

# The Exchange

NEWS FROM THE FINANCIAL ECONOMICS INSTITUTE AT CLAREMONT MCKENNA COLLEGE

VOLUME 24, FALL 2017

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## Director's Report

by Joshua Rosett



Joshua Rosett

WE HELD THE release date of the Fall 2017 FEI Newsletter until Winter 2018, but with the good reason that we wanted to wait for the end of year totals on our endowment fund drive. During the 2016-17 academic year, the FEI Board of Advisors approved a goal of raising half a million dollars by the end of 2017, including \$100,000 for the Terri Van Eaton Fund. These contributions would then be matched by BMGI funds set aside for this purpose. Securing funding to support many of our essential but costly mission-driven objectives has long been a necessary step for the FEI, and the Board took formal steps in this direction last year with the appointment of an Advancement Committee and formally setting the target for 2017. I am delighted to report that we reached and exceeded our goal! To date, we have new cash on hand and commitments for \$560,488 towards the FEI endowment, including \$100,090 for the Terri Van Eaton fund, plus the match from BMGI.

I am so grateful both to the people who worked so hard to make this happen, and to the many people who gave generously to support the FEI. In particular, several people deserve recognition for their time and energy raising funds. The FEI Advisory Board

created an Advancement Committee composed of Alan Heuberger '96, Susan Matteson King '85 P'18, and Robert Thomas '99. These three people contacted so many of our constituents and really drove the process. Kaitlyn Plummer from the CMC Advancement team was instrumental in providing the information necessary to make this all happen. I owe a huge thank you to Colleen Bartlett, AVP of Advancement, for her continuous support of all aspects of the drive. None of this could have happened without the concerted efforts of all of these people.

So many people gave to our endowment over this period. Within this newsletter we provide an honor roll of those who made contributions. It is due to your generosity that we reached both goals. These are remarkable achievements for such a short period of time. I thank you for your support. More importantly, I thank you on behalf of so many current and future CMCers who will benefit from your contributions. The FEI provides great opportunities for our students, and these new funds will allow us to do even more. Finally, special thanks are due to BMGI for contributing the \$500,000 match to make the total enhancement of our endowment over a million dollars.

Our mission calls for support of research, oversight of the Financial Economics Sequence, and many co-

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FINANCIAL ECONOMICS  
INSTITUTE

CLAREMONT MCKENNA COLLEGE

*The mission of the Financial Economics Institute is to provide unique research, curricular and extracurricular opportunities engaging the Claremont Colleges in both the theory and practice of financial economics. The FEI administers three programs directed at these objectives. First, the FEI supports collaborative, advanced student/faculty research in financial economics and overlapping disciplines. Second, the FEI oversees the Financial Economics Sequence, a unique curriculum grounded on rigorous quantitative courses in a liberal arts context, preparing students for career opportunities in finance. Third, the FEI sponsors activities for the broader community, including oversight of the Student Investment Fund, provision of databases, space and hardware for multiple purposes, and support for conferences, workshops, internships, networking trips and other events.*

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# Financial Economics Institute

## Fall 2017 Student Research Analysts

During the Fall 2017 semester, twenty-six student Research Analysts were hired to work at the FEI. The following is a list of students, their faculty advisors, and a brief description of the research projects in which they were involved or the type of tutoring they provided:

► **YASHNA BATRA '20** worked with Professor Darren Filson on a project that involved writing a code to download S-1 forms from the SEC website and then analyzing the text to distinguish platform-based firms from other types of firms and different types of platforms from each other.

► **BHAVIKA BOORAGADDA '18** worked with Professor Angela Vossmeier on a project involving systemic risk and network structure to trace the evolution (destruction and rebuilding) of the banking correspondent network system during the Great Depression and make comparisons to the recent structure.

► **SAMARTH CHAWLA '19** worked with Professor Angela Vossmeier on a project involving systemic risk and network structure to trace the evolution (destruction and rebuilding) of the banking correspondent network system during the Great Depression and make comparisons to the recent structure.

► **LINYUE (EVELYN) CHEN '19** was the Excel tutor in the FEI Lab.

► **AMBERISH (RISH) CHITRE '18** was the Bloomberg tutor in the FEI Lab.

► **HA YUN (CHLOE) CHO '19** worked with Professor Angela Vossmeier on a project involving systemic risk and network structure to trace the evolution (destruction and rebuilding) of the banking correspondent network system during the Great Depression and make comparisons to the recent structure.

► **ANTHONY DERAS '20** worked on a project with Professor Andrew Finley that looks at how the behaviors of major corporations change based on the favorability of their tax settlements, which in turn affects how much they save in taxes in the following years. In addition, he is also assisting Professor Finley with a project that tracks how non-profit organizations perform when given corporate donations.

► **ROMA FOREST '19** worked on a project with Professor Eric Helland that examined the additional safety effects of a mass litigation on pharmaceuticals. In particular, the study, which examines over 30 years of litigation and adverse events data, can provide evidence on the marginal value of litigation beyond the FDA's safety regime.

► **ZIJIN (LYDIA) FU '18** worked with Professor Yun Liu of KGI to study the effect and characteristics of executive mobility. She is also doing initial data analysis on the role of private directors on public corporate boards.

► **XINYI (CINDY) HU '19** worked with Professor Richard Burdekin to further research discrepancy between consumer and producer price movements in China, Japan and Spain and the factors that may account for both the gap and the underlying deflationary pressures.

► **JIawei (JACK) HUANG '19** is the FEI website editor. He also worked with Professor Joshua Rosett to build custom equity indices in Bloomberg to investigate whether the performance of companies that are headquartered in a specific region reflect economic growth within that region. Analysis will be done by region and sector within California.

► **YUTAO (JAMES) JIANG '19** worked on a project with Professor Eric Helland that examines the additional safety effects of a mass litigation on pharmaceuticals. In particular, he is analyzing over 30 years of

litigation, adverse events, and market data of FDA-approved drugs to assess the marginal value of litigation beyond the FDA's safety regime.

► **KANISHK KAPUR '18** worked on a project with Professor Darren Filson that examines the performance of franchise firms. He was also the Capital IQ tutor in the FEI Lab.

► **ETHAN KURZ '20** worked on a project with Professor Ricardo Fernholz investigating the common shape and shaping factors of power law distributions in economics, finance, and the social and natural sciences more broadly. This involves comparing the distribution of market capitalizations of U.S. firms to the distributions of city sizes and earthquake magnitudes.

► **WILLIAM LI '21** worked on a project with Professor Eric Helland that examined the additional safety effects of a mass litigation on pharmaceuticals. In particular, the study, which examines over 30 years of litigation and adverse events data, can provide evidence on the marginal value of litigation beyond the FDA's safety regime.

► **FRANNY LIN '19** worked with Professor William Lincoln on a literature review on how exchange rate fluctuations affect firm value.

► **ANDREW LINDQUIST '19** worked on a project with Professor Eric Helland that examines the additional safety effects of a mass litigation on pharmaceuticals. In particular, he is analyzing over 30 years of litigation, adverse events, and market data of FDA-approved drugs to assess the marginal value of litigation beyond the FDA's safety regime.

► **ALEXANDER MCKENNA '20** worked with Professor Darren Filson on a project involving fintech and investment banking. He is interested in learning more about the digitization of banking and how technology is shaping the evolution of the industry.

► **LEON REN '20** worked with Professor Andrew Finley on a project examining how tax settlements affect corporate accounting behavior. In particular, he looked at whether corporations change their Domestic Production Activities deductions and Research and Development (R&D) claims after tax settlements. In addition, he worked with Professor Finley on a project examining how the source of donations affects nonprofit performance.

► **TANISHA SHEATH '20** worked with Professor Angela Vossmeier on a project involving systemic risk and network structure to trace the evolution (destruction and rebuilding) of the banking correspondent network system during the Great Depression and make comparisons to the recent structure.

► **YILIU (ELAINE) SONG '18** worked with Professor Angela Vossmeier on a project that examines bank reluctance to borrow from their lender of last resort. During financial crises, banks are often reluctant to borrow from an emergency lending facility for fear that market participants will infer the assistance as a signal of weakness. The project is working to quantify the consequences of this reluctance behavior.

► **YULANG (DANNY) WANG '18** worked with Professor Julio Garin on a working paper that investigates the relationship between the legality as well as availability of marijuana and narcotics consumption on the U.S. county level. He is also looking into the effect of the



## Fall RAs from page 2

moments of firm sales data on a model of the relationship between inflation and the firm-level liquid assets. Danny was also the Python tutor in the FEI Lab.

► **SHUJIE (JOHN) XIA '19** worked with Professor Pierangelo De Pace (Pomona College) and a Ph.D. student on a project: Are tails of equity price distribution symmetrical? He reviewed research method discussed in relevant scholarly articles. He also collected both domestic stock index data and about 60 international stock markets data paired with recession indicators from multiple sources, such as S&P Capital IQ, Trading economics and FRED.

► **YUJIA (EUGIA) YAO '19** was the Stata tutor in the FEI Lab.

► **ZHENG (VERGIL) YING '18** worked with Professor Sven Arndt on a project that strives to establish a better system to describe the trade pattern between the U.S. and Mexico. He contributed by analyzing

data compiled from USITC and IMF's IFS since 1989 as well as adding trade data between the U.S. and China to determine the effect on the manufacture/non-manufacture trade with Mexico.

► **MINGYU ZHENG '20** worked on a project with Professor Eric Helland that examined the additional safety effects of a mass litigation on pharmaceuticals. In particular, the study, which examines over 30 years of litigation and adverse events data, can provide evidence on the marginal value of litigation beyond the FDA's safety regime.



YASHNA BATRA '20



BHAVIKA BOORAGADDA '18



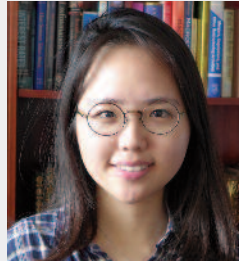
SAMARTH CHAWLA '19



LINYUE (EVELYN) CHEN '19



AMBERISH (RISH) CHITRE '18



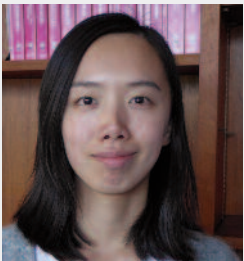
HA YUN (CHLOE) CHO '19



ANTHONY DERAS '20



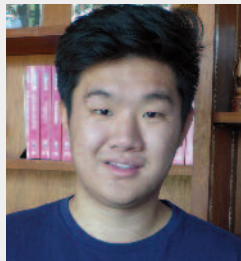
ROMA FOREST '19



ZIJUN (LYDIA) FU '18



XINYI (CINDY) HU '19



JIAWEI (JACK) HUANG '19



YUTAO (JAMES) JIANG '19



KANISHK KAPUR '18



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WILLIAM LI '21



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LEON REN '20



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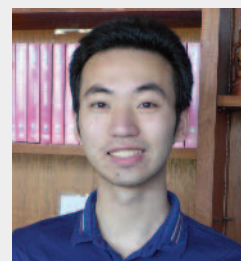
YULANG (DANNY) WANG '18



SHUJIE (JOHN) XIA '19



YUJIA (EUGIA) YAO '19



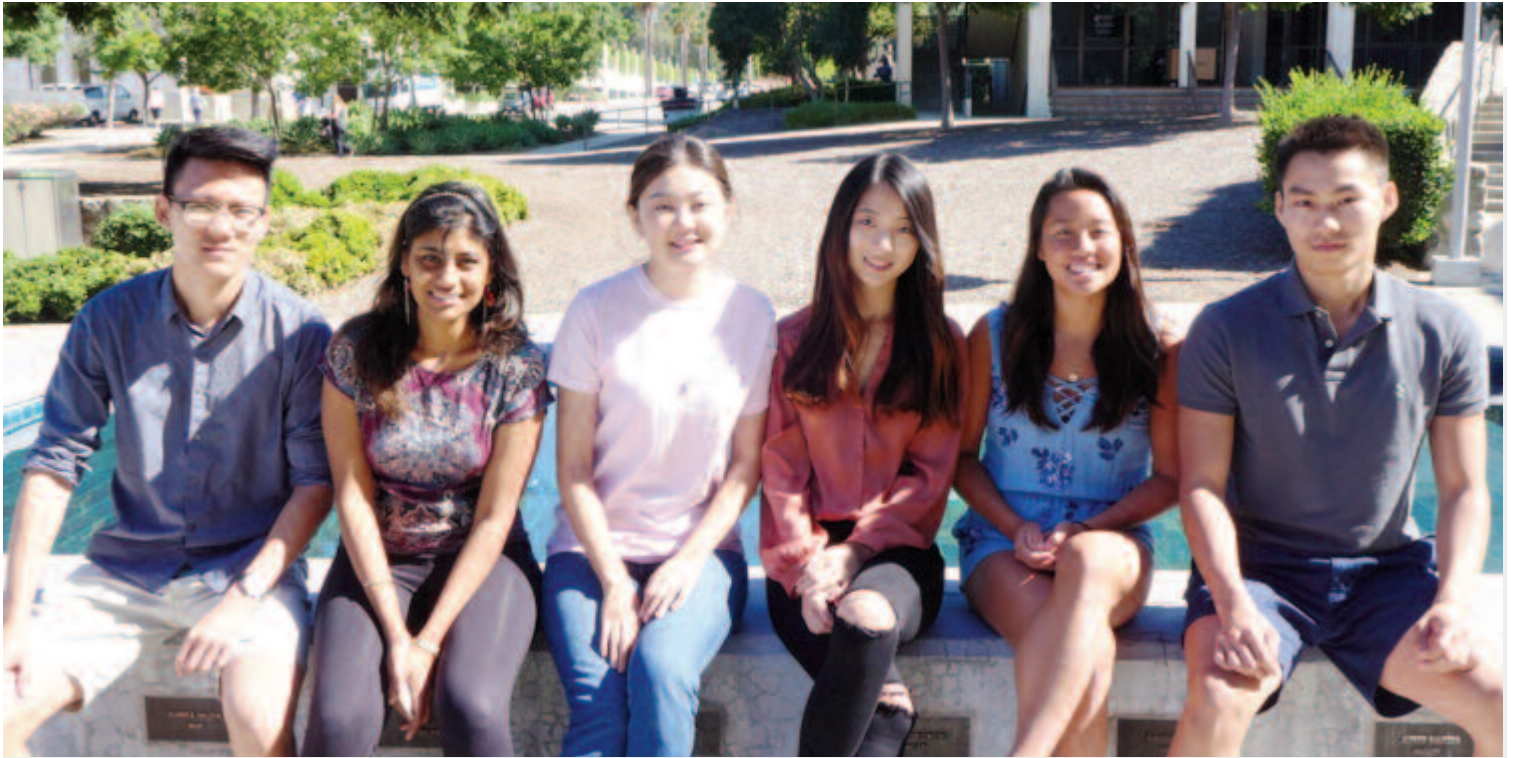
ZHENG (VERGIL) YING '18



MINGYU ZHENG '20



## Financial Economics Institute 2017 Summer Research Analyst Internship Projects



Left to right: Haocheng (Andy) Ye '19, Laura Aggarwal '19, Xinyi (Cindy) Hu '19, Yujia (Eugia) Yao '19, Krystal Sung '19, Shujie (John) Xia '19.

### **LAIRA AGGARWAL '19**

*Faculty Advisor: Professor Sven Arndt*

**Project:** The Effect of Cross-Border Production Sharing on Trade Balance and the Exchange Rate

- Examined US-Mexico trade patterns using the USITC, Bank of Mexico and IMF balance of Payment databases
- Analyzed previously generated results and modified regression results using financial market instability variables
- Scrutinized monthly reports on the issuance of private and public debt instruments by the central bank of Mexico for 15+ years
- Used vector auto regression and vector error-correction models to study the interactions between trade variables and peso-dollar exchange rates

### **XINYI (CINDY) HU '19**

*Faculty Advisor: Professor Richard Burdekin*

**Project:** Analysis of recent Chinese deflation and the price scissors between Chinese consumer prices and producer prices

- Collected and cleaned data to compile datasets of China, Japan, Spain, US, and UK on prices, money supply, industrial production, wage, productivity and exchange rate spanning 30 years on the Excel and Stata platforms
- Interpreted the data series by performing correlation, regression and cointegration analyses

- Constructed vector autoregressive models and performed Granger-causality tests to study the interactions between CPI, PPI, Money Supply, Global Oil Price, and Exchange Rate
- Searched for previous research paper and commentary pieces on Chinese, Japanese, and Spanish deflation and price scissors
- Summarized and translated several Chinese pieces into English

### **KRYSTAL SUNG '19**

*Faculty Advisor: Professor Angela Vossmeier*

**Project:** Systemic Risk and Network Structure of the Great Depression Banking Correspondent Network System

- Recorded and cleaned data on 7000 U.S. banks during and after the Great Depression to compile a database that looks at systemic risk and network structure of banking correspondent network systems

### **SHUJIE (JOHN) XIA '19**

*Faculty Advisor: Professor Pierangelo De Pace (PO)*

**Project:** Are tails of equity price distribution symmetrical?

- Worked with Ph.D. student and faculty supervisor to review research method discussed in relevant scholarly articles
- Collected both domestic stock index data and about 60 international stock markets data paired with recession indicators from multiple

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sources such as S&P Capital IQ, Trading economics and FRED

- Utilized Stata and Microsoft Excel to reconcile differences among datasets
- Wrote and ran Stata and MATLAB codes to analyze gathered datasets

**YUJIA (EUGIA) YAO '19**

*Faculty Advisor: Professor William Lincoln*

**Project:** The Effect of Lobbying on Firm value

- Performed a match based on firm names between a dataset on firm's lobbying activities and a dataset on publicly traded U.S. firms
- Searched company information through Hoover's database to

determine true matches between parents and subsidiaries

- Proofread and edited to-be published papers and drafts according to different journal styles instructions

**HAOCHENG (ANDY) YE '19**

*Faculty Advisor: Professor Ricardo Fernholz*

**Project:** The relationship between the distribution of American bank asset and the idiosyncratic volatility of the financial system.

- Inspected and gathered historical data of US banks balance sheets from 1860 to 1980
- Wrote Python programs to extract data of total asset and bank identifiers to track the changes in asset distribution throughout time
- Merged extracted data within established dataset and formatted dataset in accordance to FRASER standard

## CMC SIF Structural Reorganization

*By: Arya Khan Nakhjavani '18*

*Chief Executive Officer, CMC's Student Investment Fund*

THREE YEARS AGO, THE STUDENT Investment Fund began a series of structural and organizational changes to better achieve its two primary directives: generate risk-adjusted excess returns and educate and prepare its members for an array of career paths. This restructuring was carried out over the course of three years and under the supervision of three overlapping fund executive administrations. As of early this fall, the final changes were successfully completed.

Beginning with the expanded and formalized new analyst education program, Nicholas Obrand '18, the Chief Investment Officer, now teaches a regimented syllabus which is designed to fast track through several courses worth of finance material. The first semester's topic includes the fundamentals required for financial analysis while the second semester aims to tackle nuanced and more complex topics. The feedback from our Fall semester new analyst class has been overwhelmingly positive while the payoff of this education can be witnessed during general fund meetings.

The reorganization also included a technological revitalization effort. This process was lead by the Fund's Chief Technology Officer, Jack Huang '19 who designed a new website as well as consolidated several internal fund databases. Now fund members have access to an internal database of all previous pitch decks, proprietary financial models, and various premium recruiting prep material. The new website went live on a soft launch early this semester with some of its key features to be released next semester.

Next, my executive team focused on increased accountability and oversight over our portfolio. Day-to-day oversight has been spearheaded by Roma Forrest '19, the Fund's Chief Operating Officer. Her work has been key in the daily operations of the Fund and its members. An official program was instituted for management of the Fund's assets during the summer recess. In addition to this, individual industry groups were given increased flexibility with their respective portfolio segments with a new "2% rule".

This allowed a fast-track approval process for any position which represented less than 2% of their total portfolio allocation. The benefit of this allowed for groups to more quickly enter and exit positions in the weeks prior to their scheduled full position pitch.

Overall, the fund is well positioned for the future and will continue to expand and develop. We hope to continue this positive trend and expand our presence and community outreach. This goal will be achieved through a series of co-sponsored events with the Financial Economic Institute and will be open to the entire student body. This collaborative effort includes guest speakers, investment and financial educational seminars as well as resources for the general student body as well as the Claremont Finance Conference in February. ▲

## 2017-2018 BMGI/Michael Larson Asset Management Fellows

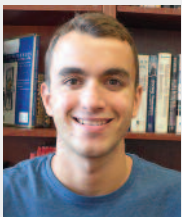
The BMGI/Michael Larson Asset Management Fellowship Program offers financial support and research experience for juniors and seniors at Claremont McKenna College who are interested in careers involving asset management and investment management. The recipients of this year's scholarships are:



### ***Samarth Chawla '19***

Samarth is a junior from Singapore, pursuing a Bachelor's degree in Economics and Engineering with a minor in Finance. In addition to being a BMGI/Michael Larson Asset Management Fellow, he serves as an Executive Board Member on the Model United Nations Team and is a part

of the Student Investment Fund, Claremont Consulting Group, the Lacrosse Team and the Debate Team. Last summer, he interned at Investec as an equity sales summer analyst in New York. Prior to that, he worked at General Electric Capital in New Delhi. Next summer, he will be working at Lincoln International as a generalist investment banking summer analyst in Los Angeles. In his free time, he enjoys spending time with friends and watching television.



### ***John Everett '19***

John is a junior at CMC majoring in Economics and Government with a Financial Economics Sequence. On campus, John is involved on the Varsity Swim Team, swimming butterfly and individual medley events, as well as the Student Investment Fund, where he serves as Portfolio

Manager of the Technology Group. In Summer 2017, John interned at Hawk Ridge Capital Management, a hedge fund in Los Angeles, an experience which furthered his interest in investing. In Summer 2018, John will be joining Moelis & Company as an investment banking summer analyst in the firm's San Francisco office, where he will work on transactions across the technology sector. In John's free time, he enjoys watching sports and Seinfeld reruns, traveling, and spending time with friends and family.



### ***Roma Forest '19***

Roma is a junior from Guadalupe, CA pursuing her Bachelor's degree in Economics and Master's degree in Finance through the Robert Day Scholar Program. In addition to being a BMGI/Michael Larson Asset Management Fellow, she is the Chief Operating Officer of the

CMC Student Investment Fund and a manager for Phonenite. Last summer, she participated in Girls Who Invest—a summer program designed to encourage more women to enter asset management. In her free time, she enjoys playing piano and training for her black belt in Shotokan Karate.



### ***Jennifer Mace '19***

Jennifer is a junior at CMC from Boston, Massachusetts, pursuing a Bachelor's degree in Economics with a Sequence in Financial Economics. In addition to being a BMGI Asset Management Research Fellow and a Robert Day Scholar, she is the Vice President of the

Consumer Group in the Student Investment Fund, an Executive Board Member of the Claremont Consulting Group, and a co-founder of the Claremont Women in Business. Jennifer spent her Freshman summer working at TechTarget in Marketing Operations. Last summer, Jennifer worked at Goldman Sachs in Private Wealth Management in Boston. She plans to return to Goldman Sachs this summer, transferring to the Global Investment Research Division in New York City. In her free time, Jenn loves running, cooking, hiking, photography, and spending time with friends and family.



### ***Joseph Scheuer '19***

Joseph is a junior at CMC majoring in Economics with the Financial Economics Sequence. In addition to being a BMGI/Michael Larson Asset Management Fellow, he is also a Robert Day Scholar. He is currently the Chief Operating Officer of Sagehen Capital

Management, the student-managed investment fund based at Pomona College. Joseph has experience in various sectors of finance, including private equity, alternative investments research, and investment management. Next summer, he will be working as an investment banking summer analyst. In his free time, he enjoys staying active and exploring restaurants with friends.



### ***Jonathan Shaw '18***

Jon is a senior from Marin County, CA, majoring in Economics with a Computer Science sequence. On campus, he is a Portfolio Manager at the Student Investment Fund, Co-President of the Claremont Consulting Group, and a Robert Day Scholar. He is also a three-time All-

American for CMS Men's Golf and member of the 2016 CMS DIII Men's Golf National Champion team. Last summer, he interned with Qatalyst Partners—a boutique investment bank focusing on M&A in the technology sector—and will be returning full-time after graduation. He spent the previous two summers interning at Hawk Ridge Management, a long-short equity hedge fund, and Saints Capital, a venture capital firm focusing on secondary transactions. In his spare time, he is likely found on the golf course, travelling, or seeking out food.



## Fall 2017 Financial Economics Sequence and BA/MA Oral Defense Presentations

### THE FINANCIAL ECONOMICS

Sequence and BA/MA in Finance are both parts of the Robert Day School of Economics and Finance at Claremont McKenna College. These curricula are designed for students interested in pursuing careers in the financial sector and/or subsequent graduate education in economics, finance, and related fields.

The Sequence has a rigorous quantitative focus and is designed to complement majors in economics, economics-accounting, and mathematics, as well as dual majors having an economics component. In addition, the Sequence is complementary to the coursework required for the undergraduate Robert Day Scholars Program. Under the auspices of the Financial Economics Institute (FEI), students complete the Sequence, which is noted on the transcript, thereby attesting to their solid understanding of the discipline.

The BA/MA provides additional depth in finance that results in the awarding of the Masters degree as well as the BA after the student completes their four years of study at CMC. After completing prerequisite courses in economics, corporate finance and accounting, students complete 9 units of Masters-level finance along with a seminar in research methods, and they write and defend a finance thesis. Students admitted to the BA/MA program are Robert Day Scholars.

The following is a list of the students who made their presentations this semester along with the titles of their senior theses and the Abstracts of their theses:

#### **Emily Bassett**

##### ***The Effect of Chinese Capital Control Liberalizations on Shanghai Stock Market Integration***

"This paper uses an event study in combination with Granger causality tests to analyze the effects of capital control liberalizations in China. The AH Premium between the Shenzhen and Hong Kong Stock Exchanges and the Shanghai and Hong Kong Stock Exchanges in addition to the total returns of the Shanghai Composite are all used to measure the effect of each event. The results are most significant in the Shenzhen-Hong Kong AH premium,

but the overall market reaction to each liberalization event was minimal. The Granger causality tests studied relationships between the Shanghai Composite, the S&P 500, the FTSE 100, the Hang Seng, and the All-Ordinaries Index. Results showed the strongest Granger causal relationships between Shanghai, Hong Kong, and Australia. Overall, the Granger causality results are inconsistent with the theory that increased currency liberalization in China causes increased integration with other major global markets."

#### **Bhavika Booragadda**

##### ***IPO Underpricing and Insider Wealth Maximization in Internet firms***

"This paper empirically tests the theoretical model developed by Aggarwal, Krigman and Womack (2001), which argues that insiders of a firm strategically underprice its initial public offering to maximize personal wealth by selling shares at lockup expiration. First day underpricing generates information momentum for the stock in terms of increased research coverage and recommendations by analysts. Increased research coverage is positively correlated with stock returns and insider selling at the end of the lockup period. Although the value of the stock should be typically based on discounted expected future cash flows, several empirical papers suggest a downward sloping demand curves for new issues (Kaul, Mehrotra and Morck 2000, Field and Hanka 2000), consistent with the assumption of this paper's empirical model. The hypothesis is tested using a sample of 210 internet-based firms such as Social media platforms, online travel agents, online real-estate agents and E-commerce services. The empirical results are significant and consistent with the hypothesis."

#### **Cara Brinster**

##### ***The Mortgage Interest Deduction and Implications of Its Limitation in Tax Reform***

"This paper examines one of the most controversial items of the new GOP tax bill, the Mortgage Interest Deduction. The paper seeks to identify which groups would feel the

greatest financial burden if the deduction is limited in the future tax code. The author identifies potential declines in mortgage interest rates and expensive home values as two key motivations behind the lobbying efforts for this deduction to remain untouched. Using data on mortgages originating in 2016, the author estimates a decline in mortgage interest rates between .039 and .043 percent for every \$1,000 borrowed above the 2016 MID limits for taxpayers. The paper then goes on to discuss interest rate volatility implications for Mortgage Servicing Assets. The paper ends with a discussion on the downward pressure the new tax reform may have on expensive home values."

#### **Jack Brown**

##### ***The Effects of the Correspondent Banking Network on the Real Economy***

"There is a longstanding academic debate regarding the role of financial networks. There is a tradeoff between improving the flow of funds and acting as a channel for contagion. This paper investigates the impact of banking networks on the real economy during the Great Depression. Building permit values are used as a proxy for real economic activity as implemented in previous research. A simple linear regression model estimated by ordinary least squares is used such that locational networks are differentiated from networks links to money centers and non-money centers. The results demonstrate that financial networks have both positive and negative effects on real economic activity and building permits. Positive network effects are observed when linkages to money centers are supported by strong locational networks."

#### **Tim de Silva**

##### ***Are Volatility Expectations in Different Countries Interdependent? A Data-Driven Solution to Structural VAR Identification for Implied Equity Volatility Indices***

"Over the past couple of decades, the number of volatility indices has increased rapidly. These indices seek to represent the market's expectation of realized volatility

### Presentations from page 7

over the coming month, based on the prices of options traded on each underlying equity index. Although the dynamics of realized volatility spillover have been studied extensively, very few studies exist that examine the spillover between these volatility indices. By using DAG-based structural vector autoregression, this paper provides evidence that implied volatility spillover differs from realized volatility spillover. Through solving the well-known VAR identification problem for these indices, this paper finds that Asia, more specifically Hong Kong, plays a central role in implied volatility spillover during and after the 2008 financial crisis."

#### **Ammar Karmali**

##### *Analyzing Large Shocks to the Dow Jones Industrial Average using Historical Industry-Specific Leverage Ratios*

"In this paper, I examine the top ten historical upward and downward daily shocks in the Dow Jones Industrial Average, and test whether industry specific abnormal returns can be explained by industry specific leverage ratios on those days. I use modified versions of the Capital Asset Pricing Model and the Fama French 3 Factor regression to examine within-industry abnormal returns. I then proceed to rank the industry abnormal returns and industry leverage ratios, from high to low, on days corresponding to these large shocks. Finally, I examine the correlation between these ranks on the days corresponding to the large moves. The results show that on upward moving days, there is no relationship between industry abnormal returns and industry leverage. However, on downward moving days, there is moderate negative correlation between industry abnormal returns and leverage, suggesting that higher leverage leads to lower abnormal returns. This paper explains these results in further detail, and discusses the implications to the greater field of financial economics."

#### **Clara Madsen**

##### *The Effects of U.S and UK Quantitative Easing on the U.S and UK Commercial Real Estate Markets*

"In this paper, I examine the effects of unconventional monetary policies and

quantitative easing programs in the U.S and UK on their respective commercial real estate markets. I study two sample periods (2007-2017 and 2009-2017) and find that between 2007 and 2017, quantitative easing and the expansion of the U.S monetary base significantly drives the returns of the U.S commercial indices as well as the returns of the UK commercial index. Between 2009 and 2017, I find the expansion of the U.S monetary base only drives the UK commercial index. The difference in the results between these two sample periods may be a function of the magnitude of assets being purchased by the Fed prior to 2009 as well as the volatility and uncertainty that gripped the markets between October and December of 2008. I find that the UK index drives the expansion of the UK monetary base in both 2007-2017 and 2009-2017. This is likely the result of global uncertainty and volatility surrounding 2008 as well as the risk of financial market collapse inspiring monetary policy action. I also find the indices show a predominantly negative reaction to U.S and UK monetary policy events; suggesting the indices react negatively to the events that preceded the monetary policy announcements as well as the announcements themselves."

#### **Joseph Malgesini**

##### *A Smart Beta Approach to Fama-French and Profitability*

"The Fama and French five-factor model is molded into a smart beta investment strategy with strong exposure to the profitability factor. This constructed portfolio outperforms the market significantly despite an unintentional negative correlation with profitability that can be attributed to the intra-factor return correlations. The second portfolio, constructed by investing directly in profitability as represented by gross profit over total assets, outperforms both the market and the first portfolio."

#### **Arya Nakhjavani**

##### *Geo-Political Risk-Augmented Capital Asset Pricing Model and the Effect on Long-Term Stock Market Returns*

"This paper examines the capital-asset pricing model (CAPM) which has been extended with a factor for geo-political risk. I use monthly stock return data for all stocks listed on a major US exchange from January

1990 to December 2016 and utilize a Fama-Macbeth Regression with Newey-West standard errors to test the geo-political augmented Sharpe-Lintner CAPM. The paper first determines if increased sensitivity to geopolitical risk leads to lower average returns and second assesses if geo-political risk as an explanatory variable is a significant enough to expose a failure of the CAPM to capture expected returns fully through beta. The results of our regressions do not confirm the hypothesis that firms with high sensitivities to geo-political risk have expressly different returns in the long run. Furthermore, our Fama-Macbeth regression does not find expressly significant average slopes for geo-political risk as a variable."

#### **Lauren Rosenberger**

##### *The Impact of Regulation on Industry Abnormal Returns Following the 1933 Bank Holiday*

"I aim to explain significantly different industry abnormal returns and changes in risk as a result of the 1933 Bank Holiday imposed by President D. Franklin Roosevelt from March 3, 1933 to March 15, 1933. I identify no strong relationship between unregulated industry leverage and abnormal returns following the Bank Holiday, but find regulated industries, the most highly levered at the time, experienced the most statistically significant negative abnormal returns. I find a strong correlation between abnormal returns and leverage when including regulated and unregulated industries. Thus, the evidence is consistent with the story that highly regulated industries who experienced negative abnormal returns were not able to take advantage of the benefits brought on by the Bank Holiday. The addition of historically accurate leverage data fails to fully account for a lack of significant results from Ingram (2016), who analyzed industry specific returns and risk surrounding the Bank Holiday and attempted to explain industry differences by including measures of industry leverage by using a proxy for leverage. I find that industries related to manufacturing experience positive abnormal returns following the Bank Holiday, most likely due to the ability to borrow money and finance capital, brought on by newly established financial stability."



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curricular finance-related activities such as the New York City Networking Trip, Athenaeum talks, and significant involvement with the Student Investment Fund, including contributions to resources and oversight. All of these activities require significant outlays for necessary resources. We provide competitive wages for Research Analysts and Tutors working in the Lab. Our data purchases include several standard archival data sources supporting student/faculty research and senior theses, and sources such as Bloomberg and S&P Capital IQ are essential both for research and investment analysis by the Student Investment Fund and for class work. We heavily subsidize costs for the New York City Networking Trip, and the costs of sponsoring Athenaeum talks and many other CMC and Consortium-wide activities are a substantial portion of our overall budget.

All of these activities provide great value to FEI constituents. The opportunity to work closely with faculty is one of the key aspects adding to a CMC education, and the quality of this work in our Lab is extraordinary. The same can be said for student experience across the CMC Institutes. Our students are well aware of this, and the long-run success of students who worked in the FEI Lab speaks for itself. Similarly, Sequence students must write and defend an empirical thesis in finance as the capstone to their experience. This could not happen without the archival data we help to provide. The rigor required to write and successfully defend a thesis is another key

step towards doing effective work after graduation. Again, the record of graduates with the FES designation is remarkable. The great value of the Networking trip in exposing students to various types of job paths within the financial sector, and the networking opportunities on the trip, cannot be overstated. The value to SIF members of access to high quality data sources and oversight from the FEI Associates provides great practical experience to students interested in pursuing careers in finance. The speakers we bring to the Athenaeum and other venues have been very high quality and drawn sellout crowds.

The accomplishment by those who did the heavy lifting in the drive, and the generosity of all those who gave, helps ensure the FEI will continue to provide valuable experiences for so many students in the coming years.

Separately, during the 2016-17 academic year, the Advisory Board created a Strategy Committee to review the mission and main activities of the FEI. It has been well over a decade since the formation of the FEI, and within a few years we will undergo a thorough external review. This committee started by reviewing the mission statement and modifying it to suit the evolution of student needs and what we do going forward. The new statement reflects the three areas noted above: the research, curricular component, and extra-curricular activities supported by the FEI. Over the next couple of years, the committee will be examining individual aspects of our programs to ensure we are providing the greatest value to our constituents. Expect to see more about this

process over the next couple of years.

The important announcements above leave me little room to report on our usual activities, but a few things are worth noting here. Over the summer, FEI Associate Director Prof. Batta and I worked with the Library to collaborate on acquisition of a few new databases, notably two significant enhancements to our S&P COMPUSTAT subscription, now including their Global database (previously we only had U.S. data) and Point In Time data; and the Wind database, which compiles Chinese markets data. We employed 26 students in the Lab during the Fall Semester. In collaboration with the RDS, we chose 17 students from a competitive field to participate in the NYC Networking trip in January. In September, we sponsored an Athenaeum talk by Steven N. Kaplan, the Neubauer Family Distinguished Service Professor of Entrepreneurship and Finance at the University of Chicago's Booth School of Business. Steve is among the world's leading experts on entrepreneurship and innovation, and co-founder of the New Venture Challenge at Booth.

Finally, as you have been aware from previous Director's Reports, Terri Van Eaton retired at the beginning of September, after providing wonderful service for many years. We are very lucky that going forward, Nancy Faust has taken the position of Assistant to the Directors. Nancy has been with CMC working as the RDS Administrative Assistant since 2002, so she was already thoroughly familiar with the workings of the entire school, and she has done a wonderful job since day one. I look forward to working with her over the next several years. ▲

**Presentations from page 8*****Peter Welch******Model Specification for Bank Failure: A Retrospective Look at Banks in Missouri during the Great Depression***

"This paper examines banks in Missouri during the Great Depression in order to find the correct model specification for bank failure during economic downturns. The data set controls for a bank's balance sheet, correspondent network, charters and memberships, county characteristics, and market share, and includes both Federal Reserve member and non-member banks. Using a probit model, it is concluded that the contractionary monetary policy employed by the St. Louis Federal Reserve did not help

bank survival, as being a member of the Federal Reserve had no significant effect on a bank's probability of survival. Additionally, while an increased network led to higher rates of bank survival, connections to Chicago show evidence of contagion risk. Finally, the paper concludes that for future model specification it is important to capture balance sheet, network, and environment characteristics, as leaving out certain information can lead to omitted variable bias."

***Ziban (Cathy) Ye******Success Factors of First Time Fund in Venture Capital***

"Using data of first time fund in venture capital in United States from 1995 to 2015, I explore characteristics of the funds in relation

to the fund performances. Three groups of characteristics that examined are fund characteristics, manager characteristics and limited partners' characteristics. The paper also incorporates the time effects to show if market cycles have influences in these relationships. Some of the critical findings include that fund sizes have essentially zero impact on the fund return. In manager characteristics, it is very helpful to have a lead manager with MBA or equivalent degree. For limited partners, it is useful to have school endowments as limited partners which could influence the funds' return positively. Both general partners and limited partners could learn from this paper and be more mindful of certain factor when investing in first time fund." ▲

## Honor Roll of Contributors to the FEI Endowment and Terri Van Eaton Fund

*Ali Abramovitz '12*  
*Scott Arnold '09*  
*Brian Badertscher '96*  
*Colleen Bartlett*  
*Prof. George Batta*  
*Gary Birkenbeuel '80*  
*Alex Bonnett '09M'10*  
*Dave Bradley '03*  
*David Brown '00*  
*Prof. Richard Burdekin*  
*Kyle Casella '10*  
*Maria Casella '10*  
*Alan Delsman '68*  
*Nathan Doctor '11*  
*Prof. Mary Evans P'21*  
*Nancy Faust*  
*Noah Franz '10*  
*Russ Greenberg '79 P'18*  
*Alan Heuberger '96*  
*Prof. Eric Hughson &*  
*Prof. Catherine Reed*  
*Ben Hunsaker '06*  
*Robert Johnson P'20 P'20*  
*Nick Lillie '17*

*Melanie Mace P'17 P'19 &*  
*Rick Mace P'17 P'19*  
*Chris Mann '87*  
*Sue Matteson King '85 P'18*  
*Jim McElwee '74 P'12*  
*Prof. Lisa Meulbroek &*  
*Brent Harris '81*  
*Paul Nathan '80*  
*John O'Brien '02*  
*Kaitlyn Plummer*  
*Joe Reyes*  
*Prof. Joshua & Dr. Terri Rosett*  
*Andrew Runde '14M'14*  
*Valay Shah '08*  
*John Shrewsberry '87*  
*Prof. Janet Kibholm Smith*  
*Prof. Jim Taylor*  
*Robert Thomas '99*  
*Susan Van Oort*  
*Joe Vencil '85*  
*Cameron Whiting '15M'15*  
*Amanda Yang '10*  
*Prof. Fan Yu*  
*Ivan Zinn '96*



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## Spring Events

### New York City Networking Trip JANUARY 7-11, 2018

Three CMC juniors and fourteen CMC sophomores visited prestigious firms in NYC to gain exposure to various job opportunities in the financial markets and to establish relationships with CMC alumni working at these companies. The goal is for these relationships to evolve into summer internship and full-time job opportunities for student attendees. In addition to the company visits, the trip included various evening events with financial services professionals and CMC alumni. Visits this year included Deutsche Bank, New York Times, Millstein, UBS Financial Services, Morgan Stanley, Moelis, NERA Economic Consulting, JP Morgan, Atalaya, Jane Street, Goldman Sachs and a floor tour of the New York Stock Exchange. The trip is sponsored by the Financial Economics Institute and Robert Day Scholars Program.

### Claremont Finance Conference FEBRUARY 16, 2018

The Executive Committees of the Student Investment Funds of CMC and Pomona College coordinated and hosted the annual finance conference, including a lunch and afternoon panel discussion.

### BMGI Stock Pitch Event FEBRUARY 20, 2018

Student Investment teams from CMC, Pomona, and Scripps College participated in an Interactive Pitch Sessions with Michael Larson '80 Chief Investment Officer, BMGI, among others.

### Greg Mankiw at the Athenaeum FEBRUARY 22, 2018

The FEI sponsored an Athenaeum talk by economist N. Gregory Mankiw. Prof. Mankiw is the Robert M. Beren Professor of Economics at Harvard University.