The Economy Matters® Custom Report

October 31, 2019

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MacroRisk ANALYTICS

Asset: SPDR DJ Wilshire REIT ETF

Type: Exchange-Traded Fund | Symbol: RWR | Market: NYSE Arca | Currency: USD

Benchmark: S&P 500 Index

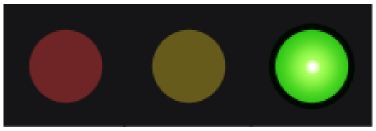
Type: Equity Index | Symbol: SPX | Market: Stock Indices | Currency: USD

1 year of daily returns subtracting the riskless rate using dividend & split adjusted series

Overview

For more information about each measure, please refer to the text under each image on this page as well as the definitions in the glossary at the end of this report.

Stoplight (Equity): Green



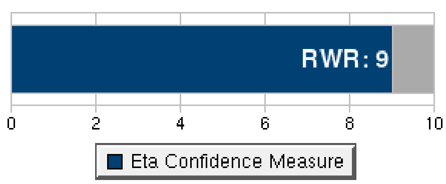
The **Stoplight (Equity)** is designed for stocks and portfolios of stocks. It is an indicator summarizing the statistical probability of excess return over the next 3-5 years based on several MacroRisk measures. Research on the Stoplight shows a tendency for assets with a "Green" Stoplight to perform the best. For bond funds, REITS, and other investments that are not primarily stocks or portfolios of stocks, use the value of the Stoplight (Non-Equity). Of course, statistical results are based on many assumptions and might not hold over time, and your results may differ. Similarly, other criteria for asset selection and portfolio construction may identify assets with "Red" or "Yellow" stoplights that still perform well for shorter holding periods.

Economic Climate Rating

The **Economic Climate Rating** is a measure of how favorable the current economic climate is for an asset over the next 6 to 12 months. It is a 5 star scale: 1 being the worst, 5 being the best.

Because mutual funds (and ETFs) are composed of many individual stocks, they are usually very diversified across the economy. Therefore, most mutual funds and ETFs have an Economic Climate Rating of three stars, meaning that current economic conditions are neither driving the value of these funds up nor down.

Eta® Confidence: 9



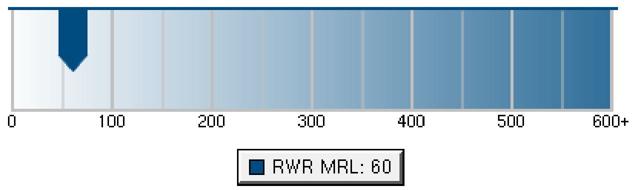
Eta® Confidence is a measure of the statistical relationship between an asset's price and the economy over time. When Eta® Confidence is high, the asset has demonstrated a more consistent relationship to the overall economy.

The Eta® Confidence measure reflects how confident one can be in the accuracy of the statistical estimates from the Eta® model. When Eta® Confidence is 10 then the changes in asset price can be explained primarily by the economy. If an asset's Eta® Confidence is less than 8 then non-economic, company specific or industry factors explain a significant portion of the asset's price variation and it is especially important to understand company-specific details when making investment decisions. The in-depth analysis of assets with low Eta® Confidence could focus on comparative advantages, news announcements, anticipated product releases, etc. using other research tools and publicly available news sources.

Statistic	RWR
Price/High Price (momentum)	0.990
Risk Tolerance Correspondence Score	46.22
Standard Alpha	0.1419
Standard Beta	0.5053
Up-Market Alpha	0.0136
Up-Market Beta	0.5278
Down-Market Alpha	0.4789
Down-Market Beta	0.5827

Expanded Five Risks+

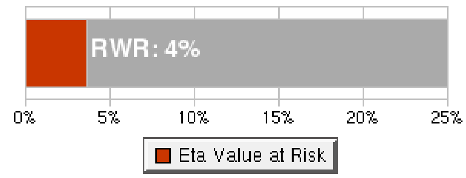
MacroRisk Level: 60



The **MacroRisk Level** measures an asset's sensitivity to economic change. It is calculated by taking the sum of the absolute values of each statistically significant Eta® Measure for the asset. The higher the MacroRisk Level for a security, the more sensitive it is to economic change.

To put this measure into perspective, money market funds typically have a very low MacroRisk Level, usually between 0 and 5. Mutual Funds and ETFs typically have a MacroRisk Level between 25 and 75. Finally, individual common stocks typically have a MacroRisk Level of 100 or higher. In portfolios, the economic diversity across the assets tends to reduce economic exposure, which in turn can dramatically reduce the MacroRisk Level. For example, while many stocks in the S&P 500 often have MacroRisk Levels of over 500, historically the S&P itself has a MacroRisk Level between 40 and 100.

Eta® Value at Risk: 4%



Eta® Value at Risk is the expected percent change in an asset's value that is due to an unexpected (1 in 20) event.

The Eta® Value at Risk is one of five risks (Chong, J. T., Jennings, W. P., & Phillips, G. M., 2014) which together can be used to identify and reduce the risks of investments over longer time horizons.

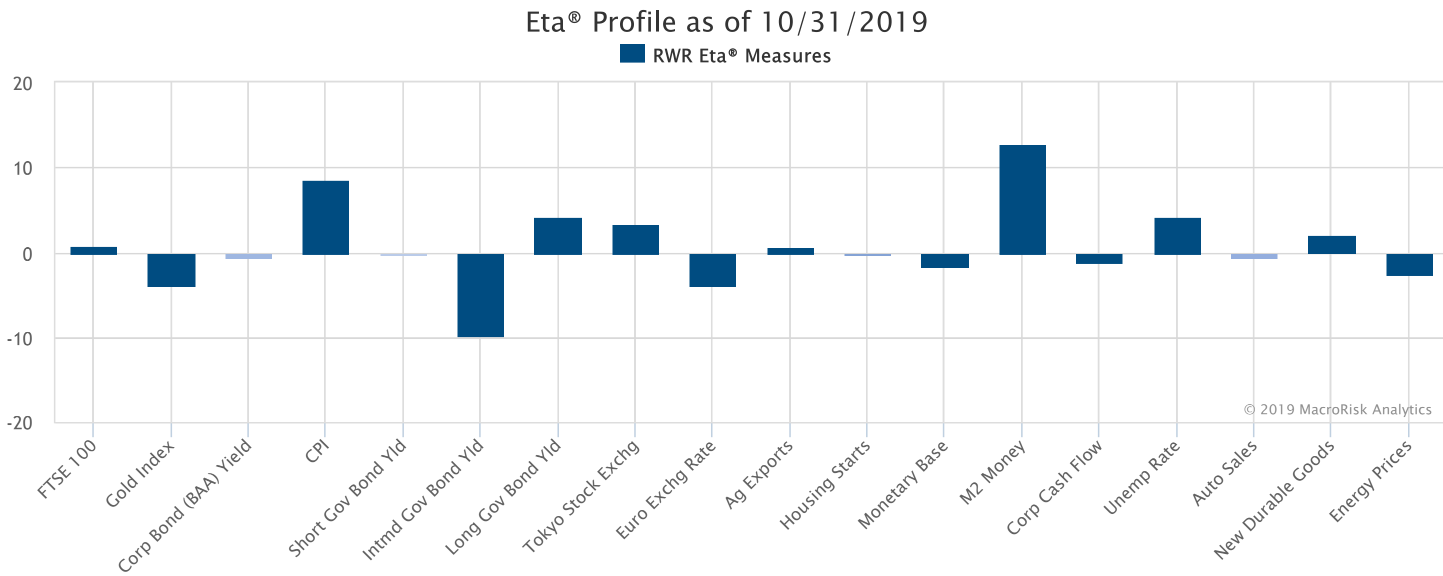
FiveRisks Comparison

FiveRisks Measure	Current	Min*	Mean*	Median*	Max*
MacroRisk Level	60.00	2.00	104.00	78.00	2115.00
Eta® Confidence	9.00	5.00	9.00	10.00	10.00
Price/High Price (momentum)	99.0%	6.2%	92.6%	98.3%	100.0%
Down-Market Beta	0.583	-6.202	0.508	0.667	4.245
Eta® Value at Risk	4%	0%	5%	3%	91%

*For all assets in the NYSE Arca as of 10/31/2019

The Five Risks are designed for gauging the market risk, sensitivity to the economy, momentum, attribution instability, and Eta® Value at Risk of a collection of holdings. These five risks help to predict an investment's long-term price behavior. For more information on these five risks, see the published peer reviewed work(Chong, Jennings & Phillips 2012, and others) on the MacroRisk site (http://www.macrorisk.com/publications/).

Eta® Measures



MacroRisk Factor	RWR Eta Measure	*RWR t-Statistic*
FTSE 100	0.77	*3.93*
Gold Index	-3.88	*-12.37*
Corp Bond (BAA) Yield	-0.55	*-0.90*
CPI	8.58	*7.87*
Short Gov Bond Yld	-0.29	*-0.41*
Intmd Gov Bond Yld	-9.81	*-7.10*
Long Gov Bond Yld	4.28	*3.82*
Tokyo Stock Exchg	3.27	*8.05*
Euro Exchg Rate	-3.81	*-13.93*
Ag Exports	0.61	*3.77*
Housing Starts	-0.25	*-1.78*
Monetary Base	-1.63	*-4.35*
M2 Money	12.78	*12.85*
Corp Cash Flow	-1.14	*-4.02*
Unemp Rate	4.24	*8.47*
Auto Sales	-0.69	*-1.36*
New Durable Goods	2.05	*7.95*
Energy Prices	-2.68	*-7.45*

While the MacroRisk Level indicates general economic risk, **Eta® Measures** are where economic risk measurement gets specific and gives you **the knowledge to understand what today's headlines mean for the stocks and funds in your portfolio**. Each asset has 18 Eta® Measures (one for each of the MacroRisk Factors), which show the sensitivity of the asset to each of the Factors.

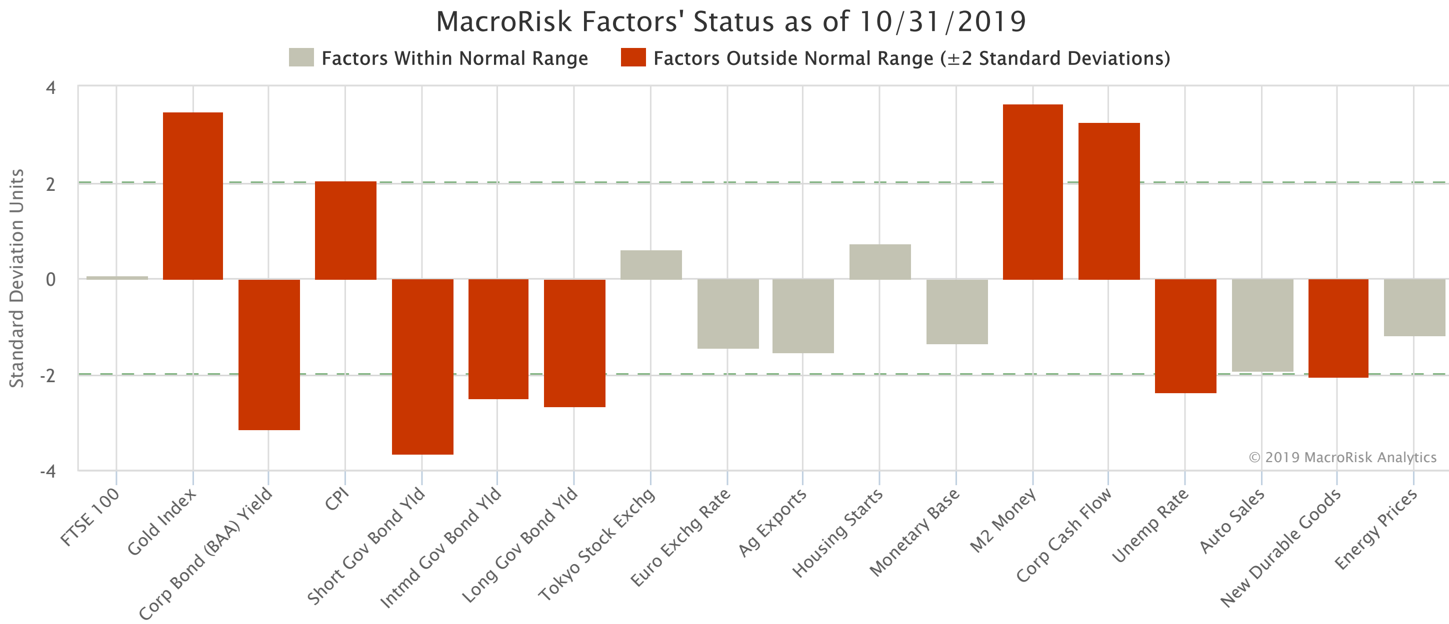
Positive Eta® Measures indicate a positive relationship. As the Factor goes up, so does the asset value (and vice-versa).

Negative Eta® Measures indicate an inverse relationship. As the Factor goes up, the asset value goes down (and vice-versa).

The values of the MacroRisk Factors are publicly available and often reported in the news, so when you know which of these Factors your investment is especially sensitive to, you know what to watch for.

Shading of the Eta® Measures indicates statistical significance. On the graph, very light Eta® Measures can be ignored and are not included in the MacroRisk Level. In the table, the level of significance is shown by the t-Statistic.

The Economy



This useful graph gives you a snapshot of this week's economy. Each of our 18 MacroRisk Factors has a corresponding bar on the graph; these bars indicate whether the value of each Factor is higher or lower than normal. If the bar sits above the zero line, the value is higher than average, if the bar hangs below the zero line, the value is lower than average.

Often, MacroRisk Factors change slowly or not at all from week to week. Sometimes, however, one or more of them will jump far more than they have in the recent past: these kinds of economic shifts generally lead to changes in price for certain investments. Specifically, significant changes in a MacroRisk Factor tend to lead to price changes in investments with high Eta Measures for that variable. For instance, if the Unemployment Rate increases dramatically, stocks with a highly positive Eta Measure for that MacroRisk Factor will tend to increase in price, while stocks with a corresponding highly negative Eta Measure will tend to decrease in price.

On the graph, any MacroRisk Factors that fall between the dashed green lines are behaving as expected and are not likely to impact asset prices. These are colored grey. (In other words, grey MacroRisk Factors are within 2 standard deviations of their average value computed from the previous year of data with a three-month lag.) The closer the bar is to the dashed green line, the more it has been changing recently.

If a Factor goes up or down significantly, its bar crosses the dashed green boundary line. These MacroRisk Factors that fall outside normal range are identified by red, rather than grey, bars. Prices of investments with high Eta® Measures for these Factors are likely to be impacted by these changes in the economy.

Beta+ Report

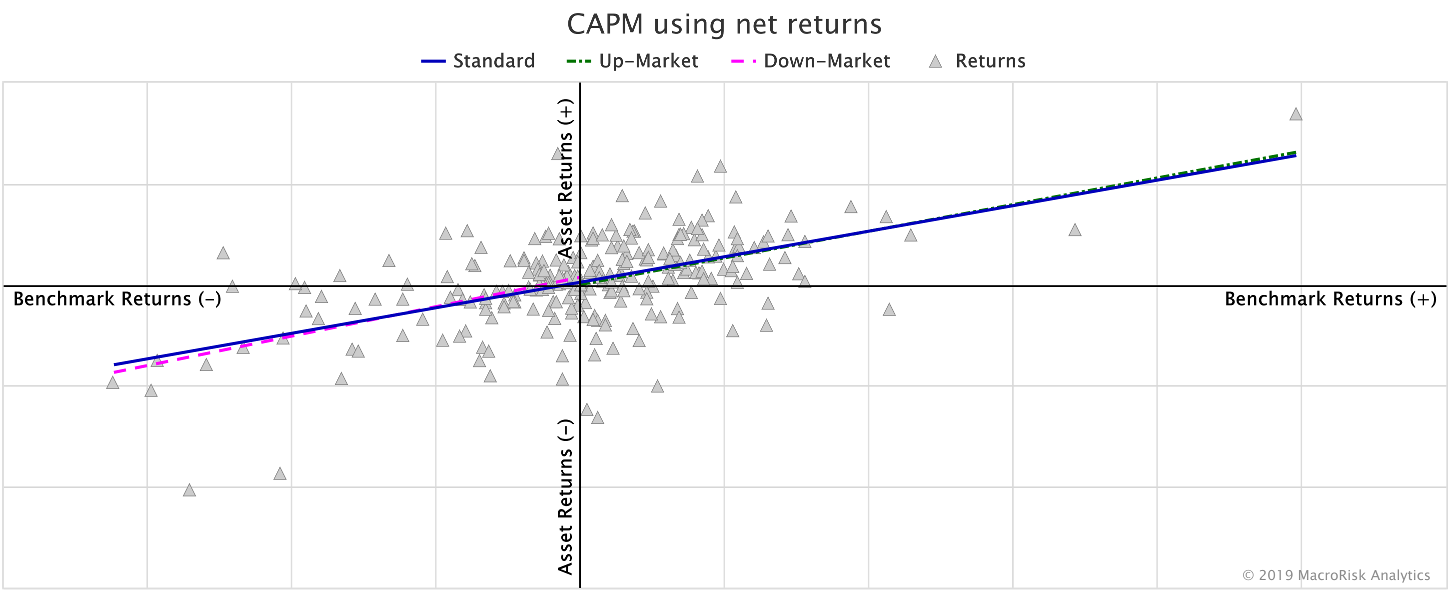
Benchmark: S&P 500 Index

Type: Equity Index | Symbol: SPX | Market: Stock Indices | Currency: USD

CAPM Statistic	Standard	Up-Market	Down-Market
Alpha	0.1419	0.0136	0.4789
Beta	0.5053	0.5278	0.5827
CAPM R^2	0.3017	0.1782	0.2568
Correlation	0.5492	0.4221	0.5067
Tracking Error	0.1432	0.1279	0.1338

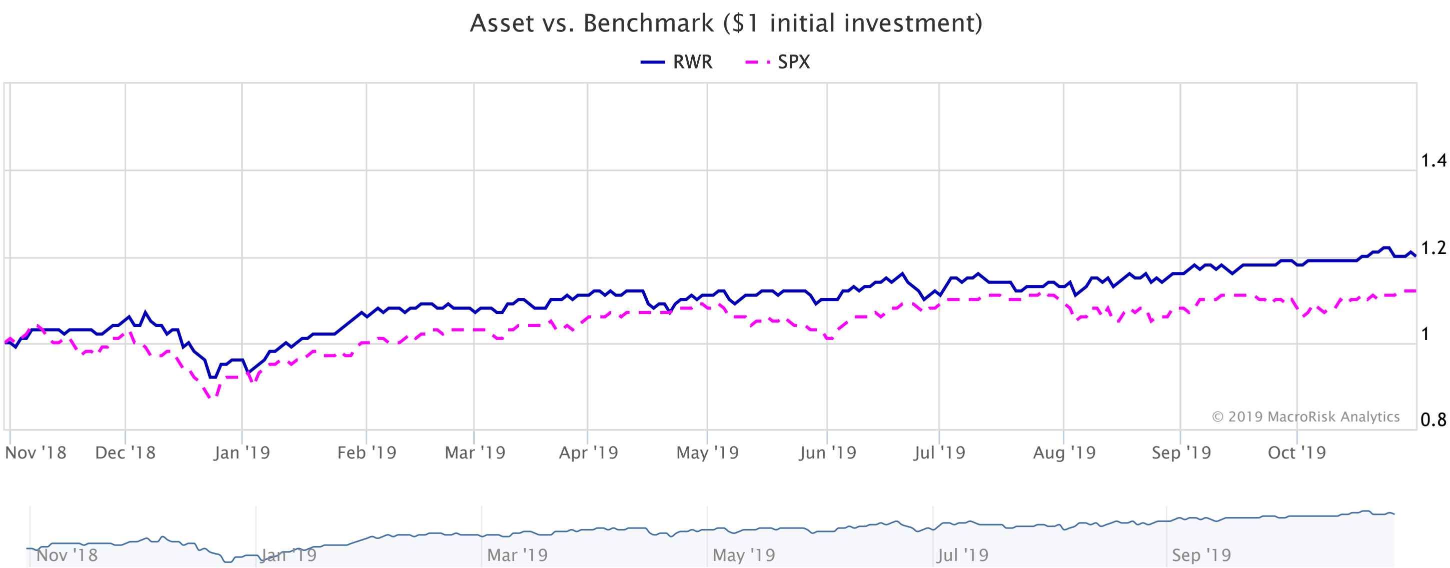
RWR Ratios	
Sharpe Ratio (Riskless Rate)	1.3605
Sharpe Ratio (Market)	0.4941
Sortino Ratio	1.2390
Treynor Ratio	0.3879
Return to Risk Ratio	1.3605
Return to Downside Risk Ratio	1.2390

Other Statistics	RWR	SPX
Annualized Ret.	20.49%	12.02%
TT Month Ret.	20.48%	12.02%
Mean Ret.	19.60%	12.53%
Median Ret.	30.39%	17.58%
Std. Dev	0.1441	0.1566
Upper SemiDev	0.1301	0.1486
Lower SemiDev	0.1582	0.1651



Performance Graphs

The above graph shows how well the Eta® Analysis equation explains the actual price of the security. The solid blue line shows the actual price ,the dashed pink line shows the Eta® Price (economy determined price). The more these lines match up, the higher the Eta® Confidence and the more important the economy is in determining the price of the security.



The above graph shows the performance of the asset and the benchmark for the CAPM analysis period.

References/Suggested Reading

Chong, J. T., Jennings, W. P., and Phillips, G. M. (2014). **Monitoring the five risks: Analytical risk measurement for retail investors and wealth managers.** *Investments & Wealth Monitor, March/April,* 17–19 and 24.

Glossary

Alpha (Jensen's)

Jensen's Alpha is an indicator of how much an asset's returnsdiffer from the predicted volatility of the asset. In other words, the Alpha value indicates how much the asset's returns exceed or fall behind the benchmark's returns adjusted for the asset's systemic risk.

An Alpha greater than zero indicates that an asset's returns are higher than the benchmark's returns adjusted for systemic risk. An Alpha of zero indicates that the asset's returns are predicted by its systemic risk. An alpha less than zero indicates that an asset's returns consistently fall below the benchmark's returns adjusted for systemic risk.

Annualized Return

An asset's **Annualized Return** is the return that asset provides over time, expressed as a time-weighted annual percentage. (It is computed as the geometric mean of the total return).

CAPM Beta

The Beta+ or **CAPM (Capital Asset Pricing Model)** statistics are a set of Modern Portfolio Theory and Post-Modern Portfolio Theory statistics that include standard, up-market, and down-market modeling. Statistics from the "standard" modeling are calculated based on all the returns in the selected returns period. Up-market modeling statistics are calculated using returns information for day when the benchmark returns are flat or positive. Down-market modeling statistics are calculated using returns information for days when the benchmark returns are negative. (Note: The default benchmark representing the market is the SPX index.)

A Beta higher than 1 indicates that the asset is more volatile than the benchmark. A Beta of 1 indicates that the asset is as volatile as the benchmark. A Beta less than 1 and greater than 0 indicates that the asset is less volatile than the benchmark. A Beta less than zero indicates that an asset's returns relate inversely to the benchmark's returns.

Down-Market Beta

The Beta+ or **CAPM (Capital Asset Pricing Model)** statistics are a set of Modern Portfolio Theory and Post-Modern Portfolio Theory statistics that include standard, up-market, and down-market modeling. Statistics from the "standard" modeling are calculated based on all the returns in the selected returns period. Up-market modeling statistics are calculated using returns information for day when the benchmark returns are flat or positive. Down-market modeling statistics are calculated using returns information for days when the benchmark returns are negative. (Note: The default benchmark representing the market is the SPX index.)

Economic Climate Rating

The **Economic Climate Rating** is a measure of how favorable the current economic climate is for an asset over the next 6 to 12 months. It is a 5 star scale: 1 being the worst, 5 being the best.

Because mutual funds (and ETFs) are composed of many individual stocks, they are usually very diversified across the economy. Therefore, most mutual funds and ETFs have an Economic Climate Rating of three stars, meaning that current economic conditions are neither driving the value of these funds up nor down.

Economy's Influence

The **Economy's Influence** shows how much of an asset's price and value movement is explained by changes in the economy.

Typically, 95% of most assets' price and value movement is explained by changes in the general economy. When a company is mature and has a stable relationship with its markets and suppliers, then the Economy's Influence can be the primary explanation for changes in asset price with a measure of 99%. If an asset's Economy's Influence value is less than 85% then company specific or industry factors explain a significant portion of the asset's price variation and it is especially important to understand company-specific details when making investment decisions. The in-depth analysis of assets with low Economy's Influence could focus on comparative advantages, news announcements, anticipated product releases, etc. using other research tools and publicly available news sources.

Eta® Confidence

Eta® Confidence is a measure of the statistical relationship between an asset's price and the economy over time. When Eta® Confidence is high, the asset has demonstrated a more consistent relationship to the overall economy.

The Eta® Confidence measure reflects how confident one can be in the accuracy of the statistical estimates from the Eta® model. When Eta® Confidence is 10 then the changes in asset price can be explained primarily by the economy. If an asset's Eta® Confidence is less than 8 then non-economic, company specific or industry factors explain a significant portion of the asset's price variation and it is especially important to understand company-specific details when making investment decisions. The in-depth analysis of assets with low Eta® Confidence could focus on comparative advantages, news announcements, anticipated product releases, etc. using other research tools and publicly available news sources.

Eta® Pricing Model

The **Eta® Pricing Model** is a revolutionary and powerful model that expands on the Capital Asset Pricing Model by taking the macro-economy into account when building optimal portfolio. This model allows investors to analyze exactly how changes in the economy affect the prices of securities so that they can minimize the economy's influence on their portfolios. By analyzing the economy's influence on assets and portfolios, the Eta® Pricing Model allows investors to truly minimize risk and maximize returns by harnessing the power of the changing economy and using it to their advantage.

Glossary (Cont.)

Eta® Value at Risk

Eta® Value at Risk is the expected percent change in an asset's value that is due to an unexpected (1 in 20) event.

The Eta® Value at Risk is one of five risks (Chong, J. T., Jennings, W. P., & Phillips, G. M., 2014) which together can be used to identify and reduce the risks of investments over longer time horizons.

Lower Semideviation

An asset's **Lower Semideviation** is a measure of the fluctuation of returns below the average return. When the lower semideviation is larger than the upper semideviation, it indicates that the asset tends to have larger below-average returns than it has above-average returns. Since upper semideviation is gain and lower semideviation is loss, the lower semideviation is often a better measure of risk than the standard deviation, which is an average of upside and downside fluctuation and blends loss with gain.

MacroRisk Level

The **MacroRisk Level** measures an asset's sensitivity to economic change. It is calculated by taking the sum of the absolute values of each statistically significant Eta® Measure for the asset. The higher the MacroRisk Level for a security, the more sensitive it is to economic change.

To put this measure into perspective, money market funds typically have a very low MacroRisk Level, usually between 0 and 5. Mutual Funds and ETFs typically have a MacroRisk Level between 25 and 75. Finally, individual common stocks typically have a MacroRisk Level of 100 or higher. In portfolios, the economic diversity across the assets tends to reduce economic exposure, which in turn can dramatically reduce the MacroRisk Level. For example, while many stocks in the S&P 500 often have MacroRisk Levels of over 500, historically the S&P itself has a MacroRisk Level between 40 and 100.

Price/High Price (momentum)

The **Price/High Price** ratio tells us what an asset's price currently is as a percentage of its highest price in the last 52 weeks. It is used as a measure of momentum.

The Price/High Price is one of five risks (Chong, J. T., Jennings, W. P., & Phillips, G. M., 2014) which together can be used to identify and reduce the risks of investments over longer time horizons.

Risk Tolerance Correspondence Score

The **Risk Tolerance Correspondence Score** is a statistical mapping of various MacroRisk statistical measures into a score that corresponds with some popular risk tolerance survey results. For example, if a client has a risk tolerance score of 52 (on a 1 to 100 scale), then the Risk Tolerance Correspondence Score could be used to see how much riskier overall an asset or portfolio is than the client's preferred risk tolerance.

Standard Deviation

The **Standard Deviation** of an asset indicates the variation in returns for that asset and is used as a measure of the risk associated with the asset's price fluctuations.

Standard Industrial Classification (SIC) Code

The **Standard Industrial Classification (SIC) Code** is a method for classifying industries using a one to four digit code. Each digit left to right provides a finer gradation. For example, "6" is "Finance, Insurance, and Real Estate," "60" is "Depository Institutions," "602" is "Commercial Banks," and "6021" is "National Commercial Banks."

Stoplight (Equity)

The **Stoplight (Equity)** is designed for stocks and portfolios of stocks. It is an indicator summarizing the statistical probability of excess return over the next 3-5 years based on several MacroRisk measures. Research on the Stoplight shows a tendency for assets with a "Green" Stoplight to perform the best. For bond funds, REITS, and other investments that are not primarily stocks or portfolios of stocks, use the value of the Stoplight (Non-Equity). Of course, statistical results are based on many assumptions and might not hold over time, and your results may differ. Similarly, other criteria for asset selection and portfolio construction may identify assets with "Red" or "Yellow" stoplights that still perform well for shorter holding periods.

Glossary (Cont.)

Stoplight (Non-Equity)

The **Stoplight (Non-Equity)** is designed especially for use with bond funds, REITS, and other investments that are not primarily stocks or portfolios of stocks. It is an indicator summarizing the statistical probability of excess return over the next 3-5 years based on several MacroRisk measures. Research on the Stoplight shows a tendency for assets with a "Green" Stoplight to perform the best. For stocks and portfolios of stocks, use the value of the Stoplight (Equity). Of course, statistical results are based on many assumptions and might not hold over time, and your results may differ. Similarly, other criteria for asset selection and portfolio construction may identify assets with "Red" or "Yellow" stoplights that still perform well for shorter holding periods.

Total Return

An asset's **Total Return** is the percentage change in asset value from the first day to the last day of the reporting period.

Trailing Twelve Month Return

An asset's **Trailing Twelve Month Return** is the asset's total return over the previous 12 month time period. (It isn't given if there isn't at least 12 months of data to report.)

Up-Market Beta

The Beta+ or **CAPM (Capital Asset Pricing Model)** statistics are a set of Modern Portfolio Theory and Post-Modern Portfolio Theory statistics that include standard, up-market, and down-market modeling. Statistics from the "standard" modeling are calculated based on all the returns in the selected returns period. Up-market modeling statistics are calculated using returns information for day when the benchmark returns are flat or positive. Down-market modeling statistics are calculated using returns information for days when the benchmark returns are negative. (Note: The default benchmark representing the market is the SPX index.)

Upper Semideviation

An asset's **Upper Semideviation** is a measure of the fluctuation of returns above the average return. When the upper semideviation is larger than the lower semideviation, it indicates that the asset tends to have larger above-average returns than it has below-average returns.

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