Global	Quantitative Strategy # Academic Insights	Date 21 February 2013

Harnessing the best ideas from academia

Welcome to our monthly academic insights report

Fresh insights from academia

This month we highlight an eclectic mix of papers spanning a range of topical subjects. For example, one new paper we review studies the efficacy of momentum and reversal strategies following two types of extreme price moves: those that are driven by new information and those that are not. Consistent with our recent research, the authors find that reversal works much better in the absence of news whereas momentum works better when there is news.

Another interesting paper studies institutional ownership as a hidden link between stocks that are economically *unrelated*. This is a novel twist on the recent body of literature studying lead-lag effects in stocks that are related through things like supply chain connections or competitive relationships.

Key papers this month

This month we focus on five papers spanning a range of topics including alpha generation, portfolio construction, and risk management:

- Large price changes and subsequent returns
- Drawdown-based stop-outs and the 'Triple Penance' rule
- The low risk anomaly: A decomposition into micro and macro effects
- Generalized risk-based investing
- Institutional ownership and return predictability across economically unrelated stocks

Upcoming events

We also highlight upcoming conferences and seminars in the quantitative investing space that may be of interest.

The best of the rest

At the back of this report we include abstracts from some additional papers that we think are also quite interesting. These are arranged by topic to make skimming the list quicker. If you need any further information on any of the papers in this report, please contact the Deutsche Bank Equity Quantitative Strategy team at (+1) 212 250 8983 or (+44) 20 754 71684 or (+852) 2203 6990, or email us at DBEQS.Global@db.com.

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A letter to our readers

Welcome to *Academic Insights*

One of the things we've been focusing on recently here at DB Quant is the idea of factor conditioning. In a nutshell, this means that instead of using a factor to rank stocks across the whole universe, we just use it on the subset of stocks where it shows the most predictive power. Of course, this isn't a new idea; for example quants have always picked factors that work for a particular sector or in a particular country. However, it is only recently that researchers have started to dig deeper, to search out the hidden corners of the investment universe where a factor might work particularly well.

Factor conditioning can be a powerful tool for squeezing more alpha out of a factor

Not all extreme price moves are created equal

A new paper by Govindaraj, Livnat, Savor, and Zhao [2013] is a great example of the conditioning idea in practice. They study how stock prices react to extreme price moves, but with a twist: for each price shock, they observe whether it was accompanied by immediate analyst revisions. If the price move was driven by new information, then they expect to see analysts revising their numbers to reflect this new information. The fascinating result is that reversal dominates when there is no new information accompanying the price move (i.e. analysts don't revise) whereas momentum dominates when there is. This is consistent with what we also found in our recent *Quant 3.0* paper. So here we have a classic example of factor conditioning: use reversal for stocks with large price moves but no revisions, and use momentum for stocks with large price moves and analyst revisions.

A case in point is a new paper that shows how analyst revisions in conjunction with large price moves can be used to condition momentum and reversal strategies

Institutional ownership as a common factor

There has been a lot of interesting research recently studying the lead-lag relationship between companies with economic links, e.g. customers and suppliers. However, a recent paper by Gao, Moulton, and Ng [2013] is the first to study links between economically *unrelated* stocks! The novel idea in this paper is to study whether common institutional ownership is a thread that connects the returns of seemingly unrelated stocks. It turns out it is.

Stocks that have common institutional ownership tend to have returns that are related in a predictable way, even if the stocks have no economic links

Tired of reading about the low risk anomaly yet?

All of last year, papers on low risk investing dominated the academic journals, conference agendas, and indeed our own research. But just when you thought you had read everything there is to read on low risk, here are two new papers that offer unique angles on this incredibly popular topic. The first, by Baker, Bradley and Taliaferro [2013], decomposes the low risk anomaly into a micro and a macro part, and the second, by Jurczenko, Michel, and Teiletche [2013], unifies the various flavors of low risk into a single framework.

The research library on low risk investing is growing so fast it's hard to keep up!

Drawdowns: Even worse than you thought

Last but not least is an intriguing paper by Bailey and Lopez de Prado [2013] who show theoretically that it can take three times as long to recover from a drawdown as it does to create the drawdown in the first place; a powerful argument indeed for managing tail risk!

Beware: drawdowns can take three times as long to recover from as they took to create in the first place

Regards,
The Deutsche Bank Quantitative Strategy Team

Five key papers this month

Paper 1: "Large price changes and subsequent returns"

- Suresh Govindaraj, Joshua Livnat, Pavel G. Savor, and Chen Zhao

- SSRN, available at http://ssrn.com/abstract=2200605

- Reviewed by Rochester Cahan

Why it's worth reading

In our recent paper *Quant 3.0*, we showed that the reversal factor works much better for stocks with *no* news, whereas the momentum factor works much better for stocks with *lots* of news.[1] So it was with great interest that we read this paper, which corroborates our finding, albeit with a very special type of "news": analyst revisions. The authors show that when analyst revisions occur immediately after large price shocks, then stock prices demonstrate momentum. In contrast, when there are no immediate analyst revisions after a price shock, there is short-term reversal.

This paper corroborates our own research that found momentum and reversal work differently depending on whether there is news about a stock

Data and methodology

The authors focus on two types of revisions: EPS revisions and price target revisions; both are obtained from IBES. Large returns are defined as +/- 5% moves on a single day (with a series of filters to eliminate small stocks, consecutive shocks, etc.). Analyst revisions are considered to be "immediate" if they occur on or within five days of the price shock. The actual metric used to define analyst revisions is a count of the number of analysts who upgrade or downgrade the stock; if the majority upgrade (downgrade) then it is a positive (negative) revision. The central idea is that if there is new information driving the large price move, then this is likely to be captured by immediate sell-side analyst revisions as they adjust their forecasts to reflect that new information. Hence, analysts can be used to identify which large price moves are more likely to be driven by noise or liquidity traders (and hence mean revert) versus those driven by genuine new information (more likely to lead to momentum).

The novel idea in this paper is to use analyst revisions as a proxy for whether a large price move was driven by new information (in which case analysts are likely to revise) or purely by noise or liquidity traders

Results

There are a number of notable results in this paper that will be useful to practitioners. First, the authors show that most large price moves are *not* accompanied by changes to analyst forecasts, but when they are, those revisions are more likely to be in the direction of the price move. Second, a strategy that takes a long position in stocks with large daily price increases and immediate positive analyst revisions and a short position in stocks with large daily price decreases and immediate negative analyst revisions generates abnormal returns of between 73 and 98 bps per month, depending on the type of revision used (price target or EPS). This can be further enhanced to 131 bps per month by including volume as an additional conditioning variable.

The authors find that reversal is much stronger after large price moves that are not information driven, whereas momentum tends to occur after large moves driven by new information

Our take

This paper adds further evidence to the growing body of literature that suggests all price moves are not created equally. Rather, it is critically important to consider whether new information was released to the market, as this can have implications for the simplest quant factors of all: reversal and momentum.

This is further evidence that momentum and reversal can be enhanced by considering stock-level information flow

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[1] Cahan et al., 2012, "Signal Processing: Quant 3.0", *Deutsche Bank Quantitative Strategy*, 18 December 2012

Paper 2: "Drawdown-based stop-outs and the 'Triple Penance' rule"

- David H. Bailey and Marcos Lopez de Prado

- Available at: http://ssrn.com/abstract=2201302

- Reviewed by Sheng Wang

Why it's worth reading

This paper discussed the decision to stop-out a portfolio manager or an investment strategy in a multi-manager (multi-strategy) hedge fund. It provides a theoretical framework that allows firms to approach this problem in an objective and transparent manner. This is useful for practical applications in risk management, portfolio optimization, and capital allocation. It also has implications for quant managers, since a multifactor quant model is really just a collection of factor portfolios that could be thought of as a multi-manager portfolio.

The paper provides a theoretical framework for the decision of stopping a portfolio manager or investment strategy

Data and methodology

This paper used the data from Bloomberg – a long series of monthly Net Asset Value (NAVs) for Hedge Fund Research Indices (HFR) – and selects those series that go from 1990 to 2013. This gives 265 data points for each of the 26 indices selected. The authors start with the standard mean-variance framework, under the assumption of IID normal investment outcomes, and determine the maximum drawdown and the time under water associated with a particular confidence level. Then they generalize the framework to incorporate first order autoregressive (AR(1)). An analytical estimate of drawdown potentials under first-order serial correlation is derived. Finally, they apply the framework to the Hedge Fund Research indices, and evaluate the impact that serial correlation has on hedge funds' downside potential.

The authors derive the analytical estimate of hedge fund drawdown potentials and apply the framework to the Hedge Fund Research Indices. They also evaluate the impact of serial correlation on the drawdown potentials.

Results

This paper illustrates that under the standard portfolio theory assumptions, it takes three times longer to recover from the expected maximum drawdown than the time it takes to produce it. This also links the maximum drawdown and maximum time under water. According to this framework, for a certain confidence level, portfolio managers with higher Sharpe ratios should expect tighter stop-out limits. However, in practice firms are willing to give more permissive stop-out to higher Sharpe ratio portfolio managers. The authors explain this paradox by the fact that hedge fund wants to minimize the probability of defections, who may abandon the firm leaving a loss behind. Finally, an empirical study of hedge fund indices reveals that ignoring the effect of serial correlation leads to an under estimation of the downside potential of hedge fund strategies by as much as 70%. Positive serial correlation leads to greater drawdowns, longer periods to reach the bottom and longer periods under water. However the *Penance,* which measures how long it takes to recover from the maximum drawdown, as a multiple of the time it took to reach the bottom, is also substantially smaller.

In theory, it takes three times longer to recover from the maximum drawdown than the time it takes to produce it

Our take

The framework derived in the paper is useful for the multi-strategy or multi-manager hedge fund to decide when to stop-out a manger or strategy. It also could be useful in the context of a multifactor quant portfolio, to help decide when to rotate away from an underperforming factor. Indeed, equity factor rotation would be an interesting extension of the approach.

An interesting extension would be to use this framework as a factor rotation tool to help decide when to move away from an underperforming factor

Paper 3: "The low risk anomaly: A decomposition into micro and macro effects"

- Malcolm Baker, Brendan Bradley and Ryan Taliaferro
- SSRN, available at http://ssrn.com/abstract=2210003
- Reviewed by Yiyi Wang

Why it's worth reading

In a refreshing change from a lot of the papers on the low risk anomaly that have proliferated post the financial crisis, this paper offers a novel perspective: linking the anomaly with Paul Samuelson's prediction that markets are micro efficient and macro inefficient. The micro component of the anomaly comes from the selection of low risk stocks, holding industry or country risk constant. The macro component comes from the selection of low risk countries or industries, holding stock-level risk constant. The different effects brought about by micro and macro components offer important implications for the construction of managed volatility portfolios.

The authors decompose the low risk anomaly into micro (stock level) and macro (industry and country level) effects.

Data and methodology

The authors collect data from the CRSP for the industries within the US, and S&P BMI for other developed countries. They take three main steps: first, they confirm empirically that the low risk anomaly is present in both data sources by sorting stocks into quintiles according to ex ante market beta. Second, they group firms into industries/countries and calculate the "macro beta". For instance, a stock's industry beta is the beta of the value-weighted industry portfolio of which the stock is a member to the aggregate market. Then the stocks are sorted into quintiles according to the "macro beta". Third, the authors form 25 portfolios by independently ranking stocks based on their own beta and "macro beta". In this way they are able to look at the contribution of stock level risk measures controlling for industry/country risk, and vice versa. Therefore, they decompose the low risk anomaly into separate industry/country and stock level effects.

The authors collect stock and industry data from the CRSP and S&P BMI. They sort stocks according to both stocks' own beta, as well as "macro beta".

Results

The authors find the micro and macro components contribute equally to an overall risk-adjusted outperformance of 6.8 to 9.1 percent per year, but in different ways. The micro selection of stocks leads to a significant reduction in risk, with only a modest difference in average returns. This corresponds to Samuelson's argument that markets are more efficient at the micro level. On the other hand, the macro selection of industries and countries leads to significant increases in returns, with only modest changes in risk. Again, this evidence supports the notion that macro arbitrage across countries and industries is not effective.

Micro selection of stocks and macro selection of industries/countries both contribute to the low risk anomaly, albeit in different ways.

Our take

This paper provides a new and valuable way to analyze the attribution of low risk strategies. More importantly, the conclusion has interesting implications for low risk investment – put it simply – exploit risk reduction in micro stock selection space, while seeking return enhancement through industry or country selection. Furthermore, the use of a risk model in beta estimation that includes fixed country and industry effects is preferable to simple stock level sorts on beta or volatility.

This paper's conclusion has interesting implications for low risk investment.

Paper 4: "Generalized risk-based investing"

- Emmanuel Jurczenko, Thierry Michel, and Jerome Teiletche
- SSRN, available at http://ssrn.com/abstract=2205979
- Reviewed by Ada Lau

Why it's worth reading

With the challenges of implementing mean-variance optimization to build sensible portfolios well documented, practitioners and academics have been focusing on heuristics methods that seek to ensure risk diversification whilst removing the need for (unreliable) expected returns as key inputs. We have ourselves also investigated various risk-based strategies[2, 3, 4]. Although different risk-based strategies might be more suitable to meet different investors' objectives, this paper provides an elegant generalization of such strategies and bridges between theoretical analysis and empirical results.

Recently, academic studies in asset allocation have been focusing more on risk diversification.

Data and methodology

The authors introduce a framework in which popular risk-based portfolios are special cases of a generalized risk-based strategy determined by two parameters – a regularization parameter that tunes the sensitivity of optimal asset weights to risk inputs, and a risk-tolerance parameter that controls the tolerance for assets with high volatility. For example, the Minimum Variance (MV), Risk Parity (RP) and Equal-Weighted (EW) portfolios all correspond to cases where tolerance for high volatility assets is set to a minimum. Asset weights in MV are most sensitive to the risk inputs, while those in RP are less sensitive and the weights in EW are independent of risk inputs. The authors then investigate various risk characteristics of the generalized strategy by tuning the two parameters and applying it to MSCI World index constituents between 2002 and 2012. Covariance matrices are estimated by a single factor risk model. Style biases are also investigated across size, value, momentum and volatility.

Minimum Variance, Risk Parity and Equal-Weighted portfolios are all special cases under the framework of generalized risk-based strategy.

Results

Strategies that are more sensitive to risk parameters (e.g. MV) have more concentrated allocations to stocks with low beta and low volatility, resulting in higher tracking error. High levels of tolerance for volatility lead to higher market beta and a more concentrated portfolio with a few risky assets. All risk-based strategies have small-cap biases, while none are systematically overweighting or underweighting value stocks.

Minimum variance portfolios are more concentrated on stocks with low beta and low volatility.

Our take

The framework of risk-based strategies in this paper helps investors to better understand different characteristics of popular risk-based portfolios. As pointed out by the authors, more work is required to provide a clear justification for risk-based investing. Moreover, it would be interesting to look at empirical applications of the generalized risk-based strategy to cross-asset and/or risk-premia allocations.

It would be interesting to look at applications of the generalized risk-based strategy to cross-asset allocation and/or risk-premia allocations.

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[2] Alvarez, M. et al., Risk Parity and Risk-Based Allocation, *Deutsche Bank Quantitative Strategy*, 13 October 2011

[3] Alvarez, M. et al., Minimum Variance: Exposing the "magic", *Deutsche Bank Quantitative Strategy*, 9 February 2011

[4] Mesomeris, S. et al., A New Asset Allocation Paradigm, *Deutsche Bank Quantitative Strategy*, 5 July 2012

Paper 5: "Institutional ownership and return predictability across economically unrelated stocks"

- George Gao, Pamela Moulton, and David Ng

- Available at: http://ssrn.com/abstract=2215764

- Reviewed by Marco Salvini

Why it's worth reading
The lead-lag cross-autocorrelation relationship among stock returns has been studied in different contexts[5]. However, the authors in this paper investigate a new type of return predictability. In particular, they analyze if historical return relations between "economically unrelated" stocks that have common institutional owners can be used to predict the future returns of a stock. The main idea is that after observing abnormal returns for one stock in his portfolio, an institutional investor is likely to sell the stock and re-optimize the portfolio, which can cause him to buy or sell stocks that are unrelated to the stock whose returns motivated the portfolio changes.

The lead-lag relationship between economically linked stocks (e.g. customer-supplier) has got a lot of attention; but what about for unrelated stocks?

Data and methodology
The data used in the papers are the: returns data from the CRSP database, earnings announcement and accounting data from Compustat, analyst forecast data from I/B/E/S, 13F institutional holdings data from Thomson Reuters, institutional trading data from Ancerno, and information on customer-supplier industry links from the Bureau of Economic Analysis Benchmark Input-Output Surveys. Two firms are defined as being economically unrelated if they are from different Fama-French 30 industries and the BEA benchmark input-output data show zero dollar value between their industries. To compute the long-short portfolios on a weekly basis a four-steps process is used: 1) Identify all economically unrelated stocks for each stock, 2) Use those unrelated stocks to predict the following-week return for each stock, 3) Average across the unrelated-stock predictions for each stock to obtain the average predicted return for the next week, 4) Form industry-neutral quintile portfolios of stocks based on their predicted returns. To investigate the role of common institutional ownership in return predictability, the authors also calculate predicted returns for each stock first using only stock pairs that have common institution investors according to 13F holdings, and then using only stock pairs that have no common institutional investors.

This paper studies lead-lag relationships in stocks that have similar institutional owners, the idea being that a change to one stock in their portfolio might have an impact on other stocks they hold, irrespective of whether the stocks are actually economically linked

Results
The results on return predictability from economically unrelated stock pairs are quite interesting. The authors find strong return predictability, with weekly excess return and Fama-French-Carhart alpha both over 18 bps for the long-short portfolio and a t-statistics of 5.8 and 6.1, respectively. Portfolios formed based on predicted returns from stocks with common institutional investors generate a weekly excess return of 19 bps with a t-statistic of 5.3.

The authors do find predictive power when considering stocks with common institutional owners

Our take
In our research we have investigated in detail the economic-linkages between firms. This paper highlights a new potential approach to investigating lead-lag relationships. However, we think that further analysis using market benchmarks is needed to cross-validate these results.

This is an interesting idea, and one that is worthy of further study

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[5] Salvini et al., "Quantitative Musing: Sales Segment Momentum", *Deutsche Bank Quantitative Strategy*, 31 July 2012

Upcoming conferences

Europe

Figure 1: European event calendar		
Date	**Location**	**Conference**
26-27 March 2013	**London**	**EDHEC-Risk Days Europe**
		http://www.edhec-risk.com/events/edhec_conferences/europedays2013
8-9 April 2013	**Edinburgh**	**Quantitative and Asset Management Workshop 2013**
		http://www.eurofidai.org/december2012.html
26-28 June 2013	**Monaco**	**Factset Symposium**
		www.factset.com/symposium_emea
26-29 June 2013	**Reading, UK**	**European Financial Management Association Annual Meeting**
		http://www.efmaefm.org/0EFMAMEETINGS/EFMA%20ANNUAL%20MEETINGS/2013-Reading/2013meetings.shtml

Source: Deutsche Bank

North America

Figure 2: North American event calendar		
Date	**Location**	**Conference**
22-24 March 2013	**Miami**	**International Mathematical Finance Conference**
		http://www.bradley.edu/academic/continue/professionals/imfc/
3 April 2013	**New York**	**Second Edition of the EDHEC-Princeton Academic meets Practice Conference**
		http://www.regonline.co.uk/builder/site/Default.aspx?EventID=1172884
17 April 2013	**Las Vegas**	**CQA Spring Conference**
		www.cqa.org
31 May 2013	**New York**	**SQA Fuzzy Day Conference: Sustainable Investing: Hype or Opportunity**
		www.sqa-us.org
13 June 2013	**New York**	**CQA/SQA Trading Seminar**
		www.cqa.org
11 July 2013	**Boston**	**CQA Academic Review Session**
		www.cqa.org
16-18 July 2013	**New York**	**CFA Institute/EDHEC-Risk Advances in Asset Allocation Seminar**
		http://www.cfainstitute.org/learning/products/events/Pages/04152013_77335.aspx
8-9 October 2013	**New York**	**EDHEC-Risk Days in North America**
		http://www.edhec-risk.com/events/edhec_conferences/northamericadays2013?newsletter=yes
11 September 2013	**Chicago**	**CQA Fall Conference**
		www.cqa.org
10-12 November 2013	**New Orleans**	**Factset Symposium**
		http://www.factset.com/campaigns/symposium2013

Source: Deutsche Bank

Asia

Figure 3: Asian event calendar		
Date	Location	Conference
15-16 May 2013	Singapore	EDHEC-Risk Days Asia
		http://www.edhec-risk.com/events/edhec_conferences/asiadays2013
19-22 May 2013	Singapore	66th Annual CFA Institute Annual Conference
		http://www.cfainstitute.org/learning/products/events/Pages/05192013_66150.aspx

Source: Deutsche Bank

Other papers of interest

Alpha generation and stock-selection signals

Change in cash-holding policies and stock return predictability in the cross section

- William R. Sodjahin

- *Financial Analysts Journal*, Volume 69, Number 2, available at
  http://www.cfapubs.org/doi/abs/10.2469/faj.v69.n1.1

- Abstract: "The author found that stocks with a positive change in company cash holdings have significantly higher risk-adjusted returns than stocks with a negative change in cash holdings (CCH). Moreover, the return predictive power of CCH is (1) distinct from the effect of cash holdings (CH), (2) absent among cash-rich companies, (3) stronger among small-cap stocks, and (4) limited to non-January months. The CCH anomaly appears to be more "contaminated" than the CH effect by mispricing."

Earnings manipulation and expected returns

- Messod D. Beneish, Charles M.C. Lee, and D. Craig Nichols

- *Financial Analysts Journal*, Volume 69, Number 2, available at
  http://www.cfapubs.org/doi/abs/10.2469/faj.v69.n2.1

- Abstract: "An accounting-based earnings manipulation detection model has strong out-of-sample power to predict cross-sectional returns. Companies with a higher probability of manipulation (M-score) earn lower returns on every decile portfolio sorted by size, book-to-market, momentum, accruals, and short interest. The predictive power of M-score stems from its ability to forecast changes in accruals and is most pronounced among low-accrual (ostensibly "high-earnings-quality") stocks. These findings support the investment value of careful fundamental and forensic analyses of public companies."

Selection of a portfolio of pairs based on cointegration: A statistical arbitrage strategy

- Joao Calderia and Guilherme Moura

- SSRN, available at http://ssrn.com/abstract=2196391

- Abstract: "Statistical arbitrage strategies, such as pairs trading and its generalizations, rely on the construction of mean- reverting spreads with a certain degree of predictability. This paper applies cointegration tests to identify stocks to be used in pairs trading strategies. In addition to estimating long-term equilibrium and to model the resulting residuals, we select stock pairs to compose a pairs trading portfolio based on an indicator of profitability evaluated in-sample. The profitability of the strategy is assessed with data from the São Paulo stock exchange ranging from January 2005 to October 2012. Empirical analysis shows that the proposed strategy exhibit excess returns of 16.38% per year, Sharpe Ratio of 1.34 and low correlation with the market."

Network centrality and the cross section of stock returns

- Kenneth Ahern

- SSRN, available at http://ssrn.com/abstract=2197370

- Abstract: "Industries that are more central in the network of intersectoral trade earn higher stock returns than industries that are less central. This finding is economically substantial and robust to controls for firm size, leverage, industrial concentration, standard asset pricing factors, and other return

determinants. To explain this finding, I draw on recent research that shows that macroeconomic fluctuations are the aggregation of sector-specific shocks. For stock returns, this implies that systematic risk originates from idiosyncratic shocks. I argue that stocks in more central industries have greater systematic risk and earn higher returns because they have greater exposure to idiosyncratic shocks that transmit from one industry to another through intersectoral trade."

Do managers put their money where their mouths are? Evidence from insider trading after conference calls

- Paul Brockman, Xu Li, and S. McKay Price

- SSRN, available at http://ssrn.com/abstract=2200639

- Abstract: "We examine the relation between the tone of conference calls presented by company executives and their subsequent insider trading behavior. Our findings reveal a significant discrepancy between word and deed simply stated, managers do not appear to put their money where their mouths are. We find that positive conference call tones predict net insider selling, and negative conference call tones predict net insider buying. We show that this inverse tone-insider trading pattern is unlikely to be the consequence of simple contrarian trading strategies on the part of insiders. Additional tests reveal stronger inverse tone-insider trading patterns for CEOs, the executives most responsible for setting conference call tones, than for non-CEO executives. We also find a significantly stronger inverse relation for small firms than for large firms, consistent with expectations that a weaker information environment makes it easier for CEOs to trade against the tone of their conference call."

Do aggregate company outlooks have macroeconomic content?

- Sebastian Orbe and Oliver Pucker

- SSRN, available at http://ssrn.com/abstract=2204321

- Abstract: "Following the notion that the economy as a whole is the sum of all its individual parts we aggregate individual company information to analyze their macroeconomic content. We find that combined company outlooks predict future macroeconomic developments up to about one year. As a proxy for company outlooks we use stock market analyst recommendations. We show that the information contained in aggregate recommendations is unrelated to the information content of well-established macroeconomic predictors and complements it well."

Are extreme returns priced in the stock market? European evidence

- Jan Annaert, Marc J. K. De Ceuster, and Kurt Verstegen

- SSRN, available at http://ssrn.com/abstract=2216561

- Abstract: "This paper revisits some recently found evidence in the literature on the cross-section of stock returns for a carefully constructed dataset of euro area stocks. First, we confirm recent results for U.S. data and find evidence of a negative cross-sectional relation between extreme positive returns and average returns after controlling for characteristics such as momentum, book-to-market, size, liquidity and short term return reversal. We argue that this is the case because these stocks have lottery-like characteristics, which is attractive to certain investors. Also, these stocks tend to be very volatile so that arbitrageurs are discouraged from correcting potential mispricing. As a consequence, these stocks are often overpriced which is observed through lower expected returns. Second, when we control for extreme returns, the recently found negative relationship between idiosyncratic risk and future

returns seems to be less robust. In our models, after adding maximum returns, the relationship is insignificant and sometimes even positive. We also find that skewness is on its own negatively related to returns in our sample, as several asset pricing models predict."

Copula-based pairs trading strategy

- Wenjun Xie and Yuan Wu

- SSRN, available at http://ssrn.com/abstract=2209209

- Abstract: "Pairs trading is a technique that is widely used in the financial industry and its profitability has been constantly documented for various markets under different time periods. The two most commonly used methods in pairs trading are distance method and co-integration method. In this paper, we propose an alternative approach for pairs trading using copula technique. The proposed method can capture the dependency structure of co-movement between the stocks and is more robust and accurate. Distance method and co-integration method can be generalized as special cases of the proposed copula method under certain dependency structure."

Market timing with moving averages

- Paskalis Glabadanidis

- SSRN, available at http://ssrn.com/abstract=2208441

- Abstract: "I present evidence that a moving average (MA) trading strategy third order stochastically dominates buying and holding the underlying asset in a mean-variance-skewness sense using monthly returns of value-weighted decile portfolios sorted by market size, book-to-market cash-flow-to-price, earnings-to-price, dividend-price, short-term reversal, medium-term momentum, long-term reversal and industry. The abnormal returns are largely insensitive to the four Carhart (1997) factors and produce economically and statistically significant alphas of between 10% and 15% per year after transaction costs. This performance is robust to different lags of the moving average and in subperiods while investor sentiment, liquidity risks, business cycles, up and down markets, and the default spread cannot fully account for its performance."

Aggregate dispersion in economists' opinion on macroeconomic forecasts

- Rong Leng

- SSRN, available at http://ssrn.com/abstract=2213268

- Abstract: "I construct a novel measure of aggregate dispersion in economists' opinion on macroeconomic forecasts. The measure aggregates dispersion across relevant economic releases over one week and is used to predict stock returns in the subsequent week. I provide evidence that higher aggregate dispersion predicts lower future stock market returns by 27 basis points in the subsequent week. The impact is both statistically significant and economically large. My evidence does not support that aggregate dispersion is a risk measure and supports the theoretical explanations that heterogeneous beliefs lead to lower future stock returns."

Speculate against speculative demand

- Owain Ap Gwilym, Arben Kita, and Qingwei Wang

- SSRN, available at http://ssrn.com/abstract=2210526

- Abstract: "We construct a measure of individual investors' speculative demand for stocks from their online queries on penny stocks provided by Google Search volume index (hereafter "SVI"). We examine how it affects the return dynamics

of U.S. stock indices. We find that the speculative demand leads to a short-term return reversal. We build a simple trading strategy that sells a stock index when SVI is high and buys the stock index otherwise. It generates annual excess returns of up to 20% over the buy-and-hold strategy. Applying the trading strategy to the corresponding ETFs and index futures yields similar results. Transaction costs and liquidity risk can partially explain the excess returns. Strong time variation of the excess returns imposes additional limits to arbitrage."

Revisiting early warning signals of corporate credit default using linguistic analysis

- Ralph Lu, Chung-Hua Shen, and Yu-Chen Wei

- SSRN, available at http://ssrn.com/abstract=2214840

- Abstract: "We apply computational linguistic text mining (TM) analysis to extract and quantify relevant Chinese financial news in an attempt to further develop the classical early warning models of financial distress. Extending the work of Demers and Vega (2011), we propose a measure of the degree of credit default, referred to in this study as the 'distress intensity of default-corpus' (DIDC), and investigate the predictive power of this measure on default probability by incorporating it into the signaling model, along with the classical financial performance variables (the liquidity, debt, activity and profitability ratios). We also apply the 'naïve probability of the Merton distance to default' model (Bharath and Shumway, 2008) for our robustness analysis. A logistic regression (LR) model is constructed to better integrate the DIDC and financial performance variables into a more effective early warning signal model, with the incorporation of DIDC into the LR model revealing a significant reduction in Type I errors and an apparent increase in classification accuracy. This provides proof of the effectiveness of the additional information from TM on the financial corpus, whilst also confirming the predictive power of TM on credit default. The major contribution of this study stems from our potential refinement of early warning models of financial distress through the incorporation of information provided by related media reports."

Optimization, portfolio construction, and risk management

On portfolio optimization: Imposing the right constraints

- Patrick Behr, Andre Guettler, and Felix Miebs

- *Journal of Banking and Finance*, Volume 37, Issue 4, available at http://www.sciencedirect.com/science/article/pii/S0378426612003706

- Abstract: "We reassess the recent finding that no established portfolio strategy outperforms the naively diversified portfolio, 1/N, by developing a constrained minimum-variance portfolio strategy on a shrinkage theory based framework. Our results show that our constrained minimum-variance portfolio yields significantly lower out-of-sample variances than many established minimum-variance portfolio strategies. Further, we observe that our portfolio strategy achieves higher Sharpe ratios than 1/N, amounting to an average Sharpe ratio increase of 32.5% across our six empirical datasets. We find that our constrained minimum-variance strategy is the only strategy that achieves the goal of improving the Sharpe ratio of 1/N consistently and significantly. At the same time, our developed portfolio strategy achieves a comparatively low turnover and exhibits no excessive short interest."

Diversification – A multi-facetted concept

- Patrick Gander, Daniel Leveau, and Thomas Pfiffner

- SSRN, available at http://ssrn.com/abstract=2204317

- Abstract: "By default, most investors equate a passive investment such as a traditional market capitalisation based index with a welldiversified investment. However, diversified and passive should not a priori be considered as synonymous. We have attempted to show that passive should not necessarily be equated with well diversified. Investing in just one type of indexing method often leads to unwanted concentration- and cluster risks. To avoid this, it is crucial to not solely focus on intra-index diversification properties, but to diversify across the different indexing methods. Diversification is a multi-dimensional and multi-facetted concept. A (passive) equity portfolio is only truly well diversified if it is diversified not just across constituents, but also across the different indexing methods."

Option-implied information and predictability of extreme returns

- Grigory Vilkov and Yan Xiao

- SSRN, available at http://ssrn.com/abstract=2209654

- Abstract: "We study whether prices of traded options contain information about future extreme market events. Our option-implied conditional expectation of market loss due to tail events, or tail loss measure, predicts future market returns, magnitude, and probability of the market crashes, beyond and above other option-implied variables. Stock-speci fic tail loss measure predicts individual expected returns and magnitude of realized stock-speci fic crashes in the cross-section of stocks. An investor that cares about the left tail of her wealth distribution benefi ts from using the tail loss measure as an information variable to construct managed portfolios of a risk-free asset and market index."

Macro-network: An application to Euro area financial accounts

- Olli Castren and Michele Rancan

- SSRN, available at http://ssrn.com/abstract=2209691

- Abstract: "We use financial accounts data at sector level to construct financial networks for individual euro area countries. We then connect the country-level networks to one large "Macro Network", using information on cross-border linkages between the national banking sectors. We then evaluate the features of the resulting framework using various network statistics. Shock simulations reveal that the structural features of the bilateral linkages are a key determinant of the losses that may be generated when the shocks propagate in the system. The network structures evolve over time, showing increasing interconnectedness in different instrument categories before the financial crisis hit in 2007, and a sharp retrenchment from bilateral exposures after the crisis started. This reflects the surge in counterparty risk and the de-leveraging processes which were triggered by the initial asset price losses and were further amplified by the economic downturn. As a consequence, there was a marked deterioration in financial integration both within economies and across countries in the euro area. Nonetheless, our analysis suggests that the risk of contagion is not reduced, while a more diversified portfolio of cross-border exposures might mitigate shocks effects."

Asset Allocation and sector/style/country rotation

Size rotation in the U.S. equity market

- Keith L. Miller, Chee Ooi, Hong Li, and Daniel Giamouridis

- *Journal of Portfolio Management*, Volume 39, Number 2, available at http://www.iijournals.com/doi/abs/10.3905/jpm.2013.39.2.116

- Abstract: "In this article, Miller, Ooi, Lee, and Giamouridis develop a hybrid model that relies on the nonlinear classification decision tree (DT) approach, and also on multivariate predictive regressions, to help implement a size rotation strategy in the U.S. equity markets. They derive an investment prediction with a two-stage algorithm. In the first stage, they use a decision tree to determine whether large-cap or small-cap stocks will outperform in the subsequent quarter. In the second stage, the authors use a multiple linear regression model to predict whether large-cap stocks will outperform or underperform small-cap stocks in the next quarter. A binary variable obtained from the first stage of the analysis—the DT model—is a key variable in the second-stage model. The authors find that a size rotation strategy based on the proposed hybrid model outperforms strategies based on the constituent models, as well as alternative strategies investigated in other studies."

Industry-based alternative equity indices

- Frank Leclerc, Jean-François L'Her, Tammam Mouakhar, and Patrick Savaria

- *Financial Analysts Journal*, Volume 69, Number 2, available at http://www.cfapubs.org/doi/abs/10.2469/faj.v69.n2.3

- Abstract: "The authors examined five alternative equity indices (AEIs) in the United States using industries instead of individual stocks as building blocks to form portfolios and compared their performance with that of the capitalization-weighted equity benchmark for the period 1964–2011. The five AEIs had, ex post, lower risk and better returns than the cap-weighted benchmark. Net risk-adjusted returns of three AEIs were significantly positive when controlling for four risk factors."

Variance Risk Premia in commodity markets

- Marcel Prokopczuk and Chardin Wese Simen

- SSRN, available at http://ssrn.com/abstract=2195691

- Abstract: "In this paper, we study variance risk premia in commodity markets. Using synthetic variance swaps, we find significant variance risk premia in 18 out of 21 markets. Typically, variance risk premia are negative, time-varying and their magnitudes increase with variance. Consistent with theory, we find a significant relation between variance risk premia and macroeconomic factors. Furthermore, we evaluate the information content of commodity variance risk premia for future returns. We show that gold's variance risk premium has predictive power for returns in most of the markets considered. This economically significant predictive power is robust to the inclusion of traditional predictors."

A framework for examining asset allocation alpha

- Jason Hsu and Omid Shakernia

- SSRN, available at http://ssrn.com/abstract=2199099

- Abstract: "Despite the large literature on the importance of asset allocation as a primary determinant of portfolio performance, the definition of asset allocation "alpha" remains a poorly defined concept. In this paper, we show that a

portfolio's total alpha can be decomposed into alpha from asset allocation and manager selection. The asset allocation alpha can then be further attributed to value-add from (1) taking additional risk exposure relative to the policy portfolio, (2) exploiting the relative value differential between assets with similar risk exposures and (3) timing the cyclicality in risk premia."

Illiquid asset investing

- Andrew Ang

- SSRN, available at http://ssrn.com/abstract=2200161

- Abstract: "After taking into account biases induced by infrequent trading and selection, it is unlikely that illiquid asset classes have higher risk-adjusted returns than traditional liquid stock and bond markets. On the other hand, there are significant illiquidity premiums within asset classes. Portfolio choice models incorporating illiquidity risk recommend only modest holdings of illiquid assets. Investors should demand high risk premiums for investing in illiquid assets."

Movements and co-movements across European asset classes: Portfolio allocation and policy implications

- Michael Donadelli, Lorenzo Prosperi, Federica Romei, and Federico Silvestri

- SSRN, available at http://ssrn.com/abstract=2201855

- Abstract: "This paper studies the impact of changes in the dynamic of correlation coefficients between asset returns on portfolio choices. Using weekly data from February 2002 to October 2011 on four different European asset classes, we obtain three main results. Firstly, we show that the 2007-2009 global demand collapse and the European sovereign debt crisis have largely affected the dynamic of correlation coefficients between European asset returns. Reductio ad absurdum, we observe that diversification can be implemented intra-class in the post-Lehman world. Secondly, in a dynamic ex-post and ex-ante mean-variance optimization (MVO) framework, we show that stressed sovereign assets (e.g. Greek and Italian Government Bonds) are less desirable. Thirdly, in the context of consumption-based asset pricing, we find that the resulting ex-post and ex-ante dynamic allocation reflects the investors insurance motive. We conclude by arguing that the resulting allocation might have strong implications for policymakers."

Variance risk premiums and the forward premium puzzle

- Juan-Miguel Londono and Hao Zhou

- SSRN, available at http://ssrn.com/abstract=2209753

- Abstract: "This paper presents evidence that the foreign exchange appreciation is predictable by the currency variance risk premium at a medium 6-month horizon and by the stock variance risk premium at a short 1-month horizon. Although currency variance risk premiums are highly correlated with each other over longer horizons, their correlations with stock variance risk premiums are quite low. Interestingly the currency variance risk premium has no predictive power for stock returns. We rationalize these findings in a consumption-based asset pricing model with orthogonal local and global economic uncertainties. In our model the market is incomplete in the sense that the global uncertainty is not priced by local stock markets and is therefore a forex-specific phenomenon — the currency uncertainty's effects on the expected stock return are off-setting between the cash flow channel and the volatility channel."

Cross-asset return predictability between currency carry trades and stocks

- Helen Lu and Ben Jacobsen

- SSRN, available at http://ssrn.com/abstract=2211325

- Abstract: "Changes in either equity volatility, or the world equity index, predict carry trade profits. The predictive effect goes only one way, from stock to currency markets. Carry trade profits, or changes in currency volatility, generally do not predict world equity index returns. If FX traders focus mostly on macro-economic information, while stock market investors consider company information as well, this exposure of FX traders to a smaller information set could explain our results."

Institutional herding in the corporate bond market

- Fang Cai, Song Han, and Dan Li

- SSRN, available at http://ssrn.com/abstract=2210430

- Abstract: "We find substantial herding in U.S. corporate bonds among bond fund managers, much higher than that previously documented for the equity market. Herding is generally stronger among illiquid bonds, and buy herding and sell herding are driven by different factors. In particular, sell herding increases on negative news about bond ratings and corporate earnings. Interestingly, increases in ex-post transparency in corporate bond trading through Trade Reporting and Compliance Engine (TRACE) led to higher buy herding but not to higher sell herding. Finally, we find significant return reversals in the post-herding quarters, especially for sell herding and for junk bonds. Price reversal is most prominent when funds herd to sell illiquid bonds, which suggests that temporary price pressure is the reason behind price reversal."

Commodity and equity markets: Some stylized facts from a copula

- Anne Laure Delatte and Claude Lopez

- SSRN, available at http://ssrn.com/abstract=2213173

- Abstract: "In this paper, we propose to identify the dependence structure existing between the returns of equity and commodity futures and its evolution through the past 20 years. The key point is that we do not do not impose the dependence structure but let the data select it. To do so, we model the dependence between commodity (metal, agriculture and energy) and stock markets using a flexible approach that allows us to investigate whether the co-movement is: symmetric and occurring most of the time, symmetric and occurring mostly during extreme events and asymmetric and occurring mostly during extreme events. We also allow for this dependence to be time-varying from January 1990 to February 2012. Our analysis uncovers three major stylized facts. First, we find that the dependence between commodity and stock markets is time varying, symmetric and occurs most of the time (as opposed to mostly in extreme events). Second, not allowing for time-varying parameters in the dependence distribution generates a bias toward evidence of tail dependence. Similarly, considering only tail dependence may lead to wrong evidence of asymmetry. Third, a growing comovement between industrial metals and equity markets is identified as early as in 2003, a comovement that spreads to all commodity classes and becomes unambiguously stronger with the global financial crisis after Fall 2008."

Forecasting high-yield bond spreads using the loan market as leading indicator

- Banu Simmons-Ser

- SSRN, available at http://ssrn.com/abstract=2213762

- Abstract: "This paper attempts to find an aggregate leading indicator to predict the spreads observed for high-yield (HY) bond indices. Using a vector error correction (VEC) specification for quarterly data, we establish a long-term equilibrium relationship between the HY market spreads and its determinants, which stem from the interaction between the loan market via the banking sector and the HY market. The paper also attempts to explain the dynamic behavior of spreads by approximating the factors behind the credit and liquidity risk components. The out-of-sample forecasting properties of the resultant econometric model are shown to be superior to naïve models."

Trading and market impact

The non-linear impact of large trades: Evidence from buy-side order flow

- Nataliya Bershova and Dmitry Rakhlin

- SSRN, available at http://ssrn.com/abstract=2197534

- Abstract: "We empirically study a set of large institutional orders executed in the U.S. equity market. Our results validate the hidden order arbitrage theory proposed by Farmer et al. (2012) on the market impact of large trading orders. We find that large trades are drawn from asymptotically Pareto distribution with an exponent of roughly 1.5 and that the market impact approximately increases as the square root of trade duration. We examine price reversion after the completion of a trade, finding that the permanent impact is roughly a square root function of execution time and that its ratio to the total impact is 2/3. Additionally, we verify a fair pricing condition and find that the implementation shortfall is 2/3 of the total price impact, suggesting that the average execution price is equal to the permanent price. We study the relaxation dynamics of market impact and find that impact decay is a multi-regime process, approximated by a power law in the first few minutes after order completion and subsequently by exponential decay."

Asymmetric decrease in liquidity before announcements, and the earnings announcement premium

- Shai Levi and Xiao-Jun Zhang

- SSRN, available at http://ssrn.com/abstract=2210748

- Abstract: "Trading volume is known to decrease before earnings announcements, as investors are reluctant to trade when information asymmetry is high and liquidity is low. However, using data on buy and sell orders of institutional investors, we find that investors are more reluctant to buy stocks than to sell them before announcement. We also find this asymmetric decrease in liquidity for data on the trades carried by all investors. We classify the trades on TAQ data as buyer or seller initiated, and find that liquidity traders are net sellers before announcements. Specifically, when more trades are seller initiated in the days before announcements, announcement returns are positive, and when more trades are buyer initiated, announcement returns are not different than zero. Seeking to sell stocks before announcements, liquidity traders apparently trade with market makers who, according to inventory microstructure models, provide liquidity if they can buy at a discount relative to future prices. The subsequent price increase on the announcement, which we document, will compensate market makers for holding these stocks over the announcement date. Prior literature documents average positive earnings announcement returns, or premium, and links it to information or idiosyncratic risk. Our evidence suggests that one group of undiversified inventors in particular, the market makers, bear this risk and impose this premium."

Finance theory and techniques

Which news moves stock prices? A textual analysis

- Jacob Boudoukh, Ronen Feldman, Shimon Kogan, and Matthew P. Richardson

- SSRN, available at http://ssrn.com/abstract=2193667

- Abstract: "A basic tenet of financial economics is that asset prices change in response to unexpected fundamental information. Since Roll's (1988) provocative presidential address that showed little relation between stock prices and news, however, the finance literature has had limited success reversing this finding. This paper revisits this topic in a novel way. Using advancements in the area of textual analysis, we are better able to identify relevant news, both by type and by tone. Once news is correctly identified in this manner, there is considerably more evidence of a strong relationship between stock price changes and information. For example, market model R2s are no longer the same on news versus no news days (i.e., Roll's (1988) infamous result), but now are 16% versus 33%; variance ratios of returns on identified news versus no news days are 120% higher versus only 20% for unidentified news versus no news; and, conditional on extreme moves, stock price reversals occur on no news days, while identified news days show an opposite effect, namely a strong degree of continuation. A number of these results are strengthened further when the tone of the news is taken into account by measuring the positive/negative sentiment of the news story."

Measuring economic policy uncertainty

- Scott Baker, Nicholas Bloom, and Steven Davis

- SSRN, available at http://ssrn.com/abstract=2198490

- Abstract: "Many commentators argue that uncertainty about tax, spending, monetary and regulatory policy slowed the recovery from the 2007-2009 recession. To investigate this we develop a new index of economic policy uncertainty (EPU), built on three components: the frequency of newspaper references to economic policy uncertainty, the number of federal tax code provisions set to expire, and the extent of forecaster disagreement over future inflation and government purchases. This EPU index spikes near consequential presidential elections and major events such as the Gulf wars and the 9/11 attack. It also rises steeply from 2008 onward. We then evaluate our EPU index, first on a sample of 3,500 human audited news articles, and second against other measures of policy uncertainty, with these suggesting our EPU index is a good proxy for actual economic policy uncertainty. Drilling down into our index we find that the post-2008 increase was driven mainly by tax, spending and healthcare policy uncertainty. Finally, VAR estimates show that an innovation in policy uncertainty equal to the increase from 2006 to 2011 foreshadows declines of up to 2.3% in GDP and 2.3 million in employment."

Implications of index construction methodologies for price and dividend indices

- Georg Cejnek and Otto Randl

- SSRN, available at http://ssrn.com/abstract=2200924

- Abstract: "Investment products tracking the performance of equity indices have become irreplaceable in the investment community. We are the first to analyze performance consequences of index replacements and the choice of indexing methodologies, using one consistent approach for price indices and dividend indices, which have recently been developed. We implement an empirical case study as well as an extensive simulation study incorporating

mean reversion and momentum in the process for price-to-dividend ratios. Calibrating our model to realistic capital market dynamics, we find that periodically rebalanced market capitalization weighted indices are outperformed by buy-and-hold portfolios and even more by fundamentally weighted indices. Rebalancing affects dividend indices more adversely than price indices, which can be explained by the dynamics of average price-to-dividend ratios. We highlight sensitivities of performance dispersion between different index methodologies by varying mean reversion and momentum parameters. Mean reversion dominates momentum as driving force in our setup. We identify index size, rebalancing frequency and criteria applied to assign weights as key variables affecting the relative performance of price and dividend indices. As a consequence, choosing an index methodology can be considered as an active strategy. Our results have important implications for index providers, asset managers and long-term investors."

Inter-industry network structure, information transfers, and the cross-predictability of earnings and stock returns

- Daniel Aobdia, Judson Caskey, and N. Bugra Ozel

- SSRN, available at http://ssrn.com/abstract=2196196

- Abstract: "We examine the role of the inter-industry input-output network structure in the transfer of information among firms. We focus our attention on industries that serve as hubs, or central industries, in the flow of trade across industries. Consistent with a diversification effect, we find that firms in these central industries have more exposure to aggregate risks than do firms in non-central industries. Comparing central industries to non-central industries, we find that the stock returns and accounting performance of central industries better predict the performance of industries linked to them. This suggests that shocks to central industries propagate more strongly than shocks to other industries. Additionally, earnings-response-coefficients of central firms are lower than those of other firms, consistent with investors placing less emphasis on the firm-specific information on account of the relative importance of macroeconomic risk to central firms. Our results highlight the importance of inter-industry trade flows in information transfers."

A closer look at return predictability of the US stock market: Evidence from a panel variance ratio test

- Jae Kim

- SSRN, available at http://ssrn.com/abstract=2217248

- Abstract: "This paper examines return predictability of the U.S. stock market using portfolios sorted by size, book-to-market ratio, and industry. A novel panel variance ratio test is proposed and employed to evaluate time-varying return predictability from 1964 to 2011. It is found that the stock returns have been highly predictable from 1964 to 1996, except for a period around the 1987 stock market crash. After 1997, the stock returns have been unpredictable overall. At a disaggregated level, size and technology have been the major contributors to cross-sectional differences in informational efficiency."

Textual sentiment analysis in finance: A survey of methods and models

- Colm Kearney and Sha Liu

- SSRN, available at http://ssrn.com/abstract=2213801

- Abstract: "The study of sentiment in qualitative information has implications for both the efficient market hypothesis and the behavioural finance. It provides an alternative perspective to test market efficiency over and above quantitative

information, and may help explain the 'anomalies' in the market. In this paper, we survey the textual sentiment analysis literature, compare and discuss the information sources, content analysis methods, and financial models that have been used. We then summarize the essential findings of the interrelations between textual sentiment and firm performance or stock market activities. We believe that textual sentiment is a potential pricing factor because it captures hard-to-quantify aspects of material information. We also suggest the promising directions for future research."

The persistence of long-run abnormal stock returns: Evidence from stock repurchases and offerings

- Fangjian Fu, Sheng Huang, and Hu Lin

- SSRN, available at http://ssrn.com/abstract=2214824

- Abstract: "Prior studies show that stock returns are abnormally high in the years following share repurchases and low following seasoned equity offerings. While long-run abnormal returns are confirmed for both events announced as of 2002, we do not find significant abnormal returns for either event after 2002. The disappearance of abnormal performance is consistent with the improved market efficiency in recent years, accompanied by reduced trading costs and increased institutional investment activities. Echoing the improved market efficiency, fewer firms in the recent years conduct stock repurchases or offerings for the market-timing purpose. Our findings call for a dynamic view on market efficiency and its implications on firm and investor behavior."

Short interest, returns, and fundamentals

- Ferhat Akbas, Ekkehart Boehmer, Bilal Erturk, and Sorin M. Sorescu

- SSRN, available at http://ssrn.com/abstract=2216919

- Abstract: "We show that short interest predicts stock returns because short sellers are able to anticipate bad news, negative earnings surprises, and downward revisions in analyst earnings forecasts. They appear to have information about these events several months before they become public. Most importantly, the cross-sectional relation between short interest and future stock returns vanishes when controlling for short sellers information about future fundamental news. Thus, short sellers contribute, in a significant manner, to price discovery about firm fundamentals, but the source of their information remains an open question."

Does PIN affect equity prices around the world?

- Sandy Lai, Lilian K. Ng, and Bohui Zhang

- SSRN, available at http://ssrn.com/abstract=2207579

- Abstract: "This study examines the empirical controversy over the pricing effect of Easley, Hvidkjaer, and O' Hara's (2002) probability of information-based trading, PIN, on a sample of 30,095 firms from 47 countries worldwide over a 15-year period from 1996 to 2010. Contrary to the empirical evidence of Easley, Hvidkjaer, and O'Hara (2002), but consistent with that of Duarte and Young (2009), we find no evidence that PIN exhibits a positive effect on a cross section of expected stock returns in international markets. Our further analyses suggest that PIN is strongly related to diversifiable risk and that even alternative information-based trading measures also display no effect on expected stock returns, thereby corroborating our finding that information risk proxied by PIN, in general, has no pricing effect in world markets."

Derivatives and volatility

Anticipating uncertainty: Straddles around earnings announcements

- Yuhang Xing and Xiaoyan Zhang

- SSRN, available at http://ssrn.com/abstract=2204549

- Abstract: "On average, straddles on individual stocks earn significantly negative returns: daily holding period return is -0.19% and weekly holding period return is -2.09%. In sharp contrast, straddle returns are significantly positive around earnings announcements: average at-the-money straddle returns from one day before earnings announcement to the earnings announcement date yields a highly significant 2.3% return. The positive straddle returns around earnings announcements are robust to different stock and option characteristics. This finding suggests that investors underestimate the magnitude of uncertainty during the earnings announcement period, consistent with the cognitive bias conservatism. Furthermore, we find the underestimation of uncertainty is more pronounced for smaller firms, firms with less analyst coverage, higher past jump frequency, higher kurtosis and more volatile past earnings surprises. This supports the notion that when there is more noise in the data, it is more likely for investors to display conservatism."

Appendix 1

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