

Dear Q-Group members and friends;

The objective of the **Participants' Perspective** is to put forward a thoughtful impression of what the speaker said that has relevance to the average seminar participant. The focus is on [1] practical significance to practitioners; [2] appropriateness and rigor of quantitative methods; and [3] novelty of results and techniques.

Participants' Perspective serves several objectives, but is not a formal academic review. Our guidelines for writing the Perspectives include:

- Provide audience-level impressions, based on discussions and notes made during the presentation. These are not written from the author's perspective, but from that of the practitioner: how can this help to deepen my appreciation for the subtleties of my profession?
- The reviews fit into a framework that encompasses the perspectives of the Q-Group members: Importance, Investigation, Innovation, and Insights. This framework focuses on what the audience should expect from an interesting and well-delivered presentation.
- Brevity rules: we provide a quick review accessible to busy readers in one page. In today's busy world, we all need to zero in on important information and go past that which is less relevant.
- Rapid distribution: our objective is to make these Perspectives available within days of the end of the seminar.
- Provide a tool for Q to reach out beyond the seminar attendees, particularly:
 - The organizations that generously fund the Q-Group through their membership;
 - Those who might like to attend but can't for various reasons; and
 - Especially those who might wish to become Q-Group members.
- Please differentiate between these impressions and the fine work of Russ Wermers and David Modest with the program summaries. If what you read here intrigues you, go first to their finely crafted synopses, and then to the slides and papers, which are readily available at www.Q-Group.org. (Links to the papers and slides are included in the Perspectives.) Our objective is to encourage the reader to delve deeper into presentations and subjects they find interesting.

Title: **PPPS AND EXCHANGE RATES
EVIDENCE FROM ONLINE DATA IN SEVEN COUNTRIES**

Speaker: **Alberto Cavallo**
MIT and NBER

Importance: Why this matters:
The Billion Prices Project collects online data from retailers on a daily basis, and uses the data to estimate inflation. The results appear more timely and more accurate than standard approaches to constructing CPI indices. These data can be used to estimate Purchasing Power Parity (PPP) and Real Exchange Rates (RER) for cross-country comparisons.

Investigation: "Speaker analyzed XXX data to address the questions yyy, zzz, etc."
Described MIT's Billion Prices Project, and compared the approach to alternative methods. Used the data to construct RER (ratio of real price to exchange rate) series for seven countries. Investigated the average level and mean reversion behavior of each.

Innovation: Are there new techniques of interest in the data or approach to the problem?
The Billion Prices Project is able to more accurately measure inflation (for goods that are sold online). The data can be used to estimate and model the behavior of exchange rates relative to prices. Benefits include: higher frequency data, consistent methodology across countries, and tradable goods are perfectly matched. Limitations include: excludes services and goods that are not sold online, and data is currently available for only seven countries.

Insights: 1-2-3, what are the three most important things the speaker offered?

1. The Billion Prices Project is able to provide better estimates of inflation than other approaches.
2. While there are persistent differences in the average levels of prices, most countries exhibit mean reversion of Real Exchange Rates. Differences of RER from normal levels increase pressure on currencies to adjust.
3. Probably due to having a managed currency, China is the exception. Its Real Exchange Rate shows a persistent upward trend for the entire period.

Audience rating: 4.28

Title: **SENTIMENT-INDUCED SHARE RETURNS**

Speaker: **Ian Cooper**
London Business School

Importance: Why this matters:

“Sentiment,” which Google defines as “a view of or attitude toward a situation or event; an opinion,” clearly plays a major role in establishing market prices. The interesting questions are how sentiment affects prices, how to measure sentiment, and whether sentiment effects promote or hinder efficient price discovery.

Investigation: “Speaker analyzed XXX data to address the questions yyy, zzz, etc.”

The speaker and his colleagues tested for sentiment effects on a sample of upstream (producer) oil stocks 1983-2012 attempting to separate the stock return caused by changes in fundamentals and the part that causes deviations from fundamental value due to changes in sentiment.

Innovation: Are there new techniques of interest in the data or approach to the problem?

The authors use a fairly standard analysis technique of creating high- and low-effect portfolios and observing subsequent price behavior over time.

They apply two measures of sentiment, [1] the Baker/Wurgler composite index of general market sentiment index of IPO volume and returns, market volume, relative pricing of high and low volatility stocks, and [2] the “%bullish” from the American Assn of Individual Investors survey of investor sentiment.

Insights: 1-2-3, what are the three most important things the speaker offered?

1. As expected, the B-W sentiment predicts mean reversion; and the retail bullish sentiment predicts momentum.
2. The measures of sentiment were based on broad and infrequent data sets that did not reflect the idiosyncrasies of the particular industry or the individual stocks comprising the group. Given the coarseness of the predictors, potentially more interesting results were obscured.
3. The authors conclude that their findings are inconsistent with theories where sentiment causes deviations from fundamental value.

Audience rating: 2.97

Title: **PATIENT CAPITAL OUTPERFORMANCE:
THE INVESTMENT SKILL OF HIGH ACTIVE SHARE
MANAGERS WHO TRADE INFREQUENTLY**

Speaker: **Martijn Cremers**
Affiliation: **University of Notre Dame**

Importance: Why this matters:

Cremers and his co-authors investigate the characteristics of active managers that historically have out-performed the index funds. They identify three factors that lead to success:

1. “Active” has to mean different; closet indexers hold portfolios that too strongly resemble the indexes;
2. Fees and operating expenses cannot be too large; and
3. Patience, as indicated by longer holding periods, is more likely to outperform.

Investigation: "Speaker analyzed XXX data to address the questions yyy, zzz, etc."

Cremers group investigated benchmark-adjusted returns of equity portions of large, medium and small cap mutual funds, and hedge funds with monthly data from 1983 through 2013.

They measured the degree of active investment by computing holdings overlap with index weighting. They measured patience as the average length of time an average dollar has been in the portfolio.

Innovation: Are there new techniques of interest in the data or approach to the problem?

Both of the measures described above are largely innovative, and highlight two uncommon measures that he shows are predictive of superior investment performance.

Insights: 1-2-3, what are the three most important things the speaker offered?

1. Patience – and having a clientele willing to tolerate low activity and long term perspective – likely lead to better performance. (But it is very hard to be patient!)
2. Investors and their clients cannot expect significant outperformance when the fund is hugging the index through closet indexing. Only idiosyncratic funds can show distinguishable long-term performance.
3. Skill, guts, and opportunity, rare qualities indeed, need to be combined to sustain superior long-term performance.

Audience rating: 3.87

Title: X-CAPM: An Extrapolative Capital Asset Pricing Model

Winner, 2015 Treynor Prize

Speaker: ROBIN GREENWOOD
Harvard Business School

Importance: Why this matters:

Researchers scoff at the use of expectational data in understanding the structure of markets. The authors are attempting to build a non-rational expectations model that incorporates the strong empirical evidence that many investors, including professionals, tend to extrapolate recent trends: i.e., success => continuing success.

Investigation: "Speaker analyzed XXX data to address the questions yyy, zzz, etc."

They constructed a standard model of the stock market with two types of investors. By varying the proportions of extrapolative trend-followers and rational investors, they seek to answer how investor expectations may affect the returns patterns of the market. The investigation is on-going, with current investigations into modeling bubbles and bubble formation.

Innovation: Are there new techniques of interest in the data or approach to the problem?

The authors build a simple model consisting of a safe and a risky asset, and two types of traders: extrapolators and rational traders who gain by trading against the over-enthusiasts.

Insights: 1-2-3, what are the three most important things the speaker offered?

1. Survey data is not an inconvenience to understanding market behavior; in fact it is useful data.
2. The key variable in their analysis is how much past data goes into the formation of expectations. If the horizon is long, it leads to excess volatility and bubble formation. If their horizon is short, extrapolators change their minds often and the market becomes self-correcting and more predictable.

Audience rating: Special session; no rating.

Title: **BETTING AGAINST BETA OR DEMAND FOR LOTTERY?**

Speaker: **Scott T. Murray**
University of Nebraska-Lincoln

Importance: Why this matters:

The topic of whether risk is compensated (high beta stocks have higher expected returns) has been debated for a long time. This paper provides evidence that the historically observed relatively low returns of high beta stocks (security market line was too flat) was due to investors' preference for lottery-like payoffs (a chance of very high returns), rather than risk not being compensated.

Investigation: "Speaker analyzed XXX data to address the questions yyy, zzz, etc."

For each stock, each month, they calculated MAX, the average return of the five highest daily returns during the month, which is used as a proxy for the stocks' lottery-like characteristics. They then studied the performance of portfolios using a two-way sort: Beta and Max, and applying Fama-MacBeth regressions.

Innovation: Are there new techniques of interest in the data or approach to the problem?

The use of MAX in conjunction with other risk measures allowed the disentangling of the behavior of risk from other metrics. MAX "worked", while different metrics suggested by other researchers were not able to explain the "betting against beta" phenomenon.

Insights: 1-2-3, what are the three most important things the speaker offered?

1. Once MAX was included in the analysis, the return to beta was broadly in line with theoretically expected value, rejecting the inability to lever arguments for "betting against beta."
2. While correlated with Beta, the correlation with risk is not perfect. MAX captures lottery-like qualities of stocks. The component of Beta that is orthogonal to MAX does not produce the "Betting against beta" result.
3. MAX seems to capture stocks' behavior that other risk characteristics such as skewedness, co-skewedness and idiosyncratic volatility do not.

Audience rating: 3.99

Title: **CROSS-FIRM INFORMATION FLOWS**

Speaker: **Anna Scherbina**
University of California, Davis

Importance: Why this matters:

Scherbina and her co-author investigate whether news about one company reverberates in other individual stocks. The conclusion is positive, but the evidence shows that sophisticated traders are aware of the information, thus speeding up information diffusion.

Investigation: "Speaker analyzed XXX data to address the questions yyy, zzz, etc."

"News leaders" are identified using simple Granger-causality methodology, a fancy name for pair-wise regressing 12 monthly returns for each stock against the lagged returns of every other stock, roughly half a million regressions per month. A stock is identified as a leader (positive or negative) when the coefficient on its lagged returns has a significant t-statistic. False identifications were eliminated through reference to news sources, eliminating about half of the "leader" classifications.

Innovation: Are there new techniques of interest in the data or approach to the problem?

Granger-causality is obviously a blunt-force method that cannot distinguish predictive causality from true causality, but it is interesting to see it used as an exploratory technique. (Granger himself in his Nobel laureate speech warned against "ridiculous conclusions!")

Insights: 1-2-3, what are the three most important things the speaker offered?

1. Firm-level information leaders generate significant return predictability for followers at monthly horizons. Weekly regressions produced stronger results.
2. Predictability works best within industries.
3. An extension to the analysis indicates that short-sellers (and presumably other sophisticated traders) trade on this information. Evidence: the effect was much stronger in the 1929 to mid-1970's than it was in more recent periods.

Audience rating: 4.31

Title: **A SHARPER RATIO: A GENERAL MEASURE FOR RANKING INVESTMENT RISKS**

Speaker: **Kent Smetters**
The Wharton School and NBER

Importance: Why this matters:

While Sharpe Ratios may be appropriate to rank strategies with normal return distributions, they may provide incorrect rankings for strategies where the higher moments (skew, kurtosis, etc.) matter. This paper develops a ranking measure SZ, that captures all of the moments of the return distribution, and is much more computationally efficient than integrating the expected utility of the distribution.

Investigation: "Speaker analyzed XXX data to address the questions yyy, zzz, etc."

First demonstrated why Sharpe Ratios and other popular metrics should not be used to rank many investment strategies. Went on to present the mathematics required to develop a consistent ranking metric, its necessary characteristics, and the limitations of previous attempts. Developed SZ, a metric that addresses the issues, and is computationally efficient. Demonstrated both Sharpe Ratio and SZ provide similar rankings for indices, SZ ranks were superior when evaluating hedge funds.

Innovation: Are there new techniques of interest in the data or approach to the problem?

Developed a ranking measure, SZ that can be used to compare the expected utilities of investment strategies regardless of the underlying distribution of returns. Metric has a parameter ρ that describes the investor's risk aversion. Calculation of metric is 100-500 times faster than maximizing the expected utility through integration.

Insights: 1-2-3, what are the three most important things the speaker offered?

1. Sharpe Ratios should not be used to compare investment strategies that include holdings with non-linear payoffs and/or trading strategies that create non-normal payoffs.
2. Other popular metrics such as Maximum Drawdown and Sortino Ratio are similarly flawed. Using multiple metrics is unsatisfactory because the approach can't be used produce a ranking of multiple strategies.
3. SZ is a computationally efficient metric that can be used to rank strategies based on their expected utility of strategies regardless of the distribution of returns.

Audience rating: 4.48

Title: **A SOLUTION TO THE PALM—3COM SPINOFF PUZZLES**

Speaker: **Chester S. Spatt**
Carnegie Mellon University and NBER

Importance: Why this matters:
Market commentators use spinoffs such as this one to suggest markets are irrational. A proper analysis using of all of the data demonstrates that arbitrage opportunities did not exist. In fact, the “high” price of Palm could not be arbitrated away.

Investigation: "Speaker analyzed XXX data to address the questions yyy, zzz, etc."
Investigated whether the pricing of 3Com after the announcement of the spinoff of Palm was irrational. Conventional wisdom was that the price of 3Com after it announced the spin-off of Palm reflected a negative value for the rest of 3Com. That would violate rational markets and no arbitrage assumptions. By examining the cost of borrowing shares required for shorting, and imputing the forward price of Palm from options prices, the author demonstrated that the law of one price was not violated. The stub-value of 3Com was always positive.

Innovation: Are there new techniques of interest in the data or approach to the problem?
When studying events like this, one must look closely at security lending fees. At times the annualized cost of borrowing was 50% or higher. Put-call parity allows us to impute forward prices, which should be used for analysis. The implied forward price gave sensible forecasts.

Insights: 1-2-3, what are the three most important things the speaker offered?

1. The law of one price was not violated. Commentators that used this as an example of irrational markets did not perform the proper calculations. Relative share prices and co-movements were sensible once security lending fees and spin-off timing uncertainty were included in the analysis.
2. Shorting fees may consume expected arbitrage profits. In situations like this, the cost of borrowing stocks can be quite high, limiting the ability to short the spinoff.
3. Use option prices to estimate the forward price of the spinoff.

Audience rating: 3.82

Title: **DO FUNDS MAKE MORE WHEN THEY TRADE MORE?**

Speaker: **Robert Stambaugh**
The Wharton School, University of Pennsylvania

Importance: Why this matters:

The author and his colleagues postulate that a mutual fund trades more when it perceives better opportunities. If the fund is skilled, perceived opportunities produce profits. Therefore a skilled fund should earn more after trading more. If so, higher trading activity should predict better fund performance.

Investigation: "Speaker analyzed XXX data to address the questions yyy, zzz, etc."

The authors combined CRSP data with Morningstar data on 3126 active funds from 1979 through 2011.

Innovation: Are there new techniques of interest in the data or approach to the problem?

The authors combined "active share" with trading activity. They performed quarterly time-series analyses (in contrast to the usual cross-sectional performance analytics) and provide tableaus of returns and statistical significance data on breakdowns by fund size, management fee, turnover, and fund expenses.

Insights: 1-2-3, what are the three most important things the speaker offered?

1. The mutual funds show generally positive, statistically significant relative returns.
2. Heavier trading leads to better returns, providing evidence of skill.
3. Results are stronger for small funds, suggesting decreasing returns to scale, and high-fee funds: greater skill earns higher fees.
4. These results seem inconsistent with the cross-sectional measurement of fund performance. The authors address this as follows: "The literature investigating the skill of active mutual funds is extensive. Average past performance delivers a seemingly negative verdict, since many studies show that active funds have underperformed passive benchmarks, net of fees. "

Yet active funds can have skill. Skilled funds might charge higher fees, and some funds might be more skilled than others. Moreover, with fund-level or industry-level decreasing returns to scale, skill does not equate to average performance, either gross or net of fees.

Audience rating: 3.67

Title: THE INTERNATIONAL CAPM REDUX

Speaker: ADRIEN VERDELHAN
Sloan School of Business, MIT

Importance: Why this matters:

When investors invest abroad, but consume at home, domestic and foreign purchasing powers differ. For foreign equities, what matters are the expected returns net of currency risk factors. They include:

- Carry-trade risk that arises from unfavorable convergence or divergence of the interest rate in the investment's market relative to that of the home country
- Exchange rate volatility unrelated to carry risk.

These factors account for a large share of systematic changes in bilateral exchange rates.

Investigation: "Speaker analyzed XXX data to address the questions yyy, zzz, etc."

The authors suggest that instead of modeling exchange rate risk directly, use currency risk factors to summarize systematic variation. A carry trade risk factor can be estimated by bucketing currencies by their short-term interest rates, and applying a Fama/French type analysis to the high-low carry portfolio. Dollar risk was estimated by exchange rate beta, sensitivity to changes in the dollar versus a basket.

Innovation: Are there new techniques of interest in the data or approach to the problem?

They combined equity risk, proxied by beta, with two FX risk factors. A Fama/French type factor for carry, and dollar risk factor.

Insights: 1-2-3, what are the three most important things the speaker offered?

1. Using three factors (Global Equity, Dollar, and Carry) better describes equity returns. They explain a large share of systematic changes in exchange rates.
2. Currency risk matters for both foreign equity mutual fund and "macro/emerging" hedge funds. They were more important for mutual funds.
3. The authors provide a model of interaction between currency and equity risk in a simple reduced-form model.

Audience rating: 4.05

Title: **THE FUNDAMENTAL RELATION BETWEEN EQUITY RETURNS AND INTEREST RATES**

Speaker: **ROBERT WHITELAW**
Stern School of Business, NYU

Importance: Why this matters:

Changes in interest rates affect both real corporate assets (inventory, plant & equipment, and “growth options.” They also affect fixed claims on the assets: bank debt, senior bonds and junior bonds, creating interesting interplay effects between interest rates and equities.

Investigation: “Speaker analyzed XXX data to address the questions yyy, zzz, etc.”

They define duration as the sensitivity of an asset’s price to changes in interest rates. Since equities effectively have short positions in the firms’ debt, when rates go up, bonds go down, and therefore the value of the equity goes up (exhibits negative duration). However, the sensitivity depends both on the amount of the firm’s debt, and its quality rating. Of course, this analysis ignores the effect of changes in interest rates on the value of the assets.

Innovation: Are there new techniques of interest in the data or approach to the problem?

Using a modified duration measure to put equities and debt on the same scale leads to an interesting paradigm. As interest rates rise, senior debt becomes less valuable and more risk free. Conversely junior debt (due embedded equity options) and pure equity securities become more valuable as the senior debt’s claim on assets shrinks.

Insights: 1-2-3, what are the three most important things the speaker offered?

1. Leverage and priority strongly influence interest rate sensitivity. This argues against the traditional approach of separating term factors from default factors. Low priority claims can have very short, even negative durations.
2. Duration increases with priority and decreases with rating. Large differences arise between investment grade and high yield.
3. Equities can be used to hedge interest rate risk. If you think interest rates are going to rise, buy highly leveraged companies that will profit when the value of their debt falls.
4. Corporations can use equity to hedge interest rate risk by selling stock when equity prices are high and vice versa.

Audience rating: 3.77