COVERAGE FROM WHARTON'S FALL 2017 JACOB'S LEVY QUANT CONFERENCE

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Last week, we broadcast our podcast live from the Wharton School's Jacobs Levy Equity Management Center for Quantitative Financial Research Fall 2017 Conference. The agenda was in some way an homage to the late Stephen Ross and involved <u>factor-based</u> investing research. Topics included <u>macroeconomic</u> risk models for explaining the <u>value</u> and <u>momentum</u> effects, the state of factor investing generally, factor timing and more on Stephen Ross, who won an award this year for his contributions to financial research.

For the podcast, Professor Jeremy Siegel and I interviewed Nikolai Roussanov, who was a discussant on one of the papers, and Richard Roll, who collaborated with Ross on many papers and in their asset management firm, which applied their academic factor insights to investing. Some highlights of our conversations:

- Roussanov said that Ross can be thought of as the father of factor investing because his model—the Arbitrage Pricing Theory—says that a small number of common factors affect individual stocks beyond the standard <u>Capital Asset Pricing Model</u>, which suggests a stock's return is solely a function of its <u>beta</u>, or variation with the market risk factor. Ross thought that not many common factors ultimately mattered because most of them can be diversified away when investing in a broad basket. How factor investing came to be: if there is co-movement in large groups of stocks, these factor risks cannot be diversified away.
 - An example of this argument is in the risk premiums associated with value investing. Many value stocks move together and therefore can generate this excess return premium because that risk cannot be diversified away.
- Roussanov discussed a paper that suggests the macroeconomic risks present in value and momentum strategies allow both of them to deliver excess returns. These macroeconomic factors include industrial production, <u>inflation</u>, term spreads in <u>interest rates</u> and credit variables. Investors could be afraid about exposures to these economic risks, and therefore that is why these factor strategies can deliver excess returns.
- We discussed a bit about factor-timing strategies with Roussanov-he thinks it is very hard to perform these timing strategies, although he has performed some research that suggests the spread in valuations between value stocks and growth stocks can suggest a better opportunity for value stocks when the spreads widen out. But he said there is still ongoing debate over the efficacy of these timing models and suggested that investors "not try this at home."

We also spoke with Richard Roll:



- Stephen Ross passed away earlier this year, and the agenda of the conference was largely dedicated to his work. Roll and Ross worked together in an equity portfolio management firm for 20 years, although they knew each other for over 40 years. Their research was published in the 1970s and 1980s, and they later co-founded an asset management firm. Roll and Ross managed money according to the Arbitrage Pricing Theory—which used their macroeconomic models for estimating stock sensitivities to the various factors.
- Roll spoke unfavorably about how the profession currently researches how factors explain returns.
- Thirty-seven years ago, Roll and Ross published a paper saying there were five factors that explained returns, and Roll pointed to the latest five-factor model from Fama and French (FF) that outlines their version of such a model; Roll questioned why the FF paper did not cite Roll and Ross's paper as a foundational study for their work.
- Roll discussed three factors that he thinks are pervasive in his latest work: beta, value and momentum. Roll discussed whether beta is dead as a factor, as some like Fama have written; when he looks at creating the market portfolio of all assets beyond equities that include fixed income, beta does still have a play in explaining returns.
 - Looking at factors that drive equity returns, Roll said the state of the economy is one of the big drivers of equity returns, while inflation and the term structure of interest rates are really important for bonds but not necessarily for equities.
- Roll and Ross's asset management company employed unique ways of customizing portfolios to the beta of their five-factor economic risk model. One example: if an investor wanted to look at oil prices as a factor due to being in the oil business, one could customize a portfolio that would remove equity beta sensitivities to oil prices.
 - In terms of the broadest application of this customization, Roll mentioned that the greatest asset for people is their homes and said that you'd want to create a diversified portfolio that lowered the beta sensitivity to real estate prices.
- Roll said most people do not understand how they are allocated across factors in their diversified portfolios, and added that helping to develop this understanding will be one of the more important services to offer.

This was a great discussion. To hear the full conversation with Professor Siegel, Richard Roll and Nikolai Roussanov, listen to our podcast below.



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DEFINITIONS

<u>Factor-based</u>: Strategies that focus on groups of firms thought to share common attributes, be it in terms of their fundamentals or their share price behavior.

<u>Macro</u>: Focused on issues impacting the overall economic landscape as opposed to those only impacting individual companies.

<u>Value</u>: Characterized by lower price levels relative to fundamentals, such as earnings or dividends. Prices are lower because investors are less certain of the performance of these fundamentals in the future. This term is also related to the Value Factor, which associates these stock characteristics with excess returns vs the market over tim.

Momentum: Characterized by assets with recent price increase trends over time. This term is also associated with the Momentum Factor which associates these stock characteristics with excess return vs the market over time.

<u>Capital asset pricing model (CAPM)</u>: a model that describes the relationship between systematic risk and expected return for assets, particularly stocks. CAPM is widely used throughout finance for the pricing of risky securities, generating expected returns for assets given the risk of those assets and calculating costs of capital.

<u>Beta</u>: A measure of the volatility of a security or a portfolio in comparison to a benchmark. In general, a beta less than 1 indicates that the investment is less volatile than the benchmark, while a beta more than 1 indicates that the investment is more volatile than the benchmark.

Inflation : Characterized by rising price levels.

Interest rates : The rate at which interest is paid by a borrower for the use of money.

Fama-French: Refers to a factor-based model to describe stock returns developed by Eugene Fama and Kenneth French. Their original three-factor model breaks down the components of stock returns to market risk, company size and book to market ratio, or value. .

