



The KP Market Trend Model

Managing Beta to Improve Alpha

Financial Tsunamis. The frequency of chaotic episodes in financial markets, such as those of 2002 or 2008, is unacceptably high. They not only cast a long shadow on investment returns, but often cause investors to give up on the stock market altogether. When investors eventually venture back, it is often years later.

The numbers show that individuals saving for their retirement often fall seriously short of their goals because (1) they don't save enough, and (2) they often panic and bail out once or twice along the way. Managing "tsunami risk" should really be the first priority of investment management.

Managing Market Influences. The *KP Market Trend Model* is a mathematical decision system focused exclusively on the management of such recurring, but unacceptable portfolio drawdowns. With a disciplined set of decision rules, our Model provides a small, but persistent, advantage over more traditional approaches.

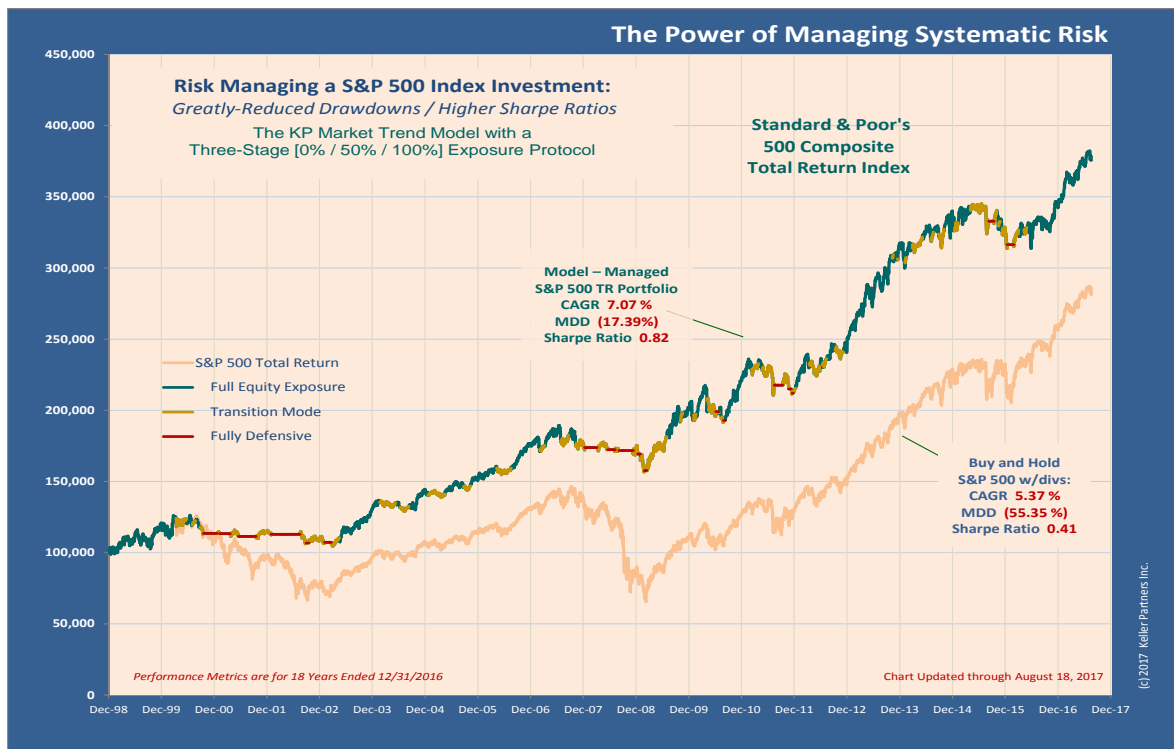
Once drawdowns are contained, Sharpe Ratios¹ improve. Higher Sharpe Ratios are directly

linked with desirable portfolio return patterns and improved client survival rates.

Defensive When it Counts. Our value proposition is summarized with the chart below. Over several decades, Keller Partners has developed momentum filters that allow us to classify the prevailing market environment into one of three statistical categories — or "colors." These are described on the back page. Over time, adjusting risk exposure with such a disciplined approach can and will make a significant contribution to risk/adjusted portfolio performance. Essentially, we generate *alpha*² by managing *beta*.³

Following the Money. The KP Model is driven exclusively by internal market data, not by economic statistics or forecasts.⁴ This approach creates portfolios that are seldom out of alignment with underlying market realities for very long.

- 1 **Sharpe Ratio:** the average return of a portfolio divided by the standard deviation of its periodic returns. This simple ratio answers a key question: "how many units of return did I get for every unit of risk I assumed?"
- 2 **Alpha:** the excess return achieved by a portfolio vs. the benchmark return.
- 3 **Beta:** the sensitivity of a portfolio to movements of the market index.
- 4 Even though it seems completely logical, there is little academic evidence that economic forecasts can be productively employed in the management of market, or systematic, risk.



The Color of the Market. The KP Model is structured with two components: (1) a long-term, price-driven momentum model, and (2) a separate, more unique, model that relies exclusively on internal market data to infer / predict momentum over shorter horizons. This latter model has been generating signals in real time since 2006. Both components need to agree for a full "risk-on" or fully defensive "risk-off" equity allocation. When they disagree, equity exposure is reduced.

As the analysis on the back page shows, the **green** 100% "risk-on" condition is the most typical, and also exceptionally productive: high returns with low volatility. However, the critical reason to embrace a Model such as ours is to be **defensively** positioned for the less frequent, but devastating, events that are more likely when the color of the market is **red**.

The Three Personalities of the KP Market Trend Model

Financial markets exhibit momentum, or a *tendency to trend*. These tendencies can be analyzed mathematically to (1) help identify the underlying trend direction, and (2) to statistically describe the risk/return “personality” characteristics of the current stock market environment.

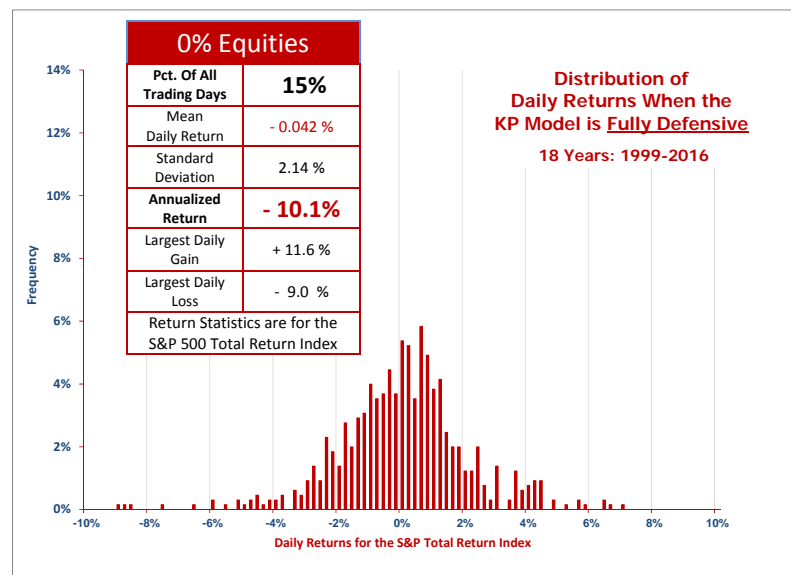
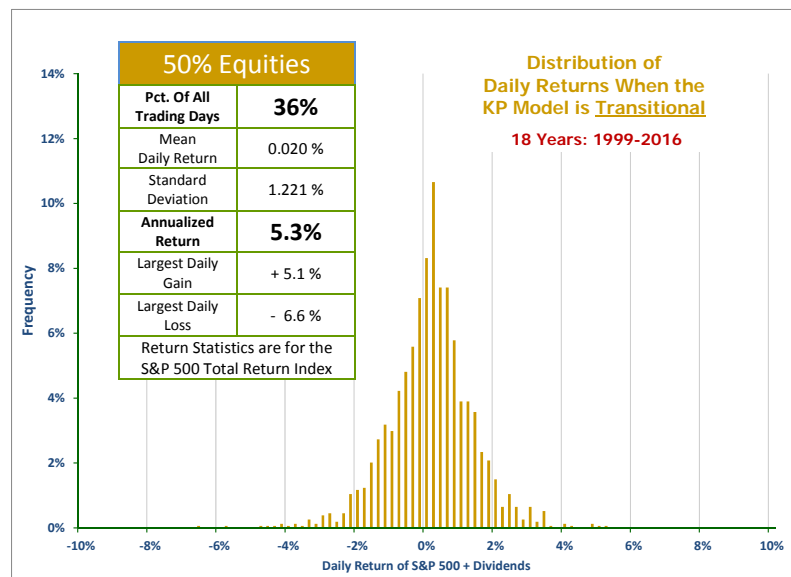
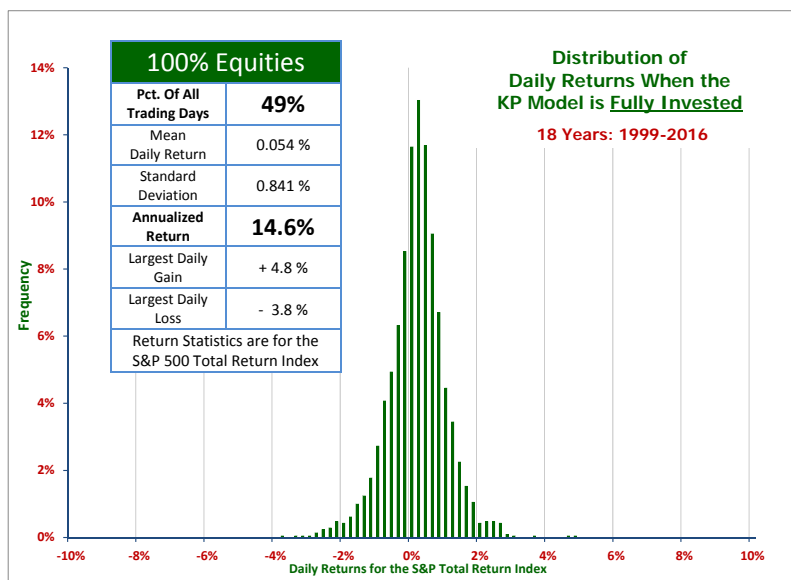
“Seasons” in the financial markets are analogous to the weather cycles of the physical world. While we can always be surprised by a sudden frost in the summer, for the most part we experience recurring, gradual transitions from summer to winter and back again.

We monitor these seasons, with two complex mathematical models, each with a unique theoretical approach to trend identification. The models process the large volume of daily market data to classify the current environment into one of the three broad categories to the right.

Green — Risk-On. Historically, our model labels roughly one-half of all trading days — in advance — as a very positive (risk-friendly) environment. The annualized return for the days that fall into this category is 14.6%, twice the 7.1 % average return for all the trading days in the 18-year period ended 2016. The attractiveness of this “sunny” personality is further enhanced by its below-average daily volatility.

Yellow — Transitional. Whenever our *intermediate-term* and *long-term* studies disagree, the historical record suggests that stock investments will continue to make a positive performance contribution, but that portfolios will likely exhibit greater volatility and lower returns than was the case with the 100% “risk-on” category above.

Red — Risk-Off. There are times when holding any exposure to equities is statistically a losing proposition. The KP Model only categorizes 15% of all trading days as having potentially very high risk, but these have historically included many of the chaotic episodes that have inflicted significant mathematical damage to long-term portfolio returns. Note that the volatility of daily returns also expands significantly with this “red” model condition.



Additional Information

The KP Market Trend Model is updated daily and we report its status weekly on our website:
www.kellerpartners.com