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Master Thesis Topics FSS 2014

Topic R1: **Post-earnings Announcement Drift and Costly Information Processing – Evidence from Footnotes**
Advisor: Nic Schaub

Topic R2: **Sell-side Analysts' Conflicts of Interest and their Recommendations**
Advisor: Nic Schaub

Topic R3: **An Empirical Analysis of Mutual Funds' Cash Holdings in the US**
Advisor: Alexander Hillert

Topic R4: **An Empirical Analysis of Advertising of Mutual Funds in the US**
Advisor: Alexander Hillert

Topic R5: **Scheduled Macroeconomic Announcements, Stock Return, and Dispersion of Opinion**
Advisor: Alexander Hillert

Topic R6: **Does Product Market Advertising Affect Mutual Funds' Trading and Performance?**
Advisor: Michael Ungeheuer

Topic R7: **Asset Pricing Anomalies and Attention**
Advisor: Michael Ungeheuer

Topic R8: **Attracting Investor Attention around Insider Sales through Advertising**
Advisor: Florens Focke

Topic R1: Post-earnings Announcement Drift and Costly Information Processing – Evidence from Footnotes

Classification: Empirical topic
Advisor: Nic Schaub

One of the most persistent challenges to the efficient market hypothesis is the underreaction of security prices to public news. Most prominently, stock prices underreact to earnings announcements and continue to drift in the direction of the earnings surprise for several months after the earnings release. If financial markets were efficient, earnings news would be fully incorporated into stock prices as soon as it is made public. This anomaly is known as the post-earnings announcement drift.

Engelberg (2008) argues that processing cost provide an explanation for the post-earnings announcement drift. If information processing is costly, some information may not be immediately incorporated into prices but only with a delay causing the underreaction to earnings announcements. Engelberg (2008) measures the quantitative content of earnings announcements as well as their qualitative content. He shows that qualitative information predicts larger price changes at longer horizons than quantitative information, consistent with his conjecture that qualitative information has higher processing costs and therefore diffuses more slowly into asset prices.

This study investigates a novel proxy for processing costs, namely footnotes. Data providers typically adjust announced earnings to make them comparable to forecasts. Adjustments are reported in footnotes. Hence, footnotes are a proxy for the processing costs of data providers and thus probably also a reasonable proxy for the processing costs of investors.

In this study, the student should first investigate the content, form, and timing of footnotes published by data providers and classify these footnotes into different categories. Second, the student has to replicate existing literature on the post-earnings announcement drift to confirm its existence in the sample. Third, the effect of processing costs (proxied by data providers' adjustments to reported earnings revealed in their footnotes) on the initial stock price reaction as well as the drift should be investigated. Forth, the student should elaborate on other proxies for processing costs of earnings information.

Requirements:
The empirical work requires the use of large databases on earnings announcements, earnings forecasts, and stock prices (access will be provided). We recommend that the candidate should feel comfortable in the use of a statistical software program (such as Stata).

Introductory Literature:
DellaVigna, S., and J.M. Pollet, 2009, Investor inattention and Friday earnings announcements, Journal of Finance 64, 709-749.

Engelberg, J., 2008, Costly information processing: Evidence from earnings announcements, Working Paper, Northwestern University.

Hirshleifer, D., S.S. Lim, and S.H. Teoh, 2009, Driven to distraction: Extraneous events and underreaction to earnings news, Journal of Finance 5, 2289-2325.

Hong, H., and J. Stein, 1999, A unified theory of underreaction, momentum trading, and overreaction in asset markets, Journal of Finance 54, 2143-2184.

Plumlee, M.A., 2003, The effect of information complexity on analysts' use of that information, Accounting Review 78, 275-296

Topic R2: Sell-side Analysts' Conflicts of Interest and their Recommendations

Classification: Empirical topic
Advisor: Nic Schaub

Sell-side (brokerage) analysts perform financial analysis on publicly traded companies and issue reports expressing their recommendation (buy, hold, sell). Prior research documents that the publication of analyst recommendations is associated with abnormal stock returns. Recommendation upgrades (e.g., from hold to buy) typically lead to stock price increases while recommendation downgrades (e.g., from hold to sell) cause stock prices to fall.

A large body of research investigates whether analyst recommendations are biased due to business relationships between brokerage firms and covered companies that result in conflicts of interest for sell-side analysts. These studies also examine the implications of these biases for stock returns. For instance, Barber et al. (2007) show that recommendations of sell-side analysts employed by investments banks are biased upwards and perform poorly when compared to recommendations of independent research firms. In response to these conflicts of interest, U.S. regulators announced the Global Analyst Research Settlement in 2002. The purpose of this regulation was to reduce sell-side analysts' conflicts of interest.

In this study, the student should first provide an overview of the extensive literature on sell-side analysts' conflicts of interest. Second, brokerage firms/analysts should be classified into different categories according to their conflicts of interest. While existing studies typically focus on conflicts of interest stemming from one specific business relationship between the brokerage firm and the covered company (e.g., equity issuances), the student should differentiate between different types of conflicts (e.g., equity issuances, M&A, independent research firms, fee-based research firms). Thirdly, the student has to investigate how these different conflicts of interest influence analysts' recommendations as well as the stock market's reaction to these recommendations. The student should examine a time period that allows him/her to analyze the impact of the Global Settlement on analysts' conflicts of interest.

Requirements:
The empirical work requires the use of large databases on analyst stock recommendations and stock prices (access will be provided). We recommend that the candidate should feel comfortable in the use of a statistical software program (such as Stata).

Introductory Literature:
Barber, B.M., R. Lehavy, and B. Trueman, 2007, Comparing the stock recommendation performance of investment banks and independent research firms, Journal of Financial Economics 85, 490-517.

Demiroglu, C., and M. Ryngaert, 2010, The first analyst coverage of neglected stocks, Financial Management 39, 555-584.

Kadan, O., L. Madureira, R. Wong, and T. Zach, 2009, Conflicts of interest and stock recommendations: The effects of the global settlement and related regulations, Review of Financial Studies 22, 4189-4217.

Kolasinski, A.C., and S.P. Kothari, 2008, Investment banking and analyst objectivity: Evidence from analysts affiliated with mergers and acquisitions advisors, Journal of Financial and Quantitative Analysis 43, 817-842.

Lin, H., and M.F. McNichols, 1998, Underwriting relationships, analyst's earnings forecasts, and investment recommendations, Journal of Accounting and Economics 25, 101-127.

Topic R3: An Empirical Analysis of Mutual Funds' Cash Holdings in the US

Classification: Empirical topic
Advisor: Alexander Hillert

There are only few studies analyzing the cash holdings of mutual funds. Higher cash holdings provide benefits, e.g. the fund has to liquidate no or fewer assets to satisfy redemptions from the funds thereby avoiding asset-fire sales. However, high cash holdings also create costs because they do not earn money and lead to underperformance in up markets. Yan (2006) develops a static trade-off model in which the marginal benefits of cash holdings equal the marginal costs. In his empirical analysis he provides support by showing that small-cap funds, i.e. funds with more illiquid assets, and funds with more volatile flows have higher cash holdings. Furthermore, he shows that cash holdings are persistent over time and that funds on average do not adjust their cash holdings to future market returns, i.e. they do not show market timing ability. Simutin (2013) shows that funds with high abnormal cash holdings, i.e. higher cash holdings as predicted by the characteristics of the fund, outperform funds with low abnormal cash holdings by about 2% p.a.
One limitation of the previous studies is that they obtain the data on cash holdings from the CRSP mutual fund database, which often has missing values on this data item. In this master thesis a new dataset on funds' cash holdings obtained from the funds' NSAR filings with the Securities and Exchange Commission will be used. Besides information on a fund's cash holdings the data also contains information on whether a fund uses bank overdraft, which might also play a role in a fund's liquidity management.
In a first step, the student should compare the cash holdings from the CRSP database with the data from the SEC filings. Next, the student should identify the determinants of a fund's cash holdings. Furthermore, the student should analyze the overall liquidity management of the fund, i.e. the relation between the liquidity of the portfolio holdings, the cash holdings and the use of bank overdraft. In the last step, the student should test whether cash holdings have an impact on fund performance.
All relevant databases (CRSP, Compustat, MFLinks) are accessible at the University of Mannheim. A raw dataset of NSAR reports obtained from EDGAR will be provided. Nevertheless some data preparation and validation, e.g. merge between a fund's SEC identifier and its CRSP mutual fund identifier, is required.

Requirements:
Basic knowledge (or ability/willingness to acquire basic knowledge) in econometrics and STATA is required.

Introductory Literature:
Carhart, M.M. (1997), On Persistence in Mutual Fund Performance, Journal of Finance, 52, 57-82.

Simutin, M. (2013), Cash Holdings and Mutual Fund Performance, Review of Finance, forthcoming, available at http://rof.oxfordjournals.org/content/early/2013/08/26/rof.rft035.short

Yan, X. S. (2006), The Determinants and Implications of Mutual Fund Cash Holdings: Theory and Evidence, Financial Management, 35, 67-91.

Topic R4: An Empirical Analysis of Advertising of Mutual Funds in the US

Classification: Empirical topic
Advisor: Alexander Hillert

A first prominent study that analyzes the relationship between mutual funds' advertisement, fund flows, and fund performance is Jain and Wu (2000). They analyze a sample of 294 funds which advertise in Barron's or Money magazine. They find that during the period before the advertisement funds outperform relative to a benchmark. However, during the post advertisement period the funds do not show any further outperformance which suggests that funds are not advertised to signal their superior quality. Gallaher et al. (2006) analyze the strategic behaviour of fund families with respect to advertising. They acknowledge that the advertising decision is made on the fund family level, e.g. Fidelity, and not on the mutual fund level, e.g. Fidelity Magellan Fund. The fund family tries to maximize the investment flow into the family by strategically selecting the funds to advertise. Based on these considerations, Gallaher et al. (2006) analyze the flows to entire fund families in response to advertising.
The aim of this master thesis is to use a comprehensive advertising data set which covers different advertising channels to obtain additional insights into the relation between advertising, fund flows, and performance.
In the first step the student should identify the determinants of advertising expenses. This should be done on a fund family level and also on a fund level if data availability allows. Next, the student should analyze whether and how advertising of funds (fund families) affects flows to funds (fund families). Furthermore, she should test whether there are differences in the effect of advertising on flows between the different advertising channels. Besides, she should check whether advertising in the business press, e.g. in the Wall Street Journal, is more effective than advertising in non-business press. In the last step, she should analyze whether advertising predicts future fund or fund family performance.
All relevant databases (CRSP, Compustat, MFLinks) are accessible at the University of Mannheim. The advertising dataset will be provided. However, the merge of the mutual fund data from CRSP and the advertising data requires some manual data work.

Requirements:
Basic knowledge (or ability/willingness to acquire basic knowledge) in econometrics and STATA is required.

Introductory Literature:
Carhart, M.M. (1997), On Persistence in Mutual Fund Performance, Journal of Finance, 52, 57-82.

Gallaher, S., R. Kaniel and L. Starks (2006), Madison Avenue Meets Wall Street: Mutual Fund Families, Competition and Advertising, Working Paper.

Jain, P.C., and J.S. Wu (2000), Truth in Mutual Fund Advertising: Evidence on Future Performance and Fund Flows, Journal of Finance, 55, 937-958.

Sirri, E.R., and P. Tufano (1998), Costly Search and Mutual Fund Flows, Journal of Finance, 53, 1589-1622.

Topic R5: Scheduled Macroeconomic Announcements, Stock Return, and Dispersion of Opinion

Classification: Empirical topic
Advisor: Alexander Hillert

Savor and Wilson (2013a) find that on days with scheduled macroeconomic announcements the excess return of the stock market is 11.4 basis points (bp) while it is only 1.1 bp on the other days in their sample (period from 1958 to 2009). This means that more than 60% of the cumulative excess return of the market over their sample period is earned on announcement days. They argue that investors know that important macroeconomic information will be released on these dates since the dates are known much in advance. However, investors do not know in advance whether the information will be positive or negative. Investors holding risky securities, which will be affected by the release of the macroeconomic information, are exposed to higher risk and therefore they have to be compensated by higher expected returns. From this line of reasoning it follows that the risk compensation in terms of higher returns should be more pronounced when there is higher disagreement about the macroeconomic information that will be released. The aim of this thesis is to test this implication by measuring the information uncertainty based on newspaper articles using textual analysis.

Textual analysis has recently become popular in finance (e.g. Tetlock (2007) and Loughran and McDonald (2011)). Using established lists of positive or negative words the tone of a text can automatically be classified as the fraction of positive or negative words, respectively. To measure dispersion of opinion one could calculate the standard deviation of the fraction of negative/positive words over all articles published about the macroeconomic event. According to the interpretation proposed in Savor and Wilson (2013a) one should find a higher return on the announcement date, when there is low dispersion of opinion in press articles after the event, i.e. when there is no or low remaining macroeconomic uncertainty afterwards.

In the first step the student should replicate the finding by Savor and Wilson (2013a) suggesting higher excess returns of the market on announcement dates of scheduled macroeconomic news. Next, the student should collect a sample of newspaper articles about the events and conduct a textual analysis, i.e. calculate the measures of positivity, negativity, and dispersion of opinion. In the last step, the student should test whether the effect is more pronounced when there is more agreement about the future economic outlook after the information release.

All relevant databases are accessible at the University of Mannheim. The data on the historical macroeconomic announcement dates used in Savor and Wilson (2013a) are freely available at the website of the Bureau of Labor Statistics (http://www.bls.gov/bls/archived_sched.htm) and at the website of the Federal Reserve System (http://www.federalreserve.gov/monetarypolicy/fomccalendars.htm). Newspaper articles on the macroeconomic announcements can be obtained from the LexisNexis or the Factiva database which are available at the University of Mannheim. Access to the linguistic software LIWC and Antconc to conduct the textual analysis is provided by the Chair of International Finance.

Requirements:

A sound knowledge in textual analysis is needed (or has to be acquired) for this topic. Therefore, students with an expertise in textual analysis (e.g. participants of the FIN 780 seminar "Finance and Linguistics") will be preferred in the allocation process. Furthermore, basic knowledge (or ability/willingness to acquire basic knowledge) in econometrics and STATA is required.

Introductory Literature:

Loughran, T., and B. McDonald (2011), When is a Liability not a Liability? Textual Analysis, Dictionaries, and 10-Ks, Journal of Finance, 66, 35-65.

Savor, P., and M. Wilson (2013a), How Much Do Investors Care About Macroeconomic Risk? Evidence from Scheduled Economic Announcements, Journal of financial and quantitative Analysis, 48, 343-375.

Savor, P., and M. Wilson (2013b), Asset Pricing: A Tale of Two Days, Working Paper.

Tetlock, P.C. (2007), Giving Content to Investor Sentiment: The Role of Media in the Stock Market, Journal of Finance, 62, 1139-1168.

Topic R6: Does Product Market Advertising Affect Mutual Funds' Trading and Performance?

Classification: Empirical topic
Advisor: Michael Ungeheuer

Recent studies have found that retail investors' trading behavior is heavily influenced by the level of news-coverage about firms (Barber and Odean, 2008). It seems, if more individuals know about and focus on a stock, investment decisions are triggered. Since attention is a scarce resource (Kahneman, 1973) and many retail investors' attention is not focused on asset markets as part of their job, it is understandable that media-coverage affects their trading. Professional investors on the other hand spend most of their time analyzing asset markets. They should additionally have a better understanding of valuation-relevant news: Since mass-media news articles are usually published with a delay – after being released on business newswires – it can be argued that firm-coverage by mass-media should not influence fund managers' firm valuations anymore. In spite of this, Fang, Peress and Zheng (2011) find that mutual fund managers tend to buy stocks of firms with relatively high news-coverage. If fund managers were trading attention-stocks to provide liquidity to retail investors or to exploit predictable price patterns due to media-coverage, they should profit through higher returns. However, Fang et al. find that fund managers with a high propensity to buy on news deliver lower alphas than fund managers whose trading is not driven by news-coverage.

The goal for this master thesis is to first replicate general results on the determinants of mutual fund performance (e.g. Ferreira et al., 2013) for U.S. equity mutual funds. Additionally, the impact of a high propensity to buy attention-stocks on mutual funds' performance should be analyzed. In contrast to Fang, Peress and Zheng's (2011) study, advertising instead of news-coverage should be used as a proxy for attention. Relative to news coverage, advertising levels should convey even less valuation-relevant news, making them a better attention-proxy for analyzing fund managers' suboptimal behavior.

Requirements:
The empirical work for this topic requires the use of statistical software (e.g. Stata), manipulation of data and the application of econometric methods. Some experience in this area would be helpful. A dataset on U.S. equity mutual fund holdings and returns will be provided.

Introductory Literature:
Barber, B.M.; Odean, T. (2008): All that glitters: The effect of attention and news on the buying behavior of individual and institutional investors, Review of Financial Studies, 21, pp. 785-818.

Kahneman, D. (1973): Attention and Effort, Prentice-Hall, Englewood Cliffs, NJ.

Fang, L.; Peress, J.; Zheng, L. (2011): Does Media Coverage of Stocks Affect Mutual Funds' Trading and Performance?, Working Paper.

Ferreira, M.A.; Keswani, A.; António, F.M.; Ramos, S.B. (2013): The Determinants of Mutual Fund Performance: A Cross-Country Study, Review of Finance, 17, pp. 483-525.

Merton, R. (1987): A Simple Model of Capital Market Equilibrium with Incomplete Information, Journal of Finance, 42, pp. 483-510.

Topic R7: Asset Pricing Anomalies and Attention

Classification: Empirical topic
Advisor: Michael Ungeheuer

Stambaugh, Yu and Yuan (2012) find that asset pricing anomalies are stronger when sentiment is high (when beliefs about future cash flows and risks tend to be unfounded). However, in order for sentiment to play a role for a stock, investors first need to know about and focus on a stock, i.e. there needs to be 'attention' with respect to this stock. Attention is thus 'a necessary condition for generating sentiment' (Da, Engelberg and Gao, 2011). It is also a scarce resource (Kahneman, 1973) and it varies across stocks and over time. However, it is not clear whether high levels of attention should attenuate or amplify asset pricing anomalies. On the one hand, if attention is focused on fundamental information about firms, pricing inefficiencies might be reduced. On the other hand, if attention for a stock draws in uninformed traders, who are prone to behavioral biases, mispricing might increase. Evidence from retail (Barber and Odean, 2008) and institutional (Fang, Peress and Zheng, 2011) investors suggests that 'attention traders' are uninformed.

The goal for this master thesis is to replicate one or more asset pricing anomalies and subsequently analyze the interaction between each anomaly and attention for the U.S. stock market. As an illustration, the momentum anomaly's high average returns result from predictably high (low) next-year returns of last year's winner (loser) stocks. By sorting stocks first by attention, and then by their performance during the last year, one can analyze how the momentum strategy's success varies with attention (for an analysis of the interaction between media coverage and momentum, see Hillert, Jacobs and Müller, 2014). As a proxy for attention on the firm-level, firms' product market advertising should be used. An advantage of product market advertising relative to other proxies of attention (like media coverage or Google search volumes) is its unrelatedness to fundamental news.

Requirements:
The empirical work for this topic requires the use of statistical software (e.g. Stata), manipulation of data and the application of econometric methods. Some experience in this area would be helpful.

Introductory Literature:
Stambaugh, R.F.; Yu, J.; Yuan, Y. (2012): The Short of It: Investor Sentiment and Anomalies, Journal of Financial Economics, 104, pp. 288-302.

Kahneman, D. (1973): Attention and Effort, Prentice-Hall, Englewood Cliffs, NJ.

Da, Z.; Engelberg, J.; Gao, P. (2011): In Search of Attention, Journal of Finance, 66, pp. 1461-1499.

Barber, B.M.; Odean, T. (2008): All that glitters: The effect of attention and news on the buying behavior of individual and institutional investors, Review of Financial Studies, 21, pp. 785-818.

Fang, L.; Peress, J.; Zheng, L. (2011): Does Media Coverage of Stocks Affect Mutual Funds' Trading and Performance?, Working Paper.

Hillert, A.; Jacobs, H.; Müller, S. (2014): Media Makes Momentum, Working Paper.

Topic R8: Attracting Investor Attention around Insider Sales through Advertising

Classification: Empirical topic
Advisor: Florens Focke

Prior research suggests that retail investors in particular are prone to engage in attention-induced trading (e.g., Barber and Odean 2008). Specifically, the immense search problem faced by investors in deciding which shares to buy from among thousands of stocks that are available on the market means that attention-constrained investors are more likely to buy an attention-grabbing stock than to sell it. Such behavior can lead to a temporary overshooting of stock prices. In this literature, investor attention is associated with particular events such as extreme stock returns, trading volume or media coverage. Given that investors can be attracted to a stock through attention-grabbing events, the question arises whether and how firms might be able to exploit this.

The primary purpose of advertising is the promotion of sales of the company's products (Bagwell 2007). One part of this is the attraction of attention to those products, which might also entail greater awareness of the company itself. This increase in attention for the company's stock could lead to a temporary increase in the stock price. Hence, companies might use advertising to strategically influence their stock price. In particular, companies could attempt to increase their stock price before corporate events that benefit from higher valuations such as insider sales or stock-financed acquisitions.

In this study, the student should build on the work by Luo (forthcoming) and investigate the impact of advertising on stock returns by using balance sheet data on firms' advertising spending. The candidate should then analyze whether managers make use of advertising to influence stock prices around corporate events important to them: insider sales. Finally, the analysis should be extended by using data on monthly stock returns.

Requirements:
The empirical work requires the use of large databases for balance sheet information, stock prices and insider sales (access will be provided). For the extension of the study, we will also provide you with a detailed dataset of monthly advertising spending data. We recommend that the candidate should feel comfortable in the use of a statistical software program and econometrics (such as STATA).

Introductory Literature:
Lou, Dong, Attracting Investor Attention through Advertising, Review of Financial Studies.

Chemmanur, Thomas, and An Yan, 2009, Product market advertising and new equity issues, Journal of Financial Economics 92, 40–65.

Frieder, Laura, and Avanidhar Subrahmanyam, 2005, Brand perceptions and the market for common stock, Journal of Financial and Quantitative Analysis 40, 57–85.

Merton, Robert C. Richard C., 1987, A simple model of capital market equilibrium with incomplete information, Journal of Finance 42, 483–510.