Welcome to the Fall 2021 issue of Financial Economics Institute’s (FEI’s) newsletter, The Exchange. This was an exciting semester for all of us at CMC—we were finally back on campus after being away for more than a year. It was an especially exciting semester for me because I got to enjoy the campus life at CMC for the first time. Unfortunately, the pandemic is still not behind us, so we had to wear masks in the classroom and at events. Nonetheless, we all felt confident and very well prepared for the return to campus, thanks to the Covid vaccines and CMC’s public health policies, such as closely monitoring positivity rates. Overall, this was a wonderful semester and being able to meet colleagues and students in person after such a long gap was very refreshing.

We wanted to take advantage of our return back to campus and do more in-person events for the FEI. While we did some, a lot of the time and energy was focused on just adjusting to the new normal.

Before I report on our activities from Fall 2021, I will quickly mention a few things from the Summer 2021 term:

- We launched a brand new program this summer, as FEI’s contribution to the President’s Anti-Racism Initiative—a Financial Literacy Bootcamp for high school students from underprivileged backgrounds. The thinking behind this Bootcamp was the following: if we want to address systemic racism in our society, then from FEI’s perspective, we need to work at the intersection of race and finance. How exactly does race intersect with finance? There is plenty of academic and anecdotal evidence that customers from minority backgrounds are often targeted with inferior financial products and many end up as victims of predatory lending. This problem is the result of both, bad intentions of sellers and poor understanding of buyers of financial products. In this equation, we must work on both, addressing the ethics of selling inferior financial products to ill-informed customers as well as better educating those very customers. As such, if we can educate the youth from minority backgrounds at an early age about financial products, we can plausibly address a part of that equation. It is with this intention that we designed and launched a week-long bootcamp on financial literacy this summer. During the week of 9th August, we hosted a handful of students from Claremont High School and another handful of students from the Webb Schools.

See Director’s Report on page 2
These students spent several hours each day, from Monday through Friday, learning about:

- **Time Value of Money**, taught by myself (Prof. Dass)
- **Financial Markets and Investment**, taught by CMC's CIO, Jim Floyd
- **Credit, Mortgages, and Student Loans**, taught by Prof. Eric Hughson
- **Budgeting and Personal Finance**, taught by Prof. Gary Birkenbeuel
- **Checking and Savings Bank Accounts**, covered by our commercial partner, MoCaFi, which is a mobile-only neo-bank with a strong focus on customers from minority backgrounds

We also rewarded the attendees with a small grant of $100 for them to start saving and investing on their own. The Bootcamp proved to be a very successful pilot, as was evident from the students’ feedback, and it can serve as a good template for doing something similar at a much larger scale.

Switching gears, I will start with a brief summary of all that we accomplished at FEI in this Fall 2021 semester, followed by a more detailed description of the various activities:

- **Fintech Practicum**
- **Board Meeting and a Guest Speaker**
- **Supporting student and faculty research**
- **Outreach to our stakeholders and constituents**
- **Revamping the FEI website**
- **Planning for Spring 2022**

**Fintech Practicum:**

The highlight of the Fall 2021 semester was the Fintech Practicum, which was offered as a regular course this time after being run as a Special Topics pilot in Spring 2021. We had an impressive array of projects, some very smart students, and our eminent faculty to advise them. We worked on the following projects:

- **Wells Fargo**, a prominent top-5 bank in the country, sponsored a project on **Mitigating Algorithmic Bias in Lending**. This is an important topic of research in computer science because, if our algorithms are going to implicitly biased, then the outcomes of those algorithmic decisions will be highly flawed. The problem of bias is aggravated when the decision maker is an algorithm instead of a human (lending officer, in this case). Our students worked on the project to identify bias and research ways to mitigate such bias in lending algorithms.

  - **Lending Club**, which is one of the oldest and most well-known fintech lenders, sponsored a project on better **Estimating Default Probabilities**. The method of estimating default probabilities in a traditional bank relies on traditional parameters, such as FICO scores, income, payment histories, etc. In the case of a non-traditional lender, such as Lending Club, the default probabilities have to be estimated nonetheless, but using unconventional data points. Our students worked on the project and proposed some creative ideas for identifying and utilizing the loan applicant’s information in projecting future default likelihood.

  - **AgVend**, a leading e-commerce platform for agricultural products founded by a CMC alum, sponsored a project on understanding and improving customer retention. An important part of the business model in any e-commerce business is the “stickiness” of the customer—it is important for generating greater revenue as well as improving the customer’s lifetime value (LTV). Our students learnt about these concepts and dug into proprietary data from the sponsor to come up with recommendations for improving customer retention.

  - **DRINKS, Inc.**, was founded several years ago by a CMC-alum, and over time, they have become the leading e-commerce platform for wine. This was a repeat engagement as we had also worked with DRINKS in the first pilot in Spring 2021. They liked what the students did on the previous project, and we decided to carve out a new problem for the new team of students. This time around, the project was on a classic microeconomics question—pricing policy. Pricing is a fundamental question that all companies grapple with, and the choice can make or break the business. Our students analyzed these questions by studying the impact different pricing policies have on demand.

  - **Storyhouse Ventures**, a venture capital firm founded by a CMC-alum focused on encouraging and investing in entrepreneurs from the Claremont Colleges, sponsored another exciting project. Here, the students worked on a large array of data to identify the variables that are more correlated with the likelihood of “success” of a startup. It is hard to define success itself, but these are the kinds of questions that our students can answer with their training in econometrics and economics. Identifying the more promising startups is crucial for a venture capital firm because they have limited resources at their disposal and way too many startups vying for those resources. As such, one needs an objective and automated method for separating the proverbial wheat from the chaff, which is what our students worked on.

  None of this would have been possible without the support and help of my faculty colleagues: Professors George Batta, Mike Izbicki, Yaron Raviv, Janet Smith, and Angela Vossmeier. I am immensely thankful to them for their time and advice to the students.

**Board Meeting and a Guest Speaker**

On December 3rd, we hosted the first in-person Board Meeting of FEI Advisory and Associate members, and I am very pleased with how it went. We had a full agenda, spanning all afternoon, and we finished with a dinner for the few Board members who were able to join us in person.

We started the session with a report from the student teams that worked on the Fintech Practicum. This was an engaging part of the program—the students got a chance to sharpen their presentation skills in a formal setting by sharing their final findings with the clients, who had joined over Zoom, as well as with the Board members (both, in person and those over Zoom). The students also got a chance to defend their analysis and their modeling choices, allowing for a lively discussion.
This was followed by the Student Investment Fund (SIF) presenting updates on their portfolio performance. The SIF has been doing very well and I am proud of the Fund's student leadership as they have managed to include a large class of analysts (typically freshmen) this year. These analysts learn the ropes of investment management by working with upper-classmen in one of the six portfolio teams. The Fund wouldn’t be able to do their impressive work without the guidance and dedication of Prof. Eric Hughson.

We finished the Board meeting with a talk by our guest speaker, Mr. John “Hans” Morris, who is the Founder and Managing Partner of NYCA, a fintech-focused venture capital firm, located in New York and San Francisco. Hans gave an overview of the fintech landscape and shared his thoughts on the most exciting innovations taking place in the world of finance, ranging from the boring world of core banking systems to the most talked-about field of cryptocurrencies. This engaging discussion was followed by a dinner at Walter’s in the Claremont village.

Research support:

As always, the crown jewel of FEI is the research analyst (RA) program that gives students an opportunity to work on academic research projects with our esteemed faculty. Being back on campus finally gave us the opportunity to revert back to the old tradition of having students work with faculty on research projects. Having managed the virtual environment well via Zoom, I suspect that we will benefit from a hybrid model, whereby meetings will forever be a mix of in-person and virtual. As always, we received a large number of applications (62 in total), that are carefully vetted, and we were able to recruit thirty students who got to work on a variety of projects with seven different faculty members. We also had two student employees who served as tutors for Bloomberg, Capital IQ, and Excel; this service is particularly helpful in assisting students with their data collection and data analysis for their theses. Of these thirty students, twelve are working towards either the BA/MA degree or the Financial Economics Sequence and five are BMGI Fellows.

We finished the semester with Oral Defense presentations by students who completed their Senior Thesis requirement for either the BA/MA degree or the Financial Economics Sequence. Six BA/MA students and five FES students, advised by seven faculty members, presented their research. The theses ranged from the traditional topics in financial economics (such as, hedge funds in the CDS market or private equity investments) to the more current topics (such as, the effect of COVID on corporate financial policies or returns on non-fungible token sales). Another way in which the FEI fulfills its research-oriented mission is to support the many data subscriptions that are useful to accounting, economics, and finance faculty not just at CMC but across the 5Cs. These databases are vital for research and, despite FEI’s budget limitations, this is a top priority for us because it allows our students and faculty to conduct the kind of world-class research that CMC is renowned for. Access to data has other positive externalities as well, such as being able to attract productive and high-caliber junior faculty, who would not be able to join our faculty without having access to such crucial resources. However, we could not do what we do without financial support from the Dean’s office, the FEI’s Advisory and Associates Boards, and the President’s office. Thanks also to the Claremont Colleges Library, the office of CMC’s Chief Investment Officer, the Robert Day Scholars program, the Randall Lewis Center of Innovation and Entrepreneurship, and the Lowe Institute, all of whom share the costs of some of our data subscriptions. We are indebted to all of them for sustaining this much-needed resource. For your reference, a list of all 28 databases and web-resources that we support can be found at: https://fei.cmc.edu/research-2/databases/.

Outreach:

Besides offering enriching research opportunities to our students and supporting faculty research, the FEI also held several other events in the fall. We kicked off the academic year with a couple of information sessions, including one at the Clubs and Institutes Fair, for new and returning students. This is an excellent opportunity for us and other institutes to reach out to students who may be interested in our programming. We were finally able to host the Fair in person on Parents Field, and the festive atmosphere of an in-person gathering was contagious. We hosted over 80 students who were eager to learn more about FEI’s offerings. We also held another information session on campus for new students to consider participating in FEI activities. More than 30 students joined us for this event.

New website:

The work of redesigning and improving the FEI website continues. Although the website is now in much better shape than last year, there is still much to be done in terms of streamlining the sharing of all FEI-related information with our internal and external stakeholders. Junan Ke ’24 and Tommy Lu ’24 have been sharing their expertise and time in improving the website. I welcome you all to visit us at https://fei.cmc.edu.

Planning for Spring 2022:

We have started preparing for Spring semester already. For example, the cohort of sophomores that will be going on the Financial Services Summit in January has been selected after a rigorous application process managed by the Soll Center. The Summit is going to be hybrid this year, given that we are still emerging from the tail end of the pandemic. The 17 students who are attending the Summit have been assigned several readings and preparatory work before the start visiting our alumni at many prestigious financial institutions. Keeping in line with the tight health-monitoring policies, only a limited number of fully-vaccinated alums will join us for in-person session on our campus. Like many other things, we anticipate that the Summit will benefit from a hybrid model.
Financial Economics Institute
Fall 2021 Student Research Analysts

During the Fall 2021 semester, thirty student Research Analysts were hired to work remotely for 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:

- **SOMESWAR AMUJALA ’23** worked with Professor Angela Vossmeier on expanding a previously developed NLP model to increase accuracy and document the process in GitHub. Specifically, the model focused on digitizing and organizing 22,000+ type-writer based index cards into excel spreadsheets. Accepted and presented our model at an Explorations in Economic History Conference hosted by Kellogg School of Management at Northwestern University.

- **UMUT ARAC ’22** worked with Professor Angela Vossmeier on a project exploring the impact of U.S. defense expenditures on stock market volatility. In particular, this involved building R visualizations that will guide econometric modeling by extending research findings to specific states and industries with high military involvement.

- **AARYAN BATRA ’24** worked with Professor Pierangelo De Pace (Pomona) on a project that analyzes how the price returns of 9 different cryptocurrencies are related to each other and how their relationship has evolved over time.

- **RAJ BHUTORIA ’22** worked with Professor George Batta to develop natural language processing algorithms to process and analyze over fifty thousand credit and loan agreements. The team utilized significant data retrieval and automated web-scraping techniques to create the historic dataset of agreements. Specifically, the project required a strong knowledge of legal agreements and accounting procedures, which was then applied to collection and analysis algorithms via a combination of R, Python, and Node.js.

- **SAMUEL BOGEN ’23** worked with Professor Andrew Finley on a project regarding political contributions of top CEO’s. Specifically, this involved pulling data through web scraping and beginning to analyze it.”

- **SOHRAB DUBASH ’22** (BMGI/Larson Fellow) is the Bloomberg, Excel, and Capital IQ tutor for the FEI.

- **RUILU “LULU” GAO ’23** worked with Professor Pierangelo De Pace (Pomona) on a project studying the performance of the cryptocurrency markets across nine major cryptocurrencies. In particular, this involved applying bivariate and multivariate modeling methods as well as detecting pronounced time variation in exploring the comovement between daily price returns.

- **MIGUEL GARCIA ’22** worked with Professor George Batta.

- **AUDREY GUILLOTEAU ’22** (BMGI/Larson Fellow) worked with Professor George Batta categorizing credit agreements, particularly financial covenant thresholds, negative covenant definitions, and deductibles for various restrictions in order to potentially predict corporate credit bubbles.

- **YULEI “MAX” GUO ’22** worked with Professor Yun Liu (KGI) on a project regarding corporate executives selection. In particular, this involved building machine learning models to predict future performances of potential CEO nominees in order to assist firms to make appointments.

- **MICHAEL HAO ’23** worked with Professor Andrew Finley to examine how political contributions relate to party affiliation among corporate executives. He also helped Professor Finley test algorithm accuracy for treasury regulations and CEO ethnicity validation.

- **MATTHEW HINES ’22** worked with Professor George Batta to analyze credit agreements, particularly with respect to financial covenant thresholds, financial terminologies, definitions, and flexible credit terms. The end goal of the project is to create a machine-learning algorithm that can predict corporate credit bubbles and individual company default probabilities.

- **SYED ALI ABBAS JAFFRI ’23** worked with Professor George Batta to categorize credit agreements, particularly financial covenant thresholds, definitions, and deductibles for various restrictions in order to potentially predict corporate credit bubbles.

- **ARYAMAN JAISWAL ’24** worked with Professor Angela Vossmeier on a project that looked into the reopening of banks during the Great Depression in the 1930s. In particular, this project analyzed key financial statement parameters and ratios that might have played a role in the speed of reopening of banks at a town level.

- **ALEXANDER KARASINSKI ’22** worked with Professor George Batta to categorize credit agreements, particularly financial covenant thresholds, definitions, and deductibles for various restrictions in order to potentially predict corporate credit bubbles.

- **JONATHAN KE ’25** worked with Professor Nishant Dass as the FEI Website Manager to co-lead website maintenance and explore methods to promote the Institute and its programs, through the website and social media platforms.

- **HYUNG JIN “DANIEL” KIM ’23** worked with Professor Eric Helland on a project...

See Fall RAs on page 5
Director's Report from page 3

As we wrap up this semester, I will finish by sharing some ideas for the future of FEI in the near-term. I have now had time to experiment with several ideas and I have learned a lot over the past 18 months, and it has become clear to me that the students are eager for the kinds of new programming that we are offering. My overall goal has always been to complement all existing programs with new initiatives in fintech (broadly defined), and I am pleased that this has allowed us to strengthen our overall goal has always been to complement all existing programs with new initiatives in fintech (broadly defined), and I am pleased that this has allowed us to strengthen our orientation significantly. The response from our stakeholders, especially the Advisory and Associates Boards of FEI and the Dean’s office, has been overwhelmingly positive. Thanks to their support, we are very well positioned for next year. I am looking to pursue a three-pronged approach in terms of my focus on new areas of programming:

- Fintech (Practicum and other programs)
- Financial Literacy
- Addressing Discrimination and Bias in Financial Industry

We are looking forward to launching a variety of new initiatives and look forward to your participation and support.

In closing, I would like to express my sincere gratitude to all who made this semester a success. I would especially like to thank: the person who really runs the show at FEI behind the scenes, Ms. Nancy Faust; co-Chairs of the FEI Advisory Board, Mr. Alan Heuberger ‘96 and Mr. John Shrewsberry ‘87 P’24, and the Chair of the FEI Associates Board, Mr. John O’Brien ’02, as well as all members of the FEI Advisory and Associates Boards; President Hiram Chodosh; Associate Dean of the Faculty for Research, Prof. Shana Levin; advisor to the Student Investment Fund, Prof. Eric Hughson; my faculty colleagues at RDS; students working at FEI; Freya Hurtado and Ali Fahey at the Soll Center for Student Opportunity; Susan Edwards, Ray Watts, and Michelle Chamberlain at the office of Development and External Relations; and all the CMC alums who helped us put together a great roster of Practicum projects this Fall.

Looking forward to the New Year 2022 and waiting to see what it brings for us at FEI. Best wishes to all. Stay healthy and safe! ▲
FEI Student Research Analysts

SOMESWAR AMUJALA ‘23  UMIT ARAC ‘22  AARYAN BATRA ‘24  RAJ BHUTORIA ‘22  SAMUEL BOGEN ‘23

NATHALIE CHAVEZ ‘23  SOHRAB DUBASH ‘22  RUILU “LULU” GAO ‘23  MIGUEL GARCIA ‘22  AUDREY GUILLOTEAU ‘22

YULEI “MAX” GUO ‘22  MICHAEL HAO ‘23  MATTHEW HINES ‘22  SYED ALI ABBAS JAFFRI ‘23  ARYAMAN JAISWAL ‘24

ALEXANDER KARASINSKI ‘22  JONATHAN KE ’25  SANGYOUN “SAM” KIM ‘22  JAY MORRIS ‘23  KARINA PARK ‘22

ANNA RAINES ‘22  HAN “ANDY” TU ‘24  CHRISTOPHER WICKE ‘23  EDWARD WU ‘23

AARON XIE ‘24  JERI “RAIZEL” YU ‘22

Financial Economics Institute
2021 Summer Research Analyst Internship Projects

SOMESWAR “SOMU” AMUJALA ’23
Faculty Advisor: Professor Angela Vossmeyer
Project: Digitization and Data Frames for Card Index Records
• Researched, developed, and trained Natural Language Processing model in Python to automatically digitize 22,000+ typewriter-based index card records
• Leveraged AWS Machine Learning functions in model to optimize efficiency, specifically AWS Textract and Comprehend
• Further developed model to read and automatically categorize different entities within the index cards through excel, i.e. sort dates, abbreviations, amounts, locations, etc. into different columns

UMUT ARAC ’22
Faculty Advisor: Professor Angela Vossmeyer
Project: Effects of U.S. Defense Expenditures on Stock Market Volatility
• Gathered monthly army, navy, and airforce expenditures from the U.S. treasury reports (1890-2016) and ensured data hygiene
• Used R to generate line charts, correlation graphs, and box-and-whisker plots to investigate the relationship between the U.S. military spending and market volatility
• Measured correlation coefficients for different states and industries, depicted findings in heatmaps and dot plots

NATHALIE CHAVEZ ’23
Faculty Advisor: Professor William Lincoln Vossmeyer
Project: Finance Literature Reviews and Database Revision
• Used Excel to compile, classify, and sort through hundreds of articles in top finance journals, collecting relevant information such as abstracts, dates of publication, and author information
• Surveyed the US Census Center for Economic Studies working paper series for new articles on international trade and asset pricing to update existing databases
• Proofread and provided critiques on papers sent to Professor William Lincoln for review at top journals; revising for inconsistencies, formatting errors, as well as clarity of message
• Facilitated literature review by monitoring databases on topics including business research & development, the business cycle, and the US-China trade war

YULEI “MAX” GUO ’22
Faculty Advisor: Professor Nishant Dass
Project: Power Law in Financial Economics
• Conducted extensive literature review on power law and zipf’s law in mathematical theory and their applications in different areas of studies, especially in financial economics
• Analyzed distributions of company share prices and fundamentals in WRDS database to discover empirical evidence of power law in corporate financial data using Python programs

SYED ALI ABBAS JAFFRI ’23
Faculty Advisor: Professor George Batta
Project: Studying non-price terms in covenants in order to potentially predict corporate credit bubbles
• Categorize credit agreements, particularly financial covenant thresholds, definitions, and deductibles for various restrictions
• Created a guide to map out the standard geography of credit agreements

JAYADITA “JAY” MALIYE ’23
Faculty Advisor: Professor Angela Vossmeyer
Project: Examining how a central bank’s emergency liquidity and recapitalization programs reshape systemic risk in a network of financial institutions
• Explored resolutions for distressed banks, including liquidations, distressed takeovers, and consolidations
• Studied spatial and time correlation in exiting-acquiring bank relationships, demonstrating strong trends in each
• Examined how the acquisition of distressed banks increases the amount of risk on a bank’s balance sheet and total systemic risk in the financial system

CHRISTOPHER WICKE ’23
Faculty Advisor: Professor George Batta
Project: Contract Strictness
• Conducted research to examine if the strictness of covenants in credit agreements could be used to predict corporate debt bubbles
• Examined and categorized corporate credit agreements, largely with regards to their negative and financial covenants, so that they could be analyzed using machine learning
• Worked to develop a protocol for categorizing amendments to corporate credit agreements, with the goal of later expanding the project to include amendments

EDWARD WU ’23
Faculty Advisor: Professor George Batta
Project: Measuring non-price credit terms with respect to Financial and Negative Covenants
• Constructed a database for over 30 corporate credit agreements using R in preparation for developing a machine learning model used to potentially predict corporate credit bubbles
• Categorized 5 corporate credit agreements, specifically financial covenant thresholds, negative covenant definitions, and deductibles and carve-outs for numerous restrictions in order to provide project training and testing data
• Building a natural language processing algorithm using Python, Scikit-learn, and Spacy to establish a mapping between contract language and research analyst credit agreement categorizations
Fall 2021 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 passed their presentations this fall along with the titles of their senior theses and the Abstracts of their theses:

**KARITKEYA AGARWAL, BA/MA**

**Comparing Post-IPO Abnormal Returns Between SPACs and Traditional IPOs**

“Special-Purpose Acquisition Companies (SPACs) have caught the eyes of many investors, experienced and beginners alike, and continue to gain popularity each year. However, it is unknown what caused this sudden surge in attention for a mechanism that has been around for over a decade. This paper investigates whether investors’ attraction towards SPACs can be justified using returns using a long-horizon event study framework with recent data. The paper finds significant market outperformance for traditional IPOs but not SPACs. Overall, abnormal returns cannot justify the increase in numbers of SPACs in the period leading up to the surge, indicating the influence of investor hype.”

**SIMON ALEXANDER, FES**

**Ex-Dividend Day Price Drops From 1965 to 2020: Investigating Elton and Gruber’s Marginal Shareholder Tax Theory**

“This paper analyzes ex-dividend day price drops and their relationship with dividend and capital gains tax rates for investors across multiple exchanges and periods from 1965 to 2020. In accordance with Elton and Gruber’s (1970) tax theory, I hypothesize that the ex-dividend day price drop should reflect the post-tax value of dividends relative to the post-tax value of long-term capital gains for a marginal individual investor across all exchanges and periods examined, except for the pre-1997 NASDAQ events due to market inefficiencies. Furthermore, I posit that after the Jobs and Growth Tax Relief Reconciliation Act of 2003, which specified for qualified dividends and long-term capital gains to be taxed equally for individual investors, the average ex-dividend day price drop should be on par with the full value of the dividend. To test my hypotheses, I analyze 312,917 ex-dividend day events for domestic corporations trading on the NYSE, AMEX, and NASDAQ. I ultimately find that while the extent of the price drop significantly correlates with the relative individual tax rates on dividends and capital gains across the entire NYSE and AMEX period and post-1997 NASDAQ events, the association is weaker than expected in the NYSE and AMEX subsets and stronger than expected in the post-1997 NASDAQ events. This suggests that other factors I was unable to control for in my research are likely important in driving the extent of the price drop. Additionally, the results do not indicate that the average price drop is equal to the dividend after the Jobs and Growth Tax Relief Reconciliation Act of 2003. Hence, while the extent of the price drop appears to correlate with the tax rates on dividends relative to the tax rates on capital gains under certain periods, the relationship is weaker than Elton and Gruber’s theory suggests and is not conclusive across all samples.”

**AUDREY GUILLOTEAU, BA/MA**

**The Threat of Activist Intervention: A Determinant of 8-K Disclosure for Industrial Companies**

“In the face of an activist threat, management may be inclined to provide additional disclosure to discourage potential intervention. This paper constructs an empirical model to measure the threat of activism and voluntary disclosure using a data set of 92 industrials focused activist events from 2008 to 2019. Propensity score matching is used to identify close peer firms that experience a threat of activism at the time a campaign is announced. Results from a difference in differences analysis indicate that firms targeted by hedge fund activists provide additional disclosure in the two-year period following the campaign announcement, as seen through an increase in the number of 8-Ks filed and an increase in their associated word counts. As for the non-targeted peer firms, the results suggest that an increase in the perceived threat of activism leads management to file fewer 8-Ks after an intervention that are shorter in length, as well.”

**SAMUEL HARRISON, BA/MA**

**Viruses vs. Vaccines and Policy Responses: Relative Market Performance Across 80 Countries during the Covid-19 Pandemic**

“This thesis studies the effects of the Covid-19 pandemic on relative stock market strength on a regional and overall basis from...”

See Oral Defense Presentations on page 9
January through August of 2021 across a panel of 80 countries. Data are measured weekly for numerical growth in cases, deaths and vaccinations, as well as Oxford indices measuring lockdown stringency and government economic support. Building on a previous study, Burdekin and Harrison (2021) found that increased growth in cases throughout 2020 was correlated with worsening relative market strength in each countries’ main stock market index, and markets had mixed responses on a regional basis to levels of lockdown stringency and government economic support. Comparing market reactions in 2020 to 2021, with the inclusion of newly available vaccination data, panel regression analysis indicates that markets in regions with declining growth in death rates benefited the most in terms of relative market strength. Regional market reactions to growth in vaccinations were mixed, though the vaccine’s ability to significantly limit Covid-19 mortality indirectly boosted market strength through decreasing deaths. Levels of lockdown stringency and economic support produced varied results by region, though notably high stringency weakened markets in Latin America, and high levels of economic support in Western Europe displayed weakening market effects.

FJ HUSIC, BA/MA
Do Hedge Funds and Credit Default Swap Markets Shape Recovery Rates
“The empty creditor problem leads investors to believe that creditors will be less likely to renegotiate lending terms due to the ability to invest in credit default swaps. Thus, making the process of bankruptcy less efficient for any company. Additionally, Hedge funds have been shown to improve the outcomes of the processes through empirical studies. In order to learn about the effect of both simultaneously, the paper looks at the recovery rates and outcomes when hedge funds are versus are not present in CDS cases. The findings show that there is a clear negative skew for recovery rates when hedge funds take a creditor position and a CDS market is available.”

SAMUEL JOHNSON, BA/MA
Media Merger Madness: An Event Study Analyzing Acquirer Returns in Media & Entertainment
“Utilizing an event study methodology, this paper studies the effect that mergers and acquisitions (M&A) announcements have on media acquirors’ stock returns. This study also examines the effect that various characteristics of the target and acquirer have on acquirors’ returns. These characteristics include: location of the acquired company, year of the acquisition, industry of the acquired company, size of the acquirer, and serial acquiror status of the acquiror. My findings are consistent with previous literature that find that, in a short-term event window surrounding the announcement of a merger or acquisition, acquirors experience returns that are not significantly different from zero, on average. Additionally, my results indicate that an increased acquiror size corresponds with a predicted increase in acquiror returns and that acquisitions of media companies correspond with a predicted decrease in acquiror returns.”

TANYA KAPOOR, FES
Retail Investor Attention and Returns of Biotech Stocks
“This study investigates the impact of retail investor attention on the returns of biotech stocks. More specifically, I examine the effects of attention on both short-run (one year) and long-run (five years) returns. I measure a company’s retail investor attention using the Google Search Volume Index for its ticker. Using an OLS regression, I regress the Fama French and Carhart factors onto monthly holding period returns for a sample of biotech companies from 2016 to 2020. In the regression model, I attribute alpha, which are excess returns not explained by the Fama French and Carhart factors, towards the effect of attention. The results revealed that alpha was not significant, and therefore I find that retail investor attention is not correlated with low or high excess returns for biotech stocks.”

ROBERT LIU, FES
NFT-Related Companies: Token Sale Returns
“Non-fungible tokens (NFTs) have emerged as a new means of digital asset ownership and many companies are building projects that revolve around the technology. These companies are blockchain-based and raise capital for their projects through cryptocurrency token sales, which have become a new mechanism of entrepreneurial finance. In a sample of 62 NFT-related companies, I examine which company, fundraising, and token sale process characteristics are associated with the performance of 7-day and 60-day market returns after a token’s public listing. A multivariate regression analysis finds that the total amount of capital raised before a token launch has a negative relationship with the 7-day and 60-day market returns. Ethereum returns, the length of the team token lock-up period and the presence of a vesting schedule have positive relationships with 60-day token returns.”

MAISY MILLS, FES
The Supplier Shield: COVID-19 Effects on Suppliers of Highly Affected Industries
“This paper examines the effect Covid-19 has on hard-hit industries and their suppliers. By looking at the widening of credit spreads on corporate bonds, a shield can be observed through the disproportionate way Covid affects hard-hit companies compared to their suppliers. The dataset looks specifically at three highly affected industries which are accommodation, air transportation, and full-service restaurants. This paper runs a linear regression that looks at the effect that being one of the main 3 frontline industries has on credit spreads of corporate bonds versus that from being a supplier of these industries. The regression highlights the effects that the specific events of Covid-19 and the Federal Reserve’s announcement to offer support have on these different industries as well. The paper concludes that the effect of Covid-19 in widening credit spreads is more associated with frontline
2021-2022 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:

**Brooklyn Button ’22**
Brooklyn is a CMC senior majoring in Applied Mathematics and Economics with a Sequence in Financial Economics. Though she grew up in Iowa and the Netherlands, she now calls Orange County home. In addition to being a twice-awarded BMGI/Michael Larson Asset Management Fellow, she is a Robert Day Scholar, as well as a CMS cross country and track athlete, the Portfolio Manager of the Healthcare team in the CMC Student Investment Fund, and an Accounting TA. This past summer, Brooklyn worked remotely with Citigroup’s Technology Investment Banking team, based in San Francisco. After graduation, Brooklyn is looking forward to working as a Private Equity Analyst for The Riverside Company in Santa Monica. In addition to long-distance running, Brooklyn enjoys golfing, surfing, art, and musical theatre.

**Jessica Cuna Zamora ’22**
Jessica is a senior at CMC pursuing a Bachelors in Economics and a Masters in Finance through the Robert Day School of Economics and Finance. In addition to being a BMGI Fellow and a RDS Scholar, she is the Healthcare Vice President for the Student Investment Fund, a founding member and CFO of Smart Woman Securities, and a member of the affinity groups ¡Mi Gente!, Chicano/Latino Student Affairs and 1Gen. Upon graduation she will be joining Wells Fargo in Charlotte, NC with the Healthcare Services Investment Banking team. In her free time, Jessica enjoys running, practicing Japanese, and drinking boba with friends.

**Sohrab Dubash ’22**
Sohrab is a senior at CMC pursuing a BA in Economics and Data Science and an MA in Finance. In addition to being a BMGI Fellow, Sohrab is a Robert Day Scholar, a Bloomberg Tutor at the Financial Economics Institute and a Portfolio Manager for the Student Investment Fund. Last summer Sohrab interned with Houlihan Lokey’s Financial Restructuring Group in Los Angeles, where he will be returning full-time upon graduation. In his spare time, Sohrab enjoys cooking, taking photographs and playing poker.

**Audrey Guilloteau ’22**
Audrey is a senior at CMC from Austin, Texas pursuing a Bachelors in Economics and a Masters in Finance through the BA/MA program. In addition to being a BMGI Fellow, she is a Robert Day Scholar, a Research Analyst at the Financial Economics Institute, the Energy & Utilities Portfolio Manager and the Director of New Analyst Training for the Student Investment Fund. Last summer, Audrey interned in the Financial Institutions M&A Investment Banking Group at Goldman Sachs in New York and will be returning there upon graduation. In her free time, Audrey enjoys trying new restaurants, going to concerts, and spending time with friends.

**Karina Park ’22**
Karina is a senior at CMC, majoring in Science Management on a Data Science track. In addition to being a BMGI Fellow, she is also a Robert Day Scholar, Tour Guide, Research Analyst for the Financial Economics Institute, VP of the Consumer group in the Student Investment Fund, accounting TA, mentor for the Asia Pacific American Mentoring Program, Resident Technology Assistant, and Center for Innovation and Entrepreneurship fellow. Last summer, Karina worked at Bank of America in New York as an investment banking analyst for the Leveraged Finance group and will be returning upon graduation. In her free time, Karina enjoys hiking, traveling, reading, and finding and trying new restaurants.

**Anna Raines ’22**
Annie is a senior from Danville, California, pursuing a dual major in Economics and History. In addition to being a BMGI Fellow, Annie serves as the CEO of the Student Investment Fund, a First Year Guide, a history research analyst at the Gould Center, and a tutor at the FEI. In her spare time, Annie enjoys DJing, playing piano, watching Chef’s Table, and olympic weightlifting. In previous summers, Annie has worked in wealth management at Morgan Stanley, high yield credit at TCW, and recently completed an internship in Technology M&A investment banking at Citigroup. After graduation, Annie will join Citigroup full-time as an investment banking analyst in New York City.

See BMGI/Larson Fellows on page 11
**John “Will” Wallace ’23**

Will is a junior at CMC majoring in Economics and Philosophy with a sequence in Financial Economics. In addition to being a BMGI/Michael Larson Asset Management Fellow, he is a Robert Day Scholar, a Portfolio Manager for the Student Investment Fund, an Associate Director for the Claremont Consulting Group, and a Corporate Finance tutor. Will has spent past summers at Hawk Ridge Capital Management, a long/short equity hedge fund, and Source Capital, a boutique middle market private equity firm. Next summer, he will work at Moelis & Company as an investment banking summer analyst in the Los Angeles office where they focus on mergers and acquisitions, restructuring, and capital markets advisory. In his free time, he enjoys nonfiction reading, fitness, and NBA basketball.

**Jeri “Raizel” Yu ’22**

Raizel is a senior at CMC pursuing a BA in Economics with a Master’s in Finance through the Robert Day School of Economics and Finance. She is originally from Manila, Philippines, but calls Guam home. In addition to being a BMGI/Michael Larson Asset Management Fellow, she is a Robert Day Scholar, a co-founder and current CEO of the chapter of Smart Woman Securities at CMC, and a Head Mentor at the Soll Center for Student Opportunity. Raizel is a Girls Who Invest Scholar and spent a summer working at Bain Capital Credit. This past summer, she interned as an Investment Banking Summer Analyst at the Financial Sponsors and REGAL group of Credit Suisse Los Angeles where she will return full-time upon graduation. In her free time, Raizel enjoys attending open houses, playing pickleball, and hiking with her white Siberian Husky, Alpha.

---

**Oral Defense Presentations**

**ALEXANDRA WILSON, FES**

*Private Equity – the Rescue or Destruction of Financially Distressed Investments*

“This paper investigates the effect PE-backing has on portfolio companies in financial distress. Inspired by the more recent questioning of the morality of the Private Equity industry, this paper analyzes the change in financial health after a PE buyout transaction and directly compares that of financially distressed firms during the same time period that were not PE-backed. This study utilizes a dataset made up of financially distressed, public US firms as of 2009, and assesses the change in Z-score ~10 years after PE investment to determine whether PE-backing has an effect on the change in financial health. The negative coefficient in the regression results suggest that PE-backing has a negative effect on difference in Z-score between 2009 and the last twelve months financials. However, these results are insignificant at the 90% and 95% confidence level and I am unable to conclude that PE backing hurts companies in financial distress in the general population. Limitations in the availability of data that resulted in a much larger sample of non-backed financially distressed firms than those that are PE-backed may have contributed to the insignificance of the results for this sample.”

---

**ALEXIA SCHULTEN, BA/MA**

*How Do Firm Characteristics Affect Stock Price Reactions to COVID-19 Fiscal Stimulus?*

“This paper examines the relationship between firm characteristics and a company’s stock returns surrounding the announcement of the CARES Act. The stock returns included are cumulative abnormal returns calculated for each consumer goods stock in the S&P 500 surrounding March 25th, 2020, the day the CARES Act was passed by the U.S. Senate. The paper includes a cross-sectional ordinary least squares regression that attempts to uncover the empirical determinants of stock price reactions to COVID-19 fiscal stimulus. The findings suggest that financial leverage is highly correlated with cumulative abnormal returns. Whether a company sells consumer staple or consumer discretionary products is also significantly correlated with cumulative abnormal returns.”
SPRING EVENTS

Financial Services Summit
January 9–14, 2022
In lieu of the New York City Networking Trek this year we will hold the first ever on campus Financial Services Summit jointly with the Robert Day Scholars program.

Introduction to Blockchain – Prof. Nishant Dass
February 18, 2022
Presented by FEI and RLCIE

Claremont Finance Conference
February 18, 2022
Sponsored by SIF and FEI
Featuring a virtual Fintech Panel session in the afternoon with Ben Colman ’03, Founder & Reality Defender; Sandeep Bhandari, Fintech Entrepreneur; and Daniel Shi ’07, Angel Investor & Fintech Operator, followed by an Athenaeum talk “Trends in Finance: The Long View” by CMC Trustee, and FEI Advisory Board Co-Chair, John Shrewsberry ’87 P’24.

Prof. John List’s (U Chicago) talk at the Athenaeum
March 8, 2022
“The Voltage Effect: How to Make Good Ideas Great and Great Ideas Scale”
Sponsored by FEI and Lowe Institute

Private Equity Case Competition
March 21–25, 2022

Annual Cascade/Michael Larson Stock Pitch Competition
April 8, 2022

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.

The Exchange newsletter is published by the Financial Economics Institute at Claremont McKenna College.