FAKULTÄT FÜR BETRIEBSWIRTSCHAFTSLEHRE
Lehrstuhl für Internationale Finanzierung
Prof. Dr. Stefan Ruenzi

UNIVERSITÄT MANNHEIM

Universität Mannheim
Lehrstuhl für Internationale Finanzierung
68131 Mannheim

Besucheradresse:
L9, 1-2
68161 Mannheim

http://intfin.bwl.uni-mannheim.de

Master Thesis Topics FSS 2016

Topic R1: The Seasonality of Earnings and Stock Returns
Advisor: Florens Focke

Topic R2: Regional Investor Distraction and the Reaction to Earnings Announcements
Advisor: Anja Kunzmann

Topic R3: Favoritism in Mutual Fund Families: Evidence from Equity Cross-Trading and Lending
Advisor: Pavel Lesnevski

Topic R4: Being true or being right - The gender gap in financial literacy
Advisor: Lena Jaroszek

Topic R5: The Idiosyncratic Volatility Puzzle and Gambling Attitudes
Advisor: Michael Ungeheuer

Topic R6: Is Idiosyncratic Volatility of Liquidity Priced?
Advisor: Michael Ungeheuer

TOPIC R1: **The Seasonality of Earnings and Stock Returns**

Classification: Empirical topic
Advisor: Florens Focke

According to the Efficient Market Hypothesis (EMH), all available information should be incorporated into prices immediately. Consequently, only new information should matter for security prices. Nevertheless, there is a growing body of evidence that suggests that abnormal returns exists in months in which events like earnings announcements, dividends or stock splits are expected to take place. Given that these events are recurring and anticipated by the market, these abnormal returns are puzzling. In a recent paper, Chang et al. (2015) make the point that many firms exhibit seasonal earnings over the year. For instance, a bookshop chain might have systemically higher earnings around Christmas. The authors then show that such high seasonality months are associated with positive abnormal returns.

The purpose of this study is to build on the study by Chang et al. (2015) to investigate whether the market reacts to predictable earnings seasonality. Moreover, possible explanations for such an effect should be considered. For instance, it should be investigated whether analysts make systematically positive forecast errors in high seasonality months and whether the effect is stronger for less liquid firms. To this end, data on earnings announcements from IBES will have to be merged with firm and stock return data from CRSP and COMPUSTAT. Access to these databases will be provided.

Requirements:

We recommend that the candidate should feel comfortable in the use of a statistical software program and econometrics (such as STATA).

Introductory Literature:

Barber, B., E. De George, R. Lehavy, and B. Trueman. 2013. The earnings announcement premium around the globe. Journal of Financial Economics 108, 118-138.

Chang, T., S. Hartzmark, D. Solomon, and E. Soltes. 2015. Being Surprised by the Unsurprising: Earnings Seasonality and Stock Returns. Working Paper.

Hartzmark, S., and D. Solomon. 2013. The Dividend Month Premium. Journal of Financial Economics 109, 640-660.

TOPIC R2: **Regional Investor Distraction and the Reaction to Earnings Announcements**

Classification: Empirical topic
Advisor: Anja Kunzmann

Attention is a scarce cognitive resource, which can limit the ability to process information - this also applies to investors who need to process information on stock markets. Recent research has taken this into account by considering the effects of investor inattention (or distraction) on the quality of their decision-making. In 2009, *Hirshleifer, Lim and Teoh* formulate the 'investor distraction hypothesis', which states that "extraneous news inhibits market reactions to relevant news". They find a much weaker reaction of stock prices to earnings announcements and a much stronger post-earnings announcement drift (PEAD) when investors are distracted by several announcements on the same day. There are also other factors that cause investor distraction. *Jacobs and Weber (2011)* identify regional holidays in Germany as a cause of distraction for local investors. Arguing that investors have a preference for trading stocks of locally headquartered firms, they find that during regional holidays this 'local bias' negatively affects the trading activity for stocks of local firms.

Given these results, the empirical challenge seems to be finding a suitable proxy for investor distraction. *Peress and Schmidt (2014)* argue that television is an important source of distraction. Since preferences for specific TV channels and TV shows are likely to differ across geographical regions, one could use this variation to proxy for regional investor distraction by using information on the size of the local TV audience.

In this study, the student should combine the approaches of *Hirshleifer, Lim and Teoh (2009)* and *Jacobs and Weber (2011),* using a new proxy for regional investor distraction. First, the student should replicate the findings of *Hirshleifer, Lim and Teoh (2009)*, including the most recent data on earnings announcements. In addition to that, the student needs to calculate a new proxy for regional investor distraction (RID). For this purpose, the student should use data on the cost of commercial broadcasting airtime. Since TV advertisements are more expensive at more popular broadcasting times, this cost is correlated with the size of the corresponding TV audience. Finally, the student should analyse the effect of the RID proxy on stock price reactions to earnings announcements.

Requirements:
The empirical work requires the use of large databases for balance sheet information, information on security prices and earnings announcements. We recommend that the candidate should feel comfortable in the use of a statistical software program (such as STATA) and econometrics.

Introductory Literature:
Hirshleifer, D., Lim, S. S., & Teoh, S. H. (2009). Driven to distraction: Extraneous events and underreaction to earnings news. The Journal of Finance, 64(5), 2289-2325.
Jacobs H., Weber M. (2012). The trading volume impact of local bias: Evidence from a natural experiment. Review of Finance,16,867-901.
Peress, J., & Schmidt, D. (2014). Glued to the TV: The trading activity of distracted investors. Unpublished working paper, Insead, HEC Paris.

Topic R3: Favoritism in Mutual Fund Families: Evidence from Cross-Trading and Equity Lending

Classification: Empirical topic
Advisor: Pavel Lesnevski

The mutual fund industry is characterized by a family structure. While managing the money of fund investors, a fund manager also serves to the fund management company that typically is responsible for a number of different funds. In 2007, 30 fund families controlled around 75% of industry's assets. Such an organizational structure might be beneficial to investors due to the potential for economies of scale and scope. On the other hand, it could result in conflicts of interests. Fund managers have an incentive to maximize the profit of the management company, but not necessarily of its fund investors.

Gaspar, Massa, and Matos (2006) find evidence that some fund investors suffer due to fund families' engaging in cross-fund subsidization, i.e., fund families improve the performance of high-value funds at the expense of the investors in low-value funds. The value of a fund to the management company is determined by the amount of profits it can deliver. The two known channels in which a fund family can engage in strategic cross-subsidization are the preferential allocation of overbooked IPOs and cross-fund trading.

Recent studies find that funds engaging in short sales outperform their peers [Chen, Desai, and Krishnamurthy (2013)] and those engaging in equity lending underperform their peers [Evans, Ferreira, and Prado (2014)]. Such a divergence in performance could potentially be driven by low-value funds' lending stocks that the fund family expects to go down to high-value funds, who sell these stocks short. Such behavior could explain the divergence in performance and serve as a new channel of cross-fund subsidization.

The goal of this master's thesis is to test this hypothesis. First, the student is expected to replicate the major results of Gaspar, Massa, and Matos (2006). The second step is to extend the time period of the study and to test whether favoritism in mutual fund families became stronger or weaker in more recent years. The final step is to extend the study by testing whether the divergence in the performance of lending funds and short-selling funds can be explained by cross-fund subsidization.

All relevant databases (CRSP Mutual Fund Database, Morningstar) are accessible at the University of Mannheim. Mutual fund holdings as well as data on lending and short-selling activity will be provided.

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. Experience in this area would be helpful.

Introductory Literature:

Chen, Honghui, Hemang Desai, and Srinivasan Krishnamurthy, 2013, A First Look at Mutual Funds That Use Short Sales, Journal of Financial and Quantitative Analysis 48, 761–787.

Evans, Richard B., Miguel A. Ferreira, and Melissa Porras Prado, 2014, Fund Performance and Equity Lending: Why Lend What You Can Sell?, Working Paper.

Gaspar, José-Miguel, Massimo Massa, and Pedro Matos, 2006, Favoritism in Mutual Fund Families? Evidence on Strategic Cross-Fund Subsidization, The Journal of Finance 61, 73–104.

TOPIC R4: **Being true or being right - The gender gap in financial literacy**

Classification: Experimental topic
Advisor: Lena Jaroszek

It is a robust finding across several national household surveys that women score worse than men in test of financial literacy (FL). This result also corresponds to women's lower subjective evaluations of self-assessed FL. Untested explanation attempts for this finding include differences in gender roles, lack of interest, and task sharing within the household. A so far unconsidered alternative are gender differences in answering behavior: evidence from household surveys (e.g., in Germany, the Netherlands, the U.S.) document that women admit more often, that they do not know the answer in multiple choice question settings. However, typical financial literacy measures simply aggregate the number of correct answers into a score and treat the answer "don't know" as equally wrong.

The aim of this thesis is twofold: First, the student should provide an overview about the current literature on financial literacy. Second, the student is to analyze whether the answering options of a multiple choice problem impact on test results, especially in the context of financial literacy. For this purpose, the student will design and conduct an experiment and analyze its data empirically. The experiment is meant to manipulate the answering options to multiple choice problems in order to analyze the effect of the provided choice set on the test outcome.

Requirements:

The experimental work requires the design, setup and conduction of an online experiment under the supervision of your advisor. For the analysis of data obtained from the experiment we recommend the use of a statistical software program (such as STATA). That the candidate should feel comfortable in understanding and applying econometric models.

Introductory Literature:

Baldiga, Kathrine. 2013. "Gender Differences in Willingness to Guess", *Management Science*, 60(2): 434-448.

Lusardi, Annamaria, and Olivia S. Mitchell. 2008. "Planning and Financial Literacy: How Do Women Fare?", *American Economic Review*, 98(2): 413-17.

Bucher-Koenen, Tabea, and Annamaria Lusardi, Rob Alessie and Maarten van Rooij. 2012. "How financially literate are women? Some new perspectives on the gender gap", *Netspar Panel Paper No. 31.*

TOPIC R5: **The Idiosyncratic Volatility Puzzle and Gambling Attitudes**

Classification: Empirical topic
Advisor: Michael Ungeheuer **[NOTE THAT DUE TO A RESEARCH STAY ABROAD, THE ADVISOR WILL BE AVAILABLE ONLY VIA SKYPE UNTIL END OF MAY]**

In the Capital Asset Pricing Model (Sharpe, 1964) investors select their portfolio, so that they are only exposed to market risk. Therefore, higher idiosyncratic volatility should not be related to expected stock returns. In models where investors are not completely diversified, higher idiosyncratic volatility is usually associated with higher expected stock returns (e.g. Merton, 1987). In contrast to these predictions from theory, historical stock returns are negatively related to idiosyncratic volatility (Ang et al., 2006 and 2009). This surprising relation is called the 'idiosyncratic volatility puzzle'.

What causes the idiosyncratic volatility puzzle? One potential reason for high prices of stocks with high idiosyncratic volatility could be investors' preferences for lottery characteristics (Kumar et al., 2009) because high idiosyncratic volatility is associated with occasionally large positive returns. A way to test whether preferences for lottery characteristics indeed drive the idiosyncratic volatility puzzle is to check whether the return effect is stronger in times of high preferences for lottery characteristics. Chen et al. (2015) measure overall gambling sentiment (i.e. preferences for lottery characteristics) for each month from 2004 to 2013 as the frequency of Google searches for lottery-related terms and find that increases in gambling sentiment indeed lead to temporarily higher prices of lottery-like stocks.

In this thesis, the results of Chen et al. (2015) on the time-variation of the idiosyncratic volatility puzzle should be replicated and extended until 2015. Additionally, a new measure of gambling sentiment should be calculated based on the number of newspaper articles using lottery terms. Google search volume is available only from 2004 onwards. Newspaper coverage data from Nexis goes back to the early 1970s, so that the results of Kumar et al. can be tested out-of-sample with a new proxy for the same time period, and for the 30 additional years before the Google data starts. Additionally, variation of gambling attitudes across US states could be measured based on Google search volume on the state-level and based on regional newspaper coverage. These regional measures of gambling sentiment would allow cross-sectional tests, i.e. comparisons of the idiosyncratic volatility puzzle between stocks of firms based in gambling-prone regions versus gambling-averse regions.

Required skills: 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. The student will need to spend some time on downloading Google Search Volume and LexisNexis Media Coverage data.

Introductory Literature:

Ang, A.; Hodrick, R.; Xing, Y.; Zhang, X. (2006): The Cross-Section of Volatility and Expected Returns, *Journal of Finance*, 61(1), pp. 259-299.

Ang, A.; Hodrick, R.; Xing, Y.; Zhang, X. (2009): High idiosyncratic volatility and low returns: International and further U.S. evidence, *Journal of Financial Economics*, 91(1), pp. 1-23.

Kumar, A. (2009): Who Gambles in the Stock Market?, *Journal of Finance*, 64(4), pp. 1889-1933.

Chen, Y.; Kumar, A.; Zhang, C. (2015): Searching for Gambles: Investor Attention, Gambling Sentiment, and Stock Market Outcomes, Working Paper.

Merton, R. (1987): A Simple Model of Capital Market Equilibrium with Incomplete Information, *Journal of Finance*, 42(3), pp. 483-510.

Sharpe, W. (1964): Capital Asset Prices: A Theory of Market Equilibrium under Conditions of Risk, *Journal of Finance*, 19(3), pp. 425-442.

TOPIC R6: Is Idiosyncratic Volatility of Liquidity Priced?

Classification: Emirical topic
Advisor: Michael Ungeheuer **[NOTE THAT DUE TO A RESEARCH STAY ABROAD, THE ADVISOR WILL BE AVAILABLE ONLY VIA SKYPE UNTIL END OF MAY]**

Acharya and Pedersen (2005) extend Sharpe's (1964) capital asset pricing model by removing the assumption of markets without liquidity costs. In their model, expected stock returns are determined not only by systematic return risk, but also by systematic liquidity risk. Systematic liquidity risk consists of the risk that stocks' returns and liquidity are low when the market's returns and liquidity are low. As in Sharpe's (1964) model, higher idiosyncratic risk should not be related to expected stock returns according to Acharya and Pedersen's (2005) model. In particular, higher idiosyncratic volatility of liquidity should not be priced. Of course, in reality, investors are not completely diversified, so that higher idiosyncratic volatility in liquidity might also be associated with a risk premium similar to the idiosyncratic volatility premium in Merton's (1987) model.

Is there a premium for idiosyncratic liquidity risk? Akbas et al. (2014) find that stocks with high levels of idiosyncratic volatility of liquidity exhibit higher returns, consistent with a risk premium for idiosyncratic liquidity risk. They use the daily Amihud (2002) illiquidity ratio as their illiquidity proxy.

In this thesis, the results of Akbas et al. (2014) should be replicated. Additionally, the robustness of their results to using alternative liquidity proxies (e.g. the one from Corwin and Schultz, 2012), and to controlling for downside liquidity risk (Ruenzi et al., 2016) should be tested.

Required skills: 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. Extreme downside liquidity risk from Ruenzi et al. (2016) will be provided.

Introductory Literature:

Acharya, V.V.; Pedersen, L.H. (2005): Asset Pricing with Liquidity Risk, *Journal of Financial Economics*, 77, pp. 375-410.

Akbas, F.; Armstrong, W.; Petkova, R. (2014): Idiosyncratic Volatility of Liquidity and Expected Stock Returns, Working Paper.

Amihud, Y. (2002): Illiquidity and Stock Returns: Cross-Section and Time-Series Effects, *Journal of Financial Markets*, 5, pp. 31-56.

Corwin, S.; Schultz, P. (2012): A Simple Way to Estimate Bid-Ask Spreads from Daily High and Low Prices, *Journal of Finance*, 67(2), pp. 719-760.

Merton, R. (1987): A Simple Model of Capital Market Equilibrium with Incomplete Information, *Journal of Finance*, 42(3), pp. 483-510.

Sharpe, W. (1964): Capital Asset Prices: A Theory of Market Equilibrium under Conditions of Risk, *Journal of Finance*, 19(3), pp. 425-442.

Ruenzi, S.; Ungeheuer, M.; Weigert, F. (2016): Extreme Downside Liquidity Risk, Working Paper.