

FALL 2013 SEMINAR PROGRAM PARTICIPANT'S PERSPECTIVE

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ECONOMIC GROWTH, ASSET VALUATION And SKILL

“The Q-Group”[®]

THE INSTITUTE FOR QUANTITATIVE RESEARCH IN FINANCE[®]

www.q-group.org

Dear Q-Group Members and Friends;

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

The **Participant Perspective** is not a formal academic review, and serves several objectives:

- Please note that these are audience-level impressions, based on discussions and notes made during the presentation. This is 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 are fit into a framework which encompasses the perspectives of 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: one page max. In today's busy world, we need to zero in on important information and bypass that which is less relevant.
- One key goal is rapid distribution: for these Perspectives to be available within days of the end of the session, and to provide a quick view accessible to busy readers.
- Q needs to reach out beyond the seminar attendees, particularly to:
 - The organizations that generously fund the Q-Group through their participation.
 - Those who might like to attend but can't for various reasons, especially those who might wish to become Q-Group members.
- Please differentiate between these impressions and the fine work of Diana Harrington and David Modest who develop the Seminar Reviews. If what you read here intrigues you, go first to their finely crafted synopses, and then go on to the slides and papers which are readily available at www.Q-Group.org. In fact, the whole goal here is to encourage the reader to delve deeper into subjects they find interesting.
- And finally to create a dialog within and around the Q-Group, where all can share their ideas and reactions. This is best done in the form of a blog. All that said, the success of this effort rests upon YOU. We look forward to an active and vital blog interaction. All feedback is most welcome.

Title: **THOSE WHO KNOW MOST: INSIDER TRADING
IN 18th CENTURY AMSTERDAM CRASHES**

Speaker: **Peter Koudijs**
Assistant Professor of Finance, Stanford University

Importance: Why this matters:

Studies of insider investor information and price effects are complicated by the speed and complexity of modern markets. By focusing on 18th century data, Koudijs is able to clearly relate price effects to insider information during a slower, simpler historical period.

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

Koudijs gathered price data on securities traded in both London and Amsterdam, when the only way to communicate information was by sailing ships, subject to weather variations identifiable in newspapers of the day.

By identifying departure and arrival dates and observing price movements in both countries, the speaker was able to observe how information moved these markets in differing time frames.

The speaker also had access to the communications of a company that traded in both markets and was able to separate information-heavy messages from those of lesser importance.

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

Centuries old data can provide insights into today's investment conundrums.

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

1. Amsterdam prices were correlated to London prices with a lag predictable by sailing times.
2. Traders were able to identify situations in which they needed to trade more quickly.
3. Weather effects, which could delay the boats, increased the trading risk and led to sped-up trading activity and more rapid adjustment of prices.

Audience rating: 3.48

Title: THE SURPRISING 'ALPHA' FROM MALKIEL'S MONKEY AND UPSIDE-DOWN STRATEGIES

Speaker: Jason Hsu, Chief Investment Officer, Research Affiliates

Importance: Why this matters

Many “smart beta” quantitative investment strategies purport to outperform capitalization weighted indexes, most of which create some form of “value tilt” which can be shown to create simulated outperformance. Hsu shows that the outperformance results from some combination of value and size tilts, higher risk, and regression to the mean.

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

Hsu simulated various smart beta strategies from 1964 through 2012, as well as the complete inverse of the strategies and compared the results.

Hsu's study shows similar outperformance can also be attained by the complete inverse of these “smart beta” strategies, as well as fundamental strategies, factor portfolios and random “blindfolded monkey” random portfolios.

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

Inverting the strategy to see how well it performs is a good way to understand how well your strategy works.

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

1. The inverse results create similar characteristics to the smart beta approaches.
2. So why do these results exist? Hsu shows that any uninformed portfolio is likely to outperform due to long term mean reversion. When prices mean revert, they generate value and size effects.
3. So why can't managers use these results to turn in superior performance?
 - Simulated strategies lead to very high turnover.
 - Transaction costs are ignored.
 - While long term results look good, short term performance can be terrible, jeopardizing client relationships.
 - Finally, investor interest lags performance, leading to adverse flow timing problems.

Audience rating: 3.91

Title: IS THE OPTIMAL HOLDING OF ANNUITIES NEGATIVE?
Speaker: Kent Smetters, Wharton School, University of Pennsylvania

Importance: Why this matters

Life annuity products are not held in high esteem. Smetters shows that the virtues are underappreciated and should have wider market acceptance since there is now a large focus on retirement income.

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

In 1965, Menahem Yarrow wrote a paper entitled "Uncertain Lifetime, Life Insurance, and the Theory of the Consumer." The speaker stress-tested the Yarrow model under varying relaxed assumptions and found that Yarrow's ideas hold up well.

The Yarrow model suggests that full annuitization is optimal if:

- Individuals have certain life spans
- Individuals do not have bequest motives and
- Premiums are approximately fair.

Smetters shows that not all of these restrictions are binding.

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

Using a stochastic lifecycle model to simulate annuitization, Smetters analyzed these modifications:

- Allow stochastic survival probabilities
- Consider the effects of health shocks
- Explore how time preference becomes important with stochastic mortality probabilities.

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

1. Most households – the less wealthy – should not annuitize any wealth.
2. Young households should sell annuities by buying life insurance.
3. After negative health shocks, selling insurance to buy an annuity produces a windfall.

Audience rating: 3.36

Title: ASPECTS OF RISK PARITY
Speakers: Cliff Asness, Founder, AQR Capital Management
Paul Kaplan, Director of Research, Morningstar, Inc.

Importance: Why this matters

Risk Parity is a portfolio control technique which seeks to equalize the Sharpe ratios of portfolio components, with substantial leverage applied to lower risk components that carry supposedly higher risk-adjusted expected returns. Levered low-risk portfolios have a long history, going back to the 1960's investigations of Black and Scholes. Similarly, Risk Parity applies the Markowitz quadratic efficient portfolio framework and the Sharpe efficient portfolio line connecting the risk free rate and the risk diversified portfolio.

Both speakers discussed some of the practical implications of creating risk-parity portfolios.

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

Asness pointed out that low risk premiums can be found everywhere within many equity, credit and treasury markets globally. He suggests two ways to amplify returns by increasing risk, both scary:

- Buy riskier securities, encountering concentration risks, or
- Lever lower risk portfolios

Kaplan points out that risk parity ignores the returns dimension, making portfolio construction decisions in one dimension: risk. He points out that in practice risk parity is a tactical decision, while stock returns are related to real economic growth, dividends, and inflation. On the other hand, bond yields are subject to central bank manipulation which should cause discomfort to the idea of leveraging.

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

It's refreshing to see the classic insights – Markowitz optimization, Sharpe's capital market line, the Black-Scholes empirical work and the leverage aversion arguments of Asness et al applied to today's investment conundrums.

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

1. Asness points out that risk parity works well when interest rates are in secular decline, but it doesn't work well when only equities soar, as happened in the recent year. As a business proposition for an investment management firm or pension fund, this is dangerous.
2. "Risk parity" is an enticing phrase, but easily oversold. It isn't "magic" but a simple one-factor tilt to portfolios

Audience rating: Asness 3.96; Kaplan 3.68

Title: THE SUCCESS EQUATION: UNTANGLING SKILL AND LUCK IN BUSINESS, SPORTS AND INVESTING

Speaker: Michael Mauboussin, Managing Director, Global Investment Strategies, Credit Suisse

Key Insights:

Mauboussin was our very popular dinner speaker, and drew material from his recent book about the difference between skill and luck, and how to tell the difference:

Skill differs from luck through deliberate practice: analytical, intelligent, organizational, process.

Skill is path dependent: the learning process is affected by prior experience.

The skill paradox: As skill improves, luck begins to dominate skill in determining performance outcomes. If everybody is of similar skill, luck plays a larger role in differentiation.

The higher the skill level, the less convergence to the average.

Creeping determinism: when luck is involved, our left brains make up a story. The brain manufactures stories (lies) to explain what it can't understand. **Stories always win over statistics.** Why? Humans can relate to stories because we are social animals and storytelling is central to human communication

Turning to peak performance, physical skill peaks somewhere near the late twenties, while investment intelligence seems to peak at around age 53.

Audience rating: 4.64

Title: THE SHILLER CAPE RATIO: A NEW LOOK

Speaker: Jeremy Siegel, Wharton School, University of Pennsylvania

Importance: Why this matters

The speaker finds the CAPE – Cyclically Adjusted P/E – ratio to be “extremely powerful at projecting future long term equity returns.

He questions, however, whether the data used to generate current forecasts is up to the task.

Shiller averages the past ten years of earnings on aggregated S&P 500 companies to compute his P/E ratio for 140 years. If the ratio is above the median 140 year ratio, it suggests that the next ten years, his model predicts less than average returns for the next ten years.

As of 9/30/2013, the ratio was 23.3, showing the market to be considerably overvalued.

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

Siegel accepts the methodology but questions the data used to drive it:

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

The greatest innovation here is to use very long term time series to forecast for longer term forecasts. Some points:

- Reduced transaction costs raise realized returns.
- Changes in real economic growth rates over time.
- Population aging, resulting in higher risk aversion.
- Changes in the methods of computing earnings per share.
- Most seriously, difficulty in handling situations of very large reported portfolio losses. E.g. the \$61 billion loss by AIG in 2008 reduced S&P500 earnings \$23 billion, even though AIG represented only 0.2% of capitalization.

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

1. These concerns can be addressed by using different data and aggregation methods. It is important for researchers to understand the data they are using before drawing conclusions.

Audience rating: 4.46

Title: **CHANGING TIMES, CHANGING VALUES:
A HISTORICAL ANALYSIS OF SECTORS WITHIN
THE U. S. STOCK MARKET 1872 – 2013**

Speaker: **Robert J. Shiller, Yale University**

Importance: Why this matters

Shiller addressed the Q-Group on the morning after winning the Nobel Prize in Economics via video link. It was quite an honor for us to be addressed, although Shiller was distracted, as should be expected.

Shiller reported on recent efforts to extend the CAPE technology to industrial sectors.

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

Looking back 136 years, Shiller showed that returns based on dividing ten year experiences into tritiles, the CAPE ratios created the expected differential returns. Correlation coefficients explain 50% of the variation in period returns, a level of predictive power seldom encountered in analyses of equity returns

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

The major innovation is the use of long-term data to make long term forecasts. This would seem to be of particular interest to very long term investors such as endowments and pension plans.

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

1. It seems a stretch to apply these long term predictors in a rotational market timing framework, but Shiller is now working on that very application. Stay tuned.
2. It's rather impolite to ask questions of a newly minted Nobel Laureate, but here are some methodological issues to consider:
 - Does it make sense to try to predict levels in a trending series, or is he forecasting changes?
 - Should a researcher place much confidence in an analysis of ten year overlapping periods, or has he adjusted the confidence for the overlaps?

Audience rating: 3.80

Title: IS ECONOMIC GROWTH GOOD FOR INVESTORS?

Speaker: Jay R. Ritter, University of Florida

Importance: Why this matters

Intuitively, the answer to this question would seem to be positive. When economies grow, companies thrive, and investors profit, right?

But in fact, the benefits are widespread; other sectors of the economy: labor, consumption, government, etc. also benefit.

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

- Ritter analyzed real (inflation adjusted) GDP per capita data cross-sectionally by country for 9 countries from 1900 to 2011. The cross sectional correlation between real stock returns and real per capita GDP is 0.39 in local currencies and -0.32 measured in US dollars.
- From 1970 to 2011, the correlation is -0.04 in local currencies and +0.01 in US dollars.
- For 15 mainly emerging markets 1988-2011 the correlation is -0.41 local currency and +0.08 in dollars.
- Why?

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

Fairly standard analysis using cross-country data. Interesting approach to understanding why different countries have different economic outcomes.

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

1. A country can grow rapidly by applying more capital and labor without generating economic profits for the owners of capital. The key finding is that technological change benefits consumers, rather than capital.
2. The division of growth returns has been stable for decades, although recently tilted toward capital.
3. Perhaps a cross sectional country analysis mixes apples and oranges. Emerging economies convert agricultural labor to more productive uses. Developed countries have already accomplished that step by picking the "low hanging fruit" of health, productivity and mobility. Ritter points out that the most successful countries share three characteristics [1] no major wars fought on their territory; [2] former British colonies; and [3] a "rule of law" legal system.

Audience rating: 3.68

Title: TIME-VARYING FUND MANAGER SKILL

Speaker: Marcin Kaeperczyk, Assistant Professor of Finance,
NBER Faculty Research

Importance: Why this matters

Fund managers face an abundance of available information, and must decide how to allocate portfolios. They face a choice to learn about macro-events, which determines timing, or micro (stock picking) information.

Do they do it rationally?

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

Problem: these choices are not observable. The speaker differentiated picking skills from timing skills by conditioning mutual fund returns between recession periods and non-recession periods based on NBR data.

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

In order to isolate the more skilled managers, the authors measured each fund's performance in recession periods and separately in non-recession periods. A *skill index* is then computed by weighting the timing and picking skills by regression frequency rates. Finally, top quartile of managers in was segregated as the demonstrably skillful managers.

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

1. Ex-ante measures of skill have predictive value. In recessions, there is more skill in timing; in good times, the skill is in picking.
2. The technique can be used to identify groups of managers with timing ability in recessions and picking ability in expansions, leading to significant outperformance
3. Characteristics of skilled funds include:
 - Younger funds with smaller AUM
 - Higher expense ratios and turnover
 - More likely to have an MBA; more likely to depart for hedge funds later.

Audience rating: 3.67

Title: **CENTRAL BANK POLICY IMPACT ON THE DISTRIBUTION OF FUTURE INTEREST RATES**

Speaker: **Douglas T. Breeden, Fuqua School of Business, Duke University**

Importance: Why this matters

Financial asset prices have experienced significant volatility in reaction to the financial and economic crisis. In the context of such market volatility, investors' expectations and the level of market uncertainty regarding the future course of financial asset prices provide valuable information.

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

Breeden describes a technique for quantifying market participants' expectations regarding future asset prices in the form of probability distributions drawing on option prices, providing a better understanding of market sentiment and behavior. The forward-looking market-derived option prices for a financial asset provide a wealth of information concerning the shape and timing of anticipated risks.

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

Breeden describes a non-parametric approach to deriving risk neutralities by constructing butterfly spreads of option prices with various strike rates. For example, buying one floor with strike rate of 2%, shorting 2 for 3%, and going long for 4% gives a payoff only between 2% and 4%. Such computations can decompose the market's estimates of the likelihood of a range of future events.

The shape of the range of these estimates reveals the market's anticipations and its utility function for various possibilities.

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

1. The shape of the range of these estimates reveals the market's anticipations and utility function for various possibilities.
2. Observing how these densities evolve over time shows how the market is responding to monetary policy changes.
3. Because of the non-parametric nature of the estimates, it is possible to chart changes in market expectations, including multiple modes. No parameter estimation is needed.
4. Studying the dramatic changes that occur should have great applicability for central bankers, option writers and investment macro-economic analysts.

Audience rating: **4.42**

Title: **WHICH NEWS MOVES STOCK PRICES? A TEXTUAL ANALYSIS**

Speaker: **Shimon Kogan, University of Texas at Austin**

Importance: Why this matters

A basic tenet of rational asset pricing: prices are influenced by new information, especially *unexpected* information that alters expectations.

The challenge from a research standpoint is to create usable proxies for truly relevant news.

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

Kogan et al analyzed Dow Jones Newswire posts, using a dictionary based system and searched for information signals for 47 events such as analyst recommendations, earnings announcements, lawsuits, product reviews, etc. Each was coded for "tone" - the degree of positivity or negativity.

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

Many organizations are trying to process natural text for messages of importance. The possibilities are intriguing, but the field is still in its infancy. Simple systems do not appear to have much value.

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

1. There seems to be information that can be gleaned out, but the process is not simple.
2. Complex events, with more than one significant message lead to much higher volatility
3. The news signals generate one day returns of 34 bp/day, aggregating to a 45% per year average. It will be difficult to capitalize on this finding while paying transaction costs.

Audience rating: 3.69