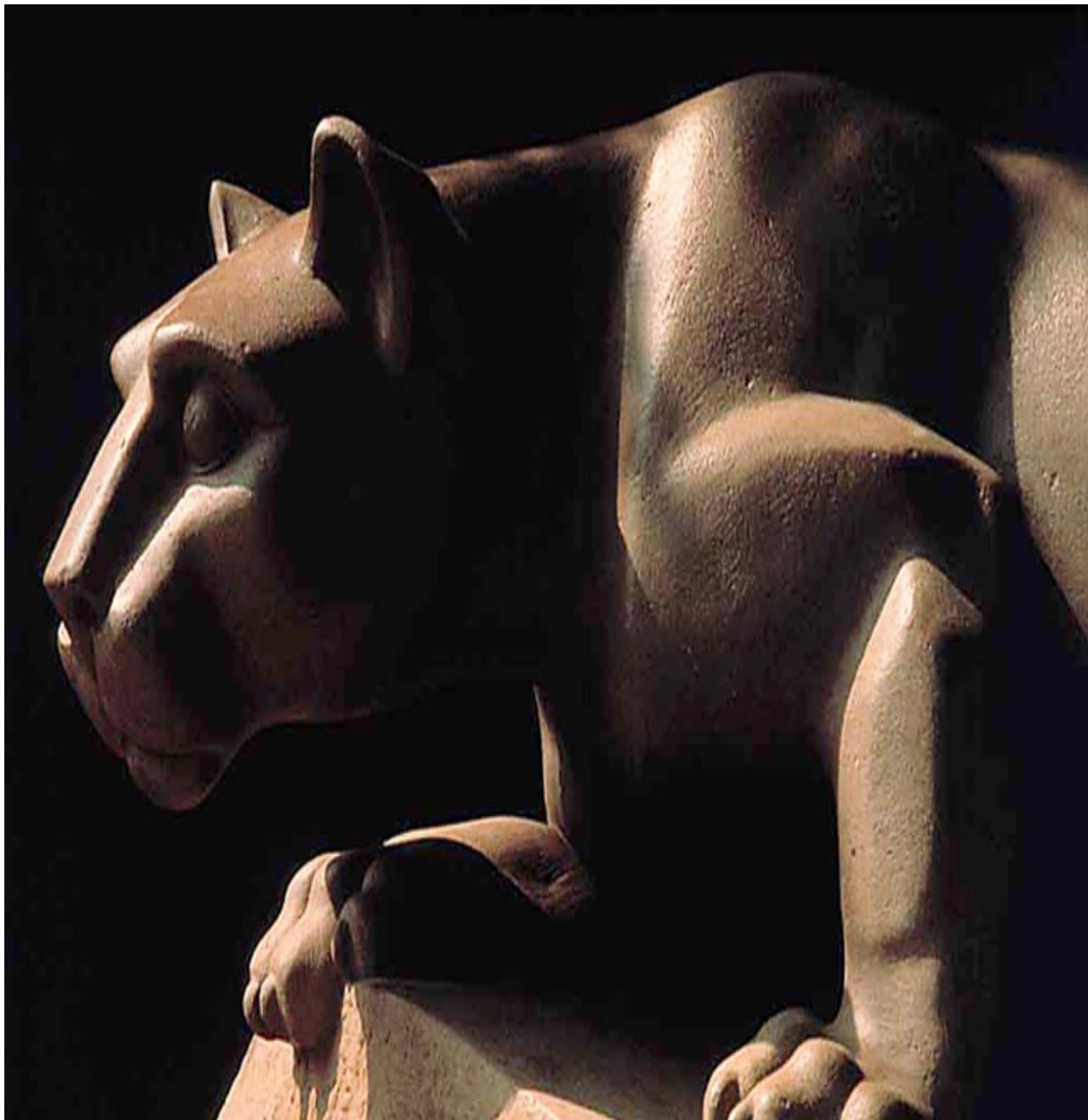




LIONTrader

The Official Newsletter of the Smeal College Trading Room



Smeal College Trading Room: Turning Lions into Bulls

Director's Note



PENNSTATE
SMEAL College of Business

The Blue-White game weekend marks the one-year anniversary of the Trading Room dedication. As part of this one-year anniversary, we are introducing *LionTrader*, the official publication of the Smeal College Trading Room. The objective of *LionTrader* is to keep Smeal College students and alumni up to date on activities in the Trading Room.

The pace of the activity in the Trading Room has picked up considerably since we began full-time operations at the beginning of the fall semester. The work of the undergraduate and MBA Trading Room Interns has been outstanding in managing the Trading Room and promoting new activities. To date we have hosted more than 50 special events and groups from around the University as well as sessions for local investment firms and investment clubs.

The primary classes that have met in the Trading Room are Finance 305, 406, 407, 408 and 410 and Econ 405.

The Trading Room has become the home of the Penn State Investment Association. This group of nearly 100 undergraduates has structured itself as an investment firm and has been very actively involved in researching stock ideas and the management of a stock portfolio.

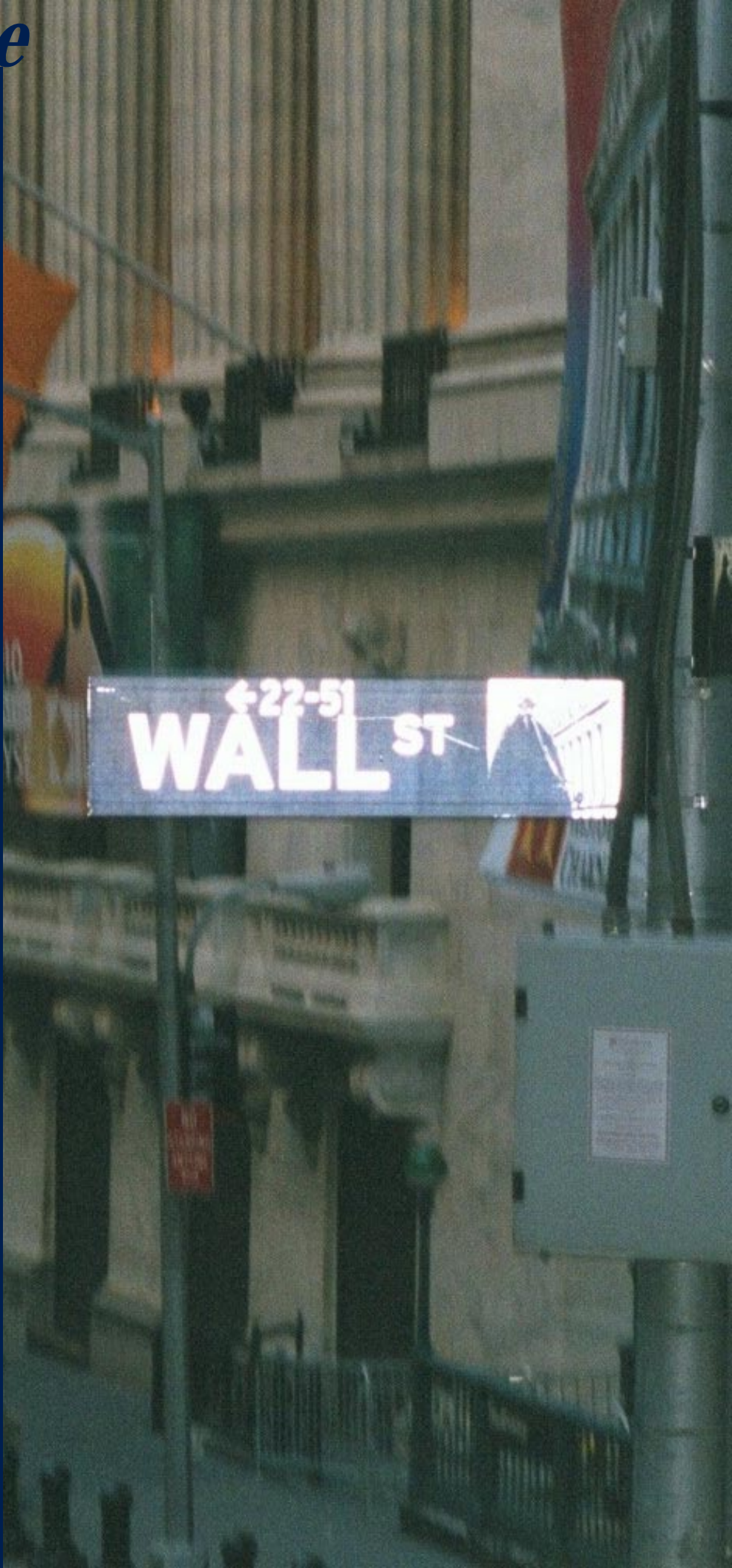
Classes on Bridge Telerate, Trade Station, and Bloomberg have been created to introduce students to some of the data and analytical resources of the Trading Room. These classes have been designed and taught by the Interns.

This spring a Trading Room Lecture Series was initiated to promote the Trading Room. The lectures are designed to bring timely topics on investing and trading to Penn State.

Students have been actively using the Financial Trading System (FTS) in Finance classes and participating in weekend trading cases. As discussed in Brad Polifron's article, "FTS Brings Wall Street to the Classroom," FTS allows students to learn elements of trading different types of securities – including valuation, arbitrage, hedging, and risk management – through case studies and trading competitions.

J. Randall Woolridge, Ph.D

The Goldman Sachs and Smeal Endowed University Fellow



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What You Should Know About the Smeal College of Business Trading Room

The Smeal College took a large step into the world of investment banking and trading with the construction of the new Trading Room. The goal of the Smeal College Trading Room is to put theory into practice by using state-of-the-art technology. This room allows students, faculty and researchers direct access to the global financial markets through technology and software programs. It also functions as a laboratory, classroom and showroom. The Trading Room is not a static entity; indeed it is a dynamic environment.

State of the art technology forms the basis of the Smeal College Trading Room. Live real-time data is sent directly through a T-1 line to thirteen large scale rack-mounted servers housed within the room. Data feeds such as Reuters, Bridge, and Bloomberg are distributed to the forty-four workstations. Each workstation has dual flat-screen displays, a dual-processor computer, and a suite of advanced software programs. Ticker displays mounted around the room provide quickly viewed quotes and news from multiple global indices and select large corporations, in addition to giving the room the feeling of a "Wall Street trading floor." The room also boasts commercial grade videoconferencing capabilities that allow researchers to collaborate with colleagues in academia and industry. Three plasma monitors, two 6-foot by 6-foot screens, and other audio visual equipment is used for classroom and seminar instruction. These types of technologies have changed the world of financial markets; in order to prepare for and participate in this arena, students and faculty must have them available.

The Trading Room also provides the Smeal College with an environment to create new classes and opportunities to expand current class curriculum. New classes in topics such as financial trading and risk management are now possible, presenting new opportunities for interested students. Current classes also benefit from the resources available in the Trading Room by allowing projects to be based on a large variety of data and specialized research that is now available.



Live trading simulations now allow teachers to demonstrate financial principles and structure lessons to include hands-on experiences, which help shape tomorrow's business leaders.

Each semester there are approximately twenty-five undergraduate interns along with several MBA interns who staff the Trading Room. These interns are responsible for providing students and faculty assistance from 9 a.m. to 5 p.m. in the Trading Room. The interns also set up and run trading simulations with other universities and for Penn State classes. Individual software classes and general Trading Room information sessions are also presented by the interns to the student body, staff, faculty, and other interested parties. These groups have twenty-four-hour-a-day access to the Trading Room through a cardkey access system.

Students gain tremendously from the use of the Trading Room. It functions as a laboratory for finance and allows classroom concepts to be discovered and tested in a live, real-world setting. In addition to applying classroom knowledge, the Trading Room helps students prepare for careers in corporate

finance, asset management and trading. Career preparation is achieved through live trading simulations, distinguished speakers, and general marketplace awareness. By having one of the few university Trading Rooms in the nation, Penn State students are afforded an advantage when entering the career search process. A student who has taken several laboratory-based classes, and independently studied during open lab times should easily find his or her way around a commercial trading floor.

Construction of the Trading Room was largely possible through the donation of Dave Rogers, a Penn State alumnus, formerly employed by Goldman Sachs. Merrill Lynch and Goldman Sachs provide financial support toward the ongoing cost of maintaining the Trading Room and its data feeds. Several other alumni and corporations helped make the Trading Room possible.

Article by Jay Hammarstedt & Gary Field

SOFTWARE

Of the Trading Room



TradeStation

TradeStation Pro is a direct-access trading platform. It provides quick and easy access to real-time NASDAQ level 2 quotes and the specialist's posted prices. Charting is quickly performed, and adding technical analysis to a graph takes only seconds. As easy as TradeStation Pro is to use, it provides users with extremely powerful tools to develop trading strategies and then back test them. For instance, if a student wanted to find out how often a particular stock ticks upwards twice after 3 consecutive down ticks, they could use TradeStation Pro. The student could quickly write the strategy and have TradeStation Pro back test the strategy for several years and return data. The data could include: how often the situation of three down ticks occurred, how often two up ticks followed the three down ticks, and it could also alert the student when the situation arises in the future. TradeStation Pro also allows data exportation into Excel. Jonathan Bore, head of the TradeStation Pro intern team says, "TradeStation makes it easy to download long-term data in Excel. For example, right now I am downloading data for all the S&P 500 stocks, and correlating their relation to the overall movement of the index."



Bridge Telerate

Bridge Telerate is used as a monitor for all the different global markets, from equities to currencies to international bonds. Users can set up several different "workspaces," each of which contain user selected analytics screens such as news monitors, charts, and data monitors. The user can easily switch between the screens, meaning a large amount of data is available to a user. Bridge's charting tool, Athena, is very powerful and allows detailed technical analysis to be performed and analyzed. Bridge is currently being used to export data into the FTS software, allowing users to track a portfolio of various financial instruments and put their knowledge to the test.



Bloomberg Professional

The Penn State Smeal Trading Room houses two Bloomberg machines, each with four monitors. Bloomberg provides extremely in-depth financial data for all types of securities. For instance, students can delve into products like mortgage-backed securities and find information about the underlying mortgages upon which the particular security is built. It gives students and faculty the ability to perform in-depth analysis on these financial products; like correlation analysis, theoretical pricing models, and potential arbitrage price discrepancies. Monitoring of the different global financial market data and news is easily done in Bloomberg. Bloomberg also provides a vast array of fundamental data and keeps financial statement data for the past several years. Detailed information on risk analysis and financial solvency can also be found for most securities.



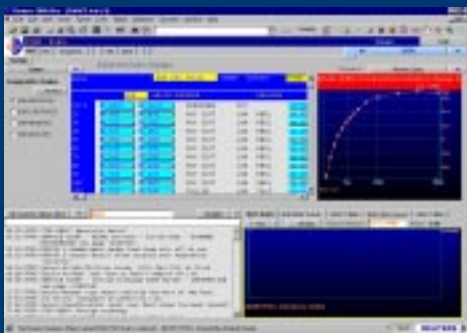
FTS

The Financial Trading System (FTS) was developed by John O'Brien at Carnegie Mellon University. FTS allows teachers and students to run real-time trading "cases" that teach specific concepts and strategies. Teachers can also modify some of the settings for preconstructed cases to adapt them to their class, allowing them to tailor the cases for certain lectures or class material. In addition, FTS provides a platform for multiple universities to run trading simulations together, having several hundred students trading at once. Brad Polifron, head of the FTS intern team, says, "In my opinion, the most unique aspect of FTS software is that it can be utilized by anyone who purchases the FTS software and has an Internet connection, allowing the user the potential to participate in a global marketplace setting." During trading, the FTS software allows market participants to post a bid and ask price (market maker) or be a price taker from the other market participants. In many of these simulations, it is up to the trading crowd to discover the actual prices for the case they are working on.



Barra

Barra has provided the Trading Room with Barra On Campus, which contains Barra's Aegis and Cosmos software. Aegis is a portfolio management program that enables users to build equity portfolios based on their risk/return requirements. Through Aegis, users can create efficient frontiers along risk/return dimensions, analyze the impact of leverage on portfolios, and perform tax optimization. Aegis also contains Alpha Builder, which enables construction of alpha predictions. While Cosmos is a portfolio management tool, it is also used to balance risk/return for bonds, derivatives and currencies. Cosmos provides users with derivative valuations and their impact on a portfolio, hedging currency risk, and possible future scenarios and their potential impact. Barra's software is particularly beneficial for students and classes studying investment management. The applications are founded upon models used in the classroom, such as CAPM, and demonstrate real world application of these models and other concepts from class.



Reuters

The Trading Room is in the process of adding Reuters 3000 Xtra to all of the individual workstations. 3000 Xtra is composed of Reuters Kobra and PowerPlus Pro. Kobra is an object-oriented program that displays data in detailed interactive displays. PowerPlus Pro is a group of financial calculators and analytic screens that allow users to access data in Excel. Currently, the Trading Room interns are forming a group to learn and teach Reuters to the student body and faculty.

Article by Jay Hammarstedt

FTS Brings Wall Street to the Classroom

The Financial Trading System (FTS) is a simulated stock trading system that utilizes an internet protocol (IP) to trade securities in a classroom setting. The IP connection allows students to trade securities with other students across the world.

The Smeal College of Business mission statement is, "A pre-eminent learning community shaping business practice for tomorrow's converging economies." Our trading simulation software, coupled with our information feeds such as Bloomberg, TradeStation, and Barra, is doing just that.

FTS is a highly advanced stock trading system that teaches students trading strategies and financial concepts. The students test their abilities in a simulated market setting. FTS uses a case based approach, and the Trading Room has a team of interns to work on the overall project. FTS software has been used by Penn State faculty in the past, but the software was not internet compatible. The Internet option expanded the potential of the product dramatically, allowing students to trade with other students around the world. The cases vary in levels of difficulty from the most basic concepts of bid/ask theory to the most advanced financial engineering concepts. The FTS team utilizes three types of applications: 1.) Class Case Studies 2.) Weekend Trading Case Competitions 3.) Real-Time/Security Trading.

The *Class Cases* aid students in learning and improving specialized trading skills in equities, bonds, currency, and derivative structures. The FTS team presents and runs these simulated cases for different classes, tailoring each case. Currently, there are two option/derivative classes that are running option simulators: an international business class is running a foreign exchange simulator, and a few professors are using CAPM and a basic equity case. The cases are different in nature and concept, and the software contains supporting financial software such as a binomial model tree and efficient frontier. In the option cases, students learn how to price options, and in a separate case, students plot an efficient frontier curve using historical data, and back-test their models for statistical accuracy. After the student's analysis is complete, they have the opportunity to trade according to their findings and strategy. The cases are intense, and the students are learning how these concepts can be applied in a real trading environment.

The interesting thing about the class cases is how they can be manipulated to teach other financial concepts. The FTS team created a group of traders who specialize in options/derivatives



Brad Polifron
FTS Team Leader

trading. Our options team, with the assistance of Dr. Cao, learned how to capture premium profits through trading calls/puts, while using a delta neutral strategy to reduce risk. In one case, we have the ability to not only teach students how to delta hedge, but also how to create synthetic options while minimizing transaction costs. For example, if an equity collar is executed correctly, there should be very little transaction cost associated with the option purchaser, since buying a protective put is offset by the revenue generated from writing a covered call.

The second type of application is the *Weekend Trading Cases*. Students are excited about weekend trading cases, and are utilizing the Internet to trade with counterparts from schools such as the Massachusetts Institute of Technology, University of Michigan, and Carnegie Mellon. If you have ever played Internet Yahoo! games like chess or checkers, then you understand how an IP connection works. You can basically trade securities with anyone who purchases the FTS software and has an Internet connection, potentially creating a global marketplace. The students are very enthusiastic because the cases allow them to benchmark their performance against other traders across the country and, eventually, the world. Last semester, we participated in six weekend cases, and Penn State traders performed very well. The only glitch in the weekend trading cases is coordinating schedules with the other participating schools to generate liquidity in the marketplace. Currently, Robert Wall and William Gushard are working to coordinate times and dates with other schools in order to

eliminate this problem. Connecting FTS through an IP address, John O'Brien (Co-Creator/Partner, FTS), ran the first weekend trading case this year. Liquidity is sure to pick up as the word gets out, and Penn State will be on board the whole way.

The *Real-Time Trading* application allows students to trade mock positions of different security types associated with real-time market bid/ask spreads. Utilizing information feeds, students analyze stocks and create trading strategies. It is a new application, and will merge with our other information feeds such as Bloomberg and TradeStation, creating a setting of a real trading room environment. Until now, the Trading Room has been teaching students how to use the information feeds. Real-Time trading will add that extra dimension. Sachin Aggarwal leads Real-Time Trading, dealing with all issues in regards to set up, marketing, and implementation.

A trading system like this has a lot of potential for academia and employers alike. Low set up costs, worldwide information transfer, and the capability to capture a student's trading performance will eventually bring the employers from investment banks, trading outfits, asset management houses, and hedge funds closer to the talented students. I imagine that in years to come trading competitions will become an expected rite of passage to enter the investment management workforce, similar to a college athlete training for the pros. The skill set that students acquire from a trading system far outweighs candidates who did not participate in simulated cases. Walking into interviews, students can say, "In addition to my understanding about the theory of hedging, I also hedged a mock \$50 million bond portfolio in the loom of credit crunch in the Trading Room, and by the way, if I had to do it over again, I would do it this way instead." The trading simulation acts in the same respects as a chemistry lab experiment, allowing students to litmus test concepts they learned in the classroom.

So, what is the downside to FTS? Some people still do not understand how the technology works or believe the technology is too complex. This is a fallacy. The technology itself is simple, and requires basic computer proficiency. The biggest challenge is to understand the cases and learn the trading skills. The cases require an investment of time. Many professors who become involved in the process of presenting cases find this out rather quickly. The second issue is familiarity with the FTS system and trading concepts. Most people who are introduced to the trading simulator are not going to be completely proficient from the start. I have seen

investment management professionals get beat up in the simulator. It just takes time for new users to get comfortable with the software. Most students are getting exposure to these concepts for the first time, creating a valuable learning experience.



Bob Wall
Co-Director of Weekend Trading

The nice thing about the FTS software is that we can modify cases on a continual basis with FTS. We download the software from an IP every time we use FTS. In other words, the Internet gives the software the ability to always be in a constant state of change. The wonderful thing about this capability is that the product continually evolves. Weighing the benefits against the costs, I believe the investment of time is worth it for both faculty and students, especially since it is the only software out there like it.

Article by Brad Polifron

INVESTOR PSYCHOLOGY

Investors buy and sell securities, primarily equities, every day. Spotting their mistakes is easy; explaining why they make them is difficult.

In an attempt to make clear why investors do what they do, Dr. J. Randall Woolridge, Penn State professor of finance, held a lecture that explored the psychology of investing. The presentation, second in a series, was entitled "Assessing Your Investor Personality."

First, Woolridge explored the risk-return tradeoff. In other words, how much risk are investors willing to saddle themselves with in order to make a handsome profit? The flipside of that is, of course, a greater chance of losing money.

Woolridge walked retirees, students, and investment club junkies through the different levels of risk. Then, the night became interactive. Participants took an online quiz that assessed their current tolerance for risk. Brenda Black, a speech and language pathologist at the State College Area School District, said that her portfolio was weighted too heavily in stocks, and that she should "maybe change to some more bonds."

Moving along, Woolridge interpreted the risk results, mentioning that he had administered several thousand risk assessments, and the highest score came from a librarian. Unorthodox as it may sound, Dr. Woolridge explained, over a chuckling audience, that culture, age, and other factors play a role in individual risk levels. For example, single men have been found to have a higher tolerance for risk than married men.

The focus of the presentation then shifted from risk to investor psychology. "That's the fascinating part: what drives the market prices, perception," said Mike Contino, staff engineer with the Penn State Office of Telecommunications. What Mr.

Contino said captures the essence of investor psychology, how people perceive their investments and the markets in general.

After two quizzes, each dealing with investor personality/investor psychology, participants began to get a feel for why investors make mistakes with their money. Dr. Woolridge presented several situations to the audience and had them choose an outcome. The purpose of this exercise was to show that most people become risk averse when they make gains and high risk oriented when faced with a loss. An illustration of this is the proverbial double-or-nothing bet that gamblers often take when an initial loss is realized.

Dennis Ulp, an electrical engineer from Harrisburg, said that Woolridge "hit the nail right on the head with the presentation he had." Mr. Ulp was referring, in part, to Woolridge's describing a typical investor's greater sensitivity to loss than to gain. Mr. Ulp went on to say that "I did take a loss, and I did have that feeling."

The propensity to hold losing positions too long, and sell winning positions too quickly, is known as the disposition effect, and all investors are vulnerable to its effects. Donald Pallone, a telecommunications

technician with Verizon, came away knowing exactly what Dr. Woolridge was talking about when he brought up the disposition effect. Mr. Pallone said, "I always find myself saying 'I wish I would have gotten out last month.'"

Dr. Woolridge wrapped the night up with an open question and answer session. The dialog revealed satisfaction and increased awareness on the part of the audience. They asked intelligent questions, and they were given equally intelligent answers. This reporter asked individuals in attendance about the Trading Room, and was given a variety of positive responses.

Dennis Ulp said "This is phenomenal," and added "we picked up *The Wall Street Journal*, and that was how we got our news." Mr. Ulp's comments were echoed by many, but some pointed out that easy access to real time data, like that in the Trading Room, has become a contributing factor to market volatility.

Again, greed and fear may move markets, but Dr. Woolridge laid the groundwork for why the mind plays an important role in markets. Turnout was excellent, so there may be another presentation on investor psychology; I'll keep you posted.

Article by Bob Wall



HOLD?
UNDERVALUED?
TOO LATE?
BUY?
WHY?
SELL?
REALITY?
OVERVALUED?
WHEN?
TOO SOON?
GREED?

**Vice President - Fixed Income Trader, J.P. Morgan-Chase & Co.
Smeal College Emerging Professional Recipient - 2000-2001**

J.P. Morgan Chase & Co. market maker for:

- Corporate Bond Floating Rate Notes out to 13-month maturities
- Agency Bond Floating Rate Notes out to 13-month maturities
- Primary new issuance and secondary trading of Structured Investment Vehicles
- Commercial Paper, Floating Rate Commercial Paper, Structured Commercial Paper

A native of Charlotte, North Carolina, Henry Adkins' decision to attend Penn State on a football scholarship as a placekicker was one determined by several factors - the most important of which was the legacy of a Penn State education. His grandfather, William Palmer, was a 1941 Penn State graduate with a Masters degree in Education. Other factors that brought Henry to attend the University include his decision to take his athletic abilities to the next level, the reputation of Joe Paterno, and the success of Penn State's football program throughout the years.

After enrolling at the University, Henry would soon become a model student athlete, completing his degree as a distinguished athlete and student. In 1991, Henry was named the recipient of the football program's Academic Achievement Award. That same year he graduated with a bachelor's degree in Finance and accepted a position with J.P. Morgan & Co. as a cash manager in the Private Banking Division.

In a relatively short period of time, Henry moved to the next step in his career development, as he was selected for enrollment into J.P. Morgan's Market Training program in 1995. At the conclusion of the program, he joined the company's Fixed Income Division as a money market trader. Henry currently holds the position of vice president in the newly formed J.P. Morgan Chase & Co. and continues

to expand his role as a fixed income trader. Recently, Henry participated in the Smeal College's Wall Street Initiative as the lead contact for J.P. Morgan Chase. His objectives are to strengthen the corporate relationship between J.P. Morgan Chase and Penn State while focusing on assisting graduating seniors and their pursuit of a career on Wall Street. In addition to assisting Penn State students with their Wall Street careers, Henry and wife Joanne continue to support the Penn State football team and attend several football games throughout the fall season each year with friends.

Henry recently returned to Penn State to give a presentation on the fixed income and money markets, as part of

a continuing series of alumni lectures in the Smeal College. It was a great opportunity for undergrad and MBA students to learn about the intricacies of these markets, as well as to hear a firsthand account as to how a trader like Henry uses some of the same resources present in the Penn State Smeal Trading Room to position and react to the heightened volatility we have seen recently in the financial markets. I recently had the opportunity to ask Henry about the markets, Penn State, and the Penn State Smeal Trading Room. His remarks follow:



Interviewer, Louis Kahl(LK): Could you tell us what you think are the characteristics of successful traders?

While there is no set formula or model to becoming a successful trader, one if not all of the following characteristics, and a person's ability to capitalize on his or her strengths are key to establishing a successful career in trading: competitive nature, energetic personality, ability to thrive under pressure, quick decision making, resilience, strong analytical skills, intense focus, and willingness to take risks.

How do you feel Penn State prepared you to get to the point you are in your career today?

My Penn State experience established the groundwork for my development as a trader. I received a solid technical education in finance, but it was the personal development of "soft skills" that was the key. My experiences as a placekicker for the football team under Joe Paterno during my collegiate years allowed me to build self-confidence in my ability to react in pressure situations, although nothing on Wall Street is as intimidating as walking out onto the field at Beaver Stadium!

We hope that the Penn State Smeal Trading Room will help to develop a greater interest among Penn State students in careers in the financial markets. Do you see any additional benefits of having this facility?

The Trading Room will give students the appreciation of the real-world application of academic theories. Students will be able to learn the "art of trading" through real-time

simulations based upon actual global markets. Drawing upon and identifying market variables and developing opinions on the state of the market through a simulated risk position, students will "feel" highs of success and lows of failure as the markets move. The students will begin to understand how and why markets move by being a part of it and not just reading about it. The only real way to become a successful trader is to sit down and do it!

Are there certain elements of working in the markets that are void of textbook scenarios and answers, and if so, how do you think the Trading Room will help?

The Penn State Trading Room has many of the same technologies and applications that are used every day at J.P. Morgan Chase that help us to determine how markets react to news and information as it is disseminated to the marketplace. Exposure to such realistic trading tools provide a practical foundation upon which a Penn State student can build upon their academic education. This will enable the Penn State student to compete at the highest level for Wall Street jobs.

A lot of people move around often on Wall Street. What are some of the things you find interesting about the money markets that keep you there?

The Wall Street landscape is constantly changing as firms go through periods of expansion, contractions, or consolidations. With the dynamic job market of Wall Street, opportunities keep people moving or altering their careers. I am somewhat of an exception having worked at J.P. Morgan for my

entire career. At the end of the day, the extraordinary people I work with are one of the main reasons I continue to work in money markets and at J.P. Morgan Chase. My job function allows me to interact with almost every other group in fixed income while new product development and constantly changing markets allow for personal growth within my profession.

How has your job changed in the last year, as the markets have weakened and experienced events like September 11, the Enron bankruptcy, and fears of more negative accounting issues?

The U.S. money markets had an unprecedented year in 2001; 11 interest rate cuts, a recession, terrorist attack, anthrax scares, an ongoing war, the Enron debacle, high-profile U.S. corporate bankruptcy filings, corporate accounting issues, and significant corporate credit deterioration in energy, telecom, auto, and finance companies sectors and yet my job function is basically unchanged. My responsibility as a market maker for J.P. Morgan Chase is to provide liquidity for our issuer and investor clients in a sometimes unstable economic/political environment. Where it is true that market volatility has increased significantly and liquidity provided to the marketplace has diminished, ultimately the markets have worked in an appropriate manner reassessing risks/rewards. As a trader, market volatility presents opportunities to express and act on your views of the market and hopefully profit from those views (so far so good!).

Interview & Article by Lou Kahl



Interviewer, Louis Kahl: Whenever we see pictures of the stock exchanges on TV, it appears to be nothing short of frenzy. Could you describe a little about how your role on the Philadelphia Stock Exchange (PHLX) contributes to this madness?

Walt Smith (WS): Being an operations/project management guy on the Philadelphia Stock Exchange, I do everything I can to enable our traders to maximize their profits. My basic job function entails, introducing new products that have been brought to us by an investment management company, to implementing a new index option developed by my counterpart Matt Holm. I also act on the business side as the Exchange pursues new ventures, or rolls out a new program such as our Equity Trading Permits. My day is filled with a wide variety of business operations, and there is never a dull day.

Matt Holm (MH): Thankfully, nothing. An exchange has many working parts, only one of which is the floor. As an upstairs exchange employee, I service the member firms and support the floor environment, without getting caught-up in the madness.

What do you find most exciting about working at the PHLX?

WS: The most exciting thing for me is being involved in the business decision-making process either by conducting the analysis, preparing the detailed business/

operational plan, or being part of any negotiations. Working for a small regional exchange affords me the luxury to be involved in a variety of things as we, the PHLX, pursue different business opportunities to stay competitive in this ever-changing market place.

MH: It's great to be able to see your work referred to on the nightly news, and have whole television stations devoted to your industry. Capital markets run the world, and it's exciting to be even a minute part of the machine.

What did you major in at Penn State, and what was your career path leading up to your position at the exchange?

WS: I began my Penn State career in 1986, and obtained a B.S. in Economics from Penn State, before starting my first job at the Vanguard Group. After a three-year tour of duty there, I went in a completely different direction for about two years. I was taking classes, and working in the computer industry doing production and some database administration. Then I thought to myself, I want to work on the Philadelphia Stock Exchange. Regulation was my initial venture, and, after a hefty pay cut, I started off as an entry-level employee, in the examinations department handling broker/dealer audits. After only two and half years, I rose to the title of Director and took over the department shortly after the departure of the department's vice president. Soon thereafter, an offer to move over to the business operations side was presented to me and that is where I am today.

MH: Finance. I thought I would be a stockbroker, but quickly realized I wasn't cut out for the sales aspect. I grew up in Philadelphia, so it was mostly luck and chance that I interviewed at the Exchange and realized it was a perfect fit.

The markets have become so infused with technology-How do you feel the Trading Room will help Penn State students gain an advantage on their competition?

WS: The Penn State Trading Room is an absolutely brilliant idea, and the University, with the generous support of Mr. Rogers, Goldman Sachs and many others, should be commended for making it possible. To be able to actually apply the theory you are learning, and getting

to experience real world trading conditions is invaluable. A Penn State student can actually say in an interview, because of the Trading Room, I have trading knowledge, and here is why.

MH: The Trading Room gives today's student a HUGE boost over students at other schools and even Penn State grads who left prior to the room's introduction. It took me several years in the industry to learn much of the vocabulary the students are now getting hands on.

How do you think the students and professors can use the room to really add value?

WS: In my opinion, the more cases and trading scenarios you practice, the better off you'll be. The idea of trading over the weekend against other universities is a great idea and solid experience. I would also suggest holding a variety of introduction seminars throughout the semester, encouraging all, even the non- finance majors to participate, as the financial markets influence everyone's life! Moreover, invite more nittany lion alums to participate in developing different trading cases for the students to use.

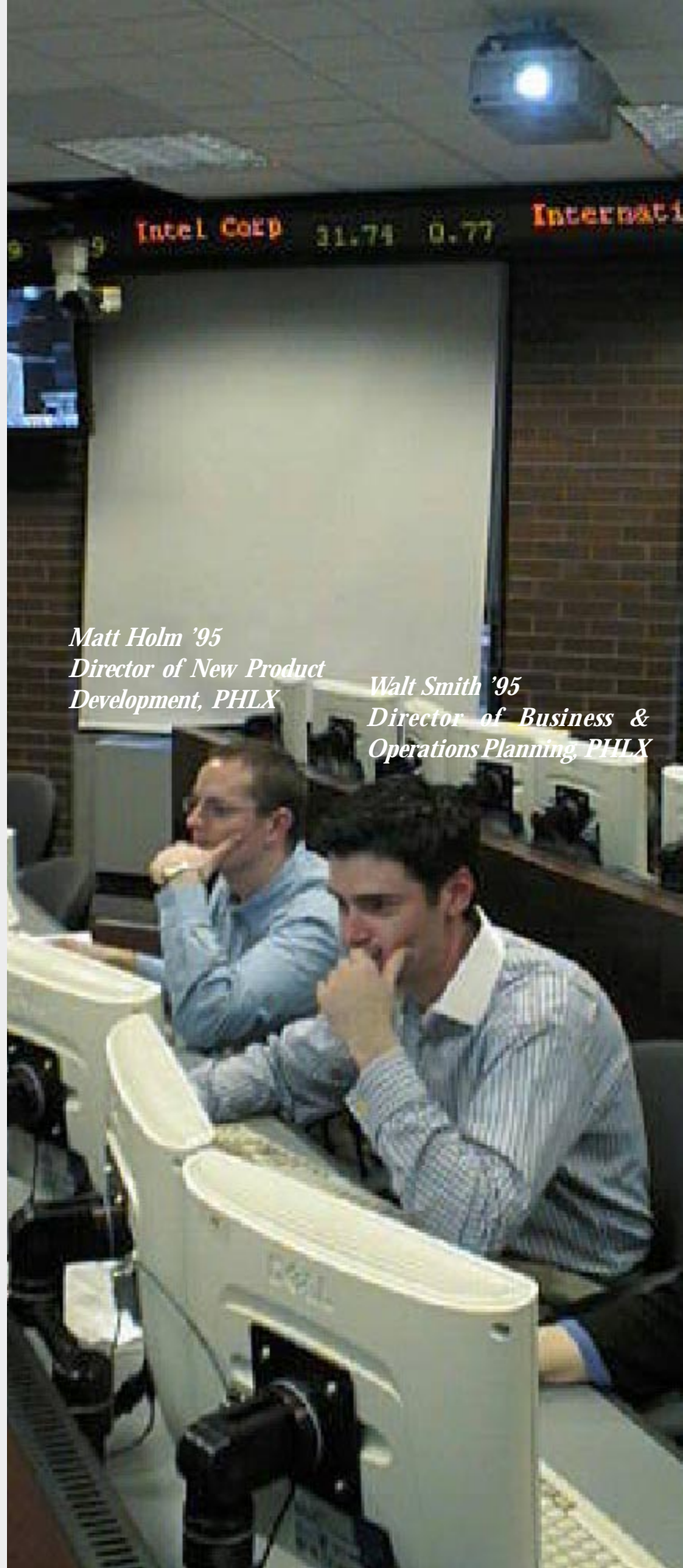
MH: I definitely think the room has great potential. Partnerships with trading firms and investment professionals should be the rule of the day to give the students some real insight.

From your work experience, can you name one or two things that you just do not learn in the classroom, but is essential for success in the financial markets?

WS: Some key items are the various trading rules, such as firm quote, and best execution requirements. Also, learning how to trade with customer order flow, and learning how to gauge and anticipate the minute-by-minute changes that occur everyday in the largest, most efficient market in the world. Penn State's Trading Room gives the current students a chance to learn this and many other real world occurrences. They are really fortunate to have use of this facility as part of their education.

MH: The most important thing Penn State gave me was the ability to think analytically, and the opportunity to learn how to learn. The securities industry is constantly evolving, and success will depend on creative thinkers who can absorb and adapt to new environments.

Interview by Lou Kahl



*Matt Holm '95
Director of New Product
Development, PHLX*

*Walt Smith '95
Director of Business &
Operations Planning, PHLX*

Interviewer, William Gushard: How did you get from Penn State to the derivatives trading boutique Cooper Neff (CN)?

After graduating from Penn State in 1980, I started in a management training program at Sun Oil Company. After about three years, I decided I wanted a career that was a little more high risk/ high potential reward. I had traded options for my own account for a while and I wanted to become a professional options market-maker on the trading floor of an exchange. After a quick stint as a broker, I was hired by Roy Neff who taught me to trade. Roy eventually became my partner along with Richard Cooper. We were organized as a partnership and our business was options market-making and eventually program trading. We started on the Philadelphia Stock Exchange as a group of about five and grew to about 150 traders, quants and software developers located in all the options pits in the US and London. We grew our capital solely through retained earnings but as a smallish firm competing against larger firms and banks, we needed more capital and access to the OTC markets where more opportunity existed. We decided we needed to hook up with a large financial partner that had a worldwide trading infrastructure but that sought some derivatives trading and modeling talent.

Tell me about the experience of selling Cooper Neff to the National Bank of Paris (BNP/ Paribas) in 1995 and then founding Gamma Investors.

Our deal with BNP/ Paribas was rewarding for both sides. BNP/ Paribas gave us the capital, market access, and infrastructure we lacked and CN provided the bank with an instant critical mass of human and intellectual property resources to deploy. The bank's global presence enabled us to enter new markets that we would never have been able to enter on our own. And the bank's capital enabled us to ramp up our trading size in all of our activities. When the employment contracts of the CN partners expired, we decided we wanted to return to our entrepreneurial ways so we established Gamma Investors. We are comprised of the original CN partners and a few others. We conduct three primary activities, all privately financed (no third party capital): VC investing, hedge fund investing, and prop derivative trading. Being privately financed has enabled the Gamma members to



stay involved with the markets but also to have a bit more time to devote to outside, non-commercial interests.

Gamma Investors is an “investment partnership that assists early- and middle-stage businesses by providing capital, strategic investor relationships, and know-how.” Could you explain how you assisted the world’s first online investment banking firm, Wit Capital?

We have made about ten to fifteen direct private investments in early stage companies. Wit was an early success. We have tried to stick to investing in companies whose business we understand, whose management we know or know of, and where we feel we can add more value than simply passively contributed growth capital. Wit (Capital) fit all three criteria for us. Our experience in the capital markets as traders and our network of contacts in that community was useful to Wit (Capital)'s business planning process.

Do you feel that your Penn State education (B.S. in Economics, 1980) had a significant impact on why you have been so successful?

Absolutely, not only the education, but the whole Penn State experience. I became a motivated student once I realized my passion for learning about finance and the capital markets (this took two years and a change of major). I had many fine professors that were experts in their field and adept at imparting their knowledge to the students. Also, I was in KDR fraternity. For me, fraternity life was operant in forging long lasting friendships and developing the skills required to live independently and

manage my own affairs (like paying utility bills and keeping the meals coming). The whole student life experience at Penn State was instrumental in forming my personal nature and providing me the tools to apply myself in the business world.

What advice would you give to a Smeal student who is interested in stock market related jobs?

Don't be afraid to take career risk to try to achieve your goals. Seize every opportunity offered to increase your level of responsibility. Move outside your comfort zone. Test yourself. Relocate if you have to. You'll be surprised to discover you are up to the task. Do all these things at a young age and you will move quickly through the career ranks.



What was your impression of the Trading Room and the Financial Trading System (FTS) that allows us to simulate a real market?

It was fantastic! I was impressed with the physical environment, of course, because it is indeed a state of the art facility that is fitted with all the tools of a real Trading Room. But more importantly, I was happy to see that the curriculum included, among other things, use of a software package that enables students to learn about market concepts that impact asset prices and then test their understanding of those concepts in a real trading environment via simulated group trading. The module-based, case study approach used in the Smeal Trading Room will certainly better prepare students for careers in sales and trading than any school without this valuable resource. Smeal students today are lucky for that!

Interview by Bill Gushard

“Don’t be afraid to take career risk to try to achieve your goals. Seize every opportunity offered to increase your level of responsibility. Move outside your comfort zone. Test yourself.”

Interviewer, William Gushard: Could you explain your career path from Penn State to Legg Mason?

I graduated from Penn State with a B.S. in Finance, class of '74. After graduation, I spent a year with the Commodities Futures Trading Commission in New York City as a Futures Trading Specialist. We returned to central Pennsylvania in 1976 when I took a position as a trust officer with a predecessor bank of Mellon Bank in Altoona. In 1979 I saw a small ad for the new Merrill Lynch office opening in State College and I submitted my resume. I caught a break and was hired almost immediately. I guess they felt my background in finance, trusts, and speculative markets would provide a good basis for a career as a stockbroker (that's what we were called back then!). In 1986 I opened the Legg Mason Wood Walker office at the corner of Beaver and Frasier as Branch Manager and have been here ever since. My current title is First Vice President – Investments.



What are your views concerning the new Trading Floor?

It was nice of Dr. Woolridge to invite local professionals for a tour of the new facilities. Randy has always had a good relationship with local professionals. I was impressed with the Trading Floor. I've been trying to get a flat screen for years and nobody can afford those big tickers anymore! So Penn State students have a first rate environment for learning about the way markets act. We have an internship program for Finance majors here at Legg Mason and for a few years I was worried that much of the class work was being directed towards money management, that is, managing other people's money. There seems to be a lessening emphasis on making money for yourself and for clients. The Trading Floor will give Penn State students real-time, hands on experience and nothing is more valuable for direct investing.

How did your client's attitudes change since the tech boom to the weak economy we are now faced with?

Most of my clients are mature and have seen several market cycles, although the boom and bust of the techs and dot coms was exceptional. Even seasoned investors got a little greedy. It's not normal that markets give you a chance to make 20% year after year but that was what we were shooting for in the late 90's. I guess we could say that even mature investors got singed a little and we have begun

a process of moving back to diversified portfolios with bonds, real estate, and cash to lessen the volatility.

What is your take on the market right now?

The market going forward should return to normal parameters, say 10% a year. A good manager or investor could add 2 or 3% on top of that over long periods. These are powerful numbers. Young people should recognize that there is a long term bias in their favor from the stock markets and should begin to invest now without trying to get rich quick.

Have you found any particular traits or past experience that makes someone a successful Financial Advisor?

I think a good financial advisor must always remember that they are in a fiduciary position with their clients. They should care for their clients' money as if it were their own. Still we generally must lead the clients along the path to their financial goals. It is the concept of yin and yang; if a client is too conservative, we should help him or her learn to quantify and accept risk. If a client is too aggressive, we should try to constrain their wildest ideas. Remember we are talking about a market rigged in our long term favor so the longer we can keep our clients at the table, the better chance we have to grow their capital. A good

financial advisor must also have selling skills because they must be able to convince clients to do what is in their best long term interest, not as easy as it sounds since uncertainty enters the equation.

A bad advisor is one who doesn't take time to really understand the client's goals and risk tolerance. A bad advisor takes clients out of their comfort zone. When you do that, you better be right. A really bad advisor puts his or her interests ahead of the client's interest and doesn't last long at a good firm.

With all of your experience in this business, what is the most important thing you have learned about investing?

Protect your capital. This doesn't mean to avoid all risks; it means knowing the difference between the odds and the angles. The long term odds of investing in the US market are in your favor so keep your money working there. Then there are occasional bull market runs that give you an angle or edge to grow your capital at greater than normal rates. Take advantage of these periods but only with a portion of your capital because these periods include excess risk. Think of long term investing as going up a mountain on a two lane road behind a convoy of trucks. Most of the time, you creep along, but once in a while there are passing lanes and you can zoom ahead. I like to think in terms of an 80-20 rule. It could be 70-30 rule or 60-40 rule depending on your circumstances. It means that you keep most of your growth capital focused on long term performance and a smaller 20, 30 or 40% portion reserved for aggressive strategies. This way, even if you do lousy with 20%, the other 80% can keep you moving forward.

There is nothing wrong with having some bonds, real estate, or cash in a portfolio to counter any unexpected events in the stock market. Never forget the old broker's saying; "Let your winners run and cut your losers short."

Has the education and experience you received at Penn State played a significant role in your success as a businessman?

My Penn State education in finance has been very helpful in whatever success I have had focusing on personal investing. My impression is that we spent more time on stocks, bonds and markets than today's finance majors. I would say less quantitative, more fundamental. I do recognize the world has changed a little since I graduated. Pooled accounts like mutual funds and 401(k)s are more widely owned and running a 150 stock portfolio requires different skills than running a 12 stock portfolio. Fortunately, there are still enough individuals investors that appreciate the higher risk / reward potential of a 12 stock portfolio, especially if you get four or five real good ones in there, to keep advisors like me in the business.

I also appreciate being able to build a successful practice back here in Happy Valley. Having done a little city time, I really enjoy the lifestyle here and the character of the people with whom I have personal and professional relationships.

Interview by Bill Gushard



Hedging the Sky

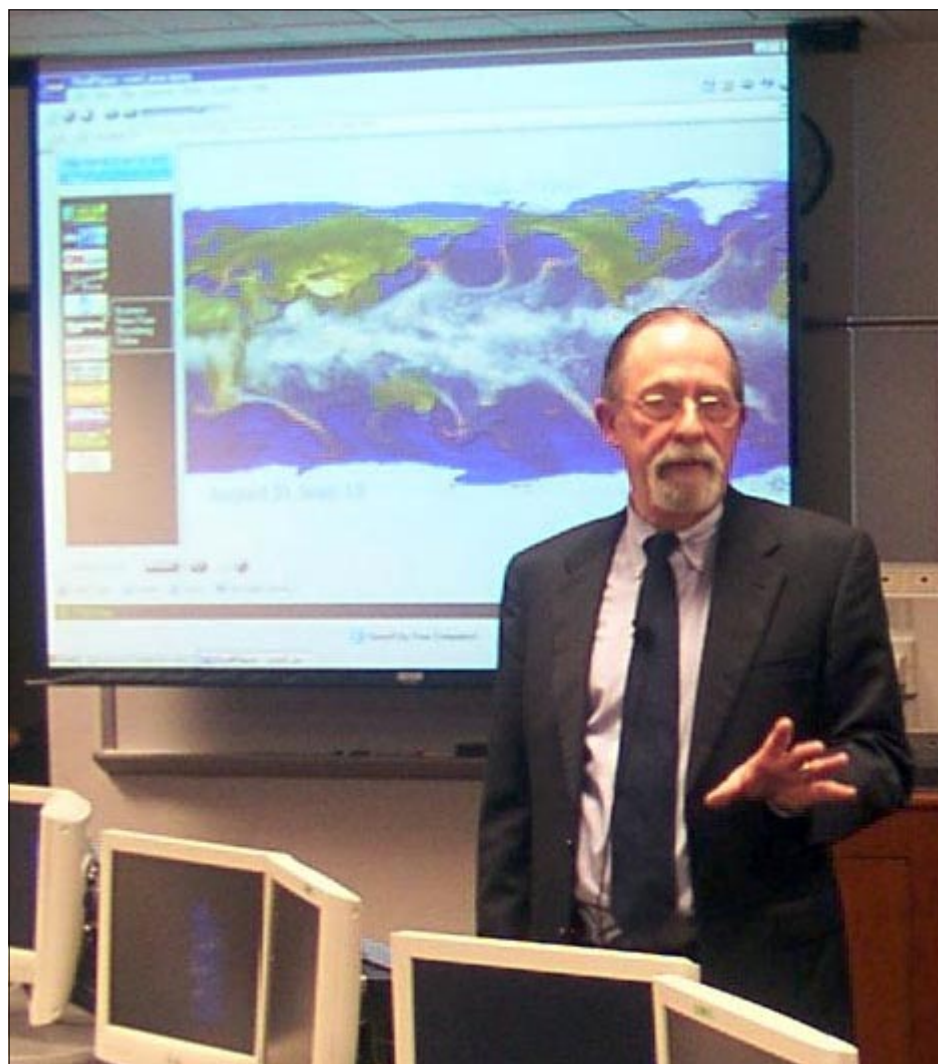
With JOHN DUTTON, *Dean of the Earth and Mineral Sciences College*

The Penn State Smeal Trading Room Lecture Series began on March 14, 2002 with speaker John Dutton. Dutton is the dean of the College of Earth and Mineral Sciences at The Pennsylvania State University and a founder of Weather Venture, Ltd. Dutton gave a presentation entitled, "Buying Better Weather: New Financial Strategies for Managing Weather and Climate Risk."

Dr. J. Randall Woolridge, professor of finance, and the Director of the Penn State Smeal Trading Room, introduced Dutton. Woolridge briefly presented weather options, futures, and hedging. He also discussed the ways that weather can affect revenues.

The main topics of the presentation were weather risk, hedging probabilities, and weather prediction. The ability to buy better weather is not an option available to today's CEOs. However, Dutton illustrated how one can protect themselves from bad weather. Weather is not a controllable event, nor can it be precisely predicted. A meteorologist's forecast usually has a timeframe of between "one tenth of a day and 1-2 days," according to Dutton. Weather can often be blamed for high costs of goods sold, low net income, or simply changes in performance.

Risk is exposure to loss or harm. Dutton presented a formula setting risk equal to the probability of occurrence multiplied by the cost of the consequences. There are four main types of weather related risks. They are injury, damage to property, financial loss, and unusual seasonal variations. Dutton suggested

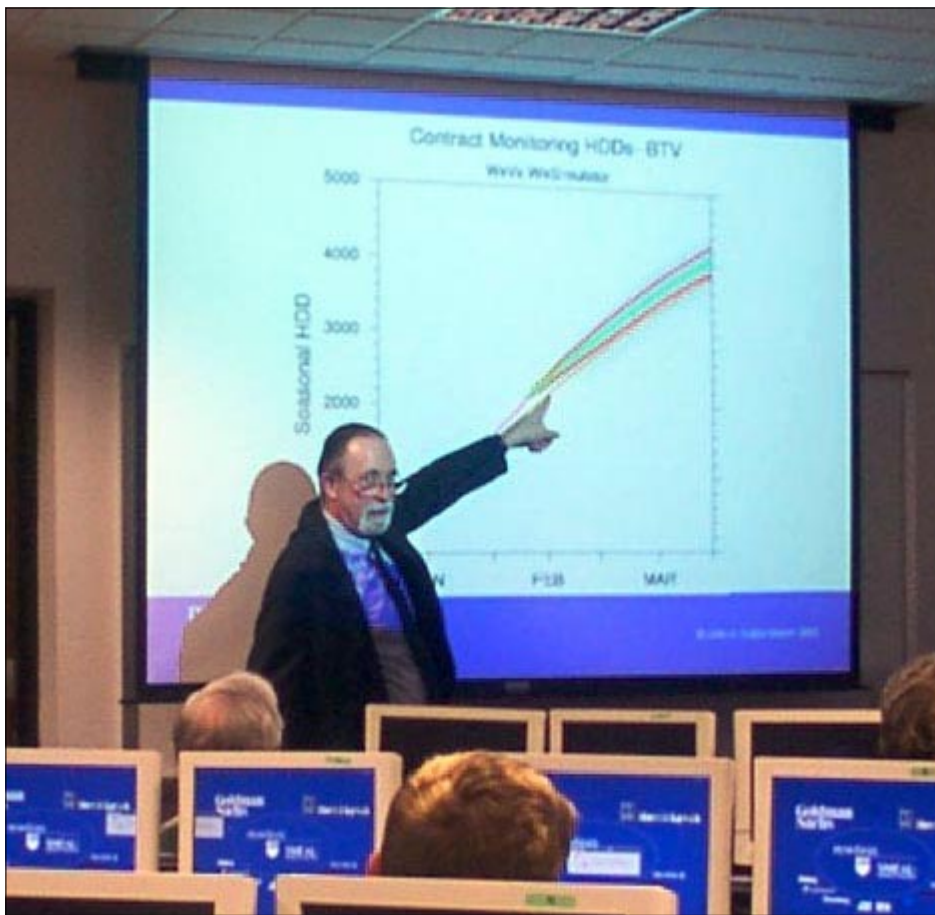


strategies on how to protect oneself from severe weather, unusual seasonal variations, and long-term climate variations. To protect against severe weather, he suggested risk hedging and insurance contracts. Weather derivatives, risk hedging, and insurance are all measures used to guard against unusual seasonal variation. To deal with long-term problems, it is necessary for an organization to de-sensitize itself to weather. However, the first line of defense is to plan and prepare for weather variation.

Farmers and food producers are extremely sensitive to changes in weather, while speculators are risk

takers who seek large profits. Dutton showed an interesting diagram illustrating how these sectors transfer risk from the risk averse to the risk prone. Farmers move risk to the futures and insurance market. While speculators take on risk in hopes of gaining a profit.

Profits come from people buying and selling weather derivatives. Options, futures, and forwards are types of derivatives. Dutton spent some time going over the basics so that the audience would understand the more complex models he would show later. Basically, derivatives are created as an option to buy or sell an underlying



the weather are highly advanced. Dutton mentioned that Moore's Law illustrates how super computers have become faster over time. These super computers are what ultimately give the weather forecasts. As these computers become more advanced, the predictions they give will most likely improve. A member of the audience asked Dutton "How far are we from perfect predictions?" His response was "Nowhere close." Dutton closed his presentation by showing the audience a computer simulation of the weather patterns from 2001.

Weather is one phenomenon that humans have not yet been able to tackle. John Dutton explained how to shield yourself, or your company, from the effects of weather. The ability to use options to hedge your risk is currently the best way to stabilize your revenues. In the words of Dutton, "Buy Better Weather."

Article by Lynne Rudisill

asset on a future date. Most derivatives use stock securities as the underlying asset. The returns from the derivatives vary.

The derivative market currently has \$95 trillion, but the market value of equities (the underlying assets) only has \$26 trillion. Roughly \$27 trillion in the derivatives market is used to hedge against interest rate fluctuations. The difference with weather derivatives is that you cannot buy and sell weather (the underlying asset). That makes this market much more complicated. There has been steady growth in the market since it was introduced in 1997.

Two different parties deal in weather derivatives and have a similar goal of steady, predictable returns. Those who have risk want to get transfer it by hedging with options. Investors write options for risk averse people to buy. By writing the option, the investor has assumed the risk. This boils down to the risk-return trade-off that is at the heart of

finance. Dutton showed a chart for hedged and un-hedged returns. The hedged return has less volatility, and with lower volatility, returns are easier to estimate.

Meteorology is the study of weather and the atmosphere. The instruments and tools used to predict



Penn State INVESTMENT ASSOCIATION

The Pennsylvania State University has a proud tradition of academic excellence both in and out of the classroom. A handful of students back on October 26, 1999, got together at a late night meeting to discuss the possibility of creating an organization where theory meets practice in the world of capital markets and finance. Ali Chaudhry, then a sophomore, led the charge to create the Penn State Investment Association (PSIA).

Since its inception in late 1999, PSIA has had its sights set on revolutionizing investment finance here at the Pennsylvania State University. It has attracted a great deal of attention and a sizable membership body by promising to bridge the gap between the theory that is taught in the classroom and applications of these concepts in the real world. The organization has had great success in terms of educating its members, many of whom go on to careers in finance.

The membership body blossomed in the last two years. Starting out with twenty-six members during the Spring Semester, 2000, to over 100 current members, the Penn State Investment Association has turned heads in the Smeal College of Business. The members come from fairly diversified educational backgrounds including finance, marketing, logistics, management, engineering, and more. The members enjoy putting their knowledge in a practical setting, as PSIA is set up very much like a typical investment bank.

Through its unique organizational structure, students are exposed to equity, fixed income, trading, and economic analysis. Currently the portfolio is managed by the entire group, and transactions through the trading department are entirely paper trades. The asset class structure is as follows:

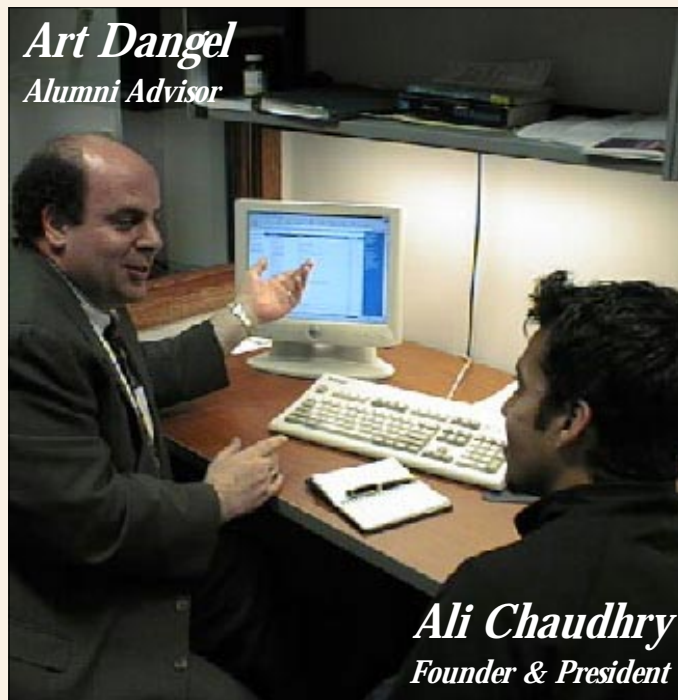


equities (75%), fixed income (20%), and money markets (5%). The equities and fixed income departments are in charge of making recommendations to the entire general body on which securities to consider for the portfolio. Each major department is further broken down into sectors and committees. The ten equity sectors are: basic materials, capital goods, communications, consumer cyclicals, energy, financials, healthcare, technology, transportation, and utilities. The three committees in the fixed income department are: government, corporate, and high-yield bonds.

With the inception of the Penn State Smeal Trading Room in May, 2001, the Penn State Investment Association has been able to create better presentations to the members. The opportunity to use Bridge Telerate, Bloomberg Professional, and Trade Station has allowed our members to present data from unique perspectives. PSIA holds its meetings in the Trading Room, thus capturing the ambiance that compliments the business at hand.

Members with a more in-depth understanding of financial concepts assume any one of more than 20 leadership positions available in the organization. These leaders act as mentors for their respective teams, which consist of 4-5 members each. This creates an interactive atmosphere in which knowledge is sought by an individual and not simply forced upon them. The end result is a group of students enjoying the educational process and producing results far superior to those produced in a more restricted setting.

The leadership of the club is divided between two main groups. An executive board, which consists of the president,



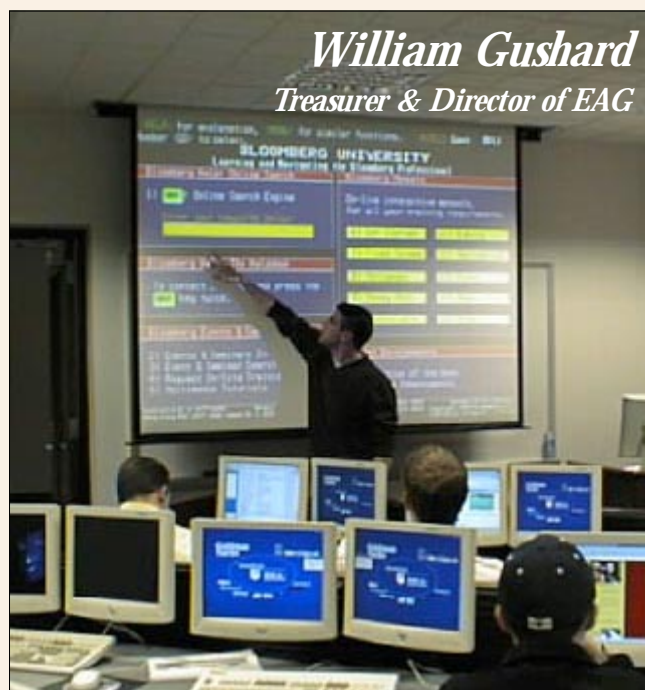
Art Dangel
Alumni Advisor

Ali Chaudhry
Founder & President

vice-president, secretary, and treasurer, meets regularly with the functional board, which consists of the research heads for equities, fixed income, and economic analysis, the head of trading, compliance, and web development. The leadership is strong and encourages participation from all of the organization's members.

The Penn State Investment Association has a structured approach to making sound investment decisions, which places this organization ahead of many undergraduate investment clubs across the nation. Currently, PSIA is looking to expand its horizons and accept the challenge of managing real money. It will be a bold move in undergraduate education, but it will certainly add great value to the Smeal College of Business Administration and the students who choose to participate in it.

With this challenge comes great responsibility. We are also currently offering for consideration an executive



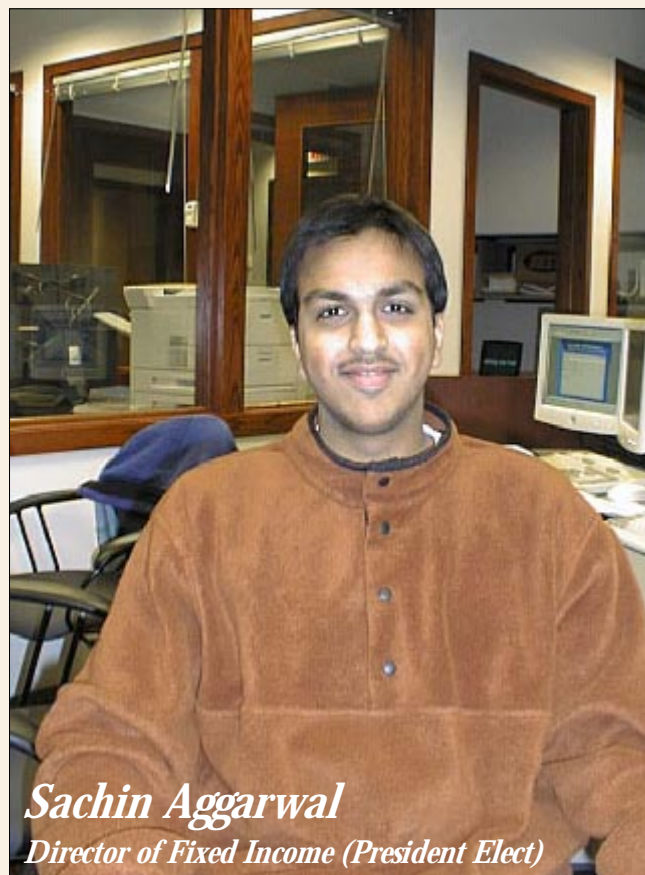
William Gushard
Treasurer & Director of EAG



Nate Kline
V.P. & Director of Equity

as it bridges the gap between theory and practice. Its strong leadership and great organizational structure places this organization ahead of many other programs across the nation. The Trading Room, and all of the powerful data that accompanies it, has created unique educational opportunities for our members that translate into better results and well-prepared students. The future success of this organization is limitless, and it is a great honor to be a part of it.

Article by Sachin Aggarwal



Sachin Aggarwal
Director of Fixed Income (President Elect)

investment committee made up of students and faculty responsible for giving the final vote on whether or not securities up for discussion will be valid and accepted into our portfolio. There are a number of other factors that are being addressed as well such as reporting requirements and a detailed investment strategy. Once these pieces come together, PSIA will be in a position to make a profound impact on our school and its students.

The Penn State Investment Association has come a long way from its humble beginnings. Today it stands as a premier extracurricular organization for students to learn a great deal about the world of investment finance. It creates opportunities for students of all educational backgrounds,

Faculty's Experiences in the Trading Room



Oliver Hansch
Assistant Professor of Finance

Since the Trading Room has opened, many faculty members have started using it to enhance their students' learning experiences. Linda Miles, Oliver Hansch, Jingzhi "Jay" Huang and Tim Simin shared with LionTrader their experiences with the Trading Room. In this article they describe the type of classes that they taught, which applications they used, and how the Trading Room is adding value for students and faculty.

Linda Miles *Instructor in Finance*

I taught FIN 408 - Financial Markets and Institutions (part of the undergrad Finance core). The course examines the major sources of funds, domestic and international, with particular focus on changes in these systems and institutions.

The Trading Room is used to simulate the 'real world' using FTS (Financial Trading System) market simulation cases. The students experience a market impounding information into prices while they participate as market traders, bringing the theory of efficient markets to life. Arbitrage opportunities are discussed between trading periods. Brad Polifron has been extremely helpful in the FTS cases.

The Trading Room is also used for research. Trading Room interns Lou Kahl, Chris Maynes and Nate Kline presented introductions to Bloomberg and Bridge. This semester students have the opportunity to utilize the Trading Room in their group research project on IPOs.

Our students become traders, evaluating returns and opportunities, and making strategic decisions as they take positions in our in-house market. Their experiences in the Trading Room and exposure to data sources used by finance professionals facilitate their transition into successful careers in finance.

Oliver Hansch *Assistant Professor of Finance*

I have been teaching a few classes for my undergraduate course "Security Analysis and Portfolio Management" (FIN406) in the Trading Room. This course covers Markowitz' portfolio theory, the Capital Asset Pricing Model, bond portfolio analysis, and an introduction to option pricing theory.

I have essentially done 3 things in the Trading Room. I introduced the students to the various information sources available, in particular Bridge Telerate, which we all used to look up real-time information on treasury bill auction, the government bond yield curve, etc. Another time, I showed the students how to use the CAPM module of FTS to analyze the basic time-series properties of a sample of stock returns, to compute the variance-covariance matrix of returns, to graph the efficient frontier for many risky assets, and to find efficient portfolios.

Typically, students find it too difficult to do these things in Excel, so the software was useful. They were then required to use the software for a homework assignment. I am now planning to run a trading game, using cases CA1 and CA3 of the FTS modules.

I expect that some students will make use of the information sources in the Trading Room for their course projects.

Jingzhi "Jay" Huang *Assistant Professor of Finance*

I teach Finance 406, "Security Analysis and Portfolio Management," an undergraduate core course. Most students take it in the fall of their senior year. I used the Trading Room to show them what sort of data and software are available and how to retrieve some of the data. I think the room will provide an opportunity for students to get some hands-on experience with trading, analyzing data, and trading tools such as Bloomberg. The room will also help faculty in terms of both teaching and research (in the sense of getting data). In the future, I plan to use the Barra package when lecturing on portfolio management.

Tim Simin *Assistant Professor of Finance*

I taught a session of Finance 406 (Investments) in the Trading Room. I used the Trading Room primarily as a computer lab where I walked students through exercises like pulling data from the web and using Excel to minimize the variance of a portfolio of assets. I found the Trading Room to be a great place to teach the computer-based section of my class. The presentation set up made directing the class easy and efficient. I will continue to use the Trading Room to teach portfolio optimization techniques in future classes and I hope to use it to teach risk management, such as value at risk (VaR), in the future.

Article by Ignacio Belloni

Student Perspective

Matt Clark & Matt Werner

Why attend Penn State, what other colleges did you initially look at?

Matt Clark: I have wanted to go to Penn State since I was in 8th grade. That's when I came to my first Penn State football game and was just overwhelmed to see the amount of pride that the alumni and students had in the University. In addition, Penn State has an outstanding academic reputation and one of the largest groups of alumni in the world. I figured that Penn State would not only provide me with an excellent education, but it would also open many doors for me. I also applied, and was accepted to the University of Pittsburgh, Robert Morris College, and the University of South Carolina, but those were all backup schools; I had no intention of going to any of them.

Matt Werner: I looked at Lehigh, Lafayette, Franklin & Marshall, and North Carolina. I chose Penn State because I liked the atmosphere and felt I would get a superior education here.

How has your Penn State education prepared you for the business world?

Matt Clark: My Penn State education has prepared me to have a successful career in the business world. I think a major advantage that Penn State students have is that many of their professors have worked in the business world for many years before they became professors. They know how things really work and teach their students what they've learned from their experiences.

Matt Werner: Penn State has prepared me to enter the business world by giving me a great education. However, the single best thing that has prepared me for the business world has been internships obtained through career services and on my own. No amount of academic work can prepare you as much as hands on experience.

What are your general opinions on the Trading Room?

Matt Clark: The Trading Room has been a great addition to the Smeal College of Business. I have had a number of interviews where I told the interviewer about the Trading Room and how I've had the opportunity to learn systems like TradeStation, Bridge and Bloomberg. I believe that this has given me an edge in many interviews over students from other schools that do not have a facility like ours. In addition, I believe that it has increased my understanding of how the stock market works and it has also increased my interest in the stock market.

Matt Werner: The Trading Room provides Penn State students exposure to technology that is frequently used on Wall Street. Being able to use and understand the software applications that are used on Wall Street will give students a competitive advantage in the financial workplace.

How do think the Trading Room as well as the new building that Dean

Olian is supporting will prepare Penn State students better?

Matt Clark: The best schools should have the best facilities, and I think that is what Dean Olian is trying to do for Penn State right now. I believe that by creating state of the art facilities for students, in addition to having a great base of business professors, Penn State students will have every opportunity to make the most out of their Penn State education and will have the edge when interviewing for jobs.

Matt Werner: They will be able to prepare students better by integrating the Trading Room into classroom teaching and case studies. Students who use and apply the tools available in the Trading Room and new business building to their classroom material and take advantage of the programs offered in these facilities will prepare themselves for the business world.

How do you think Penn State could further improve its recruiting with Investment Banks? What could be



Matt Clark '02
B.S. in Finance

done internally to the curriculum, etc?

Matt Clark: Penn State could further improve its recruiting with Investment Banks if it created some sort of minor or concentration and offered more investment banking classes. I think that this would show the investment banks that students who pursued this are serious about investment banking and more importantly, understand it.

Matt Werner: Students should have to take a more advanced statistics class and a more advanced calculus class. For finance majors, more emphasis should be focused on financial statement analysis and accounting. I hope that the collapse of Enron will lead all of us to realize how important accounting is for finance majors. Also, there should be a financial engineering option for students to learn quantitative financial modeling.

In order to attract more investment banking jobs, Penn State's corporate relations and finance department should heavily focus on getting the banks attention and proving to them that they should take the time to recruit more actively on campus. Since Merrill just made us a target school, it appears we have caught someone's attention.

Have any professors made a significant impact on you at Penn State and why?

Matt Clark: I think Professor Woolridge has had the largest impact on me. When I chose to major in finance, I wasn't sure if I wanted to do it, but after my first week in BA 301 and hearing him speak so passionately about what he did and learning about all of the opportunities that are in the field of finance, I felt that I had made the right decision and I believe that I will be happy working with financial products in the years to come.

Why did you accept your new job? What other jobs were you also looking at?

Matt Clark: I chose my job at UBS Paine Webber because not only did I really like the company, the people who work for it, and the fact that I'd get to work in NYC, but it has, what I think is, one of the best training programs in the business. Unlike most companies that sell financial securities, Paine Webber does not throw you into the deep end right away and say "start selling." Paine Webber is going to train me for 2 years at their offices in Weehawken, NJ and Midtown Manhattan so that I will be able to learn the business. During that time I will be performing a number of back office operations so that I can become familiar and comfortable with the business. After two years, I will have all of my necessary licenses and a good deal of experience and will become a financial advisor anywhere in the country I choose to go. Other companies I was considering were Vanguard, PNC Bank, IBM and M&T Bank.

Matt Werner: I accepted the job at Barra because I feel that they are a unique company that has positioned itself in a very strong niche market that is growing rapidly. Working at Barra will expose me to many areas of interest on Wall Street and offer me growth potential.

I focused my job search primarily on financial trading and quantitative financial companies, such as Barra, Financial Engineering Associates, and Susquehanna International. I wanted to find employment with a unique company that was on the forefront of cutting edge financial research and development.

What will you be doing in your new job?

Matt Clark: Like I said before, for the first two years, I will be training. During this time I will be receiving all necessary licenses. In addition, I will be learning about the company, their goals and philosophies, their computer systems, and I will be performing a number of back office operations to help me learn the business. After two years, I will become a financial advisor and help my

clients invest and manage their money so that they can realize their dreams.

Matt Werner: I chose to work in sales because I will be able to interact with asset managers and traders. I will have to learn various asset management and trading techniques and be able to communicate how Barra can assist in the asset management and trading process. I also chose sales because all jobs, no matter what area of finance you work in, will ultimately lead to you being a salesperson. The best investment bankers and traders are the people who can sell the most business and attract the most clients.

Do you have any advice to present Penn State students who are interested in getting the same type of job?

Matt Clark: Get involved in everything you can at Penn State, especially things that are related to the Smeal College of Business. Join a business organization and try to get a leadership role in it, get involved in the Trading Room, volunteer for philanthropies, play intramural sports, etc. You need to be a well-rounded person. In addition, keep your grades up. Also, try to obtain several internships. Real world experience is very important.

Matt Werner: All students should try and obtain 1-2 internships in a field that interests them. Finance majors who are interested in doing work similar to what I will be doing (risk management, derivatives, and portfolio management) should take as many math and computer classes as possible and should have excellent Microsoft Excel skills.

Interview by Bill Gushard



From left to right: Lou Kahl, Brad Polifron, *Copy Editor:* Sachin Aggarwal, *Assistant Editor:* Bob Wall, *Editor-in-Chief:* Bill Gushard, Ignacio Belloni

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Editor's Note

This publication was entirely the work of a student staff of both undergraduates and MBAs. However, without the tremendous support, help and ideas from Dr. Woolridge this publication would not have been a reality. I would also like to thank Bob Wall, my assistant editor, as this would have been impossible to complete without his long hours of work. Jay Hammarstedt, Lou Kahl, Craig Dulmaine and Ignacio Belloni also deserve significant recognition as they were there to help the whole way along.

LionTrader was created to further strengthen relations with Penn State's Wall Street alumni. Through an awareness of the activities of the Trading Room, interviews with Wall Street alumni and profiles of aspiring students, we hope to make Penn State and Wall Street seem a little closer.

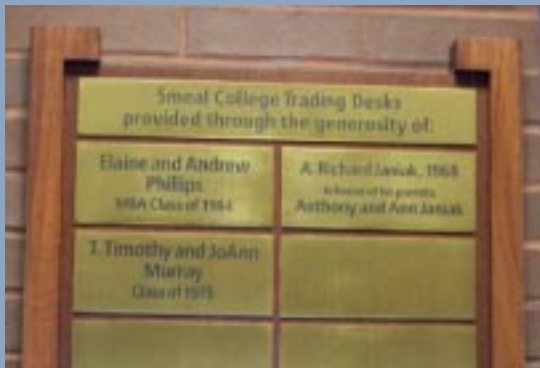
Please feel free to email me at wrg112@psu.edu as any comments or questions about this new publication would truly be appreciated.

To All Those Who Helped...



"I think being able to improve and juice up the understanding and capabilities of the people in the business college, generally in the field of markets- trading, sales, research analysis, and the way they think about the technology in a trading room. All those things are really going to benefit the university and the college."

*J. David Rogers
CEO, J.D. Capital Management*



...Thank You