data is presented as both in percentages and in a related graph to the right of the table.

Time Period: Select a time frame over which to view the data. The results will show the average for this period.

TIME PERIOD:	From 1990
	Year to Date
	Last 2 Years
	Last 3 Years
	Last 5 Years
	Last 10 Years
<hr/>	
Price Momentum	From 2005
Historical Growth	From 2000
Analyst Expectations	From 1995
Earnings Quality	From 1990
<hr/>	
...	Entire History

Click any column value in the table to view the data in a bar graph on the right.



Cross-Sectional (CS Spread %): Calculated by taking the long position in the top quintile stocks, or top 20%, and shorting the bottom quintile, across the entire universe. The spread is the difference between the Q1 returns and the Q5 returns.

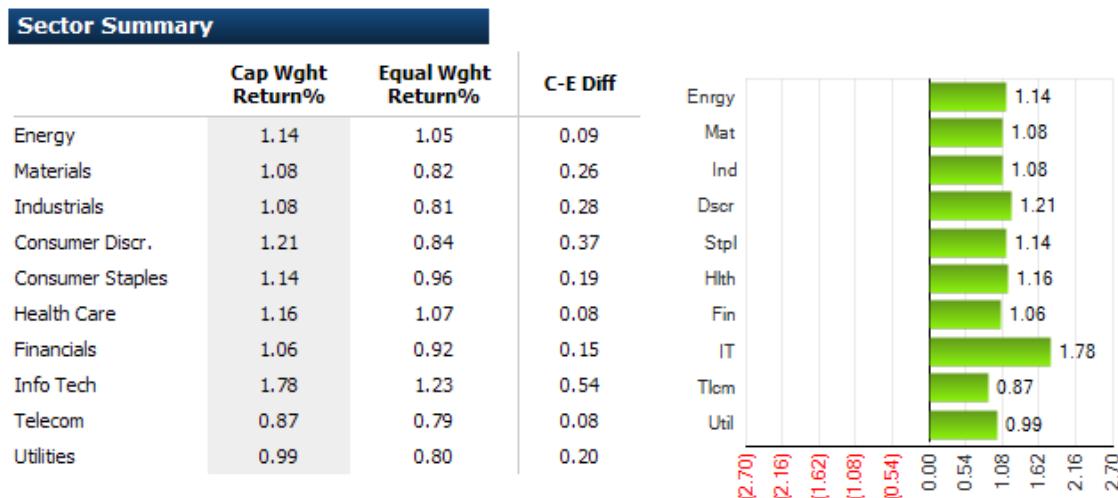
Sector-neutral (SN Spread %): Built by segregating stocks into their respective Global Industry Classification Standard (GICS) sectors. Stocks are grouped into sector long portfolios and sector short portfolios by quintile ranking and are then combined into a single portfolio. A long position is taken in the top quintile of the compiled portfolio and a short position is taken in the bottom quintile of the compiled portfolio. The spread is the difference between the Q1 and Q5 returns. This process ensures that an equal number of long and short positions for each GICS sector is represented in the overall portfolio and neutralizes the quintile spread from sector movements.

+ Sectors: Refers to the number of GICS sectors with positive average long-short spreads over a specified time period.

Sector Summary

The Sector Summary shows detailed data on sector benchmark returns for the time period selected. The market cap-weighted return, equal-weighted return, and the difference between the two in percentages are included. The data is presented as both in percentages and in a related graph to the right of the table.

Click any column in the table to view the data in the chart to the right.



Cap Weight Return %: Refers to the percent return on the market cap-weighted portfolio.

Equal Weight Return %: Refers to the percent return on equal weighted portfolio.

C-E Diff: Refers to the percentage difference between Market Cap-Weighted and Equal-Weighted portfolio. A positive spread generally suggests large caps are outperforming small caps and vice versa.

Average Q1-Q5 Spread by Sector %

The Average Q1-Q5 Spread by Sector % section is a magnified version of the line graph at the top of the page. For the period selected, the Average Q1-Q5 Spread by Sector % shows detailed data on the overall sector neutral and individual sector numbers. The data is presented as both a percentage and graphically.

Click any row value in the table to view the data for a specific style in a chart under the table.

	Cross-Sec	Enrgy	Mat	Ind	Dscr	Stpl	Hlth	Fin	IT	Tlcm	Util
Price Momentum	0.44	(0.09)	0.65	0.65	0.78	0.32	0.65	0.48	0.41	0.28	0.12
Historical Growth	0.30	(0.01)	0.27	(0.21)	0.39	0.20	0.13	0.14	0.79	0.60	(0.32)
Analyst Expectation	0.25	(0.41)	0.04	0.20	0.64	(0.35)	0.65	0.37	0.26	(0.04)	0.01
Earnings Quality	0.40	(0.11)	0.48	0.26	0.16	0.37	0.22	0.15	0.86	(0.55)	0.01
Valuation	0.79	0.62	1.26	1.26	0.73	0.42	0.59	0.47	0.79	(0.27)	0.36
Capital Efficiency	0.53	0.03	0.36	0.30	0.10	0.40	0.57	0.24	0.84	0.19	0.24
Size	0.25	0.22	0.31	(0.17)	(0.02)	0.26	0.51	0.29	0.65	0.35	0.68
Volatility	0.27	0.16	0.40	(0.32)	0.22	(0.05)	0.19	0.50	0.42	0.70	(0.15)

Sector	Average Spread (%)
Cross-Sec	0.44
Energy	(0.09)
Materials	0.65
Industrials	0.65
C. Desctr	0.78
C. Staples	0.32
Hlth Care	0.65
Financials	0.48
Info Tech	0.41
Telecom	0.28
Utilities	0.12

Month-to-Date Returns, Year-to-Date Returns, Long-Term Average

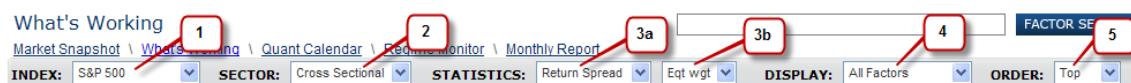
This section provides information on Returns, given on a monthly or year-to-date level. This area also displays long-term averages showing the monthly averages over one to ten years. Click MTD Returns, YTD Returns or Long-Term Avg to view related data.

	MTD Returns	YTD Returns	Long-Term Avg	
Cumulative Q1-Q5 Return Spread %				
	1 Day	5 Days	10 Days	MTD
12M minus 1M Price Mom	(0.38)	(0.88)	0.03	(1.91)
1M Price Momentum	1.68	3.47	2.62	10.64
9M Price Momentum	(1.50)	(3.12)	(1.79)	(8.07)
Ind Rel 1M Price Mom	1.01	2.62	0.84	5.84
Ind Rel 5D Price Mom	0.32	1.03	0.01	1.24
Price Momentum	0.71	1.47	0.80	3.16
	1 Day	5 Days	10 Days	MTD
1Y Chg FCF / Assets	0.09	(0.35)	(0.33)	(0.10)
1Y Chg OCF / Assets	0.04	(0.03)	0.36	2.98
1Y Chg Sales Turnover	0.43	1.38	1.79	5.04
Sustainable Growth	(0.53)	0.26	(1.11)	1.07
1Y Chg Sales / Price	0.20	0.55	0.63	4.21
Historical Growth	(0.34)	0.32	0.37	2.97
	1 Day	5 Days	10 Days	MTD
Long Term Growth	0.56	1.75	2.34	8.17
Analyst Diffusion	(0.44)	(0.83)	(2.25)	(1.87)
SUE	0.30	(0.26)	(0.77)	1.12
Num FY1 EPS Revisions	(0.41)	(1.24)	(1.44)	(1.72)
Inverse PEG	1.49	2.80	1.30	9.26
Analyst Expectation	0.46	0.95	(0.11)	3.70
	1 Day	5 Days	10 Days	MTD
Cash Conversion Cycle	(0.27)	(1.11)	(0.14)	(0.41)
Net Profit Margin	0.19	0.23	(0.43)	(0.90)
WC Accruals	(0.07)	(1.45)	0.32	0.54
TTM Depr to Capex	(0.15)	0.11	0.42	(2.45)
Cap Investment to Assets	(0.06)	1.49	0.79	0.61
Earnings Quality	(0.35)	(0.91)	(0.30)	(1.92)

What's Working

The What's Working function acts as a monitor of the best performing factors according to their monthly returns. This function is divided into two sections: Current and Historical. The following pages explain the two sections.

The information found in the Current view shows monthly data for Average 1-Month Q1-Q5 Return Spread %.



1 **Index:** Select an index, region, or country benchmark from the dropdown list.

2 **Sector:** Select a sector of stocks to be analyzed. Click the dropdown to screen on Cross Sectional, Sector Neutral, or an individual GICS sector of stocks (e.g., Energy, Financials, and Health Care).

3 **Statistics:**

a Select Return Spread, Q1 Active Return or Q5 Active Return.

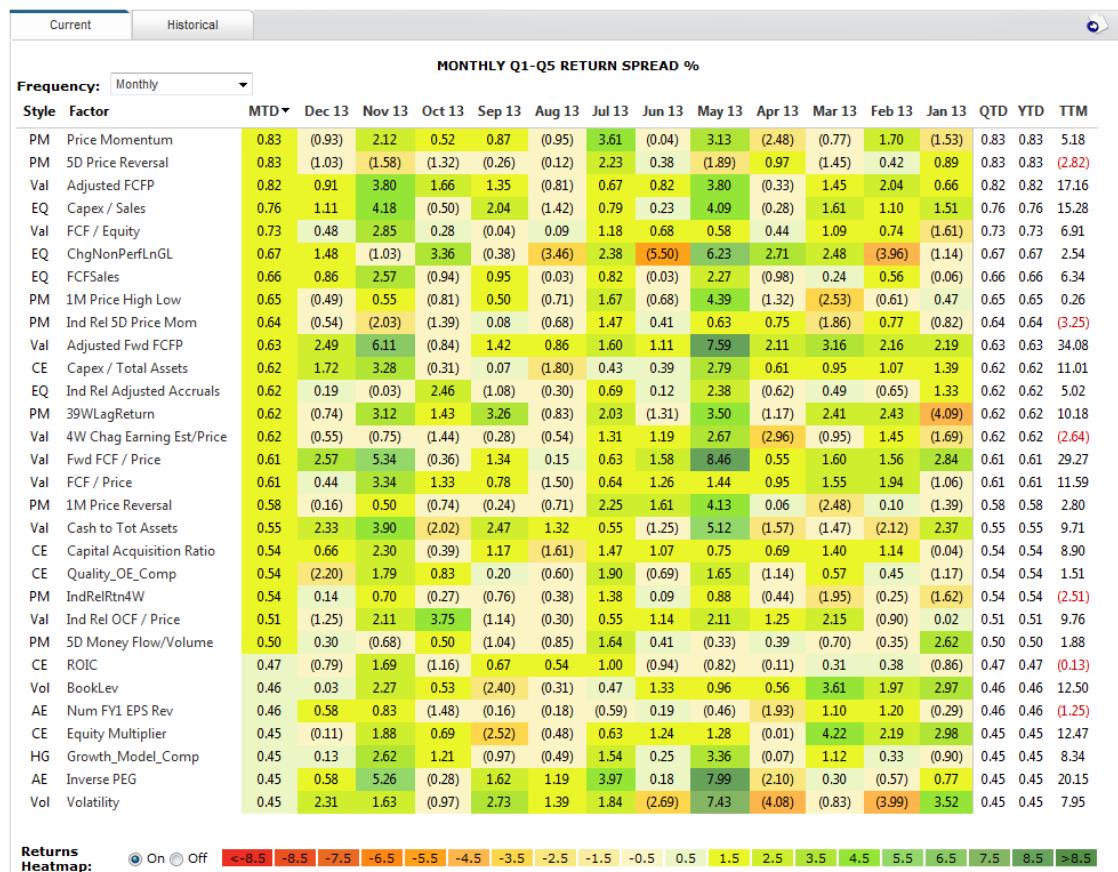
b Select Eqt wgt (Equal-weighted) or Cap wgt (Capitalization-weighted) returns.

4 **Display:** Select the factor(s) you would like to view. Click the dropdown to select All Factors, Style Composites, or an individual style (e.g., Price Momentum, Historical Growth, and Analyst Expectations).

5 **Order:** Select how you would like the data to be presented: from best to worst (Top), or from worst to best (Bottom).

Current

The Current Returns heat map acts as a visual legend ranging from green to red, representing high returns and low returns, respectively. You are able to turn this feature on or off with the radio button below the map.



Frequency: Select frequency of returns to be Monthly, Quarterly, Semi Annually, or Annually.

Style: Each factor is categorized based on a specific category or style.

Factor: The top 30 factors are pulled from the entire Alpha Factor Library.

Mouse-over any factor to view a visual representation of the factor performance over the last 12 months.

MTD: Month-to-Date cumulative return spread

QTD: Quarter-to-Date cumulative return spread

YTD: Year-to-Date cumulative return spread

TTM: Trailing-Twelve-Months cumulative return spread

Historical

The information in the Historical view shows summary statistics over a selected time period. The Historical snapshot captures data for Return Spread %, Q1-Q5 Active Return %, Standard Deviation Spread, T-Stat Spread, Q1-Q5 Hit Ratio and Average Monthly IC and IR Returns for one, six and 12 months.

What's Working

Market Snapshot \ What's Working \ Quant Calendar \ Regime Monitor \ Monthly Report

FACTOR SEARCH

INDEX: S&P 500 SECTOR: Cross Sectional STATISTICS: Return Spread Eqt wgt DISPLAY: All Factors ORDER: Top

Current		Historical													
TIME PERIOD:		Last 10 Years													
Style	Factor	Spread Rtn %	Q1 Act Rtn %	Q5 Act Rtn %	Spread Std Dev%	Spread T-Stat	Q1 Hit Ratio	Q5 Hit Ratio	Avg 1M IC	Avg 1M IR	Avg 6M IC	Avg 6M IR	Avg 12M IC	Avg 12M IR	
EQ	ChgChgOfftoGL	1.17	(0.26)	(1.43)	7.02	1.82	40%	38%	0.03	0.14	0.07	0.27	0.06	0.26	
Val	EBITDA / EV	1.01	0.52	(0.49)	3.06	3.62	55%	38%	0.04	0.40	0.07	0.67	0.10	0.85	
Val	OCF / EV	0.99	0.54	(0.46)	2.45	4.45	57%	42%	0.04	0.47	0.07	0.75	0.08	0.84	
Val	Adj. EBITDA to EV	0.95	0.47	(0.48)	3.15	3.31	55%	40%	0.04	0.38	0.08	0.70	0.10	0.88	
EQ	ChgNonPerfLnGL	0.95	(0.02)	(0.98)	7.69	1.35	40%	40%	0.04	0.13	0.04	0.15	0.05	0.20	
Val	Sales / EV	0.87	0.36	(0.51)	3.08	3.11	56%	38%	0.03	0.25	0.05	0.43	0.07	0.58	
Val	OCF / Price	0.83	0.38	(0.44)	3.78	2.40	53%	46%	0.03	0.28	0.06	0.54	0.06	0.58	
Sz	Log Market Cap	0.82	0.48	(0.34)	4.80	1.87	47%	43%	0.02	0.11	0.05	0.32	0.07	0.46	
EQ	NonPerfAstResLnLs	0.69	(0.06)	(0.75)	5.55	1.36	43%	42%	0.03	0.11	0.05	0.20	0.08	0.36	
Val	NCF / EV	0.67	0.45	(0.23)	2.97	2.48	57%	41%	0.03	0.32	0.06	0.60	0.08	0.82	
PM	1M Price High Low	0.66	0.33	(0.33)	3.99	1.82	55%	46%	0.02	0.16	0.01	0.07	0.01	0.08	
Val	CurliaP	0.66	0.41	(0.25)	4.50	1.61	57%	48%	0.02	0.19	0.05	0.33	0.07	0.43	
Val	Valuation	0.63	0.36	(0.26)	3.76	1.83	58%	48%	0.03	0.22	0.05	0.38	0.05	0.38	
EQ	Value_Qua_Comp	0.62	0.22	(0.40)	4.00	1.70	62%	41%	0.02	0.29	0.03	0.33	0.03	0.29	
Val	Quality_VL_Comp	0.62	0.36	(0.26)	2.27	2.99	66%	45%	0.02	0.30	0.04	0.49	0.04	0.51	
Sz	Size	0.62	0.32	(0.30)	3.59	1.90	50%	42%	0.01	0.08	0.03	0.28	0.04	0.36	
PM	PM_Model_Comp	0.62	0.29	(0.33)	3.11	2.19	62%	40%	0.03	0.23	0.02	0.17	0.03	0.33	
Val	Sales / Price	0.62	0.40	(0.21)	4.64	1.46	51%	45%	0.02	0.16	0.04	0.27	0.06	0.36	
Val	EBITDA / Price	0.62	0.34	(0.28)	3.89	1.74	57%	48%	0.02	0.17	0.04	0.32	0.06	0.40	
Val	Value_VL_Comp	0.59	0.27	(0.32)	2.91	2.21	64%	40%	0.02	0.29	0.03	0.44	0.03	0.41	
PM	Value_PM_Comp	0.57	0.11	(0.46)	3.15	1.97	56%	34%	0.02	0.20	0.02	0.17	0.03	0.35	
CE	Receivables Turnover	0.56	0.20	(0.35)	2.97	2.06	60%	36%	0.02	0.20	0.04	0.39	0.05	0.50	
Val	Ind Rel OCF / EV	0.56	0.42	(0.14)	2.15	2.84	59%	40%	0.02	0.34	0.04	0.67	0.05	0.72	
Val	Ind Rel OCF / Price	0.55	0.39	(0.16)	2.98	2.03	57%	48%	0.02	0.25	0.04	0.47	0.04	0.51	
Val	5Y Rel Fwd FCF / Price	0.55	0.33	(0.22)	2.34	2.55	61%	44%	0.02	0.25	0.05	0.76	0.06	0.88	
Val	NCF / Price	0.55	0.42	(0.13)	3.32	1.81	58%	43%	0.03	0.24	0.05	0.43	0.07	0.55	
PM	PM_LT_Comp	0.55	0.27	(0.28)	3.89	1.54	60%	45%	0.02	0.19	0.02	0.12	0.04	0.30	
AE	DispFY2EPS	0.51	0.42	(0.09)	5.56	1.00	56%	49%	0.02	0.08	0.04	0.20	0.08	0.38	
Val	Div / Price	0.47	0.28	(0.19)	4.42	1.16	52%	48%	0.01	0.06	0.04	0.20	0.03	0.23	
CE	Value_FH_Comp	0.47	0.43	(0.03)	2.12	2.40	63%	52%	0.02	0.26	0.03	0.40	0.04	0.55	

Time Period: Select a time frame over which to view the data. The results will show the average for this period.

Style: Each factor is categorized based on a specific category or style.

Factor: The top 30 factors are pulled from the entire Alpha Factor Library. Mouse-over any factor to view a visual representation of the factor performance over the last 12 months.

Quant Calendar

The Quant Calendar displays three months of daily data based on the performance of each style indicator. The last column on the calendar provides week-to-date performance for the previous five days.

The screenshot shows a 'Quant Calendar' interface for November 2011. At the top, there are navigation buttons (Back, Forward, Factor Search), a Market Snapshot link, and a breadcrumb trail: Quant Calendar \ Regime Monitor \ Monthly Report. Below this is a header row with dropdown menus for INDEX (S&P 500), SECTOR (Cross Sectional), STATISTICS (Return Spread, Eqt wgt, Cap wgt), DISPLAY (Style Composites, All Factors), and ORDER (Top, Bottom). The main area is a grid of data. The columns represent dates from Oct 31 to Nov 18. The rows represent different stock styles: Capital Efficiency, Earnings Quality, Analyst Expect, Historical Growth, Price Momentum, Size, Valuation, and Volatility. Each cell contains a value followed by a percentage sign and an upward arrow, indicating growth. The last column of each row shows a 'Week-to-Date' summary for the previous five days.

1 Index: Select an index, region or country benchmark from the dropdown list.

2 Sector: Select a sector of stocks to be analyzed. Click the dropdown to screen on Cross Sectional, Sector Neutral, or an individual GICS sector of stocks (e.g., Energy, Financials, and Health Care).

3 Statistics:

a Select Return Spread, Q1 Active Return or Q5 Active Return.

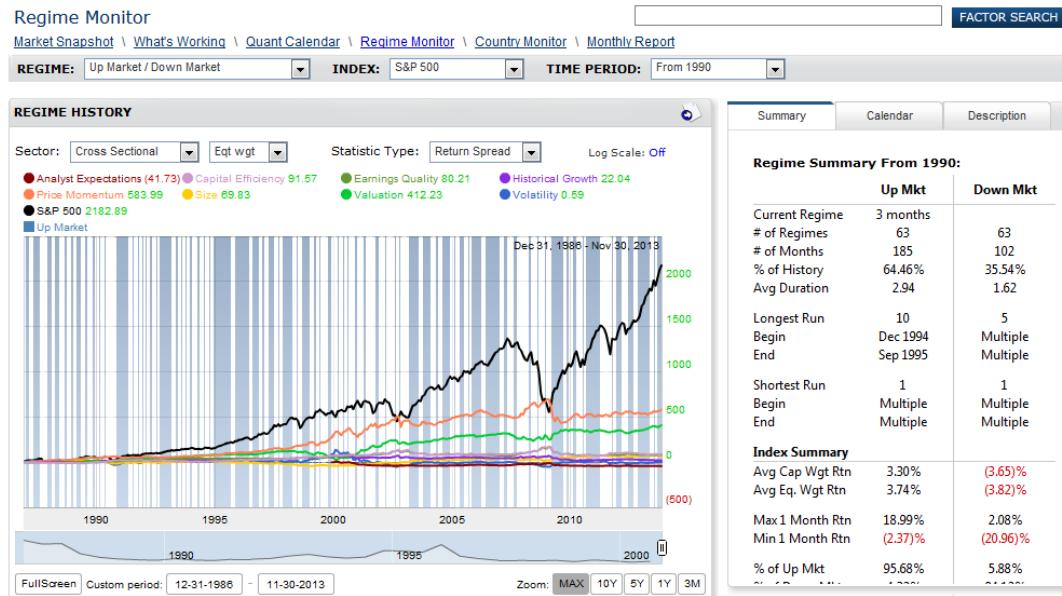
b Select Eqt wgt (Equal-weighted) or Cap wgt (Capitalization-weighted) returns.

4 Display: Select which factor(s) you would like to view. Click the dropdown list to select All Factors, Style Composites, or an individual style (e.g., Price Momentum, Historical Growth, and Analyst Expectations). Click on any factor on any given day to view a visual representation of the factor performance over the last 30 days.

5 Order: Select how you would like the data to be presented, either from best to worst (Top), or from worst to best (Bottom).

Regime Monitor

The Regime Monitor section examines the impact of various cycles on factor performance by providing a comparative view of factors and styles. It is designed to examine the relationship between current and past regimes. You may select from over thirty market, economic, political and calendar-based periods or create your own.



Regime: Select desired time frame from dropdown list.

Index: Select an index, country, or region benchmark from the dropdown list.

Time Period: Select a time frame over which to view the data. The results will show the average for this period.

Statistic Type: Select Return Spread, Q1 Abs Return, or Q5 Abs Return. Note that this option only affects the displayed chart.

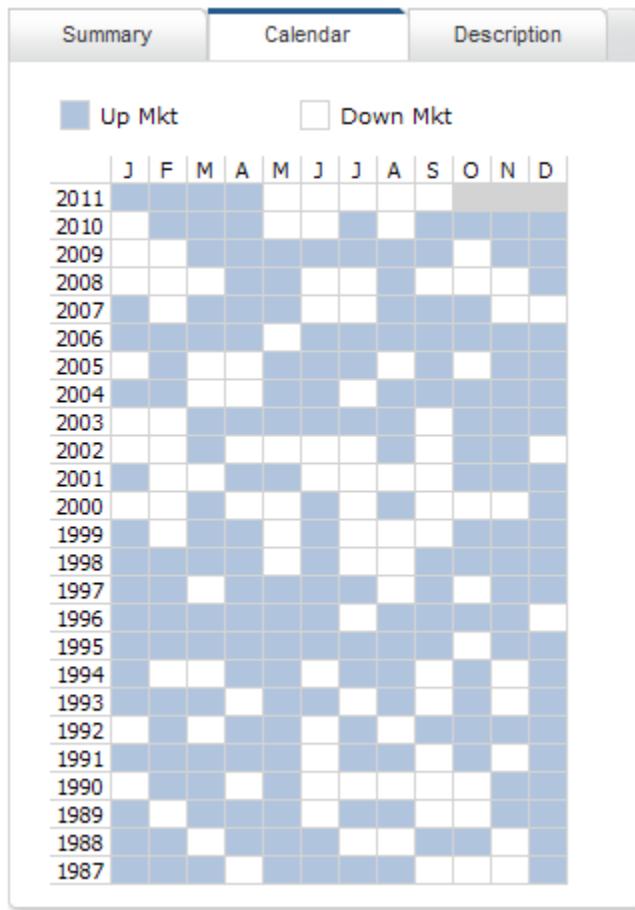
Summary

The Summary tab on the top right part of the page shows how the current regime measures up to its counterpart since 1990.

Summary	Calendar	Description
Regime Summary From 1990:		
	Up Mkt	Down Mkt
Current Regime		5 months
# of Regimes	57	58
# of Months	165	96
% of History	63.22%	36.78%
Avg Duration	2.89	1.66
Longest Run	10	5
Begin	Dec 1994	Multiple
End	Sep 1995	Multiple
Shortest Run	1	1
Begin	Multiple	Multiple
End	Multiple	Multiple
Index Summary		
Avg Cap Wgt Rtn	3.77%	(3.07)%
Avg Eq. Wgt Rtn	3.63%	(3.99)%
Max 1 Month Rtn	17.95%	2.05%
Min 1 Month Rtn	(2.28)%	(21.24)%
% of Up Mkt	95.15%	5.21%
% of Down Mkt	4.85%	94.79%

Calendar

The Calendar tab indicates the regime composition.



Description

The Description tab provides the definition of the two modes of the selected regime.



Summary

The Summary section in the Regime Monitor displays factor performance by portfolio in different regimes.

Summary		Current v. Hist																					
Display:		All Factors		Order:		Top		Sector:		Cross Sectional		Portfolio:											
Up Market																							
Style	Factor	Q1▼	Q5	Sprd%	Ann Sprd%	Q1 Hit	Q5 Hit	Avg IC	Best IC	Worst IC	IC T-Stat	%Pos IC											
AE	ESurprise	5.86	6.53	(0.67)	(7.77)	40.35	42.11	0.03	1.00	(1.00)	0.60	34.48											
Vol	Volatility	5.80	2.25	3.55	52.04	87.27	86.06	0.10	0.66	(0.39)	6.57	72.73											
AE	Ind Rel ESurprise	5.61	5.32	0.30	3.64	96.00	92.00	0.00	0.06	(0.06)	0.53	46.15											
Vol	12M Realized Volatility	5.40	2.33	3.08	43.88	87.88	89.09	0.09	0.60	(0.36)	5.97	69.09											
Vol	60M CAPM Beta	5.37	2.42	2.95	41.78	88.48	87.88	0.09	0.64	(0.38)	7.24	71.52											
Vol	1MVOL	5.21	2.47	2.74	38.31	88.48	90.30	0.07	0.59	(0.36)	5.61	67.88											
Vol	90DCV	5.18	2.70	2.48	34.17	88.48	92.73	0.06	0.60	(0.32)	5.03	64.85											
PM	Share Turnover	5.12	2.58	2.54	35.09	90.30	89.09	0.07	0.40	(0.31)	6.07	72.73											
AE	DispFY2EPS	5.07	2.67	2.40	32.95	90.30	87.88	0.08	0.46	(0.27)	7.16	72.12											
EQ	R&D Intensity	5.01	3.50	1.51	19.68	84.24	88.48	0.03	0.39	(0.33)	2.70	56.36											
PM	6 Months Price Momentum	4.87	3.38	1.49	19.44	88.48	89.70	0.04	0.62	(0.48)	2.85	57.58											
AE	DispFY1EPS	4.83	2.84	1.99	26.72	88.48	87.27	0.06	0.41	(0.27)	6.36	70.30											
Val	Cash / EV	4.81	2.98	1.82	24.23	92.12	92.12	0.06	0.33	(0.21)	7.46	69.09											
AE	Ind Rel SUE	4.80	5.87	(1.07)	(12.11)	100.00	96.00	0.02	0.07	(0.13)	(2.45)	26.92											
Val	Cash to Adj EV	4.78	2.88	1.90	25.35	88.48	92.12	0.06	0.35	(0.21)	6.70	68.48											
Down Market																							
Style	Factor	Q1▼	Q5	Sprd%	Ann Sprd%	Q1 Hit	Q5 Hit	Avg IC	Best IC	Worst IC	IC T-Stat	%Pos IC											
PM	Max Return in 6 Months	(2.23)	(6.06)	3.83	57.06	18.75	4.17	0.14	0.49	(0.37)	9.15	87.50											
Vol	130DMlnRtn	(2.24)	(6.12)	3.88	57.86	18.75	7.29	0.13	0.51	(0.36)	8.76	82.29											
PM	CVVolPrc60D	(2.31)	(6.16)	3.84	57.20	19.79	5.21	0.13	0.52	(0.31)	8.56	81.25											
PM	CVVolPrc30D	(2.32)	(6.32)	4.00	60.07	20.83	3.13	0.13	0.53	(0.24)	9.39	87.50											
PM	24M Residual Var	(2.45)	(6.20)	3.76	55.70	17.71	8.33	0.14	0.42	(0.38)	8.78	80.21											
PM	CVVolPrc20D	(2.47)	(6.21)	3.74	55.30	16.67	5.21	0.13	0.48	(0.21)	9.47	83.33											
PM	52WvekHigh	(2.65)	(6.54)	3.89	58.11	14.58	9.38	0.12	0.55	(0.38)	6.20	76.04											
PM	STO_6M	(2.70)	(6.55)	3.85	57.36	20.90	8.96	0.12	0.40	(0.40)	6.26	76.12											
EQ	ChgNonPerfLnGL	(2.79)	(4.58)	1.79	23.70	26.09	23.19	0.08	1.00	(1.00)	1.85	56.52											
Val	Dividends / CF	(2.80)	(5.11)	2.31	31.58	19.79	4.17	0.10	0.42	(0.30)	7.45	79.17											
PM	PM_LT_Comp	(2.82)	(5.07)	2.25	30.63	19.79	6.25	0.09	1.00	(0.22)	5.58	71.88											
PM	52WvekHighLow	(2.86)	(5.44)	2.59	35.90	14.58	13.54	0.08	0.50	(0.43)	4.22	68.75											
EQ	Cash Burn Rate	(2.88)	(4.63)	1.75	23.13	17.71	3.13	0.08	0.23	(0.18)	9.50	86.46											
EQ	ChgChgOfftoGL	(2.88)	(5.08)	2.19	29.73	28.99	17.39	0.10	1.00	(1.00)	2.56	56.52											
EQ	WC / Total Assets	(2.91)	(4.89)	1.98	26.53	18.75	10.42	0.08	0.42	(0.26)	5.65	71.88											

Display: Select which factor(s) you would like to view. Click the dropdown to select All Factors, Style Composites, or an individual style (e.g., Price Momentum, Historical Growth, and Analyst Expectations).

Order: Select how you would like the data to be presented, either from best to worst (Top), or from worst to best (Bottom). Click the headers in the table to sort the results by corresponding column.

Sector: Select a sector of stocks to be analyzed. Click the dropdown to screen on Cross Sectional, Sector Neutral, or an individual GICS sector of stocks (e.g., Energy, Financials, and Health Care).

Portfolio: Select the measure of portfolio performance you would like to view. Click the dropdown to select either Absolute Return or Active Return.

Current vs. Historical

The Current vs. Historical section in the Regime Monitor displays current and historical factor performance by portfolio.

		Summary		Current v. Hist									
		Display:		Order:		Sector:		Portfolio:					
Style	Factor	DOWN MARKET TO DATE						HISTORICAL					
		Q1▼	Q5	Sprd%	Ann Sprd%	Avg IC	%Pos IC	Q1	Q5	Sprd%	Ann Sprd%	Avg IC	%Pos IC
Vol	130DMinRtn	(1.28)	(6.46)	5.18	83.34	0.27	1.00	(2.30)	(6.10)	3.81	56.56	0.13	0.81
Val	Indicated Div / Price	(1.52)	(5.86)	4.34	66.49	0.21	0.80	(4.13)	(3.92)	(0.21)	(2.44)	0.04	0.62
PM	Max Return in 6 Months	(1.67)	(5.18)	3.51	51.28	0.18	0.80	(2.26)	(6.11)	3.85	57.38	0.14	0.88
PM	CVVolPrc60D	(1.72)	(6.86)	5.14	82.39	0.24	1.00	(2.35)	(6.12)	3.77	55.91	0.12	0.80
Val	Div / Price	(1.74)	(6.15)	4.41	67.80	0.22	1.00	(3.25)	(4.99)	1.74	23.00	0.09	0.73
PM	52WeekHigh	(1.76)	(7.02)	5.27	85.16	0.27	1.00	(2.70)	(6.51)	3.82	56.74	0.11	0.75
PM	24M Residual Var	(1.83)	(6.09)	4.25	64.84	0.23	1.00	(2.48)	(6.21)	3.73	55.21	0.13	0.79
PM	CVVolPrc30D	(1.85)	(6.57)	4.73	74.04	0.24	1.00	(2.35)	(6.31)	3.96	59.34	0.12	0.87
PM	CVVolPrc20D	(2.19)	(6.39)	4.20	63.76	0.21	1.00	(2.49)	(6.20)	3.71	54.84	0.12	0.82
Val	Dividends / CF	(2.43)	(5.53)	3.10	44.30	0.16	1.00	(2.82)	(5.09)	2.27	30.91	0.10	0.78
PM	PSlopeSERR_26W	(2.46)	(6.31)	3.85	57.35	0.21	0.80	(3.35)	(5.08)	1.72	22.78	0.04	0.67
Val	5Y Rel NCF / EV	(2.56)	(4.43)	1.87	24.91	0.10	1.00	(3.89)	(4.47)	0.59	7.27	0.02	0.60
PM	52WHighLow	(2.63)	(6.17)	3.54	51.87	0.20	1.00	(2.87)	(5.40)	2.54	35.07	0.07	0.67
Val	5Y Rel NCF / Price	(2.67)	(4.02)	1.34	17.37	0.08	0.80	(4.11)	(4.50)	0.39	4.80	0.01	0.54
EQ	WC / Sales	(2.69)	(3.97)	1.28	16.54	0.08	1.00	(3.02)	(5.28)	2.25	30.68	0.08	0.74
PM	10DMACD	(2.71)	(6.83)	4.13	62.43	0.18	0.80	(3.64)	(5.54)	1.90	25.34	0.04	0.62
CE	ROIC	(2.76)	(5.55)	2.78	38.99	0.15	1.00	(3.44)	(5.22)	1.78	23.54	0.06	0.73
EQ	Ind Rel Profit Margin	(2.77)	(5.51)	2.75	38.44	0.12	0.80	(3.42)	(4.48)	1.06	13.52	0.04	0.67
PM	180D Price TStat	(2.77)	(5.44)	2.67	37.20	0.15	0.80	(3.28)	(5.13)	1.86	24.69	0.05	0.67
EQ	Cash Burn Rate	(2.84)	(5.42)	2.58	35.78	0.13	1.00	(2.88)	(4.58)	1.70	22.46	0.07	0.86
HG	EPS Stability	(2.85)	(3.63)	0.78	9.74	0.07	1.00	(3.64)	(4.49)	0.85	10.70	0.03	0.66
EQ	WC / Total Assets	(2.87)	(3.80)	0.93	11.70	0.06	0.80	(2.91)	(4.95)	2.04	27.40	0.08	0.71
CE	Ind Rel Int Cov	(2.90)	(4.86)	1.96	26.16	0.11	0.80	(3.17)	(4.24)	1.07	13.57	0.03	0.66
CE	ROA	(2.91)	(6.13)	3.21	46.18	0.16	1.00	(3.46)	(5.26)	1.81	23.95	0.07	0.70
EQ	Operating Earning / Asset	(2.92)	(6.31)	3.40	49.29	0.14	1.00	(3.58)	(5.29)	1.71	22.55	0.06	0.66
CE	Q Ratio	(2.96)	(5.37)	2.41	33.02	0.12	1.00	(3.93)	(4.38)	0.45	5.51	0.02	0.54
CE	Capital Efficiency	(2.98)	(5.86)	2.88	40.60	0.13	0.80	(3.28)	(5.26)	1.99	26.62	0.06	0.71
EQ	Cash / Sales	(3.06)	(5.42)	2.36	32.28	0.12	1.00	(3.19)	(5.31)	2.12	28.58	0.08	0.71
CE	Receivables Turnover	(3.07)	(5.97)	2.90	40.96	0.19	1.00	(3.10)	(4.54)	1.44	18.74	0.05	0.69
CE	Growth_CapEff_Comp	(3.08)	(5.59)	2.50	34.51	0.11	1.00	(3.40)	(5.04)	1.64	21.56	0.06	0.76
CE	Quality_OE_Comp	(3.09)	(4.95)	1.86	24.81	0.10	1.00	(3.05)	(4.74)	1.70	22.35	0.06	0.77
PM	26W RSI	(3.09)	(6.30)	3.21	46.15	0.15	0.80	(3.56)	(5.75)	2.19	29.66	0.05	0.64
EQ	Ind Rel Op Margin	(3.10)	(5.56)	2.46	33.85	0.11	0.80	(3.58)	(4.38)	0.80	10.04	0.03	0.62
EQ	ChgSalestoChgEPS	(3.12)	(6.43)	3.31	47.80	0.18	1.00	(3.11)	(5.18)	2.07	27.92	0.08	0.80

Display: Select which factor(s) you would like to view. Click the dropdown to select All Factors, Style Composites, or an individual style (e.g., Price Momentum, Historical Growth, and Analyst Expectations).

Order: Select how you would like the data to be presented, either from best to worst (Top), or from worst to best (Bottom). Click the headers in the table to sort the results by corresponding column.

Sector: Select a sector of stocks to be analyzed. Click the dropdown to screen on Options are Cross Sectional, Sector Neutral, or an individual GICS sector of stocks (e.g., Energy, Financials, and Health Care).

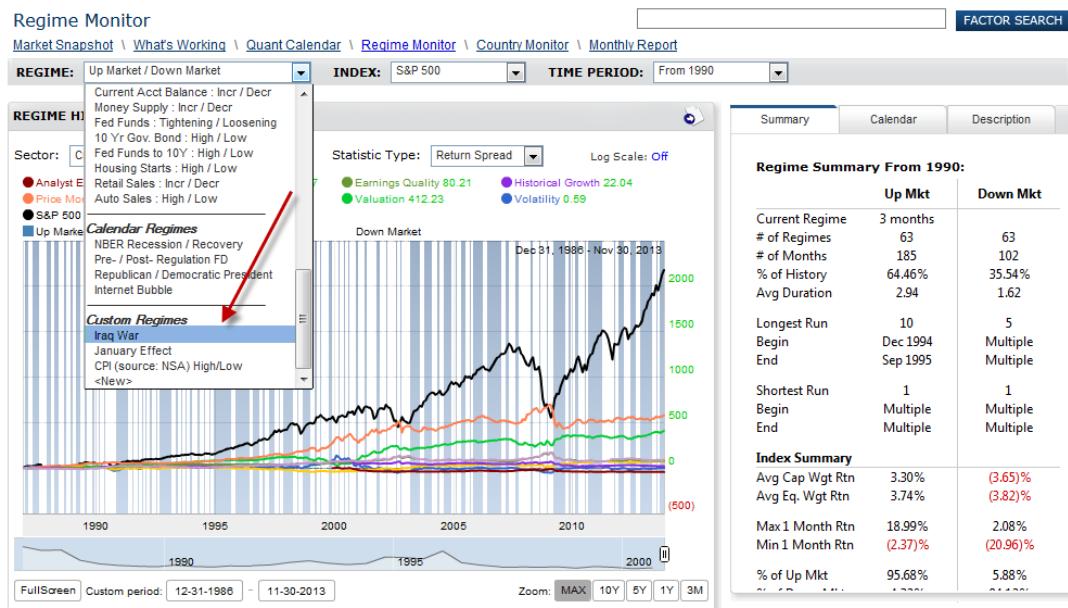
Portfolio: Select the measure of portfolio performance you would like to view. Click the dropdown to select either Absolute Return or Active Return.

Creating Custom Regimes

To create a custom regime:

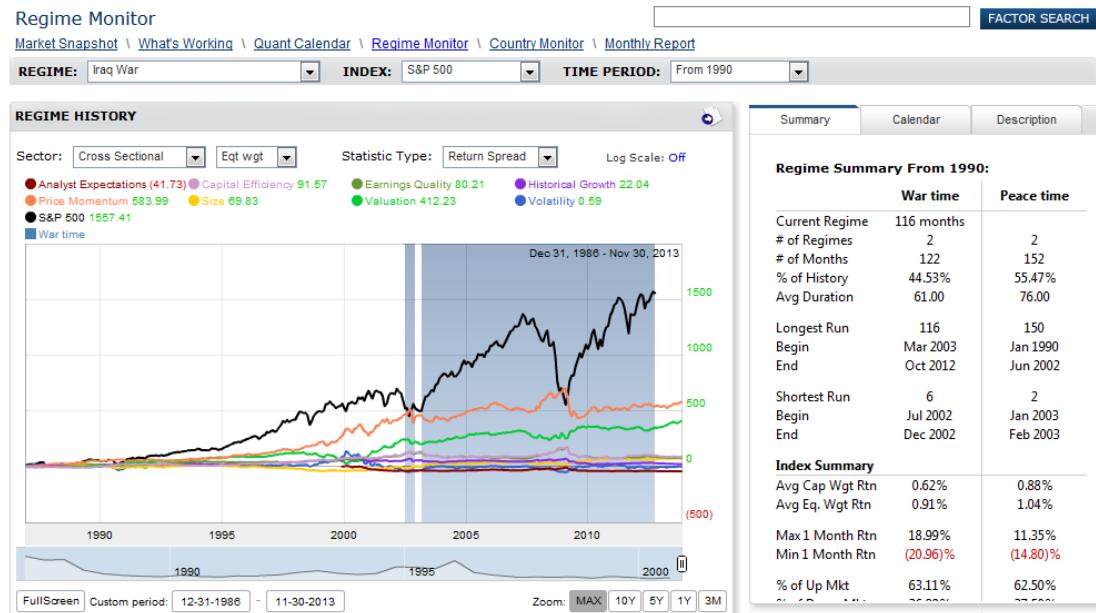
1. At the bottom of the Regime dropdown:
 - a. Select **New**. (Alternatively, follow the steps at [Custom Regimes](#).)
2. On the Regime Editor Dialog:
 - a. In ***Regime Name**, type a regime name.
 - b. In ***Regime 1**, type a label for the regime.
 - c. In ***Regime 2**, type a label for the regime.
 - d. Select the color box for a regime.
 - e. Click the color box (or drag) and drop it in the Calendar, in the cells that represent the timing of the regime.
3. Click **Save** or **Cancel** when finished.

To view your custom regime, access the Regime Monitor function, scroll to the bottom of the Regime menu and select your custom regime.



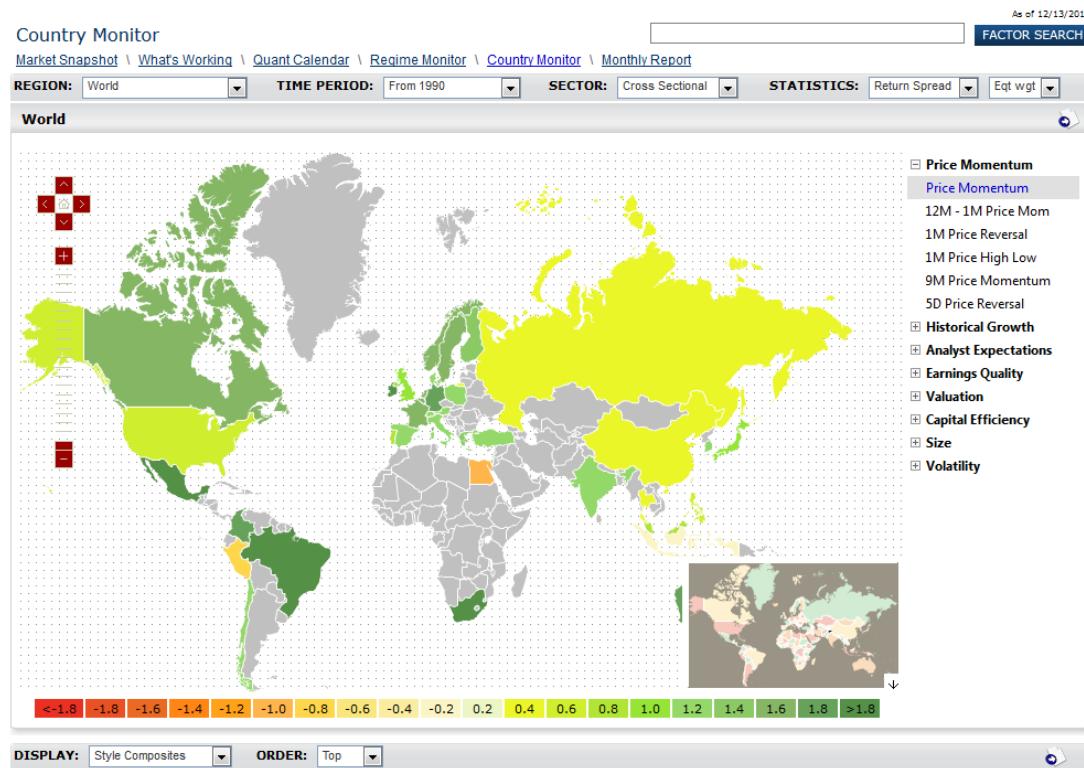
Details for the regime (as indicated by the blue and white background) are displayed.

Alpha Factor Library User Guide



Country Monitor

The Country Monitor section displays factor data for countries in a particular geographical region. You may select from 12 different regions.



Region: Select a region from the dropdown list.

Time Period: Select the time period for which you would like to view style composites for each country in the region.

Sector: Select a sector of stocks to be analyzed. Click the dropdown to choose whether to view data calculated on a Cross Sectional or Sector Neutral basis, or to view data for an individual GICS sector of stocks (e.g., Energy, Financials, and Health Care).

Statistics:

- Select Return Spread, Q1 Active Return or Q5 Active Return.
- Select Eqt wgt (Equal-weighted) or Cap wgt (Capitalization-weighted) returns.

Display: Select which factor(s) you would like to view. Click the dropdown to select All Factors, Style Composites or an individual style (e.g., Price Momentum, Historical Growth, and Analyst Expectations). Click on any factor to view a visual representation of the factor performance for each country in the region selected.

Order: Select how you would like the data to be presented, either from best to worst (Top), or from worst to best (Bottom).

Monthly Report

The Monthly Report section provides a view of factor performance for the last 12 months.

Monthly Report

Market Snapshot \ What's Working \ Quant Calendar \ Regime Monitor \ [Monthly Report](#)

MONTH:	Oct 2011	INDEX:	S&P 500	SECTOR:	Cross Sectional
--------	----------	--------	---------	---------	-----------------

FACTOR SEARCH

Month: Select the desired month.

Index: Select an index, region or country benchmark from the dropdown list.

Sector: Select a sector of stocks to be analyzed. Click the dropdown to choose whether to view data calculated on a Cross Sectional or Sector Neutral basis, or to view data for an individual GICS sector of stocks (e.g., Energy, Financials, and Health Care).

IC (Information Coefficient) Summary

The IC Summary tab displays information on the average information coefficients.

Monthly Report

Market Snapshot \ What's Working \ Quant Calendar \ Regime Monitor \ [Monthly Report](#)

MONTH:	Oct 2011	INDEX:	S&P 500	SECTOR:	Cross Sectional
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FACTOR SEARCH

IC Summary

Average 1M Rank IC

Since Inception

	Ordering	Current # of Stocks	Oct 2011	3-Month	6-Month	1-Year	3-Year	Avg IC	Std Dev	Min	Max	T-Stat	% Positive
12M minus 1M Price Mom	Desc	498	(0.09)	(0.03)	0.01	(0.01)	(0.05)	0.02	0.18	(0.66)	0.49	1.67	57.72
1M Price Momentum	Asc	500	0.54	0.02	(0.03)	(0.02)	0.01	0.01	0.15	(0.40)	0.54	1.60	49.66
9M Price Momentum	Desc	499	(0.46)	(0.04)	(0.02)	(0.02)	(0.06)	0.00	0.18	(0.65)	0.58	0.21	52.68
Ind Rel 1M Price Mom	Asc	500	0.31	(0.00)	(0.01)	(0.01)	0.01	0.02	0.09	(0.24)	0.31	5.02	62.75
Ind Rel 5D Price Mom	Asc	500	0.08	0.06	0.04	0.02	0.03	0.04	0.07	(0.15)	0.23	8.92	73.49
Price Momentum	Asc	500	0.15	(0.01)	(0.02)	(0.03)	(0.01)	0.03	0.12	(0.43)	0.45	4.61	61.74
1Y Chg FCF / Assets	Desc	452	(0.04)	0.02	(0.02)	(0.01)	(0.01)	0.01	0.06	(0.15)	0.19	4.07	60.74
1Y Chg OCF / Assets	Desc	485	0.07	0.02	(0.02)	(0.03)	(0.01)	0.01	0.13	(1.00)	1.00	0.67	55.04
1Y Chg Sales Turnover	Desc	484	0.23	(0.01)	(0.03)	(0.00)	(0.00)	0.00	0.09	(0.30)	0.29	0.94	50.67
Sustainable Growth	Desc	499	0.05	0.03	0.05	0.01	(0.01)	0.01	0.12	(0.37)	0.27	1.60	57.72
1Y Chg Sales / Price	Desc	497	0.18	(0.00)	(0.00)	0.02	0.02	0.01	0.10	(0.37)	0.30	1.26	53.69
Historical Growth	Asc	500	0.19	0.02	0.00	0.00	0.01	0.02	0.10	(0.36)	0.29	2.56	59.40
Long Term Growth	Desc	496	0.36	(0.05)	(0.05)	0.01	0.02	0.00	0.16	(0.45)	0.41	0.17	51.01
Analyst Diffusion	Desc	498	(0.18)	0.02	0.02	0.01	(0.02)	0.02	0.11	(0.35)	0.31	2.88	57.72
SUE	Desc	497	0.08	0.02	0.00	(0.01)	(0.01)	0.01	0.39	(1.00)	1.00	0.34	67.39
Num FY1 EPS Revisions	Desc	500	(0.20)	0.02	0.02	0.00	(0.02)	0.02	0.12	(0.37)	0.33	2.87	56.38
Inverse PEG	Desc	495	0.41	(0.10)	(0.11)	(0.01)	0.00	0.02	0.14	(0.38)	0.44	2.41	56.71
Analyst Expectation	Asc	500	0.16	(0.00)	(0.02)	0.01	(0.01)	0.02	0.12	(0.31)	0.33	3.04	57.72
Cash Conversion Cycle	Asc	485	(0.06)	(0.01)	0.01	0.01	(0.01)	0.00	0.09	(0.22)	0.28	0.34	51.34
Net Profit Margin	Desc	485	(0.01)	0.07	0.05	0.00	(0.03)	0.00	0.13	(0.35)	0.39	0.60	50.34
WC Accruals	Asc	485	(0.07)	(0.04)	(0.02)	(0.02)	0.01	0.01	0.08	(0.18)	0.23	2.62	55.37
TTM Depr to Capex	Asc	434	(0.21)	0.03	0.05	0.02	(0.01)	0.01	0.08	(0.21)	0.25	2.62	56.38
Cap Investment to Assets	Asc	483	0.03	0.02	(0.01)	(0.01)	0.00	0.01	0.09	(0.26)	0.26	1.58	56.04
Earnings Quality	Asc	485	(0.12)	0.02	0.03	0.00	(0.01)	0.02	0.09	(0.22)	0.34	3.10	53.69

Annual Returns

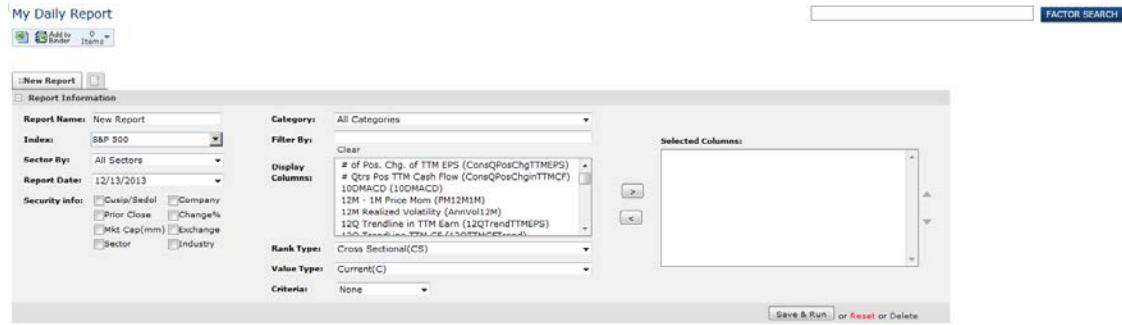
The Annual Returns tab displays information on average annual returns for factors and factor categories.

Monthly Report

Market Snapshot \ What's Working \ Quant Calendar \ Regime Monitor \ Monthly Report											FACTOR SEARCH			
MONTH:	Oct 2011	INDEX:	S&P 500	SECTOR:	Cross Sectional									
IC Summary		Ann Returns												
		Oct 2011	YTD	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	Avg Annualized
12M minus 1M Price Mom		(2.35)	(4.66)	(8.77)	(56.20)	10.72	24.67	(9.74)	24.70	(1.10)	(23.42)	21.67	(20.14)	2.83
1M Price Momentum		13.10	(0.59)	10.82	(1.46)	(13.73)	(23.28)	(1.84)	(1.18)	8.07	2.47	7.22	35.88	2.63
9M Price Momentum		(10.06)	(7.10)	(14.62)	(57.41)	16.65	36.79	(7.60)	19.93	(1.61)	(4.52)	(7.16)	(36.41)	(0.78)
Ind Rel 1M Price Mom		7.96	(1.37)	7.87	7.52	(16.49)	(12.96)	1.29	0.96	5.89	(2.17)	22.82	13.57	5.60
Ind Rel 5D Price Mom		1.28	6.76	12.73	11.29	(3.39)	(7.02)	7.26	(2.24)	6.43	7.34	12.67	8.61	10.60
Price Momentum		4.08	(3.95)	1.90	(40.71)	(6.30)	4.11	(1.98)	17.40	3.71	(9.77)	20.55	(1.31)	6.76
1Y Chg FCF / Assets		(0.57)	(3.15)	(2.20)	(16.93)	(6.33)	(0.80)	(5.08)	8.12	7.75	2.20	19.08	17.33	5.10
1Y Chg OCF / Assets		3.19	(3.06)	2.92	(18.89)	(3.19)	9.31	(6.74)	11.85	9.89	(3.81)	10.55	(7.66)	2.32
1Y Chg Sales Turnover		6.46	(3.95)	10.01	(6.37)	0.75	(6.42)	2.78	(3.46)	0.38	3.81	22.89	1.48	1.78
Sustainable Growth		1.10	4.86	(4.69)	(24.42)	8.31	20.69	(8.67)	3.24	0.82	(22.09)	12.26	(2.06)	0.03
1Y Chg Sales / Price		4.95	5.61	6.71	(1.48)	5.40	3.27	(2.90)	10.11	5.67	(14.12)	14.98	4.09	1.26
Historical Growth		3.31	3.75	(0.80)	(12.63)	8.18	7.30	(4.36)	10.73	8.78	(14.64)	21.54	3.93	3.08
Long Term Growth		9.84	(1.39)	7.99	6.56	(22.27)	15.59	(13.83)	5.12	(8.08)	25.84	(26.16)	(31.76)	(0.21)
Analyst Diffusion		(3.75)	0.93	(11.17)	(23.13)	11.95	21.77	(6.19)	9.91	4.82	(8.53)	(6.52)	(27.25)	3.75
SUE		1.30	0.45	(7.76)	(25.72)	(13.24)	-	-	-	-	-	-	-	(11.40)
Num FY1 EPS Revisions		(2.79)	0.37	(4.65)	(20.89)	9.54	24.20	(5.42)	17.55	0.94	(8.67)	2.90	(25.54)	4.10
Inverse PEG		10.30	(6.20)	5.39	(3.35)	(14.43)	5.35	(4.59)	17.93	0.91	(3.86)	14.60	42.75	3.59
Analyst Expectation		4.19	2.59	2.91	(23.72)	(8.21)	26.77	(13.64)	15.29	2.06	0.08	(3.86)	(14.64)	4.45
Cash Conversion Cycle		(0.32)	2.68	0.62	(10.79)	9.61	(0.05)	(1.46)	0.82	5.68	(3.33)	5.71	(5.18)	1.09
Net Profit Margin		(0.84)	6.53	(5.53)	(33.10)	19.57	6.29	(6.93)	0.90	(2.92)	(23.80)	11.21	(4.80)	(0.88)
WC Accruals		(0.73)	(5.02)	(2.15)	16.76	5.78	8.41	(1.35)	3.78	7.71	10.65	(3.77)	14.64	5.68
TTM Depr to Capex		(4.99)	1.42	(0.04)	(16.35)	16.03	0.38	8.62	(1.90)	1.88	(4.76)	14.18	(0.93)	2.13
Cap Investment to Assets		(0.14)	(0.73)	1.15	5.78	(5.59)	(23.18)	6.38	(13.84)	(6.62)	15.84	8.74	29.63	3.54
Earnings Quality		(3.41)	6.05	(9.55)	(31.89)	31.34	(2.93)	4.29	(1.29)	1.89	(9.50)	17.74	10.76	5.13

My Daily Report

The My Daily Report section provides a daily view of factor performance.



You can create a report to include the following information:

Report Name: Name the report.

Index: Select an index, region or country benchmark from the dropdown list.

Sector By: Select a sector of stocks to be analyzed. Click the dropdown to include All Sectors or an individual GICS sector of stocks (e.g., Energy, Financials, and Healthcare).

Report Date: Refers to the date for which you wish to see a factor's performance in the report.

Security info: Check the identifier(s) by which the securities will be identified.

Category: Change this dropdown to view only factors within a specific style.

Display Columns: Select factors you wish to add to your report.

Use the forward arrow to add the selected columns to your list of selected columns.

Use the back arrow to remove columns from your list of selected columns.

Rank Type: Options are Cross Sectional (CS) or Sector Neutral (SN).

Value Type: Options are Current (C), 1 day change($\Delta 1$), 5 day change($\Delta 5$), 10 day change($\Delta 10$), 1 month change($\Delta 1M$)

Criteria: Select a relation and input a value in order to filter your report results based on the factor value or the change in factor value.

Screening & Analysis

The **Screening & Analysis** function acts as a mini-reporting tool for screening factors and comparing results. It allows you to research several factors at one time. This section is divided into three parts: Screening, Comparison, and Scatterplot. The following pages will explain the details of each section.



Screening

The Screening section enables you to filter factors by several criteria at one time.

The screenshot shows the Alpha Factor Library Screening interface. At the top, there is a toolbar with a search bar and a 'FACTOR SEARCH' button. Below the toolbar, the 'SCREENING' tab is selected. The main area is divided into three sections:

- SCREENING OPTIONS:** This panel contains dropdown menus for 'SCREEN:' (set to '<New>'), 'INDEX:' (set to 'S&P 500'), 'GROUP BY:' (set to 'Off'), and 'TIME PERIOD:' (set to 'From 1990'). A red box labeled '1' highlights the 'SCREEN:' dropdown. To the right of the dropdown is a 'RUN' button and two links: 'view screening options' and 'view display options'. A red box labeled '3' highlights the 'RUN' button.
- Screening Criteria:** This panel lists various screening criteria. A red box labeled '2' highlights the '1M Q1 Rtn (Equal Weight)' item in the list. Below the list are 'add >' and 'remove <' buttons. A red box labeled '4' highlights the '1M Q1 Rtn (Equal Weight) (CS) > 0.01' entry in the criteria list.
- SCREENING RESULTS (Total Matched : 363):** This panel displays a table of results for the S&P 500. The table has columns for factor names and various performance metrics. A red box labeled '4' highlights the 'DISPLAY' dropdown set to 'Top 10' and the 'DESC' dropdown.

	Avg 1M Spread (CS)%	Avg 3M Spread (CS)%	Avg 6M Spread (CS)%	Avg 12M Spread (CS)%	1M IC (CS)	3M IC (CS)	6M IC (CS)	12M IC (CS)	Q1 1M Turnover (CS)%	Avg Index Coverage
OCF / EV	0.87	2.40	4.29	7.01	0.030	0.045	0.061	0.072	24	95%
20D Stochastic Indicator	0.84	0.98	1.06	0.32	0.026	0.023	0.017	(0.003)	160	100%
Value_Comp	0.78	1.92	3.41	5.76	0.033	0.045	0.058	0.068	38	99%
OCF / Price	0.76	2.09	3.91	6.56	0.022	0.035	0.054	0.068	21	95%
1M Price High Low	0.75	0.91	1.17	0.56	0.025	0.024	0.018	(0.001)	162	99%
5D Price Reversal	0.74	1.09	0.83	0.62	0.015	0.025	0.022	0.026	155	100%
FCF / EV	0.73	2.03	3.53	5.21	0.033	0.051	0.066	0.071	22	87%
RskAdjRS	0.73	1.35	0.73	(0.18)	0.034	0.034	0.016	(0.000)	88	99%
ChgNonPerAsttoAst	0.73	1.56	1.47	2.61	0.030	0.041	0.036	0.044	26	5%
Quality_VL_Comp	0.73	1.81	3.00	5.19	0.028	0.040	0.051	0.058	24	100%

1 Start a new screen or open a saved screen

Select **New** if you are creating a new screen or open a saved screen. If you have created and saved screens in the past, they will appear in this list.

Group By: Select how you would like to display your results. Click the dropdown to group either by Sector or Category.

Index: Select an index, region or country benchmark from the dropdown list.

Time Period: Select a time frame over which to view the data. The results will show the average for this period.

2

Screening Options

Use this section to select screening criteria.

Select a statistic **Category** to screen; based on the Category selected, the relevant statistics will appear.

Click the **Add/Remove** buttons to populate the **Screening Criteria** list.

Sector: Select from the dropdown to screen either on a Cross Sectional or Sector Neutral basis.

Value: Select a mathematical operation from the value dropdown for your screen (e.g., greater than, less than, and equal to) and enter a numeric value in the input box for a boundary. The value should be in its raw format where 1% is entered as 0.01.

Click the **New Screen** radio button and enter a name for your screen in the **Name** field, or click the **Replace Screen** radio button replace an existing screen.

Reset: Reset to the last screen entered.

Save: Save your screen for future use.

3

Click RUN when you are ready to begin screening.

4

Screening Results

This area displays the results of the screen.

Screening Results (Total Number Matched): Refers to the number of factors that matched the screen criteria. The number of factors actually displayed is defined by the display option and might not match the total returned number.

Display: Select the number of factors to display, the Top 10, Top 20, Top 50 or All. Also, select to display the factors in either descending (DESC) or ascending (ASC) order.

Comparison

The Comparison section allows you to compare up to ten factors. It is divided into two sections: Summary and By Sector. The following pages will explain the details of each section.

Factor:	short	ADD	MULTI-ADD						
US Price Momentum Model - Short Term (US_PM_ST_Comp)									
Short Interest Ratio (ShortIntRatio)	(0.00)	(0.01)	47.29	51.16	0.01	0.31	(0.38)	0.92	56.15
Short Interest Trading Volume (ShortIntTrdVol)									
Ind Grp Rel Short Interest Ratio (IndRel_ShortIntRatio)									
Ind Grp Rel Short Interest Trading Volume (IndRel_ShortIntTrdVol)									

AVERAGE MONTHLY Q1 & Q5 RETURNS

Index: Select an index, region or country benchmark from the dropdown list.

Time Period: Select a time frame over which to view the data. The results will show the average for this period.

Sector: Select a sector of stocks to be analyzed. Click the dropdown and screen on Cross Sectional, Sector Neutral, or an individual GICS sector of stocks (e.g., Energy, Financials, and Health Care).

Factor: Start typing a factor name or mnemonic to bring up a search of related factors. Once the desired factor is selected, click **ADD** to add it to your comparison. To select multiple factors, click **MULTI-ADD** to open the Factor Selector dialog. You can select up to ten factors from the factor selector. Use the **Add** or **Remove** functions to add or remove factors from your list, respectively.

MULTI-ADD

Focus: All Categories

Factors:

- 10DMACD
- 12M minus 1M Price Mom
- 12M Realized Volatility
- 130DMinRtn
- 14D RSI
- 15 / 36W Price
- 180D Price TStat
- 1M Price High Low
- 1M Price Momentum
- 1MVol
- 1Y Chg FCF / Assets
- 1Y Chg OCF / Assets
- 1Y Chg Sales / Price

Selected Factors:

- ShortIntRatio
- FCF / Equity
- Working Capital to Assets
- 5 Day Price Momentum
- EBIT Margin
- Adj GFP
- Ind Rel Book to Price

ADD

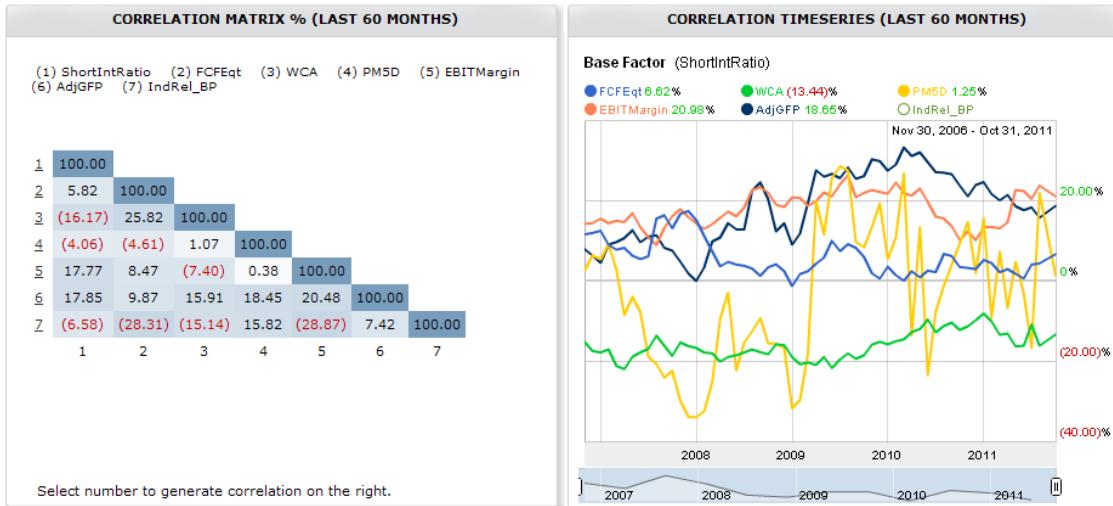
Once all the factors have been selected, the library creates the following data charts showing the results.

Summary Tab

The Summary tab displays factor return data as both a list and graphically.



Alpha Factor Library User Guide



By Sector Tab

The By Sector tab displays factor data comparisons for specific sectors. You may jump directly to a particular sector by clicking on the sector name link under the Factor field.

The screenshot shows a software interface for 'Comparison' under 'Screening'. The top navigation bar includes 'FACTOR SEARCH'. Below it, the 'INDEX' is set to 'S&P 500', 'TIME PERIOD' is 'From 1990', and 'SECTOR' is 'Cross Sectoral'. A tabs section has 'Summary' and 'By Sector' selected. A search bar for 'Factor' with placeholder 'Start typing factor name here...' and buttons for 'ADD' and 'MULTI-ADD' are present. Below this, a 'Jump to:' dropdown lists sectors: Consumer Discr., Consumer Staples, Energy, Financial, Health Care, Industrials, Info Tech, Materials, Telecom, Utilities. The main area contains three tables:

Consumer Discr.												
Style	Factor	Q1	Q5	Spread %	Ann Spread %	Q1 Hit	Q5 Hit	Avg IC	Best IC	Worst IC	IC T-Stat	% Pos IC
PM	ShortIntRatio	1.22	0.88	0.34	4.15	57.28	43.69	0.03	0.46	(0.38)	1.39	52.88
Val	FCF / Equity	1.16	0.69	0.47	5.79	56.87	43.51	0.02	0.47	(0.35)	2.69	57.63
EQ	Working Capital to Assets	0.81	0.95	(0.14)	(1.66)	50.76	54.58	(0.01)	0.44	(0.40)	(0.60)	47.33
PM	5 Day Price Momentum	1.32	0.14	1.17	15.05	51.35	40.15	0.04	0.42	(0.24)	1.13	56.25
EQ	EBIT Margin	0.76	0.89	(0.13)	(1.53)	46.95	49.24	0.01	0.46	(0.46)	0.65	49.62
Val	Adj GFP	1.03	0.98	0.05	0.57	53.05	50.76	0.01	0.48	(0.38)	0.65	51.53
Val	Ind Rel Book to Price	1.00	0.70	0.31	3.74	51.91	49.62	(0.00)	0.58	(0.56)	(0.15)	51.53

Consumer Staples												
Style	Factor	Q1	Q5	Spread %	Ann Spread %	Q1 Hit	Q5 Hit	Avg IC	Best IC	Worst IC	IC T-Stat	% Pos IC
PM	ShortIntRatio	0.94	0.85	0.10	1.16	49.51	49.51	0.01	0.43	(0.42)	0.43	50.00
Val	FCF / Equity	1.21	0.93	0.28	3.47	53.44	50.38	0.01	0.46	(0.49)	0.96	57.25
EQ	Working Capital to Assets	1.25	0.98	0.27	3.30	53.05	48.09	0.00	0.44	(0.43)	0.45	49.62
PM	5 Day Price Momentum	1.13	0.55	0.58	7.19	55.21	43.24	0.07	0.22	(0.08)	2.67	68.75
EQ	EBIT Margin	1.23	0.73	0.50	6.23	57.25	48.09	0.02	0.61	(0.63)	1.76	55.34
Val	Adj GFP	1.24	0.76	0.49	5.98	56.11	50.38	0.02	0.49	(0.50)	1.77	53.05
Val	Ind Rel Book to Price	0.88	1.10	(0.23)	(2.66)	48.85	49.62	0.00	0.53	(0.47)	0.13	56.49

Energy												
Style	Factor	Q1	Q5	Spread %	Ann Spread %	Q1 Hit	Q5 Hit	Avg IC	Best IC	Worst IC	IC T-Stat	% Pos IC
PM	ShortIntRatio	1.40	1.58	(0.19)	(2.22)	40.78	48.54	0.02	0.49	(0.52)	0.69	54.81
Val	FCF / Equity	1.34	1.11	0.23	2.81	51.15	45.80	0.01	0.67	(0.53)	0.69	53.82
EQ	Working Capital to Assets	1.13	1.22	(0.09)	(1.09)	51.91	50.76	(0.01)	0.79	(0.62)	(0.77)	48.09
PM	5 Day Price Momentum	1.52	0.69	0.83	10.46	55.21	44.79	(0.00)	0.30	(0.49)	(0.08)	56.25
EQ	EBIT Margin	0.92	1.34	(0.42)	(4.87)	46.95	51.53	(0.02)	0.62	(0.63)	(1.38)	46.95
Val	Adj GFP	1.20	1.23	(0.02)	(0.26)	53.44	51.53	0.02	0.66	(0.72)	0.95	50.76
Val	Ind Rel Book to Price	1.58	0.58	1.00	12.73	54.20	43.89	0.05	0.68	(0.56)	3.35	60.69

Factor: Start typing a factor name to bring up a search of related factors. Once the desired factor is selected, click **ADD** to add it to your comparison.

Select multiple factors by clicking **MULTI-ADD** to open the Factor Selector dialog. You can select up to ten factors from the factor selector. Use the **Add** or **Remove** functions to add or remove factors from your list, respectively.

Country Comparison

The Country Comparison section allows you to compare a factor data for up to ten countries.

The screenshot shows the 'Country Comparison' section of the Alpha Factor Library. At the top, there are navigation links: 'Screening' > 'Comparison' > 'Country Comparison' > 'Scatterplot'. To the right is a search bar with the placeholder 'As of 12/13/2013' and a 'FACTOR SEARCH' button. Below the navigation are three dropdown menus: 'FACTOR' (set to '--Please select a factor--'), 'TIME PERIOD' (set to 'From 1990'), and 'SECTOR' (set to 'Cross Sectional'). The main area is titled 'COUNTRY COMPARISON' and contains a table with the following columns: Country, Q1, Q5, Spread %, Ann Spread %, Q1 Hit, Q5 Hit, Avg IC, Best IC, Worst IC, ICT Stat, and % Pos IC. A search input field 'Country:' with placeholder 'Start typing country name here...' and a 'Submit Query' button are also present.

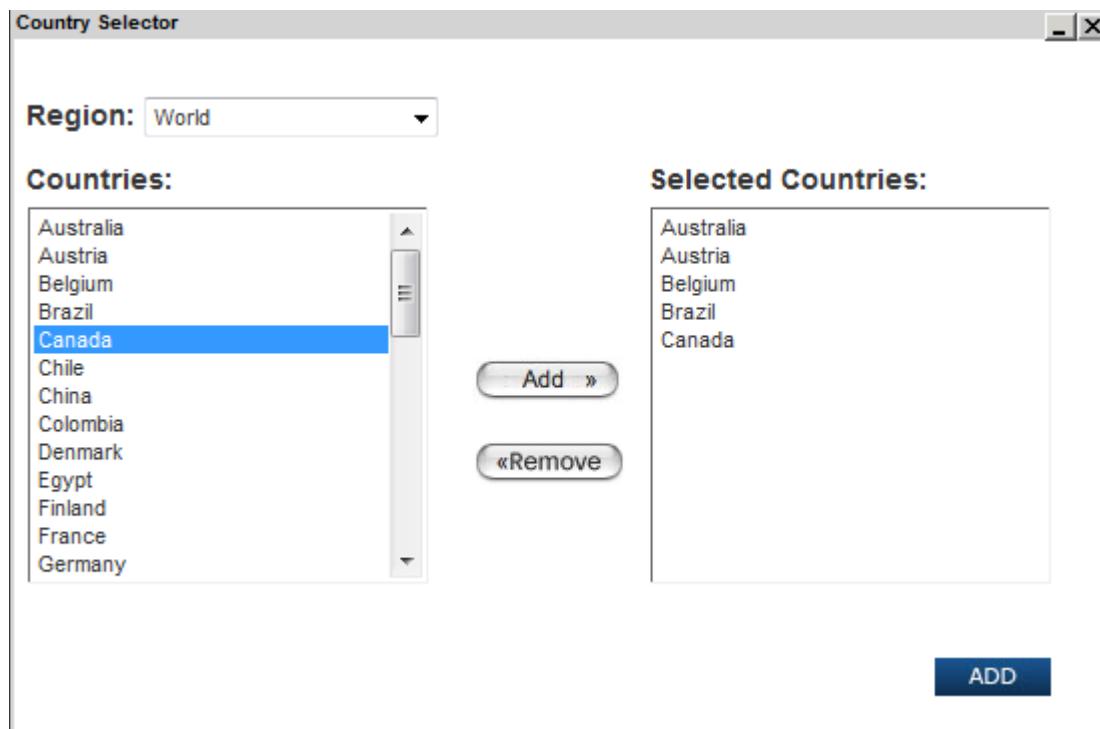
Factor: Select a factor from the dropdown list. You must select a factor prior to adding countries for your comparison.

Time Period: Select a time frame over which to view the data. The results will show the average for this period.

Sector: Select a sector of stocks to be analyzed. Click the dropdown to choose whether to view data calculated on a Cross Sectional or Sector Neutral basis, or to view data for an individual GICS sector of stocks (e.g., Energy, Financials, and Health Care).

Country: Start typing a country name to bring up a list of countries matching your input. Once the desired country is selected, click **ADD** to add it to your comparison.

Select multiple countries by clicking **MULTI-ADD** to open the Country Selector dialog. You can select up to ten countries. Use the **Add** or **Remove** functions to add or remove countries from your list, respectively.



Once all the countries have been selected, the library creates country comparison data charts showing the results.

As an example, the country comparison data charts for "Long-Term Debt to Equity" for Australia, Austria, Belgium, Brazil, and Canada are shown below:

Alpha Factor Library User Guide

Country Comparison

Screening \ Comparison \ Country Comparison \ Scatterplot

FACTOR: LT Debt to Equity **TIME PERIOD:** From 1990 **SECTOR:** Industrials

COUNTRY COMPARISON

Country: Start typing country name here... ADD MULTI-ADD

Country	Q1	Q5	Spread %	Ann Spread %	Q1 Hit	Q5 Hit	Avg IC	Best IC	Worst IC	IC T-Stat	% Pos IC
Australia	0.25	0.53	(0.29)	(3.38)	47.98	53.03	(0.01)	1.00	(1.00)	(0.42)	0.48
Austria	0.69	(0.16)	0.75	9.37	52.40	37.26	0.06	0.99	(0.99)	1.75	0.55
Belgium	1.71	1.36	(0.42)	(4.90)	54.59	58.38	0.01	1.00	(1.00)	0.18	0.51
Brazil	1.24	1.26	(0.01)	(0.16)	45.71	46.79	(0.02)	1.00	(1.00)	(0.55)	0.64
Canada	0.32	0.41	(0.10)	(1.16)	46.37	46.02	(0.00)	0.73	(0.60)	(0.14)	0.50

RETURN TIMESERIES

Statistic Type: Return Spread

Dec 31, 1994 - Feb 10, 2014

2000 2005 2010

1995 2000 2005 2010

AVERAGE MONTHLY Q1 & Q5 RETURNS

Country	Q1	Q5
Australia	0.25	0.55
Austria	0.70	0.10
Belgium	1.65	1.35
Brazil	1.25	1.30
Canada	0.35	0.45

ANN Q1-Q5 RETURN SPREAD %

Country	AnnSpread
Australia	9.5%
Austria	0.0%
Belgium	-2.5%
Brazil	0.0%
Canada	-1.0%

AVG IC BY HOLDING PERIOD

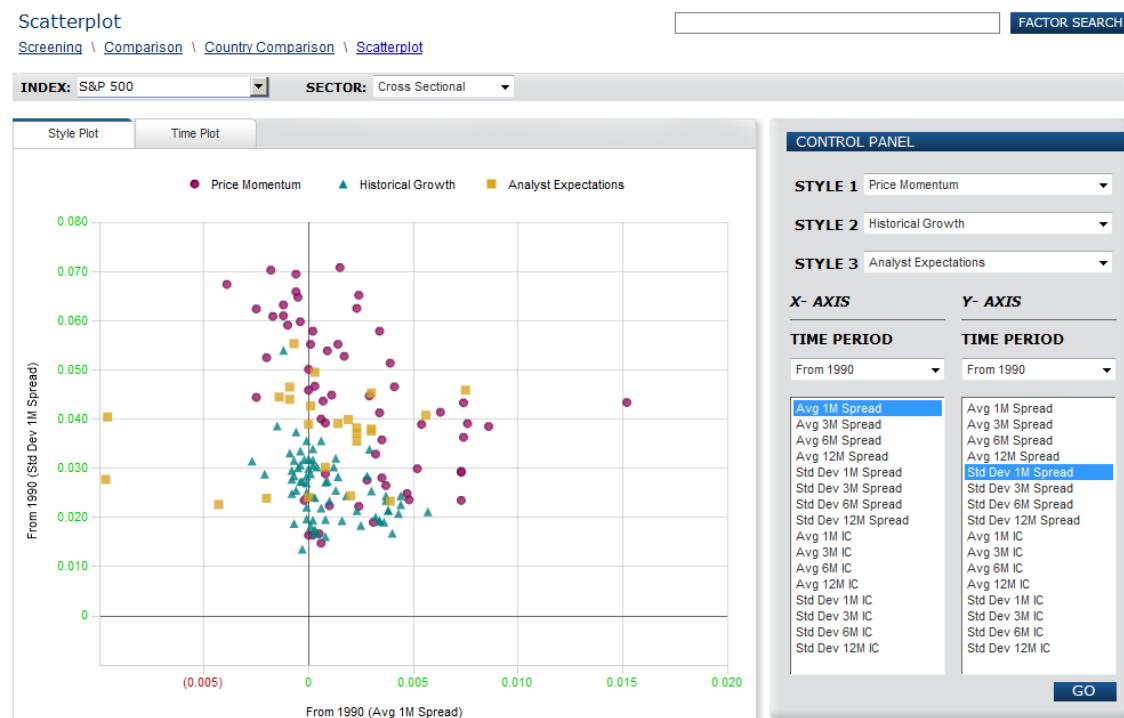
Country	1M	3M	6M	12M
Australia	0.01	0.07	0.09	0.02
Austria	0.01	0.08	0.09	0.02
Belgium	0.01	0.07	0.06	0.15
Brazil	0.01	0.01	0.01	0.01
Canada	0.01	0.01	0.01	0.01

Scatterplot

The Scatterplot section allows you to view data averages and standard deviations for specific groups of stocks over a specified period of time. The Alpha Factor Library allows you to view the data two ways: by style or by time. The following section explains the Scatterplot details related to Style Plot and Time Plot.

Style Plot Tab

This tab displays data based on factor styles.



Index: Select an index benchmark from the dropdown list.

Sector: Select a sector of stocks to be analyzed. Click the dropdown to choose whether to view data calculated on a Cross Sectional or Sector Neutral basis, or to view data for an individual GICS sector of stocks (e.g., Energy, Financials, and Health Care).

Control Panel: Refers to the area that drives the data on the Scatterplot pages.

Select the **Styles** plotted by choosing from the style dropdowns.

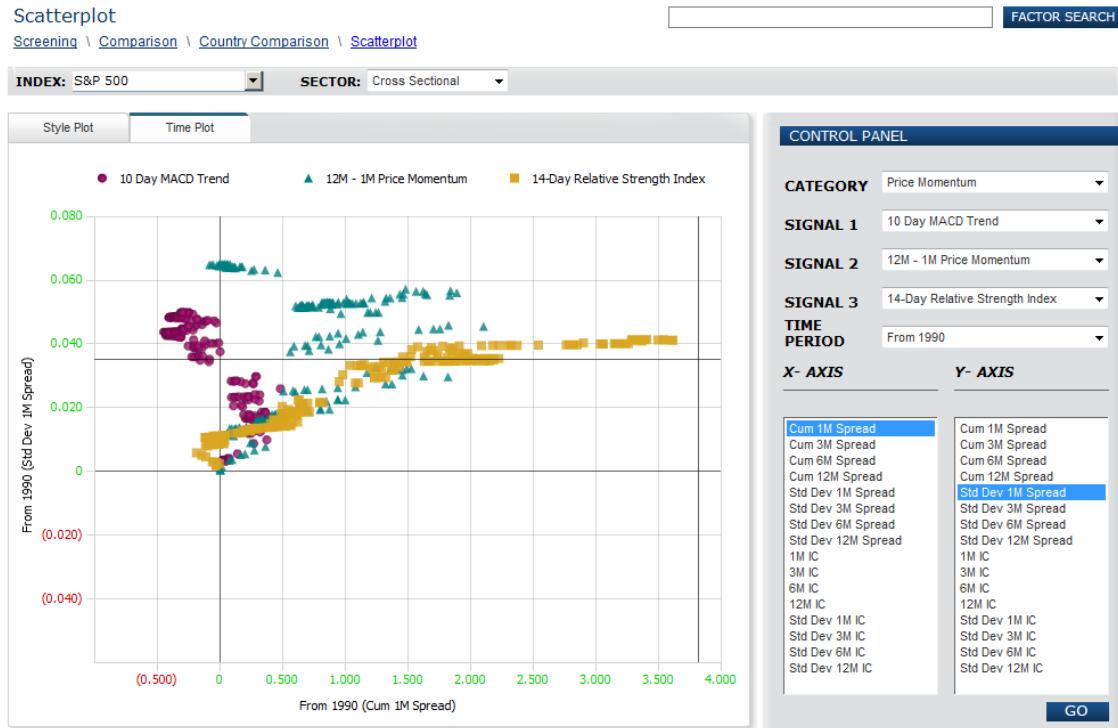
Select the **Time Period** over which you want the data plotted by choosing from the dropdown.

Select the statistics you want to view on the X and Y axes by selecting from the respective lists.

Click **GO** to view the data.

Time Plot Tab

This section displays selected factor data for a specific style plotted over time.



Control Panel: Refers to the area that drives the data on the Scatterplot pages.

Select the style you would like to analyze by choosing from the **Category** dropdown.

Select the factors you would like to compare by choosing from the **Signal** dropdowns.

Select the **Time Period** over which you want the data plotted by choosing from the dropdown.

Select the statistics you want to view on the X and Y axes by selecting from the lists.

Click **GO** to view the data.

S&P Capital IQ Alpha Models

S&P Capital IQ's Alpha Models intelligently blend industry and company fundamental analysis with robust quantitative validation to provide institutional investors with profitable, intuitive stock selection strategies. Each model contains the key ratios and value drivers needed to outperform the market. Covering 4,800 active securities, our models deliver superior risk-adjusted returns across a variety of investment strategies and horizons.

The CIQ Alpha Model section is where the alpha models are stored. Following is a description of each of the model types.

US Growth

Engineered to outperform growth benchmarks, these models take a comprehensive view of growth by combining historical and forecasted growth factors with operational quality, capital efficiency and momentum concepts.

US Value

These models span traditional relative and deep value factors, and also include key quality and momentum components most effective in outperforming value benchmarks.

US Momentum

Momentum models are separated into both long- and short-term components, and, like all models, provide specific formulations for both large and small cap stocks.

US Quality

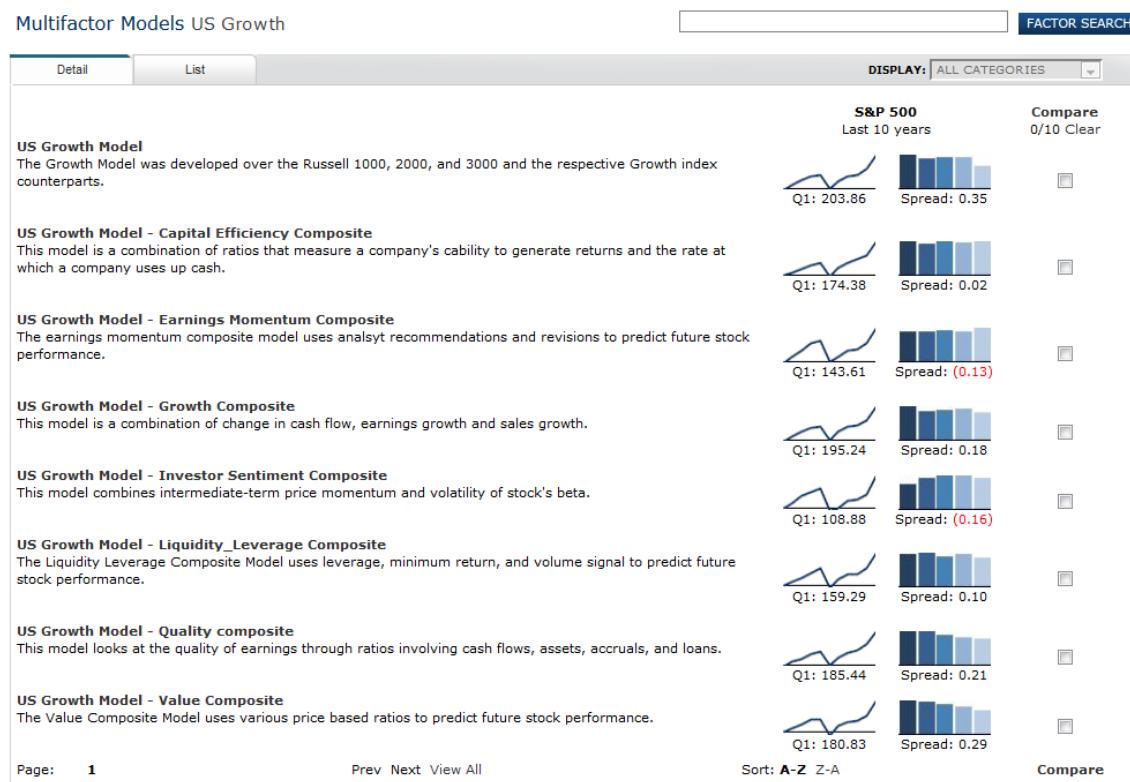
Beyond traditional accruals, these models assess earnings and management quality through the lens of operating efficiency and earnings sustainability; industry specific treatments ensure that the financial sector is modeled correctly.

Multifactor Models

Two tabs appear on the Multifactor Models pages: Detail and List.

Detail

The Detail view provides a definition and a small visual depiction of the data. Click on any model name to be directed to the respective model summary page. You may also select up to 10 models to compare by selecting the corresponding checkbox on the right and clicking **Compare**. You will be directed to a comparison page showing all the models selected.



List

The List view shows only the model names. Click on any model name to be directed to the respective model summary page.



Additional Functionality

For a more detailed explanation of the Alpha Model functions, please refer to the corresponding section in the [Factor Catalog](#) chapter. If you are viewing this document online, click the link to navigate directly to that page.

- [Daily Report](#)
- [Summary](#)
- [Return](#)
- [IC \(Information Coefficient\)](#)
- [Sector](#)
- [Seasonality](#)
- [Regime](#)
- [Turnover](#)
- [Correlation](#)
- [Coverage](#)
- [Formulation](#)

Please contact us to obtain more information on how to use this functionality:

Email: clientsupport@capitaliq.com

Phone:

U.S. & Canada: +1 888 806 5541 or +1 212 438 1070

United Kingdom: +44 (0) 20 7176 1234

Additional client resources are provided on our website: <https://www.capitaliq.com/home/contact-us/support-training.aspx>

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Private Library

In the Alpha Factor Library, a factor is defined as a basic stock selection signal, which is calculated at the stock level. The **Private Library** function allows you to build and maintain your own library of proprietary factors.



Factor Catalog

View Custom Factors

To view private factors, select **Factor Catalog** from the Private Library section.



In the Factor Catalog area, you are able to view your proprietary factors. You may view those factors you have created or custom factors that have been created to provide access at your group or company level.

A screenshot of a web-based application interface. At the top left, it says "Factor Catalog > Custom Factors". Below that is a "View:" dropdown menu with options: "My Custom Factors" (which is selected and highlighted in blue), "My Custom Factors", "All Custom Factors", "Detail", and "List". To the right of the dropdown are buttons for "GO" and "Create". Further to the right is a search bar labeled "FACTOR SEARCH". At the bottom right, there is a "DISPLAY:" dropdown menu set to "All Categories".

Alpha Factor Library User Guide

All custom factors will appear in the Detail or List view.

Detail

The Detail view provides a factor definition.

Factor Catalog > Custom Factors

View: My Custom Factors | GO | Create

DISPLAY: ALL CATEGORIES

S&P 500
Last 10 years

Compare
0/10 Clear

1 month reversal Edit

1 Month Reversal Edit

Value and Momentum Edit

Value and Momentum Edit

Value and Momentum Edit

Value and Momentum Edit

Page: 1 | Prev | Next | View All | Sort: A-Z | Z-A | Compare

You may also select up to 10 factors to compare by selecting the factor checkbox on the right and clicking **Compare** at the top or bottom of the list. You will be directed to a comparison page displaying all factors selected.

List

The List view displays only the factor names.

Factor Catalog > Custom Factors

View: All Custom Factors | GO | Create

DISPLAY: ALL CATEGORIES

czfgdfgfd

1 Month Reversal

1 month reversal

1 Month Reversal

Ankit second set

Ankit Test

asdasd

asdasdasd

pf custom factor P

PP 513

ppp222

Price Momentum Style Indicator

Published/Unpublished Factors

In both the Detail and List views, you will be able to see your published and unpublished factors.

Factor Catalog > Custom Factors

View: All Custom Factors Create

FACTOR SEARCH

Detail	List	DISPLAY: ALL CATEGORIES	
		S&P 500 Last 10 years	Compare 0/10 Clear
czfgdfgfd Edit Unpublished Factor 1 Month Reversal Edit The simple stock return over the past month.			<input type="checkbox"/>
1 month reversal Edit			<input type="checkbox"/>
1 Month Reversal Edit			<input type="checkbox"/>
1121Grp2 Edit			<input type="checkbox"/>
1129GRP2 Edit			<input type="checkbox"/>
1220VAL2 P Edit Published Factor 123123 Edit			<input type="checkbox"/>
132VAL P Edit			<input type="checkbox"/>

Published factors include a superscript '**P**'. When you click on a published factor, you will be directed to the respective Factor Summary page.

Standardized 36M Residual

Daily Report \ Summary \ Return \ IC \ Sector \ Seasonality \ Regime \ Turnover \ Correlation \ Coverage \ Formulation

FACTOR SEARCH

INDEX:	TIME PERIOD:	CATEGORY: PRICE MOMENTUM	RANK ORDER: ASCENDING																																																																																																																																																																																						
<input type="button" value="Cross-Sectional"/>	<input type="button" value="By Sector"/>																																																																																																																																																																																								
<table border="1"> <thead> <tr> <th style="width: 15%;">Summary</th> <th style="width: 15%;">Equal Weighted Rtns</th> <th style="width: 15%;">Q1</th> <th style="width: 15%;">Q2</th> <th style="width: 15%;">Q3</th> <th style="width: 15%;">Q4</th> <th style="width: 15%;">Q5</th> <th style="width: 15%;">Universe</th> <th style="width: 15%;">Spred</th> <th style="width: 15%;">Act Spred</th> </tr> </thead> <tbody> <tr> <td>Information Ratio</td> <td>0.24</td> <td>Avg Monthly Rtn</td> <td>1.08</td> <td>1.08</td> <td>0.91</td> <td>0.81</td> <td>0.57</td> <td>0.88</td> <td>0.51</td> <td>0.21</td> </tr> <tr> <td>Avg 1M IC</td> <td>0.03</td> <td>Annualized Rtn</td> <td>13.82</td> <td>13.73</td> <td>11.47</td> <td>10.13</td> <td>7.11</td> <td>11.04</td> <td>6.30</td> <td>2.52</td> </tr> <tr> <td>Best IC</td> <td>0.35</td> <td>Annualized Std Dev Rtn</td> <td>20.23</td> <td>18.16</td> <td>17.45</td> <td>16.57</td> <td>16.92</td> <td>17.30</td> <td>10.49</td> <td>6.20</td> </tr> <tr> <td>Worst IC</td> <td>(0.32)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>% of Period w/ Positive IC</td> <td>59.54</td> <td>Best Monthly Abs. Rtn</td> <td>24.67</td> <td>15.74</td> <td>15.53</td> <td>15.82</td> <td>21.13</td> <td>17.95</td> <td>10.83</td> <td>6.72</td> </tr> <tr> <td>Avg IC T-Stat</td> <td>3.87</td> <td>Best Monthly Act. Rtn</td> <td>6.72</td> <td>3.74</td> <td>2.80</td> <td>4.61</td> <td>4.55</td> <td></td> <td></td> <td></td> </tr> <tr> <td>1M IC Std Dev</td> <td>0.11</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td>Worst Monthly Abs. Rtn</td> <td>(22.93)</td> <td>(18.55)</td> <td>(20.84)</td> <td>(20.68)</td> <td>(21.70)</td> <td>(21.24)</td> <td>(11.76)</td> <td>(8.43)</td> </tr> <tr> <td>Avg 1M Q1 Act Rtn</td> <td>0.21</td> <td>Worst Monthly Act. Rtn</td> <td>(8.43)</td> <td>(5.16)</td> <td>(2.80)</td> <td>(5.69)</td> <td>(6.56)</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Avg 1M Q1 Act Rtn - Act Best 1M Rtn</td> <td>(6.51)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="10" style="text-align: center;">Mkt Cap Weighted Rtns</td> </tr> <tr> <td>Best Act 12M Rtn</td> <td>23.49</td> <td>Avg Monthly Rtn</td> <td>1.65</td> <td>1.61</td> <td>1.27</td> <td>1.14</td> <td>0.77</td> <td>1.28</td> <td>0.88</td> <td>0.37</td> </tr> <tr> <td>Worst Act 12M Rtn</td> <td>(15.02)</td> <td>Annualized Rtn</td> <td>21.71</td> <td>21.11</td> <td>16.35</td> <td>14.52</td> <td>9.69</td> <td>16.51</td> <td>11.05</td> <td>4.53</td> </tr> <tr> <td></td> <td></td> <td>Annualized Std Dev Rtn</td> <td>17.28</td> <td>16.15</td> <td>15.34</td> <td>15.57</td> <td>15.62</td> <td>14.94</td> <td>11.61</td> <td>6.83</td> </tr> <tr> <td>Best Act 3Y Rtn</td> <td>49.87</td> <td>Best Monthly Abs. Rtn</td> <td>16.99</td> <td>13.83</td> <td>12.94</td> <td>13.59</td> <td>12.87</td> <td>11.97</td> <td>13.74</td> <td>8.19</td> </tr> <tr> <td>Worst Act 3Y Rtn</td> <td>(22.90)</td> <td>Best Monthly Act. Rtn</td> <td>8.19</td> <td>5.90</td> <td>6.07</td> <td>3.53</td> <td>3.76</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				Summary	Equal Weighted Rtns	Q1	Q2	Q3	Q4	Q5	Universe	Spred	Act Spred	Information Ratio	0.24	Avg Monthly Rtn	1.08	1.08	0.91	0.81	0.57	0.88	0.51	0.21	Avg 1M IC	0.03	Annualized Rtn	13.82	13.73	11.47	10.13	7.11	11.04	6.30	2.52	Best IC	0.35	Annualized Std Dev Rtn	20.23	18.16	17.45	16.57	16.92	17.30	10.49	6.20	Worst IC	(0.32)									% of Period w/ Positive IC	59.54	Best Monthly Abs. Rtn	24.67	15.74	15.53	15.82	21.13	17.95	10.83	6.72	Avg IC T-Stat	3.87	Best Monthly Act. Rtn	6.72	3.74	2.80	4.61	4.55				1M IC Std Dev	0.11											Worst Monthly Abs. Rtn	(22.93)	(18.55)	(20.84)	(20.68)	(21.70)	(21.24)	(11.76)	(8.43)	Avg 1M Q1 Act Rtn	0.21	Worst Monthly Act. Rtn	(8.43)	(5.16)	(2.80)	(5.69)	(6.56)				Avg 1M Q1 Act Rtn - Act Best 1M Rtn	(6.51)									Mkt Cap Weighted Rtns										Best Act 12M Rtn	23.49	Avg Monthly Rtn	1.65	1.61	1.27	1.14	0.77	1.28	0.88	0.37	Worst Act 12M Rtn	(15.02)	Annualized Rtn	21.71	21.11	16.35	14.52	9.69	16.51	11.05	4.53			Annualized Std Dev Rtn	17.28	16.15	15.34	15.57	15.62	14.94	11.61	6.83	Best Act 3Y Rtn	49.87	Best Monthly Abs. Rtn	16.99	13.83	12.94	13.59	12.87	11.97	13.74	8.19	Worst Act 3Y Rtn	(22.90)	Best Monthly Act. Rtn	8.19	5.90	6.07	3.53	3.76			
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Worst Act 12M Rtn	(15.02)	Annualized Rtn	21.71	21.11	16.35	14.52	9.69	16.51	11.05	4.53																																																																																																																																																																															
		Annualized Std Dev Rtn	17.28	16.15	15.34	15.57	15.62	14.94	11.61	6.83																																																																																																																																																																															
Best Act 3Y Rtn	49.87	Best Monthly Abs. Rtn	16.99	13.83	12.94	13.59	12.87	11.97	13.74	8.19																																																																																																																																																																															
Worst Act 3Y Rtn	(22.90)	Best Monthly Act. Rtn	8.19	5.90	6.07	3.53	3.76																																																																																																																																																																																		

Unpublished factors do not include a superscript 'P'. When you click on an unpublished factor, you will be taken to the Formulation page.

1 Month Reversal FACTOR SEARCH

[Formulation](#)

CATEGORY: PRICE MOMENTUM RANK ORDER: ASCENDING

DEFINITION

The simple stock return over the past month.

NOTES

Behavioral finance suggests that stock prices overreact or underreact to information, which implies profitable trading strategies that select stocks based on past returns exist(Kahneman et al. 1991). Momentum strategies are relative strength strategies that buy past winners and sell past losers. Substantial evidence (Jegadeesh and Titman (1993, 2001), Fama and French (2008)) suggests that these strategies, even after adjusted for market capitalization and book ratio, generate positive abnormal returns. Among the most notable findings, one month reversal refers to the significant negative first-order serial correlation in monthly stock returns, as documented by Jegadeesh (1990).

FORMULA

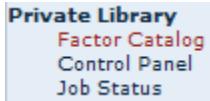
$$1MReversal_{i,t} = \frac{CloseM_{i,t} - CloseM_{i,t-1}}{CloseM_{i,t-1}}$$

CITATIONS

1 Jegadeesh, N , *Evidence of Predictable Behavior of Security Returns* , Journal of Finance, 1990

Create New Factors

To create custom factors, select **Factor Catalog** from the Private Library section.

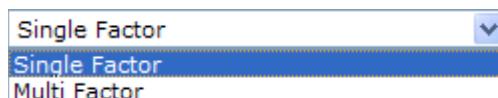


Click the Create link.



The **Custom Factors > Create Custom Factor** screen appears. This is the default screen. The display panel will change depending on your selection of Factor Type and Version.

To create a custom factor, begin by specifying the type of factor. The choices are Single Factor and Multi Factor.



Single Factor

The Single Factor Type allows you to create a factor that ranks companies by a single metric. The ranking can be by raw data, by industry-relative data, or by historical-relative data.

Below is a description of the fields that display when Single Factor is selected.

Custom Factors > Create Custom Factor

Factor Search

Create Custom Factor

Factor Properties

*Factor Type: Single Factor (1)

*Version: Original (2)

*Name:

*Code:

*Short Name:

*Style: --Please select a factor style-- (5)

*Ranking Order: --Please select a ranking order-- (6)

Description:

Analyst Notes:

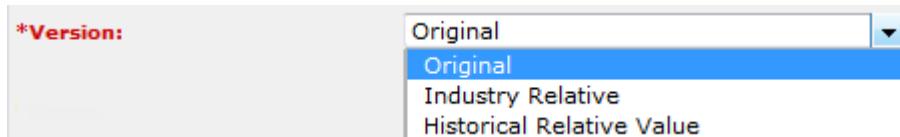
Access Level: Eric Cohen (9)

1024 characters left (8)

Create (10) Cancel (11)

1 Version

The Alpha Factor Library supports three factor versions: Original, Industry Relative, and Historical Relative Value.



ORIGINAL: Factors ranked according to scores that are calculated from raw data irrespective of a company's industry or historical performance.

Custom Factors > Create Custom Factor

Create Custom Factor

Factor Properties

*Factor Type: Single Factor

*Version: Original

INDUSTRY RELATIVE: Factors with scores that are calculated by ranking according to the z-score of the original version raw factor data. The z score standardizes the data by the company's industry.

Note: If Industry Relative is selected, the display panel will change and require the Relative Level and Original Factor.

[Custom Factors > Create Custom Factor](#)

The screenshot shows the 'Create Custom Factor' interface with the 'Factor Properties' section expanded. The 'Version' dropdown is set to 'Industry Relative'. The 'Original Factor' dropdown is labeled '--Please select a factor--'. A 'Search' button is visible at the bottom right of the dropdown.

Factor Properties	
*Factor Type:	Single Factor
*Version:	Industry Relative
*Relative Level	Industry Group
*Original Factor:	--Please select a factor--

Relative Level: Currently, the Relative Level field is disabled and does not require completion. It will default to Industry Group.

Original Factor: Provides a dropdown listing of all factors. Once the original factor is selected, all fields below (e.g., Name, Code, Short Name, and Style and Ranking Order) will contain the data for the original factor.

HISTORICAL RELATIVE VALUE: Factors with scores that are calculated by ranking according to the z-score of the original version raw factor data. The z-score standardizes the data by the company's 5-year historical average.

Note: If Historical Relative Value is selected, the display panel will change and require the Factor Type, the Relative Lookback, and Original Factor.

[Custom Factors > Create Custom Factor](#)

The screenshot shows the 'Create Custom Factor' interface with the 'Factor Properties' section expanded. The 'Version' dropdown is set to 'Historical Relative Value'. The 'Original Factor' dropdown is labeled '--Please select a factor--'. A 'Search' button is visible at the bottom right of the dropdown.

Factor Properties	
*Factor Type:	Single Factor
*Version:	Historical Relative Value
*Relative Lookback:	60 Months
*Original Factor:	--Please select a factor--

Relative Lookback: Currently, the Relative Lookback field is disabled and does not required completion. It will default to 60 months (five years).

Original Factor: Provides a dropdown listing of all factors. Once the original factor is selected, all fields below (e.g., Name, Code, Short Name, Style and Ranking Order) will contain the data for the original factor.

Custom Factors > Create Custom Factor

FACTOR SEARCH

Create Custom Factor

Factor Properties

*Factor Type: Single Factor (1)

*Version: Original (2)

*Name: (3)

*Code: (4)

*Short Name: (5)

*Style: --Please select a factor style-- (6)

*Ranking Order: --Please select a ranking order-- (6)

Description: (7) 1024 characters left

Analyst Notes: (8)

Access Level: Eric Cohen (9)

Create (10) Cancel (11)



Name

Type the name of your custom factor.



Code

Type a code for your factor. The code may consist of letters and numbers and must be 25 characters or less.



Short Name

Type an abbreviated name for your custom factor.



Style

Select a style for your factor. Click the dropdown list and select Price Momentum, Historical Growth, Analyst Expectations, Earnings Quality, Valuation, Capital Efficiency, Size, Volatility or Model.



Ranking Order

Select a ranking order from the dropdown list. Choices are Descending or Ascending. Descending means the higher factor values are assigned lower (i.e., better) ranks. Ascending means the lower factor values are assigned lower ranks.



Description

Optional: Type a description of the factor.



Analyst Notes

Optional: Type in analyst notes.

**Access Level**

Select your desired access level. This dropdown enables you to keep the factor private, to share it with others in your group, or to share it with everyone at your company.

Note: Custom Factors are only visible to you and authorized users at your company. Capital IQ employees do not have visibility into custom factors.

**Create**

Click the Create button to create your factor.

**Cancel**

Click the Cancel button to discard your data.

Below is an example of a Single Original Factor after all fields have been populated.

Custom Factors > Create Custom Factor FACTOR SEARCH

Create Custom Factor

Factor Properties

*Factor Type: Single Factor
*Version: Original

*Name: 1 Month Reversal
*Code: 1MReversal
*Short Name: 1M Reversal
*Style: Price Momentum
*Ranking Order: Ascending

Description: The simple stock return over the past month.

Analyst Notes: Behavioral finance suggests that stock prices overreact or underreact to information, which implies profitable trading strategies that select stocks based on past returns exist (Kahneman et al. 1991). Momentum strategies are relative strength strategies that buy past winners and sell past losers. Substantial evidence (Jegadeesh and Titman (1993, 2001), Fama and French (2008)) suggests that these strategies, even after adjusted for market capitalization and book ratio, generate positive abnormal returns. Among the most notable findings, one month reversal refers to the significant negative first-order serial correlation in monthly stock returns, as documented by Jegadeesh (1990). | 979 characters left

Access Level: Professionals

After your Single Factor has been saved successfully, the below additional options will appear at the bottom of the screen.

- Formula**
- Academic Citations**

Continue to the section titled [Edit Existing Factors](#) if you would like to revise your factor or add Academic Citations.

If you are ready to upload data for your factor, proceed to the section titled [Upload Proprietary Factor Data](#) in this document.

Multi Factor

The Multi Factor Type enables you to create a factor that incorporates multiple metrics by combining single factors of equal weights or single factors of user-specified weights.

Below is a description of the fields that display when Multi Factor is selected.

Custom Factors > Create Custom Factor FACTOR SEARCH

Create Custom Factor

Factor Properties

*Factor Type: **Multi Factor**

*Name: **1**

*Code: **2**

*Short Name: **3**

*Style: **4** Model

*Ranking Order: **5** Ascending

Description: **6**

Analyst Notes: **7**

Access Level: **8** Eric Cohen

9 Create **10** Cancel

1 Name

Type the name of your custom factor.

2 Code

Type a code for your factor. The code may consist of letters and numbers and must be 25 characters or less.

3 Short Name

Type an abbreviated name for your custom factor.

4 Style

Select a style for your factor. Click the dropdown and select Price Momentum, Historical Growth, Analyst Expectations, Earnings Quality, Valuation, Capital Efficiency, Size, Volatility or Model.

5 Ranking Order

Select a ranking order from the dropdown list. Choices are Descending or Ascending. Descending means the higher factor values are assigned lower (i.e., better) ranks. Ascending means the lower factor values are assigned lower ranks.

**Description**

Optional: Type a description of the factor.

**Analyst Notes**

Optional: Type in analyst notes.

**Access Level**

Select your desired access level. This dropdown enables you to keep the factor private, share it with others in your group, or to share it with everyone at your company.

Note: Custom Factors are only visible to you and authorized users at your company. Capital IQ employees do not have visibility into custom factors.

**Create**

Click the Create button to create your factor.

**Cancel**

Click the Cancel button to discard your data.

Below is an example of a Multi Factor after all fields have been populated.

Custom Factors > Create Custom Factor

FACTOR SEARCH

The screenshot shows the 'Create Custom Factor' dialog box. The 'Factor Properties' section contains the following data:

- *Factor Type: Multi Factor
- *Name: Value and Momentum
- *Code: VM
- *Short Name: ValueMomentum
- *Style: Model
- *Ranking Order: Ascending

The Description field contains: "A combination of value and momentum factors". The Analyst Notes field contains: "This model equal weights EPS and 12-month price momentum." The Access Level field is set to Professionals. At the bottom are 'Create' and 'Cancel' buttons.

After the factor has been saved successfully, the below additional options will appear at the bottom of the screen.



To complete the creation of your Multi Factor, click the + button to expand the Model Compositions section:



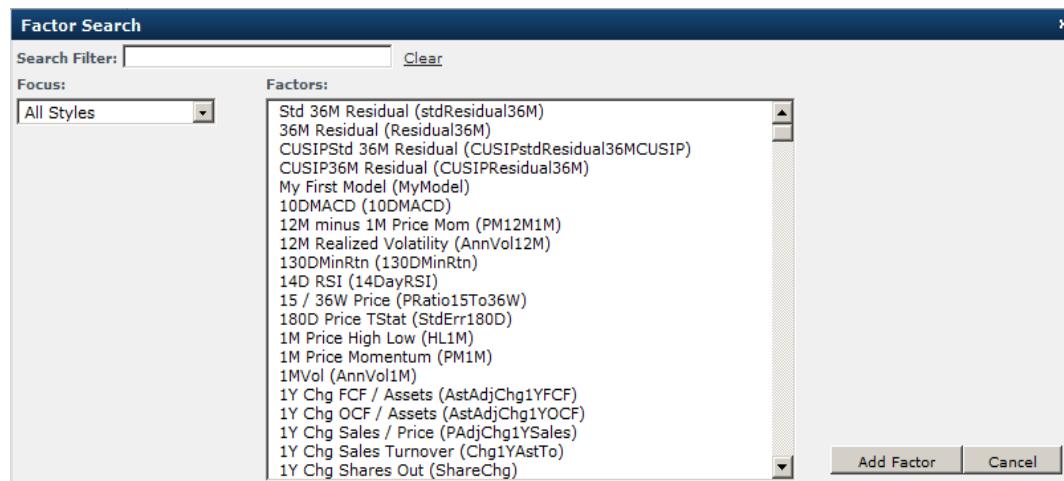
To add a Single Factor, begin typing your factor to view a list of potential factors in the dropdown menu.



Select your desired factor and click the **ADD** button.

To add multiple factors, click the **MULTI-ADD** button.

The Factor Search pop up window will display:



You may use the Search Filter to locate your desired factor.

The Focus dropdown allows you to search by Style.

Click the **Add Factor** button to add the multiple factors or the **Cancel** button to discard your changes.

To provide factor weighting, select Equal Weights or User Defined Weights from the dropdown menu.

Weighting Type: Equal Weights

Equal Weights

User Defined Weights

Minimum Weight %: If Equal Weights is selected, type the minimum percentage weighting that should be assigned to each factor. If the sum of all available factor weights for a given stock is lower than the minimum weight %, the system will force the composite value to be null.

Continue to the section titled [Edit Existing Factors](#) if you would like to revise your factor or add Academic Citations.

If you are ready to finish creating your custom factor, proceed to the section titled [Publish Factor](#) in this document.

Edit Existing Factors

The **Edit** option allows you to click into your factors to change definitions and manage the data process. To edit a factor, you must be on the **Custom Factors >Edit Custom Factor** screen. To access this screen, follow the steps below.

Select **Factor Catalog** from the Private Library section.



Click the **Edit** link next to the Factor you wish to modify.

Factor Catalog > Custom Factors

View: All Custom Factors Create

DISPLAY: ALL CATEGORIES

S&P 500 Last 10 years Compare 0/10 Clear

	Detail	List
1 month reversal	Edit	

The **Custom Factors >Edit Custom Factor** screen appears.

Edit Custom Factor Tab

Three tabs appear on this screen. Make sure the **Edit Custom Factor** tab is selected.

Custom Factors > Edit Custom Factor

Edit Custom Factor

Factor Properties

*Factor Type: Single Factor
*Version: Original

Derived Factor(s):

*Name: 1 Month Reversal
*Code: 1MReversal
*Short Name: 1M Reversal
*Style: Price Momentum
*Ranking Order: Ascending

Description: The simple stock return over the past month.

Analyst Notes: Behavioral finance accepts that stock prices increase or decrease in response to information, which implies profitable trading strategies that select stocks based on past returns (ex: Fama and French (1993), Jegadeesh and Titman (1993, 2001)). Momentum strategies are relative strength strategies that buy past winners and sell past losers. Substantial evidence (Jegadeesh and Titman (1993, 2001), Fama and French (2009)) suggests that these strategies, even after adjusted for market capitalization and book ratio, generate positive abnormal returns. Among the most notable findings, one month reversal refers to the significant negative first-order serial correlation in monthly stock returns, as documented by Jegadeesh (1990).

Access Level: Li Ma

Formula

$$1MReversal_{i,t} = \frac{CloseM_{i,t} - CloseM_{i,t-1}}{CloseM_{i,t-1}}$$

Upload Formula File Upload (GIF, JPEG and PNG files allowed.)

Academic Citations

Add Citation

Reorder Author	Title	Source	Year	URL	Options
A ▼ Jegadeesh, N	Evidence of Predictable Behavior of Security Returns	Journal of Finance	1990		Edit Delete

1. Factor Properties

Make modifications as necessary.

2. Formula

To upload a formula file, click the **Browse** button, navigate to the location of your .gif, .jpeg, or .png file, select your formula file and click the Upload link.

$$1MReversal_{i,t} = \frac{CloseM_{i,t} - CloseM_{i,t-1}}{CloseM_{i,t-1}}$$

3. Academic Citations

To add an academic citation, click the Add Citation link. A separate window will appear. Required fields begin with an asterisk and are displayed in red font.

Add Citation

*Author:	<input type="text"/>
*Title:	<input type="text"/>
Abstract: <div style="border: 1px solid #ccc; height: 150px; width: 100%;"></div>	
*Source:	<input type="text"/>
Year:	<input type="text"/>
URL:	<input type="text"/>

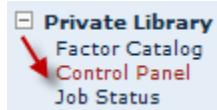
Save **Cancel**

After completing your edits, the formula and corresponding citations will display on the **Formulation** page.

Control Panel

The Control Panel section is where you can manage your Custom Factors. You can manage all custom factors to which you have access.

Select **Control Panel** from the Private Library section.



You may apply a filter on columns that display the filter icon.

Private Library > Control Panel

<input type="checkbox"/> Delete	Create Factor	<input checked="" type="radio"/> My Factors <input type="radio"/> All Factors	Search all Factors... <input type="button" value="Go"/> <input type="button" value="Clear"/>					
ID^	Factor Code ▾	Name ▾	Version ▾	Style ▾	Rank ▾	Status ▾	Date Created	Options
<input type="checkbox"/> 60102	stdResidual36M	Standardized 36M Residual	Original	Price Momentum	Ascending	PUBLISHED	Nov-04-2011	Edit Control Mapping
<input type="checkbox"/> 60103	Residual36M	36M Residual	Original	Price Momentum	Ascending	PUBLISHED	Nov-04-2011	Edit Control Mapping
<input type="checkbox"/> 60104	CUSIPstdResidual36MCUSIP	CUSIP Std 36M Residual	Original	Price Momentum	Ascending	PUBLISHED	Nov-04-2011	Edit Control Mapping
<input type="checkbox"/> 60105	CUSIPResidual36M	CUSIP36M Residual	Original	Price Momentum	Ascending	PUBLISHED	Nov-04-2011	Edit Control Mapping
<input type="checkbox"/> 60106	MyModel	My First Model	Model	Model	Ascending	PUBLISHED	Nov-16-2011	Edit Control
<input type="checkbox"/> 60109	Sample	Sample	Model	Model	Ascending	READY	Nov-17-2011	Edit Control
<input type="checkbox"/> 60126	MV12345	MV_O1/TEV	Original	Valuation	Descending	READY	Jan-20-2012	Edit Control Mapping
<input type="checkbox"/> 60151	PM1M	1 Month Reversal	Original	Price Momentum	Ascending	READY	Apr-10-2012	Edit Control Mapping
<input type="checkbox"/> 60152	VM	Value and Momentum	Model	Model	Ascending	READY	Apr-10-2012	Edit Control

Below is an explanation of the information that displays on the screen:

Delete: Select the box next to each factor you wish to delete and then click the delete button. The Job Status page will reflect the deletion.

ID: Refers to the unique numerical identification number created for each custom factor.

Factor Code: Refers to the factor code established for each custom factor when the factor was created.

Name: Refers to the name of your custom factor.

Version: Options are Historical Relative Value, Indicator, Industry Relative, Model, or Original.

Style: Options are Analyst Expectations, Capital Efficiency, Earnings Quality, Historical Growth, Model, Price Momentum, Size, Valuation, or Volatility.

Rank: Options are Ascending or Descending.

Status: Options are PUBLISHED or READY.

Date Created: Refers to the date the custom factor was created.

Options:

- [Edit](#): Accesses the Edit Custom Factor tab (**Custom Factors > Edit Custom Factor** screen).
- [Control](#): Accesses the Factor Data Control tab (**Custom Factors > Custom Factor Data Control** screen).
- [Mapping](#): Accesses the Factor Data Mapping tab (**Custom Factors > Custom Data Item Mapping** screen).

Upload Proprietary Factor Data

If your proprietary factor is an original single factor, you must upload the proprietary factor data.

Select **Control Panel** from the Private Library section.



Under the 'Options' column, click the **Control** link next to the factor for which you would like to upload proprietary data.

Private Library > Control Panel

		Create Factor		Show: <input type="radio"/> My Factors <input checked="" type="radio"/> All Factors	Search all Factors...				Go	Clear	
	ID	Factor Code	Name	Version	Style	Rank	Status	Date Created	Options		
<input type="checkbox"/>	60102	stdResidual36M	Standardized 36M Residual	Original	Price Momentum	Ascending	PUBLISHED	Nov-04-2011	Edit	Control	Mapping
<input type="checkbox"/>	60103	Residual36M	36M Residual	Original	Price Momentum	Ascending	PUBLISHED	Nov-04-2011	Edit	Control	Mapping

The **Custom Factors > Custom Factor Data Control** screen (*Factor Data Control* tab) appears.

Custom Factors > Custom Factor Data Control

Edit Custom Factor		Factor Data Control	Factor Data Mapping	Load Monthly Data			Load Daily Data			Publish	
Universe	Monthly Data	Daily Data									
<input type="checkbox"/> SIC US Universe			<input type="checkbox"/>								
S&P 500											
S&P 400											
S&P 600											
S&P 1500											
Russell 1000											
Russell 1000 Value											
Russell 1000 Growth											
Russell 2000											
Russell 2000 Value											
Russell 2000 Growth											
Russell 3000											
Russell 3000 Value											
Russell 3000 Growth											
US Retail											
US Bank											
<input type="checkbox"/> SIC Canadian Universe											
<input type="checkbox"/> SIC Global											
Recalculate	Repopulate Month End									Save	Cancel
<<Prev	Next>>										

Index universes will display. Click the "+" or "-" symbols to expand or collapse your view.

Below are the fields that need to be completed to upload your proprietary factor data:

 **Load Monthly Data:** The “Load Monthly Data” checkbox controls whether to load the monthly factor data.

 **Load Daily Data:** The “Load Daily Data” controls whether to load the daily factor data.

Note: Load Monthly Data or Load Daily Data must be checked in order for the data loader to load data for that universe.

 **Publish:** Publishes the factor. Calculates factor statistics and displays the **Factor Summary** page.

 **Recalculate:** Re-generates derived factor values and re-calculates factor statistics. “Re-Calculate” is a function you can use to override the automatic calculation in case you need to refresh the calculation. The Job Status page will reflect the recalculation.

 **Repopulate Month End:** Applies only to Original Factors. Allows you to pick daily data to repopulate a month-end value and recalculate month-end statistics. Essentially, this option allows you to copy data from the daily table to the monthly table. The Job Status page will reflect the repopulation.

 **Save:** Saves your setting changes.

 **Cancel:** Discards your setting changes.

 **Prev / Next:** Advances between tabs on the Control Panel including: Edit Custom Factor, Factor Data Control and Factor Data Mapping.

Map Factor Data

After uploading your proprietary factor data, you must map the custom data items to your factor data.

To do this, you must be on the **Custom Factors > Custom Data Mapping** screen. To access the screen, follow the steps below

Select **Control Panel** from the Private Library section.



Under the 'Options' column, click the **Mapping** link next to the factor you want to map.

A screenshot of the 'Control Panel' screen. It shows a table of factors with columns for ID, Factor Code, Name, Version, Style, Rank, Status, Date Created, and Options. The 'Options' column contains links for 'Edit', 'Control', and 'Mapping'. A red arrow points to the 'Mapping' link for the second factor, which is named 'Residual36M'.

The **Custom Factors > Custom Data Item Mapping** screen (Factor Data Mapping tab) appears.

To begin custom data item mapping, click the **Create** button.

A screenshot of the 'Custom Factors > Custom Data Item Mapping' screen. It shows a table with columns for Universe, Frequency, Data Alignment, Custom Item Name, Value Type, Currency, Status, Last Loading Time, and Options. On the left, there is a navigation bar with 'Create' and 'Go to Proprietary Data Manager...'. A red arrow points to the 'Create' button. Another red arrow points to the 'Mapping' link in the 'Options' column of the table.

A separate window appears.

A screenshot of the 'Add Custom Data Item Mapping' dialog box. It contains fields for Factor Name ('1 Month Reversal'), Prop Data Item ('--Please select a Data Item--'), Universe ('US'), Data Type ('Monthly'), Date Alignment ('Last day with data in current month'), Value Type ('Raw'), and Currency ('Local'). At the bottom are 'Add' and 'Cancel' buttons. A red arrow points to the 'Prop Data Item' dropdown.

Below is an explanation of the fields in the **Add Custom Data Item Mapping** window:

- **Factor Name:** Automatically displays your selected factor
- **Prop Data Item:** Displays all of the unmapped items you created
- **Universe:** Choices are US, Canada or Global
- **Data Type:** Choices are Monthly or Daily
- **Date Alignment:** Choices are Last day with data in current month, Month End Date Only, or Closest day to month end
- **Value Type:** Only Raw
- **Currency:** Only Local
- **Add:** Click to add the mapping
- **Cancel:** Click to discard your entries

Custom Factors > Custom Data Item Mapping

Standardized 36M Residual

Universe	Frequency	Data Alignment	Custom Item Name	Value Type	Currency	Status	Last Loading Time	Options
<input checked="" type="checkbox"/> SIQUS	<input checked="" type="checkbox"/> Monthly Data	Last day with data in current month	standardized residual_numeric	RAW	LOCAL			Delete Mapping
	<input type="checkbox"/> Daily Data							
<input type="checkbox"/> SIQCAN	<input checked="" type="checkbox"/> Monthly Data							
	<input type="checkbox"/> Daily Data							
<input type="checkbox"/> SIQGLB	<input checked="" type="checkbox"/> Monthly Data							
	<input type="checkbox"/> Daily Data							

<<Prev

After you create all of your mappings, click either the Factor Data Control tab or the  button.

Custom Factors > Custom Factor Data Control

127STG

Universe	Monthly Data	Daily Data	Load Monthly Data	Load Daily Data	Publish
<input checked="" type="checkbox"/> SIQ US Universe			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> SIQ Canadian Universe			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> SIQ Global			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Recalculate Repopulate Month End Save Cancel

<<Prev Next>>

Make sure that you enable loading by clicking on the **Load Monthly Data** and/or the **Load Daily Data** check boxes corresponding to your desired Universes.

Click the  button to save your selections or the  button to discard your changes.

Once the desired check boxes are checked, the proprietary data loader will load any transactions that have not been loaded related to this proprietary data item.

To make changes to your proprietary data item mappings, refer to the section titled [Proprietary Data Manager](#) later in this document.

Publish Factors

To publish your custom factors, you must be at the Factor Data Control tab.

Select **Control Panel** from the Private Library section.



Under the 'Options' column, click the **Control** link next to the factor that you would like to publish.

Private Library > Control Panel

<input type="button" value="Delete"/>	<input type="button" value="Create Factor"/>	Show: <input checked="" type="radio"/> My Factors <input type="radio"/> All Factors						<input type="text" value="Search all Factors..."/>	<input type="button" value="Go"/>	<input type="button" value="Clear"/>
ID^	Factor Code^	Name^	Version^	Style^	Rank^	Status^	Date Created^	Options		
<input type="checkbox"/> 60102	stdResidual36M	Standardized 36M Residual	Original	Price Momentum	Ascending	PUBLISHED	Nov-04-2011	<input type="button" value="Edit"/> <input type="button" value="Control"/> <input type="button" value="Mapping"/>		
<input type="checkbox"/> 60103	Residual36M	36M Residual	Original	Price Momentum	Ascending	PUBLISHED	Nov-04-2011	<input type="button" value="Edit"/> <input type="button" value="Control"/> <input type="button" value="Mapping"/>		

The **Custom Factors > Custom Factor Data Control** screen (Factor Data Control tab) appears.

Custom Factors > Custom Factor Data Control

<input type="button" value="Edit Custom Factor"/>	<input type="button" value="Factor Data Control"/> Factor Data Control <input type="button" value="Factor Data Mapping"/>						<input type="text" value="Search all Factors..."/>	<input type="button" value="Go"/>	<input type="button" value="Clear"/>
Universe	Monthly Data	Daily Data	Load Monthly Data	Load Daily Data	Publish				
<input checked="" type="checkbox"/> SIQ US Universe			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S&P 500			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S&P 400			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S&P 600			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S&P 1500			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Russell 1000			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Russell 1000 Value			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Russell 1000 Growth			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Russell 2000			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Russell 2000 Value			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Russell 2000 Growth			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Russell 3000			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Russell 3000 Value			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Russell 3000 Growth			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
US Retail			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
US Bank			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> SIQ Canadian Universe			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> SIQ Global	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="button" value="Recalculate"/>	<input type="button" value="Populate Monthly End"/>	<input type="checkbox"/> 8		<input type="button" value="Save"/>	<input type="button" value="Cancel"/>			
	<input type="button" value="<<Prev"/>	<input type="button" value="Next>>"/>							

Index universes will display. Click the "+" or "-" symbols to expand or collapse your view.

To publish your factor, complete and/or verify data in the fields below:



Load Monthly Data: The "Load Monthly Data" checkbox controls whether to load the monthly factor data.



Load Daily Data: The "Load Daily Data" controls whether to load the daily factor data.

Note: "Load Monthly Data" or "Load Daily Data" must be checked in order for the data loader to load data for that universe.

 **Publish:** Publishes the factor. Calculates factor statistics and displays the **Factor Summary** page.

 **Recalculate:** Re-generates derived factor values and re-calculates factor statistics. "Re-Calculate" is a function the user can override the automatic calculation in the case of a need to refresh the calculation. The Job Status page will reflect the recalculation.

 **Repopulate Month End:** Applies only to Original Factors. Allows you to pick daily data to repopulate a month-end value and recalculate month-end statistics. Essentially, this option allows you to copy data from the daily table to the monthly table. The Job Status page will reflect the repopulation.

 **Save:** Saves your setting changes.

 **Cancel:** Discards your setting changes.

 **Prev / Next:** Advances between tabs on the Control Panel including: Edit Custom Factor, Factor Data Control, and Factor Data Mapping.

Job Status Summary

The Job Status Summary provides a status overview for your custom factors.

Private Library Job Status Summary								
Job Type:	All	Status:	All	Owner:	All	Duration	Status	Operations
Repopulate Factor Data	Repopulate factor data for Andrew_Dow_Model(60259)	Dow, Andrew	09/26/2012 19:14:00 PM	09/26/2012 19:13:49 PM	09/26/2012 19:13:52 PM	00:00:04	COMPLETED	Delete
Repopulate Factor Data	Repopulate factor data for testcode123(60184)	Bazerman, Gershon	06/28/2012 23:25:00 PM	06/28/2012 23:25:17 PM	06/28/2012 23:25:20 PM	00:00:04	COMPLETED	Delete
Repopulate Factor Data	Repopulate factor data for 444 (60020)	Shankar, Jaya	06/25/2011 11:47:00 AM				COMPLETED	Delete
Repopulate Factor Data	Repopulate factor data for RDP (60269)	Pope, Dave	10/18/2012 19:26:00 PM	10/18/2012 19:26:12 PM	10/18/2012 19:26:12 PM	00:00:01	COMPLETED	Delete
Repopulate Factor Data	Repopulate factor data for DPMOMEV(60268)	Pope, Dave	10/16/2012 18:54:00 PM	10/16/2012 18:54:02 PM	10/16/2012 18:54:05 PM	00:00:04	COMPLETED	Delete
Delete Factor	Delete factor Ap_Delete_60005 (60005)	Pahuja, Himanshu	10/11/2011 12:21:00 PM				PENDING	Cancel
Delete Factor	Delete factor	Ma, Li	08/23/2011 13:17:00 PM				COMPLETED	Delete
Delete Factor	Delete factor	Wang, Kirk	08/23/2011 12:38:00 PM				COMPLETED	Delete
Delete Factor	Delete factor testtest_Delete_60192 (60192)	Osiol, James	06/20/2012 11:29:00 AM				PENDING	Cancel
Delete Factor	Delete factor testtest_Delete_60191 (60191)	Osiol, James	06/20/2012 11:22:00 AM				PENDING	Cancel

Viewing 1-10 of 10 Tasks

Type: A job type may include: Delete Factor, Repopulate Factor Data, and Repopulate Month End Data. You can filter by any or all of these.

Description: Refers to the description of the custom factor.

Owner: Refers to the name of individual who initiated the job.

Create Time: Refers to the date and time the job was created.

Start Time: Refers to the date and time the job began.

Completion Time: Refers to the date and time the job completed.

Duration: Refers to the time it took for the job to complete.

Status: A job has six possible states in its life cycle: Dispatched, Pending, Running, Completed, Failed, and Canceled.

- Dispatched: The job has been submitted.
- Pending: The job is in the queue but not being executed. User can cancel.
- Running: The job is being processed. User can cancel.
- Completed: The job has finished.
- Failed: The job did not complete because it encountered an error.
- Canceled: During Pending and Running States, the user can click "Cancel" to abort the operation.
- Deleted: The job was deleted by the user.

Operations: Provides links to complete the following tasks:

- Delete: Click to delete the operation
- Cancel: Click to abort the operation
- Rerun: Click to rerun the operation

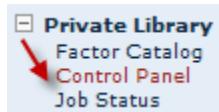
Proprietary Data Manager

The Proprietary Data Manager provides administrative functions that allow you to:

- Create a new proprietary data item
- Edit your proprietary data items
- Define feed formats
- Schedule feeds

To access the Proprietary Data Manager, follow the steps below

Select **Control Panel** from the Private Library section.



The **Control Panel** displays. Click the **Go to Proprietary Data Manager** link.

A screenshot of a web-based application interface. At the top, there's a navigation bar with tabs: "Edit Custom Factor", "Factor Data Control", and "Factor Data Mapping" (which is currently selected). Below the navigation bar, there's a search bar and a "FACTOR SEARCH" button. The main area shows a table with columns: "Universe", "Frequency", "Data Alignment", "Custom Item Name", "Value Type", "Currency", "Status", "Last Loading Time", and "Options". On the left side, there's a sidebar with a tree view under "Create". The tree has three main categories: "SICQUS", "SICQCAN", and "SICQGLB", each with "Monthly Data" and "Daily Data" options. A red arrow points from the text above to the "Go to Proprietary Data Manager" link in the navigation bar.

The **Proprietary Data Manager** screen appears.

For information on this functionality, please refer to the Proprietary Data Manager User Guide.

Factor Catalog

As previously mentioned, a factor is defined as a basic stock selection signal, which is calculated at stock level. The **Factor Catalog** is where the factor library is stored.

Factor Search

You can search for your factor using keywords entered in the **Search** field at the top right of the Factor Home page.



You may also select options in the Factor Catalog menu to choose a category (e.g., Price Momentum and Valuation).

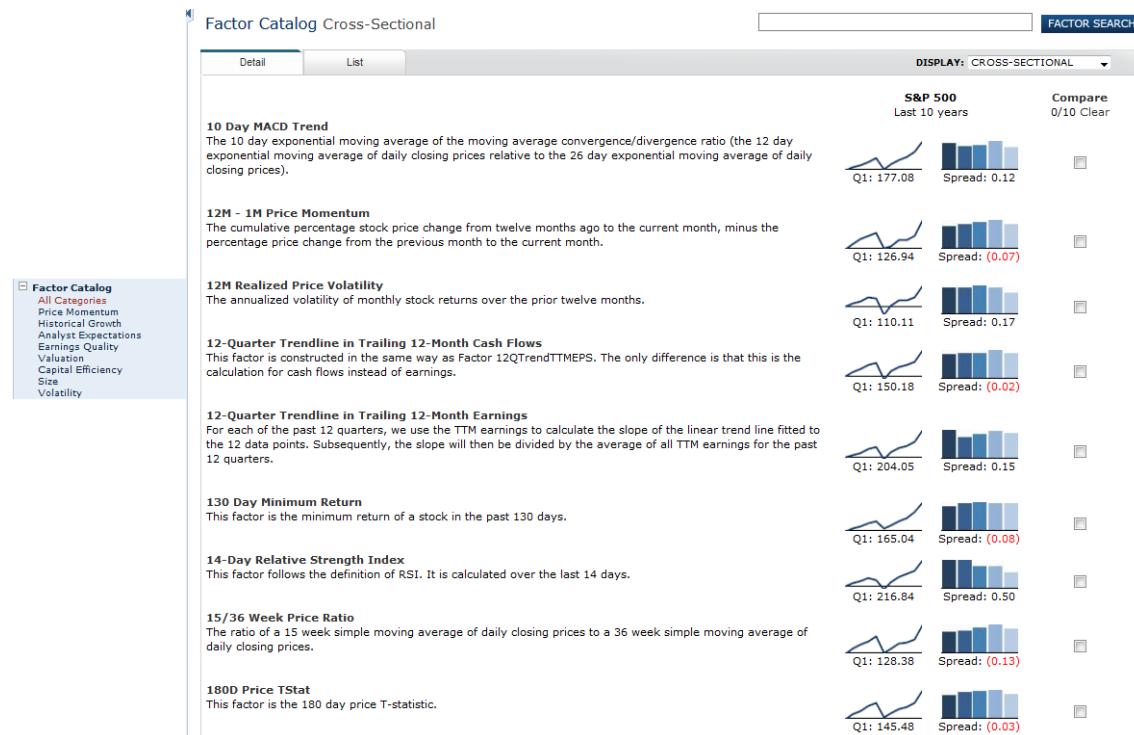


Following is a description of each of the areas in the Factor Catalog section.

Factor Catalog

Detail

The Detail tab provides a factor definition and a small visual depiction of each factor. Click on any factor name to be directed to the respective Factor Summary page. You may also select up to 10 factors to compare by selecting the factor checkbox and clicking **Compare** at the top or bottom of the list. You will be directed to a comparison page showing all the factors selected.



List

The List tab shows only the factor names. Click on any factor name to be directed to the respective Factor Summary page.

Detailed information for each factor can be found by clicking the factor name. The following section will describe the information captured in each of the areas. "Return on Invested Capital (ROIC)" is used as an example.

Factor Catalog Cross-Sectional		
Detail	List	DISPLAY: CROSS-SECTIONAL
10 Day MACD Trend	Adj Free Cash Flow to Price	Inventory Turnover
12M - 1M Price Momentum	Adj Growth Flow to Price	Inverse P/E Ratio Adj for Growth and Yield
12M Realized Price Volatility	Adj Number of EPS FY2 Revisions	Inverse P/E Ratio Adj for Growth and Yield
12-Quarter Trendline in Trailing 12-Month Cash Flows	Adj. EBITDA to Enterprise Value	Inverse PEG
12-Quarter Trendline in Trailing 12-Month Earnings	Adjusted 3M Revision in FY1 EPS Estimate	Inverse PEG_
130 Day Minimum Return	Adjusted 3Y Chg in Asset Adjusted Free Cash Flow	Log Market Cap
14-Day Relative Strength Index	Adjusted Accruals	Log of Market Capitalization Cubed
15/36 Week Price Ratio	Adjusted Book to Enterprise Value	Log of Stock Price
180D Price TStat	Adjusted Forward Earnings to Price	Log of Total Last Quarter Assets
1M Price High - 1M Price Low	Adjusted Interest Coverage Ratio	Log of Unadjusted Stock Price
1M Price Reversal	Adjusted Inverse PEG	Log TTM Sales
1M Realized Price Volatility	Adjusted Number of EPS FY1 Revisions	Long Term Debt to Assets Ratio
1Y Chg in Asset Adjusted Cash Flow	Adjusted Revision Magnitude	Long Term Debt to Equity Ratio
1Y Chg in Asset Adjusted EPS	<u>Analyst Dispersion for FY1 EPS</u>	Max Daily Return in the Past 6 Months
1Y Chg in Asset Adjusted Free Cash Flow	Analyst Dispersion for FY1 EPS_	Net Cash Flow to Enterprise Value
1Y Chg in Asset Adjusted Operating Cash Flow	Analyst Dispersion for FY2 EPS	Net Cash Flow to Price
1Y Chg in Cash Flow per Share	Analyst Dispersion for FY2 EPS_	Net Current Assets to Price Ratio
1Y Chg in Cash Flow to Price	Analyst Earnings Estimate Diffusion	Net Income Stability
1Y Chg in Debt to Assets	Analyst Earnings Estimate Diffusion_	Net Profit Margin
1Y Chg in Earnings per Share	Asset Adjusted Capital Investments	Non Performing Asset to Reserve Loan Loss
1Y Chg in Earnings to Price	Asset Turnover	Normalized EP
1Y Chg in EPS to Operating Cash Flow	Assets to Price Ratio	Normalized ROA
1Y Chg in Free Cash Flow per Share	Balance Sheet Accruals	Normalized ROE
1Y Chg in Free Cash Flow to Price	Banking FCF to Price	Num of Qtrs of Pos Chgs in TTM Cash Flows/TTM Sales
1Y Chg in Operating Cash Flow per Share	Book Leverage	Num of Quarters of Declines in Receivables

Daily Report

The Daily Report section displays most recent day stock level factor scores for a given universe on a specified day within the last 30 business days.

Return on Invested Capital

Add to Binder 0 Items

DAILY REPORT | SUMMARY | RETURN | IC | SECTOR | SEASONALITY | REGIME | TURNOVER | CORRELATION | COVERAGE | FORMULATION

INDEX: S&P 500 RANKING TYPE: CROSS SECTIONAL SECTOR: ALL SECTORS

Index: Select an index, region or country benchmark from the dropdown list.

Ranking Type: Select from the dropdown list whether to build quintile portfolios on a Cross Sectional or Sector Neutral basis:

Cross Sectional: Quintile portfolios are built by ranking factor raw data irrespective of a company's sector.

Sector Neutral: Before building quintile portfolios, all stocks are broken into groups according to GICS sector. Quintile portfolios are built by ranking factor raw data within each sector group. Sector quintile portfolios are then compiled into universe quintile portfolios.

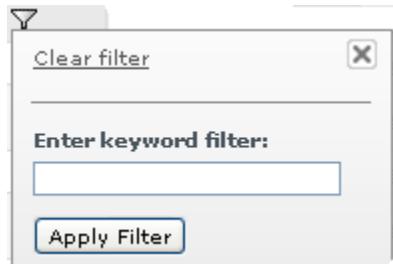
Sector: Select a sector of stocks to be analyzed. Click the dropdown to screen on All Sectors, or an individual GICS sector of stocks (e.g., Energy, Financials, and Healthcare).

Ticker	Cusip/Sedol	Score	Company	Prior Close	Chg %	Mkt Cap (mm)	Exchange	Sector	Industry
DNB	26483E100	1.0	Dun & Bradstreet Corp.	72.75	3.40%	3,536.30	NYSE	Industrials	Commercial and Professional Services
APOL	037604105	1.0	Apollo Group Inc.	51.86	3.08%	6,772.03	NasdaqGS	Consumer Discretionary	Consumer Services
MCO	615369105	1.0	Moody's Corp.	33.71	4.08%	7,482.62	NYSE	Financials	Diversified Financials
LO	544147101	1.0	Lorillard, Inc.	111.06	2.04%	14,994.21	NYSE	Consumer Staples	Food, Beverage and Tobacco
COH	189754104	2.0	Coach, Inc.	58.64	3.02%	17,112.68	NYSE	Consumer Discretionary	Consumer Durables and Apparel
ACN	G1151C101	2.0	Accenture plc	54.24	1.38%	34,762.98	NYSE	Information Technology	Software and Services
MN	582839106	2.0	Mead Johnson Nutrition Company	74.39	1.74%	15,143.17	NYSE	Consumer Staples	Food, Beverage and Tobacco
PM	718172109	2.0	Philip Morris International, Inc.	76.70	0.66%	133,226.52	NYSE	Consumer Staples	Food, Beverage and Tobacco
AZO	053332102	3.0	AutoZone Inc.	325.29	0.10%	12,803.41	NYSE	Consumer Discretionary	Retailing
LLTC	535678106	3.0	Linear Technology Corp.	29.79	4.78%	6,785.18	NasdaqGS	Information Technology	Semiconductors and Semiconductor Equipment
NFLX	64110L106	3.0	Netflix, Inc.	71.40	6.33%	3,952.79	NasdaqGS	Consumer Discretionary	Retailing
PCMN	741503403	3.0	priceline.com Incorporated	480.09	4.43%	23,900.32	NasdaqGS	Consumer Discretionary	Retailing
AAPL	037833100	4.0	Apple Inc.	395.95	3.59%	367,999.49	NasdaqGS	Information Technology	Technology Hardware and Equipment
ROST	778296103	4.0	Ross Stores Inc.	47.86	3.48%	10,942.71	NasdaqGS	Consumer Discretionary	Retailing
CL	194162103	4.0	Colgate-Palmolive Co.	91.55	1.82%	44,310.11	NYSE	Consumer Staples	Household and Personal Products
MA	57636Q104	4.0	Mastercard Incorporated	373.91	4.23%	47,455.81	NYSE	Information Technology	Software and Services
FMC	302491303	5.0	FMC Corp.	86.58	4.01%	6,097.22	NYSE	Materials	Materials
CLX	189054109	5.0	The Clorox Company	65.41	0.66%	8,627.91	NYSE	Consumer Staples	Household and Personal Products
PAYX	7042526107	5.0	Paychex, Inc.	30.24	2.16%	10,958.43	NasdaqGS	Information Technology	Software and Services
FLR	343412102	5.0	Fluer Corporation	49.11	4.36%	8,332.20	NYSE	Industrials	Capital Goods
MSFT	594918104	6.0	Microsoft Corporation	26.03	1.94%	218,927.04	NasdaqGS	Information Technology	Software and Services
IBM	459200101	6.0	International Business Machines Corp.	187.24	2.38%	220,684.47	NYSE	Information Technology	Software and Services
FCX	35671D857	6.0	Freesport-McMoran Copper & Gold Inc.	37.58	5.15%	35,622.50	NYSE	Materials	Materials
TJX	872540109	6.0	The TJX Companies, Inc.	63.11	2.58%	23,801.31	NYSE	Consumer Discretionary	Retailing
LMT	539830109	7.0	Lockheed Martin Corporation	78.53	2.23%	25,252.93	NYSE	Industrials	Capital Goods
CHRW	12541W209	7.0	CH Robinson Worldwide Inc.	68.23	4.26%	11,177.85	NasdaqGS	Industrials	Transportation
COL	774341101	7.0	Rockwell Collins Inc.	55.18	3.74%	8,193.02	NYSE	Industrials	Capital Goods
WU	959802109	7.0	Western Union Co.	18.28	4.16%	11,317.84	NYSE	Information Technology	Software and Services
ALTR	021441100	8.0	Altera Corp.	36.16	6.13%	11,602.41	NasdaqGS	Information Technology	Semiconductors and Semiconductor Equipment
GILD	375558103	8.0	Gilead Sciences Inc.	38.16	1.84%	28,663.46	NasdaqGS	Healthcare	Pharmaceuticals, Biotechnology and Life Sciences
VAR	92220P105	8.0	Varian Medical Systems Inc.	65.02	2.88%	7,318.52	NYSE	Healthcare	Healthcare Equipment and Services
YUM	988498101	8.0	Yum! Brands, Inc.	58.33	1.27%	26,860.73	NYSE	Consumer Discretionary	Consumer Services
HSY	427866108	9.0	Hershey Co.	59.57	(0.05%)	13,410.39	NYSE	Consumer Staples	Food, Beverage and Tobacco
DELL	24702R101	9.0	Dell Inc.	15.15	3.20%	27,217.11	NasdaqGS	Information Technology	Technology Hardware and Equipment
LLY	532457108	9.0	Eli Lilly & Co.	41.12	0.93%	47,607.17	NYSE	Healthcare	Pharmaceuticals, Biotechnology and Life Sciences

Click the corresponding columns to create an ascending/descending sort by:

- **Ticker:** Refers to the ticker symbol used by the company stock on the given exchange.
- **Cusip/Sedol:** Refers to the Cusip/Sedol company identifier.
- **Score:** Refers to the score given by ranking the selected factor, where a score of 1 is best and 100 is worst.
- **Company:** Refers to the name of the company
- **Prior Close:** Refers to the stock closing price from the previous trading day
- **Chg%:** Refers to the percent change in stock price from the close of the previous trading day to the close of the day prior to that day.
- **Mkt Cap (mm):** Refers to the market cap of the company.
- **Exchange:** Refers to the stock exchange that each stock is traded on.
- **Sector:** Refers to stocks grouped according to Global Industry Classification Standard (GICS) sector classification.
- **Industry:** Refers to a more granular grouping of stocks grouped according to Global Industry Classification Standard (GICS) industry classification.

You may apply a keyword filter on columns that display the filter icon:



Summary

The Summary section captures detailed returns data.

Cross-Sectional Tab

The Cross-Sectional tab includes summary data and returns.

Return on Invested Capital										FACTOR SEARCH								
Daily Report \ Summary \ Return \ IC \ Sector \ Seasonality \ Regime \ Turnover \ Correlation \ Coverage \ Formulation																		
INDEX:	S&P 500	TIME PERIOD:	From 1990	CATEGORY: CAPITAL EFFICIENCY					RANK ORDER: DESCENDING									
Cross-Sectional		By Sector																
Summary		Equal Weighted Rtns																
Information Ratio		0.18	Avg Monthly Rtn	1.05	1.00	0.89	0.81	0.84	0.88	0.21	0.17							
Avg 1M IC		0.02	Annualized Rtn	13.34	12.63	11.24	10.18	10.55	11.04	2.54	2.08							
Best IC		0.26	Annualized Std Dev Rtn	15.88	16.48	16.83	17.54	22.68	17.30	12.14	5.59							
Worst IC		(0.33)																
% of Period w/ Positive IC		58.78	Best Monthly Abs. Rtn	14.12	16.69	17.38	22.84	23.33	17.95	9.23	5.04							
Avg IC T-Stat		2.91	Best Monthly Act. Rtn	5.04	4.00	3.12	4.89	13.41										
1M IC Std Dev		0.11																
			Worst Monthly Abs. Rtn	(19.08)	(19.05)	(19.27)	(22.13)	(22.31)	(21.24)	(17.89)	(7.10)							
Avg 1M Q1 Act Rtn		0.17	Worst Monthly Act. Rtn	(7.10)	(7.84)	(7.57)	(8.57)	(7.24)										
Avg 1M Q1 Act Rtn - Act Best 1M Rtn		(5.00)																
			Mkt Cap Weighted Rtns															
Best Act 12M Rtn		18.88	Avg Monthly Rtn	1.44	1.23	1.29	1.00	1.20	1.28	0.24	0.16							
Worst Act 12M Rtn		(22.67)	Annualized Rtn	18.69	15.77	16.57	12.64	15.40	16.51	2.89	1.90							
			Annualized Std Dev Rtn	15.32	15.59	14.96	15.72	20.43	14.94	13.29	5.91							
Best Act 3Y Rtn		75.11	Best Monthly Abs. Rtn	16.17	13.44	14.61	13.08	19.15	11.97	11.69	5.66							
Worst Act 3Y Rtn		(36.63)	Best Monthly Act. Rtn	5.66	4.62	6.32	4.81	11.13										
Avg Hit Rate of Q1 v. Univ		58.40	Worst Monthly Abs. Rtn	(14.58)	(13.63)	(12.60)	(15.68)	(20.16)	(15.08)	(14.93)	(9.46)							
Avg Hit Rate of Q5 v. Univ		46.95	Worst Monthly Act. Rtn	(9.46)	(13.69)	(5.14)	(13.31)	(8.75)										
Avg Turnover		16.93	Avg Equal Weighted Beta	1.17	1.09	1.02	1.08	1.36										
Avg #of Companies in Univ		499	Avg Mkt Cap Weighted Beta	1.11	1.09	0.99	1.04	1.32										
Avg co w Data		487																

Index: Select an index, region or country benchmark from the dropdown list.

Time Period: Select a time frame over which to view the data. The results will show the average for this period.

Category: Refers to the style associated with the factor.

Rank Order:

- *descending*, the higher the raw value, the better the stock rank
- *ascending*, the lower the raw values, the better the stock rank

Four visual depictions of the data are shown including Cumulative Monthly Quintile Returns, Average Monthly Returns by Quintile, Average 1-Month Information Coefficient and Average 12-Month Information Coefficient.



By Sector Tab

The Sector Summary tab shows summary and return data by sector.

Return on Invested Capital										FACTOR SEARCH	
Daily Report \ Summary \ Return \ IC \ Sector \ Seasonality \ Regime \ Turnover \ Correlation \ Coverage \ Formulation											
INDEX:	S&P 500	TIME PERIOD:	From 1990	CATEGORY: CAPITAL EFFICIENCY					RANK ORDER: DESCENDING		
Cross-Sectional											
	CS	Energy	Mat	Ind	Dscr	Stapl	Hlth	Fin	IT	Tlcm	Util
Ann Eq Wt Rtn of Q1	13.30	11.46	11.75	11.13	10.99	16.62	14.99	16.04	19.30	16.42	9.42
Ann Active Rtn (Eq Wt)	2.13	(2.72)	0.51	0.32	(0.11)	3.84	0.76	3.41	2.54	5.96	(0.36)
Ann Spread (Eq Wt)	2.66	(3.78)	5.28	2.71	0.15	5.66	(0.19)	6.11	2.70	7.85	(2.95)
Avg 1M Q1 Act Rtn (Eq Wt)	0.18	(0.23)	0.04	0.03	(0.01)	0.31	0.06	0.28	0.21	0.48	(0.03)
Avg 1M Q1 Act Rtn (Cap Wt)	0.16	(0.32)	(0.08)	0.01	0.21	0.35	(0.04)	0.29	0.03	0.29	(0.17)
Q1 Batting Average	50.41										
Q1 Hit Ratio	58.56	49.81	52.09	52.47	52.09	55.51	49.05	55.13	55.13	55.13	50.19
Best Act 12M Rtn	18.88	30.55	44.92	18.99	26.86	34.95	41.13	32.76	67.78	48.30	24.60
Worst Act 12M Drawdown	(22.67)	(37.87)	(45.80)	(19.32)	(70.10)	(19.08)	(50.43)	(44.25)	(59.04)	(61.90)	(33.82)
Information Ratio	0.18	0.01	0.09	0.08	0.09	0.11	0.04	0.11	0.20	0.08	(0.07)
Avg 1M IC	0.02	0.00	0.02	0.01	0.01	0.02	0.01	0.02	0.04	0.03	(0.01)
Best 1M IC	0.26	0.66	0.59	0.41	0.51	0.52	0.67	0.57	0.51	0.95	0.49
Worst 1M IC	(0.33)	(0.54)	(0.64)	(0.39)	(0.44)	(0.56)	(0.61)	(0.55)	(0.44)	(0.95)	(0.50)
% of Period w/ Positive IC	58.94	48.67	54.37	54.37	58.56	57.03	52.47	55.51	59.32	50.95	49.05
Avg Turnover	16.97										
Avg #of Companies	499	29	44	72	89	41	40	72	60	11	35
Avg co w Data	487	29	44	72	88	40	40	63	60	11	35
Avg Mkt Cap (B)	18.09	24.00	7.38	13.69	10.39	21.48	22.85	17.50	19.95	35.71	7.89
Avg Q1 Beta	1.17	0.81	1.16	0.96	1.03	0.62	0.68	1.25	1.50	1.04	0.44
Avg Q5 Beta	1.36	1.08	1.21	1.16	1.25	0.71	0.91	1.29	1.83	1.52	0.74

Index: Select an index, region or country benchmark from the dropdown list.

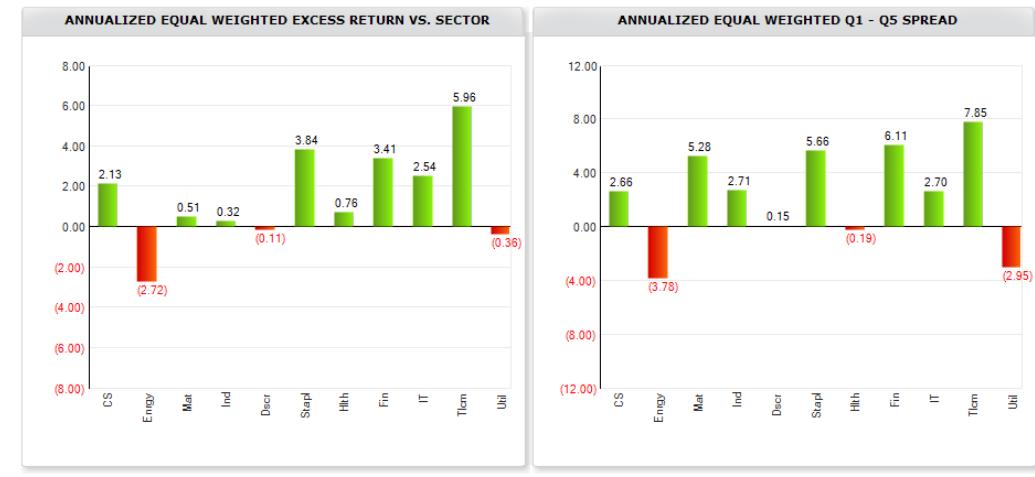
Time Period: Select a time frame over which to view the data. The results will show the average for this period.

Category: Refers to the style associated with the factor.

Rank Order:

- *descending*, the higher the raw value, the better the stock rank
- *ascending*, the lower the raw values, the better the stock rank

Two visual depictions of the data are shown including Annualized Equal Weighted Excess Return vs. Sector and Annualized Equal Weighted Q1-Q5 Spread.



Return

The Return function shows information on quintile returns and return spreads for the time period selected.

Index: Select an index, region or country benchmark from the dropdown list.

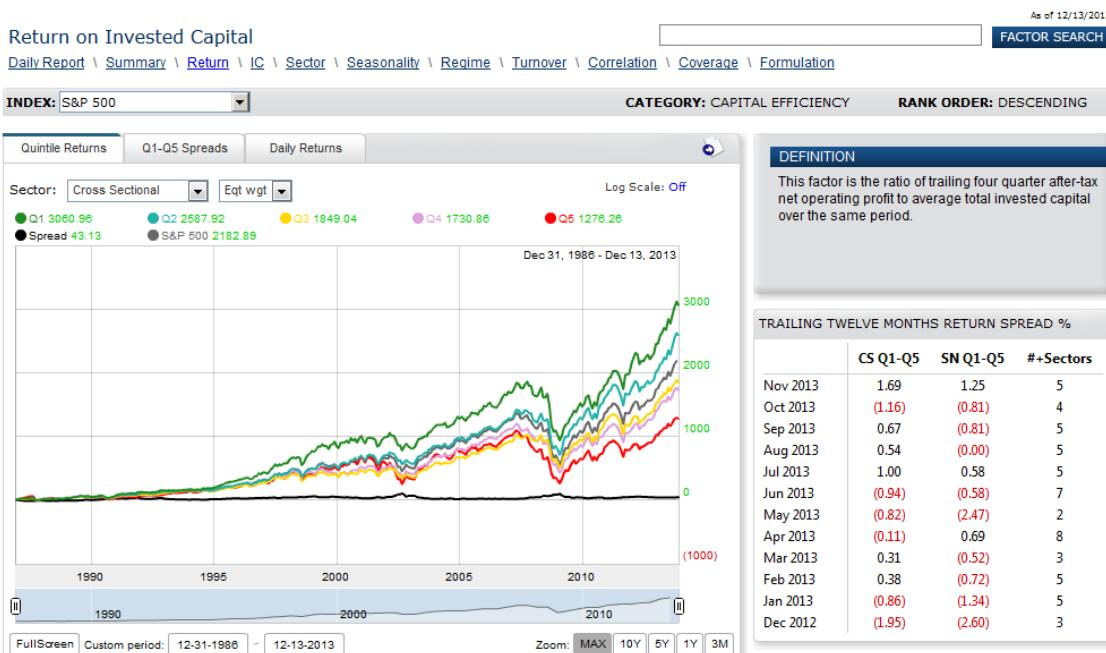
Category: Refers to the style associated with the factor.

Rank Order:

- *descending*, the higher the raw value, the better the stock rank
- *ascending*, the lower the raw values, the better the stock rank

Quintile Returns Tab

The Quintile Returns tab shows returns for each respective quintile portfolio (Q1 through Q5).



Sector: Select a sector of stocks to be analyzed. Click the dropdown to choose whether to view data calculated on a Cross Sectional or Sector Neutral basis, or to view data for an individual GICS sector of stocks (e.g., Energy, Financials, and Health Care).

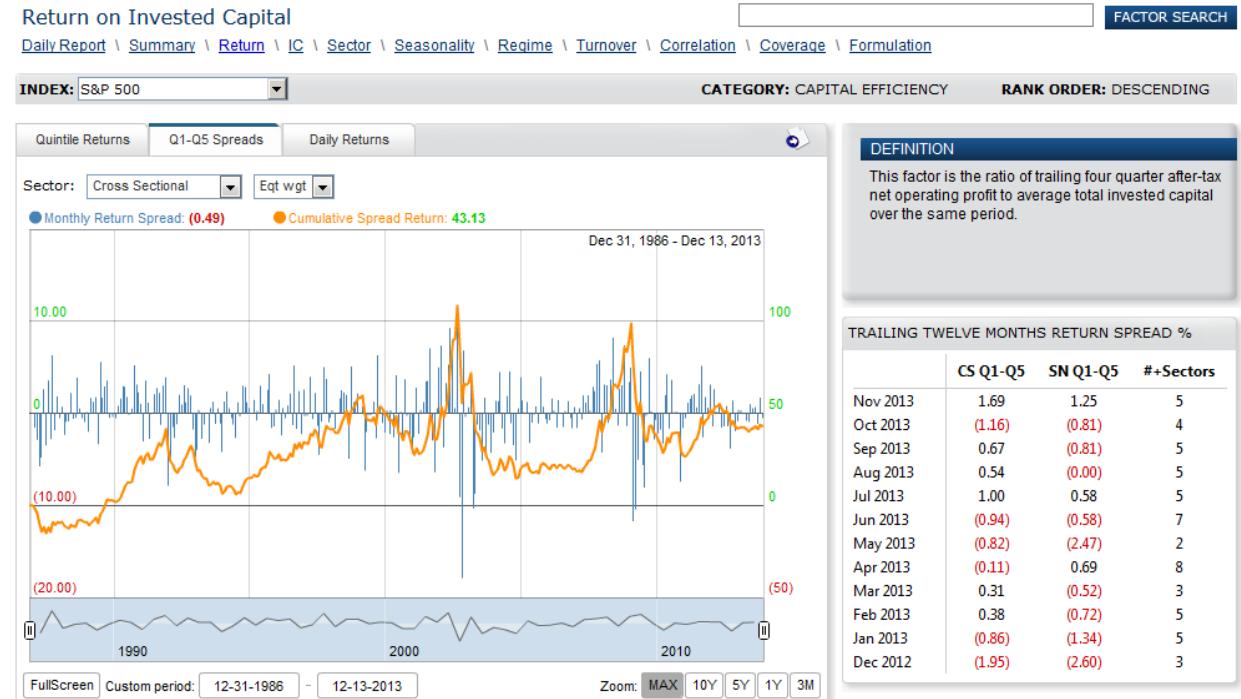
The adjacent dropdown allows you to view returns calculated using either an equal-weighted or a cap-weighted methodology.

Sector Spreads: Refers to the spread calculated by taking a long position in the top quintile stocks (or top 20%) and shorting the bottom quintile, across the entire universe.

Select any colored dot to remove the corresponding quintile from the chart. Click the same colored dot to re-add the corresponding quintile from the chart.

Q1-Q5 Spreads Tab

The Q1-Q5 Spreads tab shows the monthly and cumulative return spreads.



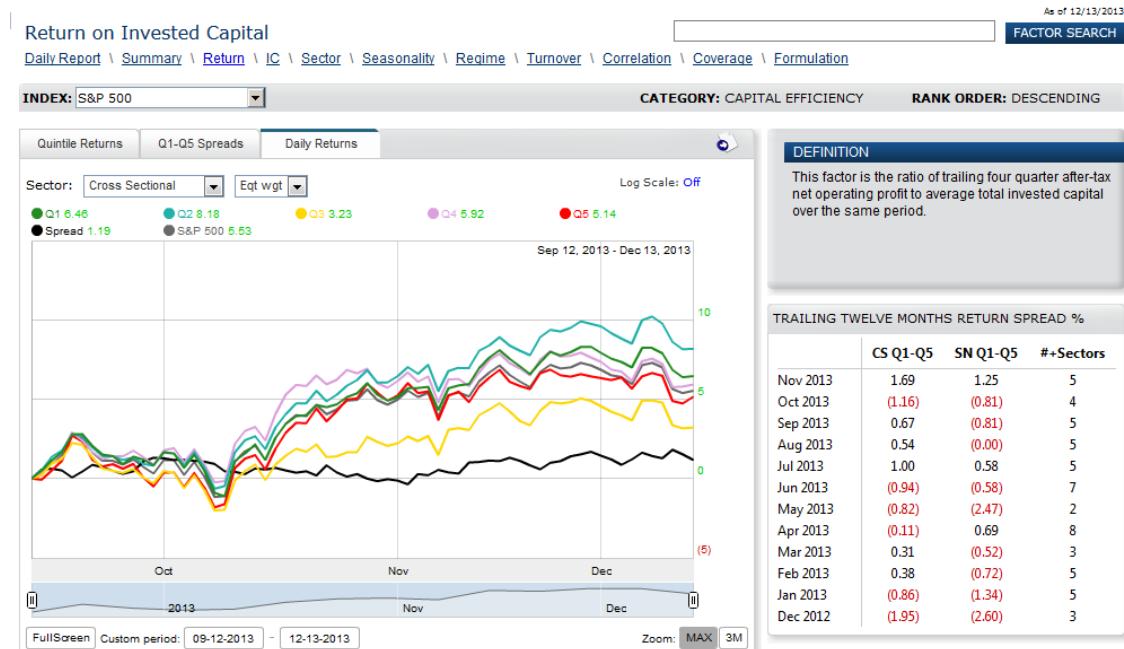
Sector: Select a sector of stocks to be analyzed. Click the dropdown to choose whether to view data calculated on a Cross Sectional or Sector Neutral basis, or to view data for an individual GICS sector of stocks (e.g., Energy, Financials, and Health Care).

Monthly Return Spread: Refers to the return spread for a specific month calculated by taking a long position in the top quintile stocks (or top 20%) and shorting the bottom quintile (or bottom 20%), across the entire universe.

Cumulative Spread Return: Refers to the difference between the top quintile (Q1) and bottom quintile (Q5) cumulative monthly performance.

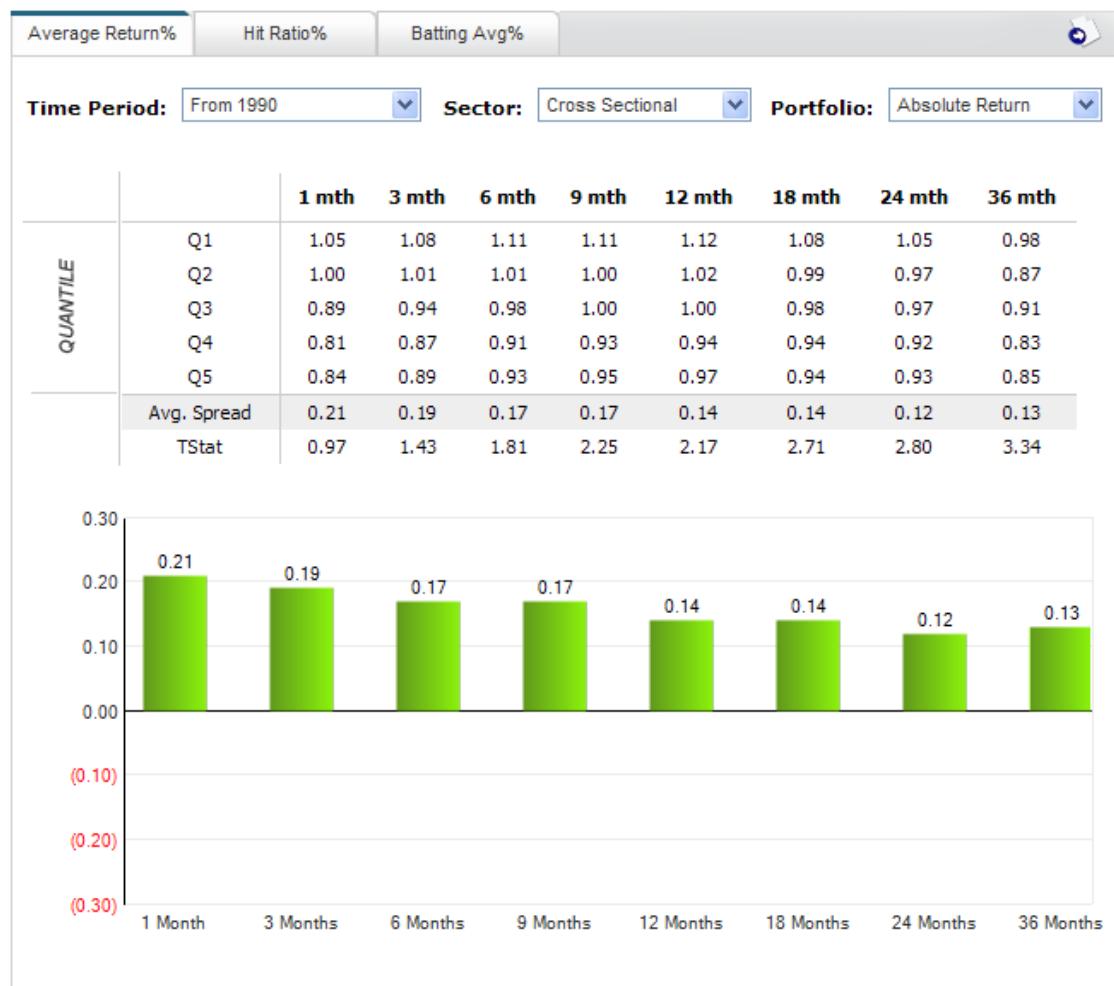
Daily Returns Tab

The Daily Returns tab shows the daily returns for each respective quintile portfolio for the time period selected.



Average Return % Tab

The Average Return % tab displays the average return of the respective quintile portfolio over various holding periods. A detailed bar graph of this data is found at the bottom.



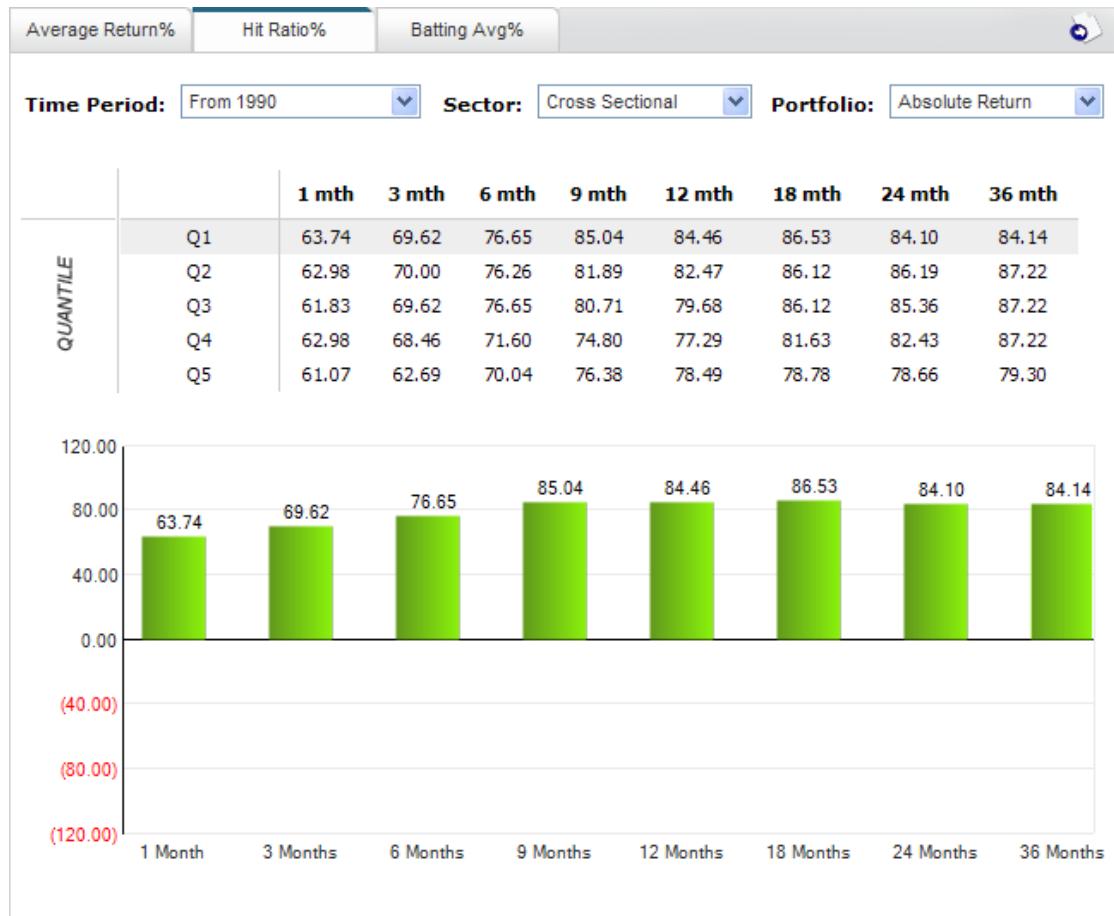
Time Period: Select a time frame over which to view the data. The results will show the average for this period.

Sector: Select a sector of stocks to be analyzed. Click the dropdown to choose whether to view data calculated on a Cross Sectional or Sector Neutral basis, or to view data for an individual GICS sector of stocks (e.g., Energy, Financials, and Health Care).

Portfolio: Select the measure of portfolio performance you would like to view. Click the dropdown to select either Absolute Return or Active Return.

Hit Ratio % Tab

The Hit Ratio % tab displays the percentage of months over the time period when the average quintile return outperforms the equal-weighted benchmark return.



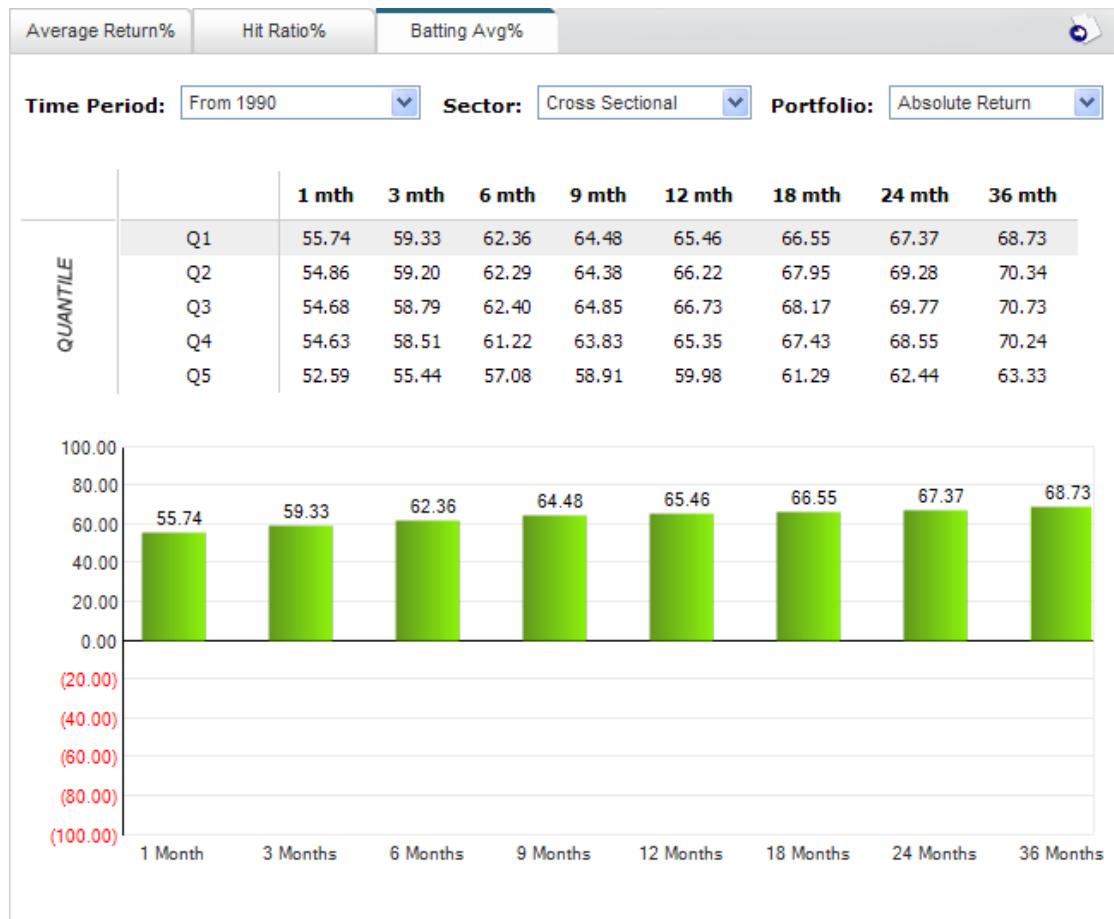
Time Period: Select a time frame over which to view the data. The results will show the average for this period.

Sector: Select a sector of stocks to be analyzed. Click the dropdown to choose whether to view data calculated on a Cross Sectional or Sector Neutral basis, or to view data for an individual GICS sector of stocks (e.g., Energy, Financials, and Health Care).

Portfolio: Select the measure of portfolio performance you would like to view. Click the dropdown to select either Absolute Return or Active Return.

Batting Average % Tab

The Batting Average % tab displays the average percentage of companies in the respective quintile whose returns outperform the equal-weighted benchmark over the selected time frame.



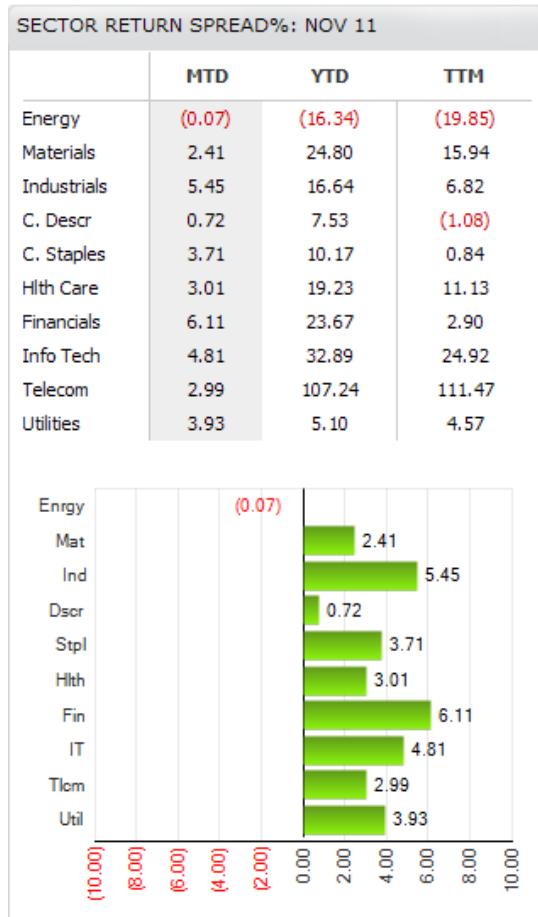
Time Period: Select a time frame over which to view the data. The results will show the average for this period.

Sector: Select a sector of stocks to be analyzed. Click the dropdown to choose whether to view data calculated on a Cross Sectional or Sector Neutral basis, or to view data for an individual GICS sector of stocks (e.g., Energy, Financials, and Health Care).

Portfolio: Select the measure of portfolio performance you would like to view. Click the dropdown to select either Absolute Return or Active Return.

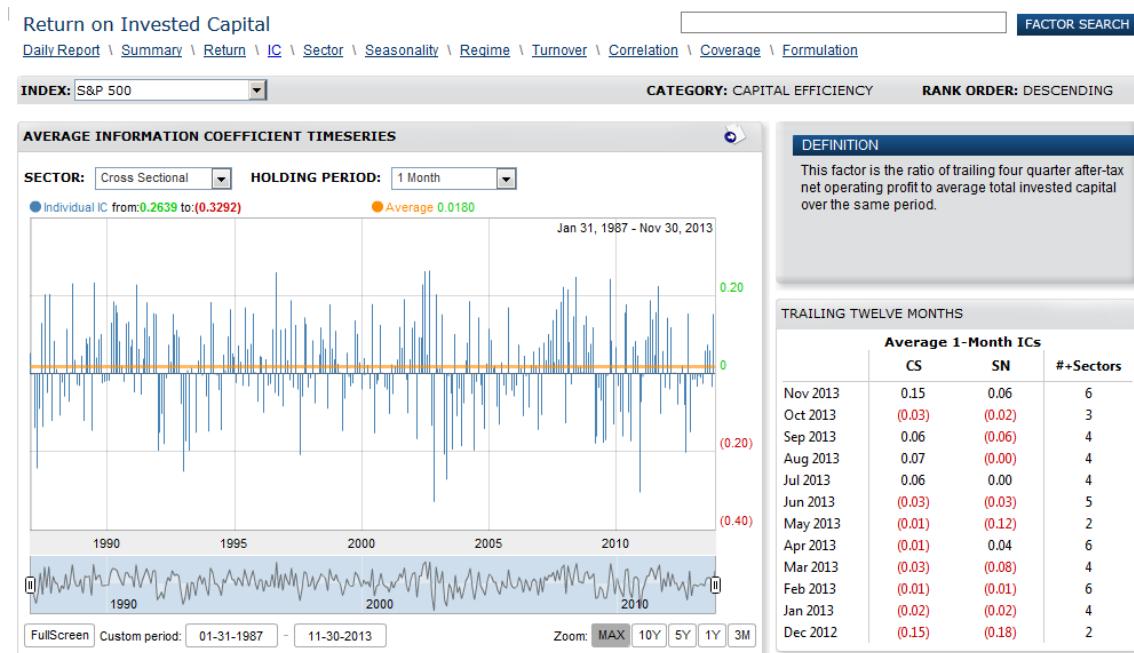
TRAILING TWELVE MONTHS RETURN SPREAD %			
	CS Q1-Q5	SN Q1-Q5	#+Sectors
Oct 2011	(2.56)	(3.49)	5
Sep 2011	5.16	3.97	8
Aug 2011	3.93	2.98	9
Jul 2011	0.70	3.22	8
Jun 2011	2.09	2.02	8
May 2011	2.03	1.67	7
Apr 2011	0.57	(0.46)	5
Mar 2011	1.00	1.37	6
Feb 2011	(0.09)	(0.17)	6
Jan 2011	(1.30)	(0.07)	5
Dec 2010	(6.94)	(5.04)	1
Nov 2010	0.09	0.77	6

Trailing Twelve Months Return Spread %: Represents the rolling cumulative quintile return spread percentage over the prior twelve months.



Sector Return Spread %:
Represents the top quintile minus the bottom quintile return on a sector level for the most recent month. A bar graph of this data is displayed just below the table.

IC (Information Coefficient)



Index: Select an index, region or country benchmark from the dropdown list.

Category: Refers to the style associated with the factor.

Rank Order:

- *descending*, the higher the raw value, the better the stock rank
- *ascending*, the lower the raw values, the better the stock rank

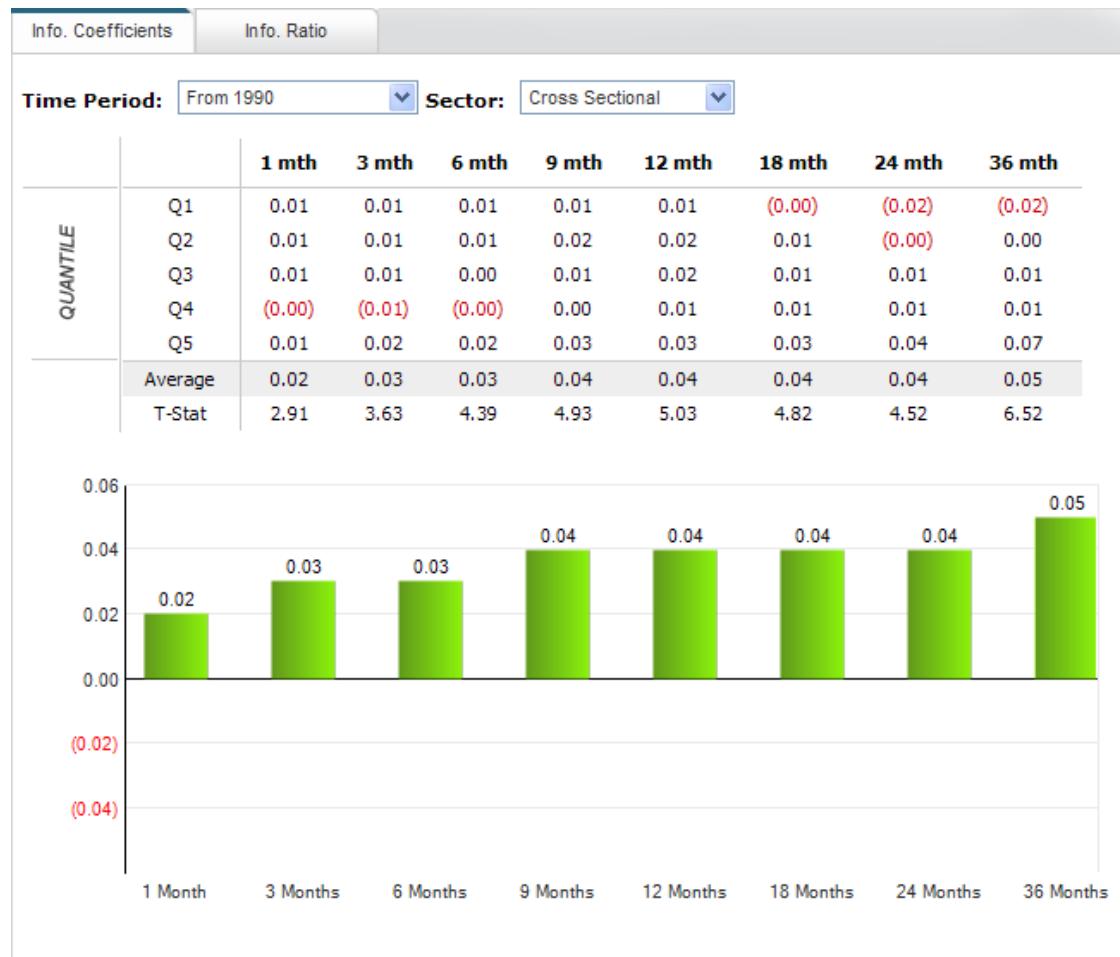
Average Information Coefficient Time Series: Refers to the IC data average over a specific time period.

Sector: Select a sector of stocks to be analyzed. Click the dropdown to choose whether to view data calculated on a Cross Sectional or Sector Neutral basis, or to view data for an individual GICS sector of stocks (e.g., Energy, Financials, and Health Care).

Holding Period: Select the length of time each stock to be held in the portfolio from date of purchase to date of sale.

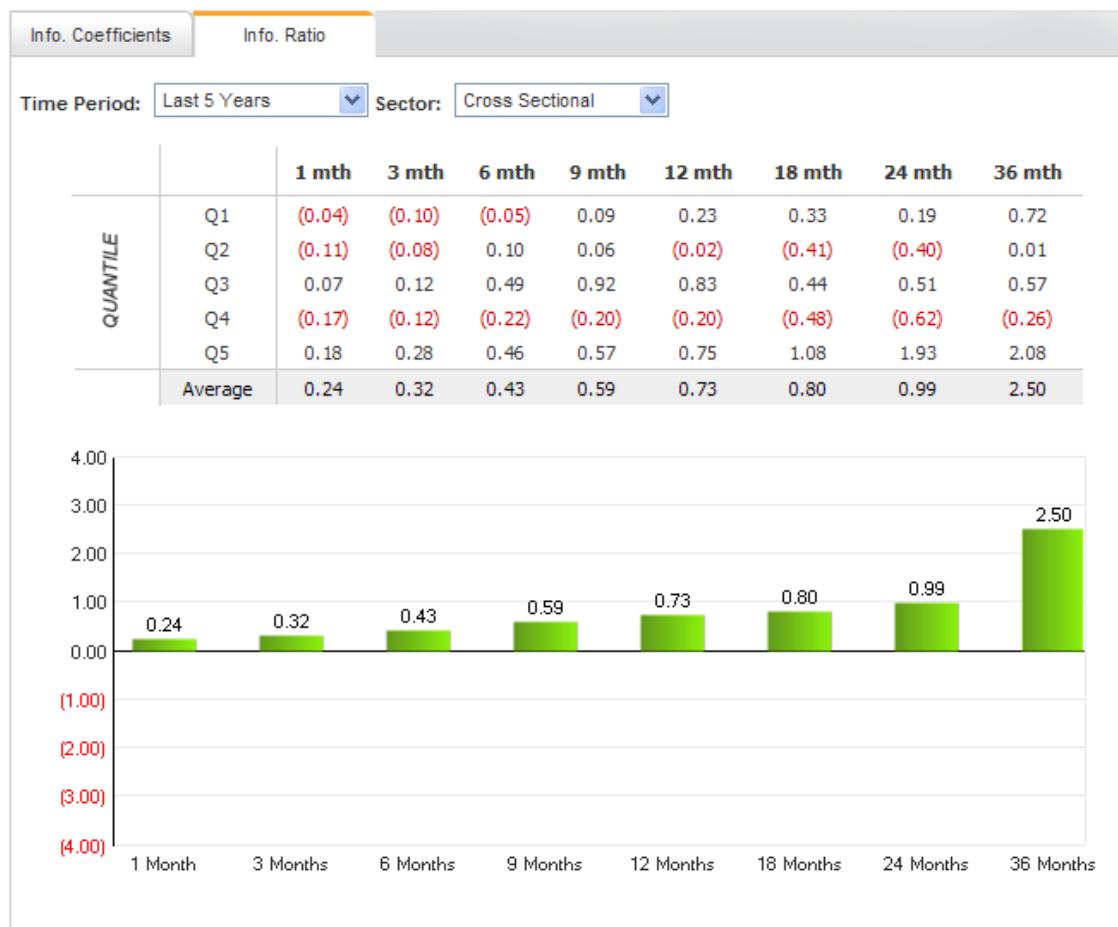
Information Coefficients Tab

The Information Coefficients tab contains data that measures the forecasting skill of a factor or model. The ICs are calculated as a Spearman rank correlation and are a measure of the correlation between the factor rank and forward returns. The ICs can also be set manually for importing forecasting models.



Information Ratio Tab

The information ratio is calculated as the average information coefficient (IC) divided by the volatility of the IC. It is a measure of risk-adjusted return and is equivalent to the Sharpe Ratio; however, it only considers the active components (return and volatility).



TRAILING TWELVE MONTHS			
	Average 1-Month ICs		#+Sectors
	CS	SN	#+Sectors
Oct 2011	(0.10)	(0.09)	5
Sep 2011	0.22	0.18	7
Aug 2011	0.16	0.12	8
Jul 2011	0.05	0.15	9
Jun 2011	0.14	0.13	8
May 2011	0.19	0.10	6
Apr 2011	0.09	(0.02)	5
Mar 2011	0.09	0.08	7
Feb 2011	(0.01)	(0.01)	5
Jan 2011	(0.07)	(0.04)	3
Dec 2010	(0.30)	(0.20)	1
Nov 2010	0.05	0.04	8

Trailing Twelve Months:

Represents the month to month Average 1-Month ICs for the last 12 months in a cross-sectional and sector-neutral basis. The table also shows the number of sectors with positive ICs for the month identified.

SECTOR SUMMARY AS OF MONTH-END OCT 11			
	Average 1-Month ICs		
	T1M	YTD	TTM
Energy	(0.14)	(0.10)	(0.09)
Materials	0.07	0.16	0.12
Industrials	0.00	0.04	0.01
C. Descr	(0.44)	0.08	0.04
C. Staples	(0.43)	0.01	(0.04)
Hlth Care	0.06	0.08	0.05
Financials	(0.20)	0.08	0.04
Info Tech	(0.04)	0.12	0.10
Telecom	0.33	0.16	0.13
Utilities	0.20	(0.04)	0.00

Sector Summary as of Month-End:

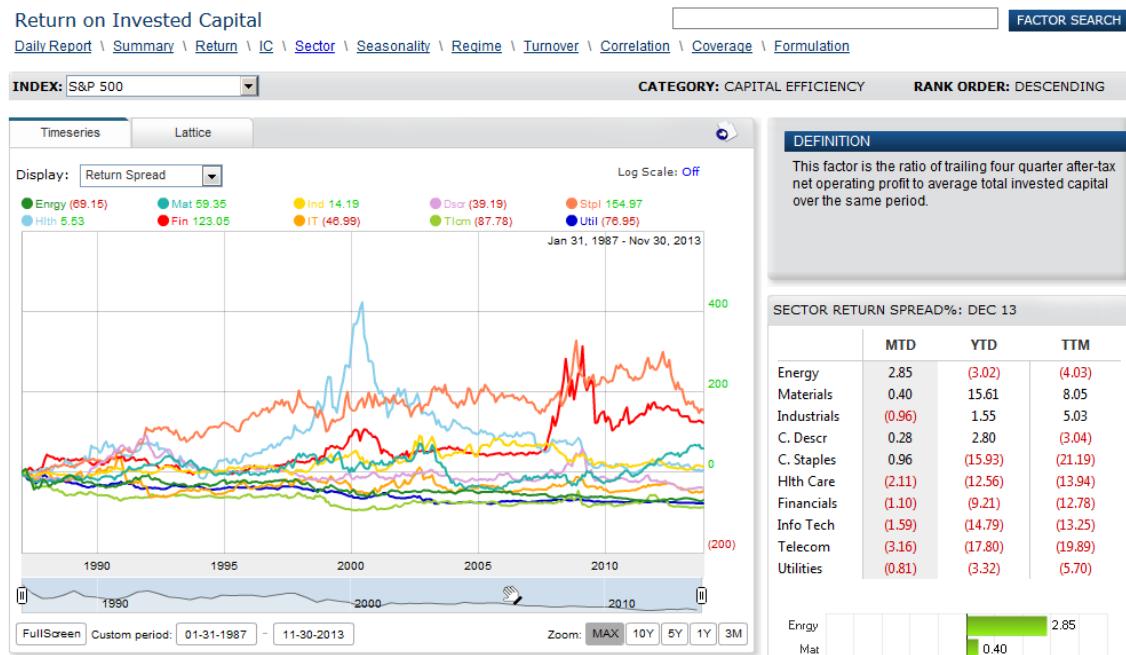
Represents the average ICs over a one-month time period for each of the GICS sector levels. A bar graph of this data is detailed just below the table.



Sector

Timeseries Tab

The Timeseries tab shows returns by sector over the selected time period.



Index: Select an index, region or country benchmark from the dropdown list.

Category: Refers to the style associated with the factor.

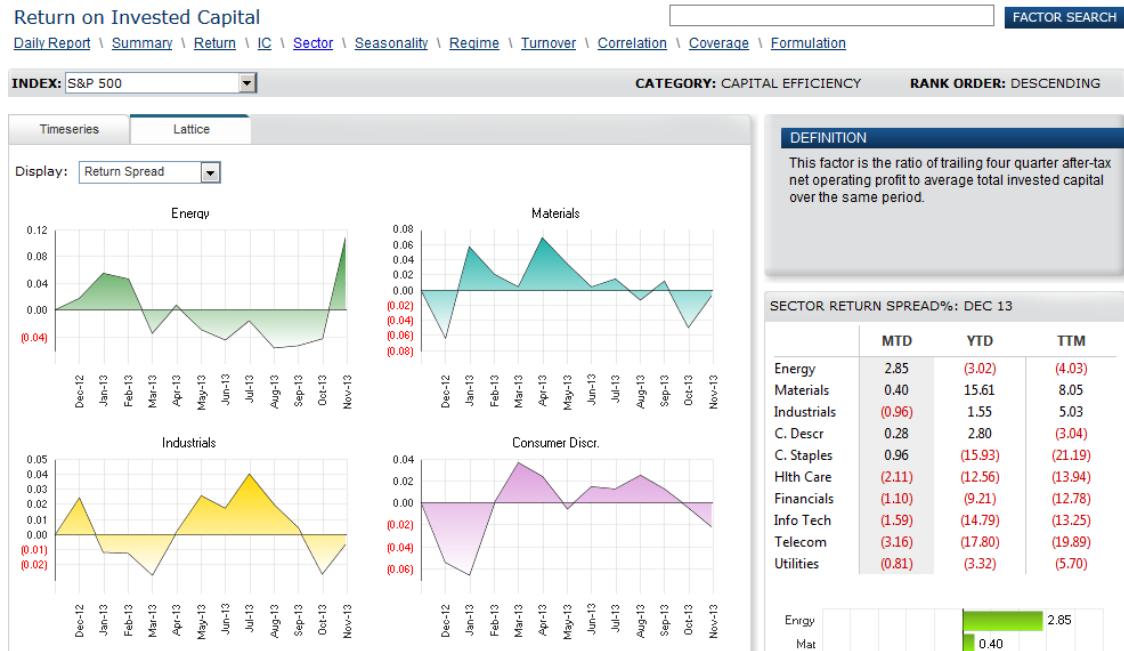
Rank Order:

- *descending*, the higher the raw value, the better the stock rank
- *ascending*, the lower the raw values, the better the stock rank

Display: Select the data series to be displayed. Options are Return Spread, Q1 Active Return, or Q5 Active Return.

Lattice Tab

The Lattice tab shows returns by sector over the time period selected.



Index: Select an index, region or country benchmark from the dropdown list.

Category: Refers to the style associated with the factor.

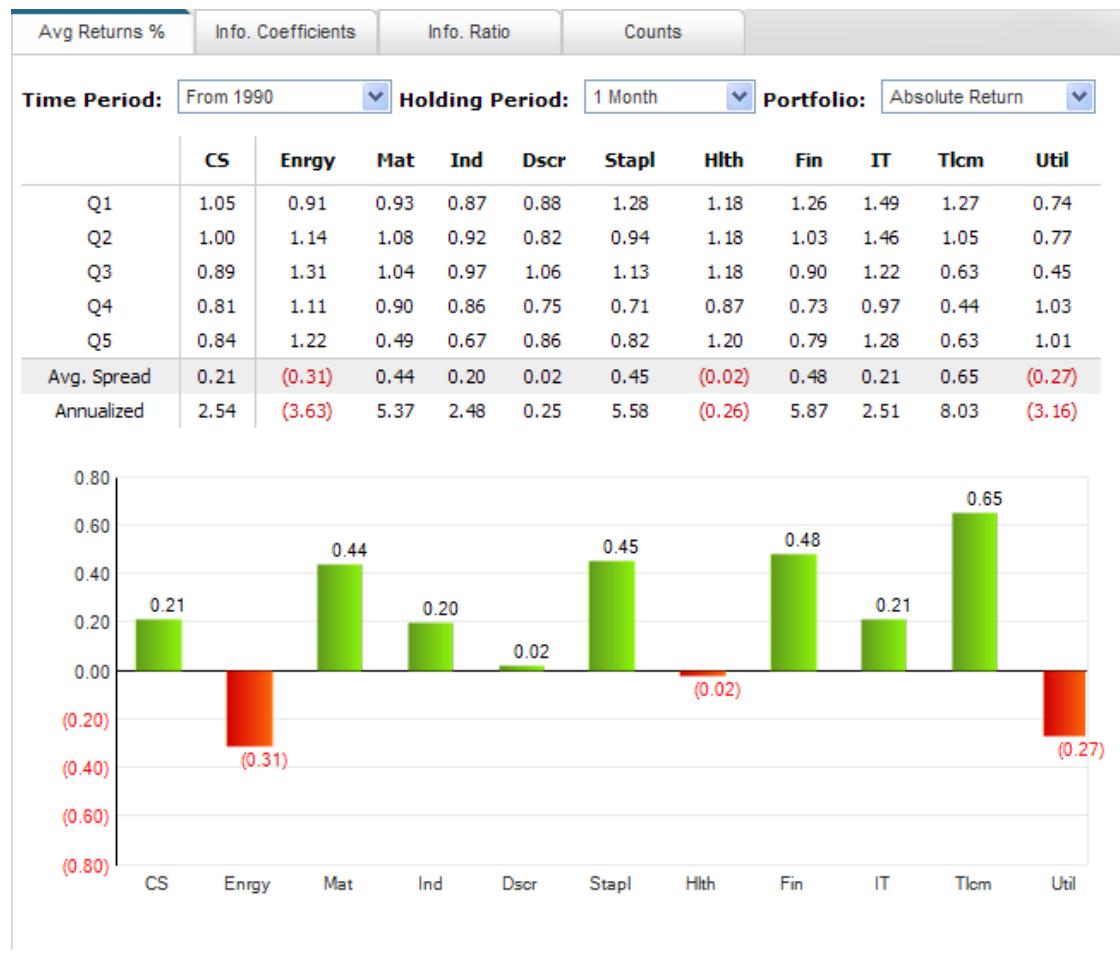
Rank Order:

- *descending*, the higher the raw value, the better the stock rank
- *ascending*, the lower the raw values, the better the stock rank

Display: Select the data series to be displayed. Options are Return Spread, Q1 Active Return, or Q5 Active Return.

Average Returns % Tab

The Average Returns % tab displays average return spread by sector. Click any data value in the table to get a visual in the bar graph below.



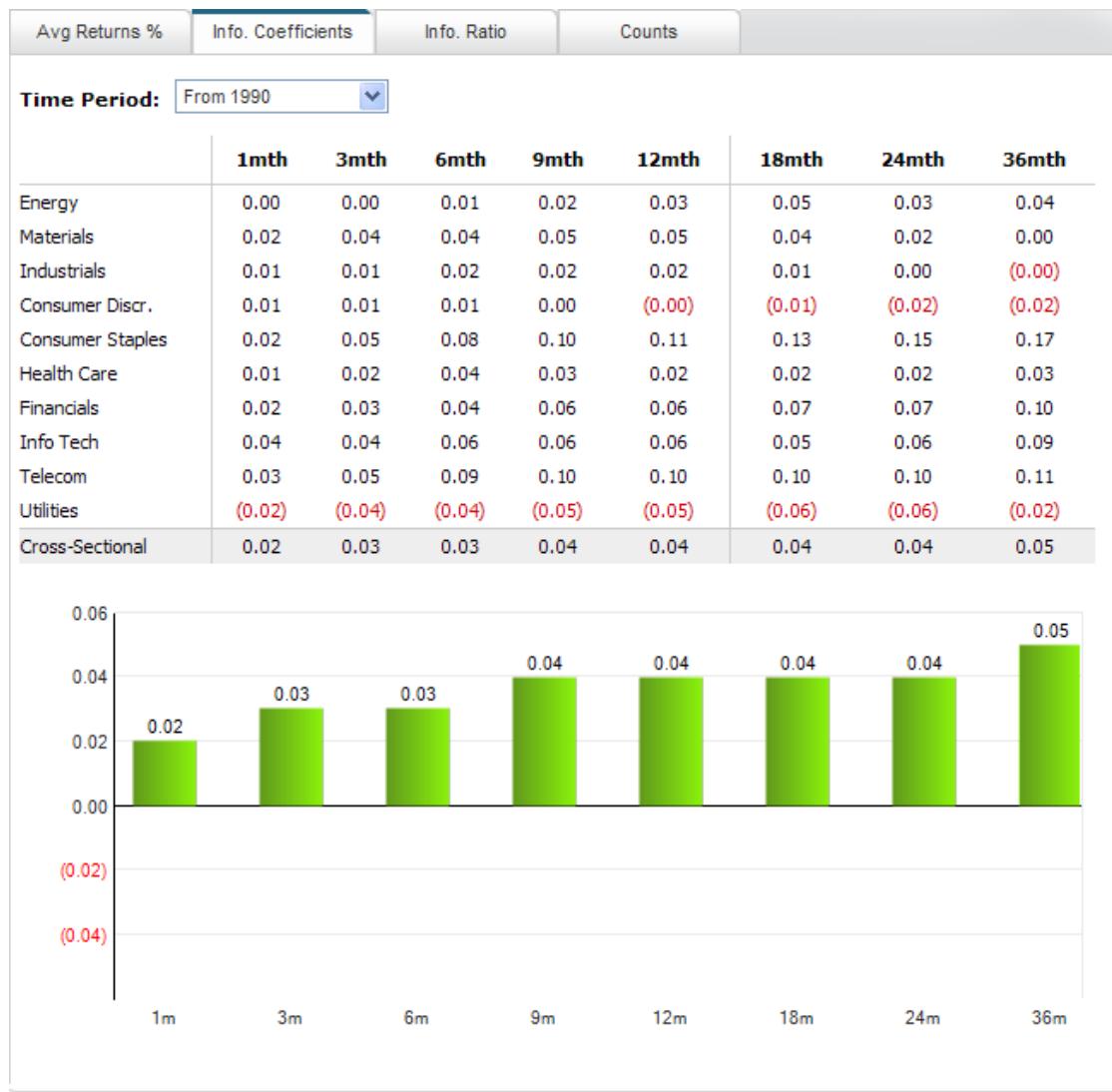
Time Period: Select a time frame over which to view the data. The results will show the average for this period.

Holding Period: Select the length of time each stock is held in the portfolio from date of purchase to date of sale.

Portfolio: Select the measure of portfolio performance you would like to view. Click the dropdown to select either Absolute Return or Active Return.

Information Coefficients Tab

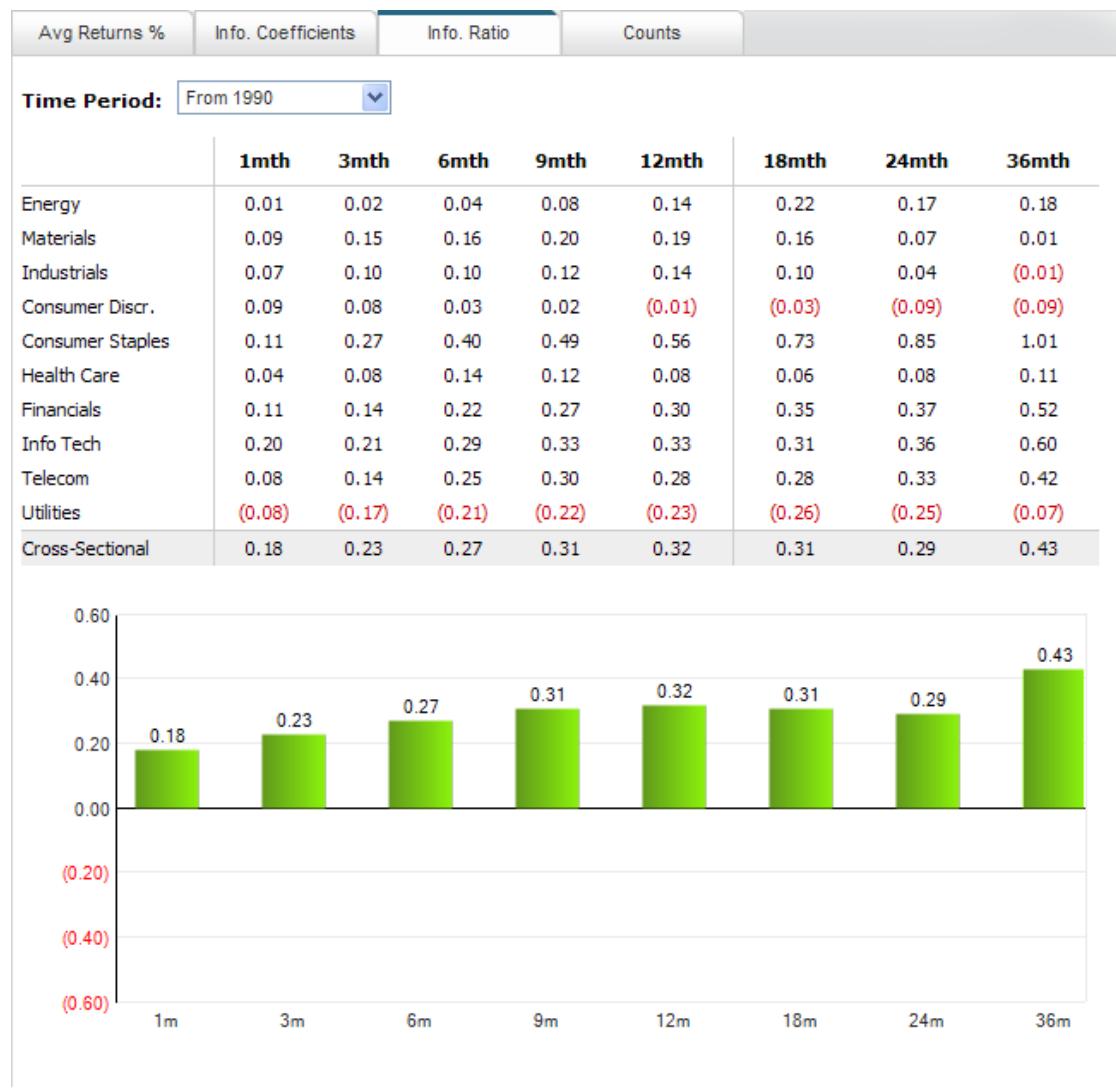
The ICs tab displays IC data by sector over the time period selected. Click any row in the table to update the bar graph below with the selected data.



Time Period: Select a time frame over which to view the data. The results will show the average for this period.

Information Ratio Tab

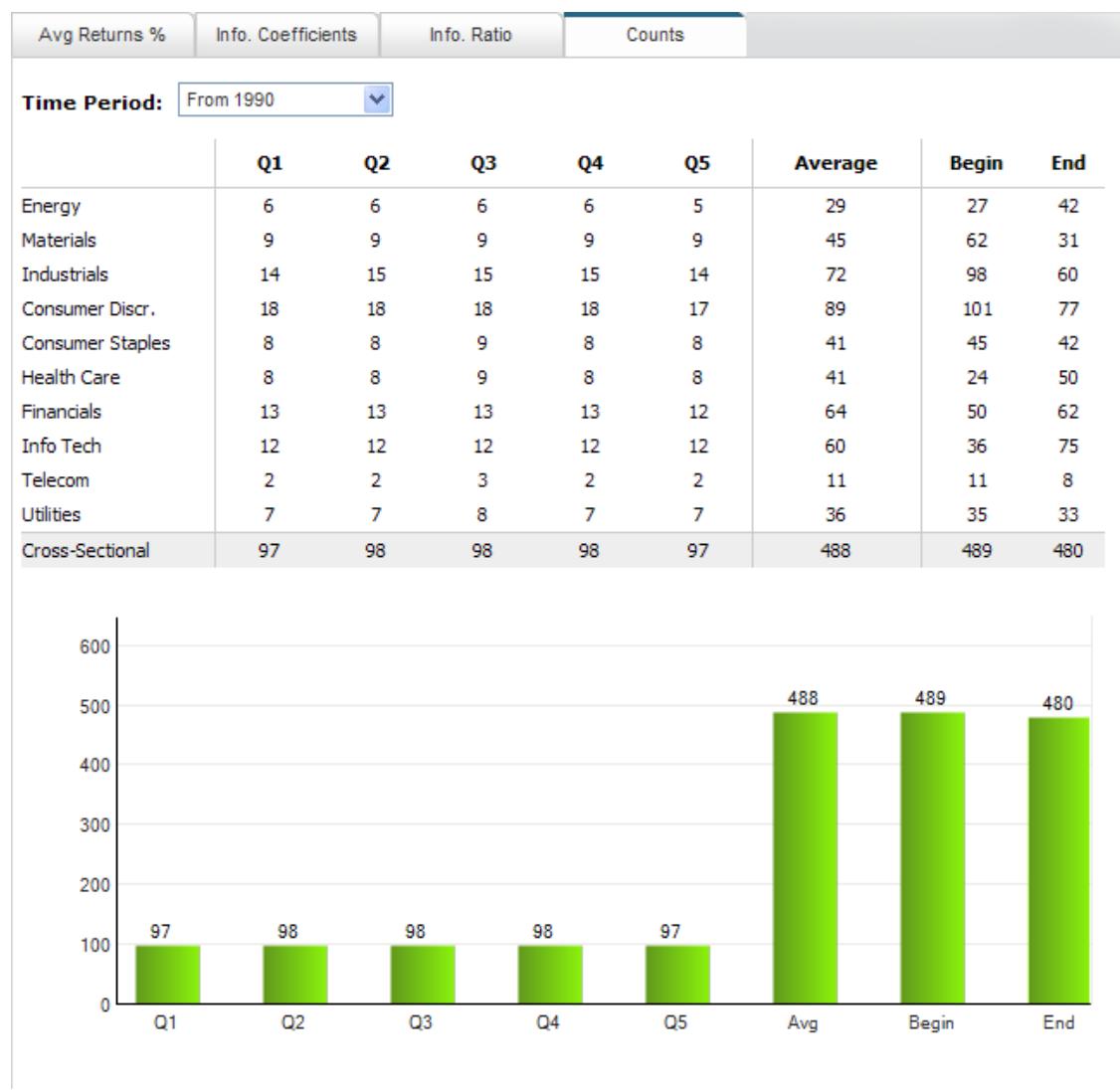
The Information Ratio tab displays IR data by sector over the time period selected. Click any row in the table to update the bar graph below with the selected data.



Time Period: Select a time frame over which to view the data. The results will show the average for this period.

Counts Tab

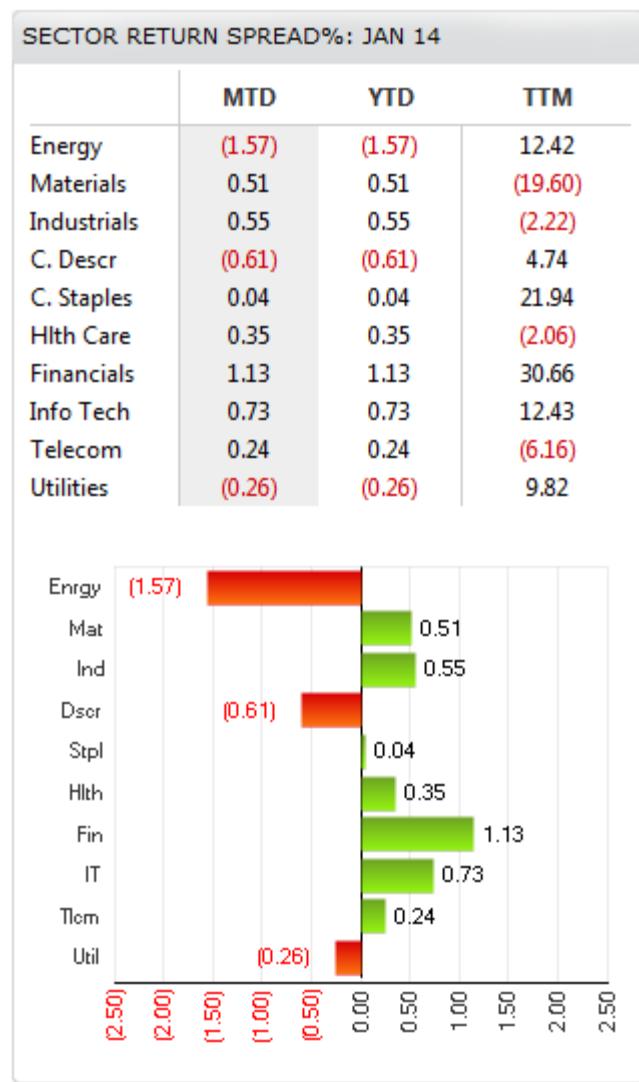
The Counts tab provides a cross-sectional view of the average number of securities in each sector during a selected time period. Click any row in the table to update the bar graph below with the selected data.



Time Period: Select a time frame over which to view the data. The results will show the average for this period.

Sector Return Spread Percentage

The Sector Return Spread % section provides month-to-date, year-to-date, and trailing twelve-month values for sector-specific data over time. Select a column to update the bar chart with that data.



Seasonality

The Seasonality section displays a calendar view of factor statistics.

Return on Invested Capital

Daily Report \ Summary \ Return \ IC \ Sector \ Seasonality \ Regime \ Turnover \ Correlation \ Coverage \ Formulation

INDEX: S&P 500 SECTOR: Cross Sectional CATEGORY: CAPITAL EFFICIENCY RANK ORDER: DESCENDING

TIME PERIOD: From 1990 HOLDING PERIOD: 1 Month

FACTOR SEARCH

Index: Select an index, region or country benchmark from the dropdown list.

Sector: Select a sector of stocks to be analyzed. Click the dropdown to screen on Cross Sectional, Sector Neutral, or specific industries (e.g., Energy, Financials, and Health Care).

Category: Refers to the style associated with the factor.

Rank Order:

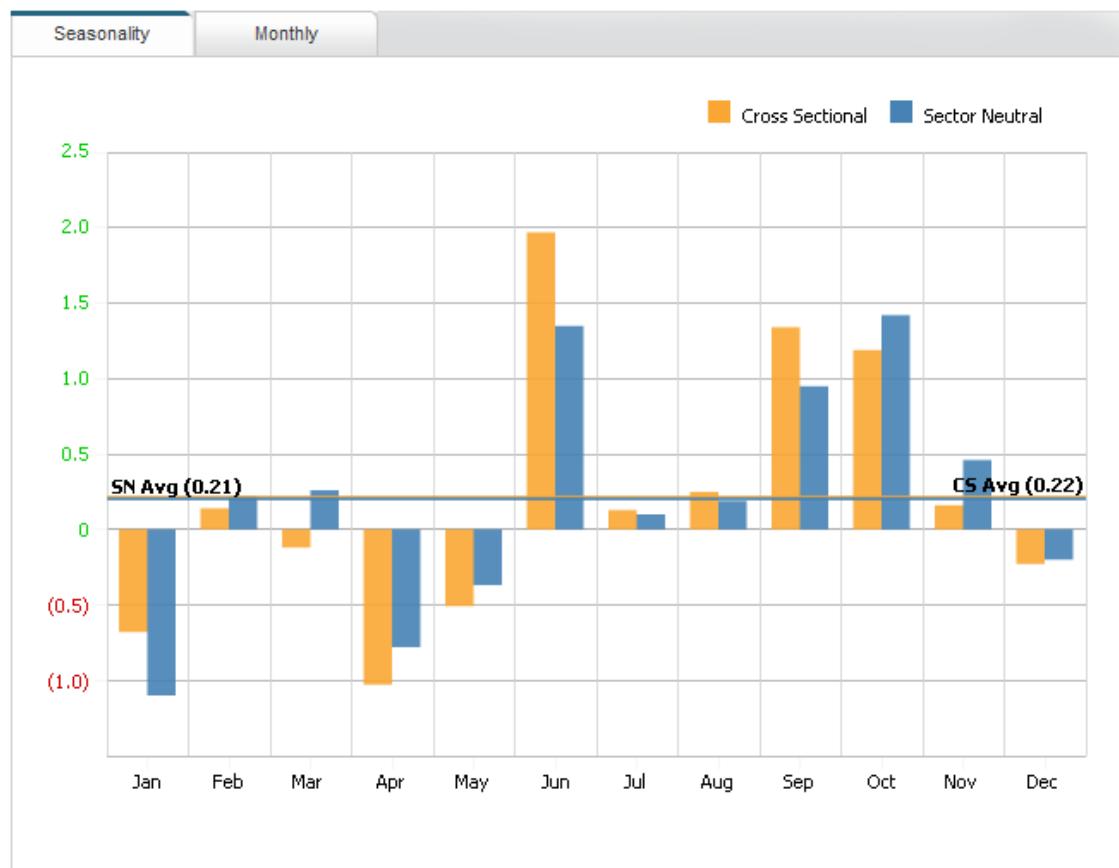
- *descending*, the higher the raw value, the better the stock rank
- *ascending*, the lower the raw values, the better the stock rank

Time Period: Select a time frame over which to view the data. The results will show the average for this period.

Holding Period: Select the length of time each stock is held in the portfolio from date of purchase to date of sale.

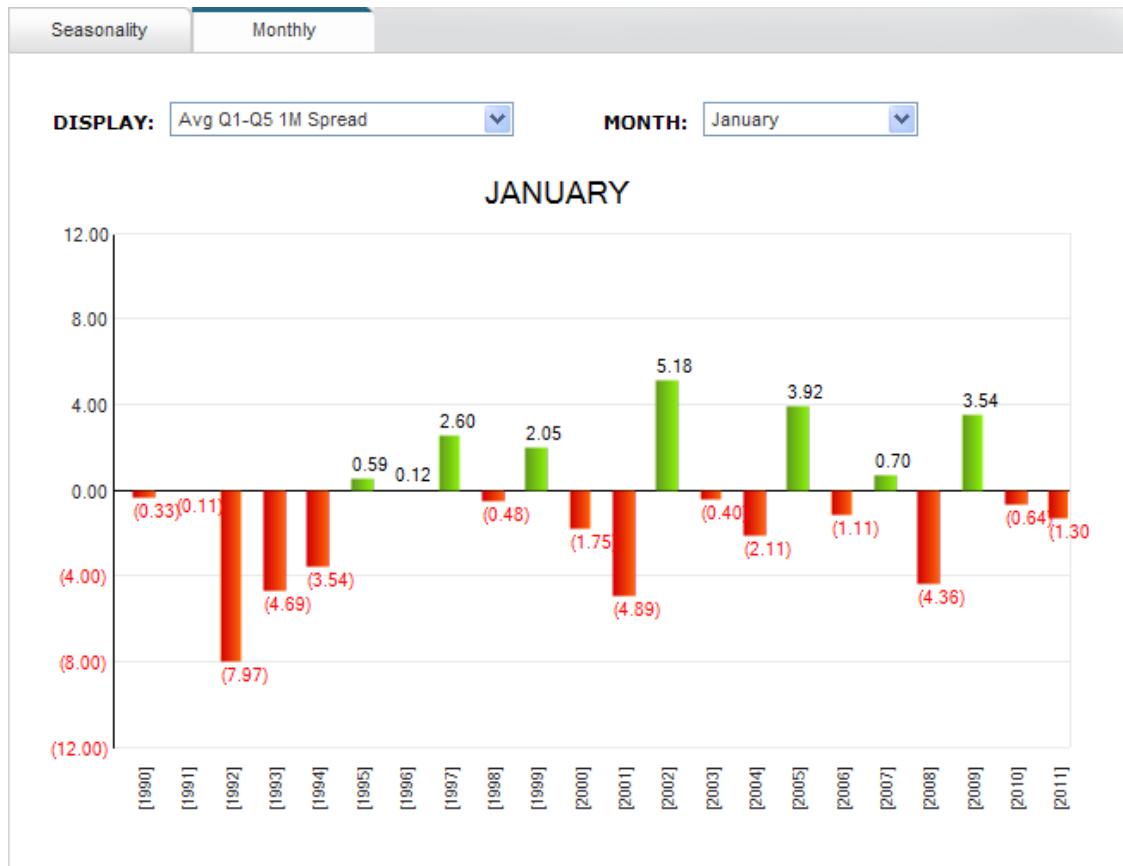
Seasonality Tab

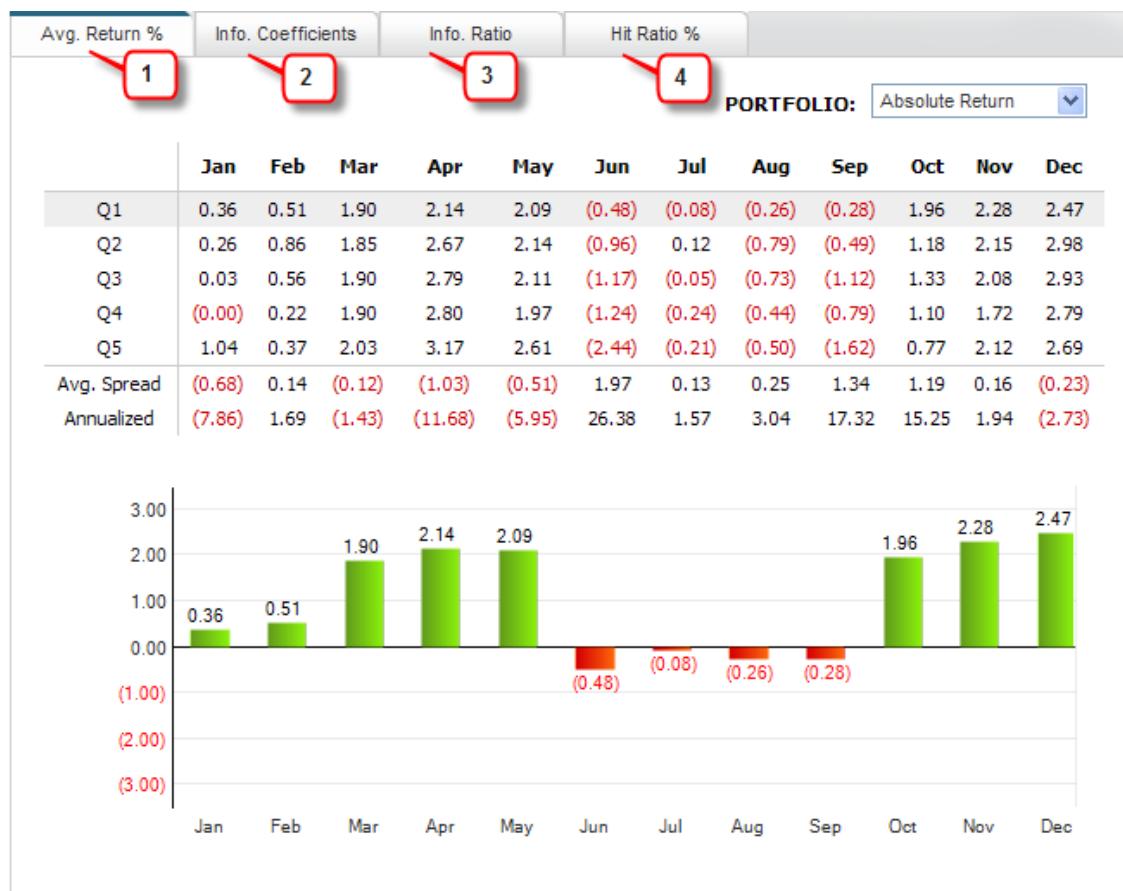
The seasonality tab displays the average performance of the factors by calendar month.



Monthly Tab

The Monthly Tab displays a time series of return statistics for the selected calendar month.





1 Avg. Returns % Tab: Shows the average return spread by sector.

2 Info. Coefficients Tab: Shows correlation values (ranging from -1 to 1) that measure the relationship between a factor's predicted and actual values. A score near +1 indicates a strong relationship between the factor's predicted and actual values.

3 Info. Ratio Tab: Shows values that measure a factor's performance in generating excess returns relative to a benchmark over time.

4 Hit Ratio % Tab: Shows the percentage of months over the historical time frame when the average quintile return outperforms the equal-weighted benchmark return.

Regime

The Regime section displays data based on a selected regime.

The screenshot shows a search interface for 'Return on Invested Capital'. At the top, there's a search bar and a 'FACTOR SEARCH' button. Below the search bar is a breadcrumb navigation path: Daily Report \ Summary \ Return \ IC \ Sector \ Seasonality \ Regime \ Turnover \ Correlation \ Coverage \ Formulation. Underneath the path are four dropdown menus: 'REGIME' (set to 'Up Market / Down Market'), 'TIME PERIOD' (set to 'From 1990'), 'CATEGORY' (set to 'CAPITAL EFFICIENCY'), and 'RANK ORDER' (set to 'DESCENDING'). Below these is another dropdown menu labeled 'INDEX' (set to 'S&P 500').

Regime: Select a regime from dropdown list.

Time Period: Select a time frame over which to view the data. The results will show the average for this period.

Category: Refers to the style associated with the factor.

Rank Order:

- *descending*, the higher the raw value, the better the stock rank
- *ascending*, the lower the raw values, the better the stock rank

Index: Select an index, country or region benchmark from the dropdown list.

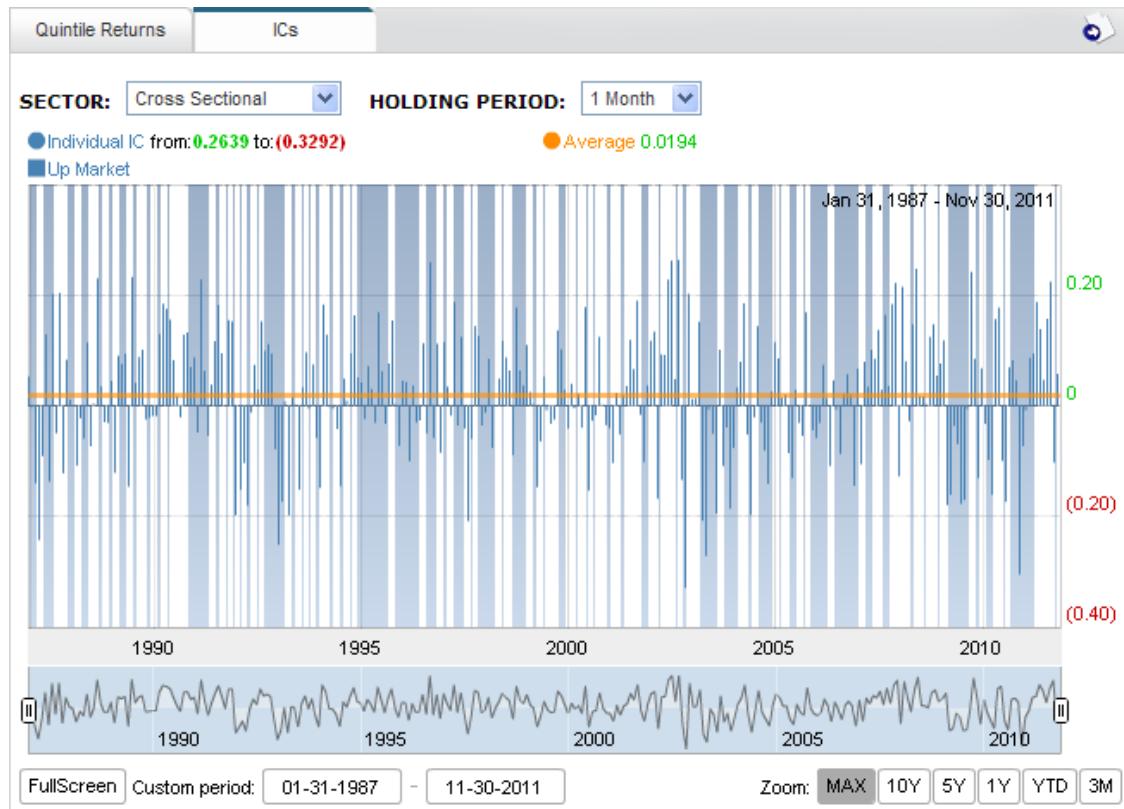
Quintile Returns Tab

The Quintile Return Tab charts the cumulative quintile return on the selected index. The shaded areas on the chart represent the time periods during which the regime is active while the white areas indicate the time periods during which the regime is inactive.



ICs Tab

The ICs tab shows information coefficients over time. The shaded areas on the chart represent the time periods during which the regime is active while the white areas indicate the time periods during which the regime is inactive.



Sector: Select a sector of stocks to be analyzed. Click the dropdown to choose whether to view data calculated on a Cross Sectional or Sector Neutral basis, or to view data for an individual GICS sector of stocks (e.g., Energy, Financials, and Health Care).

Holding Period: Select the length of time each stock is held in the portfolio from date of purchase to date of sale.

Current vs. Historical Tab

	Curr vs. Hist	Transitions	Returns	ICs				
	Current Regime: Down Mkt			Sector:	Cross Sectional			
	Current			Historical			Current - Hist	
	Avg	Max	Min	Avg	Max	Min	Current - Hist	
Eq Wt Universe	(0.79)	(0.79)	(0.79)	(3.99)	2.05	(21.24)	3.20	
Q1 Rtn	0.40	0.40	0.40	(3.41)	2.58	(19.08)	3.81	
Q5 Rtn	(2.25)	(2.25)	(2.25)	(5.24)	5.76	(22.31)	2.98	
Q1 - Q5 Spread	2.66	2.66	2.66	1.83	9.23	(7.97)	0.83	
Annualized Spread	36.98	36.98	36.98	24.31	188.61	(63.10)	12.67	
Spread T-Stat	-	-	-	5.53	-	-	-	
Q1 Active Rtn	1.19	1.19	1.19	0.58	3.82	(4.41)	0.61	
Q5 Active Rtn	(1.46)	(1.46)	(1.46)	(1.25)	3.94	(7.24)	(0.22)	
Q1 Hit Ratio	100.00	-	-	11.46	-	-	88.54	
Q5 Hit Ratio	0.00	-	-	7.29	-	-	(7.29)	
Information Ratio	-	-	-	56.51	-	-	-	
IC T-Stat	-	-	-	5.54	-	-	-	
1-Month IC	0.06	0.06	0.06	0.06	0.26	(0.21)	(0.01)	
% Positive IC	100.00	-	-	73.96	-	-	26.04	
Q1 Beta	1.00	1.00	1.00	1.10	2.87	0.67	(0.09)	
Q5 Beta	1.22	1.22	1.22	1.28	2.53	0.80	(0.06)	
Q1 Turnover	8.33	8.33	8.33	9.03	22.45	2.04	(0.69)	
Q5 Turnover	25.00	25.00	25.00	13.26	30.61	0.00	11.74	

Current Regime: Refers to the mode of the regime that is in effect.

Sector: Select a sector of stocks to be analyzed. Click the dropdown to choose whether to view data calculated on a Cross Sectional or Sector Neutral basis, or to view data for an individual GICS sector of stocks (e.g., Energy, Financials, and Health Care).

Transitions Tab

The Transitions tab provides a view of factor statistics preceding and following the regime change.

Total Shifts = 59

	Up Market				Down Market				Average Difference
	Avg	-3M	-2M	-1M	+1M	+2M	+3M	Avg	
Eq Wt Universe	3.69	3.67	3.23	3.72	(3.15)	(4.27)	(5.95)	(3.96)	7.65
Q1 Rtn	3.62	3.70	3.00	3.73	(2.94)	(3.07)	(5.56)	(3.37)	6.99
Q5 Rtn	4.35	4.22	4.20	4.28	(4.13)	(5.72)	(7.26)	(5.21)	9.56
Q1 - Q5 Spread	(0.73)	(0.52)	(1.20)	(0.56)	1.19	2.65	1.70	1.84	(2.57)
Annualized Spread	(8.39)	(6.07)	(13.50)	(6.49)	15.24	36.82	22.35	24.43	(32.82)
Spread T-Stat	(2.83)	(0.79)	(2.63)	(1.30)	2.85	5.35	1.16	5.61	(8.44)
Q1 Active Rtn	(0.07)	0.03	(0.23)	0.00	0.21	1.19	0.39	0.59	(0.66)
Q5 Active Rtn	0.66	0.55	0.97	0.56	(0.98)	(1.45)	(1.31)	(1.25)	1.91
Q1 Hit Ratio	93.98	85.71	91.67	94.92	6.78	38.10	0.00	12.37	81.60
Q5 Hit Ratio	92.17	90.48	94.44	93.22	10.17	4.76	0.00	7.22	84.95
Information Ratio	(0.04)	0.03	(0.28)	0.03	0.37	1.26	0.41	0.57	(0.61)
IC T-Stat	(0.54)	0.15	(1.70)	0.23	2.85	5.76	1.22	5.59	(6.13)
1-Month IC	(0.00)	0.00	(0.03)	0.00	0.04	0.09	0.04	0.06	(0.07)
Best 1M IC	0.26	0.26	0.16	0.18	0.26	0.22	0.23	0.26	(0.00)
Worst 1M IC	(0.33)	(0.25)	(0.18)	(0.33)	(0.21)	(0.04)	(0.13)	(0.21)	(0.12)
% Positive IC	50.00	47.62	36.11	57.63	66.10	90.48	77.78	74.23	(24.23)
Observations	166	21	36	59	59	21	9	97	69

Sector: Select a sector of stocks to be analyzed. Click the dropdown to choose whether to view data calculated on a Cross Sectional or Sector Neutral basis, or to view data for an individual GICS sector of stocks (e.g., Energy, Financials, and Health Care).

Display Order: Select which mode of the regime is displayed as the pre-transition mode.

Returns

The Returns tab provides a view of average monthly returns data for both modes of the regime individually.

Up Market

	Q1	Q2	Q3	Q4	Q5	Spread%	Q1 Hit	Q5 Hit
Telecom	3.61	3.06	3.28	4.32	4.40	(0.77)	78.92	68.67
Hlth Care	2.90	3.32	3.18	2.67	3.51	(0.60)	80.12	81.33
Energy	3.25	3.46	3.77	3.78	4.09	(0.84)	72.29	71.69
Utilities	2.31	1.99	1.95	2.65	2.80	(0.49)	73.49	72.89
C. Descr	3.46	3.49	4.02	3.90	4.26	(0.79)	80.12	81.93
Financials	4.79	4.04	3.83	3.86	4.27	0.52	86.14	81.93
Materials	3.98	3.49	3.72	4.03	3.83	0.15	80.12	68.67
Industrials	3.28	3.71	3.89	3.64	3.84	(0.56)	84.34	80.12
C. Staples	2.58	2.39	2.52	2.29	2.64	(0.06)	77.71	72.29
Info Tech	5.35	5.46	5.12	5.43	6.50	(1.15)	83.73	73.49
Cross Sec.	3.62	3.59	3.53	3.52	4.35	(0.73)	93.98	92.17

Down Market

	Q1	Q2	Q3	Q4	Q5	Spread%	Q1 Hit	Q5 Hit
Telecom	(2.73)	(2.43)	(3.88)	(6.21)	(5.75)	3.02	28.87	25.77
Hlth Care	(1.79)	(2.50)	(2.23)	(2.23)	(2.78)	0.99	37.11	21.65
Energy	(3.09)	(2.81)	(2.93)	(3.43)	(3.66)	0.57	30.93	27.84
Utilities	(1.91)	(1.34)	(2.08)	(1.85)	(2.08)	0.16	46.39	35.05
C. Descr	(3.56)	(3.77)	(4.04)	(4.68)	(4.95)	1.39	19.59	21.65
Financials	(4.82)	(4.15)	(4.13)	(4.68)	(5.28)	0.45	13.40	17.53
Materials	(4.29)	(3.11)	(3.54)	(4.45)	(5.19)	0.90	21.65	21.65
Industrials	(3.21)	(3.85)	(4.04)	(3.89)	(4.78)	1.57	17.53	16.49
C. Staples	(0.92)	(1.55)	(1.24)	(2.00)	(2.27)	1.35	43.30	27.84
Info Tech	(5.14)	(5.41)	(5.49)	(6.73)	(7.72)	2.57	23.71	15.46
Cross Sec.	(3.37)	(3.45)	(3.65)	(3.82)	(5.21)	1.84	12.37	7.22

Statistic: Select the measure of portfolio performance to view. Click the dropdown to select either Absolute Return or Active Return.

ICs Tab

The ICs tab shows the information coefficient data for each mode of the regime individually over time.

Curr vs. Hist	Transitions	Returns	ICs	
Holding Period:	1 Month			
Up Market				
	Avg IC	Best IC	Worst IC	% Pos IC
Energy	(0.03)	0.59	(0.54)	43.98
Materials	0.00	0.59	(0.63)	52.41
Industrials	(0.01)	0.36	(0.39)	50.6
C. Descr	(0.02)	0.34	(0.44)	53.61
C. Staples	(0.01)	0.52	(0.56)	51.2
Hlth Care	(0.01)	0.64	(0.61)	50
Financials	0.03	0.49	(0.55)	57.83
Info Tech	(0.00)	0.44	(0.44)	50.6
Telecom	0.00	0.93	(0.73)	48.8
Utilities	(0.02)	0.49	(0.47)	47.59
Cross Sec.	(0.00)	0.26	(0.33)	50
				(0.54)
				(0.04)
				0.11
Down Market				
	Avg IC	Best IC	Worst IC	% Pos IC
Energy	0.05	0.66	(0.53)	56.7
Materials	0.06	0.52	(0.64)	57.73
Industrials	0.05	0.41	(0.33)	60.82
C. Descr	0.07	0.51	(0.42)	67.01
C. Staples	0.08	0.47	(0.45)	67.01
Hlth Care	0.04	0.67	(0.53)	56.7
Financials	0.00	0.57	(0.54)	51.55
Info Tech	0.11	0.51	(0.42)	74.23
Telecom	0.08	0.95	(0.95)	52.58
Utilities	0.00	0.41	(0.50)	51.55
Cross Sec.	0.06	0.26	(0.21)	74.23
				5.59
				0.57
				0.11

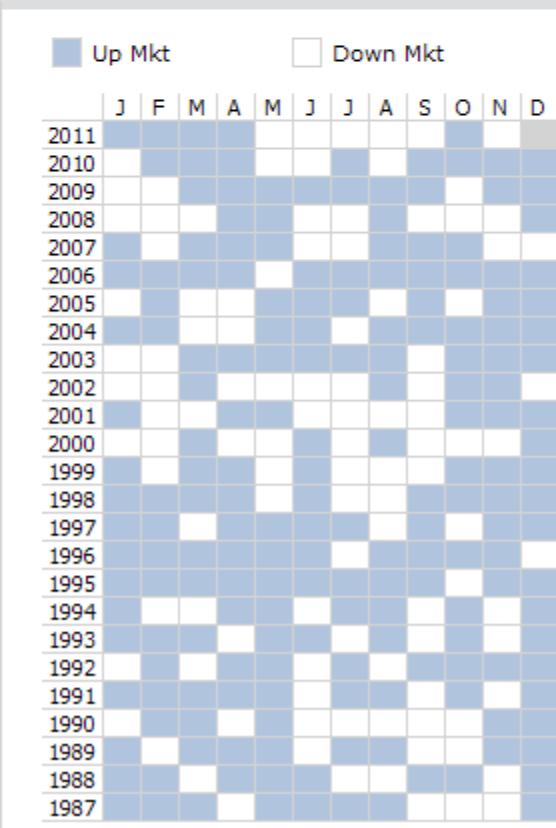
Holding Period: Select the length of time each stock is held in the portfolio from date of purchase to date of sale.

Regime Details

REGIME SUMMARY From 1990:

	Up Mkt	Down Mkt
Current Regime		1 months
# of Regimes	58	59
# of Months	166	97
% of History	63.12%	36.88%
Avg Duration	2.86	1.64
Longest Run	10	5
Begin	Dec 1994	Multiple
End	Sep 1995	Multiple
Shortest Run	1	1
Begin	Multiple	Multiple
End	Multiple	Multiple
Max Q1 Rtn	20.13%	15.40%
Min Q1 Rtn	(4.26)%	(24.35)%
Max Q5 Return	19.91%	5.46%
Min Q5 Return	(7.34)%	(18.23)%

REGIME CALENDAR



Regime Summary

The Summary tab on the top right part of the page shows how the current regime measures up to its counterpart since 1990.

Regime Calendar

The Regime Calendar visually displays which mode of the regime was active for each month over time.

Turnover

The Turnover section displays data related to this traditional measurement of factor stability.

Return on Invested Capital

Daily Report \ Summary \ Return \ IC \ Sector \ Seasonality \ Regime \ Turnover \ Correlation \ Coverage \ Formulation

FACTOR SEARCH

INDEX:	S&P 500	SECTOR:	Cross Sectional	CATEGORY: CAPITAL EFFICIENCY	RANK ORDER: DESCENDING
TIME PERIOD:	From 1990	HOLDING PERIOD:	1 Month		

Index: Select an index, region or country benchmark from the dropdown list.

Sector: Select a sector of stocks to be analyzed. Click the dropdown to select either Cross Sectional or Sector Neutral.

Category: Refers to the style associated with the factor.

Rank Order:

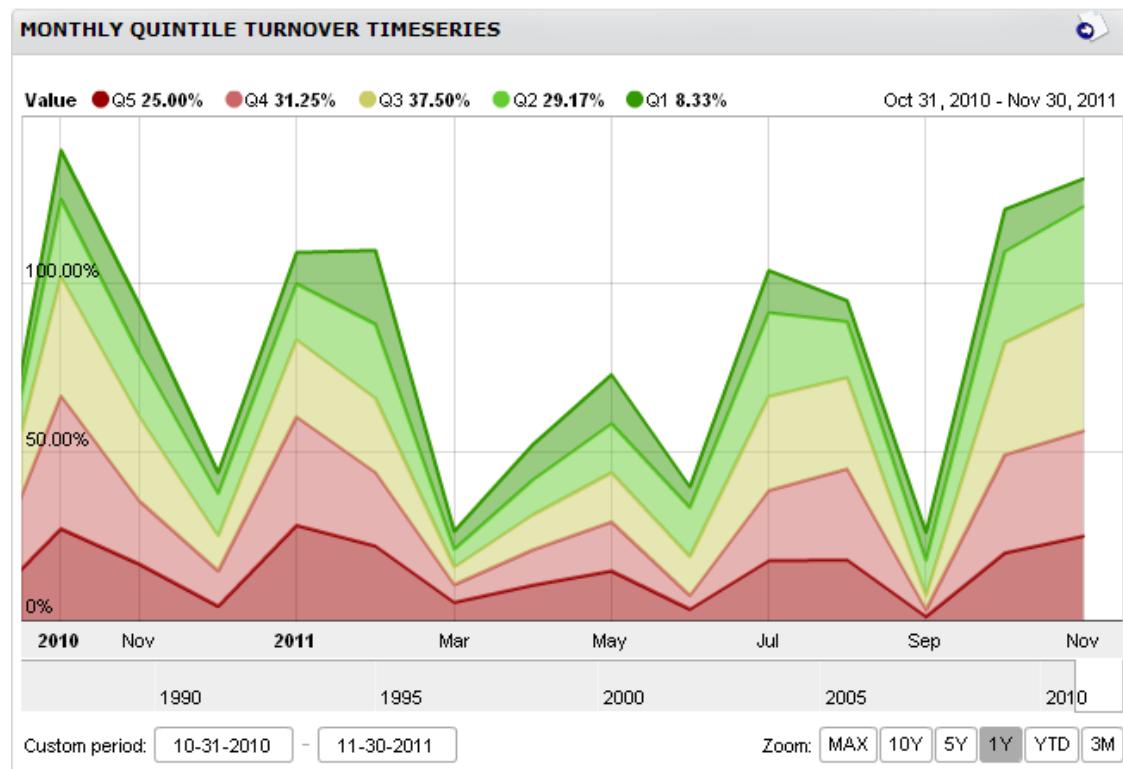
- *descending*, the higher the raw value, the better the stock rank
- *ascending*, the lower the raw values, the better the stock rank

Time Period: Select a time frame over which to view the data. The results will show the average for this period.

Holding Period: Select the length of time each stock is held in the portfolio from date of purchase to date of sale.

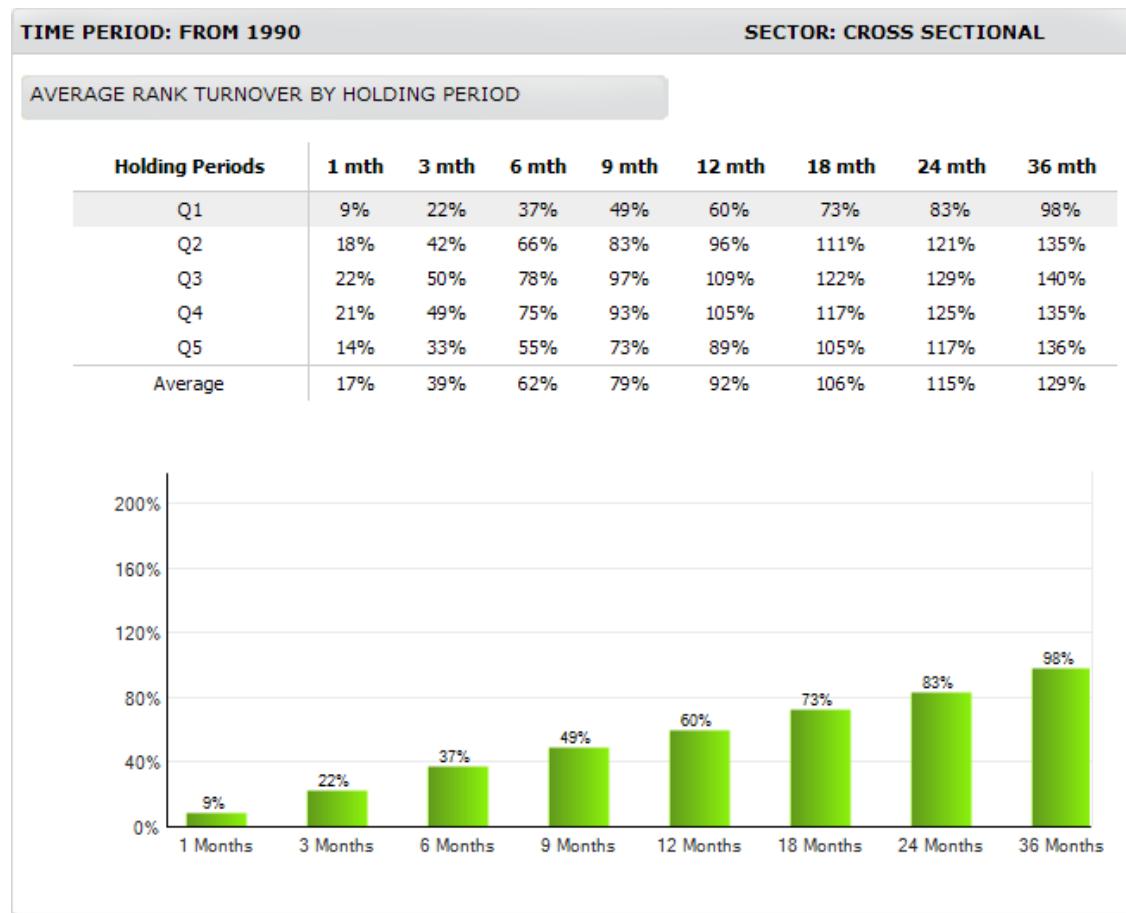
Monthly Quintile Turnover Timeseries

The Monthly Quintile Turnover Timeseries displays the time series of quintile level turnover for the specified time period.



Average Rank Turnover by Holding Period

The Average Rank Turnover by Holding Period represents the average percentage of stocks that drop out of the respective quintile portfolio over the specified holding period. A bar graph of this data is detailed just below the table.



Time Period: The time period is carried over from whatever time period is entered on the top of the page. Results will show an average for the time period selected.

Sector: The sector is carried over from the GICS sector entered on the top of the page.

Trailing Twelve Months Turnover %

The Trailing Twelve Months Turnover % represents a month-to-month view of the percentage of turnover within the top (Q1) and bottom (Q5) quintile portfolios.

TRAILING TWELVE MONTHS TURNOVER %				
	Cross Sectional		Sector Neutral	
	Q1	Q5	Q1	Q5
Dec 2012	154%	158%	157%	153%
Nov 2012	160%	138%	160%	139%
Oct 2012	156%	153%	155%	157%
Sep 2012	142%	122%	131%	120%
Aug 2012	156%	161%	173%	158%
Jul 2012	156%	147%	147%	142%
Jun 2012	144%	126%	147%	128%
May 2012	140%	113%	136%	128%
Apr 2012	142%	124%	146%	144%
Mar 2012	160%	166%	151%	151%
Feb 2012	138%	140%	134%	157%
Jan 2012	156%	152%	167%	143%

Correlation

The Correlation section provides the relationship between factors based on ranking similarity. It shows the top 10 most correlated, uncorrelated and negatively correlated factors.

Index: Select an index, region or country benchmark from the dropdown list.

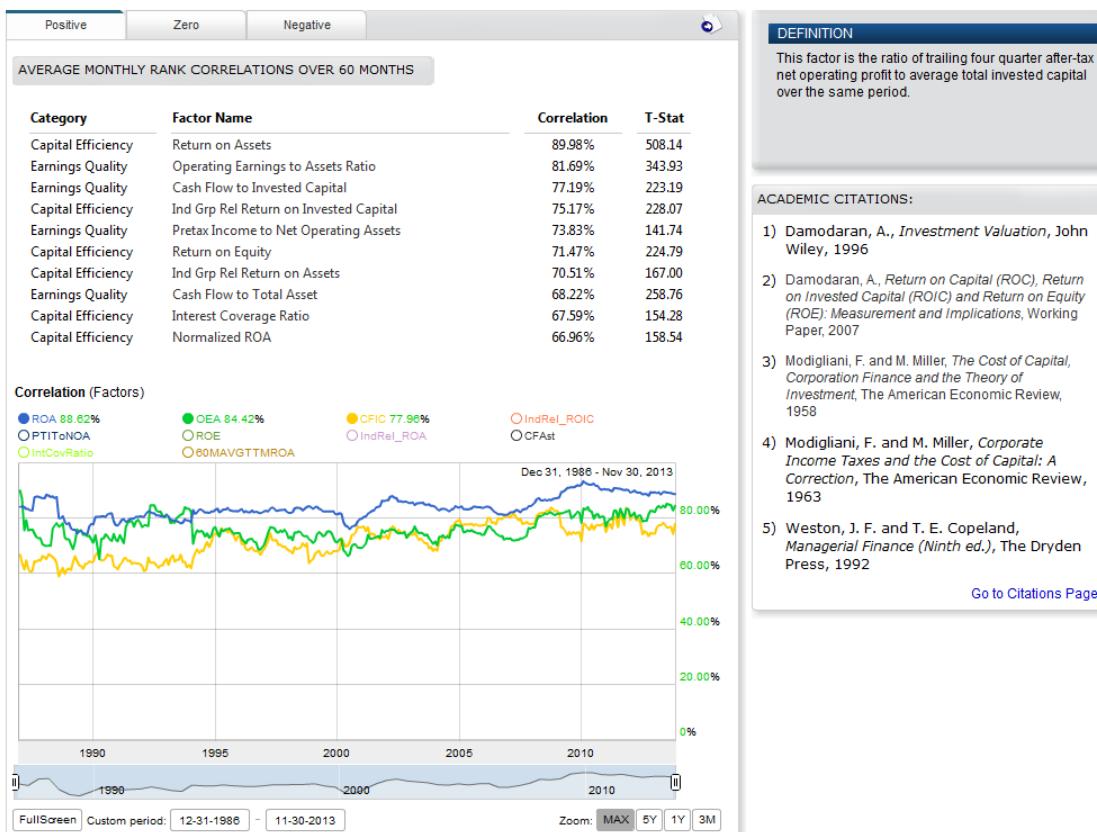
Category: Refers to the style associated with the factor.

Rank Order:

- *descending*, the higher the raw value, the better the stock rank
- *ascending*, the lower the raw values, the better the stock rank

Positive / Zero / Negative

Positive / Zero / Negative represents three different types of correlation: a positive, zero or an inverse correlation. Click *Positive*, *Zero* or *Negative* tab to view related data.



Average Monthly Rank Correlations Over 60 Months: Refers to the average monthly rank correlations over a rolling 60-month time period.

Category: Refers to the style associated with the factor.

Factor Name: Refers to the official name of each factor.

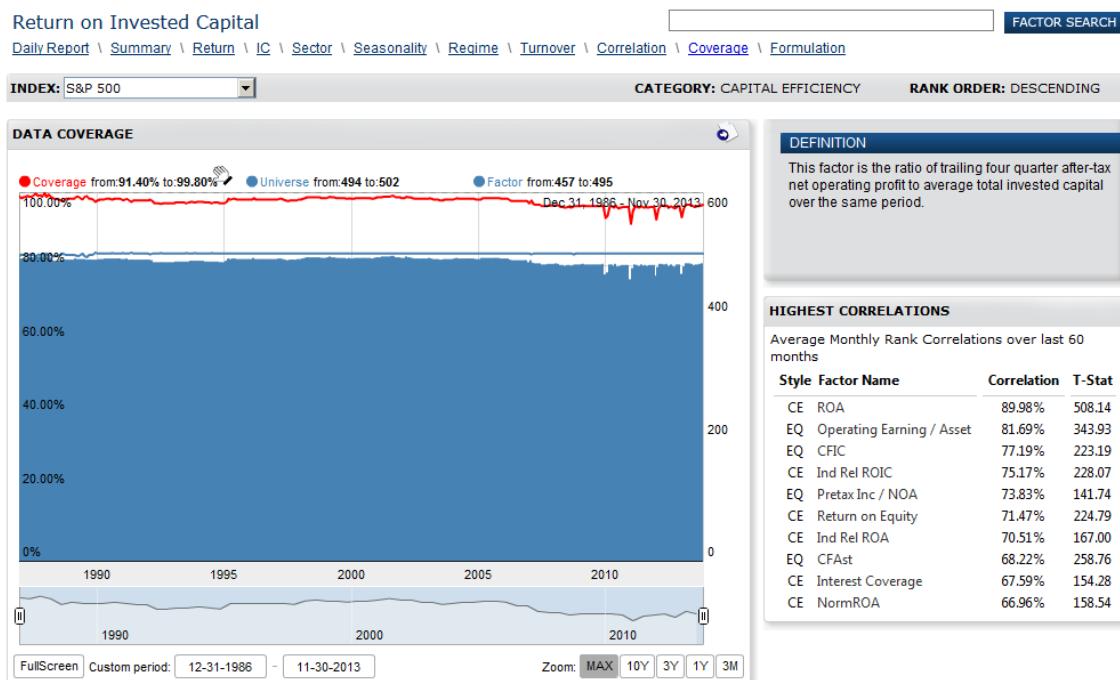
Correlation: Refers to the correlation percentage of each factor.

T-Stat: Refers to the ratio of the correlation coefficient to its standard error.

Correlation Factors: Refers to the time series of correlations. Click any factor to add it to the line graph by selecting the colored dot; click any factor again to remove it from the line graph by selecting the colored dot.

Coverage

The **Coverage** section displays the time series of monthly factor raw value coverage over a given period.



Index: Select an index, region or country benchmark from the dropdown list.

Category: Refers to the style associated with the factor.

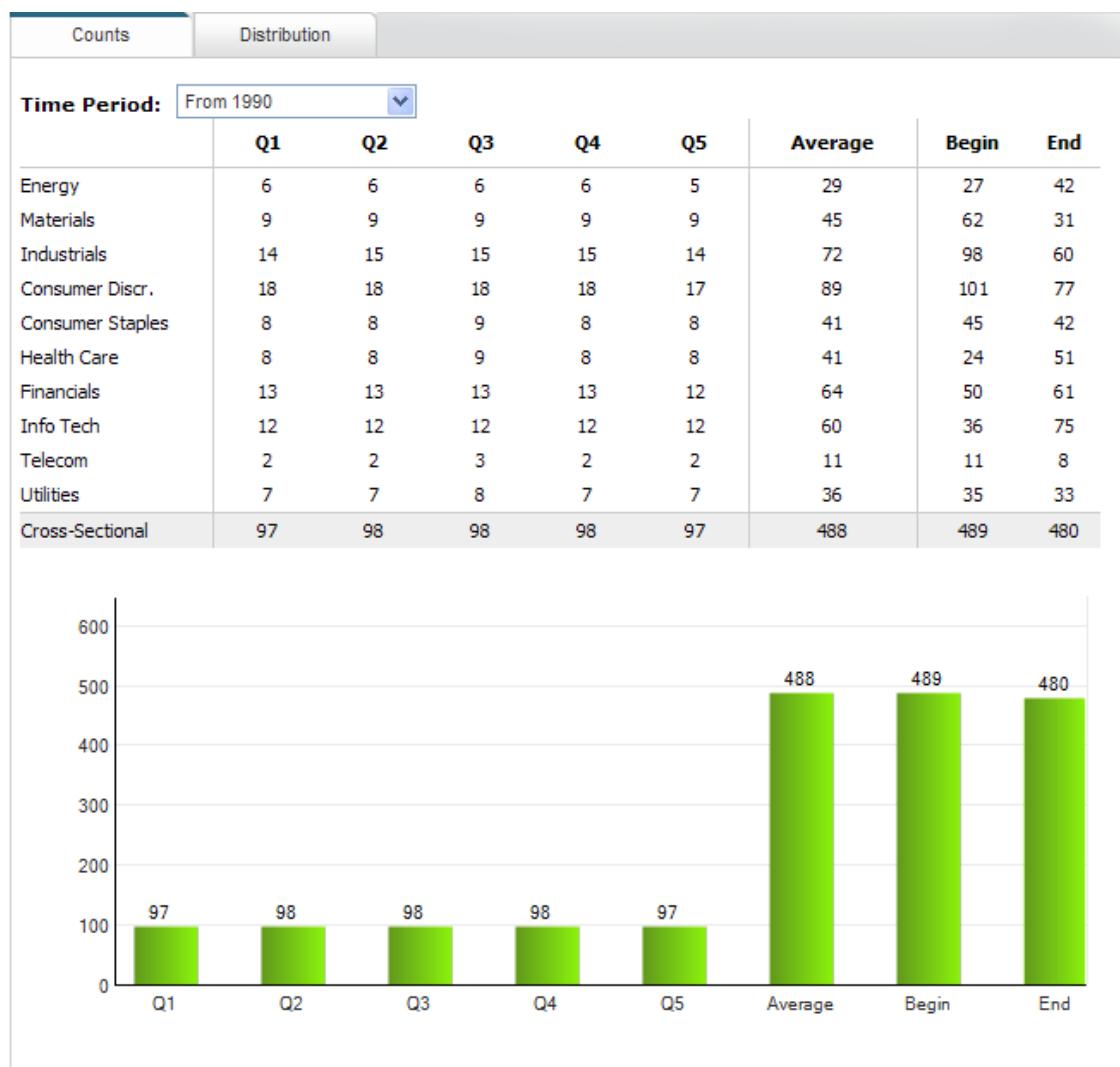
Rank Order:

- *descending*, the higher the raw value, the better the stock rank
- *ascending*, the lower the raw values, the better the stock rank

Data Coverage: Refers to a statistical value that shows how many companies have data that are included in the calculations.

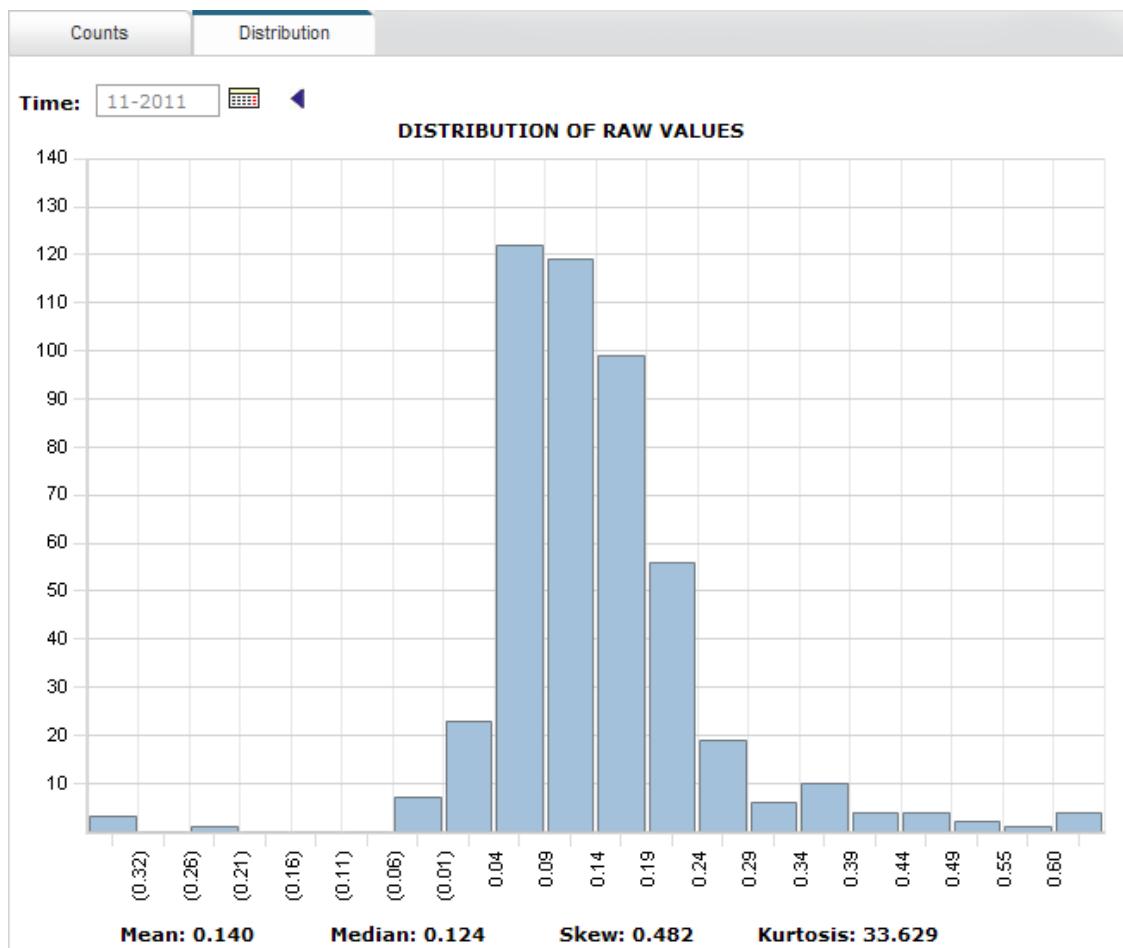
Counts Tab

The Counts tab shows how many securities have valid values in each category/factor during the time period selected. Click any row in the table to see the data in the bar graph below.



Distribution Tab

The Distribution tab shows the raw value distribution for a given month end.



Correlations

HIGHEST CORRELATIONS

Average Monthly Rank Correlations over last 60 months

Style	Factor Name	Correlation	T-Stat
CE	ROA	88.06%	190.77
EQ	Operating Earning / Asset	79.28%	164.14
EQ	CFIC	78.49%	210.44
CE	Ind Rel ROIC	78.17%	177.12
CE	Return on Equity	73.37%	196.45
CE	Ind Rel ROA	72.15%	286.22
EQ	Pretax Inc / NOA	71.53%	135.99
CE	Capital Efficiency	70.39%	170.40
EQ	CFAst	67.92%	216.18
HG	Sustainable Growth	65.92%	167.26

Highest Correlations: Shows the ten factors most correlated with the selected factor over the last 60 months.

LOWEST CORRELATIONS

Average Monthly Rank Correlations over last 60 months

Style	Factor Name	Correlation	T-Stat
Val	Book to Price	-63.88%	-157.13
Val	Asset / Price	-60.21%	-116.88
Val	Ind Rel Book to Price	-52.62%	-120.99
Val	BVEV	-48.24%	-71.40
Val	Ind Rel Asset / Price	-46.73%	-68.59
EQ	Adjusted Accruals	-43.09%	-51.52
AE	DispFY1EPS	-39.34%	-34.20
AE	DispFY2EPS	-33.80%	-26.30
Val	CurLiaP	-28.47%	-48.82
AE	Ind Rel DispFY1EPS	-27.74%	-41.87

Lowest Correlations: Shows the ten factors least correlated with the selected factor over the last 60 months.

Formulation

The Formulation section displays information on how the data was compiled including related data formulas and sources.

Definition: Provides a description of the factor and the academic basis for inclusion in the Alpha Factor Library.

DEFINITION

This factor is the ratio of trailing four quarter after-tax net operating profit to average total invested capital over the same period.

NOTES

The return used for this factor is NOPAT, i.e., Net Operating Profit After Taxes. NOPAT is calculated in a way to measure what the operating profit would be if the company did not have capital structure. NOPAT is annualized by taking the last four-quarter summation. The denominator uses an average TTM invested capital instead of total assets to exclude cash and other non-interest bearing items. Net operating profit is operating income before depreciation minus depreciation and amortization expense. Total invested capital is the sum of long-term debt, preferred stock, minority interest, and book value of common equity. ROIC shows if a firm will be able to deliver excess returns over its cost of capital that the company uses to fund its business (Damodaran (1996), Weston and Copeland (1992), Modigliani and Miller (1958, 1963)). It is a good measure of managerial effectiveness and a firm's profitability. There are different ways to define the denominator (IC), e.g., the impact from the non-cash expense of depreciation and amortization, see Damodaran (2007). Note that Compustat and Capital IQ have different data items and therefore equations will be different.

Formula: Provides the calculation used for each factor item.

FORMULA

Data Source:

$$\text{ROIC}_{i,t} = \frac{\sum_{j=0}^3 \text{NOPATQ}_{i,t-j}}{\frac{1}{4} \times \sum_{j=0}^3 \text{ICAPTQ}_{i,t-j}}$$

$$\text{NOPATQ}_{i,t} = \text{OIQ}_{i,t} \times (1 - \text{TaxRateQ}_{i,t})$$

$$\text{OIQ}_{i,t} = \text{OIBDPQ}_{i,t} - \text{DPQ}_{i,t}$$

$$\text{TaxRateQ}_{i,t} = \frac{\text{TXTQ}_{i,t}}{\text{PIQ}_{i,t}}$$

ICAPTQ : Quarterly Invested Capital (Q62)

OIBDPQ : Quarterly Operating Income Before Depreciation (Q21)

DPQ : Quarterly Depreciation and Amortization (Q5)

TXTQ : Quarterly Income Taxes (Q6)

PIQ : Quarterly Pretax Income (Q23)

Citations: Shows related academic citations.

CITATIONS

- 1 Damodaran, A. , *Investment Valuation* , John Wiley, 1996
- 2 Damodaran, A. ,  *Return on Capital (ROC), Return on Invested Capital (ROIC) and Return on Equity (ROE): Measurement and Implications* , Working Paper, 2007
- 3 Modigliani, F. and M. Miller , *The Cost of Capital, Corporation Finance and the Theory of Investment* , The American Economic Review, 1958
- 4 Modigliani, F. and M. Miller , *Corporate Income Taxes and the Cost of Capital: A Correction* , The American Economic Review, 1963
- 5 Weston, J. F. and T. E. Copeland , *Managerial Finance (Ninth ed.)* , The Dryden Press, 1992

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Industry Factors

The **Industry Factors** section contains factors that use the most frequently reported items in the US Banking, US Oil and Gas, and US Retail industries. These factor packages help you identify drivers of stock returns at the industry level.

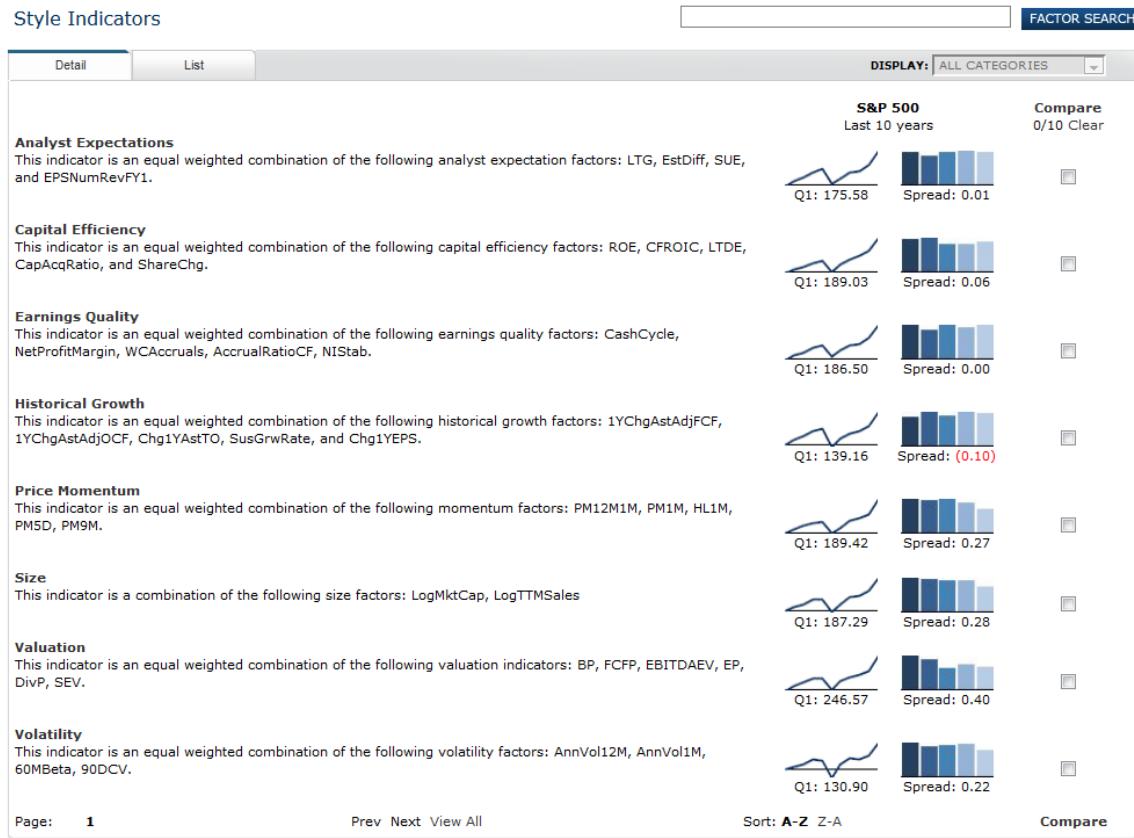
To view **US Banking**, **US Oil and Gas**, or **US Retail** industry factors, click the corresponding link in the Industry Factors section.

Industry Factors
Banks
Retail
Oil and Gas

Factor Display

As with the **Factor Catalog**, all industry factors will appear in the Detail or List view.

Detail – The Detail View provides a factor definition and a small visual depiction of the data. Click on any factor name to be directed to the respective Factor Summary page. You may also select up to 10 factors to compare by selecting the factor checkbox and clicking **Compare** at the top or bottom of the list. You will be directed to a comparison page showing all the factors selected.



List – The List view shows only the factor names. Click on any factor name to be directed to the respective Factor Summary page.

Detailed information for each factor can be found by clicking the factor term. The following section will describe the information captured in each of the areas.

Research Articles

The **Research Articles** section is a depository of articles prepared by the S&P Capital IQ Quantamental Research Group using the Alpha Factor Library. Here you will have the opportunity to read both the latest research as well as research articles from the archive. The depository is updated once every month.

The Research Articles section is organized into:

- Newest Article
- Our Recent Research
- Article List

 **Quantamental Research** Mar 2013

Newest Article To subscribe to our monthly research reports via email, click [here](#).

Risk Models That Work When You Need Them

Short Term Risk Model Enhancements

Authors: Bala Balachander, PhD, Ruben Falk, Xunqi Yu, PhD

Equity Risk models are subject to a common criticism: "Risk models work well when we don't need them and fail when we do". Alternatively, equity risk model performance degrades during periods of market stress. Can risk models be improved by enabling them to perform better, especially during stress periods? This paper answers the question in the affirmative.

We examined three techniques to further enhance the S&P Capital IQ Fundamental Factor risk models:

- Utilized the cross sectional dispersion of stock and factor returns by adjusting model factors and stock specific volatilities
- Change the model production frequency from monthly to daily to capture recent data
- Shorten data look back window (1 year as opposed to 2 years) resulting in a more reactive model.

Dispersion based adjustments, and high frequency of model generation both improved model results, while a shortened calibration window showed no appreciable improvement.

Our Recent Research

Follow the Smart Money Riding the Coattails of Activist Investors Mar 2013 Authors: Frank Zhao, David Pope, CFA, Kirk Wang	Stock Selection Model Performance Review Assessing the drivers of performance in 2012 Jan 2013 Authors: Temi Oyeniyi, CFA, Vivian Ning, CFA	Research Brief: Exploiting the January Effect Examining Variations in Trend Following Strategies Jan 2013 Authors: David Pope, CFA, Bala Balachander, PhD
Can profits be made by following the actions of activists? • One month after the commencement of activism, the strategy yielded a market-adjusted excess return of 3.4%. After controlling for market, size, value, and industry, the excess return was 2.7. • Twelve months after the disclosure of activist involvement, the strategy produced an average excess return of 14.1% after controlling for market, size, value, and momentum. • We did not find evidence of return reversal up to two years after activism or of diminished excess returns in 2008 -- 2012 vis-à-vis those in 2003 -- 2007.	In this report, we review the performance of S&P Capital IQ's four U.S. stock selection models in 2012. These models were launched in January 2011, and this analysis will assess the underlying drivers of each model's performance over the 12 months ended December 31, 2012.	At the beginning of every year, one topic frequented by many institutional investors is the January Effect. Investors often point to January as the most pronounced example of seasonality, where longer term trend following strategies suddenly underperform and short-term reversal and mean-reversion dominate. But which strategies have performed well in January and is this performance sustainable? With several studies in the literature documenting the January Effect on company capitalization, we decided to undertake our own review using our S&P Capital IQ Alpha Factor Library (AFL), to examine various strategies' effectiveness during the month. We then drill into which momentum strategies have the greatest positive and negative divergences within the month of January.

Article List

Do CEO and CFO Departures Matter? The Signal Content of CEO and CFO Turnover We explore the impact of CEO and CFO departures and find consistent results in the US and the Developed World. CEO and CFO departures often signify a turning point in both the company's stock performance and the company's operating metrics.	Dec 2012
11 Industries, 70 Alpha Signals The Value of Industry-Specific Metrics Using S&P Capital IQ's Global Point-in-Time database and Compustat Industry-Specific data, we look at 70 factors in 11 industries: airlines, hospitals & facilities, managed healthcare, pharmaceuticals & biotechnology, homebuilding, insurance, telecommunications, utilities, gold miners, hotels & gaming, and restaurants.	Nov 2012
Introducing S&P Capital IQ's Fundamental Canada Equity Risk Models Oct 2012 Continuing in our efforts to provide a broad set of models to the asset management community, we are now releasing our second single country risk model -- Canada Fundamental Equity Risk Model.	Oct 2012
Factor Insight: Earnings Announcement Return – Is A Return Based Surprise Superior to an Earnings Based Surprise? In this report, we compare the performance of SUE to one based on returns around a firm's earnings announcement date (EAR) and find that EAR dominates SUE in the U.S. & Globally.	Sep 2012
Supply Chain Interactions Part 1: Industries Profiting From Lead-Lag Industry Relationships Inter-industry momentum signals exhibit lead-lag relationships over short horizons, as the information shocks diffuse through the market and into the performance of related industries.	Aug 2012
Releasing S&P Capital IQ's Regional and Updated Global & US Equity Risk Models Improving on Past Success We are releasing the first set of Regional Models – the Pan-Asia ex. Japan and the Pan-Europe Fundamental Equity Risk Models and have made additional improvements to our US & Global Equity Risk Models.	Jul 2012
Riding Industry Momentum Enhancing the Residual Reversal Factor We combine the residual reversal factor with an industry momentum score, and find that the factor performance is greatly enhanced.	Jun 2012
The Oil & Gas Industry Drilling for Alpha Using Global Point-in-Time Industry Data Using S&P Capital IQ's Global Point-in-Time database, we investigate the importance of reserve and production information provided by oil & gas companies.	May 2012

128

Style Indicators

Three tabs appear on the **Style Indicators** page: *Detail*, *List* and *Download Center*.

Detail

The Detail view provides a definition and a small visual depiction of the data. Click on any style indicator to be directed to the respective style indicator summary page. You may also select up to 10 style indicators to compare by selecting the corresponding checkbox and clicking **Compare**. You will be directed to a comparison page showing all the style indicators selected.

Style Indicators FACTOR SEARCH

DISPLAY: ALL CATEGORIES

Analyst Expectations	S&P 500 Last 10 years	Compare 0/10 Clear
This indicator is an equal weighted combination of the following analyst expectation factors: LTG, EstDiff, SUE, and EPSNumRevFY1.	 Q1: 175.58	 Spread: 0.01
Capital Efficiency This indicator is an equal weighted combination of the following capital efficiency factors: ROE, CFROIC, LTDE, CapAcqRatio, and ShareChg.	 Q1: 189.03	 Spread: 0.06
Earnings Quality This indicator is an equal weighted combination of the following earnings quality factors: CashCycle, NetProfitMargin, WCAccruals, AccrualRatioCF, NIStab.	 Q1: 186.50	 Spread: 0.00
Historical Growth This indicator is an equal weighted combination of the following historical growth factors: 1YChgAstAdjFCF, 1YChgAstAdjOCF, Chg1YAstTO, SusGrwRate, and Chg1YEPS.	 Q1: 139.16	 Spread: (0.10)
Price Momentum This indicator is an equal weighted combination of the following momentum factors: PM12M1M, PM1M, HL1M, PM5D, PM9M.	 Q1: 189.42	 Spread: 0.27
Size This indicator is a combination of the following size factors: LogMktCap, LogTTMSales	 Q1: 187.29	 Spread: 0.28
Valuation This indicator is an equal weighted combination of the following valuation indicators: BP, FCFP, EBITDAEV, EP, DivP, SEV.	 Q1: 246.57	 Spread: 0.40
Volatility This indicator is an equal weighted combination of the following volatility factors: AnnVol12M, AnnVol1M, 60MBeta, 90DCV.	 Q1: 130.90	 Spread: 0.22

Page: **1** [Prev](#) [Next](#) [View All](#) Sort: **A-Z** [Z-A](#) [Compare](#)

List

The List view shows only the style indicator names. Click on any style indicator name to be directed to the respective style indicator summary page.

Style Indicators

Detail	List	DISPLAY: ALL CATEGORIES
Analyst Expectations	Historical Growth	Valuation
Capital Efficiency	Price Momentum	Volatility
Earnings Quality	Size	

Additional Functionality

For a more detailed explanation of the options available within each style page, please refer to the corresponding section in the [Factor Catalog](#) chapter. If you are viewing this document online, click the link to navigate directly to that page.

- [Daily Report](#)
- [Summary](#)
- [Return](#)
- [IC \(Information Coefficient\)](#)
- [Sector](#)
- [Seasonality](#)
- [Regime](#)
- [Turnover](#)
- [Correlation](#)
- [Coverage](#)
- [Formulation](#)

Please contact us to obtain more information on how to use this functionality:

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Additional client resources are provided on our website: <https://www.capitaliq.com/home/contact-us/support-training.aspx>

Revision History

The changes made to this document include the following:

Table 1. Revision History

Version	Date	Changes
v1.0	10/2011	Initial version
v2.0	01/2012	<p>Updates include but are not limited to:</p> <ul style="list-style-type: none">• Additional detail in Market Overview chapter• Additional detail in Factor Catalog chapter• New S&P Capital IQ Alpha Models chapter• New Private Library chapter• New Industry Factors chapter• Instructions on creating Custom Regimes• Updated screen shots• “Alphaworks” name updated to “Alpha Factor Library”
v3.0	04/2012	<ul style="list-style-type: none">• Added Private Library chapter• Added Industry Factors chapter• Updated screen shots were appropriate
v4.0	03/08/2013	<ul style="list-style-type: none">• Added Country Monitor section• Added Country Comparison section• Added Research Article section• Updated Settings section
v4.1	06/04/2013	<ul style="list-style-type: none">• Applied new branding.
v4.2	02/10/2014	<ul style="list-style-type: none">• Replaced the display screen under the Alpha Factors tab:<ul style="list-style-type: none">◦ “Oil and Gas” is now included in Industry Factors.◦ “My Daily Report” is now included in Market Overview• On Market Overview > Market Snapshot page,

Version	Date	Changes
		<p>added a control for Statistics with the following selections:</p> <ul style="list-style-type: none"> ○ Return Spread ○ Q1 Abs Return ○ Q5 Abs Return <ul style="list-style-type: none"> • On Market Overview > What's Working page, added a control for Frequency with the following selections: <ul style="list-style-type: none"> ○ Monthly ○ Quarterly ○ Semi Annually ○ Annually • On Market Overview > Regime Monitor page, added a control for Statistic Type with the following selections: <ul style="list-style-type: none"> ○ Return Spread ○ Q1 Abs Return ○ Q5 Abs Return • On Market Overview > Country Monitor page, as well as on Screening & Analysis > Country Comparison page, added a control for Sector with the following selections: <ul style="list-style-type: none"> ○ Cross Sectional ○ Sector Neutral ○ Consumer Discr. ○ Consumer Staples ○ Energy ○ Financials ○ Health Care ○ Industrials ○ Info Tech ○ Materials ○ Telecom ○ Utilities • Removed the ClariFI download function. • On Factor Catalog, removed the Download Center tab.

Index

- #+sectors, 14
- academic citations, 5, 123
- add citation, 63
- add custom data item mapping, 67
 - add, 68
 - cancel, 68
 - currency, 68
 - data type, 68
 - date alignment, 68
 - factor name, 68
 - prop data item, 68
 - universe, 68
 - value type, 68
- additional functionality, 47, 130
- application overview, 6
 - CIQ alpha models, 6, 45
 - factor catalog, 6, 73
 - industry factors, 6, 125
 - market overview, 6, 11
 - private library, 6, 49
 - research articles, 127
 - screening & analysis, 6, 33
 - style indicators, 129
- average monthly rank correlations over 60 months
 - category, 116
 - correlation, 117
 - correlation factors, 117
 - factor name, 117
 - t-stat, 117
- average Q1-Q5 spread by sector, 16
- average rank turnover by holding period, 114
 - sector, 114
 - time period, 114
- average return % tab, 85
 - portfolio, 85
- avg returns % tab
 - holding period, 95
 - portfolio, 95
 - time period, 95
- basic terms and functions, 1
 - style, 2
 - universe, 1, 2
- batting average percentage, 87
- batting avg % tab
 - portfolio, 87
- by sector tab, 39, 80
 - factor, 39
 - factor selector, 39
- cap weight return %, 15
- C-E diff, 15
- chart settings, 9
- CIQ alpha models, 6, 45
 - additional functionality, 47, 130
- US Growth, 45
- US Momentum, 45
- US Quality, 45
- US Value, 45
- CIQ alpha models
 - multipfactor models, 46
- common functions, 5
- comparison, 36
 - by sector tab, 39
 - factor, 36
 - index, 36
 - sector, 36
 - summary tab, 37
 - time period, 36
- control panel, 64
 - date created, 64
 - delete, 64
 - factor code, 64
 - ID, 64
 - map factor data, 67
 - name, 64
 - options, 64
 - publish factors, 69
 - rank, 64
 - status, 64
 - style, 64
 - upload proprietary factor data, 65
 - version, 64
- correlation, 116
 - category, 116
 - index, 116
 - negative tab, 116
 - positive tab, 116
 - rank order, 116
 - zero tab, 116
- country comparison, 40
 - country, 40
 - country selector, 40
 - factor, 40
 - time period, 40
- country default universe settings, 9
- country monitor, 29
 - display, 29
 - order, 29
 - region, 29
 - sector, 29, 30, 82, 83, 85, 86, 87, 89, 106, 107, 108
 - statistics, 29
 - time period, 29
- counts tab
 - time period, 98
- coverage
 - category, 118
 - correlations, 121

counts tab, 119
data coverage, 118
distribution tab, 120
index, 118
rank order, 118
coverage correlations
 highest correlations, 121
 lowest correlations, 121
create custom factors, 53
 multi factor, 58
 single factor, 53, 58
create new factors, 53
creating custom regimes, 27
cross-sectional (cs spread %), 14
cross-sectional tab, 78
cs spread %, 14
current returns heatmap, 19
 factor, 19
 month-to-date cumulative return spread, 19
 quarter-to-date cumulative return spread, 19
 style, 19
 trailing-twelve-months cumulative return spread, 19
 year-to-date cumulative return spread, 19
current vs. historical tab
 current regime, 107
 sector, 107
custom factors
 detail, 50
 list, 50
 published, 51
 unpublished, 51
custom regimes, 9, 27
custom regimes settings, 9
daily report, 76
 chg%, 77
 company, 77
 cross sectional, 76
 cusip/sedol, 77
 exchange, 77
 index, 76
 industry, 77
 mkt cap (mm), 77
 prior close, 77
 ranking type, 76
 score, 77
 sector, 76, 77
 sector neutral, 76
 ticker, 77
display, 18
edit existing factors, 62
equal weight return %, 15
factor catalog, 6, 73
 correlation, 116
 coverage, 118
 daily report, 76
 detail, 74
 factor search, 73
 formulation, 122
 IC (information coefficient), 89
 list, 75
 regime, 104
 return, 82
 seasonality, 100
 sector, 93
 summary, 78
 turnover, 112
factor catalog cross-sectional tab
 time period, 78
factor search, 73
factor search navigation, 4
formulation
 academic citations, 123
 definition, 122
 formula, 122
general settings, 8
 formula data source, 8
 holding period, 8
 index, 8
 sector, 8
 time period, 8
historical relative value, 55
 original factor, 55
 relative lookback, 55
historical returns view, 20
 factor, 20
 style, 20
 time period, 20
hit ratio % tab, 86
 portfolio, 86
IC (information coefficient), 89
 average information coefficient time series, 89
 category, 89
 holding period, 89
 index, 89
 information coefficients tab, 90
 information ratio tab, 91
 rank order, 89
 sector summary as of month-end, 92
 trailing twelve months, 92
ICs (information coefficients) tab
 holding period, 106, 110
index, 18
industry factor display, 126
 detail, 126
 list, 126
industry factors, 6, 125
industry relative
 original factor, 55
 relative level, 55
info. coefficients tab
 time period, 96

info. ratio tab
 time period, 97

job status summary, 71
 completion time, 71
 create time, 71
 description, 71
 duration, 71
 operations, 71
 owner, 71
 start time, 71
 status, 71
 type, 71

lattice tab
 category, 94
 display, 94
 index, 94
 rank order, 94

logging, 2

long-term average, 17

map factor data, 67

market overview, 6, 11
 country monitor, 29
 market snapshot, 12
 monthly report, 30
 my daily report, 32
 quant calendar, 21
 regime monitor, 22
 what's working, 18

market snapshot
 average Q1-Q5 spread by sector, 16

market snapshot, 12
 cumulative Q1-Q5 return spread by style, 13
 index, 12
 long-term average, 17
 monthly spread/daily spread, 13
 month-to-date returns, 17
 sector, 13
 sector summary, 15
 statistics, 12
 style factor list, 13
 style summary, 14
 time period, 13
 weighting type, 12
 year-to-date returns, 17

minimum weight %, 61

monthly quintile turnover timeseries, 113

monthly report, 30
 annual returns tab, 31
 IC (information coefficient) summary tab, 30
 index, 30
 information coefficient summary tab, 30
 month, 30

monthly tab
 average returns %, 103
 hit ratio %, 103
 info coefficients, 103

 info ratio, 103

month-to-date returns, 17

multi factor, 58
 access level, 59
 analyst notes, 59
 cancel, 59
 code, 58
 create, 59
 description, 59
 name, 58
 ranking order, 58
 short name, 58
 style, 58

multifactor models, 46
 detail, 46
 list, 46

my daily report, 32
 category, 32
 display columns, 32
 index, 32
 report date, 32
 report name, 32
 sector by, 32
 security info, 32

navigation, 2
 login, 2

negative correlation tab
 average monthly rank correlations over 60 months, 116

order, 18

original factor, 55

positive correlation tab
 average monthly rank correlations over 60 months, 116

private library, 6, 49
 control panel, 64
 create custom factors, 53
 create new factors, 53
 edit existing factors, 62
 factor catalog, 49
 job status summary, 71
 proprietary data manager, 72

private library factor catalog, 49
 view custom factors, 49

proprietary data manager, 72

proprietary factor data, 65
 cancel, 66
 load daily data, 66
 load monthly data, 66
 prev/next, 66
 publish, 66
 recalculate, 66
 repopulate month end, 66
 save, 66

publish factors, 69
 cancel, 70

load daily data, 69
load monthly data, 69
monthly data, 70
publish, 70
recalculate, 70
repopulate month end, 70
save, 70

Q1-Q5 spreads
 cumulative spread return, 83
 monthly return spread, 83

quant calendar, 21
 index, 21
 order, 21
 sector, 21
 statistics, 21

quant calendar display, 21

quintile returns
 sector spreads, 82

regime, 104
 category, 104
 current vs. historical tab, 107
 ICs (information coefficients) tab, 110
 index, 104
 quintile returns tab, 105
 rank order, 104
 regime, 104
 returns tab, 109
 time period, 104
 transitions tab, 108

regime details, 111
 regime calendar, 111
 regime summary, 111

regime monitor, 22
 calendar tab, 24
 current vs. hist section, 26
 description tab, 24
 index, 22
 regime, 22
 statistic type, 22
 summary section, 25
 summary tab, 23

regime monitor current vs. historical section
 display, 26
 sector, 26

regime monitor summary section
 display, 25
 order, 25, 26
 portfolio, 25
 sector, 25

relative level, 55
relative lookback, 55

research articles, 6, 127
 article list, 127
 newest article, 127
 our recent research, 127

return

average return % tab, 85
batting avg %, 87
batting avg % tab, 87
category, 82
daily returns tab, 84
hit ratio % tab, 86
index, 82
Q1-Q5 spreads tab, 83
quintile returns tab, 82
rank order, 82
sector return spread %, 88
trailing twelve months return spread %, 88

returns tab
 statistic, 109

scatterplot, 43
 style plot tab, 43
 time plot tab, 44

screening, 34

screening & analysis, 6, 33
 comparison, 36
 country comparison, 40
 scatterplot, 43
 screening, 34

seasonality, 100
 category, 100
 holding period, 100
 index, 100
 monthly tab, 102
 rank order, 100
 seasonality tab, 101
 sector, 100
 time period, 100

sector, 2, 18
 avg returns % tab, 95
 counts tab, 98
 info. coefficients tab, 96
 info. ratio tab, 97
 lattice tab, 94
 sector return spread percentage, 99
 timeseries tab, 93

sector return spread %, 88

sector summary, 15
 cap weight return %, 15
 C-E diff, 15
 equal weight return %, 15

sector summary as of month-end, 92

sector-neutral (sn spread %), 14

settings, 7
 chart, 9
 country default universe, 9
 custom regimes, 9
 general, 8
 universe, 8

single factor, 53, 58
 access level, 57
 analyst notes, 56

cancel, 57
code, 56
create, 57
description, 56
historical relative value, 55
industry relative, 54
name, 56
original, 54
ranking order, 56
short name, 56
style, 56
version, 54
sn spread %, 14
statistics, 18
style, 2
style indicators, 129
 detail, 129
 list, 130
style plot tab, 43
 control panel, 43
 index, 43
 time period, 43
style summary, 14
 #+sectors, 14
 cross-sectional (cs spread %), 14
 sector-neutral (sn spread %), 14
 time period, 14
summary, 78
 by sector tab, 80
 cross-sectional tab, 78
summary by sector tab
 category, 80
 index, 80
 rank order, 80
 time period, 80
summary cross-sectional tab
 category, 78
 index, 78
 rank order, 78
system requirements, 1
time plot tab, 44
 control panel, 44
 time period, 44
timeseries
 index, 93
timeseries tab
 category, 93
 display, 93
 rank order, 93
trailing twelve months, 92
trailing twelve months return spread %, 88
trailing twelve months turnover %, 115
transitions tab
 display order, 108
turnover, 112
 average rank turnover by holding period, 114
 category, 112
 holding period, 112
 index, 112
 monthly quintile turnover timeseries, 113
 rank order, 112
 sector, 112
 time period, 112
 trailing twelve months turnover %, 115
universe, 1
universe settings, 8
upload proprietary factor data, 65
what's working
 current returns heatmap, 19
 historical returns view, 20
what's working, 18
year-to-date returns, 17
zero correlation tab
 average monthly rank correlations over 60 months,
 116