

Universität Mannheim · Lehrstuhl für Internationale Finanzierung · 68131 Mannheim **Besucheradresse:** L9, 1-2 68161 Mannheim Telefon 0621/181-1619 Telefax 0621/181-1664

Florian Weigert weigert@bwl.uni-mannheim.de http://intfin.bwl.uni-mannheim.de

## **DIPLOMARBEITEN / MASTER THESES IM HWS 2012**

- **TOPIC R1:IPO Market Timing: Empirical Evidence**Advisor: Paris Tsotsonos
- TOPIC R2:Dividends and Share Repurchases An empirical Analysis of the Substitution<br/>Hypothesis in the US<br/>Advisor: Alexander Hillert
- TOPIC R3: Announcement Returns of Share Repurchase Programs An empirical Analysis in the US Advisor: Alexander Hillert
- **TOPIC R4:Contrarian Trading and Style Volatility**<br/>Advisor: Lean Jaroszek
- **TOPIC R5:**International Mutual Fund PerformanceAdvisor: Florian Weigert
- **TOPIC R6:**Hedge Fund Performance and Tail Risk ExposureAdvisor: Florian Weigert
- **TOPIC R7:**Linking Fund Flows, Market Liquidity and Asset PricesAdvisor: Michael Ungeheuer

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## **Topic R1:** IPO Market Timing: Empirical Evidence

It is widely documented that Initial Public Offerings (IPOs) occur in waves, otherwise known as "hot" IPO markets (see e.g. Ritter (1980)). While this clustering may potentially be due to real funding needs of issuing firms, empirical evidence finds that this link is weak. Instead, it seems that firms time their IPOs in order to take advantage of "windows of opportunity": favorable market conditions surrounding the offering allow firms to raise more money at higher valuations. This evidence is also in line with recent research on the impact of investor sentiment on IPOs which suggests that bullish market conditions actually allow firms to overprice their shares compared to their fundamental value.

Furthermore, recent research has focused on information spillovers as the key driver of IPO waves. The idea is that an IPO of one firm reduces the uncertainty regarding relevant valuation factors of firms of the same industry across market participants. Alti (2005) develops a model where investors are asymmetrically informed about a common valuation factor of issuing firms; outcomes of so-called "pioneer" IPOs (partly) reflect this information, thereby reducing the informational asymmetry and triggering an IPO wave. Other models focus on a variety of potential spillovers, such as news about industry-wide growth opportunities or the revelation of technology. Empirical evidence for spillover effects is strong (see. e.g. Lowry, Schwert (2002)).

The goal of this thesis is to give an overview of the existing relevant literature on market timing of IPO firms, with a focus on information spillover effects. In addition, an own empirical study should be conducted where the existing implications of the literature should be tested based on a recent US IPO dataset.

### **Requirements:**

The candidate should have a sound knowledge of the theory of corporate finance. The empirical work requires the use of various financial databases. Additionally, the candidate should feel comfortable in the use of a statistical software program, such as STATA.

### Introductory Literature:

Alti, A. (2005): IPO Market Timing, Review of Financial Studies 18, 1105-1138.

Benveniste, L. M., Ljungqvist, A. P., Wilhelm, W. J., Yu, X. (2003): Evidence of Information Spillovers in the Production of Investment Banking Services, *Journal of Finance 58*, 577-608.

Chemmanur, T. J., He, J. (2011): IPO Waves, Product Market Competition, and the Going Public Decision: Theory and Evidence, *Journal of Financial Economics* 101, 382-412.

Helwege, J., Liang, N. (2004): Initial Public Offerings in Hot and Cold Markets, *Journal of Financial and Quantitative Analysis 39*, 542-560.

Lowry, M., Schwert, G. W. (2002): IPO Market Cycles: Bubbles or Sequential Learning?, *Journal of Finance 57*, 1171-1198.

Ritter, J. R. (1984): The "Hot Issue" Market of 1980, Journal of Business 57, 215-140.

Advisor: Paris Tsotsonos









# Topic R2: Dividends and Share Repurchases – An empirical Analysis of the Substitution Hypothesis in the US

Over the last two decades, stock repurchases have become increasingly important in the United States (cf. Skinner (2008)). Today, share repurchases are conducted by the majority of firms on a regular basis and have about the same magnitude as dividends. Although dividends and share repurchases are theoretically substitutes the literature finds conflicting results regarding the relation between dividends and share repurchases. Brav et al. (2005) find that dividends are on par with the investment decision while repurchases are determined by the residual cash flow. Jagannathan et al. (2000) show that share repurchases are not replacing dividends but are rather used as a complement to pay out short-term cash flows. In contrast, Grullon and Michaely (2002) confirm the substitution hypothesis and find that share repurchases are financed with potential increases in dividends, i.e. with funds that would otherwise have been used to increase dividends.

The first task in this thesis is to give a detailed literature overview about the conflicting findings regarding the validity of the substitution hypothesis. Since 2004, the SEC requires US listed corporations to report monthly repurchases in their quarterly filings (10-Q/10-K). The change in reporting requirements allows for a precise determination of actual repurchases while prior studies use approximations of repurchases based on quarterly data about the number of shares outstanding which are likely to be biased (cf. Banyi et al. (2008)). Therefore, the empirical part should analyze the validity of the substitution hypothesis in the period from 2004 to 2011. Furthermore the source of funding (e.g. permanent vs. temporary income) of dividends and repurchases should be identified.

A proprietary raw dataset of monthly repurchases is available at the University of Mannheim. A crosschecking and editing of the data will however be required. All further databases (CRSP, Compustat, Capital IQ, SDC M&A) are as well accessible at the University of Mannheim.

**Preliminaries:** Basic knowledge (or ability/willingness to acquire basic knowledge) in econometrics and STATA.

## Introductory Literature:

Banyi, M. L., E. A. Dyl, and K. M. Kahle, 2008, Errors in estimating share repurchases, Journal of Corporate Finance, Vol. 14, 460-474.

Brav, A., Graham, J. R., Harvey, C. R., and R. Michaely, 2005, Payout policy in the 21<sup>st</sup> dentury, Journal of Financial Economics, Vol. 77, 483-527.

Grullon, G., and R. Michaely, 2002, Dividends, Share Repurchases, and the Substitution Hypothesis, Journal of Finance, Vol. 57, 1649-1684.

Jagannathan, M., Stephens, C. P., and M. S. Weisbach, 2000, Financial flexibility and the choice between dividends and stock repurchases, Journal of Financial Economics, Vol. 57, 355-384.

Skinner, D. J., 2008, The evolving relation between earnings, dividends, and stock repurchases, Journal of Financial Economics, Vol. 87, 582-609.

Advisor: Alexander Hillert









# **Topic R3:** Announcement Returns of Share Repurchase Programs – An empirical Analysis in the US

Over the last two decades, stock repurchases have become increasingly important in the United States (cf. Skinner (2008)). Today, share repurchases are conducted by the majority of firms on a regular basis and have about the same magnitude as dividends. The increasing importance of repurchases as a means of payout is primarily due to changes in the regulatory environment and the higher variability in earnings. Share repurchases provide more flexibility than dividends because open-market share repurchase programs do not precommit firms to actually acquire a specified number of shares, i.e. to pay out a fixed amount of cash to shareholders. Stephens and Weisbach (1998) find that firms acquire about 70 to 80 percent of the announced repurchase volume during the three years after the announcement of the program. In this thesis the announcement returns of share repurchases programs should be analyzed. One key question is whether the market updates its expectations based on a firm's past repurchase behavior. Furthermore, the market reaction to different types of repurchase programs (open market repurchase program, accelerated repurchase program, tender offer, etc.) should be analyzed. While accelerated share repurchase programs are completed within few months open market repurchase programs provide much more flexibility to the management regarding the degree and the speed of completion.

The first task in this thesis is to give a literature overview about the announcement of share repurchase programs (determinants of repurchase program announcements, short-term and long-term announcement returns, etc.). The empirical part should focus on the short-term announcement returns of repurchase programs and identify factors that influence the announcement returns (e.g. completion rates of previous repurchase programs and type of repurchase). Since 2004, the SEC requires US listed corporations to report information about repurchase programs (announcement date, maximal repurchase volume, method of repurchase, etc.) and actual monthly repurchases in their quarterly filings (10-Q/10-K). A proprietary dataset of actual monthly repurchases is available at the University of Mannheim. There is also a raw dataset about repurchase program announcements which needs to be complemented. All further databases (CRSP, Compustat, Capital IQ, SDC M&A) are as well accessible at the University of Mannheim.

**Preliminaries:** Basic knowledge (or ability/willingness to acquire basic knowledge) in econometrics and STATA.

## Introductory Literature:

Banyi, M. L., E. A. Dyl, and K. M. Kahle, 2008, Errors in estimating share repurchases, Journal of Corporate Finance, Vol. 14, 460-474.

Bonaimé, A., 2010, Repurchases, Reputation, and Returns, Working Paper.

Peyer, U., and T. Vermaelen, 2009, The Nature and Persistence of Buyback Anomalies, Review of Financial Studies, Vol. 22 (4), 1693-1745.

Skinner, D. J., 2008, The evolving relation between earnings, dividends, and stock repurchases, Journal of Financial Economics, Vol. 87, 582-609.

Stephens, C., and M. Weisbach, 1998, Actual Share Reacquisitions in Open Market Repurchase Programs, Journal of Finance, Vol. 53, 313-333.

Advisor: Alexander Hillert







## UNIVERSITÄT MANNHEIM

## **Topic R4:** Contrarian Trading and Style Volatility

While the number of new funds steadily increases, research has shown that the share of skilled fund managers is dwindling at the same time. Furthermore, herding behavior among fund managers has been observed, i.e., larger groups take buy or sell decisions simultaneously. Fund managers deviating from the trading of the herds can be suspected to rely on superior information or to be overconfident about their skills or information. Examining these conflicting arguments Wei, Wermers, Yao (2012) identify those funds which trade most frequently against the crowds as contrarian funds. In their analysis of fund holdings and trades they find that contrarian funds outperform herding funds. They further analyze that this outperformance is not only due to liquidity provision effects, but can also be attributed to superior stock selection information.

The thesis is to evaluate whether contrarian funds pursuing a steady investment style show the best stock picking abilities. Since performance of managers following a steady investment style is attributable to liquidity provision effects to a lesser extent, the performance of such managers is linked stronger to their stock picking abilities.

## **Requirements:**

We expect the candidate to show a sound knowledge of the theory of asset pricing and statistics. The empirical work requires the use of CRSP, Thomson-Reuters, Compustat and Morningstar Direct databases (access will be provided). We recommend that the candidate feel comfortable in the use of a statistical software program (such as Stata).

## Literature:

Wei, K. D.; Wermers, R. and T. Yao (2012): Uncommon Value: The Characteristics and Investment Performance of Contrarian Funds, Working Paper.

Lakonishok, J.; Shleifer, A. and R. Vishny (1992): The impact of institutional trading on stock prices. *Journal of Financial Economics*, 32, pp. 23-43.

Brown, K. C.; Harlow, W. V. and H. Zhang (2011): Investment Style Volatility and Mutual Fund Performance, Working Paper, University of Texas, Austin.

Advisor: Lena Jaroszek









## **Topic R5:** International Mutual Fund Performance

Over the past few decades, the mutual fund industry worldwide has flourished as an investment vehicle for both retail and institutional investors. The assets managed have grown from \$9.6 trillion at the end of 1998 to \$24.7 trillion at the end of 2010. The number of mutual funds worldwide increased from about 50,200 in 1998 to almost 70,000 in 2010.

While the global fund industry has gained importance as a whole, academic studies on the performance of mutual funds have mainly focused on the U.S. market. Several studies, among others, Fama and French (2010), document that actively managed U.S. equity mutual funds in general underperform the market, net of fees. So far, only a few studies, such as Ferreira, Keswani, Miguel, and Ramos (2011) and Ferreira, Keswani, Miguel, and Ramos (2010), investigate the performance and performance persistence of equity mutual funds in an international context.

This thesis should explore performance and performance persistence of equity mutual funds in different countries all over the world. Particular focus could be devoted to conditional performance measurement.

### **Requirements:**

We expect the candidate to show a sound knowledge in the theory of asset pricing, mutual funds, and statistics. The empirical work requires the use of the Morningstar database (access will be provided). We recommend that the candidate should feel comfortable in the use of a statistical software program (such as Stata).

## Literature:

Fama, E.; French, K. (2010). Luck Versus Skill in the Cross-Section of Mutual Fund Returns. *Journal of Finance*, 65, pp. 1915-1947

Ferreira, M.; Keswani, A.; Miguel, A.; Ramos, S. (2011). The Determinants of Mutual Fund Performance: A Cross-Country Study, Working Paper

Ferreira, M.; Keswani, A.; Miguel, A.; Ramos, S. (2011). What Explains Mutual Fund Performance Persistence? International Evidence, Working Paper

Advisor: Florian Weigert









## Topic R6: Hedge Fund Performance and Tail Risk Exposure

Empirical evidence indicates that hedge fund returns differ substantially from traditional investment vehicles, such as mutual funds. Several studies, such as Fung and Hsieh (2001) propose different dynamic risk-factors to describe the cross-section of hedge fund returns.

Contrary to the popular understanding that hedge funds are market neutral, Bali, Brown and Caglayan (2012) find that systematic risk is a highly significant factor explaining the dispersion of cross-sectional returns. In addition, Jiang and Kelly (2012) document large, persistent exposures of hedge funds to downside tail risk. In the cross-section, funds that lose value during high tail risk episodes earn average annual returns more than 6% higher than funds that are tail risk-hedged, controlling for commonly used hedge fund factors.

This thesis should explore the relationship between hedge fund performance and tail risk. In particular, it should explore whether hedge funds returns are also exposed to the lower tail dependence risk factor proposed by Ruenzi and Weigert (2012).

### **Requirements:**

We expect the candidate to show a sound knowledge in the theory of asset pricing, hedge funds, and statistics. The empirical work requires the use of the Morningstar database (access will be provided). We recommend that the candidate should feel comfortable in the use of a statistical software program (such as Stata).

### Literature:

Bali, T.; Brown, S.; Caglayan, M. (2012). Systematic Risk and the Cross-Section of Hedge Fund Returns, *Journal of Financial Economics*, forthcoming

Fung, W.; Hsieh, D. (2001). The Risk in Hedge Fund Strategies: Theory and Evidence from Trend Followers, *Review of Financial Studies*, 14, pp. 313-341

Jiang, H.; Kelly, B. (2012). Tail Risk and Hedge Fund Returns. Working Paper

Ruenzi, S.; Weigert, F. (2012). Extreme Dependence Structures and The Cross-Section of Expected Stock Returns, Working Paper

Advisor: Florian Weigert









#### Linking Fund Flow, Market Liquidity and Asset Prices **Topic R7:**

Liquidity costs tend to be fragile and linked to price changes, i.e. they tend to suddenly jump to high levels while prices drop. Often these extreme events happen simultaneously for many securities. For instance, on 'Black Monday' in 1987 – with no apparent reason – prices for many securities dropped sharply while illiquidity increased. One reason for these extreme contagion effects could be the theoretical mechanism suggested by Brunnermeier/Pedersen (2009): An initial loss causes funding problems for speculators (e.g. leveraged hedge funds). In order to meet margin calls, funds liquidate stocks. This further depresses prices of existing positions and hence amplifies the problem. Another implying effect after an initial loss could be fund outflows, as analyzed by Coval/Stafford (2007), i.e. performance-sensitive investors demanding back their money, which further increases losses on existing positions and so on. Thus, empirical observations and theoretical explanations prompt the question: What is the nature of link between the behavior of funds and extreme liquidity crises?

The goal of this thesis is to review and classify theories about destabilizing mechanisms linking the behavior of speculators - specifically funds - and market liquidity during crises. Additionally, an empirical study, testing the relationship between fund flows (and/or other fund-related variables) and stock liquidity should be conducted.

## **Requirements:**

The empirical work for this topic requires the use of statistical software (e.g. Stata), elementary manipulation of data (e.g. the calculation of Amihud's illiquidity ratio from return, price, and volume data) and the application of econometric/statistical methods. Some experience in this area would be helpful.

### Literature:

Brunnermeier, M.K., L.H. Pedersen (2009): Market Liquidity and Funding Liquidity, Review of Financial Studies, 22(6), pp. 2201-2238.

Krishnamurthy. A. (2010): Amplification Mechanisms in Liquidity Crises, American Economic Journal: Macroeconomics, 2(3), pp.1-30.

Coval, J., E. Stafford (2007): Asset Fire Sales (and Purchases) in Equity Markets, Journal of Financial Economics, 86, pp. 479-512.

Koch, A.; S. Ruenzi, L. Starks (2010): Commonality in Liquidity: A Demand-Side Explanation, Working Paper.

Goyenko, R.Y., C.W. Holden, C.A. Trzcinka (2009): Do liquidity measures measure liquidity?. Journal of Financial Economics, 92(2), pp. 153-181.

Amihud, Y., H. Mendelsohn, L.H. Pedersen (2005): Liquidity and Asset Prices, Foundations and trends in Finance, 1(4), pp. 269-364

#### Advisor: **Michael Ungeheuer**





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