THE PENNSYLVANIA STATE UNIVERSITY
SCHREYER HONORS COLLEGE

DEPARTMENT OF FINANCE

REIT RETURNS: NEW URBANISM VS. TRADITIONAL DEVELOPMENTS

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SPRING 2015

A thesis
submitted in partial fulfillment
of the requirements
for a baccalaureate degree in Finance
with honors in Finance

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ABSTRACT

This paper looks at changes during the past five years in stock prices of a sample of Real Estate Investment Trusts (REITs) traded on American exchanges after the acquisition of two different kinds of residential properties is publicly announced. The stock returns associated with two styles of design, New Urbanism developments and traditionally built developments, are calculated to better understand the implications such information can have on investors and REIT executives, among others. This paper tests the hypothesis that real estate developments that incorporate New Urbanism principles yield larger Real Estate Investment Trust (REIT) stock returns than developments that feature traditional building principles. A further understanding of REITs, New Urbanism, and traditional design principles is covered, followed by a literature review of previously conducted studies on REITs and the value and cost of New Urbanism. Among the figures calculated and tests run to gauge and understand the difference in returns are percent change tests, standard deviations, confidence intervals, and two independent sample T-Tests. Finally, an interpretation of the study's findings is made, as well as recommendations about how to continue and improve upon the study's conclusions.

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Introduction

Among recent popular movements in society, it can be argued that the one surrounding environmental consciousness and sustainability has had some of the most widespread effects. Communities, companies, and governments are all changing their practices to conform to the changing preferences and standards of society when it comes to sustainability. Fuel efficiency, alternative energy sources, and sustainability programs are all topics that commonly make current headlines and drive policy changes. Despite this movement's current popularity, it is difficult to tell what staying power and long-term effects, both positive and negative, it will have on various stakeholders, such as the environment, people, politicians, and the economy.

One sector of the economy that has felt mounting pressure to change its ways due to the rising popularity of environmental consciousness and sustainability in recent years is the housing and real estate industry. For the majority of the twentieth century, real estate developers in the United States built sprawling suburban communities to house a growing population and get away from crowded cities. These communities often featured sparsely populated neighborhoods that were strictly residential and only navigable with automobiles. However, with more research being done about the causes and effects of global warming and risks to the environment that such communities pose, real estate developers shifted gears and started to build more sustainable communities in the 1980s. One community design that has been growing in popularity ever since is New Urbanism. New Urbanism centers on creating neighborhoods that are walkable, combine residential and commercial uses, and place an emphasis on sustainability through the incorporation of these features, as well as other design principles.

One way to tell how investors and the market feel about such developments is to look at the changes in stock price of companies that acquire or agree to build developments that embody traditional, sprawling neighborhood principles against those that acquire or agree to build New Urbanism developments. Real Estate Investment Trusts (REITs) are publicly held companies that acquire and manage real estate assets and are the types of businesses that could be examined to conduct such a study. By tracking and comparing the change in stock price of REITs that invest in traditional, sprawling developments to the stock price of REITs partaking in the acquisition of New Urbanism developments at the time of the acquisition and in the days and weeks after, the degree and longevity of returns these kinds of developments provide can be better understood. Being aware of the results has implications for several parties, including investors, REIT executives, and portfolio managers, among others.

This paper tests the above theory and begins with a more in-depth explanation of the key terms of the study, including Real Estate Investment Trusts, New Urbanism, and traditional development principles, followed by a review of literature written on these topics. The research methodology, parameters used to select data, and means used to collect data are also discussed. The data is presented and percent change tests, standard deviations, confidence intervals, and two independent sample T-Tests are calculated to analyze the difference in returns the two types of acquisitions achieve. The results are interpreted and their applications are considered before suggestions are made about how they could become more accurate.

Background

Real Estate Investment Trusts (REITs)

Real Estate Investment Trusts (REITs) are publicly held companies that own and usually operate income-producing real estate or real estate-related assets (U.S. Securities and Exchange Commission, *SEC.gov*, 2012). REITs often specialize in particular sectors of real estate-related activities; as Figure 1 illustrates, there are ten different sectors, with retail being the most prevalent one.

Figure 1: Property Sectors for Listed Equity REITs

(National Association of Real Estate Investment Trusts, "Industry Data," 2014)

In order to be considered a Real Estate Investment Trust, there are certain financial and accounting requirements companies must follow. Examples of rules that companies must follow in order to achieve a REIT status include mandates and quotas for how the companies derive, invest, and distribute their income. For instance, REITs must invest at least 75% of their total

assets in real estate assets and cash (National Association of Real Estate Investment Trusts, "The Basics of REITs," 2015). One unique factor that REITs must abide by is a special tax consideration that states that REITs must pay at least 90% of their taxable income in the form of shareholder dividends, although many pay out 100% of their taxable income to shareholders (U.S. Securities and Exchange Commission, *Investor.gov*, 2011). This tax consideration helps to attract investors to REITs.

There are two kinds of REITs: equity REITs and mortgage REITs. Equity REITs make money from the rent they collect from their properties, as well as the sale of their properties, whereas mortgage REITs invest in mortgages/mortgage securities tied to commercial and/or residential properties (National Association of Real Estate Trusts, "The Basics of REITs," 2015). REITs are traded on public stock exchanges like other equities; as of December 31, 2014, the combined market capitalization of the 188 listed equity REITs traded on the New York Stock Exchange was $875 billion (National Association of Real Estate Investment Trusts, "Industry Data," 2014).

New Urbanism Developments

New Urbanism is a relatively new philosophy of city and community planning and design that incorporates several core principles. Often characterized with the phrase "smart growth," New Urbanism advocates for architectural and community developments that are compact, walkable, mixed-use (has residential and commercial properties), provide a neighborhood feel, and have mixed-income home ownership, all as an alternative to suburban sprawl. Other characteristics associated with New Urbanism are making street connectedness and efficiency a

priority, creating neighborhoods with easy access to public transportation, and an emphasis placed on sustainability and Green building (Congress for the New Urbanism, 2011).

Figure 2: An Example of New Urbanism Design Principles

(Ageno, 2014)

The term New Urbanism was first coined in the early 1980s when architect Andres Duany created a modern development in Florida that was laid out like a small town with many facilities, businesses, and amenities within walking distance. To cut down on the use of air conditioning, the homes built in this town featured front porches, which is still a common trait of New Urbanism communities. However it was soon realized that the porches had the added benefits of facilitating more human interaction and building a greater sense of community (Norris, 2006). While Duany admitted that the original purpose of New Urbanism was to create communities that could be lived in without a car, he acknowledged that effects like these have caused New Urbanism to take on new causes over time, such as the environmental movement and community building (Redmon, 2010).

Since its inception, New Urbanism has become increasingly popular, especially with Baby Boomers and younger generations, because it provides an alternative to the inconvenience, expense, and health hazards associated with sprawling suburban neighborhoods. Doctors believe that the fact that schools, businesses, parks, and residences are all within walking distance of one another in New Urbanism areas promotes people to walk more, which studies show can reduce depression and loneliness. The presence of ample green space and parks in such communities are also believed to contribute to the health of their residents (Berl, 2012).

Traditional Development Principles

Residential areas and communities that are built with traditional building principles, as I defined them in my study, are ones that exhibit traits such as homogenous-looking and priced single-family homes, single-land use, a population that is not very dense, travel chiefly made by automobiles, and/or a poor network of roads. Other qualities of traditional developments include little emphasis on energy saving and/or environmental issues. When compared to New Urbanism ideals, it is clear that traditional developments have very few of the same characteristics. In my mind, traditional developments can also be called conventional sprawl developments because of the many overlapping features between traditional developments and characteristics of urban sprawl. Sprawl refers to "rural acres lost as an urbanized area spreads outward over a period of time" (NumbersUSA, 2015). Urban sprawl became increasingly popular in the early to mid-twentieth century as cities were becoming overly populated and transportation technology was advancing. These factors contributed to urban planners expanding residential areas into the suburbs.

Figure 3: An Example of Traditional Building Principles

(Leen and Mitchell, 2001)

Sprawling suburban communities that were designed using traditional development principles have come under fire in recent years because of the social, environmental, and public health issues associated with them. Issues such as higher rates of driving and vehicle ownership, increased levels of ozone pollution, greater risk of fatal car crashes, depressed rates of walking and alternative transport use, and traffic delays are often noted when characterizing the drawbacks of traditionally built communities (Ewing, Pendall, and Chen, 2002). Others point to the negative health impacts sprawling communities can have such as the tendency of residents to walk less, eat more, and exercise less overall than those who live in compact, urban areas (Semuels, 2015).

Understanding the differences between New Urbanism and traditional development principles led me to believe that investors would look more positively upon REIT acquisitions that featured New Urbanism principles than on ones that incorporated traditional development principles because of how our society currently looks upon many of the cornerstone values of

New Urbanism, especially its emphasis on being environmentally conscious. Having defined the key terms in my study, I will now examine literature on these topics to arrive at a better understanding of the research that has already been conducted on the effects, issues, and other related matters of New Urbanism developments and REITs.

Literature Review

The question of whether incorporating New Urbanism principles affects property values is a well-covered issue, while the degree and consistency of returns such properties provide investors is not as clear. Tu and Eppli (1999) analyzed the price differences between conventional suburban developments and New Urbanism developments using a hedonic regression model. By comparing the housing prices of 5,000 houses found among three different New Urbanism developments to houses with similar general attributes but located in conventional housing developments, the authors were able to identify that buyers paid between a 4.1% and 14.9% premium for their New Urbanism properties due to factors such as planning, design, and lot value. While it is valuable to know that buyers place a price premium on New Urbanism, what is not answered in this study is how the creation or acquisition of such developments is regarded by investors who expect to have these price premiums passed along through higher revenue, stock prices, and/or dividends.

Tu and Eppli did a similar test in 2005 that confirmed their first study's findings. A study done by The Center for Neighborhood Technology in 2013 that focused on residential property prices located within a half-mile buffer zone to public transportation stations in five different U.S. cities came to a similar conclusion as Tu and Eppli. After five years, houses that were located within a half-mile radius of the stations (these areas were referred to as transport sheds) in five different cities appreciated 41.6% more than comparable houses outside of the transport shed. With walkability and proximity to public transportation two key factors of New Urbanism, these findings show how New Urbanism is creating value for homeowners. By giving merit to

the theory of a transit premium, this study provides factual insight into why New Urbanism developments are popular and demand a price premium.

However, some academics do not believe that these studies have gone far enough to isolate the exact design factors that contribute to price premiums in New Urbanism communities. Song and Knaap (2003) are critical of Tu and Eppli's work because they feel that Tu and Eppli presumed that there are only two kinds of neighborhoods, New Urbanism and traditional. Taking into consideration that consumers may have several housing preferences that might land them somewhere on the housing spectrum between New Urbanism and traditional housing ideals, Song and Knaap believe that not enough research has been done to definitively say that specific New Urbanism principles affect property values.

Hess and Almeida (2007) also looked at residential property values and the proximity to light rail train stations, specifically in Buffalo, New York. Their findings confirmed those of the Center for Neighborhood Technology by calculating that property values increased by $2.31 for every foot closer a residence was located to a light rail station in Buffalo. It was not made clear in this study or in Tu and Eppli's 2005 study, however, if there is a distance so close to the rail station that there are actually diminishing returns in terms of property values. Song and Knaap (2003) found specific development techniques that drive New Urbanism property premiums that coincided with findings brought to light in studies like that of Hess and Almeida. For instance, residents are willing to pay premiums for "more connective street networks, more streets, shorter dead-end streets, and more and smaller blocks," among other features (21).

While proximity to transportation may increase the value of property, this premium comes at a cost. Leinberger (2001) notes the difficulties that may arise when attempting to finance New Urbanism developments due to the "lack of a long track record of successful

projects" and a higher cost of capital (2). Although Leinberger stresses the difficulties developers might have when attempting to build progressive developments, he also recounts the success that such properties have had. Leinberger discusses the profitability that the first New Urbanism development, in Seaside, Florida, has had. In 1984, a property built on an eighth of an acre was sold for $15,000; in 2000, the same property sold for $1.4 million. He also recounted how Prairie Crossing, a progressive development community near Chicago, charged a 40% premium but sold out as quickly as any of its more traditional competitors. It is interesting to consider to what extent such appreciations and price premiums can be duplicated by other New Urbanism developments and passed on to shareholders who own a stake in a company that owns such developments.

Song and Stevens (2012) second Leinberger's point on the challenges that arise when building New Urbanism developments. Citing an increased project permit review process and potential increased expenditures due to project design, Song and Stevens suggest that New Urbanism projects may be more expensive to develop than conventional projects. They also suggest that New Urbanism architectural guidelines are more critical and such developments are likely influenced by local governments to produce and follow detailed guidelines.

Gyourko and Rybczynski (2000) identify several issues that New Urbanism developers may encounter when financing projects. For one, New Urbanism projects are generally perceived as riskier than more conventional real estate projects because their multi-use nature is more difficult to "evaluate and implement" (733). This fact drives those financing New Urbanism projects to favor larger and more seasoned developers and demand relatively high required rates of return that are achieved quickly.

Understanding the research that has been completed on REITs and New Urbanism is of value because of the spotlight investors have recently put on REITs. The benefits of having a diversified investment portfolio are well documented in the finance community. One investment vehicle that has been growing in popularity in the eyes of investors seeking diversification is real estate and Real Estate Investment Trusts. A study by CME Benchmarking Inc. found that equity REITs were the top-performing asset class in terms of net total returns from 1998 to 2011 (Kuykendall, 2014). With the potential returns and benefits to shareholders well known, it is more important than ever to understand what affects the underlying stock price and movements of REITs in the market. Being aware of a REIT's investment tendencies and its propensity to invest in certain kinds of properties can lead to better portfolio allocation decisions.

Along these lines, one trend that should be followed is how likely certain REITs, as well as the industry as a whole, are likely to undertake or invest in New Urbanism projects. Steuteville (2003) notes how REITs have been reluctant in the past to adopt New Urbanism projects for various reasons, such as REITs' traditional strategies of investing in single-use facilities and focusing on short-term earnings. This short-term lens that analysts often use with REITs could be an obstacle to New Urbanism investment decisions becoming more mainstream.

Research Methodology

In order to gauge the difference in returns that New Urbanism and traditional real estate developments provide, I tracked REITs' stock prices the day before, of, and weeks after it was publicly announced that they acquired a property that was built with either New Urbanism or traditional development principles. Once I had a list of 40 press releases (20 tied to New Urbanism acquisitions and 20 announcing traditional development acquisitions), I tracked the respective REIT's stock price for different time intervals and compared what the average and standard deviation of returns were for the two different kinds of properties. Assuming that the distribution of stock prices was normal, I applied confidence intervals that closely fit the Empirical Rule of a normal distribution (68% of the data will be found within one standard deviation of the mean, 95% within two standard deviations of the mean, and 99.7% within three standard deviations of the mean) to gauge the probability of certain intervals containing the true mean return. A Two Independent Sample T-Test was then used to further analyze my findings.

To understand the direct effect that an acquisition announcement had on a REIT's stock price, I did a percent change test from the stock's price the day before the announcement to the day of the stock announcement. Knowing the stock price the day before the announcement gave me a baseline from which to judge the stock activity for the day of the announcement. Although I did not attempt to identify exactly how much of the stock's movement on the day of the announcement was due specifically to the announcement, it is my belief that such a public disclosure that affects company cash flows and potential profits would trigger an atypical change in stock price.

In order to measure the longevity of returns that such acquisitions provide investors, I also calculated the percent change in stock price from the date of the acquisition announcement and one, two, and three weeks after that date. Doing such calculations helps to illustrate whether the acquisitions provided one-time gains or lasting returns.

After figuring out the mean returns for both kinds of acquisitions during all four timespans I tested for, I found the standard deviation of returns for both types of acquisitions for each time frame I tested for. Using this information, I was able to expand upon the meaning of my sample's data by creating confidence intervals that illustrated the range and certainty of expected average returns. Due to my sample's size, which was less than 30 data points for each kind of REIT acquisition, and the fact that I did not know the standard deviation of the entire population, I created my confidence intervals with the T-Score equation instead of the Z-Score equation.

Another method I used to further understand my data was performing Two Independent Sample T-Tests that tested for evidence of a significant difference in the returns the two kinds of acquisitions achieved. The null hypothesis of this test was there was no significant difference in the stock price percent change between the two kinds of acquisitions in my sample, while the Alternative hypothesis was that there was evidence of a significant difference in stock price percent change between the two types of acquisitions I tracked. I conducted a pooled T-Test as opposed to an unpooled T-Test because the set of larger sample standard deviations were not more than twice the size of the set of smaller sample deviations. Using a level of significance of 0.05 (alpha = 0.05), running the tests gave me *p*-values that instructed me to either fail to reject the null hypothesis or decide in favor of the alternative, in turn shedding more light on what all of the data I collected in my sample meant.

Selection of Data

In order to get a consistent data set and minimize outliers, I was only interested in following announcements and stock prices from 2010 to the present day of publicly held, equity REITs that are located in the United States. These parameters were important for several reasons.

The time constraints I put on my data were in place so I would have recent information that would be fairly easy to track. I also did not want any of the volatility the market endured during the 2007-2008 financial crisis to skew my data.

I focused only on American REITs because on several occasions I had to dismiss what appeared to be quality data but which were in fact data taken from REITs based in Canada, traded on the Toronto Stock Exchange, and listed in Canadian Dollars. Due to the fluctuating value of the Canadian Dollar (relative to the US Dollar), using these REITs' stock prices would have unfairly reflected the changing value of the Canadian Dollar, along with investor and market sentiment regarding these REITs' recent acquisitions. For these reasons, I did not include REITs that were based in other countries and listed on a foreign exchange in a currency other than the US Dollar. On the topic of focusing on domestically operated companies, for consistency's sake all of the properties being acquired in my study were located in the United States.

To decrease the likelihood of outliers, I also stayed away from penny stocks and REITs that had stock prices below $5.00 because even a small shift in their stock price could cause large percentage changes.

Acquisition of Data

I obtained the news of acquisitions primarily through online real estate newswires, advanced Google searches that allowed me to narrow down my queries by excluding certain words from my searches while zeroing in on others, and the Dow Jones research database, *Factiva.* Through *Factiva* I was able to build my search through specific sources, regions, industries, and dates and was able to access a real estate and construction press release wire.

I determined if a real estate development, apartment complex, or community should be considered an example of New Urbanism or traditional development principles either by the description of the property in the press release or by further researching the name of the property being acquired. While sometimes it was overtly stated that a property was an example of New Urbanism principles, for the majority of cases I had to apply my understanding of New Urbanism and traditional developments to determine what kind of property was being acquired. If the property or development in question placed emphasis on three or more New Urbanism aspects (walkability, mixed-use, access to public spaces, etc.), I made the determination that it was a New Urbanism property. If the property or development in question did not highlight such qualities and showed evidence of three traditional building/community techniques (similar style houses in strictly drivable neighborhoods, single-use, not close to public transportation, etc.), then I determined that it belonged in the traditional development segment.

Data

Below, Table 1 lists the press release titles for New Urbanism and traditional acquisitions undertaken by REITs that met the criteria I put forward earlier in my thesis for appropriate REITs and acquisitions. Also in Table 1 are the names of each REIT in my sample and the date of the press release. Tables 2 and 3 match up with the information in Table 1 and track the change in stock price for these REITs after the acquisition was announced.

Table 1: New Urbanism Acquisition Press Release Table

		REIT	Title of Press Release	Date of Press Release
New Urbanism	1	AvalonBay Communities	AvalonBay Communities Acquires Tysons Corner, Virginia Development Site	9/7/10
	2	Mid-America Apartment Communities Inc.	Mid-America Apartments Acquires San Antonio Apartments	1/21/11
	3	American Campus Communities	American Campus Communities Begins Construction on New Student Housing near UT Arlington	6/30/11
	4	Essex Property Trust	Essex Property Trust Acquires Sunnyvale's Reed Square for $23 Million	3/23/12
	5	Essex Property Trust	Essex Property Trust Acquires Willow Lake Apartment Homes for $148M	12/10/12
	6	Equity Residential	Equity Residential buys Redmond project for $91M	4/23/13
	7	Post Properties Inc.	Post Properties buys new Disney-area apartments for $48.4M	5/30/13
	8	Trade Street Residential Inc.	MHN Exclusive: Trade Street Residential Expands Charleston Presence with $48M Apartment Acquisition	9/3/13
	9	HFF Inc.	HFF Secures $30.48 Million Construction Financing For Class A Multi-housing Development In Williston, North Dakota	9/17/13
	10	Mack-Cali Realty Corporation	Mack-Cali Realty Corporation/Ironstate Break Ground On New Urban Ready Living Residential Tower On Jersey City Waterfront	1/15/14
	11	Washington Real Estate Investment Trust	Washington Real Estate Investment Trust acquires Class A apartments in downtown Washington D.C.	2/25/14
	12	Mack-Cali Realty Corporation	Mack-Cali Acquires 220-Unit Multi-Family Residential Community in Andover, Massachusetts	4/14/14
	13	Kilroy Realty	Kilroy Realty Corp. Reveals Plans for Mixed-Use Project in Hollywood (five buildings)	6/20/14
	14	Bluerock Residential Growth REIT	Bluerock Residential Growth REIT Acquires Interest in Orlando Development Project within Publix Master Planned Community	7/30/14
	15	AIMCO	Aimco buys Eastpointe Apartments in Boulder for $18M	12/9/14
	16	Home Properties, Inc.	Home Properties acquired two adjacent apartment communities in the northwest suburbs of Chicago	1/7/15
	17	Brandywine Realty Trust	Brandywine Realty Trust Announces Opening of Parc Plymouth Meeting, a New Luxury Rental Community	1/22/15
	18	UMH Properties, Inc.	UMH Properties, Inc. Announces New Acquisition	1/22/15
	19	Retail Properties of America Inc.	Retail Properties acquires Northern Virginia developments	1/27/15
	20	Tri Point Homes Inc.	Tri Pointe Group Breaks Ground in Southern California	2/6/15

Table 2: Traditional Acquisition Press Release Table

		REIT	Title of Press Release	Date of Press Release
Traditional	1	Mid-America Apartment Communities Inc.	Memphis apartment REIT buys failed Raleigh condo project The Hue	8/18/10
	2	Equity Residential	Equity Residential Acquires 679-unit Apartment Tower in San Diego	9/28/10
	3	Mid-America Apartment Communities Inc.	Mid-America Apartment Communities Inc., an apartment-only real estate investment trust has recently acquired Verandas at South Wood	3/30/11
	4	UDR Inc.	UDR Inc. acquires apartment complex in Arlington for $84 million	9/6/11
	5	Mid-America Apartment Communities Inc.	MAA completes a 349-unit purchase	7/25/12
	6	AIMCO	Aimco starts $32.6M apartment renovation in Corte Madera; 126 luxury units to come	12/5/12
	7	Winthrop Realty Trust	Winthrop Realty Trust Acquires Its Partners Interest on Sullivan Center Mezzanine Loan	8/22/13
	8	Trade Street Residential Inc.	REIT buys South End apartment complex for $34M	9/27/13
	9	UMH Properties, Inc.	UMH Properties, Inc. Announces New Acquisition	10/2/13
	10	Winthrop Realty Trust	Winthrop Realty Trust Acquires Four Class A Luxury Apartment Buildings	10/31/13
	11	Sun Communities, Inc.	Sun Communities Acquired Camelot Villa, an MH community with approximately 712 sites located in Macomb, Michigan	11/1/13
	12	Preferred Apartment Communities	PAC Completes $19.9M Apartment Acquisition in Atlanta	1/2/14
	13	HFF Inc.	HFF Arranges $230M for Six-Property Multi-State Student Housing Portfolio	2/13/14
	14	Associated Estates Realty Corp	AIG teams up with Associated Estates on 410 units at 350 Eighth in San Francisco	4/1/14
	15	Independence Realty Trust, Inc.	Independence Realty Trust, Inc. Acquires Mississippi Apartment Community	6/5/14
	16	Home Properties, Inc.	Home Properties, Inc. acquired The Lakes of Schaumburg, a 428 unit apartment community in Schaumburg, Illinois	11/12/14
	17	Regency Centers Corporation	Regency Centers Helps Seattle Grow with Another Purchase	12/31/14
	18	Douglas Emmett	REIT Douglas Emmett Drops $146M On Honolulu Apartments	1/2/15
	19	Preferred Apartment Communities	Preferred Apartment Communities Announces Agreement to Acquire Two Multifamily Communities	1/13/15
	20	AvalonBay Communities	AvalonBay Communities : TGM Associates : Acquires A Multifamily Community in Stamford, CT	1/16/15

Table 3: Stock Returns Related to New Urbanism Acquisitions

		Company Name	Stock Symbol	Date of Announcement, "t"	t-1	t	t+7	t+14	t+21	Percent Change from Date "t-1" to "t"	Percent Change from Date "t" to "t+7"	Percent Change from Date "t" to "t+14"	Percent Change from Date "t" to "t+21"
New Urbanism	1	AvalonBay Communities*	AVB	9/7/10	$ 107.09	$ 109.66	$ 106.90	$ 105.13	$ 105.76	2.40%	-2.52%	-4.13%	-3.56%
	2	Mid-America Apartment Communities Inc.*	MAA	1/21/11	$ 61.18	$ 62.72	$ 61.54	$ 61.60	$ 62.42	2.52%	-1.88%	-1.79%	-0.48%
	3	American Campus Communities*	ACC	6/30/11	$ 36.06	$ 37.27	$ 36.61	$ 37.93	$ 37.22	3.36%	-1.77%	1.77%	-0.13%
	4	Essex Property Trust*	ESS	3/23/12	$ 146.93	$ 151.51	$ 150.56	$ 150.88	$ 156.89	3.12%	-0.63%	-0.42%	3.55%
	5	Essex Property Trust*	ESS	12/10/12	$ 142.62	$ 143.26	$ 146.23	$ 146.07	$ 148.92	0.45%	2.07%	1.96%	3.95%
	6	Equity Residential	EQR	4/23/13	$ 57.60	$ 57.73	$ 58.06	$ 57.22	$ 59.22	0.23%	0.57%	-0.88%	2.58%
	7	Post Properties Inc.*	PPS	5/30/13	$ 48.60	$ 48.03	$ 47.45	$ 48.01	$ 45.44	-1.17%	-1.21%	-0.04%	-5.39%
	8	Trade Street Residential Inc.	TSRE	9/3/13	$ 5.69	$ 5.71	$ 6.06	$ 6.16	$ 5.76	0.35%	6.13%	7.88%	0.88%
	9	HFF Inc.	HF	9/17/13	$ 21.90	$ 22.42	$ 21.91	$ 24.40	$ 22.05	2.37%	-2.27%	8.83%	-1.65%
	10	Mack-Cali Realty Corporation	CLI	1/15/14	$ 20.32	$ 20.31	$ 20.05	$ 19.98	$ 20.71	-0.05%	-1.28%	-1.62%	1.97%
	11	Washington Real Estate Investment Trust	WRE	2/25/14	$ 23.91	$ 24.49	$ 25.02	$ 24.20	$ 24.08	2.43%	2.16%	-1.18%	-1.67%
	12	Mack-Cali Realty Corporation	CLI	4/14/14	$ 20.58	$ 20.36	$ 20.18	$ 20.73	$ 20.39	-1.07%	-0.88%	1.82%	0.15%
	13	Kilroy Realty	KRC	6/20/14	$ 62.19	$ 62.41	$ 62.25	$ 61.94	$ 62.24	0.35%	-0.26%	-0.75%	-0.27%
	14	Bluerock Residential Growth REIT	BRG	7/30/14	$ 11.87	$ 11.65	$ 11.71	$ 12.49	$ 12.60	-1.85%	0.52%	7.21%	8.15%
	15	AIMCO	AIV	12/9/14	$ 37.39	$ 37.55	$ 35.66	$ 38.13	$ 37.95	0.43%	-5.03%	1.54%	1.07%
	16	Home Properties, Inc.	HME	1/7/15	$ 67.99	$ 68.82	$ 71.27	$ 71.60	$ 72.77	1.22%	3.56%	4.04%	5.74%
	17	Brandywine Realty Trust	BDN	1/22/15	$ 16.43	$ 16.67	$ 16.89	$ 16.65	$ 16.62	1.46%	1.32%	-0.12%	-0.30%
	18	UMH Properties, Inc.	UMH	1/22/15	$ 9.48	$ 9.78	$ 9.60	$ 9.73	$ 9.52	3.16%	-1.84%	-0.51%	-2.66%
	19	Retail Properties of America Inc.	RPAI	1/27/15	$ 18.00	$ 18.05	$ 17.76	$ 17.22	$ 17.00	0.28%	-1.61%	-4.60%	-5.82%
	20	Tri Point Homes Inc.	TPH	2/6/15	$ 14.99	$ 15.07	$ 15.64	$ 15.67	$ 15.88	0.53%	3.78%	3.98%	5.37%
		*Denotes stock prices were taken on a weekly, not daily, basis							Average % Change:		1.03%	-0.05%	1.15%	0.57%

Table 4: Stock Returns Related to Traditional Acquisitions

		Company Name	Stock Symbol	Date of Announcement, "t"	t-1	t	t+7	t+14	t+21	Percent Change from Date "t-1" to "t"	Percent Change from Date "t" to "t+7"	Percent Change from Date "t" to "t+14"	Percent Change from Date "t" to "t+21"
Traditional	1	Mid-America Apartment Communities Inc.*	MAA	8/18/10	$ 54.71	$ 56.14	$ 58.72	$ 57.01	$ 58.92	2.61%	4.60%	1.55%	4.95%
	2	Equity Residential*	EQR	9/28/10	$ 47.82	$ 48.63	$ 49.95	$ 50.83	$ 48.63	1.69%	2.71%	4.52%	0.00%
	3	Mid-America Apartment Communities Inc.*	MAA	3/30/11	$ 64.58	$ 63.14	$ 63.62	$ 65.01	$ 66.85	-2.23%	0.76%	2.96%	5.88%
	4	UDR Inc.*	UDR	9/6/11	$ 25.79	$ 26.66	$ 22.98	$ 22.14	$ 21.61	3.37%	-13.80%	-16.95%	-18.94%
	5	Mid-America Apartment Communities Inc.	MAA	7/25/12	$ 69.17	$ 69.46	$ 69.06	$ 66.85	$ 66.50	0.42%	-0.58%	-3.76%	-4.26%
	6	AIMCO	AIV	12/5/12	$ 25.26	$ 25.09	$ 25.65	$ 26.15	$ 26.73	-0.67%	2.23%	4.22%	6.54%
	7	Winthrop Realty Trust	FUR	8/22/13	$ 11.85	$ 12.13	$ 12.22	$ 11.87	$ 11.84	2.36%	0.74%	-2.14%	-2.39%
	8	Trade Street Residential Inc.	TSRE	9/27/13	$ 5.84	$ 5.64	$ 5.57	$ 5.86	$ 5.79	-3.42%	-1.24%	3.90%	2.66%
	9	UMH Properties, Inc.	UMH	10/2/13	$ 10.09	$ 10.01	$ 10.02	$ 10.07	$ 10.38	-0.79%	0.10%	0.60%	3.70%
	10	Winthrop Realty Trust	FUR	10/31/13	$ 11.85	$ 11.77	$ 11.45	$ 11.34	$ 11.25	-0.68%	-2.72%	-3.65%	-4.42%
	11	Sun Communities, Inc.	SUI	11/1/13	$ 44.57	$ 44.36	$ 42.34	$ 42.01	$ 41.30	-0.47%	-4.55%	-5.30%	-6.90%
	12	Preferred Apartment Communities	APTS	1/2/14	$ 8.04	$ 8.20	$ 8.15	$ 8.09	$ 8.05	1.99%	-0.61%	-1.34%	-1.83%
	13	HFF Inc.	HF	2/13/14	$ 29.84	$ 29.85	$ 30.66	$ 32.04	$ 33.86	0.03%	2.71%	7.34%	13.43%
	14	Associated Estates Realty Corp	AEC	4/1/14	$ 16.94	$ 17.01	$ 16.93	$ 16.61	$ 16.95	0.41%	-0.47%	-2.35%	-0.35%
	15	Independence Realty Trust, Inc.	IRT	6/5/14	$ 9.00	$ 8.98	$ 9.02	$ 9.12	$ 9.23	-0.22%	0.45%	1.56%	2.78%
	16	Home Properties, Inc.	HME	11/12/14	$ 63.65	$ 63.30	$ 62.25	$ 65.24	$ 65.08	-0.55%	-1.66%	3.06%	2.81%
	18	Regency Centers Corporation	REG	12/31/14	$ 64.96	$ 63.78	$ 67.72	$ 69.13	$ 67.97	-1.82%	6.18%	8.39%	6.57%
	17	Douglas Emmett	DEI	1/2/15	$ 28.40	$ 29.03	$ 29.43	$ 29.37	$ 29.00	2.22%	1.38%	1.17%	-0.10%
	19	Preferred Apartment Communities	APTS	1/13/15	$ 9.48	$ 9.45	$ 9.46	$ 10.00	$ 10.16	-0.32%	0.11%	5.82%	7.51%
	20	AvalonBay Communities	AVB	1/16/15	$ 177.50	$ 179.08	$ 178.90	$ 172.99	$ 169.16	0.89%	-0.10%	-3.40%	-5.54%
		*Denotes stock prices were taken on a weekly, not daily, basis							Average % Change:	0.24%	-0.19%	0.31%	0.60%

Using the data found in Tables 3 and 4, I was able to calculate the mean and standard deviation for both kinds of acquisition, as well as confidence intervals for each time period using the equation:

$$\bar{x} \pm t^{\ast} \frac{s}{\sqrt{n}}$$

I applied T scores that closely aligned with the confidence intervals of a normal distribution (70% = 1.066, 95% = 2.093, and 99% = 2.861) to calculate the data found in Table 5.

Table 5: Standard Deviations and Confidence Interval Spreads

			"t-1" to "t"	"t" to "t+7"	"t" to "t+14"	"t" to "t+21"
70% Confidence Interval	**New Urbanism**	Standard Deviation	1.53%	2.61%	3.68%	3.63%
		Lower bound 1 SD	0.66%	-0.68%	0.27%	-0.29%
		Upper bound 1 SD	1.39%	0.57%	2.03%	1.44%
	Traditional	Standard Deviation	1.74%	4.01%	5.62%	6.86%
		Lower bound 1 SD	-0.17%	-1.14%	-1.03%	-1.03%
		Upper bound 1 SD	0.66%	0.77%	1.65%	2.24%
95% Confidence Interval	**New Urbanism**	Standard Deviation	1.53%	2.61%	3.68%	3.63%
		Lower bound 2 SD	0.31%	-1.28%	-0.57%	-1.13%
		Upper bound 2 SD	1.74%	1.17%	2.87%	2.27%
	Traditional	Standard Deviation	1.74%	4.01%	5.62%	6.86%
		Lower bound 2 SD	-0.57%	-2.06%	-2.32%	-2.61%
		Upper bound 2 SD	1.06%	1.69%	2.94%	3.82%
99% Confidence Interval	**New Urbanism**	Standard Deviation	1.53%	2.61%	3.68%	3.63%
		Lower bound 3 SD	0.05%	-1.72%	-1.21%	-1.75%
		Upper bound 3 SD	2.00%	1.62%	3.51%	2.90%
	Traditional	Standard Deviation	1.74%	4.01%	5.62%	6.86%
		Lower bound 3 SD	-0.87%	-2.75%	-3.29%	-3.79%
		Upper bound 3 SD	1.36%	2.38%	3.91%	5.00%

I also compared the two independent means (the average change in stock price for REITs acquiring New Urbanism properties and the average change in stock price for REITs acquiring traditional properties) for each time interval using pooled T-Tests, as seen in Table 6.

Table 6: Two Independent Sample T-Tests

Null: H_0 = %Δ in REIT stock price after New Urbanism acquisition = %Δ in REIT stock price after traditional acquisition
Alternative: H_a = %Δ in REIT stock price after New Urbanism acquisition ≠ %Δ in REIT stock price after traditional acquisition

Time Interval Tested	"t-1" to "t"	"t" to "t+7"	"t" to "t+14"	"t" to "t+21"
Alpha (α)	0.05	0.05	0.05	0.05
P-value	0.139	0.900	0.580	0.986
Conclusion	Fail to reject the null	Fail to reject the null	Fail to reject the null	Fail to reject the null

Results

After separating my two data sets and identifying the five key dates associated with each data point (stock price one day before announcement, stock price on the day of the announcement, and the stock price one, two, and three weeks after the announcement), I was able to compare the returns and use different statistical tests to understand how the returns can be translated.

Interpretation of Results

In my study, returns varied fairly considerably between the two types of acquisitions from the day before the acquisition announcement to the date of said acquisition. In this scenario, New Urbanism acquisitions yielded a 1.03% average return, while traditional development acquisitions yielded a 0.24% average return. Based on the three confidence intervals calculated, it is clear that New Urbanism will provide shareholders with a higher return than traditional developments from the day before the announcement to the day of the announcement. If my study was conducted again, I am 95% confident that the stock return from a New Urbanism acquisition from the day before the announcement to the date of the announcement would be between 0.31% and 1.74%, while the stock return for a REIT that acquired a traditional development would be between -0.57% and 1.06%. Based on these figures, investors should prefer stocks that acquire New Urbanism properties to those that acquire traditionally developed properties because a higher return can be achieved without taking on any additional risk.

Considering more drawn-out timeframes paints a similar picture for stock returns. One week after the date of the announcement, companies that were associated with a New Urbanism acquisition had an average return of -0.05%, while firms linked to the acquisition of a traditionally developed property had a return of -0.19%. Based on my sample, if 100 additional New Urbanism samples were tracked, 95 of them should have a one-week return between -1.28% and 1.17%, while 95 out of an additional 100 traditional samples should have an average return between -2.06% and 1.69%. While this confidence interval exemplifies how REITs that acquire traditional developments may outperform REITs that acquire New Urbanism properties after one week, on average an additional risk of 0.78% must be taken on to capture an additional 0.52% of return.

Moving forward in time, two weeks after the announcement of a New Urbanism acquisition the average REIT return was 1.15%, the highest average return for either kind of acquisition for any period of time that I tested for. The average REIT return for a firm that acquired a traditionally built property two weeks after the announcement was 0.31%. The 95% confidence interval for New Urbanism acquisition returns during this period was -0.57% to 2.87%, while the 95% confidence interval for traditional acquisition returns during this period was -2.32% to 2.94%.

Three weeks after the announcement, REITs that acquired New Urbanism properties had an average return of 0.57%, while REITs that acquired properties with conventional building principles had an average return of 0.60%. This period of time, three weeks, was the only period of time in which the average return for traditional properties was higher than the average return of New Urbanism properties, although by an extremely slim margin. The 95% confidence interval for New Urbanism properties was -1.13% to 2.27%, while the 95% confidence interval

for traditional properties was -2.61% to 3.82%. Based on these statistics, this three-week period provides the most logical risk-return trade-off for those who want to invest in traditional properties rather than in New Urbanism ones.

An interesting trend in the data to note is that both types of acquisitions had an average positive return on the day of the announcement, as well as two and three weeks afterward. However, both kinds of acquisitions had a negative average return one week after the public announcement of the acquisition in question. While it is difficult to definitively say why this trend occurs, it may have something to do with investors' ability to further analyze the specifics of the acquisition and trade appropriately as opposed to trading simply on the news of the acquisition on the day of the announcement. Regardless of the reason behind these similar stock price fluctuations, it is worth recognizing that such a trend exists.

The standard deviations for REIT returns after both New Urbanism and traditional properties acquisitions continued to increase the farther away from the acquisition date the data were collected, which is to be expected, with the exception of New Urbanism REIT acquisitions from two to three weeks away from the acquisition date (slight decrease from 3.68% to 3.63%). However, the standard deviation was larger for REITs that acquired traditional developments at every time step, sometimes by even more than 3% (at 3 weeks after the acquisition date). The growth in these figures shows how volatile the returns in these investments can be and provide a way to compare historical deviation from the mean for both kinds of investments.

While the confidence intervals that I calculated with my sample data appear to show how investors should, all else equal, prefer a REIT stock that acquired a New Urbanism property to a REIT stock that acquired a traditional property, the results of the T-Tests offer an outcome that challenges this inference. With *p*-values above the 0.05 level of significance in all four time

intervals I tested for, I failed to reject the null in each case and concluded that there was no significant difference in the percent change of stock prices between REITs that acquire a New Urbanism property and REITs that acquire a traditional property. The strongest case for there being a significant difference between the change in stock price between the two kinds of acquisitions was when looking at the *p*-value for the test run using day of the announcement of such an acquisition's data (0.139). This time interval comes the closest of any to suggest that the null hypothesis should be rejected in favor of the alternative. To put this statement in perspective, assuming a true null hypothesis, my data, or more extreme results, are 13.9% likely to be observed again from the day before an acquisition announcement to the day of said announcement. However, assuming the null hypothesis is true when looking at the data three weeks after the day of an acquisition announcement, my data, or more extreme figures, are 98.6% likely to be observed again. This stark disparity calls into question the longevity of returns that are achieved based solely on the two different kinds of acquisitions I looked at. The conflicting conclusions that are made using my sample's confidence intervals and the T-Tests' outcomes illustrate how more research is necessary on the topic to extrapolate how REIT stocks will perform in a larger population.

Implication and Application of Results

There are various parties that could find the results of my study important. For one, there are implications for stockholders and investors of REITs that are involved in such acquisitions. Understanding what makes a stock price move in a certain direction is always useful, especially if an investor is looking to meet certain return thresholds. My sample's findings suggest that

investing in a REIT with an investment strategy that centers upon investing in New Urbanism properties may be of more value for investors who have a shorter investment time horizon than investing in a REIT that acquires traditionally-built properties.

Similar to individual investors, portfolio managers could be interested in my findings because with better information comes better-informed decisions. Portfolio managers may better be able to leverage their knowledge of the entire economy with the REIT-specific knowledge that I determined in my study to make more significant investment decisions. Portfolio managers might also have the ability to profit from both sides of the spectrum in that they could go either long or short a stock, a decision that could now be better made because it is more clear how certain activities affect a REIT's stock price.

Another group that would be interested to know how the market reacts to REITs acquiring New Urbanism properties as compared to traditionally developed ones would be REIT executives. With the goal of increasing shareholder returns in mind, conducting research like I have that provides more insight into what kind of activity may drive a REIT's stock price would be very valuable. By having a better understanding of how the market reacts to the acquisition or building of certain properties, corporate executives at REITs may change their investment strategy to invest more in New Urbanism properties.

Knowing the confidence intervals for returns for the different time periods can be used to show risk-return tradeoffs that could assist in investment decisions. For instance, comparing the 95% confidence interval for returns on the day of the announcement of a New Urbanism development acquisition to the 95% confidence interval for returns on the day of the announcement of a traditional development shows how useful my calculations can be. The 95% confidence interval for New Urbanism day-of return is 0.31% to 1.74%, while the 95%

confidence interval for the same time period for traditional developments is -0.57% to 1.06%. These figures mean that, based strictly on my sample, given the opportunity to go long one of two REITs, one that is about to acquire a New Urbanism development and one that is about to acquire a traditional development, all else equal, investors should prefer the REIT that is acquiring the development that incorporates New Urbanism principles. To do otherwise would mean taking on excess risk (up to 0.88%) without expecting an increase in returns (1.06% < 1.74%).

Reflection

If someone wanted to continue my research, I have several suggestions as to how they could improve upon my findings.

More, and More Accurate, Information

A larger sample size of REIT acquisitions would yield a more accurate depiction of returns. If at least sixty REIT acquisitions (30 grounded in New Urbanism principles and 30 in traditional development ideals) and the corresponding REIT stocks' movements were tracked (compared to the 40 total I used), the results would be considered statistically significant. Z scores would be able to be used instead of T scores and the findings of a test that compares the two independent means (average returns) would have more merit and would be more indicative of the true difference the kind of acquisition being announced has on a REIT's stock. Although I tried to achieve this threshold with my data, it proved to be too difficult to collect that amount of reliable data for several reasons.

One reason that I was not able to collect the amount of data that I would have liked to is because not all real estate-related investment companies are publicly held. In several cases I came across private REITs that made headlines for real estate acquisitions that would have been of use in my statistical tests had they been publicly traded companies, but the fact that these REITs were privately held made it impossible to quantify investor and market sentiment toward such activity.

Another reason for the less-than-ideal size sample size I used relates to the size of listed residential REITs compared to the total number of listed REITs: of publicly held equity REITs, there are 10 different property sectors, and residential REITs comprise only approximately 13% of listed REITs (National Association of Real Estate Investment Trusts, "The Basics of REITs"). With most REITs not focusing on acquiring residential developments, the number of relevant acquisitions that I was able to use in my tests was limited more than I would have liked.

While most of the stock price information I used was recorded on a daily basis, making it perfectly accurate, in a few cases I had to use stock prices that reflected weekly price movements instead of daily ones. This problem occurred most often when I was trying to collect data that were at least three years old and I believe is due to the fact that, while publicly held, these REITs are not big household names that have a lot of trading volume on any given day. This lack of popularity and liquidity might be factors as to why the daily stock prices for these REITs are no longer listed online. While I was able to account for this setback by recognizing the constraints on my data and taking the appropriate weekly prices as opposed to daily ones, in 10 of my 40 pieces of data the stock prices reflect the closest weekly prices instead of daily ones. In these situations I used the weekly stock price for the week before the announcement, the weekly stock price for the week of the announcement, and so on.

It would also be beneficial to find the REIT acquiring the property's official press release to make sure that data are being pulled from the correct day. Although I was able to do this in almost every case, in a few cases I had to rely on coverage from other news outlets to find the earliest date that the acquisition was announced to the public. So although *Factiva*, Google Finance, and Yahoo Finance were able to fulfill almost all of my research queries, having access to a more comprehensive research platform that has more exact press release information and

historical stock price information would probably enhance the accuracy of the results by a slim

margin.

Following REIT stocks after acquisitions for a longer period of time than three weeks

would be another way to gather more data while also providing an understanding of the long-

term effects such acquisitions have on their parent company's stock.

Regression Analysis

While the statistical tests I was able to run using my average returns table provide a

simple estimation for expected returns following certain kinds of residential-based REIT

announcements, other statistical tests can be run that would take into account other factors that

may help to more accurately predict a REIT stock's price following the announcement of certain

kinds of residential acquisitions. One such additional test that could be run would be a multi-

variable linear regression.

A linear regression aims to model the relationship between at least two different variables

through the creation of an equation that can then be graphed with a line of best fit. While I would

have liked to have created a regression model for my data with the independent variable being

acquisition type (New Urbanism vs. Traditional) and the dependent variable being change in

stock price, I did not think that just knowing what kind of real estate development was acquired

is enough information to definitively say exactly what kind of returns can be expected. However,

if more information about each specific REIT can be collected on the day of its acquisition, then

a more accurate regression line could be calculated.

For instance, if the market capitalization, trading volume, and the price-to-earnings ratio of each REIT on the date of its acquisition could be found and logged, these statistics could become additional independent variables that could be used in the regression analysis. Using these factors as independent variables in the regression analysis would presumably yield a more precise prediction of the dependent variable (change in stock price). However, I was not able to derive all of this information based on the research tools made available to me.

My inability to weight the REITS that I used in my data sets might have skewed my results to a certain degree, but by using factors to weight the REITs through the regression analysis, all of the REITs should be able to be equally compared to one another. While it would have been ideal to strictly use 30 or more REITs, find instances where the same REIT acquired a New Urbanism property and a traditional development property, and compare its own stock price to itself, this proved to be too difficult a task to complete under the resource and time constraints I was under. While I was able to use the same REIT in both the New Urbanism and traditional development data sets a few times, in most cases I was not able to find companies that fit these criteria. Using a regression analysis that draws its results from several statistics would enhance the degree to which REITs of different sizes and other metrics could be fairly compared.

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Education

The Pennsylvania State University – Schreyer Honors College University Park, PA
- *Bachelor of Science in Finance – Minors in Economics, History, and International Business*

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Work Experience

Bank of New York Mellon King of Prussia, PA
Managed Investments Intern June 2014 – August 2014
- Assisted Lockwood Advisors' Portfolio Management Team in the analysis and classification of third-party money manager strategies used within Lockwood's $12 billion managed account platform
- Supported manager research analysis within the emerging markets asset class that was used to implement portfolio changes
- Performed data analysis of daily reports to identify and resolve issues with investor accounts

Center for Global Business Studies University Park, PA
Research Assistant May 2013 – March 2014
- Under the guidance of Dr. Fariborz Ghadar, conducted background research, collected data on economic integration, and edited parts of the manuscript for a revised edition of *Global Tectonics: What Every Business Needs to Know - Revisited*
- Contributed to *Becoming American*, by researching immigration statistics and writing anecdotes on related information
- Worked 10-15 hours a week during the school year and participated in regular meetings with the books' other contributors

On-Campus Activities

Wall Street Boot Camp University Park, PA
Participant September 2013 – December 2013
- Selected to participate in an intensive program designed to prepare students for careers in the financial services industry
- Attended weekly sessions led by Wall Street professionals to educate participants about career paths such as investment banking, sales and trading, and private wealth management

Penn State Investment Association University Park, PA
Energy/Telecom Sector Analyst September 2012 – December 2013
- Researched companies held in the Nittany Lion Fund, a $6+ million portfolio, using basic financial analysis
- Participated in seminars to enhance understanding of valuation techniques and fundamental company analysis

Delta Tau Delta Fraternity, Penn State – Tau Chapter University Park, PA
Treasurer January 2013 – December 2013
- Responsible for developing, administering, and enforcing an annual budget of $400,000 for a chapter of 80+ active brothers
- Collaborated with Legacy Financial, Nittany Co-Op, and chapter advisors to ensure transparency of financial transactions
- Served as a member of the chapter's executive board and participated in weekly board meetings