## Friday, September 28, 2012

4.30 PM - 6.00 PM

PhD Student Panel (Peninsula (Lobby Level))
Chair: Prof. Phelim Boyle, Wilfrid Laurier University
Andrew Karolyi, Cornell University The Do's and Don'ts of Writing Papers in Finance
Lorenzo Garlappi, University of British Columbia
Tan Wang, University of British Columbia

6.30 PM - 8.00 PM

Cocktail Reception (Oakes South Ballroom (Mezzanine Level))

## Saturday, September 29, 2012

7.00 AM - 8.30 AM

Breakfast (Oakes North Ballroom (Mezzanine Level))

8.30 AM - 10.00 AM

**1. Asset Pricing - I** (Salon A (3rd Floor)) *Chair:* Raymond Kan, University of Toronto

## Chi-squared Tests For Evaluation And Comparison Of Asset Pricing Models

Nikolay Gospodinov, Concordia University, Canada Raymond Kan, University of Toronto, Canada Cesare Robotti, Federal Reserve Bank of Atlanta, United States Discussant: Zhaogang Song, Federal Reserve Board

This paper presents a general statistical framework for estimation, testing and comparison of asset pricing models using the unconstrained distance measure of Hansen and Jagannathan (1997). The limiting results cover both linear and nonlinear models that could be correctly specified or misspecified. We propose modified versions of the existing model selection tests and new pivotal specification and model comparison tests with improved finite-sample properties. In addition, we fill an important gap in the literature by providing formal tests of multiple model comparison.

### Loss Aversion, Survival And Asset Prices

David Easley, Cornell University, United States Liyan Yang, University of Toronto, Canada Discussant: Cedric Okou, HEC Montreal

Do loss-averse investors influence asset prices in the long run? In an economy with heterogeneous investors those who are loss-averse can influence long run asset prices only if they survive, and its not obvious that they can survive in the presence of investors who do not exhibit loss aversion. This paper addresses these issues in a dynamic asset market model in which arbitrageurs have Epstein-Zin preferences. Our analysis shows that if loss aversion is the only difference in investors' preferences, then for empirically relevant parameter values, loss averse investors will be driven out of the market and thus they do not affect prices in the long run. The selection process may be slow in terms of wealth shares; but it can be effective in terms of price impacts, because of endogenous withdrawal by loss averse investors from the stock market. We also show that if investors have differing elasticities of intertemporal substitution or time patience parameters, loss

averse investors can survive and affect prices in the long run.

#### An Extension Of The Consumption-based Capm Model

Georges Dionne, HEC Montreal / Canada Research Chair in Risk Management, Canada Jingyuan Li, Lingnan University, Hong Kong

Cedric Okou, HEC Montreal, Canada

Discussant: Sebastien Betermier, McGill University

We extend the Consumption-based CAPM (C-CAPM) model to representative agents with different risk attitudes. We first use the concept of expectation dependence and show that for a risk averse representative agent, it is the first-degree expectation dependence (FED) rather than the covariance that determines C-CAPM's riskiness. We extend the assumption of risk aversion to prudence and propose the measure of second-degree expectation dependence (SED) to obtain the values of asset price and equity premium. These theoretical results are linked to the equity premium puzzle. Using the same dataset as in Campbell (2003), the estimated measures of relative risk aversion from FED and SED approximations are much lower than those obtained in the original study and correspond to the theoretical values often discussed in the literature. The theoretical model is then generalized to higher-degree risk changes and higher-order risk averse representative agents.

## 2. Equity Derivatives - I (Salon B (3rd Floor))

Chair: Phelim Boyle, Wilfrid Laurier University

### The Economic Value Of Realized Volatility: Using High-frequency Returns For Option Valuation

Bruno Feunou, Bank of Canada, Canada

Peter Christoffersen, University of Toronto, Canada

Kris Jacobs, University of Houston, United Kingdom

Nour Meddahi, Toulouse School of Economics, France

Discussant: H. Zafer Yuksel, University of Arizona

Many studies have documented that daily realized volatility estimates based on intraday returns provide volatility forecasts that are superior to forecasts constructed from daily returns only. Some recent studies also find that density forecasts based on realized volatility are superior to those based on daily data. We investigate whether these forecasting improvements translate into economic value added. In order to address this question we develop a new class of affine discrete-time option valuation models that use daily returns as well as realized volatility, and that nest the daily Heston and Nandi (2000) GARCH model as a special case. We derive convenient closed-form option valuation formulas and we assess the option valuation properties using S&P500 return and option data. We find that realized volatility reduces the pricing errors of the benchmark model significantly across moneyness, maturity and volatility levels.

#### Implied Binomial Trees With Cubic Spline Smoothing

Yisong Tian, York University, Canada

Discussant: Mascia Bedendo, Universita' Bocconi

Implied binomial trees are typically constructed by fitting a risk-neutral density (in the form of ending nodal probabilities) to observed option prices (e.g., Jackwerth and Rubinstein (1996)). This commonly used approach requires the solution of a high dimensional quadratic program with the number of unknowns (i.e., ending nodal probabilities) proportional to the number of binomial periods. In this paper, we propose a more efficient implementation of implied binomial trees by incorporating cubic spline smoothing in the quadratic program. Only a selected subset of ending nodal probabilities is treated as unknowns while the remainder is interpolated using cubic splines. We demonstrate that this smoothing method can reduce the dimension of the quadratic program substantially (thus improving numerical efficiency) and at same time maintain the level of numerical accuracy.

#### What Makes The Vix Tick?

Warren Bailey, Cornell University, United States
Lin Zheng, City College of New York, United States
Yinggang Zhou, Chinese University of Hong Kong, Hong Kong

Discussant: Xiaofei Zhao, Rotman School of Management - University of Toronto

We seek the roots of one-minute changes in VIX, an index of S&P 500 option prices, to understand risk neutral volatility and its risk premium component. Beyond leverage and risk premium effects, macroeconomic influences and some proxies for noise trading in the S&P 500 ETF market are

significant, though measures of small investor sentiment have little significance. VIX changes display negative serial correlation suggesting liquidity provision in the options market. Temporary price effects are observed around macroeconomic news releases. Though often viewed as an exogenous state variable, a significant portion of VIX variability relates to economic fundamentals and trader behavior.

## **3. M & A - I** (Peninsula (Lobby Level)) **Chair:** Gordon Sick, University of Calgary

#### Litigation In Mergers And Acquisitions

CNV Krishnan, Case Western Reserve University, United States Ronald Masulis, University of New South Wales, Australia Randall Thomas, Vanderbilt University, United States Robert Thompson, Georgetown University Law Center, United States Discussant: Ming Dong, Schulich School of Business, York University

Using hand-collected data, we examine the targeting of shareholder class action lawsuits in merger & acquisition (M&A) transactions, and the associations of these lawsuits with offer completion rates and takeover premia. We find that M&A offers subject to shareholder lawsuits are completed at a significantly lower rate than offers not subject to litigation, after controlling for selection bias, different judicial standards, major offer characteristics, M&A financial and legal advisor reputations as well as industry and year fixed effects. M&A offers subject to shareholder lawsuits have significantly higher takeover premia in completed deals, after controlling for the same factors. Economically, the expected rise in takeover premia more than offsets the fall in the probability of deal completion, resulting in positive expected gain for target shareholders. However, in general, the announcement period target stock price reaction does not seem to anticipate this positive expected gain from shareholder litigation. We find that during a merger wave characterized by friendly single-bidder offers, shareholder litigation substitutes for the presence of a rival bidder by policing low-ball bids and forcing offer price improvement by the bidder.

#### Heterogeneous Market Responses And The Listing Effect In M&a

Qingzhong Ma, Cornell University, United States David Whidbee, Washington State University, United States Wei Zhang, Ithaca College, United States Discussant: Yuanshun Li, Ryerson University

Recent literature documents that unlisted acquisitions differ from listed ones in three important aspects: the possibility of forming new blockholders, which substitutes debt as a monitoring mechanism; the liquidity discount, which mitigates managerial hubris; and the distinct deal process through which two-sided asymmetric information is revealed. Due to these differences, same firm and deal characteristics could induce heterogeneous market responses, depending on target listing status. We find that such heterogeneous responses exist in method of payment, relative size, acquirer size, leverage, and acquirer valuation. After these heterogeneous responses are incorporated, the puzzling "listing effect" disappears.

#### Has Takeover Regulation Altered Value Creation In The European M&a Market

Sapnoti Eswar, London Business School, United Kingdom *Discussant:* Alexander Dyck, University of Toronto

Takeover regulation has been implemented in different formats in different countries (Mandatory bid rule in all EU member countries vs market rule in the US). This paper extends the Burkart, Gromb and Panunzi (2000) model to stock-financed takeovers (or mergers) and tests the impact of the mandatory bid rule on cash and stock-financed takeovers. I exploit the staggered passage of adoption of the mandatory bid rule in the EU to estimate its effect on value creation. The evidence suggests that implementation of the rule leads to an increase in the premium paid for firms acquired through cash-financed transactions but not through stock-financed ones. This differential impact is due to the different levels of private benefits extraction by acquirers in cash and stock-financed takeovers.

## **4. Executive Compensation - I** (Hennepin North (Lobby Level))

Chair: Reena Aggarwal, Georgetown University

#### **Executive Stock Options: Portfolio Effects**

Vicky Henderson, University of Oxford, United Kingdom Jia Sun, Warwick Business School, United Kingdom

Since executives typically receive new grants of stock options (ESOs) each year, longer-serving executives often have portfolios of ESOs with differing strikes and maturities. Valuation models for stand-alone ESO grants have shown that trading restrictions, which force executives to bear unhedgeable risk until the options are exercised, induce earlier exercise and hence a lower cost to shareholders than in a risk-neutral setting. However, since unhedgeable risk varies non-linearly with portfolio size and composition, the executive's exercise strategy and thus also the shareholder cost of an option held as part of a portfolio depend also on the remainder of the executive's ESO portfolio. We use utility-based valuation to show that such portfolio effects matter - lowering both the moneyness required for exercise and the shareholder cost of most options in a portfolio. The proportional reduction in cost relative to stand-alone options even in the case of portfolios of only two options can be over 40% for individual options and 20% for portfolios. In contrast to a riskneutral setting, both exercise thresholds and costs depend on an option's position in the optimal exercise order: when the exercise order switches, the thresholds of options exercised earlier (later) jump down (up). Costs of options which are earlier in the exercise order are also relatively lower in a portfolio setting. An option's cost varies with the maturities and, non-linearly, with the strike prices of other options in the executive's portfolio, and is no longer monotonically decreasing in its own strike price. The model explains several empirical findings in the literature - which options are attractive to exercise first, how exercise can be induced by a new grant, and the prevalence of early exercise.

#### Compensation Gaps Among Top Executives: Evidence Of Tournament Incentives Or Productivity Differentials?

Ronald Masulis, University of New South Wales, Australia Shage Zhang, Trinity University, United States Discussant: Kai Li, Sauder School of Business, UBC

We explore the determinants of the compensation gaps between the CEO and other senior executives by comparing two competing theories based on optimal contracting, namely tournament theory and productivity theory. We find little evidence that firms design their executive compensation policies in manner consistent with tournament theory. Our strongest evidence against tournament theory is found when a succession contest is most likely to occur, such as prior to CEO turnovers and CEO retirements in particular, and also in firms that are most likely to conduct a contest for selecting their next CEO. Empirically, we find that tournament predictions have weak explanatory power in these samples. In contrast, we find substantial evidence that executive compensation is strongly linked to measures of senior executive productivity, and that productivity differentials among senior executives explain a large part of firm compensation gaps.

#### Do Firms Replenish Executives' Incentives After Equity Sales?

Tomislav Ladika, University of Amsterdam, United States

Discussant: Pierre Chaigneau, HEC Montreal

Boards grant executives equity to align their incentives with those of shareholders. Yet executive equity sales are common --- 60 percent of executives sell firm equity during their tenure --- and can cause an executive's holdings in the firm to become suboptimally low. I empirically examine whether boards restore a selling executive's incentives by shifting the composition of his subsequent pay toward more equity. Firm-level changes can cause executives to sell equity and simultaneously reduce their need for incentives. I account for such variables by comparing executives who sell equity to other top executives at the same firm who do not sell. I find that boards grant similar pay to selling and non-selling executives at the same firm, and replenish at most 10 percent of incentives lost due to a sale. This result is robust to a variety of additional reasons why the board may want a selling executive to own less equity, such as changes in the board's information about the executive or shocks to the executive's wealth. My paper suggests that boards do not maintain executives' incentives at an optimal level, as predicted by efficient contracting theory.

**5. Banking - I** (Ontario (3rd Floor)) Chair: Scott Hendry, Bank of Canada

The End Of Market Discipline? Investor Expectations Of Implicit State Guarantees

Anginer Deniz, World Bank, United States Alfred Warburton, Syracuse University, United States Discussant: Neville Arjani, Bank of Canada

#### Funding Advantage And Market Discipline In The Canadian Banking Sector

Mehdi Beyhaghi, Schulich School of Business, York University, Canada Chris D'Souza, Bank of Canada, Canada Gordon Roberts, Schulich School of Business, York University, Canada Discussant: Deniz Anginer, The World Bank

We employ a comprehensive data set and a variety of methods to provide evidence on the magnitude of large banks' funding advantage in Canada in addition to the extent to which market discipline exists across different securities issued by the Canadian banks. The banking sector in Canada provides a unique setting in which to examine market discipline along with the prospects of proposed reforms because Canada has no history of government bailouts, and an implicit government guarantee has been in effect consistently since the 1920s. We find that large banks have a funding advantage over small banks after controlling for bank-specific and market risk factors. Large banks on average pay 80 basis points and 70 basis points less, respectively, on their deposits and subordinated debt. Working with hand-collected market data on debt issues by large banks, we also find that market discipline exists for subordinated debt and not for senior debt.

#### How Does Bank Competition Affect Systemic Stability?

Deniz Anginer, The World Bank, United States Asli Demirguc-Kunt, The World Bank, United States Min Zhu, The World Bank, United States

Discussant: Miret Padovani, Vienna University of Economics and Business

Using bank level measures of competition and co-dependence, we show a robust positive relationship between bank competition and systemic stability. Whereas much of the extant literature has focused on the relationship between competition and the absolute level of risk of individual banks, in this paper we examine the correlation in the risk taking behavior of banks, hence systemic risk. We find that greater competition encourages banks to take on more diversified risks, making the banking system less fragile to shocks. Examining the impact of the institutional and regulatory environment on systemic stability shows that banking systems are more fragile in countries with weak supervision and private monitoring, with generous deposit insurance and greater government ownership of banks, and public policies that restrict competition. Furthermore, lack of competition has a greater adverse effect on systemic stability in countries with low levels of foreign ownership, weak investor protections, generous safety nets, and where the authorities provide limited guidance for bank asset diversification.

#### **6. Financial Distress** (Niagara (3rd Floor))

Chair: Lorenzo Garlappi, University of British Columbia

#### Monetary Policy And Bank Risk-taking: Evidence From The Corporate Loan Market

Teodora Paligorova, Bank of Canada, Canada Joao A.C. Santos, NY Fed & NOVA, United States *Discussant:* Pablo Moran, University of British Columbia

Our investigation of banks' corporate loan pricing policies in the United States over the past two decades finds that monetary policy is an important driver of banks' risk taking incentives. We show that banks charge riskier borrowers (relative to safer borrowers) a smaller premium in periods of easy monetary policy compared to periods of tight monetary policy. This interest rate discount is robust to borrower-, loan-, bank-specific and macroeconomic factors, as well as to different types of unobserved heterogeneity at the bank and firm levels. Using individual bank information about lending standards from the Senior Loan Officers Opinion Survey, we unveil evidence that the interest rate discount that riskier borrowers receive in periods of easy monetary policy is prevalent among banks with greater risk appetite. This finding confirms that the loan pricing discount that we observe is indeed driven by the bank risk-taking channel of monetary policy.

#### Accrual Manipulation And Earnings Management Activities Around Debt Covenant Violation

Umar Butt, McMaster University, Canada Trevor Chamberlain, McMaster University, Canada Sudipto Sarkar, McMaster University, Canada *Discussant:* Rui Dai, WRDS

This paper examines earnings management activities around debt covenant violation. We focus on accruals management and real activities manipulation behavior of managers in the quarters around the covenant violation. We expect covenant restrictions to influence these activities in the quarters surrounding and the quarter of the violation. The evidence is consistent with managers

manipulating earnings using accrual-based and real earnings management activities and provides evidence for the debt covenant hypothesis. Cross-sectional analyses reveal that managers appear to manipulate accruals in successive quarters to increase reported earnings. The evidence on the use of real activities suggests that while managers increase reported earnings in the violation quarter, they have limited discretion over the use of real earnings management techniques in the quarters surrounding the violation.

#### Herding Behavior In Bank Lending: Evidence From U.s. Commercial Banks

Chen Liu, Queen's University, Canada

Discussant: Ding Ding, University of Toronto

While numerous theories exist to explain the motivations behind herding, little empirical work has been done to document the extent that herding exists in the banks or link different hypotheses to actual bank herding behavior. This paper aims to fill the gap by applying the Lakonishock, Shleifer and Vishny (LSV) and Frey, Herbst and Walter (FHW) herding measures to U.S. commercial banks during the period from 1976 to 2010 to document bank herding behavior across the various categories of loans. I find that significant herding exists in that banks extend similar kinds of loans at the same time. Herding increased dramatically during the last financial crisis, which was part of an ongoing trend in increased herding behavior witnessed since the 1970s. I also examine how herding has changed in response to changes in macroeconomic conditions and bank financial health over the past 30 year period. While clearly bank health and macroeconomic conditions are related, I find that even after controlling for macroeconomic conditions, banks tend to herd more when they are struggling. I also find that big banks tend to herd more than small ones. Overall, the results suggest that herding is motivated by declining bank performance, and are consistent with the information asymmetry and regulatory arbitrage hypothesis.

#### 10.00 AM - 10.15 AM

#### Coffee Break (Oakes Foyer (Mezzanine Level))

#### 10.15 AM - 11.45 AM

### 1. Asset Pricing - II (Salon A (3rd Floor))

Chair: Timothy Simin, the Pennsylvania State University

#### Performance Measurement With Market And Volatility Timing And Selectivity

Wayne Ferson, USC, United States Haitao Mo, USC, United States

Discussant: Pierluigi Balduzzi, Boston College

To measure the investment performance of a portfolio manager who may engage in market timing, it is necessary to consider both market level and volatility timing behavior as well as security selection ability. We develop and implement measures that accommodate all three components. A well specified measure of performance is the sum of the three components of ability. Estimating the measures on active US mutual funds, we find that allowing for market level and volatility timing, there is no evidence of investment ability at the level of broad groups of mutual funds, or when funds are sorted by expense ratio, return gap, active share or turnover. However, sorting by factor model R-squares confirms results in Amihud and Goyenko (2011), where the low R-square funds have better performance.

#### Linear Beta Pricing With Inefficient Benchmarks

David Feldman, University of New South Wales, Australia George Diacogiannis, University of Piraeus, Greece Discussant: Raymond Kan, University of Toronto

Current asset pricing models require mean variance efficient benchmarks which are generally unavailable because of partial securitization and free float restrictions. We provide a pricing model that uses inefficient benchmarks, a two beta model, one induced by the benchmark, one adjusting for its inefficiency. While efficient benchmarks induce zero beta portfolios of the same expected return, any inefficient benchmark induces infinitely many zero beta portfolios at all expected returns. These make market risk premiums empirically unidentifiable and explain empirically found dead betas and negative market risk premiums. We characterize other misspecifications that arise when using inefficient benchmarks with models that require efficient ones.

### 2. Behavioural - I (Salon B (3rd Floor))

Chair: Warren Bailey, Cornell University

### Do Happy People Make Optimistic Investors?

Guy Kaplanski, Bar-Ilan University, Israel Haim Levy, Hebrew University of Jerusalem, Israel Chris Veld, University of Glasgow, United Kingdom Yulia Veld-Merkoulova, University of Stirling, United Kingdom Discussant: Pierre Siklos, Wilfrid Laurier University

We survey investors on their subjective sentiment-creating factors, future return and volatility subjective expectations, investment plans and actual trading. General feeling and the day of the week systematically affect expectations and investment plans. We also find causality in the effects of the perceived weather, the season of the year, and soccer results on return and volatility expectations and on investment plans. Happier individuals expect higher returns on the stock index. Contrary to theoretical predictions, return and risk subjective expectations are negatively correlated, where both are correlated with realized returns. This momentum behavior may explain the excess serial correlation in returns.

#### Ambiguity Aversion: Experimental Modeling, Evidence, And Implications For Pricing

Jan Pieter Krahnen, Goethe University Frankfurt, Germany Peter Ockenfels, Goethe University Frankfurt, Germany Christian Wilde, Goethe University Frankfurt, Germany

This paper analyzes individual attitudes towards ambiguity by experiments and provides a comparison to individual attitudes towards risk. The design of the experiments is characterized by a systematic variation of the degree of ambiguity in various settings. This allows to identify ambiguity aversion by separating the effect of risk and ambiguity, and it allows to capture different aspects of ambiguity. Different measures are developed to quantify the degree of ambiguity in a situation and individual attitudes towards ambiguity. Moreover, ambiguity is embedded in standard utility theory and a parameter of ambiguity aversion is estimated and contrasted to the parameter of risk aversion. The results obtained from the experiments suggest that: 1) ambiguity aversion exists, 2) ambiguity aversion is different from that assumed in several theories, 3) ambiguity aversion is very different across individuals, 4) ambiguity aversion is stable on an individual level across different treatments, 5) the attitudes of individual subjects concerning ambiguity correspond to their expectations about others' attitudes, and 6) ambiguity aversion differs substantially from risk aversion. Overall, the obtained results suggest that human aversion against ambiguity exists and that it is much more pronounced than human aversion against risk. This suggests that for model applications, attitudes towards ambiguity are more relevant than attitudes towards risk, having important implications for asset pricing. Finally, while most theoretical work on ambiguity builds on MEU, our results provide evidence that MEU does not adequately capture individual attitudes towards ambiguity.

#### Conditional Asset Pricing And Momentum

Thanh Huynh, Queensland University of Technology, Australia Daniel Smith, Queensland University of Technology, Australia *Discussant:* Fabricio Perez, Wilfrid Laurier University

We find that Fama and French three factors (FF3F) correctly predict returns on individual winner and loser stocks, but not at the portfolio level. Applying the conditional FF3F model at firm levels reduces the average momentum alpha by approximately 50% compared to the conditional CAPM estimate. We also examine Harvey and Siddique (2000)'s coskewness factor under conditioning information. The conditional coskewness factor, together with FF3F, can reduce the conditional CAPM alpha by 69%. If we isolate seasonality patterns from momentum, the risk-adjusted returns further decrease to only 20 bps per month with the insignificant t-statistic of 1.33. The conditional firm-level risk adjustment can also explain the returns on the intermediate-past momentum of Novy-Marx (2011) and reversal portfolios. We find that momentum and reversal are linked via the majority of their winner stocks, but vastly different in losers. The test method can explain reversal because it correctly accounts for the time-varying dynamics of loser stocks, which are the key drivers of long-run reversal. For momentum, as winners now play a much bigger role, the method also works because it successfully explains returns on the majority of winner stocks.

Chair: Lawrence Kryzanowski, Concordia University

#### Anticipation And Timing In Takeover Waves

Pablo Moran, University of British Columbia, Canada *Discussant:* Ines Gargouri, Concordia University

This paper develops a dynamic model and provides empirical evidence highlighting the interplay between announcement timing and anticipation in the context of merger waves. I find evidence consistent with the prediction that early announcements in a merger wave have a higher stock price reaction for acquirer firms. Deal quality and anticipation explain this pattern of declining abnormal returns along a merger wave. I also find support for the prediction that early deal announcements are informative about the quality of late deals. The model shows that the anticipation effects cannot be fully recovered from the subset of announcements that the researcher can observe. The link between timing and anticipation in the model poses a challenge for the interpretation of stock price reactions during acquisition announcements in a merger wave. This effect is particularly severe for late deals.

## Takeover Rumors: Returns And Pricing Of The Rumored Targets

Hsin I (Daisy) Chou, La Trobe University, Australia Gloria Y. Tian, University of New South Wales, Australia Xiangkang Yin, La Trobe University, Australia Discussant: Lawrence Kryzanowski, Concordia University

Rumors can be classified into two types according to whether they can credibly predict impending events. An analysis of takeover rumors of publicly traded US companies shows that the types of rumors are statistically distinguishable by the returns of the rumored targets before the publications of respective rumors. However, market responses to rumors on the day of and the day after the rumor's publication are statistically indifferent. Trading on takeover rumors can be profitable. Moreover, rumored targets display a different return pattern than other takeover targets, and their takeover premiums cannot be explained by the markup pricing or substitution hypothesis.

#### Matching Directors With Firms: Evidence From Board Structure Following Corporate Spinoffs

David Denis, University of Pittsburgh, United States Diane Denis, University of Pittsburgh, United States Mark Walker, North Carolina State University, United States Discussant: Melissa Toffanin, Concordia University

We analyze board structure surrounding corporate spinoffs. Our findings indicate that there are substantial differences in the composition of the boards of spun off units and post-spinoff corporate parents. There is little overlap in the two boards and the majority of the unit directors have no prior connection to the parent company. Placement on either the parent or unit board is strongly associated with a director having expertise that is unique to that firm's industry. These findings are consistent with the spinoff allowing the parent and unit firms to tailor their boards to the specific assets and operating needs of their firms. We also find that prior ties between individual directors and the CEO have a meaningful impact on the composition of both the parent and the unit board.

## 4. Governance & Regulation (Hennepin North (Lobby Level))

Chair: Arnold R. Cowan, Iowa State University

## The Impact Of Regulatory Governance Mandates On Poorly Governed Firms

Reena Aggarwal, Georgetown University, United States Jason Schloetzer, Georgetown University, United States Rohan Williamson, Georgetown University, United States *Discussant:* Duong Nguyen, University of Massachusetts Dartmouth

We identify firms that were most affected by regulatory corporate governance mandates following governance failures and compare them with control firms that were least affected. We find that affected firms had lower pre-regulation valuations than less affected firms. After affected firms adopt the regulatory mandated governance structure, there is an increase in their firm value relative to less affected firms. In the post-regulatory period, we find changes to CEO payperformance sensitivity, increases in the likelihood of CEO turnover, and improvements in earnings quality of affected firms, compared with less affected firms. We show that board monitoring increased for firms most affected by corporate governance mandates and this in turn is positively associated with firm value. We do not find the increase in firm value to be related to post-regulation differences in investment or accounting performance.

#### National Culture, Corporate Governance Systems And Firm Corporate Governance Practices

Dale Griffin, University of British Columbia, Canada Omrane Guedhami, University of South Carolina, United States Chuck Kwok, University of South Carolina, United States Kai Li, University of British Columbia, Canada Liang Shao, Hong Kong Baptist University, Hong Kong Discussant: Jiaping Qiu, McMaster University

Current firm-level corporate governance ratings measure proximity to stock market-based corporate governance systems, yet firms in relation-based corporate governance systems do not necessarily rely on the same corporate governance practices. In this paper we investigate the country-level factors that explain the cross-country variation in firm-level corporate governance. We argue and find that national culture (Individualism) explains the cross-country diversity in firm-level corporate governance better than traditionally identified factors, suggesting that Individualism effectively proxies for the type of corporate governance system. Further, we document that firm-level corporate governance ratings are not related to firm performance and are less sensitive to firm characteristics in collectivist countries, implying that these countries may have alternative governance forms that are better suited to relation-based systems but are ignored by current governance ratings. Finally, we show that country-level ownership concentration loses its effect on firm-level corporate governance when Individualism is taken into account and only matters to firm-level corporate governance for individualistic countries.

#### Political Contributions And The Severity Of Government Enforcement

Sarah Fulmer, Florida State University, United States April Knill, Florida State University, United States Discussant: Michael King, UWO Richard Ivey School of Business

Using data on political action committee (PAC) and chief executive officer (CEO) contributions combined with data on Securities and Exchange Commission (SEC) enforcement actions from 1999 through 2010, we analyze how contributions to political campaigns affect the severity of SEC (and DOJ) enforcement outcomes. We find that contributions made by either party have a significant impact on reducing the severity of enforcement outcomes, both in terms of each outcome and across outcomes. Specifically, accused executives whose firms have contributed to political campaigns via a PAC are banned as an officer for three fewer years, serve probation for five years, prison for six fewer years and are 75% less likely to receive both prison time and an officer ban (i.e., the most severe criminal and civil penalties). An analysis of the effect of campaign contributions on an index that accounts for the severity of the enforcement outcome suggests that contributions lessen the severity of the enforcement verdict by the SEC and/or the DOJ. Executives from firms whose CEOs have contributed see similar effects. Results imply that the amount contributed seems to be less important than the fact that they contributed, suggesting that perhaps there are other factors at play such as soft money contributions (i.e., before 2002) or other interactions correlated with campaign contributions that are not legally required to be disclosed.

## **5. Microstructure 1** (Ontario (3rd Floor))

**Chair:** Andreas Park, University of Toronto

#### High Frequency Trading And Price Discovery

Terrence Hendershott, Haas School of Business, University of California at Berkeley, United States Ryan Riordan, University of Ontario Institute of Technology, Canada Jonathan Brogaard, University of Washington, United States *Discussant:* Nathan Halmrast, University of Toronto

We examine the role of high-frequency traders (HFT) in price discovery and price efficiency. Overall HFT facilitate price efficiency by trading in the direction of permanent price changes and in the opposite direction of transitory pricing errors on average days and the highest volatility days. This is done through their marketable orders. In contrast, HFT liquidity-supplying non-marketable orders are adversely selected in terms of the permanent and transitory components as these trades are in the direction opposite to permanent price changes and in the same direction as transitory pricing errors. HFT predicts price changes in the overall market over short horizons measured in seconds. HFT is correlated with public information, such as macro news announcements, market-wide price movements, and limit order book imbalances.

Liquidity: What You See Is What You Get?

Vincent van Kervel, Tilburg University, Netherlands

Discussant: Michael Brolley, University of Toronto

Competition between electronic limit order books improves the overall liquidity of equity markets in most studies. However, our model shows that liquidity offered on the limit order books combined may strongly overestimate the actual liquidity available to investors. The excess is caused by high-frequency traders operating as market makers, who may duplicate their limit order schedules on several venues to increase their execution probabilities. Then, after a trade on one venue they will quickly cancel outstanding limit orders on others. These cancellations are a response to private information revealed in the initial trade, and therefore consistent with adverse selection models. The magnitude of the cancellations depends on the fraction of investors that may access several venues simultaneously, i.e., who use Smart Order Routing Technology (SORT). The reason is that market makers incur higher adverse selection costs when the investor trades at a competing venue first. Consequently, a higher fraction of SORT investors reduces the incentives of market makers to place duplicate limit orders. The cancellations occur in fragmented markets, but not in a single exchange setting. The empirical results confirm the main prediction of the model, as trades on the most active venues are followed by cancellations of limit orders on competing venues of 53% of the trade size.

#### Currency Order Flow And Real-time Macroeconomic Information

Pasquale Della Corte, Imperial College Business School, United Kingdom Dagfinn Rime, Norges Bank, Norway Lucio Sarno, Cass Business School, United Kingdom Ilias Tsiakas, University of Guelph, Canada Discussant: S. Sarah Zhang, Karlsruhe Institute of Technology

This paper investigates empirically whether currency order flow aggregates dispersed real-time macroeconomic information using a unique data set on customer order flow disaggregated across four customer groups for the G10 currencies. We first establish that customer order flow has substantial predictive ability for exchange rate returns in the context of a dynamic asset allocation strategy with endogenous transaction costs. We then find that a large part of the predictive information of order flow can be explained ex post by a time-varying combination of real-time macroeconomic fundamentals. However, standard combinations of macroeconomic forecasts fail to replicate ex ante the predictive ability of order flow as the latter outperforms the former by approximately 20% per year. This leads us to conclude that order flow provides a distinct and effective way of aggregating dispersed macroeconomic information.

**6. Bankruptcy** (Niagara (3rd Floor)) **Chair:** Gordon Roberts, York University

#### Provision Of Incentives In Chapter 11 Firms

Vidhan Goyal, HKUST, Hong Kong Wei Wang, Queen's University, Canada

Discussant: Frank Li, University of Western Ontario

We examine the use of key employee retention plans (KERP) by frms in bankruptcy. We find no support for the common perception that KERP enrich managers at the expense of creditors. On the contrary, creditor control of bankruptcies increases the likelihood of retention and incentive bonuses to managers. KERP are also more common when there is a greater probability of employees switching firms. KERP, and in particular incentives provided under such plans improve bankruptcy outcomes for creditors along several dimensions: they increase the likelihood of emergence, reduce bankruptcy duration, result in fewer violations of absolute priority rule, and improve performance upon emergence.

#### Strategic Loan Defaults And Coordination: An Experimental Analysis

Stefan Trautmann, Tilburg University, Netherlands Razvan Vlahu, De Nederlandsche Bank, Netherlands *Discussant:* Archishman Chakraborty, York University

This paper experimentally studies the impact of bank and borrower fundamentals on loan repayment. We find that solvent borrowers are more likely to default strategically when the bank's expected strength is low, although loan repayment is a Pareto dominant Nash equilibrium. Borrowers are also less likely to repay when other borrowers' expected repayment capacity is low, regardless of banks' fundamentals. We show that changes in expectations about bank and borrower fundamentals change the risk dominance properties of the borrowers' coordination problem, and that these changes subsequently explain strategic defaults. For the individual

borrower, loss aversion and negative past experiences reduce repayment, suggesting that bank failure can be contagious in times of distress.

#### Sec Regulation, Risk-taking And Financial Distress: Private Versus Public Firms

Andras Marosi, University of Alberta, Canada Nadia Massoud, York University, Canada Igor Semenenko, Acadia University, Canada

Discussant: Rahman Khokhar, McMaster University - DeGroote School of Business

Relative to their economic importance, privately held firms are underrepresented in the literature and we know relatively little about their performance in terms of financial risk and survival. Banks are natural candidates for such research since even private banks must file reports with banking regulators. We examine bank holding companies' SEC registration decision and its impact on their survival. Complying institutions tend to be larger, faster growing banks that focus on real estate and commercial lending and have greater financial risk exposure. Dynamic hazard model results show that, controlling for other characteristics, SEC registered banks are more likely to fail. Failing institutions are less profitable, riskier, less liquid and faster growing banks with concentrated loan portfolios.

#### 11.45 AM - 1.30 PM

Lunch (Keynote Speaker: Prof. Andrew Karolyi, Cornell University) (Oakes North Ballroom (Mezzanine Level))

#### 1.45 PM - 3.15 PM

## **1. Equity Risk Premium** (Salon A (3rd Floor)) *Chair:* Masahiro Watanabe, University of Alberta

#### Do Jumps Contribute To The Dynamics Of The Equity Premium?

John Maheu, Economics, University of Toronto, Canada Tom McCurdy, Rotman School of Management, University of Toronto, Canada Xiaofei Zhao, Rotman School of Management, University of Toronto, Canada Discussant: Ranjini Jha, University of Waterloo

This paper investigates whether risks associated with time-varying arrival of jumps and their effect on the dynamics of higher moments of returns are priced in the conditional mean of daily market excess returns. We find that jumps and jump dynamics are significantly related to the market equity premium. The results from our time-series approach reinforce the importance of the skewness premium found in cross-sectional studies using lower-frequency data; and offer a potential resolution to sometimes conflicting results on the intertemporal risk-return relationship. We use a general utility specification, consistent with our pricing kernel, to evaluate the relative value of alternative risk premium models in an out-of-sample portfolio performance application.

## Leverage And The Limits Of Arbitrage Pricing: Implications For Dividend Strips And The Term Structure Of Equity Risk Premia

Oliver Boguth, Arizona State University, United States Murray Carlson, University of British Columbia, Canada Adlai Fisher, University of British Columbia, Canada Mikhail Simutin, University of Toronto, Canada Discussant: Timothy Simin, the Pennsylvania State University

Negligible pricing frictions in underlying asset markets can become greatly magnified when using no-arbitrage arguments to price derivative claims. Amplification occurs when a replicating portfolio contains partially offsetting positions that lever up exposures to primary market frictions, and can cause arbitrarily large biases in synthetic return moments. We show theoretically and empirically how synthetic dividend strips, which shed light on the pricing of risks at different horizons, are impacted by this phenomenon. Dividend strips are claims to dividends paid over future time intervals, and can be replicated by highly levered long-short positions in futures contracts written on the same underlying index, but with different maturities. We show that tiny pricing frictions can help to reproduce a downward-sloping term structure of equity risk premia, excess volatility, return predictability, and a market beta substantially below one, consistent with empirical evidence. Using more robust return measures we find smaller point estimates of the returns to short-term dividend claims, and little support for a statistical or economic difference between the

returns to short- versus long-term dividend claims.

#### Do Cash Flows Of Growth Stocks Really Grow Faster?

Jason Chen, University of British Columbia, Canada Discussant: George Gao, Cornell University

Contrary to conventional wisdom, growth stocks (low book-to-market stocks) do not have substantially higher future cash-flow growth rates or substantially longer cash-flow durations than value stocks, in both rebalanced and buy-and-hold portfolios. The efficiency growth, survivorship and look-back biases, and rebalancing effect help explain the results. This finding suggests that duration alone is unlikely to explain the value premium. Using rebalanced portfolios, I find that, consistent with asset pricing models that feature countercyclical risk premiums, there is a growth premium in the cross section of stock returns. That is, risky assets with higher expected cash-flow growth rates have higher expected returns, after controlling for cash-flow risks.

## 2. Equity Derivatives-II (Salon B (3rd Floor))

Chair: Peter Christoffersen, University of Toronto

## **Understanding Equity Option Prices**

Peter Christoffersen, University Of Toronto Cbs Creates, Canada Mathieu Fournier, University Of Toronto, Canada Kris Jacobs, University Of Houston Tilburg University, United States *Discussant:* Bruno Feunou, Bank of Canada

Principal component analysis of equity options on Dow-Jones firms reveals a strong factor structure. The first principal component explains 69% of the variation in short-term equity volatility, 78% of the variation in the equity option skew and 62% of the implied volatility term structure across equities. Furthermore, the first principal component has an 88% correlation with S&P500 index option volatility, an 82% correlation with the index option skew, and a 76% correlation with the index option term structure. Based on these findings we develop an equity option valuation model that captures the cross-sectional market factor structure as well as stochastic volatility through time. The model assumes a Heston (1993) style stochastic volatility model for the market return but additionally allows for stochastic idiosyncratic volatility for each firm. The model delivers theoretical predictions consistent with the empirical findings in Duan and Wei (2009). We provide a tractable approach for estimating the model on index and equity option data. The model provides a good fit to a large panel of options on stocks in the Dow-Jones index.

#### Investor Beliefs And State Price Densities In The Crude Oil Market

Xuhui (Nick) Pan, McGill University, Canada Discussant: Scott C. Linn, University of Oklahoma

Standard asset pricing theory suggests that state price densities (SPDs) monotonically decrease with returns. We find that the SPDs implicit in the crude oil market display a time varying U-shape pattern. This implies that investors assign high state prices to both negative and positive returns. We use data of the crude oil market, where speculation and short sales are not regulated, to document how the SPDs are dependent on investor beliefs. Investors assign higher state prices to negative returns when there are more net short positions, higher dispersion of beliefs in the futures market, and higher demand for out-of-the-money put options. The increase in speculation after 2004 reinforces this effect.

#### Does Option Trading Convey Stock Price Information?

Jianfeng Hu, Baruch College, CUNY, United States Discussant: Mehdi Karoui, McGill University

When a stock options market maker executes an option order, she often goes to the stock market immediately to hedge away the underlying stock exposure. Thus, stock exposure imbalances in option transactions translate directly into order imbalances in stock trades. In this paper, I decompose the total order imbalance in stock transactions into imbalances induced by option transactions and imbalances induced by stock transactions independent of options trading activities. I find that the stock exposure imbalances from option transactions are able to predict future stock returns in the cross section. Total stock order imbalance also predicts future stock returns, but for optionable stocks, this predictability comes solely from the imbalance induced by option transactions. Once controlled for option transactions, the independent stock market transactions no longer predict future returns. The option-based stock return predictions do not reverse at long horizons, suggesting that the price impact of option trading comes from

information discovery rather than transitory price pressure. The informational benefit of option trading increases in level of information asymmetry, difficulty of short selling, and options market activeness. Trading strategies based on the option signals yield significant abnormal returns that cannot be explained by common risk factors.

#### **3. IPOs** (Peninsula (Lobby Level))

Chair: Walid Busaba, University of Western Ontario - Ivey

#### 'cold' Ipos Or Hidden Gems? On The Medium-run Performance Of Ipos

Einar Bakke, University of Gothenburg, Sweden

Discussant: Ming Dong, Schulich School of Business, York University

Over a third of Initial Public Offerings (IPOs) listing on NYSE, AMEX and NASDAQ from 1981 through 2008 accepted offer prices on or below the minimum of their initial price range. This striking number of large discounts has been given no attention in the extant IPO literature. I argue that issuers are only willing to accept such discounts if the expected returns on funds raised are exceptional, and make up for the foregone assets-in-place. If the low demand for allocations in these "cold" IPOs are a result of investors bounded rationality, then abnormal returns will be observed as the market corrects. Using a sample of more than 5000 IPOs, I document significant and robust abnormal returns up towards 5% (excluding Initial Day Returns) during the first months of trading. These abnormal returns are greater and more persistent if general market conditions are strong, which supports a bounded rationality explanation.

#### Do Industry Growth Prospects Drive Ipo Stock Performance?

Ming Dong, York University, Canada

Jean-Sébastien Michel, HEC Montréal, Canada

Discussant: Sven Fuerth, Goethe University Frankfurt - Finance Department

We examine the relation between an ex ante measure of IPO growth prospects – the industry-level analyst earnings growth forecast – and short- and long-run IPO performances, using a sample of 7,570 IPOs from 1982 to 2007. We find that in the period before the Internet bubble (1999-2000), IPOs in industries with high growth prospects earn high short-run and long-run returns up to three years after the IPO. Industry growth has the largest economic impact on IPO long-run performance among all factors we consider, and this effect is strongest among IPOs with sparse firm-level information. During the Internet bubble period, the effect of industry growth on long-run performance dramatically reverses so that IPOs in high-growth industries underperform in the long run. There is some evidence that this reversal has lingered in effect since the bust of the bubble. Our evidence suggests that barring bubble period overreaction to growth prospects, IPO investors tend to underreact to industry growth prospects, leading to superior long-run performance for firms in high-growth industries.

#### Fare Thee Well? An Analysis Of Buyout Funds' Exit Strategies

Sven Fuerth, Goethe University Frankfurt - Finance Department, Germany Christian Rauch, Goethe University Frankfurt - Finance Department, Germany *Discussant:* Andras Marosi, University of Alberta

This paper analyzes how buyout funds exit their portfolio companies following an Initial Public Offering. Using a data set of 279 buyout-backed IPOs in the United States between 1999 and 2008 including hand-collected data about each exit process, we can show when and how the buyout investors sell their shares in the portfolio companies at the time of or following the IPO, and when and how the buyout firms' managers leave the portfolio firms' board of directors. Our results show that both the buyouts' shareholdings and board seats are given up gradually over time and that capital markets react strongly negative to each singular exit step. We also find that buyout fund managers adjust their exit strategies in accordance with varying capital market environments. Exit periods are significantly shorter in stock bull market periods as compared to bear market periods.

## **4. Governance Issues in M&As** (Hennepin North (Lobby Level))

Chair: Lynnette Purda, Queen's University

#### The Other Side Of Privatization: Acquirer Performance

Ginka Borisova, Iowa State University, United States Arnold R. Cowan, Iowa State University, United States

Discussant: Chen Liu, Queen's University

Relatively little is known about how asset sales by go vernments affect the firms acquiring these

state-owned assets. Using an event study approach, we investigate the returns to acquirers from a comprehensive sample of asset sale privatization announcements in 123 countries around the world over 1984-2009. Overall, we find positive abnormal returns to acquirers of privatized assets. Returns are greater when the acquirer is located in the same country as the target and when the sale occurs in a developing nation. Abnormal returns are also higher when the acquirer itself is not a former state-owned enterprise and when equity is used as payment. For cross-border transactions, we find larger acquirer returns when the target is sold by a civil law nation but the acquirer is from a common law country. Buyers of bailed-out firms being returned to private ownership gain considerably more compared to buyers in other state divestitures; deals involving rescued companies generate average abnormal returns of 3.16% for acquirers, compared to 0.70% for all other government sales. Our results suggest that the market favors acquirers from environments associated with better corporate governance and access to capital, as well as acquirers that benefit from divesting governments driven by broad political goals rather than sale revenue maximization.

#### Exchange Trading Rules, Governance, And Trading Location Of Cross-listed Stocks

Douglas Cumming, York University, Canada Mark Humphery-Jenner, University of New South Wales, Australia Eliza Wu, University of Technology Sydney, Australia Discussant: Sean Cleary, Queen's University

This paper shows stock exchange trading rules are of central importance for the trading location of cross-listed stocks. We consider various measures of sovereign governance and shareholder rights across countries to assess other legal and institutional drivers of trading activity. The data indicate that the proportion of trades that occurs on an exchange increases at a decreasing rate with the number of stock exchange trading rules. The effectiveness of stock exchange rules increases with the strength of regulatory institutions. Further, difference-in-difference tests indicate the promulgation of MIFID, which strengthened trading rules in the EU, has increased the amount of trade in the EU.

## Corporate Governance And Risk-taking: Evidence From M&as

Shantaram Hegde, University of Connecticut, United States Dev Mishra, University of Saskatchewan, Canada *Discussant:* Frank Li, University of Western Ontario

We investigate whether governance mechanisms drive deal characteristics and merger synergy through the channel of corporate risk-taking. Specifically, we ask: Do firms with good (i.e., shareholder-friendly) governance structures and an aggressive investment policy enhance firm value by taking over targets with excessive risk avoidance? Based on widely used proxies for antitakeover provisions (ATPs) and corporate risk-taking (RISK1), we find strong evidence in a sample of about 414 U.S. M&As over 1990-2007 that poorly governed (high-ATP) bidders are characterized by lower levels of RISK1, but the risk propensity of targets is not compromised by their ATPs. Extending this analysis to external risk-taking, we find that high-ATP bidders tend to takeover low-RISK1 targets. Our results also suggest that bidders and targets with comparable ATPs and RISK1 profiles tend to merge with each other, and firms with more ATPs and lower levels of RISK1 are more likely to act as bidders rather than as targets. Both all-stock and tender offers are less likely when targets have more ATPs than do bidders. Finally, investors seem to react more favorably when acquirers with an aggressive investment policy bid for targets with excessive risk avoidance, but negatively when acquirers with a track-record of conservative investment policy bid for high-RISK1 targets. Thus, our study identifies efficient risk transfer as an important channel underlying governance transfer through takeovers.

## 5. Microstructure 2 (Ontario (3rd Floor))

**Chair:** Katya Malinova, University of Toronto

To Pay Or Be Paid? The Impact Of Taker Fees And Order Flow Inducements On Trading Costs In U.s. Options Markets

Robert Battalio, University of Notre Dame, United States Andriy Shkilko, Wilfrid Laurier University, Canada Robert Van Ness, University of Mississippi, United States Discussant: Wing Wah Tham, Erasmus University

Equity options exchanges in the United States use one of two models to execute marketable orders: the maker-taker model or the payment for order flow (PFOF) model. Exchanges utilizing the maker-taker model charge liquidity demanders a taker fee to access their liquidity. Exchanges

utilizing the PFOF model use order flow payments to attract marketable retail orders. We examine whether the agency problems associated with PFOF manifest themselves in the equity options markets. Focusing solely on execution prices, we find that the cost of liquidity on exchanges utilizing the PFOF model is 80 bps higher than on exchanges utilizing maker-taker pricing. Nevertheless, when taker fees are incorporated into the analysis, the cost of liquidity on the PFOF exchanges is 74 bps lower. Our results have two implications: (i) transparency and competition in equity options markets appear to have limited the potential agency problems, and (ii) evaluations of market quality that ignore taker fees can be misleading.

#### Hedging By Options Market Makers: Theory And Evidence

Sahn-Wook Huh, State University of New York at Buffalo, United States Hao Lin, California State University at Sacramento, United States Antonio Mello, University of Wisconsin, United States Discussant: Robert Battalio, University of Notre Dame

Market makers in financial derivative securities use a variety of hedging strategies to manage their risk exposure to unfavorable market movements. A model to analyze the effects of these hedging activities on trading strategies of informed traders and on spreads in stock and options markets indicates that hedging leads to wider spreads in both markets. The widening effect in spreads is more significant when the options market makers hedge their option positions using the underlying asset than when they use other options. A comprehensive dataset reveals empirical evidence consistent with the model in both cross-sectional and time-series contexts.

#### Identifying Cross-sided Liquidity Externalities

Elvira Sojli, Erasmus University, Netherlands Wing Wah Tham, Erasmus University, Netherlands Johannes Skjeltorp, Norges Bank, Norway Discussant: Corey Garriott, Bank of Canada

We investigate the cross-sided liquidity externality between market makers and takers, by testing the empirical implications of the Foucault, Kadan, Kandel (2012) model. We use exogenous changes in the make/take fee structure and a technological shock for liquidity takers, as experiments to identify a new type of liquidity externality and cross-side complementarities of liquidity makers and takers in the U.S. equity market. We find support for strong liquidity externalities between liquidity providers and takers. Shocks to fees of takers cause changes in the length of the liquidity cycles of both makers and takers. A change in technology that improves market takers ability to monitor the market reduces both the maker and the taker liquidity cycles. Thus, positive shocks to liquidity takers' monitoring incentives, which reduce the take cycle, are transmitted to the make cycle through cross-liquidity externalities. Our findings shed light on the way the order posting behavior of makers and takers is interrelated and on different factors that affect this relation and contribute to the on-going policy debate on the maker/taker practices in U.S. equity markets.

#### **6. Securitization** (Niagara (3rd Floor))

Chair: James Thompson, University of Waterloo

Mortgage Securitization: The Good, The Bad, Or The Irrelevant?

Gang (Nathan) Dong, Columbia University, United States

Discussant: Alan Huang, University of Waterloo

This research analyzes the effect of mortgage securitization on the real economy and housing market. I estimate the dynamic response of housing risk and real GDP to shocks of mortgage securitization and banks' ownership of mortgage-backed security (MBS), and test three hypotheses suggested in the extant literature. Using structural vector autoregression (SVAR) methodology and cross-sectional analysis, I find that securitization reduces housing risk by completing the market. Interestingly, housing risk increases when commercial banks' ownership of MBS increases. This positive relationship is inconsistent with the agency view of securitization but is consistent with the neglected risk view of mortgage securitization (Gennaioli, Shleifer, and Vishny 2011). The causal inference is drawn from a quasi-experimental design using housing data of bordering CBSA regions in neighboring states with and without the passing of anti-predatory lending laws.

When The Student Loan Abs Market Is On Fire: Near-arbitrage Opportunities And Fire-sale Insurance

Maxime Roy, Carnegie Mellon University, United States Discussant: Phelim Boyle, Wilfrid Laurier University

We document the presence of near-arbitrage opportunities in the student loan asset backed

securities (SLABS) market during the financial crisis of 2008-2009. The US federal government is well positioned to take advantage of these near-arbitrage opportunities: if it issues short-term debt to finance the purchase of SLABS when they trade below their near-arbitrage lower bounds, then the government is almost certain to make a profit on the trade. When the US government takes advantage of near-arbitrage opportunities, not only does it leads to a reduction of the national debt with near certainty, but it can help lessen the financial distress of financial intermediaries, which might reduce the severity of a financial crisis. Outside of crises, near-arbitrage lower bounds can be used to establish a guaranteed price at which the government promises to repurchase SLABS in the future. We call this measure the provision of fire-sale insurance and explain how the cost of the federal student loan program could be reduced thanks to fire-sale insurance. Finally, our results constitute convincing evidence that temporal changes in the terms, cash-down and interest rate, faced by investors that want to borrow in order to purchase financial assets cause temporal changes in the relative price of financial assets.

### Who Participates In Risk Transfer Markets? The Role Of Transaction Costs And Counterparty Risk

James Thompson, University of Waterloo, Canada Eric Stephens, University of Alberta, Canada Discussant: Liyan Yang, University of Toronto

We analyze the role of transaction costs in risk transfer markets. When these markets are in their infancy they are characterized by few contracts and high transaction costs. With high costs, we show that only hedgers exist in the market, and no asymmetric information can be present on either the quality of the risk being transferred or the quality of the counterparty to which the risk is ceded. With lower transaction costs, we show that less risk-averse "speculators" will enter the market thereby increasing risk transfer. However, less risk-averse buyers will choose to contract with relatively unstable counterparties. When transaction costs are low, we show that asymmetric information on the quality of the risk being transferred and of the quality of the counterparties can exist in equilibrium. Asymmetric information regarding seller quality (counterparty risk) will either increase or decrease the relative number of unstable counterparties in the market, depending on the severity of the information problem. Finally, we analyze our results in terms of a transaction tax which can be viewed simply as an increase in transaction costs. A tax reduces speculation and counterparty risk as well as the rents that can be extracted due to asymmetric information. However, such a tax causes risk transfer to decrease and can inhibit players from pooling when there is asymmetric information, and in extreme cases cause the market to collapse.

3.15 PM - 3.30 PM

Coffee Break (Oakes Foyer (Mezzanine Level))

3.30 PM - 5.00 PM

#### **1. International Finance** (Salon A (3rd Floor))

Chair: Louis Gagnon, Queen's University

The Economic Consequences Of The U.s. Supreme Court's Morrison V. National Australia Bank Decision For Foreign Stocks Cross-listed In U.s. Markets

Louis Gagnon, Queen's University, Canada Andrew Karolyi, Cornell University, United States Discussant: Cheol Eun, Georgia Institute of Technology

We show that the U.S. Supreme Court's ruling in the case of Morrison v. National Australia Bank in June of 2010 was associated with a statistically significant 37 basis point increase on the day in the price deviation between the U.S. cross-listed shares trading in U.S. markets and the underlying home market shares. Our sample includes more than 1,000 foreign firms from 42 different countries and comprises those cross-listed on the major U.S. exchanges (Nasdaq, New York Stock Exchange) in direct form and as American Depositary Receipts (ADRs), as well as those trading on over-the-counter (OTC) markets in sponsored and unsponsored form. The price deviations between the cross-listed and underlying home market shares widen more dramatically for those companies with a lower presence in the U.S. as measured by the fraction of global trading that takes place in U.S. markets. We interpret this evidence in the context of existing theories about why firms choose to secondarily list their shares overseas and particularly in U.S. markets.

David Lesmond, Tulane University, United States

Tin Hu, Tulane, United States

Discussant: Sahn-Wook Huh, State University of New York at Buffalo

Across 23 developed international markets, it has been shown that realized idiosyncratic volatility is negatively related to one-month ahead returns yielding more than 1% per month in abnormal returns. We extend the analysis of idiosyncratic volatility to 45 world markets, comprising 23 developed and 22 emerging markets, and find that the pricing ability of idiosyncratic volatility is critically dependent on the bid-ask spread evident in transaction prices. In effect, idiosyncratic volatility contains an appreciable liquidity component. Once we extract the bid-ask spread component, by using quote midpoint returns in the estimation or by orthogonalizing the bid-ask spread effect on the idiosyncratic volatility, we find little evidence for the pricing ability of idiosyncratic volatility. The effect is substantial with half of the abnormal performance of idiosyncratic volatility due to bid-ask spread component embedded in the estimate of idiosyncratic volatility. The common source for the pricing ability of idiosyncratic volatility around the world is liquidity, and in particular the bid-ask spread.

#### Analyst Target Price Optimism Around The World

Mark Bradshaw, Boston College, United States Alan Huang, University of Waterloo, Canada Hongping Tan, University of Waterloo, Canada Discussant: Masahiro Watanabe, University of Alberta

Using a unique analyst-location data covering 11,436 analysts from 41 countries, we find that analyst optimism in target prices is exacerbated by conflicts of interest and investment banking pressures but is mediated by country-level institutional infrastructure. This relation holds for exante and ex-post analyst optimism measures, for analyst traits related to conflicts of interest, for

firm traits related to external financing needs, and for country-level characteristics of investor protection, financial transparency, and culture.

## **3. Issues in Corporate Finance** (Peninsula (Lobby Level))

**Chair:** Jiaping Qiu, McMaster University

#### Dressing Up For Premium: A New Perspective On Cross-listing

Walid Busaba, University of Western Ontario - Ivey, Canada

Lin Guo, Suffolk University, United States

Zhenzhen Sun, Siena College, United States

Tong Yu, University of Rhode Island, United States

Discussant: (Grace) Qing Hao, University of Missouri-Columbia

An interesting phenomenon for Chinese companies that list both in China and abroad is that the overwhelming majority first go public abroad and then return to the home market at a later date. We find that when these companies return to China to issue stock and list, they experience poorer post-issuance stock and operating performance in comparison to purely domestic issuers. Also, they raise more funds relative to their sales, leave less money on the table for investors, and incur lower direct floatation costs. We find evidence that these firms engage in more severe tunneling activities and maintain higher free cash flow balances post issuance, the higher the proceeds they raise relative to sales. Our results offer a new perspective on cross-listing. Firms take advantage of the enhanced visibility and prestige associated with the foreign listing to issue shares domestically at inflated prices and favorable terms, and to raise greater proceeds than they can efficiently use.

#### The Cost Of False Bravado: Management Overconfidence And Its Impact On Analysts' Views

Lisa Kramer, University of Toronto, Canada Chi Liao, University of Toronto, Canada

Discussant: Richard Deaves, McMaster University

Prior research establishes that overconfident managers have a tendency to overestimate their firm's future performance and accordingly, to disclose information that is relatively more positive. Overconfident managers also tend to exhibit an increased willingness to initiate disclosures. Further, overconfident managers tend to overestimate the precision of their information, which leads to the disclosure of more precise information. We argue that these factors markedly influence the information environment within which market participants make financial decisions. We provide evidence of this influence by examining analysts' earnings forecasts together with Malmendier and Tate's (2005, 2008) CEO overconfidence measurements. We find that firms with overconfident CEOs are more likely to have analysts issue earnings forecasts that are optimistic relative to actual

earnings; that is, the earnings forecasts more frequently exceed the actual realized earnings than the reverse. We also find that firms with overconfident CEOs tend to have less dispersed analysts' earnings forecasts and smaller forecast errors, consistent with their having disclosed more information. Furthermore, our results suggest that Malmendier and Tate's portfolio-based and press-based measures of overconfidence may not equally reflect CEO overconfidence. Overconfidence as classified based on a CEO's portfolio holdings appear to better reflect a manager's innate overconfidence, whereas the press-based measure appears to be more prone to manipulation by managers who strategically choose to promote a confident public image. We show that managers who portray themselves to the public as confident when in fact they are not have more dispersed analyst forecasts and larger analyst forecast errors, an outcome we label the "cost of false bravado."

### Are Ivory Towers Truly Ivory? The Impact Of Knowledge On Stock Volatility

Shannon Lin, Dalhousie University, Canada Yang Ni, Shanghai Jiao Tong University, China Discussant: Chi Wan, University of Massachusetts-Boston

While firms typically innovate through R&D, it is not the only way to make progress, since firms can also gain competitive advantage by learning from others--through knowledge spillovers. This research hypothesizes that firms headquartered near a knowledge center, as defined by Carnegie Classifications' 196 leading research universities in the United States, innovate more and experience higher stock volatility. We argue that knowledge spillovers foster firms' innovative ability in an increasingly knowledge-based economy. Further, we explore the channels through which knowledge affects firm risk, and find growth to be the main mechanism at play. Controlling for industry and year effects across a large sample from 1980 to 2009, we find strong evidence in support of our hypothesis, even after taking firm R&D into account. Our results are robust to various model specifications and estimation methods, including but not limited to controls for proximity to the nearest metropolitan city, industry clustering within the same MSA, patent activity, regional demographics, and endogeneity. We are the first to identify knowledge-based innovation as a determinant of idiosyncratic risk. Consistent with Nelson and Phelps (1966), our evidence demonstrates the economic implications of human capital for firms, investors, and beyond.

## **6. Financial Crisis** (Niagara (3rd Floor))

Chair: Nadia Massoud, York University

#### Volcker Rule Restrictions On Proprietary Trading: The Impact On U.s. Bank Holding Companies

Michael King, Richard Ivey School of Business, University of Western Ontario, Canada Nadia Massoud, Schulich School of Business, York University, Canada Keke Song, School of Business Administration, Dalhousie University, Canada Discussant: Omer Mohammad, Bank of Canada

The current debate on the impact of Volcker Rule on the banking industry has prompted us to investigate the following questions: how did the US capital market perceive the passage of the Volcker rule? in anticipation of its implementation, have banks altered their investment strategies, i.e. exposures to proprietary trading? has the proposed Volcker rule caused a significant change in the banking industry's attitude towards financial risk? has the Volcker Rule impacted the efficiency of related markets, such as credit default swaps? We find that during the period from 2009 to the end of 2011, smaller BHCs have already liquidated more than 50% of their trading portfolios while there are no significant changes in their investment portfolios. Surprisingly, larger BHCs have taken the opposite action, increasing their trading assets and potentially their proprietary business while there are also no significant changes in their investment portfolios.

# Ceo Inside Debt, Risk Taking, Earnings Management, And Financial Trouble: Pre-crisis And Crisis Period Evidence From The Banking Industry

Kiridaran Kanagaretnam, McMaster University, Canada Gerald J Lobo, University of Houston, United States Ziyun (Calvin) Yang, University of Houston, United States Discussant: Yisong Tian, York University

We examine the implications of CEO inside debt holdings for bank risk taking, and income smoothing in the pre-financial crisis period. We also examine the relation between bank CEO inside debt holdings and the probability of bank failure/financial trouble during the financial crisis. Consistent with our predictions, we find a negative relation between CEO inside debt and bank risk taking, as reflected in the volatility of bank earnings, during the pre-crisis period. We also find that

banks with higher CEO inside debt engage in less income smoothing through loan loss provisions. During the crisis period, we find that banks with higher CEO inside debt are less likely to be in financial trouble, as reflected in large losses (poor performance), large loan loss provisions (low asset quality), low capital (low balance sheet strength) and bankruptcy. Our results indicate that CEO inside debt has an important effect on bank risk taking, despite the banking industry being highly regulated.

# Does The Buck Stop Here? A Comparison Of Withdrawals From Money Market Mutual Funds With Floating And Constant Share Prices

Jonathan Witmer, Bank of Canada, Canada

Discussant: Nitin Kumar, University of Maryland, College Park

Recent reform proposals call for an elimination of the constant net asset value (NAV) or "buck" in money market mutual funds to reduce the occurrence of runs. Outside the United States, there are several countries that have money market mutual funds with and without constant NAVs. Using daily data on individual fund flows from these countries, this paper evaluates whether the reliance on a constant NAV is associated with a higher frequency of sustained fund outflows. Preliminary evidence suggests that funds with a constant NAV are more likely to experience sustained outflows, even after controlling for country fixed effects and other factors. Moreover, these sustained outflows in constant NAV money market funds were more acute during the period of the run on the Reserve Primary fund, and were subdued after the U.S. Treasury guarantee program for money market funds was put in place. Consistent with the theory that constant NAV funds receive additional implicit support from fund sponsors, fund liquidations are less prevalent in funds with a constant NAV following periods of larger outflows.

#### 3.30 PM - 5.30 PM

## 2. Mutual/Hedge Funds-I (Salon B (3rd Floor))

Chair: Kee-Hong Bae, York University

## Whose Money Is Smarter? Evidence From Investors' Money Flows To Mutual Funds And Fund Classes

George J. Jiang, University of Arizona, United States H. Zafer Yuksel, University of Arizona, United States *Discussant:* Fabio Moneta, Queen's University

Existing literature documents a "smart money" effect in which investors have selection ability of mutual funds. Nevertheless, there remains a debate on whether such an effect is simply the result of stock return momentum. Using monthly fund flows during the period of 1993-2010, we show that the smart money effect for institutional funds is explained by stock return momentum, and that investors of these funds exploit the momentum effect in stock returns. On the other hand, the smart money effect for retail funds goes beyond the momentum effect in stock returns. However, there is no evidence that retail investors have the ability to identify funds with momentum style. Moreover, for retail funds, the smart money effect also varies across different fund classes and is mainly driven by investors of no-load funds.

#### Us Mutual Fund M&as

Lawrence Kryzanowski, Concordia University, Canada Ines Gargouri, Concordia University, Canada *Discussant:* H. Zafer Yuksel, University of Arizona

We study M&A activity in the US mutual fund industry over the period 1962-2009. Any improvement in abnormal performance around M&As accrues primarily to target unitholders. The risk level of acquirers increases around such transactions. An analysis of the risk-return trade-off finds that low levels of risk do not yield greater mean-variance efficient portfolios after merger, but that higher levels of risk are associated with a loss in asset allocation efficiency for unitholders in the acquirer. The analysis of success determinants finds that preand post-M&A bidder risk and an indicator of market state significantly affect the potential success of such M&As.

#### The Canadian Hedge Fund Industry: Performance And Market Timing

Peter Klein, Simon Fraser University, Canada Daryl Purdy, KCS Fund Strategies Inc., Canada Isaac Schweigert, KCS Fund Strategies Inc., Canada Alexander Vedrashko, Simon Fraser University, Canada Discussant: Blake Phillips, University of Waterloo This paper analyzes the risk and return characteristics of Canadian hedge funds based on a comprehensive database we compiled. We find that Canadian hedge funds have higher historical returns and different distributional characteristics relative to the global hedge fund indices. We also investigate market timing by Canadian hedge funds and find that they do not time the Canadian stock or bond markets, but they do time the commodity market. Our analysis shows that the unique risk characteristics of Canada's capital markets have been clearly evident in its hedge fund industry.

#### Do Mutual Fund Investors Chase False Returns?

Blake Phillips, University of Waterloo, Canada Kuntara Pukthuanthong, San Diego State University, United States Raghavendra Rau, University of Cambridge, United Kingdom Discussant: Susan Christoffersen, University of Toronto

Changes in holding period returns (HPR) reported by mutual funds are jointly and equally influenced by the most recent return observation added and the oldest end-return observation which drops from the sample. Thus, via the simple passage of time, negative end-returns drop from the sample, giving the false perception of improved current fund performance via reported HPRs. We find that mutual fund investors chase the most recent return and these "false returns" with equal aggression. This behavior is particularly irrational or naïve as these stale signals provide no new information regarding manager ability or future fund performance. Fund managers take advantage of the predictable nature of end-return effects on HPRs, preferentially timing advertising campaigns to promote positive false returns. False return-chasing is most pronounced amongst funds which advertise HPR trends and amongst funds which benefit from indirect promotion via Morningstar ratings based on HPRs. Managers further benefit from investor sensitivity to false returns by increasing fees during periods of heightened investor demand which coincide with positive false returns. The potential for performance advertising by mutual funds to be misleading for investors is a topic of debate amongst regulators. Our results are consistent with mutual funds using performance advertising to exploit less savvy investors who are unable to differentiate between the stale and current information in advertised HPRs.

## 4. Directors & Institutional Investors (Hennepin North (Lobby Level))

Chair: Jin Wang, Wilfrid Laurier University

#### Soft Shareholder Activism

Doron Levit, University of Pennsylvania, United States Discussant: Egor Matveyev, University of Rochester and University of Alberta

This paper studies the conditions under which voice and exit are effective forms of shareholder activism. Different from the existing literature, voice is interpreted as a strategic transmission of information from an activist investor to an opportunistic manager. The analysis provides several results. First, voice and exit exhibit complementarity. Second, transparency reduces the credibility of voice and thereby harms shareholder value. Third, the value of the firm can decrease with the quality of the activist's private information and increase with the cost of obtaining this information. Forth, managerial myopia unambiguously benefits shareholders if and only if the activist can voice herself. Finally, voice can be effective even when the activist is biased, and sometimes, even more effective than when the activist is unbiased.

#### Institutional Trading During A Wave Of Corporate Scandals: A "perfect Payday"?

Gennaro Bernile, University of Miami, United States Johan Sulaeman, Southern Methodist University, United States Qin Wang, University of Michigan-Dearborn, United States *Discussant:* Doron Levit, University of Pennsylvania

In this paper, we examine the role of institutional trading during the option backdating scandal of 2006-2007, a period of increased focus on questionable stock-option awarding and reporting practices. Consistent with informed trading, we find that institutional investors' abnormal trading imbalances (i.e., buy-sell volume): are negative, both in anticipation of and in reaction to firm-specific exposures; are larger in magnitude when backdating is likely a more severe issue; start to manifest earlier ahead of actual firm-specific news, the longer the public has been aware of the broader issue. The performance of institutional trades, however, indicates that their effect on the informational efficiency of prices depends on: likely severity of the exposed malfeasance; timing of trades relative to the firm's exposure; and timing of the firm's exposure relative to the broader scandal. Although, aggregate trading profits are consistent with an enhanced informational efficiency of prices of exposed firms, we also find evidence of overreaction about the consequences

of firm-specific exposures. Moreover, when the intensity of exposures increases early on, we find that backdating events spill over institutional trades on never-to-be-exposed high risk stocks and the associated profits are consistent with overreaction about the scope of the scandal. Over the course of the scandal, however, the evidence supports an efficiency enhancing role reflecting superior stock picking skills of institutional investors. Collectively, our evidence suggests institutions behave as informed traders that enhance the ex ante informational efficiency of prices around corporate scandals, but also tend to overreact to actual and intense malfeasance exposures.

#### Does Monitoring By Independent Directors Reduce Firm Risk?

Yang NI, Shanghai Jiao Tong University, China Lynnette Purda, Queen's University, Canada *Discussant:* Tatyana Sokolyk, Brock University

We ask whether an increase in the proportion of independent directors on a firm's board leads to more conservative operating decisions and whether the cumulative effect of these decisions is to reduce stock-based measures of company risk. We find support for both hypotheses and provide evidence that on the operating side, investment rates are lower, return on assets is less variable, growth opportunities are reduced, and the firm is less likely to make acquisitions as the proportion of independent directors increases. Consistent with conservative operating decisions, we also find reduced risk in the company's stock returns for firms with a greater proportion of independent directors. Idiosyncratic risk is lower and stock returns have less negative skewness, implying a lower risk of stock price crash. Our results hold under various robustness tests including the use of alternative measures of risk and incorporating controls for other board and firm characteristics that may influence the effectiveness of directors in monitoring firm management. Our findings may help to explain the failure of researchers to find evidence that independent directors enhance firm performance since conservative decisions may result in missed opportunities for risky but potentially large gains.

## How Do Firms And Directors Choose Each Other? Evidence From A Two-sided Matching Model Of The Director Labor Market

Egor Matveyev, University of Rochester and University of Alberta, United States *Discussant:* Lynnette Purda, Queen's University

This paper develops and estimates an equilibrium model that identifies the key factors explaining the allocation of directors across firms. The approach is based on a two-sided matching model that allows an identification of director and appointing firm preferences. The findings indicate that directors' choices are driven by their desire to expand their social network. Likewise, firms choose directors that increase the connectedness of their boards the most. The model is used to estimate the compensating differentials needed to attract directors with more attractive skill levels and higher quality connections. The evidence also suggests that CEO directors have lower propensity to expand their network, and choose firms with better records of recent performance. The performance of a CEO's firm does not affect his future prospects in the labor market for directorships.

# **5. Insider Trading** (Ontario (3rd Floor)) **Chair:** Brian Smith, Wilfrid Laurier University

#### Short Interest And Insider Trading: Do Insiders Learn From Outsiders?

George Gao, Cornell University, United States Qingzhong Ma, Cornell University, United States

Discussant: Vyacheslav Fos, University of Illinois at Urbana-Champaign

We present evidence that short interest strongly predicts future insider trade. The inverse relationship between short interest level and subsequent net insider demand is robust to the inclusions of controls for common private information and for other information-related firm characteristics. Our results suggest that insiders learn from the public information in short interest about their firms' future performance and incorporate this information in their own portfolio decisions. Consistent with the learning hypothesis, we find stronger effects of short interest predicting insider trade when firm's information quality is higher, when short selling constraint is tighter, and when insiders' ex-ante learning incentive is stronger.

#### Insider Trading, Stochastic Liquidity And Equilibrium Prices

Vyacheslav Fos, University of Illinois at Urbana-Champaign, United States Pierre Collin-Dufresne, Columbia University and NBER, United States

Discussant: James Thompson, University of Waterloo

We extend Kyle's (1985) model of insider trading to the case where liquidity provided by noise traders varies stochastically over time. Even though the level of noise trading `liquidity' is observable, equilibrium prices display stochastic volatility. This is because insiders choose to optimally wait to trade more aggressively when noise trading activity is higher. In equilibrium, market makers anticipate this, and adjust prices accordingly. Measures of price impact (Kyle's lambda) are therefore time-varying. More private information is revealed when volatility is higher. In time series, insiders trade more aggressively, when measured price impact is lower. Therefore, execution costs to uninformed traders can be higher when measured price impact is lower.

#### Exchange Trading Rules, Surveillance And Insider Trading

Douglas Cumming, Schulich School of Business, York University, Canada Feng Zhan, Schulich School of Business, York University, Canada Michael Aitken, Australian School of Business, University of New South Wales, Canada Discussant: Qingzhong Ma, Cornell University

We examine the impact of stock exchange trading rules and surveillance on the frequency and severity of suspected insider trading cases in 22 stock exchanges around the world over the period January 2003 – June 2011. Using new indices for market manipulation, insider trading, and brokeragency conflict based on the specific provisions in the trading rules of each stock exchange, along with surveillance of such rules, we show that more detailed exchange trading rules and surveillance over time and across markets significantly reduce the number of cases but increase the profits per case.

#### Do Brokers Of Insiders Tip Other Clients?

William McNally, Wilfrid Laurier University, Canada Andriy Shkilko, Wilfrid Laurier University, Canada Brian Smith, Wilfrid Laurier University, Canada Discussant: Feng Zhan, Schulich School of Business, York University

This paper examines the trading activity of brokerage firms that execute insider trades on the Toronto Stock Exchange. We find that on the day when insiders buy (sell), there is a significant increase in the proportion of non-insider client buying (selling) handled by the insider's brokerage firm. Since there is a normal multi-day delay in the publication of these insider trades, this is strong evidence that brokers are leaking this non-public information to their other clients. Furthermore, we find that executing brokers are also doubling their buying (selling) for their own accounts on the day of insider purchases (sales).

#### 7.00 PM - 10.00 PM

**Banquet Dinner** (Marriott Niagara Falls, Hotel Fallsview & Spa)

## Sunday, September 30, 2012

7.00 AM - 8.30 AM

Breakfast (Oakes North Ballroom (Mezzanine Level))

8.30 AM - 10.00 AM

## 1. Fixed Income (Salon A (3rd Floor))

Chair: Yisong Tian, York University

#### Understanding Term Premia On Real Bonds

Jingzhi Huang, Pennsylvania State University, United States Zhan Shi, Pennsylvania State University, United States Discussant: Xuhui Pan, Tulane University

Real bonds are a very important asset class and deciphering their risk-return relationship deepens our already extensive understanding about term premia. However, there has been little research on the dynamic behavior and economic determinants of risk premia on such bonds. This paper

takes a series of steps towards extending extant evidence on nominal bond premia to their real counterparts. First, we document empirically that the real bond risk premium changes over time and fluctuates between positive and negative values. Second, we find that the real term structure itself contains a component that, albeit undetectable from cross section of bond yields, drives risk premia. Finally, we examine the potential link between the real bond premia and macroeconomic variables. We find that macro factors associated with real estate and consumer income and expenditure can capture a large portion of forecastable variations in excess returns on real bonds. Our empirical results indicate an essential need to propose asset pricing models such that implied real yields are able to account for these stylized facts.

#### Survey Forecasts And The Time-varying Second Moments Of Stock And Bond Returns

Pierluigi Balduzzi

Chunhua Lan, University of New South Wales, Australia Discussant: Marco Rossi, University of Notre Dame

We use data from survey forecasts to decompose innovations in stock and bond returns and we model the time variation in their conditional second moments. Overall, the moments of risk premium news are responsible for most of the unconditional moments of stock and bond returns. In particular, most of the pre- to post-1997 change in the stock-bond covariance—from positive to negative—can be attributed to two factors: First, stock and bond risk premium news do not correlate as strongly (positively) in the post-1997 sample as in the pre-1997 sample. Second, the covariance between stock risk premium news and inflation news changes sign, turning from positive to negative. This paper further shows that most of the variance of the conditional moments of stock and bond returns is due to the variance of the conditional moments of risk premium news.

#### Debt Covenants And Cross-sectional Equity Returns

Yuan Wang, Concordia University, Canada *Discussant:* Hernan Ortiz-Molina, UBC

This paper investigates the impact of debt covenant protection on the cross section of equity returns. Using an innovative firm-level covenant index as a proxy for debt covenant protection, I find that firms with lower covenant index levels earn significantly higher risk-adjusted expected equity returns than do those firms with higher covenant index levels, after controlling for credit risk and other well-known risk factors. Further analysis shows that the covenant effect is more pronounced in firms where shareholders' risk-taking behavior is more severe, suggesting that debt covenants can moderate the agency problem of risk-shifting behavior of shareholders.

## 2. Behavioural - II (Salon B (3rd Floor))

Chair: Kai Li, Sauder School of Business, UBC

## Do Humans Perceive Temporal Order In Asset Returns?

Jasmina Hasanhodzic, Boston University, United States Andrew Lo, MIT, United States Emanuele Viola, Northeastern University, United States Discussant: Jason Chen, University of British Columbia

Both policymakers and academics have recently been studying whether graphical, as opposed to numerical, presentation of financial information to investors affects investors' decisions. Of particular interest is the usefulness of graphical representations of assets' performance via temporal charts of asset prices. Such charts are prevalent in financial media and investment disclosures, and are studied routinely, with the naked eye, by both casual and professional investors. This brings to the forefront a fundamental question: just what information can human beings extract from such charts? Although some anecdotal evidence has suggested that humans cannot even distinguish price charts from charts generated via a synthetic random walk, to our knowledge the above question has not previously been addressed scientifically. We make a step towards answering this question by running an experiment to test whether human subjects can differentiate between actual vs. randomized asset returns. Our experiment consists of an online video game (http://arora.ccs.neu.edu) where players are challenged to distinguish actual price charts from ``randomized" price charts obtained by randomly permuting the actual returns, or price differences. Implementing the experiment via a video game allows us to collect a large amount of data efficiently, while making the process fun for the subjects, so that they do not get tired and distort their behavior. In all but one of our eight datasets, we find statistical evidence that subjects can distinguish between actual and randomized price charts. These results show that temporal charts of asset prices convey to investors information that cannot be reproduced by

summary statistics, and call for more research on the usefulness of making such representations available to investors. Our results contrast previous anecdotal evidence. We then compare subjects' performance with autocorrelations of various moments of the data. Finally, we group subjects according to various demographic categories, and analyze their relative performance. In both cases our results reveal interesting relationships.

## Culture And R2: The Effects Of Tightness And Individualism

Cheol Eun, Georgia Institute of Technology, United States Lingling Wang, Tulane University, United States Cong Xiao, Georgia Institute of Technology, United States Discussant: Francesca Carrieri, McGill University

In this paper, we examine the effect of culture on cross-country differences in stock price synchronicity (R2). We focus on two cultural dimensions. The first, tightness-looseness (Gelfand et al., Science, 2011), relates to the external constraints on investors' behavior that helps to explain the similarity/diversity in individual behaviors within a country. The second, individualismcollectivism (Hofstede, 1980), focuses on the internal attributes that guide investor's behavior and reflects the degree to which people focus on their internal attributes to differentiate from others. Together, tightness and individualism influence the degree of inter-personal similarity vs. diversity of behaviors and the tendency to think holistically vs. analytically. These cultural attributes thus are likely to influence investment behavior and stock price synchronicity. Using stock returns of 45 countries from 1990 to 2010, we find a higher stock price synchronicity in countries with a tighter and less individualistic culture. Both market-wide and firm-specific stock return variations are lower (higher) in countries that are culturally tight (loose). Individualism, on the other hand, just increases firm-specific variations. We also find that the influence of culture on the stock price comovement is weaker in countries that are more open to trade and more integrated with the global stock market, implying that cultural exchange accompanies economic exchange, weakening the effect of national culture. Overall, our study suggests that culture is an important omitted variable in the literature that investigates cross-country differences in the stock price co-movement.

# **3. Capital Structure & Distributions - I** (Peninsula (Lobby Level)) **Chair:** Murray Frank, Department of Finance, University of Minnesota - Twin Cities

## Industry Structure And The Strategic Provision Of Trade Credit By Upstream Firms

Alfred Lehar, University of Calgary, Canada Yang Song, University of Calgary, Canada Lasheng Yuan, University of Calgary, Canada Discussant: Ashraf Zaman, Saint Mary's University

We explain trade credit financing as a strategic tool for a supplier to influence her retailer behavior in a product market, provide a new rationale for the existence as well as the contract structure of trade credit financing, and show why financially unconstrained firms occasionally finance their inventory with expensive trade credit. In our model competing supply chains deliver a homogeneous good to a market with imperfect competition where retailers have to make inventory decisions before demand is realized. When demand is weak trade credit financing makes the retailer more aggressive as he avoids having to finance unsold inventory at the high trade credit interest rate. The ex-ante expected cost of having to finance excess inventory at the high trade credit rate when demand is weak reduces retailers' optimal ex-ante inventory levels. When demand is high sales are constrained by inventory and competition is less intense. The modified product market behavior induced by trade credit financing increases the producer surplus at the expense of consumers in oligopoly markets, while we find no benefit for producers in either monopoly or perfect competition. We empirically confirm an inverse U-shape relationship of trade credit use and competition for a sample of U.S. firms.

#### Spillover Effects Of Intra-industry Bankruptcy Filings On Firms' Cash Holding Policy

Nhan Le, University of Mannheim, Germany *Discussant:* Jan Mahrt-Smith, University of Toronto

The paper finds that on average firms increase their cash holdings following the bankruptcy events of their industry peers. This financial prudence is attributed to both profitability and precautionary motives hypothesis. The magnitude of the adjustment is more pronounced after the year 1991 when Delaware bankruptcy ruling on manager's fiduciary duties changed to significantly favor the control right of secured creditors over shareholders and management (\cite{becker2010fiduciary}). In addition, I find that the bankruptcy spillover effects are stronger

(\cite{becker2010fiduciary}). In addition, I find that the bankruptcy spillover effects are stronger for firms that are in geographic proximity with the distressed firms. Our robustness test shows that

the results are less likely driven by the spurious causality caused by unobserved and underlying time trends of industry conditions. Taken together, the findings show that not only do creditors and shareholders reassess the perceived default risk of surviving firms as documented in prior literature, but so do the management of these firms. Managers update their beliefs of future business risk and respond by acquiring larger financial slack for their companies. The paper implies strong interdependence of financial policies among industry peers and emphasizes the importance of the industry network effect on firm behavior.

#### Persistent Leverage In Residual-based Portfolio Sorts: An Artifact Of Measurement Error?

Michael Mueller, Sauder School of Business, UBC, Canada Discussant: Michael Faulkender, University of Toronto

I investigate the possibility that measurement error is responsible for the documented long-run persistence in firms' leverage ratios when firms are sorted into portfolios on the basis of regression residuals. In a simple model, leverage is a function of a persistent, but stationary explanatory variable, which is observed with error. If leverage is regressed on the mismeasured variable, and regression residuals are used to sort firms into portfolios whose average leverage is then tracked over time, a mechanical long-term persistence in the portfolio leverage levels arises. This is because the estimated regression residual is now correlated with the true value of the underlying unobservable state variable, which in turn predicts leverage. In order to reproduce the residual-based leverage portfolio time series, the amount of measurement error in an underlying sole explanatory variable needs to be 25% larger than its cross-sectional variation. While this is large, it suggests that in a multi-variable model of leverage, much more moderate levels of measurement error would be sufficient for generating the stylized portfolio leverage facts. Even if measurement error in explanatory variables may not fully explain the stylized facts on its own, it nonetheless is likely to be an important contributor.

## **4. Governance Issues with Creditors and Insurers** (Hennepin North (Lobby Level)) *Chair:* Ranjini Jha, University of Waterloo

Insurer Information, Insiders And Initial Public Offering

Martin Boyer, HEC Montréal, Canada

Discussant: Ranjini Jha, University of Waterloo

Any investor faces important risk when investing in a public firm; risk is even more pronounce when investing in new public firms since relatively little is known at the time of the initial public offering. The information asymmetry problem is partially mitigated through the underpricing of the security at the time of the IPO. The goal of this paper is to examine if at the time of the IPO there is an unused source of information that could be used as a signal for the firms' short-term return. In particular, I study the predictive power of an audit that insurers conduct in firms that acquire directors' and officers' liability insurance contract (D&O insurance) to protect their managers' wealth in the event of a lawsuit against the corporation and its representatives. More precisely, I examine whether D&O insurance contracts offer a glimpse into a firm's stock market return. I find that the more a corporation pays per unit of D&O insurance coverage at the time of the IPO – a signal of its risk of lawsuit – the lower and more volatile its first year return is. This effect disappears in the second year. One implication is that D&O insurance provides information that is an unbiased signal of the firm's risk (because the insurer has a direct financial incentive to correctly assess the firm's liability risk) so that investors should find this information to be as valuable, if not more, than any rating.

## Bank Intervention, Corporate Governance And Bond Performance: Evidence From Loan Covenant Violation

Yili Lian, Baruch College and Graduate Center, City University of New York, United States *Discussant:* Umar Butt, McMaster University

By studying bond performance of nonfinancial firms with both bank loan and public bonds from 1996 through 2008, I provide evidence that bondholders benefit from bank's influence over firm corporate governance. Both long-term and short-term bond abnormal returns are significantly positive after loan covenant violation. I also find that cross-sectional abnormal bond returns are positively related to bank's incentive to influence. I provide evidence of bank's influence over corporate governance, such as forced CEO turnover and bank directors on board. I show that forced CEO turnover probability is positively related to bank's incentive to influence. Firms with forced CEO turnover or with increasing bank directors experience high long-term abnormal bond returns. Finally, I find that cross-section abnormal stock return is positively related to bank's incentive to influence. I conclude that subsequent bank influence improves corporate governance

and creates value for both public bondholders and stockholders.

#### Corporate Governance, Product Market Competition, And The Cost Of Debt Financing

Teodora Paligorova, Bank of Canada, Canada Jun Yang, Bank of Canada, Canada

Discussant: Frank Li, University of Western Ontario

This paper studies the impact of product market competition on the relationship between corporate governance and the cost of debt financing. We find that lower takeover defense at the firm level increase the cost of debt only in competitive industries. Bondholders in competitive industries charge higher cost of debt mainly because of takeover risk, while in non-competitive industries firms that are more likely to experience agency-cost-driven default pay higher cost of debt. Our results have important implications for understanding the channel through which governance affects the cost of debt. We suggest that firms in competitive industries that rely too much on the market for corporate control as a governance device are 'punished' by costlier debt.

## **5. Banking - II** (Ontario (3rd Floor))

Chair: Teodora Paligorova, Bank of Canada

#### Syndicated Loan Spreads And The Composition Of The Syndicate

Jonaha Lim, University of Missouri, United States Bernadette Minton, The Ohio State University, United States Michael Weisbach, The Ohio State University, United States Discussant: Teodora Paligorova, Bank of Canada

The past decade has seen significant changes in the structure of the corporate lending market, with non-bank institutional investors playing larger roles than they historically have played. These non-bank institutional lenders typically have higher required rates of return than banks, but invest in the same loan facilities. We hypothesize that non-bank institutional lenders invest in loan facilities that would not otherwise be filled by banks, so that the arranger has to offer a higher spread to attract the non-bank institution. In a sample of 20,031 leveraged loan facilities originated between 1997 and 2007, we find that, loan facilities including a non-bank institution in their syndicates have higher spreads than otherwise identical bank-only facilities. Contrary to riskbased explanations of this finding, non-bank facilities are priced with premiums relative to bankonly facilities of the same loan package. These premiums for non-bank facilities are substantially larger when a hedge or private equity fund is one of the syndicate members. Consistent with the notion that firms are willing to pay spread premiums when loan facilities are particularly important to the firm, we find that firms spend the capital raised by loan facilities priced at a premium faster than other loan facilities, especially when the premium is associated with a non-bank institutional investor.

#### Bank Risk-taking Following Privatization

Sana Mohsni, CARLETON UNIVERSITY, Canada Isaac Otchere, CARLETON UNIVERSITY, Canada Discussant: Arnold R. Cowan, Iowa State University

This paper examines the risk-taking behavior of privatized banks prior to and after privatization. We find that privatized banks experience a significant decrease in risk although they still exhibit higher risks than rivals. The results are robust to different measures of risk. This finding is consistent with the assertion that with the removal of government implicit guarantee and subsidies and perhaps the reduction in lending to state owned enterprises, privatized banks become more prudent. Since rival banks do not experience significant change in risk taking, the reduction in risk experienced by the privatized banks cannot be attributed to the changing market structure. Rather, it is the bank's ownership structure that affects its risk-taking behavior. Regression analysis indicates that privatization method has an impact on the risk taking behavior of banks, with banks privatized through asset sales exhibiting higher risk than those privatized through new share issue. The risk taking behavior of newly-privatized banks is also influenced by other factors such as: the speed at which the firm becomes fully privatized, the level of the country's development, and the country's legal system.

#### Portfolio Manager Ownership, Herding And Stock Returns

Nitin Kumar, University of Maryland, College Park, United States

Discussant: Jonathan Witmer, Bank of Canada

Using a new dataset on portfolio manager ownership, I analyze the "herding" (trading together)

behavior of managers, conditional on their ownership stakes in the fund. I find that funds with low and high managerial ownership have economically distinct patterns in their herding behavior. Each herd has its own distinct trading style and different qualitative and quantitative effect on stock prices. Low ownership funds herd more and engage in positive-feedback trading that is followed by stock price reversals. High ownership fund herding is followed by more stable price adjustments. These contrasting effects are accentuated in smaller stocks, where there is greater information asymmetry. Low ownership herding effects appear to dominate in the full sample where herding causes price reversal. These results reconcile seemingly contradictory findings in the literature, where some studies find that herding aids in improving informational efficiency, while other studies find that herding causes price reversal. The results are also consistent with the view that the portfolio decisions of high ownership managers are more likely to be driven by fundamental information, while that of low ownership managers are more likely to be driven by agency.

## **6. Credit Risk and Regulation** (Niagara (3rd Floor))

Chair: Jason Wei

#### Regulation Of Fair Disclosure And Credit Market

Yutao Li, University of Lethbridge, Canada Anthony Saunders, New York University, United States Pei Shao, University of Lethbridge, Canada Discussant: Viktors Stebunovs, Federal Reserve Board

This paper studies how the implementation of Regulation of Fair Disclosure (Reg FD) affects the credit market. We argue that, although disclosing private information to lenders is exempt from Reg FD, this regulation imposes an additional disclosure risk on borrowers. We expect that borrowers will reduce information disclosure and increasingly rely on the relationship lenders who have produced proprietary information about the borrowers from their prior interactions. Our empirical results show that switching to new (non-relationship) lenders becomes more expensive after Reg FD because non-relationship lenders face higher information production costs when borrowing firms decrease information disclosure. In addition, we find: borrowers are more dependent on relationship banking; lead lenders retain a larger fraction of the loans they syndicate; and, the secondary loan bid-ask spread significantly increases following the implementation of Reg FD. We interpret these findings as evidence of an increased level of information asymmetry in the credit market.

#### The Time Varying Properties Of Credit And Liquidity Components Of Cds Spreads

Simone Varotto, ICMA Centre - Henley Business School, University of Reading, United Kingdom Alfonso Dufour, ICMA Centre - Henley Business School, University of Reading, United Kingdom Filippo Coro', ICMA Centre - Henley Business School, University of Reading, United Kingdom *Discussant:* Jason Wei, University of Toronto

This paper investigates the role of credit and liquidity factors in explaining corporate CDS price changes during normal and crisis periods. We find that liquidity risk is more important than firm-specific credit risk regardless of market conditions. Moreover, in the period prior to the recent "Great Recession" credit risk plays no role in explaining CDS price changes. The dominance of liquidity effects casts serious doubts on the relevance of CDS price changes as an indicator of default risk dynamics. Our results show how multiple liquidity factors including firm specific and aggregate liquidity proxies as well as an asymmetric information measure are critical determinants of CDS price variations. In particular, the impact of informed traders on the CDS price increases when markets are characterised by higher uncertainty, which supports concerns of insider trading during the crisis.

# The Impact Of Lending Standards And Home Equity Extraction On The Non-financial Industry Dynamics And Employment Over The 1991-2010 Period

Samuel Haltenhof, Federal Reserve Board, United States Seung Lee, Federal Reserve Board, United States Viktors Stebunovs, Federal Reserve Board, United States Discussant: Pei Shao, University of Lethbridge

We examine how credit supply conditions for both firms and households affect the non-financial industry dynamics and employment. To isolate these effects, we exploit variation in lending standards and house prices across U.S. states and time. To control for omitted variable bias, we rely on differences in the degree of external finance dependence across manufacturing industries and in the sensitivity of these industries' output to changes in consumer credit. We show that changes in commercial and industrial loan and consumer installment loan lending standards by

major commercial banks and home equity extraction by households affect notably the non-financial firm dynamics and employment over the 1991-2010 period. Our results highlight the adverse effects that tightening access to credit and falling house prices over the Great Recession had on firms and employment in manufacturing industries.

#### 10.00 AM - 10.15 AM

Coffee Break (Oakes Foyer (Mezzanine Level))

#### 10.15 AM - 11.45 AM

#### 3. Capital Structure & Distributions - II (Peninsula (Lobby Level))

Chair: Alfred Lehar, University of Calgary

#### The Impact Of Globalization On Financial Policy: The Case Of Disappearing Dividends

Laurence Booth, University of Toronto, Canada

Bin Chang, University of Ontario Institute of Technology, Canada

Jun Zhou, Dalhousie University, Canada

Discussant: Peter Cziraki, University of Toronto

Globalization has had an enormous impact on the US economy. This paper looks at whether globalization is a factor that can partly explain the Fama-French (2001) disappearing dividends phenomenon. By using import penetration as a proxy for globalization, we show that firms facing more import competition are less likely to pay a dividend. Further, increasing import competition can explain about 40% of the disappearing dividends phenomenon and part of the observed substitution of share repurchases for cash dividend payments. We are the first to document such a dramatic impact of globalization on the dividend policy of US firms.

#### Investment And The Weighted Average Cost Of Capital

Murray Frank, Department of Finance, University of Minnesota - Twin Cities, United States Tao Shen, Department of Finance, University of Minnesota - Twin Cities, United States *Discussant:* Gordon Sick, University of Calgary

Empirical studies of corporate investment focus on Q, cash flow and financial constraints. Textbooks focus on the Net Present Value of an investment using the weighted average cost of capital (WACC). To reconcile the approaches we include WACC in standard investment regressions, using 440 alternative implementations of the WACC for U.S. firms from 1960 to 2010. CAPM and Implied Cost of Capital are popular ways to estimate the cost of equity, which is a key component of WACC. However, they have opposite effects in investment regressions. This difference can be traced back to implicit theoretical assumptions. Some well-known financial constraint indices are closely related to WACC.

#### Which Types Of Firms React More To A Tax Cut? Evidence From The 2003 Dividend Tax Cut

Tat-kei Lai, Copenhagen Business School, Denmark

Travis Ng, Chinese University of Hong Kong, Hong Kong

Discussant: Keke Song, School of Business Administration, Dalhousie University

The agency model of Chetty and Saez (2010) predicts that firms with stronger corporate governance are more responsive to a dividend tax cut in their dividend and investment policies. We test these predictions by exploiting the sudden and significant dividend tax cut following the Jobs and Growth Tax Relief Reconciliation Act of 2003 and the pre-tax cut variation in corporate governance standards across firms. We find that firms with stronger corporate governance raise dividends and reduce investment in response to the tax cut significantly more than firms with weaker corporate governance. These differential reactions come from differences in corporate governance standards but not differences in ownership concentration ratios.

#### 10.15 AM - 12.15 PM

## 1. Information & Earnings News (Salon A (3rd Floor))

Chair: M. Fabricio Perez, Wilfrid Laurier University

#### The Investment Value Of Management Earnings Forecasts

Takato Hiraki, Tokyo University of Science, Japan Akiko Watanabe, University of Alberta, Canada Masahiro Watanabe, University of Alberta, Canada Discussant: Vishaal Baulkaran, University of Lethbridge

We examine the economic value of management earnings forecasts by taking advantage of the unique corporate disclosure practice in Japan where listed firms regularly announce earnings forecasts upon requests by stock exchanges and the press. A calendar-time strategy using the forecasted earnings-to-price ratio earns a premium comparable to, and separate from, the value premium based on the book-to-market ratio. The premium is robust to a variety of factor and characteristic adjustments including realized and forecasted earnings momentum. The result is consistent with a model in which risk-averse investors demand a discount over a firm's fundamental value that earnings forecasts reflect.

### A Markov Switching Approach To Herding

Pierre Siklos, Wilfrid Laurier University, Canada Martin Bohl, University of Munster, Germany Arne Klein, University of Munster, Germany Discussant: Cathy Ning, Ryerson University

Existing models of market herding suffer from several drawbacks. First, measures assuming herd behavior to be constant over time are not only economically unreasonable but also badly describe the data, since only a two regime test can clearly reject a unit root in the time series of dispersions around the market. Second, existing models of time-varying herding cannot be estimated from daily or weekly data and are unable to accommodate factors explaining changes in this type of behavior. To overcome these shortfalls, we propose a Markov switching herding model. By means of time-varying transition probabilities, the model is able to link variations in herding behavior to proxies for sentiment or macroeconomic circumstances. Our evidence for the US stock market reveals that during periods of high volatility, investors disproportionately strongly rely on fundamentals rather than on the market consensus.

#### Information Intensity And The Cross-section Of Stock Returns

Xiaofei Zhao, University of Toronto, Canada Discussant: Xiaoqiao Wang, Queen's University

If a firm is expected to produce new information (value-relevant signals) more intensively, its investors bear less uncertainty and would demand a lower expected return for holding its stock. Exploiting a novel proxy for information intensity (based on U.S. firms' SEC current report filing frequency) and its cross-sectional variation, I find supporting evidence for this idea. Information intensity is a strong determinant of the cross-section of stock returns after controlling for a variety of traditional risk factors and asset pricing anomalies. Higher information intensity reduces expected uncertainty and leads to a lower expected return. On average, an information-intensitybased long-short portfolio generates an abnormal return of 5.2% per annum for large stocks, 6.6% per annum for medium-size stocks, and 8% per annum for small stocks. These novel findings suggest that a key aspect of the information structure -- the quantity of information -- could have a first order importance in affecting stock returns, consistent with theoretical predictions (for example, Easley and O'Hara (2004)).

#### Market Movements And Investor Reaction To Earnings News

Vishaal Baulkaran, University of Lethbridge, Canada Ebenezer Asem, University of Lethbridge, Canada Discussant: Carmen Stefancscu, Essec

Finance theories suggest that investors' reaction to news is sensitive to the market's condition. We investigate investors' reactions to earnings surprises when the market continues in the same state versus when it transitions to a different state. The results show that investors do not react differently to positive earnings surprises when the market continues advancing than when it continues declining, and that investors react more aggressively to negative earnings news when it continues advancing than when it continues declining. We also find that investors react more (less) aggressively to positive (negative) earnings surprise when the market transitions from a down state to an UP state than when the reverse transition occurs. These results suggest that the string of news is important in determining investors' reaction to earnings news when the market continues in the same state, while the effect of market transitions on investor overconfidence is crucial during market transitions.

Chair: Susan Christoffersen, University of Toronto

## Do Mutual Funds (window) Dress Up For All Occasions? A Comparison Of Sec And Non-sec Portfolio Disclosures

Christopher Schwarz, University of California Irvine, United States

Mark Potter, Babson College, United States Discussant: Nadia Massoud, York University

In this paper, we document a substantial disparity between the effective dates of the portfolios disclosed in the Thomson Mutual Fund Holdings database and those contained in Securities and Exchange Commission (SEC) filings between 1996 and 2008. During the period of semi-annual fund disclosure requirements, we find that only forty-seven percent of portfolios in Thomson are also available in SEC filings. This rises to seventy-five percent during the period examined for which quarterly disclosure was required. For these same funds, we also document that roughly thirty percent of fund portfolios disclosed in SEC filings are missing from the Thomson database throughout the entire sample period. After collecting the 15,357 missing portfolios, we find that SEC disclosed portfolios reveal more evidence of window dressing. Based on a comparison of SEC and non-SEC disclosed portfolios, we estimate that this window dressing has little cost for fund investors. Finally, we discuss the implications of these findings on academic research.

## The Costs Of Etf Membership: Valuation Effect Of Etfs On Underlying Firms

Kee-Hong Bae, York University, Canada Jun-Koo Kang, NTU, Singapore Jin Wang, Wilfrid Laurier University, Canada *Discussant:* Aditya Kaul, University of Alberta

In this paper we investigate the effect of ETFs on the value of their underlying stocks and the channels through which ETFs impact firm value. We find a negative and significant impact of ETFs on firm value, especially for small firms. We also find that ETFs increase underlying stock's systematic volatility, short interest, stock liquidity, and institutional ownership, particularly those of small firms. Among these stock characteristics, systematic volatility and short interest turn out to be the most important channels through which ETFs impact firm value. Furthermore, while stock liquidity and institutional ownership generally have a positive effect on firm value, the increases in these stock characteristics induced by the increases in ETFs have a negative valuation effect because they result in an increase in short-selling activities by investors.

# On Incentives To Stand Out In The Family: Deviation From A Family Portfolio And Mutual Fund Performance

Mikhail Simutin, University of Toronto, Canada

Discussant: Saurin Patel, Desautels Faculty of Management, McGill University

Preferential treatment of top-performing funds in a mutual fund family provides skilled managers with strong incentives to hold portfolios that differ from those of their family peers. I show that U.S. equity mutual fund managers who actively deviate from their family portfolios on average perform significantly better after controlling for risk using various performance measures. Such managers make more profitable trade decisions by investing in stocks in which they have informational advantages. I show that deviation from a family portfolio is a new dimension of active management and argue that it proxies for superior managerial skill. Overall, the evidence supports the value of active mutual fund management.

## Risk-taking And Retirement Investing In Mutual Funds

Susan Christoffersen, University of Toronto, Canada Mikhail Simutin, University of Toronto, Canada *Discussant:* Kee-Hong Bae, York University

Retirement and non-retirement savings are bundled together in the same mutual fund in the US although there are many dimensions along which these investors differ. In particular, we document that the flow-performance relation declines and becomes absent as the proportion of retirement money increases. Interestingly, the presence of price-insensitive investors corresponds to greater risk-taking by managers. Using difference-in-difference tests, we find strong evidence that funds raise their market risk exposure substantially in response to the increase in retirement money in the fund and that this larger risk appetite is not compensated for with improved excess returns on retirement accounts. Our results suggest that bundling of retirement and non-retirement assets can create serious agency conflicts between the investor bases and with the manager. Absence of a regulatory requirement to disclose the composition of the two asset groups leaves investors unaware of potential conflicts and can complicate retirement planning.

#### **4. Executive Compensation - II** (Hennepin North (Lobby Level))

Chair: Martin Boyer, HEC Montréal

## Providing Risk-taking Incentives When Managers Have Heterogeneous Risk Aversion

Pierre Chaigneau, HEC Montreal, Canada

Discussant: Tomislav Ladika, University of Amsterdam

We consider the problem of providing effcient investment incentives to managers with heterogeneous risk aversion. We show that bonuses and dismissals serve two complementary purposes. First, the structure of performance-based bonuses is set to provide effort and risk-taking incentives, for a given level of managerial risk aversion. Second, performance-based but random dismissals without compensation are used to screen out managers with high risk aversion. Our model notably suggests a theory of employment and compensation in the investment banking industry which can explain a number of apparent anomalies.

#### Ex Ante Ceo Severance Pay And Risk-taking In The Financial Services Sector

Kareen Brown, University of Waterloo, Canada Ranjini Jha, University of Waterloo, Canada Parunchana Pacharn, Brock University, Canada

Discussant: Kiridaran Kanagaretnam, McMaster University

We examine 407 CEO severance contracts for financial services firms from 2002 to 2008 and find that ex-ante severance pay is positively associated with risk-taking after controlling for the incentive effects provided by equity-based compensation. We report a positive contemporaneous and causal relation between the amount of severance pay and risk-taking. We also find that exante severance pay encourages excessive risk-taking, measured using metrics such as the distance-to-default, the z-score, and tail risk. Our results support the risk-shifting argument and provide evidence supportive of recently enacted reforms on severance pay in the financial sector.

#### Does Independent Advice To The Board Affect Ceo Compensation?

Hamed Mahmudi, University of Oklahoma, United States

Discussant: Jun Yang, Bank of Canada

This paper investigates the role external advice plays in the board's determination of CEO compensation. Specifically, I examine whether the Pay-Performance Sensitivity and the Relative Performance Evaluation component of a CEO's contract increase with the degree of compensation consultant independence. I use a unique sample of Canadian firms which allows me to directly measure the impact of non-compensation related consulting fees on compensation advice. For identification, I exploit a "quasi-natural experiment" provided by the creation of an independent consultant as a spin-off from an affiliated consultant. Switching to an independent consultant is associated with relative increases of 22% in Pay- Performance Sensitivity and 28% in Relative Performance Evaluation of CEO contracts. Despite the benefits of independent advice, independent consultants may not be hired due to higher fees, the influence of powerful CEOs, or because boards already possess adequate expertise.

#### Promoting The Quiet Life Or Risk-taking? Ceo Severance Contracts And Managerial Decision-making

Chris Muscarella, Penn State University, United States Jing Zhao, North Carolina State University, United States

Discussant: Pierre Chaigneau, HEC Montreal

Do ex-ante CEO severance contracts induce managerial shirking or valuable risk-taking? We develop competing hypotheses within a principal-agent framework that considers severance contracts as part of the incentive mechanisms employed by risk-neutral shareholders to monitor and motivate managers who are risk-averse, and connect severance contracts with subsequent managerial decision-making and firm value. We incorporate the dual roles of severance agreements in the model: offering the manager a severance contract reduces managerial costs of shirking while simultaneously decreasing the manager's private costs of risk-taking. Using a unique dataset on S&P 500 CEO severance agreements between 1992 and 2010, we empirically examine the impact of ex-ante severance contracts on managerial investment, risk-taking, and firm value. We find that firms with a CEO severance contract spend less on both discretionary expenses including R&D, advertising, and SG&A, and capital expenditures and PP&E than their peers without a contract, thereby hindering patent innovation and R&D efficiency. CEOs with severance contracts are also more likely to seek less risk retaining larger employee count relative to asset base or sales, lower leverage, and more industry but less geographic diversifications, leading to lower future stock return volatilities relative to industry peers. Subsequently, these firms suffer

substantial declines in shareholder value, operating performance and abnormal stock returns. This negative value effect of severance contracts, however, is remarkably reduced in firms with stronger governance, greater growth opportunities, higher risk, and in more competitive industries. Collectively, our findings suggest that severance agreements, rather than motivating mangers towards risky but value-increasing decisions, reduce discipline, induce managerial shirking and destroy shareholder value.

## **5. Informational Asymmetry and Asset Prices** (Ontario (3rd Floor)) *Chair:* Sabrina Buti, Rotman School of Management - University of Toronto

#### An Analysis Of The Amihud Illiquidity Premium

Michael Brennan, UCLA, United States Sahn-Wook Huh, State University of New York at Buffalo, United States Avanidhar Subrahmanym, UCLA, United States *Discussant:* Amber Anand, Syracuse University

This paper analyzes the Amihud (2002) measure of illiquidity and its role in asset-pricing. It is shown first that the effect of illiquidity on asset pricing is clarified by using the turnover version of the Amihud measure and including firm size as a separate variable. When we decompose the Amihud measure into elements that correspond to positive (up) and negative (down) return days, we find that in general, only the down-day element commands a return premium. Further analysis of the up- and down-day elements using order flows shows that a sidedness variable, which captures the tendency for orders to cluster on the sell side on down days, is associated with a more significant return premium than the other components of the Amihud measure.

#### Price Memory And Information Trade-offs

Efstathios Avdis, University of Alberta, Canada *Discussant:* Erfan Danesh Jafari, University of Toronto

I develop a model of information acquisition in dynamic financial markets. In equilibrium, prices reflect investors' expectations about the cash flows and the supply of a risky asset. Contrary to static models, supply has a significant informational role in dynamic markets because it predicts future prices. This happens in a dynamic environment because a distinguishing feature of how agents learn about economic fundamentals is remembering past price observations. This makes prices depend not only on information about cash flows but also on past prices and therefore also on past noisy supply. Investors decide whether to obtain superior information about dividends at a cost, which additionally enables them to learn information about supply. Investors who decide to be uninformed learn about dividends and supply from prices. I show that as more informed investors enter the economy, prices become more informative about dividends but less informative about supply. This trade-off creates complementarities in information acquisition. As a result, the information market has multiple equilibria, each with different implications for the financial market.

#### Information Asymmetry And Accounting Restatement: Nyse-amex And Nasdaq Evidence

Duong Nguyen, University of Massachusetts Dartmouth, United States Trib Puri, University of Massachusetts Dartmouth, United States Discussant: Kevin Li, University of Toronto

We examine the impact of accounting restatement announcement on firms' value and information asymmetry for both auction market (NYSE-AMEX) and dealer market (NASDAQ) using a public sample of restatement announcements from 1997 to 2005. In both markets, we document economically and significantly negative mean cumulative abnormal returns around the announcement dates. The restatements attributed to auditors are associated with more negative returns than the restatements attributed to management and the SEC. However, there is no significant difference between market reactions arising from the core and non-core restatements. We also find a significant increase in volume, number of transactions, average order size, volatility, and various measures of spreads after the restatement announcement indicating that restatement diminish company prospects and contribute to increased uncertainty and information asymmetry following the announcement. Finally, we find the information asymmetry in NASDAQ around the event date is less pronounced than in NYSE-AMEX.

#### **Opaque Trading And Asset Prices**

David Easley, Department of Economics, Cornell University, United States Maureen O'Hara, Johnson Graduate School of Management, Cornell University, United States Liyan Yang, Joseph L. Rotman School of Management, University of Toronto, Canada Discussant: Masahiro Watanabe, University of Alberta We construct a rational expectations equilibrium model to investigate the effect of ambiguity about hedge fund strategies on market efficiency and aggregate welfare. In our model, some traders (mutual funds) view the equilibrium trading strategies of other traders (hedge funds) as ambiguous. This ambiguity limits the ability of mutual funds to infer information from prices and affects the market performance. We use this analysis to investigate the implications of regulations that affect the amount of ambiguity about hedge fund strategies or the cost of operating a hedge fund. Our analysis demonstrates how regulations affect asset prices and welfare through their influence on opaque trading.

## **6. Credit Risk and Regulation - II** (Niagara (3rd Floor))

Chair: Madhu Kalimipalli, Wilfrid Laurier University

#### In- And Out-of-court Debt Restructuring In The Presence Of Credit Default Swaps

Mascia Bedendo, Universita' Bocconi, Italy Lara Cathcart, Imperial College Business School, United Kingdom Lina El-Jahel, Imperial College Business School, United Kingdom Discussant: Blake Phillips, University of Waterloo

This paper empirically investigates whether the availability of credit insurance via credit default swaps (CDS) affects the debt restructuring process of distressed firms, as predicted by the empty creditors theory. Looking at the restructuring outcome (distressed exchanges versus Chapter 11 filings) of a sample of rated, non-financial U.S. companies over the period 2007-2011, we do not find evidence that the access to credit insurance favors bankruptcy over a debt workout. Instead, we observe that the probability of filing for Chapter 11 is significantly associated with high leverage and short-term refinancing needs, and a simplified debt structure characterized by a high proportion of secured debt. Our results do not change once we specifically account for the liquidity of the CDS traded on the firm's debt, and are robust to the inclusion of instrumental variables. The analysis of the impact of CDS availability on recovery rates from distresses exchanges and bankruptcies also fails to uncover any evidence of distortive pressure from insured bondholders on the restructuring process.

#### Comargin: A System To Enhance Financial Stability

Jorge Cruz Lopez, Bank of Canada, Canada Jeffrey Harris, Syracuse University, United States Christophe Hurlin, University of Orléans, France Christophe Pérignon, HEC Paris, France Discussant: Madhu Kalimipalli, Wilfrid Laurier University

In this paper, we present a new collateral system, called CoMargin, for derivatives exchanges. CoMargin depends on both the tail risk of a given market participant and its interdependence with other participants. This collateral system aims at internalizing market interdependencies and enhancing the stability of the financial system. CoMargin can be estimated using a model-free and scenario-based methodology, validated using formal statistical tests, and generalized to any number of market participants. We assess and illustrate our methodology using proprietary data from the Canadian Derivatives Clearing Corporation (CDCC). Our data set includes daily observations of the actual trading positions, margin requirements and profits-and-losses of all forty-eight clearing members of the CDCC from January 2002 to March 2011. We show mathematically and empirically that CoMargin outperforms existing margining systems, especially when both trading similarity and comovement among underlying assets increase.

## How Does Supply-side Flexibility Affect Loan Financing? Evidence From Uncertainty Shocks

Mohammad Rahaman, Sobey School of Business - Saint Mary's University, Canada Ashraf Zaman, Sobey School of Business - Saint Mary's University, Canada *Discussant:* Subhankar Nayak, Wilfrid Laurier University

Why do some firms weather economic storms better than others? Using variations in aggregate economic and government-policy related uncertainties, this paper studies the interaction between supply-side flexibility and funding liquidity for a sample of U.S. manufacturing firms. We find that banks tighten lending standards during uncertainty shocks reducing funding liquidity for firms, but that the funding liquidity decreases disproportionately more for firms with lower flexibility in sourcing inputs from its suppliers. Given the prevalence of increasingly complex supply chains in modern production processes, our results suggest that the supply-side flexibility of a borrower has significant bearings on debt contracting and is an important channel via which financial intermediaries transfer the impact of uncertainty shocks to the real sector.

#### The Role Of Leverage In Hedge Funds Failure During The 2008 Financial Crisis

Laleh Samarbakhsh, Wilfrid Laurier University, Canada Discussant: Mohammad Rahaman, Sobey School of Business - Saint Mary's University

This research investigates the role of financial leverage, including the use of margins and derivative products, in the hedge fund failure during the 2008 financial crisis. Motivated by failure of the two Bear Sterns hedge funds at the beginning of the financial crisis in 2007, this paper examines why some hedge funds failed during and after the recent financial crisis, and why some also survived. Leverage is defined in three ways, as (a) debt/equity ratio, (b) the use of margins, and (c) the use of derivative products. The research uses a 14-year panel dataset of 10,076 failed and survived hedge funds from the Lipper TASS Hedge Fund database. The empirical analysis, using probit regression, shows that during the financial crisis period, financial leverage is more significant in increasing the probability of failure, whereas financial leverage becomes insignificant in explaining the probability of hedge fund failure during non-crisis periods after controlling for fund structure, size, incentive fees, prior performance, and off-shore registration. The results are consistent with Ang et al. (2011) who find that financial leverage decreases during financial crisis period because the funds sell some assets to meet their margin requirements and that forces some funds into liquidation. Further analysis shows that some hedge funds which follow specific styles are also more likely to fail during the financial crisis.

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