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CHAIR'S CORNER



Greetings from the Department Chair

by Younghwan Song, Department Chair

reetings from Lippman Hall, Home of the Economics Department at Union!

As the new department chair, I am delighted to share an update on the Economics Department in the Newsletter for the first time.

I thank Professor <u>Lewis Davis</u> for leading the Department through the COVID-19 Pandemic from 2020 through 2023. During his chairmanship, three professors, Lek Yaisawarng, Therese McCarty, and Shelton Schmidt, retired, and two tenure-track assistant professors, <u>Prateek Arora</u> and <u>Zachary Rodriguez</u>, joined the Department.

Professor James Gavin from Clarkson University retired last summer after offering ACC 100 Intro to Accounting to economics students at Union for many years. The Department wishes him the best in his retirement. The Department is excited to have Professor John Cozzolino, who will teach three sections of ACC 100 each year. In addition to being a Certified Public Account, he has many years of experience as a C-suite executive.

The Department just started a search for a threeyear visiting professor to teach ECO 242 Macro Economic Theory and Policy and other elective courses. This search process needs input from students. I hope many economics students can attend the lunch meetings with the candidates during the spring term. Please look for the invitation from the Department.

Last December, the second <u>Union Financial</u> <u>Network Finance Bootcamp</u> was successfully held in New York City. Twenty students spent two weeks in this program, designed to help students transition to a career in finance, and an article in the Wall Street Journal on internships (<u>December 14, 2023</u>) featured many photos of these students. In the first week, students learned about finance and asset management concepts through a case study of Yeti from Professors Prateek Arora and Tomas Dvorak. During the second week, students visited multiple major financial companies and networked with alums working there. This program was introduced through a partnership among the Economics Department, the Becker Career Center, and the Union Financial Network¹.

The Department is grateful to the Union Financial Network for its generous support for the program.

Last fall, the Department started to offer ISC 111 Portfolio Management, a practicum course. Students in this course manage a portion of Union College's endowment, the Student Investment Fund. The students are responsible for monitoring the fund's performance, asset allocation, security selection, and governance. Student presentations make up most of the course. These consist of portfolio performance reviews, investment pitches, divestment pitches, industry research reports, and recommendations on voting shares owned by the fund. Students need to take this course three times to receive one credit.

The Department just had two exhilarating events related to senior theses. During common hour on March 7, twenty-two honors candidates in the Department presented their thesis posters in the Wold Center Atrium. Many economics students and faculty attended this honors poster session and appreciated the accomplishments of these students. After over a decade-long hiatus, the Department threw a senior thesis party on March 12 at Old Chapel to celebrate the end of the two-term thesis process.

Junior economics majors! Reading about all these exciting events related to senior theses might make you eager to start working on your thesis. As a first step, there will be a thesis information meeting in the spring term. Please look out for the email announcement from the Department and make sure to attend it.

I wish you all a wonderful spring!

Younghwan Song, Department Chair

¹The Union Financial Network connects students who are interested in careers in finance with alumni, parents and friends who work in a broad range of associated areas, including investment and commercial banking, hedge funds, asset management, trading, corporate finance, private equity, venture capital and real estate development. Student-alumni connections are fostered through mentoring, alumni career panels and fora, speakers series and internships.

NVIDIA's Incredible Year

By Talha Khan '26

On March 3rd 2023, the NVIDIA stock was trading at a respectable USD 238.90. About a year later, today it is trading at USD 926.69. This is a growth of almost 300% (!) which is something extremely rare in the stock market, and even more so for an S&P 500 Company due to the fact that most already have a large market capitalization. This also puts NVIDIA among a select few companies to have a valuation of a trillion dollars or more. This should immediately raise these two questions in the mind of any Economics student: What caused this to happen, and how could we have seen this coming?

To answer these questions, we will first try and get an understanding of NVIDIA; what the company is, what it sells, and what makes it unique. If you have a Gaming Laptop or a Gaming PC, you are sure to have heard the name NVIDIA as their primary product is Graphic Processing Units (GPUs). Initially designed for image processing, their ability to speed computational processes has made them incredibly well suited for Artificial Intelligence.

With 2023 came the rise of Generative AI, and it doesn't seem to be slowing down anytime soon, with Bloomberg Intelligence predicting that it will see a Compounded Annual Growth Rate of 42% over the next 10 years. We have all seen the power of AI thanks to tools such as Dall-E and ChatGPT, and at a corporate level firms want to integrate it into their daily operations to save time and money. This has driven the demand of the AI industry, and NVIDIA's solid position as a

reliable supplier coupled with their strategic decision-making has allowed them the opportunity to grow their revenue exponentially in this market.

NVIDIA has few competitors in the market such as Broadcom Inc and Taiwan Semiconductor Manufacturing, both of which have seen respectable growth in the past year. It is important to note that these alternative semiconductor companies exist which provide a challenge to NVIDIA. NVIDIA's journey to the top hasn't been a straight up success. They have faced challenges from their competitors trying to earn part of the market share, as well as Economic policies around the semiconductor market e.g. the US restricted the exports of artificial intelligence chips to China which harmed NVIDIA, as they are based in California.

With the gift of hindsight, it is easy to say that NVIDIA stock was expected to go up but in reality it is incredibly difficult to foresee the direction that the AI Industry will take and how NVIDIA will react to that. However, in this one case there were a number of different things that went right for NVIDIA to make this happen. So here's a question to the reader: Do you think NVIDIA stock will continue to go up?

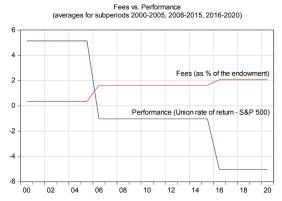


Endowment Management Costs Union Tens of Millions

By: Fatima Javed '25

he February 2024 report released by Eshragh Motahar, Professor of Economics, shows Union's endowment has underperformed the S&P 500 by 13 percentage points in FY 2023, by the end of which the endowment was valued at \$522 million. In addition, union reports a lower rate of return than the median rate of return for endowments in 2023 at 6.6%, compared to the 8.6% median. Adjusted for inflation, the value of the endowment in FY 2023 was approximately \$20 million lower than it was in 2008.

The following graph demonstrates Union's performance and the fees that were paid to investment managers, the data for which has been withheld as of 2021.



As the endowment report published by Professor Motahar demonstrates, several experts in the fields of financial markets and endowment management disagree with Union's current investment strategy.

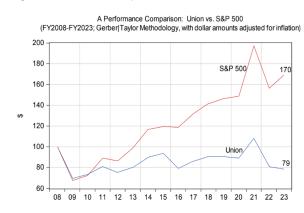
Several faculty members share concerns regarding the management of the endowment. John Cramsie, Professor of History, notes "There is a substantial body of research that demonstrates active management is less effective than passive management strategies: lower returns, higher management fees, and lucrative income streams for managers regardless of performance.". He continues, "The last lines of defense of active management are: 1) investment professionals are experts and know best; 2) everyone else is doing the same thing. The first is not supported by empirical evidence and the second is the kind of argument you get from bad actors attempting to excuse unethical behavior"

Keeping track of the endowment is vital for the current student body as well. This not only affects the overall reputation of the institution but directly influences the services provided by the school. Furthermore, there is a clear relationship between endowment performance and tuition increases. In order to compensate for the financial losses experienced as a result of endowment performance, Union has to increase tuition. In contrast, if the endowment performs well, students will be able to enjoy better quality services. Viola Li, Class of 2024, shares "As a local student with close connections to The College of Saint Rose that recently shut down, I worry about the College's potential to decline due to financial issues."

In my communication with several alumni, I noticed a pattern of growing concern over this matter. "This is completely irresponsible and unacceptable. No one that I have spoken to from my time at Union has a good explanation for the endowment's recent performance. The main concern for the alumni right now is that we are not confident that our contributions to Union will not be wasted by these unknown managers, and it is a deciding factor in whether we choose to donate." says Harry Berger, Class of 2023. In addition, Serina Beebe, Class of 2022, shares these concerns. "Union is continuing to ask individuals, both students and alumni, for money through donations and fees, but their ask is increasing, despite a constant decrease in the endowment. I am also highly curious as to why a portion of the endowment is sitting in the Cayman Islands", she says.

The issue of transparency remains central to the conversation surrounding Union's endowment. Since Professor Motahar's first report in 2021, it has become increasingly difficult to gain any sort of clarity on the matter from the administration. This informational asymmetry must end, and stakeholders must be given the opportunity to understand how these decisions are made, and who makes them. The fact remains that to date we do not know who these investment managers are, how much they are paid, or why they insist on using this particular investment strategy. To aggravate the issue, in 2020 around 54% of Union's endowment was invested in the Cayman Islands. In 2021, this percentage abruptly fell to 30%. Since then, there has been no further data regarding the percentage of endowment that is invested there. The important thing to note here is that the Cayman Islands are infamously known for being a tax haven. Mohammad Mafi, Professor of Engineering, commented on this "A concern that I have is Union's link to the Cayman Islands, which are perceived to be tax havens. I fail to understand the need to be registered in the Cayman Islands." There have been no specific answers to questions that have naturally arisen as a result of reading this information. I encourage Union's administration to provide clarity on these concerns to all stakeholders of Union College and to engage with the evidence provided.

For a better understanding of the long-term performance of Union's endowment, as compared with a widely used benchmark, the S&P 500, see the graph below. Note that the amount of investment management fees paid by Union, for this performance, during the 2008-2023 period, was over \$100 million.



Spring Upper Level Economics Courses

By: Alexander Chan '25

ECO-320 Seminar: Political Economy of Asian Development

How have Asian countries such as Singapore, Japan, and South Korea achieved their phenomenal growth rates in the last few decades? And what can other lesser developed countries learn and apply from the economic challenges these countries faced? In this class, students will be prepared to approach these questions through the use of econometric tools and relevant research, as well as through experience from analyzing various case studies on Asian political economy. This class will ultimately culminate in a major final research project.

ECO-334: Intro to Financial Analysis

In this course, students will be introduced to the fundamental concepts of finance, with topics ranging from the time value of money to risk and rates of return. They will also learn and explore topics regarding the analysis of financial statements, bond and stock valuation, capital budgeting, long-term debt management, and more. Taking this class will provide students interested in learning more about finance with valuable insight into the sector.

ECO-341: Topics in Microeconomics

This class expands upon the foundations of student learnings in ECO-241, Microeconomic Analysis. In this course, students will investigate topics that are hand-selected each year; such as subjects regarding game theory, general equilibrium models, public choice, and the structure and behavior of firms. Using various microeconomic models and their applications, this class will develop students' abilities for solving and analyzing economic problems.

ECO-350 Seminar: Experimental Econ

This seminar will provide students with an introduction to experimental methods in economics. Through the use of state-of-the-art research methodologies and the engagement in experiments related to bargaining, auction markets, and other economic situations, students will explore and test out various economic theories; either confirming or finding them incorrect.

ECO-353: Seminar in Econometrics

Foundations from ECO-243, Introduction to Econometrics, will be expanded upon in this seminar. Through delving into topics such as multicollinearity, serially correlated and heteroskedastic disturbance terms, systems of simultaneous equations, seasonal adjustment, distributed lag models, and other time series topics, students will be prepared to apply econometric methods in order to tackle economic problems.

ECO-354: International Economics

In this seminar, students will be introduced to topics related to foreign trade and international finance, protectionism, international migration of capital and labor, political economy of trade policy, strategic trade policy, and international coordination of macroeconomic policies.

ECO-357: Seminar in Open Economy Macroeconomics

Should countries choose fixed or floating exchange rates? What problems are created by capital inflows and their reversals? Is there a need for an independent central bank, and why have so many countries adopted inflation targeting? In this seminar, students will combine open economy macro theory with topics regarding exchange rates, monetary and fiscal policy, in order to effectively answer these questions. Students will additionally learn about policy challenges that developing and emerging market economies face.

ECO-373: Seminar in Environmental Economics

This seminar will examine the effects of economic activity and policy on the environment that we live in, as well as current environmental problems related to pollution, green policy implementation, and other sustainability issues. The two major objectives of this class is to prepare students to conduct and present professional economic research through proposals, papers, and presentations, and to increase their ability to analyze environmental problems through a deep economic perspective.

Student Investment Fund Update

By: Allyson Bennett '26

For the winter 2024 term, Union's Student Investment Fund (formerly known as the Garnet Group) voted on Apple proxy shares, debated four stock pitches, hosted alumnus Curtis Butler '90, and held a panel discussion on finance internships. Presidents Jake Ben-Ishay '24, Haba Kiiza '25, Veronica Lopez '25, and advisor Professor Dvorak led the club through an impactful winter term.

Unlike in previous years, the club is now a practicum and students can receive 0.33 credits per term if they choose. The requirements to receive a passing grade are to attend 8 out of 10 sessions and meaningfully participate in the fund. In addition, the club aims to change its method of investing the funds by doing four stock pitches each term. There are teams for different financial sectors, which are fixed income, biotech, emerging markets, tech, real estate, consumer discretionary, ETFs, utilities, financial services, and club governance, including ESG. These sectors work together to analyze their portion of the fund and prepare investment and divestment pitches.

"We want to move towards a more long term approach, more passive investing," Jake Ben-Ishay '24, Managerial Economics major and President of the fund, said. "There's a couple reasons for that. First of all, everyone who's in the club is a student, so we have limited manpower, and I think it allows us to keep a better eye on individual positions if we do that. Second, I think part of it is that we want to learn. But at the same time, we are an endowment, so we kind of have that duty to grow the value of that endowment over the years."

Last fall, the ETF team comprised of Sector Leader Liam Deming '24 and Sector Analysts Allyson Bennett '26 and Rathika Nair '26, successfully pitched PAVE, the Global X US Infrastructure Development ETF. Since when it was traded in early December, it has generated a 19.36% rate of return.

In addition, the fund invested \$120,000 in SGOV (13.72% of the portfolio), the iShares 0-3 Month Treasury Bond. "[Before the trade] our cash earned a very disappointing .45% annually, which is far too low for the current rate environment. Additionally, the risk profile associated with this trade is very low; an environment where our government can't pay back short term govt bond holders is an environment where our entire portfolio value would likely be destroyed. Considering the low-risk profile, this is essentially acting as a cash account for the foreseeable future." Ben-Ishay explained to the fund in November.

This term (from January 3rd to March 10th), the fund has overall seen a 6.27% rate of return, which underperforms the S&P 500 by 1.46 percentage points. The value of the fund sits at \$878,807.65. Currently, 68.52% of the portfolio is in US Large Cap Stocks, 14.37% in Fixed Income, 7.76% in US Small Cap, 5.08% uncategorized, 3.88% International, and 0.42% in cash & cash investments.

During weeks 9 and 10 of the term, the club presidents made two pitches and the Real Estate and Fixed Income teams made one pitch each. Real Estate Sector Leader Matthew Adner '26 and Analysts Dionis Polanco '24 and Luke McVeigh '25 pitched Prologis, a real estate investment trust. Currently, there are no real estate holdings in the portfolio. Fixed Income Sector Analyst Jerome Nsiiro '26 led a pitch for a fixed income holding. The Presidents pitched a portfolio clean up by selling all holdings under 1% of the portfolio value, whose ticker symbols are D, NEE, FDX, BIP, XLP, WMT, BND, GILD, EMB, VWO, and BEU. They also pitched the stock for the Cintas Corporation (CTAS), a leading provider of corporate uniforms.

Earlier in the term, Corporate Governance Director Dongjoon Jun (DJ) '24 and analysts Rathika Nair '26 and Michael Rocco O'Krepky '27 led a debate on Apple's proxy votes. The proxy proposals were presented by shareholders and consisted of reports on risks in Apple's equal employer opportunity policy, curating app content, Apple's position on privacy and human rights, Apple's use of AI, data on gender and race pay gaps, and CEO Tim Cook's compensation. Students in the fund narrowly voted "yes" on all shareholder proposals except for a report on Apple's use of AI. The fund currently holds \$68,292.00 (400 shares, 7.78% of the portfolio) of stake in Apple.

In addition, throughout the term, the fund hosted several professional development opportunities. Sector leaders and analysts prepared sector overviews for Curtis Butler '90, who then gave feedback to each sector. Butler also spoke to students about exploring different career paths in the Becker Career Center. In addition, President Haba Kiiza '25 led a panel discussion on finance internships with Veronica Lopez '25, Ryo Hashimoto '24, Ben Jacobs '25, and Leslie Quijada '24.

In the spring term, the fund will be advised by Professor Zach Rodriguez and continue its work on professional development and managing a portion of the endowment. It will meet on Wednesdays at 7 p.m. in Karp 105.

Let's Talk Thesis



Name: Katie Riley

Major: Economics

Thesis Advisor: Dong

Cheng

Thesis Topic: Effect of settlement currency exchange rates on oil prices and the role of geopolitical risk.

Describe Your Thesis: In the international market, transactions are carried out in three main currencies, the US dollar, Euro and Chinese yuan. Through my research I looked to explore how the relationship between settlement currency exchange rates and oil prices are affected by adverse geopolitical events, like war.

Why did you choose this topic: In my seminar in international finance I wrote about different currencies and their comovements as a result of the Russia-Ukraine war. At first I was interested in exchange rates and looking at things from a macro policy angle. Initially I thought about writing

something about Brexit, maybe even continuing my seminar research on the war, but I decided to make it more broad.

How has the Economics Department Prepared you for your Thesis:

Definitely econometrics helped, at first I was like what is the point of this class, what is a regression, how does this apply to anything in real life? My seminar really helped to prepare for my thesis, essentially like a practice thesis. I took it with my advisor, which is why I ended up choosing him, especially because I already knew what he would be looking for. It really helped to bridge the gap between econometrics and putting together what those concepts meant in the real world. In the fall term, my advisor held Stata workshops and Prof. Arora did a lit review workshop which was super helpful. Really the whole department helped set me up for success.

What has been the most challenging part of your thesis:

Trying to interpret results and draw them back to a conceptual framework and hypothesis. It's easy to look at numbers and interpret, but then connecting the results to my theory from the beginning of fall term was challenging and required a lot of going back and forth.

What has been the most rewarding part of your thesis:

Definitely seeing my results and seeing that they contribute to the economic world and seeing that my regressions not only worked but had interesting results. It all came together when I was making my poster for the economic honors thesis poster session, that was when it was really real.

What was the most impactful lesson you learned:

As a woman in econ I felt imposter syndrome a lot of times, sitting in the library asking myself "what am I even doing?" I had to remind myself that I'm just as smart and talented as my male peers, and that I did well in all my econ classes. It was daunting to sit behind a computer and do a lit review on 15 papers, but I knew I could do this.

Looking back on your experience, what advice would you give a current or future Union economics student:

Form relationships with professors in the department early on, a lot of them have previous work experience, or a lot of insight into what the future holds for students in economics and can help you discern your interests and help you set yourself up for success in the future by finding what it is about economics that you really enjoy.

Favorite Economics Course: Economics and Race, with Professor Schmidt, I found it really engaging. I'm interested in the macro policy side of economics so understanding how different policies have affected the country was super interesting and relevant.

What are you involved with on campus:

Women's crew team, Delta Phi Epsilon sorority, Peer mentor for accommodative services office.

INTERVIEW BY MILES FEE '25

Let's Talk Thesis



Name: Jake Ben-Ishay

Major: Managerial Economics

Thesis Advisor: Tomas

Dvorak

Thesis Topic: Bridging Markets: Exploring Public Alternatives For Private Equity Investment

Describe Your Thesis: Access to traditional private equity investment requires accredited investor status, which is impossible for the majority of investors to achieve. This motivates an exploration into publicly traded securities that might provide exposure to traditional PE investment. In my thesis, these are called *publiclyTradedAlternative(s)* and include the likes of publicly traded PE firms like Blackstone, KKR, and the Carlyle Group, along with PE ETFs. The main quantitative component of my thesis involves a time-series regression of *publiclyTradedAlternative(s)* on a private equity return benchmark, which is derived from Bloomberg's Private Equity All Capital Index.

Why did you choose this topic: My current internship has developed my passion for private equity, and the buy-side in general. Additionally, I've read multiple books on the topic, including two favorites: Barbarians at the Gate and The Power Law. All considered, the topic sprouted from the fact that I wanted to explore a relationship within the private equity ecosystem.

Describe your key thesis findings: My key findings include the fact that a true alternative to private equity investment may not exist. Even further, the total stock market (represented by VTI) outperformed all *publiclyTradedAlternative(s)* based on alpha return figures. Additionally, PE ETFs designed to provide exposure to traditional PE investment are highly correlated with PEALL; however, absolute performance is poor. Finally, there is a strong recommendation for traditional PE investment, considering the 8% alpha generated by the private equity benchmark (PEALL) when benchmarked against the total stock market (VTI).

How has the Economics Department prepared you for your thesis: Classes like econometrics have an obvious application when considering thesis preparation; however, there were other useful courses. The statistical background developed in econometrics helps with regression analysis, but the skills learned in a class like Data Visualization are arguably of the same importance. My thesis includes six data visualizations, all of which were efficiently created via Tableau, a software learned in Data Visualization.

What has been the most challenging part of your thesis: The most challenging part of my thesis was coming up with a topic, while also writing something that has never been written. I wrote six pages of introduction about the venture capital ecosystem, which was scraped once my topic changed gears.

What has been the most rewarding part of your thesis: The most rewarding part has been completion. With a brother who graduated from Union in 2020, I've stressed the task of writing a 40+ page long thesis for years. Now that I am finally here, I'm glad to say that it is not as hard as I once thought, and I thoroughly enjoyed the process. I am sure it'll be very rewarding to present during the economic honors poster session, too.

What was the most impactful lesson you learned:

The most impactful lesson I learned is to take criticism in stride. I've played football my entire life, so harsh coaching and criticism are no strangers to me; however, the thesis process is different. When you work on something week after week, and then don't receive the feedback you'd like, things can get frustrating. Regardless, Professor Dvorak helped me clear any hurdles that came my way.

What are you involved with on campus: Co-President of Union College Student Investment Fund, Starting CB on Union College's Football Team (played football all four years), and founder of Athletes With Influence (a non-profit that granted \$1,500 to a local youth football team to pay for new uniforms).

Fun fact/hidden talents or interests: There's nothing I enjoy more than skiing with friends. I write as a lefty; however, I play sports, and do everything else, as a righty.