



How to Manage Real Estate Risk: Interviews with Successful Firms



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INTRODUCTION

“Real estate development is the process by which an entity makes improvements to real property, thereby increasing its value.¹ The Urban Land Institute’s Real Estate Development Principles and Process states that “Real estate development is the continual reconfiguration of the built environment to meet society’s need.”² It is looked at as a glamorous industry but this allure is tempered by the fundamental reality of risk within the business.

What is risk? Risk can be thought of as deviation from an expected outcome. Generally speaking, the higher the risk taken the higher the return appreciated. The individual/firm’s risk tolerance is established by their comfort with uncertainty and the possibility of incurring losses.

We tend to think of "risk" as something to be avoided or as a threat that we hope won't materialize. Understanding risk is imperative for all real estate practitioners. Ignorance may be bliss in some situations, but not when it comes to something as complex and costly as real estate. Whether buying developing or investing in real estate you are subject to risk. Operational risks, financial risks, market risks, construction risks, competitive risks, and partnership risks to name a few. A given property could experience negative cash flow or the market environment could change so that refinancing or selling is no longer possible, or after the purchase the intended zoning change could never be approved.

To identify risk, real estate professionals should ask: What could happen as well as why and how it could happen, consequently identifying scenarios and events that could precipitate negative outcomes. Through a series of case studies we will examine ways that real estate professionals do and should measure and manage risk everyday. A solid understanding of risk in its different forms can help investors to better understand the opportunities, trade-offs and costs involved with different investment approaches and opportunities.

The risks inherent within real estate are not measured like those facing liquid assets. Value at Risk (VaR) describes the likely market risk of a trading portfolio. It quantifies market risk while it is being taken and considers a portfolio's performance over a specific time horizon. VaR is based on the probability distribution of a portfolio's market value. It would be beneficial if one could use VaR in real estate given that it quantifies potential losses in simple terms. A VaR calculation can predict, "With about a 95% level of confidence, the most you stand to lose on this \$1,000 investment over a two-year time horizon is \$200." Of course the more complex a portfolio is the more asset

¹ “Real estate development,” Wikipedia. 23 September 2008
<http://en.wikipedia.org/wiki/Real_estate_developer>

² Berens, Gayle, Miles, Mike E., Weiss, Marc A. Real Estate Development Principles and Process. (Washington DC: ULI-Urban Land Institute, 2000).

categories and sources of market risk it is exposed to, and the more complicated the calculation becomes.³ As far as its use in real estate goes, the problem truly boils down to its capacity to handle a portfolio as complicated as real estate.⁴

Investors in liquid assets can also measure drawdown, which refers to any period during which an asset's return is negative relative to a previous high mark. In measuring drawdown, investors attempt to address: the magnitude, duration and frequency of each negative period. Liquid asset Investors also can measure how comparatively risky an investment is based on the statistical property of covariance.

The following analysis strives to uncover what risk management practices and techniques have been effective in building successful real estate companies equipped to withstand market downturns. The firms interviewed range from a family run development company to some of the nation's largest development and private equity firms, as well as the world's largest real estate services provider. The firms interviewed, were selected as examples of well regarded, successful firms. Their sizes and organizational structures vary but all of them work principally in the commercial real estate space. Each firm was interviewed by Sarah Cohen, Johns Hopkins' Masters of Science Real Estate Candidate.

Real Estate Private Equity firms serve as a benchmark for thorough risk management. This is based on several factors including the source of their capital. About 50 percent of the private equity in the United States is provided by public and private pension funds, with the balance from endowments, foundations, insurance companies, banks, individuals, and other entities who seek to diversify their portfolios with this investment class. Given that private equity firms act as the intermediary between institutional investors and the entrepreneurial and portfolio companies, they must perform fastidious risk management. Real Estate Private Equity firms typically invest in "value-add" and opportunity funds where the investments more closely resemble leveraged buyouts than traditional real estate investments. These deals come with an elevated sense of risk and the consequential need to overcome it.

I am writing in response to the growing need for tighter risk management policies, in a market and a time when many people are looking at the horrifying failures of companies and are asking how they can maintain the success of their firm.

The following introductory section summarizes the comments made during each interview and pinpoints the commonalities and differences among the participating firms.

³ Lamb, Katrina. "Measuring And Managing Investment Risk." *Investopedia*. 5 November 2008. <<http://www.investopedia.com/articles/08/risk.asp>>

⁴ Benninga, Simon and Zvi Wiener. "Value-at-Risk (VaR)." 6 November 2008 <<http://finance.wharton.upenn.edu/~benninga/mma/MiER74.pdf>>

General Risk Management

All of the firms interviewed reduced market risk with thorough market and feasibility studies. The risk tolerance of each of those interviewed varied principally due to their psychological disposition and need for cash flow. Some investors and developers have stuck to one geographical area and concentrated development on limited, well-understood projects and locations. Others have decided to diversify product type, function or geographic scope to balance risks, should one product type or market cease to provide the needed opportunities and profits. Others manage risk by planning and building a reserve to cope with inconsistent cash flow.

Most firms will not pursue a development unless they have a fixed Guaranteed Maximum Price (GMP) and still they build in a hard and soft cost contingency of 5 to 10%. A GMP allows for a clearer understanding of the construction cost of completing a given project. Although it is “guaranteed,” it is guaranteed only for the specification in the contract and change orders (that are almost certain to arise) will increase the cost of construction thus making the “maximum price” actually the base price. Although really a minimum base price, GMP’s help firms manage the risk of cost overruns resulting from delays or changes in design or construction costs during the project’s development life.

Some developers weighed the risks associated with public regulations more than others. The risk of public regulation is mitigated by firms keeping solid relationships with government official, understanding what is entailed in each given project and planning for requirements as early into the project as possible. Real Estate practitioners must understand what could go wrong at each moment of the development, as well as what permits are needed each step of the way.

Market risk was deemed most difficult to control without pre-leasing to tenants. Phasing developments and building multiple product types in the same location (a mixed use development) were additionally identified as market risk mitigation techniques. All interviewees discussed the incredible importance of understanding and responding to the market. It was mutually agreed that the market dictates the design, timing, leasing, marketing and pricing of all real estate projects. Competition was agreed to be difficult to determine in advance but many firms feel they had a fairly solid niche that provides them with a buffer. Partnering, i.e., investing less equity, was also expressed as a market risk mitigation technique in the sense that the individual firm’s share of market risk diminishes. A few firms would rather not joint venture because they wanted one hundred percent of the control. Partnerships were usually structured with a limited and general partner, each with a varying degree of control. The general partner typically controls day to day operations, whereas the limited partner has control over large decisions such as leases and the sale of the property. Several companies conducted fee developments for a certain percent of the development cost with an equity kicker, to reduce their exposure to risks including fluctuations in the market.

Growth

Several firms have a strict growth policy, while the rest said they grow organically in response to market opportunities. Many of the firms set specific goals for what they hoped to achieve in a given time period. Goals included maintaining a portfolio of income-producing properties and consistently increasing their value.

Scope of operations

Some of the firms had very specific product types that they would develop and they were not willing to experiment beyond these. These firms preferred to remain in that product niche even if it was geographically dissimilar to previously developed properties. Others would prefer to stay geographically focused and expand into different product types within the same market. The increase of product types allowed many firms to learn how to build complimentary uses, i.e. they started with office and now can develop hotel and retail and are building successful mixed use developments.

The larger the project, the more complicated and risky it is. Some firms would only allocate funds and take on risk to a certain threshold and would only do deals above that dollar value with a joint venture partner who would share some of the risk. It was generally agreed that large and small projects are fairly equal in terms of talent and time utilized to develop. Ultimately it is the market that determines project size, including the availability of debt and equity, the inherent risks, and competition.

Geographical Presence

Opinions on the benefits and risks differed as to the geographic scope of operations. The decision to expand into new markets relied on the firm's past practices and experiences and on the opportunities seen within their own markets. Geographical expansion was undergone much more by larger firms with less centralized leadership that enabled regional offices to proliferate and succeed. Firms with more centralized leadership had more difficulty with the idea of losing control and finding someone qualified and trustworthy enough to head a region. The leadership of small firms felt that it would be physically draining, because in their eyes, they would have to be in too many places at the same time. Other firms felt that the diversification into many markets is necessary to control risk.

Organization

The organizational structure of each firm is unique to their product type and operations. All the firms were concerned with the management of risk. Larger firms typically had more decentralized authority and worked with a greater distribution of power. Smaller firms tended to be more centralized with the buck truly stopping at a single or a small number of individuals. Regardless of the organizational structure of the firm, the principals controlled the key decisions like purchasing a site, approving financing arrangements, and approving major leases.

Of the development firms, some offered in-house services including: leasing, property management, development, construction, engineering, and architecture, others contracted these tasks to outside firms for fees. All the firms did some in-house marketing and public relations, but typically they hired outside firms to perform the bulk of these processes. When leasing wasn't done in-house, typically local brokers were engaged to identify potential tenants, and then along with the firm's employees, they would negotiate the deals. Those with in-house services find it hugely beneficial to get input and cost estimates before committing to a project. By doing their own construction they feel they can better manage costs and requests for change orders and can more efficiently manage the process and timing of construction. They also find it profitable to obtain the cash flow from fees for their services to outside parties. Additionally, fee developments were conducted to maintain relationships with subcontractors, to inspire potential partners, to keep the firms current within the development and construction communities and to maintain the best staff. Those who contracted out most services spoke to the efficiency of doing so and to their desire to keep their operations lean and not cut staff when downturns approach. These firms also felt it enabled them to hire consultants that were best suited to the individual projects.

New projects were typically sourced by the firm's acquisitions departments or at the management level. The other way new deals came to market was via solicitations by partners and brokers. Once a project is identified the firms generally obtain an option to purchase the property. This allows them the time to study the property. During this time, money is distributed for preliminary engineering reports, regulatory negotiations and market as well as project feasibility studies. The decision as to whether or not to proceed with a project was ultimately made by the individual company's leadership or by an investment board. Commonly, project managers or small teams consisting of a senior and one or multiple junior employees would take the lead on the development. Pro formas were created during the decision period of whether to move forward with the project. Regularly held meetings and calls were scheduled for each project in an effort to maintain and keep costs down.

Most firms identified their speed and efficiency in making decisions as a key component of their success. Decisions were made by excellent internal communication, strong relationships with consultants, contractors, partners, and debt and equity sources. Several firms believe the best way to survive a market downturn is to focus on or augment their business by providing services.

Financing

Project financing occurred via joint ventures with developers, private equity funds, commercial banks, pension funds, and insurance companies and a few firms did private public partnerships. Some firms require permanent financing in place before beginning a project while others do not like to use a lot of permanent financing at that stage. Those who use permanent financing at the start of a project do so because they can sell the property more easily if that opportunity presents itself.

A few of the firms interviewed quickly sold the projects they developed and others held them for a period of 3 to 5 years but would always sell at the right price.

A primary topic that organically came from the interviews was how leveraged the companies are on a fund, portfolio or project basis. The firms interviewed averaged at around 65 percent debt to equity on a portfolio basis.

OVERVIEW: ECONOMIC DOWNTURNS OF THE EARLY NINeties AND TODAY

As real estate professionals it is vital that we are equipped with techniques and practices to handle downturns. Consequently, we need to be able to gauge the warning signs afforded by an understanding of the causes of these downturns and their impacts. This overview will explore the recession of today as well as that of the early nineties, looking at the similarities and differences in both the causes and outcomes.

First, what is a recession? The National Bureau of Economic Research (NBER) declares a recession after a six-month decline of economic statistics including gross domestic product (GDP), industrial production, employment, retail, manufacturing and wholesale sales.

Today's recession is the result of multiple factors. Over the last decade, Americans have borrowed vast sums of money to invest in real estate with the belief that they could make a fortune. In 2005, the price-earnings ratio of homes in the U.S. (average home prices divided by the rental prices attainable) approached a factor of 34, this is similar to the bubble multiple on the S&P 500 Index in early 2000. Therefore if that ratio were to decline to 20 in 2005 (the average over the previous 50 years), home prices would drop by 40%. On March 3, 2005, *The Economist*, assessed that the US housing market was roughly 30% overpriced (based on the value of house rentals). Homeowners were not fazed by these notices of an overpriced bubble real estate market. Americans did not consider that these overpriced assets would fall from their inflated level and they continued to borrow vigorously to purchase new homes. Mortgage lenders approved loans for borrowers without fully understanding their ability to pay. As home prices increased, homeowners borrowed money against their homes equivalent to 15.2 percent of their disposable incomes in 2006.¹ The first four quarters of the current refinance boom (first-quarter 2001 through fourth-quarter 2001), refinances accounted for approximately 55 percent of the over \$2 trillion mortgage originations.² The refinance share of all originations was 61.7 percent in the first half of 2008, compared to 54.8 percent in the second half of 2007.³ However, total mortgage production will be down 16% to \$1.96 trillion in 2008 from \$2.34 trillion in 2007. It is predicted that total originations should see a drop of four percent to \$1.88 trillion in 2009.⁴ The volume of

¹ Cho, David and Irwin, Neil. "Sunbelt City in Grasp of Housing Undertow Ripple Effect Could Be National Omen." Washington Post. 16 September 2007.

² "Déjà vu All over again." Mortgage Bankers Association of America: Mortgage Banking magazine (October 2002): 74-78.

³ "MBA Originations Survey Shows Shift to Fixed Rate and Government Loan Products in First Half of 2008." 5 November 2008 <<http://www.mbaa.org/NewsandMedia/PressCenter/66139.htm>>

⁴ "MBA: Slow Economic Growth & Lower Levels of Mortgage Originations 2008." 16 January 2008 <<http://rismedia.com/wp/2008-01-15/mba-slow-economic-growth-lower-levels-of-mortgage-originations-2008/>>

commercial mortgage originations plummeted by 53 percent from a year ago, during the first quarter of 2008 according to an index maintained by the Mortgage Bankers Association.⁵ Although the share of refinances has increased the number of originations is continually declining. Meaning that the homeowners who need/were planning to refinance do not have the opportunity to do so.

Borrowers with adjustable rate mortgages who had been planning to sell or refinance found themselves stuck with homes worth less than expected and mortgage payments that they could not afford; these homeowners began to default in large numbers. According to the Government Accountability Office in June 2007, more than one million mortgages were in default or foreclosure. Default means that the borrowers missed three or more consecutive monthly payments. This is an increase of 50 percent compared with June 2005. The overall default rate grew by 29 percent; meaning over 1 in every 100 mortgages was in default.⁶

Home loans were packaged and converted into mortgage-backed securities and sold to investors. Two of the leading purchasers of mortgage-backed securities were Fannie Mae and Freddie Mac. Fannie Mae purchased and securitized mortgages thereby creating liquidity in the primary mortgage market by making funds available to the institutions that lend money to home buyers. Similarly, Freddie Mac bought mortgages on the secondary market, and packaged and sold them as mortgage-backed securities to investors on the open market in order to increase the supply of money available for mortgage lending and to increase the money available for new home purchases. Since these companies were chartered by Congress, many believed they were guaranteed by the federal government. This allowed them to borrow vast sums of money to buy mortgage-backed securities, which ultimately put the US financial system at risk.

When home values declined, borrowers defaulted on their mortgages, and investors holding mortgage-backed securities began to incur serious losses to the point that they were no longer being bought or sold. Consequently, investment banks found themselves trapped with large amounts of these financial instruments.

The recession of 1990 came as preparations for the Gulf War drove up the price of oil. The financial losses experienced by taxpayers and the real estate industry began on January 1, 1986, and ended at the end of 1995. The year 1986 is thought of as the starting point because it was the first year the Federal Savings and Loan Insurance Corporation (FSLIC) was reported as being insolvent. Previously the FSLIC had been

⁵ "Commercial mortgage originations down 53%," CSBJ Daily Colorado Springs Business Journal Daily News, 9 June 2008. <<http://blogs.csbj.com/csbjdaily/2008/06/09/commercial-mortgage-originations-down-53/>>

⁶ "Home Mortgage Defaults and Foreclosures: Recent Trends and Associated Economic and Market Developments Briefing to the Committee on Financial Services House of Representatives." U.S. Government Accountability Office. 10 October 2007. <www.gao.gov/new.items/d0878r.pdf>

able to cover losses from thrift failures. By the end of 1986 many economists recognized that taxpayer involvement in the resolution of the crisis to be likely.⁷

On Black Monday in October 1987, the Dow Jones Industrial Average fell by 22.6 percent. The first phase of the recession was short-lived. The government mobilized its resources and consumer confidence and spending helped lift the U.S. economy out of recession. Between 1986 and 1991 the number of new homes constructed per year dropped to the lowest rate since World War II, from 1.8 million to 1 million. A complete recovery was not achieved, and by 1990, the downturn returned with the beginning of the Gulf War. Inflation increased along with the price of oil.⁸

The slowdown of the financial industry and the real estate market contributed to the recession of the early nineties. The Tax Reform Act of 1986 limited deductions for passive activity losses thereby limiting the value of tax shelters emanating from real estate investments. The Act dramatically decreased the value of many such investments which had been held for tax purposes rather than for their innate profitability. Prior to 1986, real estate investment was dominated by passive investors. Syndicates of investors would combine their resources to invest in both commercial and residential properties. They would hire management companies to administer the transactions. This reduced the value of these investments by limiting the extent to which losses could be deducted from the investor's gross income. Consequently, the holders of loss-generating properties were forced to sell them which triggered further decline in real estate values. This contributed to the end of the real estate boom of the early to mid 1980s and led to the savings and loan crisis.

The deregulation of the S&Ls gave them many of the same capabilities of banks; however it did not bring them under the same regulations and allowed them to enter new lending businesses with very little oversight. The first form of deregulation was the enactment of the Depository Institutions Deregulation and Monetary Control Act of 1980. This Act enabled the savings and loan associations to be more competitive with the money markets. The industry was also allowed to offer money-market options and to provide a broader range of services to its customers.

The second major form of deregulation was the enactment of the Garn-St. Germain Depository Institutions Act of 1982. This Act allowed savings and loan associations to invest in loans in addition to home construction and purchase loans, including commercial loans, state and municipal securities, and unsecured real estate loans. It increased the proportion of assets that thrifts could hold in consumer and commercial real

⁷ Curry, Timothy and Lynn Shibus. FDIC Banking Review. "The Cost of the Savings and Loan Crisis: Truth and Consequences." 2

⁸ "Black Monday (1987)." Wikipedia. 9 October 2008.
<[http://en.wikipedia.org/wiki/Black_Monday_\(1987\)](http://en.wikipedia.org/wiki/Black_Monday_(1987))>

estate loans and allowed thrifts to invest 5 percent of their assets in commercial loans until January 1, 1984, when this percentage increased to 10 percent.

The third form of deregulation decreased regulatory supervision as a result of changes in required accounting procedures. The Generally Accepted Accounting Principles were converted to the Regulatory Accounting Procedures, which allowed savings and loan associations to include speculative forms of capital and exclude certain liabilities. This made thrifts appear to be in a solid financial position ultimately resulting in more deregulation.⁹

In 1980, the United States Congress granted all thrifts, including savings and loan associations, the authority to make consumer and commercial loans and to issue transaction accounts up to 20 percent of their assets, issue credit cards, accept negotiable order of withdrawal (NOW) accounts from individuals and nonprofit organizations, and invest up to 20 percent of their assets in commercial real estate loans.

The damage to S&L operations led Congress to pass the Tax Reform Act of 1981 which allowed S&Ls to sell their mortgage loans and use the cash generated to get better returns. The losses created by the sold loans were to be amortized over the life of the loan, and any losses could be offset against taxes paid over the preceding 10 years. Consequently, S&Ls became eager to sell their loans. The buyers, of these mortgage loans were mainly major Wall Street firms who took advantage of the S&Ls lack of expertise buying at 60% to 90% of each loan's value. They bundled the loans virtually as government bonds backed by Ginnie Mae, Freddie Mac, and Fannie Mae. S&Ls were one of the major groups buying these bonds, holding \$150 billion by 1986, and being charged substantial fees for the transactions.

Given the high interest rates of the late 1970s and early 1980s, many S&Ls lent far more money than was sensible to risky ventures they were not truly qualified to assess. L. William Seidman, former chairman of both the Federal Deposit Insurance Corporation (FDIC) and the Resolution Trust Corporation, stated, "The banking problems of the '80s and '90s came primarily, but not exclusively, from unsound real estate lending."¹⁰ This is very similar to the irresponsible lending practices of the recent past. From January 1, 1986, through year-end 1995, the number of federally insured thrift institutions in the United States declined from 3,234 to 1,645, or by approximately 50 percent.¹¹

Another important contributor to the problem was deposit brokerage. Deposit brokers are paid a commission to find the best certificate of deposit (usually short-term \$100,000 CDs) for their customers. Previously banks and thrifts could only have five percent of their deposits as brokered deposits. This limit was lifted in the late 1980's allowing small

⁹ "Savings and Loan Association." The Free Dictionary by Farlex. 1 October 2008.
<<http://legaldictionary.thefreedictionary.com/S+&+L>>

¹⁰ "Savings and Loan Crisis." Wikipedia. 1 October 2008.
<http://en.wikipedia.org/wiki/Savings_and_loan_crisis>

¹¹ Curry and Shibut, 2.

one-branch thrifts to attract a large number of deposits by offering the highest rate. To gain a higher profit they had to lend at higher interest rates and consequently make riskier investments.

Another contributing factor to the downturn was the effort by the federal government to decrease inflation with increases in short-term interest rates. This led to an asset liability mismatch, a situation where increases in the short-term cost of funding is higher than the return on portfolios of mortgage loans, a large proportion of which may have been fixed rate mortgages. Increasing interest rates put more pressure on S&Ls as the focus on high interest-rate transactions increased. Zvi Bodie, professor of finance and economics at Boston University School of Management, stated that, "Asset-liability mismatch was a principal cause of the Savings and Loan Crisis."¹²

The United States League of Savings Institutions attributed the following causes to the savings and loan problems in the 1980s:

- Institutions lacked adequate net worth and were inadequately regulated.
- Failure to preserve the spread between the cost of money and the rate of return based on inflation and increased interest rates.
- The inability to vary the return on assets with increases in the interest rate required to be paid for deposits.
- Increased competition on the assembly of deposits and the origination of mortgages.
- New investment powers granted to S&Ls brought new risks that management lacked the experience to evaluate.
- Regulations designed to prevent lending excesses and minimize failures were eliminated.
- Fraud and insider transaction abuses caused savings and loan failures.
- Savings and loans were able to takeover many institutions since the FSLIC reduced the minimum number of stockholders of an insured association from 400 down to one.
- Negligence by the boards of directors of several savings associations permitted management to make uncontrolled use of some operating authority.
- The virtual end of inflation in the U.S. economy together with overbuilding in multifamily and commercial real estate in many cities led to a decrease in real estate values.
- Pressure felt in many associations to restore net worth ratios, resulted in untraditional lending practices that involved higher risks.
- The lack of accurate and effective evaluation of the savings and loan business by public accounting firms, security analysts, and the financial community.

¹² "Savings and Loan Crisis." [Wikipedia](http://en.wikipedia.org/wiki/Savings_and_loan_crisis). 1 October 2008. <http://en.wikipedia.org/wiki/Savings_and_loan_crisis >

- Organizational structure and supervisory laws for controlling business in the protected environment of the 1960s and 1970s resulted in fatal delays in the supervision process in the 1980s.
- Government specialists dedicated to aiding in the situation were insufficient in number and ability to deal with the new world of savings and loan operations.
- Politics delayed timely and necessary aid to institutions known to be in trouble.¹³

Thereafter, a large number of borrowers defaulted on their loan obligations and bankruptcies followed. Overextended S&Ls were forced into insolvency. The FSLIC, which insured all S&L accounts, was forced to repay all the depositors whose money was lost. From 1986 to 1989, the FSLIC shut down or aided 296 institutions with total assets of \$125 billion. An even more difficult period followed with the creation of the Resolution Trust Corporation in 1989 and that agency's liquidation of the assets of an additional 747 thrifts by mid-1995. There were also state-chartered S&Ls that failed requiring state taxpayer bailouts.

In 1989, the Financial Institutions Reform, Recovery, and Enforcement Act (FIRREA), abolished the Federal Home Loan Bank Board (FHLBB) and the Federal Savings and Loan Insurance Corporation (FSLIC). It replaced the FSLIC with the Savings Association Insurance Fund (SAIF) as an insurance fund for thrift institutions. It established the Office of Thrift Supervision (OTS), as a bureau of the Treasury Department, to regulate, examine, and supervise savings institutions. It created the Federal Housing Finance Board (FHFB) as an independent agency to oversee the 12 federal home loan banks. It established the Resolution Trust Corporation (RTC) in order to dispose of failed thrift institutions that had been taken over by regulators after January 1, 1989. The RTC made insured deposits at those institutions available to their customers. Lastly, FIRREA gave both Freddie Mac and Fannie Mae additional responsibility to support mortgages for low- and moderate-income families.

All in all the savings and loan crisis of the 1980s and 1990s consisted of the failure of 747 savings and loan associations (S&Ls) across the United States. Between 1980 and 1994 more than 1,600 banks (not part of the S&L's) insured by the Federal Deposit Insurance Corporation (FDIC) were closed or received FDIC financial assistance. According to the Federal Deposit Insurance Corporations Review in 2001, the total cost of the S&L crisis after all direct and indirect costs are accounted for was \$152.9 billion. Of which the public paid \$124 billion and the thrifts paid \$29 billion.¹⁴

Some analysts believe the government bailout of mortgages during the savings and loan crisis may have created a moral hazard and encouraged lenders to make similar higher risk loans during the 2007 subprime mortgage financial crisis. While the current recession and that of the early 90's show many similarities there are inherent differences.

¹³ "Savings and loan crisis," [Wikipedia](http://en.wikipedia.org/wiki/Savings_and_loan_crisis). 29 October 2008.
<http://en.wikipedia.org/wiki/Savings_and_loan_crisis> (October 29, 2008)

¹⁴ Curry and Shibut, 6-8.

The principal difference was a huge oversupply of commercial real estate in the early 90's in contrast to today's downturn which is primarily a result of the capital markets. Oversupply was higher in the early nineties as seen by higher vacancy rates. In the commercial office market between 1988-1990, an average of about 100,000,000 square feet per year of office space was added to the market and vacancy rates soared to nearly 20%. In the years following construction slowed and vacancy rates dropped to 8% by 1998. An average of about 40,000,000 square feet per year of office space was delivered between 2005 and 2007. Although 11.9 million square feet of new office space was added to the market, in the second-quarter of 2007 the U.S. vacancy rate fell to 12.7% from 13.1% in the first quarter.¹⁵ This 12 to 13% is substantially less than the 20% vacancy in the late 1980's, especially considering that the commercial office market has increased significantly over the past fifteen years.

Supply should slow even more in late 2008 and 2009 as banking lending policies tighten and a slower economy leads to a likely decrease in demand for commercial space.¹⁶ The recent commercial construction boom was not as large as in the 1980s, suggesting excess supplies of commercial space may not grow as large. Additionally, commercial real estate securitization may expose developers and investors to shocks originating outside of the commercial real estate sector today unlike the early nineties. However commercial banks today are more directly exposed to commercial real estate loans than they were in the early nineties.¹⁷ The vacancy of commercial space today will likely reach levels of the early nineties in New York. Considering that the New York economy is considerably linked to the financial services sector, and job losses on Wall Street could result in the metropolitan unemployment rate climbing to 11%. If this worst case outcome materializes, negative net absorption of office space would result in a vacancy rate in the high teens, similar to levels seen in the early 1990s. Rent losses would continue through 2011.¹⁸

Currently workers are being laid off, there is a lack of financing, and the financial services industry is hurting which will have a tremendous affect on office space in major

¹⁵ "In Brief / REAL ESTATE - Office vacancies reach 6-year low." Los Angeles Times. 6 July 2007.

¹⁶ Punzel, Jason. "It's Not As Bad As You Think." White Cap Real Estate LLC Newsletter. Spring 2008. <<https://www.whitecapfinancial.com/content.cfm?ContentID=1409>>

¹⁷ Garner, Alan. "Is commercial real estate reliving the 1980s and early 1990s?" Federal Reserve Bank Kansas City. 13 November 2008. <www.kc.frb.org/PUBLICAT/ECONREV/PDF/3q08Garner.pdf>

¹⁸ Thangavelu, Poonkulali. "New York Office Vacancy Likely to Rise to 13%." 1 Oct 2008. <nreionline.com/news/index1.html>

cities. The global economy is also in decline. The value of the Euro is falling resulting in less European money flowing into the US economy.

Although the break in the real estate markets and irresponsible lending practices caused a good deal of damage in the early 1990s, the improvement of real wages buffered its overall impact. In contrast, today, low inflation and lower income growth will be less of a cushion to a housing price decline. According to the Economic Policy Institute in Washington, D.C., between 2000 and 2006 inflation-adjusted income for middle-class workers slid 1 percent as compared to growing by 10.6 percent from 1989 to 2000.¹⁹

In the first half of the 1990s GDP was at about minus 15% and in the second half it fell to an average of nearly minus 25%.²⁰ Economists polled by Reuters think in the current downturn GDP probably will bottom out at a minus 1.3 percent in the fourth quarter of 2008, and it will probably be 2010 before growth normalizes. Today, most forecasts call for three consecutive quarters of contraction; however the most pessimistic views show the possibility of no growth for 18 months, which has not happened since 1947.²¹

The U.S. has lost 760,000 jobs since late 2007, and retail sales in September, 2008 plunged 1.2 percent, the largest drop in three years. Currently the unemployment rate is at 6.5 percent, and many economists expect it to rise to about 7 percent early next year, a level comparable to 1993, while others predict it will climb to 8 percent, which hasn't happened since 1984.²²

The manufacturing sector in the Mid-Atlantic region hit an 18-year low in October 2008, and new orders were the weakest since 1980. Last month U.S. industrial production experienced the largest monthly decline in 34 years. Since consumer spending accounts for about two-thirds of US economic activity, the longer it is deflated, the longer the economy will be slow. U.S. consumers saved just 2.7 cents of each dollar earned in the second quarter of 2008, and even that small percent was weighted by government stimulus checks that have long since been used. In the previous quarter, the saving rate was only 0.2 percent. During the recessions of the mid-1970s and early 1980s, consumers were saving approximately 10 cents out of every dollar. Bernard Baumohl, chief economist with the Economic Outlook Group in Princeton, New Jersey

¹⁹ Calbreath, Dean. "Then & now: Run-up to Great Depression and today's recession has some eerie similarities, but many important differences." Union-Tribune. 5 October 2008.
<www.signonsandiego.com/news/business/20081005-9999-lz1n5dean.html>

²⁰ Cecchetti, Stephen G. "Early Warning Signs of the U.S. Productivity Pickup: Implications for Europe." Occasional Essays on Current Policy Issues No. 10. 14 August 2000.
<people.brandeis.edu/~cecchett/pdf/cpi10.pdf>

²¹ Freilich, Ellen. "Retail sales thought to have slipped in July: poll." 12 August 2008.
<www.reuters.com/article/ousivMolt/idUSN1258168120080812>

²² "The Employment Situation: October 2008 Bureau of Labor Statistics." 30 October 2008.
<<http://www.bls.gov/news.release/empisit.nr0.htm>>

stated, "We now have a consistent series of reports telling us that the deteriorating job market, falling incomes, the collapsing stock market, plummeting home values, and the credit crises have forced Americans to shut down spending." ²³

The credit crisis has hit most consumers' largest sources of investment, housing and the stock market. It is likely more people will continue to miss payments on mortgages, credit cards, and car loans, and that bank losses will increase. Consequently, the possibility of a much longer downturn looms. This downturn was preceded by a decade of deregulation, cheap credit, housing bubbles, rising inflation, rampant stock market speculation, faltering employment, stagnant wages and a growing gap between the wealthy and poor. In 2008, the richest 0.1 percent of Americans command 11.6 percent of income, according to the Economic Policy Institute (EPI).

Major banking and investment institutions such as Washington Mutual, IndyMac, Countrywide, Wachovia, Lehman Bros., Merrill Lynch and Bear Stearns have failed. According to some estimates, 150 to 200 banks nationwide are currently in financial trouble. Although this is still a relatively small percentage of the financial system, analysts think tightening credit could result in other banks facing trouble or failure. Fortunately, the Federal Deposit Insurance Corp can cope with any closures.

It is expected that economic growth will decline at least 2 to 5% over the next 12 to 18 months. A 2% decline will inflict serious economic pain on small businesses and individuals; a decline of over 5% might take 3 to 5 years to recover from.

US Banks refusal to lend money to each other has caused retrenching and shutting down of lending, having a similar effect as the runs on the banks in 1930 to 1933. For the current downturn to end banks will have to rebuild their capital. Housing prices will have to reconnect with incomes, loan default rates will have to stabilize, and businesses will need to adjust their employment numbers. The general consensus is that government assistance is necessary to emerge from this downturn. ²⁴ Treasury Secretary Henry Paulson and Fed Chairman Ben Bernanke have studied the Depression and are working to avoid its pitfalls in this current downturn. Bernanke's studies concluded that the Great Depression could have been lessened if the government had put more money into the financial system. ²⁵

²³ Baumohl, Bernard. "Yes, We're in Recession, But There's Now Some Hope," THE ECONOMIC OUTLOOK GROUP. 15 October 2008.
<economicoutlookgroup.com/ETP101508.pdf>

²⁴ Geller, Adam. "U.S. confronts possibility of long, deep recession: Most economists forecast a sharp increase in the number of people who lose their jobs." Associated Press. 16 October 2008.
<www.wtopnews.com/?nid=111&sid=1497835>

²⁵ Calbreath, Dean.

On September 24 2008 President Bush stated, "With the situation becoming more precarious by the day, I faced a choice: To step in with dramatic government action, or to stand back and allow the irresponsible actions of some to undermine the financial security of all. I'm a strong believer in free enterprise...But these are not normal circumstances. The market is not functioning properly. There's been a widespread loss of confidence. And major sectors of America's financial system are at risk of shutting down."²⁶

The government's top economic experts warned that without immediate action by Congress, the United States could slip into a financial panic, causing more banks to fail, the stock market and home values to drop further and foreclosures to rise dramatically. Business credit would become harder to access and more expensive. More businesses would close their doors and millions of Americans could lose their jobs.

The federal government through the Emergency Economic Stabilization Act of 2008 enacted on October 3, 2008, is putting \$700 billion of taxpayer dollars to purchase distressed assets, especially mortgage-backed securities, from the nation's banks. The hope is that this will free up banks to resume the flow of credit to American families and businesses in the short term. Additionally interest rates will be kept low to ward off a credit crunch. These policies are active attempts to avoid the mistake of letting banks fail as they did in the Great Depression era.²⁷

According to President Bush, mortgage-backed securities will increase in value because Americans will ultimately pay off their mortgages. He stated that the government is the only institution capable of buying these assets at their current low prices and holding them until the market returns to normal. The Bush Administration predicts that when these assets are sold money will flow back to the Treasury.²⁸

On a positive note, Kenneth Rogoff, a Harvard University economics professor was asked whether there was any possibility of the nation's jobless rate reaching 25 percent and economic output falling by one-third, as it did during the Great Depression. His response, "Zero, just zero...Ten percent, that could happen. If we got to 10 percent, that would be pretty spectacular for the U.S. But it would take a lot of mistakes (by Congress) for a long time."²⁹ James Galbraith, a University of Texas economist said the

²⁶ "President's Address to the Nation State Floor." 24 September 2008.
<<http://www.whitehouse.gov/news/releases/2008/09/20080924-10.html>>

²⁷ "Emergency Economic Stabilization Act of 2008" Wikipedia. 31 September 2008.
<http://en.wikipedia.org/wiki/Emergency_Economic_Stabilization_Act_of_2008>

²⁸ President's Address to the Nation State Floor

²⁹ Podmolik, Mary Ellen and Mike Hughlett. "Depression unlikely but a recession would hurt," Chicago Tribune. 30 September 2008. <<http://www.chicagotribune.com/business/chi-tue-great-moderation-sep30,0,7103559.story>>

possibility of another Great Depression is simply "overheated rhetoric" because the federal government plays a far larger role in the economy than it did during the 1920s and 1930s and the Federal Deposit Insurance Corporation began insuring bank deposits in 1934 to protect depositors from bank failures.

It is still true however that the turmoil in the markets over the past year is the worst period of financial distress in three quarters of a century. It is greater than the past two downturns by a number of factors, including the housing bust, the subprime mortgage problems, the devalued collateralized debt obligations (CDOs), the decrease in value of the US dollar, high oil prices, rising unemployment, and consumer fear. A recent Reuter's survey of economists found that most think the economy contracted in the recently ended third quarter and that growth will not resume until the second half of 2009 and after that point recovery is likely to be slow.

After understanding the origin, contributing factors and their impact on the financial and real estate markets, we will look at a collection of case studies gathered from real estate professionals.

CASE STUDIES

The following case studies were prepared from live interviews and e-mailed responses to questionnaires. When anonymity was requested certain identifying facts were changed but the elements of the interviews were not altered. Copies of the interview questions and questionnaire are included in the appendix.

The Carlyle Group

Address: 1001 Pennsylvania Avenue, NW Washington, DC 20004-2505

Person Interviewed: Mark J. Schoenfeld, Managing Director U.S. Real Estate

November 5 2008

Background:

The Carlyle Group is a global private equity investment firm based in Washington, DC, with more than \$89 billion under management. The Carlyle Group is a Guernsey limited company. The firm operates four fund groups: leveraged buyouts, growth capital, real estate and leveraged financial investments. The firm employs more than 575 investment professionals in 21 countries with offices in North America, South America, Europe, Asia and Australia. Its portfolio companies employ more than 415,000 people world wide. Carlyle has over 1200 investors located in 68 countries.

Carlyle is cognizant of risk management and chooses to have a Risk Officer and Treasurer (Patrick Trozzo) in preference to a Chief Financial Officer.

Mark J. Schoenfeld is a Managing Director focused on U.S. real estate opportunities. He is responsible for all aspects of real estate investments, with a geographic focus on New York City and Washington, D.C., as well as a product focus on hotels. Mr. Schoenfeld joined Carlyle in 1992 as its first real estate employee.

Geographical Locations

In the United States, Carlyle Realty Partners focus primarily on major metropolitan markets, seeking investments in the office, hotel, industrial, senior housing and retail sectors. They aim to find undervalued properties in their target markets.

In Europe, Carlyle's local teams are actively seeking properties in the primary target markets of France, Italy, and Germany as well as strong secondary markets.

With continued growth in China and India, Asia continues to offer extraordinary opportunities. Carlyle's Asian real estate team has drawn on its strong knowledge of local real estate markets and global capital markets to acquire properties in China, Japan and India.

They do not invest in cities such as Detroit where there is no demand or supply. On the other hand, they are eager to invest in cities like Boston where there are multiple demand generators such as health care and universities.

Acquisitions Process

Analysis of investment opportunities includes investigations into supply and demand, rental and occupancy rates, job growth, GDP growth and decline, and consumer spending. Each of these factors is weighed based on its applicability to the particular product type under consideration. For instance; consumer spending is a good indication of how the job market is doing and is consequently useful for the development of office buildings. Their strategy is to buy an asset that is underpriced by the capital markets and sell when this situation reverses. They look at their competitive advantage or disadvantage in each given situation to determine the feasibility of a given project.

Investment Management

Although the goal is to sell all acquisitions and developments as soon as possible, the average hold time is three to five years. This is due to market opportunity and development and repositioning time.

Carlyle's average investment size is \$15 million in equity, a small number compared to their fund and portfolio size. This is intentional and allows for diversification with many smaller investments. Smaller investments might involve \$10 million of equity. They place a 3 to 5% construction contingency on each investment.

Financial Planning/ Joint Ventures

A typical Carlyle investment is structured with a 70% loan and 30% equity. A development partner may contribute up to 10% of that equity. Their joint venture partners have control of the day to day construction with Carlyle retaining control over large business decisions including leases, refinancing, sales. There currently is no financing available in the market for commercial real estate. Any current investments would require more equity and creative financing.

During this downturn people are worried more about worldwide depression compared to the early nineties when the focus was much narrower. The worldwide scope of this downturn is much more alarming. The current recession is complicated by securitization and the CMBS market in addition to a huge supply and demand imbalance. Mr. Schoenfeld's prediction is that by 2010 or 2011 the economy will turn around and prices will see a sudden spike rather than slow growth.

Conclusion

Overall the Carlyle Group does thorough due diligence before making an acquisition and selects domestic and international geographical locations that have multiple demand

drivers. Decisions are heavily weighed by the company's leadership despite each acquisition's small size as compared with the firm as a whole. They maintain diversification among their investments by keeping each equity investment to around \$15 million. A 70% debt to equity ratio is safe and conservative for the Carlyle Group given the tremendous equity behind the company as a whole. The Carlyle Group recognizes and weighs the risk and consequence of each investment decision and is realistic about market conditions. Today, resigning themselves to holding off on new investments until debt is available in the market or they find an investment option that they cannot refuse. In my opinion the Carlyle Group is well equipped with the practice and knowledge to mitigate real estate risk through all market conditions.

The JBG Companies

4445 Willard Avenue, Suite 400 Chevy Chase, Maryland 20815

Person interviewed: Brooks Blake, Development Officer and Owner

October 21 20008

Background

In 1960 the JBG Companies began as an investor, owner and developer in the Washington, DC metropolitan area. At present JBG has \$4.1 billion under management and has developed, owned or managed over 30 million square feet of office space, 5.5 million square feet of retail space, 15,000 residential units and 15 hotel properties totaling over 4,500 rooms. Currently they have 508 employees firm-wide and 225 corporate employees.

JBG has a track record of superior risk-adjusted returns. Their investment strategies include geographic focus and control, multi-product expertise, efficient use of capital, incremental risk taking, profit maximization and proprietary investment flow.

Investment Management

JBG readily responds and adapts to changes in the marketplace with their primary goal in mind to achieve above-market returns for its investors. They own or have planned for 9.3 million SF of office space, 13,500 residential units, 3.1 million SF of retail space and 4,800 hotel rooms. JBG has put together six funds. Fund I was formed in November 1999 with \$28 million of committed equity capital. It was invested over a 24 month period making 34 total investments. Fund II was formed in May 2002 with \$28.8 million of committed capital. It was invested over a 12 month period making 10 investments. Fund III was formed in September 2002 and was invested over a 21 month period making 20 total investments with \$210 million of committed capital. Fund IV was formed in June 2004 and was invested over an 11 month period with 16 total investments with \$250 million of committed capital. Fund V was formed in May 2005 with \$528 million of committed capital. That fund closed at \$500 million and was invested over a 24 month

period with 31 total investments. JBG Fund VI was formed in February 2007 with \$600 million of committed capital. Fund VI closed in February 2007 with \$550 million. A second closing for an additional \$50 million occurred in September 2007, and the fund is now closed with total commitments of \$600 million. Funds I, II, III, IV, and V have sold or recapitalized most of their investments and returned all capital to investors while making significant residual distributions. Fund VI is still in play.

Practices/Services

Their asset management focus is on tenant satisfaction, high occupancy levels and increasing asset value.

Office leasing consists of project positioning, pre-development consulting, project marketing, and transactional management.

Commercial leasing oversees the leasing of a nearly 7 million square foot portfolio and a currently marketed development pipeline of more than 6 million square feet. Their operating portfolio is 90% leased.

Commercial property management focuses on enhancing property management, integrating budgeting, design and construction management, marketing and leasing. They provide property management services for 7.9 million square feet of commercial office space in the greater Washington DC area. Of the 7.9 million square feet, 1.9 million is managed for third party clients.

The residential property management team brings value to the properties they manage, and to the areas in which their properties are located.

The JBG Companies construction management group employs over 30 construction professionals including registered architects, engineers and construction managers.

Geographical Location:

Their portfolio is focused and limited to Northern Virginia, Washington DC and Southern Maryland. Throughout these three markets, JBG develops multifamily properties for rent and sale, office, retail, hotel and mixed-use, which gives it a distinct competitive advantage and serves as an effective risk management technique. They build urban infill located close to mass transit which is hard to replicate.

In terms of geographic expansion, Brooks stated that they think there's a JBG company well rooted, successful and knowledgeable, in every local market. Additionally, they have yet to find a market as stable and deep as the metropolitan Washington DC area. Also, the firm's partners are disinclined to move and start from scratch in terms of building relationships and gaining market knowledge. For instance, Ben Jacobs has been in the Washington market for 40 years and is reluctant to consider a move now. They

may eventually export the model they have built here in the Washington D.C. region to an emerging market such as Mexico City, Sao Pablo, or Moscow.

Financial Planning

JBG is leveraged 65% across their portfolio with the debt on individual properties ranging above and below that number. Their latest fund of \$600 million consists of individual investments at a maximum of \$50 million of their own equity with an average of 30 million per investment.

JBG's proformas are built so that there are 200 basis points between the cap rate and the return on capital. Meaning if the return is 8% they must confirm the cap rate is 6%. Additionally, the IRR'S must be a minimum of 20% for them to move forward with a project. Their equity multiple, (the sum of the total money distributions and appreciation upon sale) is returned over the hold period divided by the initial investment) is set at 2 to 2.5.

A key component of their risk management strategy lies in the fact that they select investments that generate greater than a 20% IRR over a 6% preferred return with a 4% development fee, rather than a 20% IRR over a 12% preferred return like many companies. By insisting on a 20% IRR over a 6% preferred return they eliminate the need to find investments with the highest return (which would be accompanied by higher risk). JBG can make money on investments that yield moderate returns. A prime example of a company trying to find investments with incredible returns is Monument Realty, and the risks that have come along with those possible returns have resulted in the firm's current failures. JBG does not have to participate in such risky ventures.

Additionally, JBG would never take personal recourse as a company; they will only enter into borrowing arrangements with limited recourse or accept recourse on a particular property that is owned separately and has no relation to any other part of their portfolio.

Joint Ventures

JBG participates in joint ventures if it enables them to take on larger projects than they would individually pursue. In these joint ventures JBG serves as the general partner with the other firm the limited partner. This means they have control over the day-to-day construction and development of the project (usually the limited partner only has power over the business plan) but the true authority of course depends on who puts up more equity. They do always try and shift all the risk they can to consultants, for example; they shift design risk to their design consultants and a portion of their completion guarantees to their partners. They also structure guaranteed takeouts where they are promised to be bought out by their partner for a specific price at a specific date, consequently mitigating market and construction risk, since their profit is guaranteed upfront.

The funds life is 12 years but the development and hold is typically 4 to 7 years. They are never fixed to these time horizons however, and are always sellers at the right price.

Acquisitions Process

Another risk management tool for JBG is to place options or land leases on properties that they wish to acquire. The options vary according to the value of the property and the cost of the option to the owner. If it doesn't change the owner's profit they might charge as little as a few hundred thousand for an option to purchase. JBG will gladly pay this fee to receive time to work on the zoning and preliminary plans as well as feasibility studies. Land leases paid in increments, such as \$1,000,000 for years one through four gives JBG the flexibility to look at the property over those four years and determine whether they should move forward with or walk away from the deal.

When it comes to finding new investments, JBG has an acquisitions team and a few members of the development team to locate and propose investments. There are 15 company owners, but only eight professionals (with combined experience of 150 years) who make the final decision. Ultimately the "go-no-go" decision is made by three of these eight individuals. In all investments JBG is owner, fiduciary, and developer.

Growth Strategy

With growth JBG has become more decentralized and multi-divisional. It is headed by an executive committee with divisions for development, investment, corporate property, residential property, asset and construction management, commercial leasing, real estate services, finance and investor relations. Their development arm includes urban and investment funds. Finance and investment management includes accounting and corporate and encompasses human resources, marketing, legal, and information technology.

They do not have an articulated growth strategy opting to grow in response to market opportunity. Their goal as a company is to participate in as many interesting investments as possible. Brooks sees the opportunity to grow within this market. They are the largest player in Washington D.C. although they only comprise 6 to 7% of the market. He thinks there is room for them to comfortably double JBG's size and market share within the greater Washington D.C. area.

Construction Risk Mitigation

JBG will only do GMP construction with a thorough pre-construction process and an in-house construction team which provides critical information on investments making the go-no go decision much easier.

Conclusion

JBG has well thought out, intricate risk management practices. I believe a focus in the D.C. area is wise for JBG given the company's leadership, market knowledge, and relationships which provide them with a substantial competitive advantage. Additionally, they predict that they have room to double their current market presence in the greater Washington D.C. area so a limit to their growth will not be an issue for quite some time. Given their incredible market focus they can successfully maintain an in-house team of experts and can benefit from the aligned interests and inside knowledge of their contractors, architects, and engineers. They would likely not have dominance in other large markets for some time given that they'd have to gain familiarity with the new market to a level at which they could be competitive. They are comfortably leveraged at 65% debt to equity and only do deals that provide them with 200 basis points between the cap rate and the return on capital. They will only accept an investment if they will receive a 20% IRR over a 6% preferred return meaning they don't have to look for high returns from risky deals. They never accept recourse as a company. They explore projects by placing options and land leases on the properties so that they can learn more before making a purchase. JBG takes on partnerships as the limited partner with control over day to day operations. There are a limited few within the company's leadership with final decision making authority. JBG has fantastic knowledge and control over real estate risks.

Opus East

2099 Gaither Road Suite 100 Rockville, MD 20850

Person interviewed: Lynne Goldberg, Senior Real Estate Manager

November 18 2008

Background

The Opus Group, based in Minneapolis is a \$1.4 billion dollar full-service real estate Development Company with more than 50 years experience. Opus specializes in office, industrial, retail, multifamily, government and institutional development. The Opus Group has completed more than 2,200 projects and currently has 24 million square feet planned or being developed. Opus employs 1,400 people in 28 offices in the United States and Canada. Opus provides services in: Real Estate Development, Architecture & Engineering, Construction/Project Management, Property Management, and Financial Services.

Opus is a major developer with in-house expertise in office, industrial, retail, multifamily, government, and institutional projects. Opus real estate professionals provide a full range of development services including site selection, land planning, government approvals, financing, asset management, and property management.

Practices/Services

Construction Management: Opus implements a design-build approach and uses “fast-tracking” to compress construction schedules. They reduced the design and construction process by 20 to 30 percent of the time required for traditional building methods. They offer clients a guaranteed maximum price (GMP) in the schematic design phase, rather than in the final contract documents phase. These up-front GMPs alleviate the problem of clients choosing a design and then later learning it is too expensive.

Opus Architects & Engineers, Inc. (Opus A&E) is full-service architectural and engineering firm.

Opus offers construction services in project management, field supervision, and has the ability to self-perform work. Their construction professionals have worked with Opus architects and engineers to deliver high value construction as a design-build team on hundreds of projects.

Opus Property Management provides real estate management services for Opus-owned buildings as well as clients. Opus Property Management emphasizes customer service, and uses state-of-the-art technologies to increase operational efficiency.

Opus provides a full range of financing, leasing, and sales services as well as asset management services for the Opus Group. The primary function of the asset management group is to enhance the economic value of owned properties through rigorous planning and the execution of these plans.

Opus develops facilities from student housing and high-tech classrooms, to student centers and sports facilities for colleges and universities across the U.S. Opus has completed 398 institutional projects totaling more than 18 million square feet and has 2.1 million square feet planned or under development.

Opus’s Sensible Sustainability™, is a practice that integrates the design-build capabilities with client budgets and building goals. At every stage of the development process, Opus integrates design and construction practices that maximize building performance and reduce the impact of buildings on the environment. Opus’ sustainable development efforts are focused on: sustainable site planning, safeguarding water, energy efficiency and renewable energy, conservation of materials and resources and indoor environmental quality.

Opus has brought more than 3 million square feet of LEED-certified projects on the market, and sustainable development comprises almost 20 million square feet of Opus’ 35 million-square-foot pipeline.

Organizational Structure

Opus East has a strong relationship with their corporate office. The Opus Corporation provides the equity for their deals and works with each office to determine the best strategy moving forward in terms of acquisitions, repositioning of currently held assets, refinancing and large leases. The regional offices take care of the implementation and negotiation of these plans once a direction has been established.

Financial Planning

The average debt to equity ratio on a project is dependent on the financing available in the marketplace as well as the project type. Their average deal is currently at 60% loan to value. They did a few deals at 95% loan to value but sold these immediately upon completion of development and never had any issues with them. They were able to do deals leveraged to this level based on long established relationships with local lenders.

Opus must achieve a 20% IRR in the proforma stage in order to move forward with an investment. Their goal is to sell as quickly as possible. They try to buy projects that others have started and cannot finish. They can get a good deal on these projects and can consequently make a fantastic return. An example of such an investment is 1015 Half Street. They are a conservative company and do mostly suburban design with solid construction that is far from elaborate. One of Opus East's largest ventures outside of this norm is their Southeast DC office building project. They always cater to their national contracts and strive to meet their needs.

In the current market they are not building anything on spec; rather, they are only building to suit and are not starting anything new. They are waiting for the bottom to hit and then they will buy when others have to sell.

Geographic Locations

Opus will only make investments in markets that are good prospects for AAA tenants. A large part of their focus is building for government contractors. They have built buildings for Lockheed and Northrop. They will build in any region that these companies wish to be located, in spite of the possible lack of appeal to AAA tenants in these given markets.

Joint Ventures

Opus will not typically joint venture, however, they will partner if it is the only way for them to be part of a desirable deal or if they feel more comfortable putting up a portion of the money instead of the whole amount. In all joint ventures they perform and oversee their own architecture, engineering and construction; they serve as the general partner. They are also in charge of leasing and selling the buildings in accordance with the limited partner's consent. Generally, they use their own funds for the equity portion of their deals.

Conclusion

Opus can continue to thrive during the downturn given their focus on LEED, and government projects, as well as their diversified offerings. They buy projects that have failed or are failing and reposition or complete them. They sell all their developments as quickly as possible whether it is pre-negotiated and guaranteed or built on speculation. They will not build on speculation in today's market and rather alleviate market risk by only building to suit. I recommend that Opus try more joint ventures, since I believe they have the opportunity to do well in such ventures. They have the in-house capacity to serve as the general partner and oversee the day to day operations of a development. With additional equity afforded by partners they could take on larger projects and increase their returns and the net worth of the company as a whole.

Ow Family Properties

Address: 203 Highland Avenue, Santa Cruz, CA, 95060

Person Interviewed: George Ow, Jr., Trustee and General Manager

October 4 2008

Background

This company began in 1945 as a merchant builder of single-family homes and has since expanded to a focus on small shopping centers along with some office and light industrial. The family remains open to expanding into other product types in the future.

Mr. George Ow Jr., the oldest son in a Chinese family, shared the history and origin of his company to date: "When WW II ended my father mustered out of the U.S. Army in 1945, he bought half a partnership in a small corner grocery store in Monterey, CA, two blocks above Cannery Row. He knew or had read that the sardine industry (fishing, canning, and distributing) was booming and people had money to spend. By 1949 he and my mother had saved enough money to buy their own small grocery store also in Monterey and the land under it. By 1954 he built, from the ground up, a new 7,000 square foot store. The size is tiny now, but it was one of the largest grocery stores in the city at that time and he had a parking lot too. Safeway had a similar sized store two blocks away, but they and other nearby stores did not have parking lots. Safeway soon closed... we used to joke that we drove Safeway out of business with our new store with the feature of parking."

In 1959 a Chinese family from the Central Valley of California came to Monterey and built a 25,000 sq. ft. store a few blocks away. This was the first supermarket in the area and it was a high volume store that decreased the Ow Family's business. Mr. Ow's

parents still made a good living, but his father wanted to build a supermarket too. He was still a young man of approximately 40 years.

His father looked all over the Central Coast of California, from Monterey to Salinas to San Jose and then Santa Cruz, where he had lived after returning from China as a teenager in 1937. He found and bought land at the corner of a very rural area, 41st Avenue and Capitola Road. He built the store in 1962-63 and it was an instant success, with a very high volume of sales. It was the first modern supermarket in Santa Cruz County and was the largest grocery market at the time. The land he bought was slightly larger than he needed strictly for his supermarket, so he built adjoining shops and a free standing building. When adjacent acreage became available, he bought that too. They ended up with 12 acres of land on what is now the number one corner in the county for about \$10,000 an acre.

The second Santa Cruz area purchase was a 36 acre dairy ranch in Scotts Valley with two houses on it for about \$400,000 in 1966. His parents built another supermarket with adjacent shops on this site. The family continues to expand this shopping center to this day.

Owning land was a privilege George's father deeply valued especially since in his lifetime there was a time when he could not own land because he was Chinese.

Organizational Structure

Over the years, they bought raw land and built ground up along with redeveloping existing properties. They continue to do this and have since incorporated the third generation (George's generation being the 2nd generation and his parent's generation being the 1st) into their operations. Today, they are one of the largest owners of commercial properties in Santa Cruz County. They own approximately 900,000 square feet of buildings and an additional 66 acres of land. This portfolio is valued at approximately \$100 million.

The legal form of organization since 1975 has been a series of trusts with LLCs used to own individual properties. This ownership structure keeps evolving and they will continue to use more LLC's in the future to segment risk. According to George Ow Jr., the critical force influencing the firms' growth and evolution to its present form was the entrepreneurial spirit, drive, energy and foresight of his father.

His father never went to college yet he was a fantastic listener, asking questions and reading newspapers and magazines to learn. His father trained George's generation and gave them the opportunity to go to college. The family works together well and has built upon the base his parents established.

Geographical Locations

George Ow spoke to the fact that he likes to operate locally, though on occasion, he has bought projects out of the area (single credit tenant, triple net properties). An unsuccessful foray into the Chicago area reaffirmed the wisdom of working locally. The Ows believe California coastal land will be the best investment in the long term. “Virtually every developed property in Coastal Northern California has skyrocketed in value if you look back far enough. “The land that we bought for \$10,000 an acre in the 1960’s is worth in the neighborhood of \$2,000,000 an acre today. Land that we bought in Scotts Valley for \$8,000 an acre in the later 1960’s is worth \$1,000,000 an acre today. We can’t think of a better investment, plus we like and trust land in the long term.” This growth from \$8,000 to \$1,000,000 an acre over a forty year period generates about a 12.8% IRR. This return is in line with that of a diversified stock portfolio held for around the same time period. The average of the annual returns of the U.S. equity market from 1926 through 2000 was 13.4 percent; adjusted for inflation it was 10.1 percent.¹

Growth Strategy

Their strategy is to buy and build and hold for the coming generations. It is rare for the Ows to sell property, though they might exchange a given property for a preferred one. They buy raw land with the idea of future development.

They have grown in response to market opportunity and are fortunate that they do not have to do projects to sustain salaries and overhead. They wait until there is an opportunity they can’t refuse. George Ow Jr. feels that many real estate professionals only look at the short term because they are under pressure to complete the investment in front of them and provide short term cash to cover expenses. He feels privileged to be able to look and act for the long term. However, George thinks that there is a limit to what they can do with their family’s organizational structure. He stated that he will leave that to the next generation to sort out.

Organizational Structure

At present the company is a small close-knit family organization of 10 people. The organizational structure of the firm has not changed over time with the exception of the next generation joining them. Most participating family members are involved in feasibility studies and preliminary project evaluation, substantial commitment of resources to the site, the acquisition, the legal and financial planning, and the decision to proceed with construction, however the buck stops with George. The company consistently matches talents and inclination to the job description. The third generation will expand the base George and his siblings are building. Six members of the third generation are now working with the firm and Mr. Ow feels they have what it takes to continue the firm’s growth.

¹ Shipman, William G. “Is the Stock Market Too Risky for Retirement?” National Center for Policy Analysis. 10 December 2001. <<http://www.ncpa.org/pub/ba/ba382/>>

There has been significant change in the firm's strategy over its life seen in the move from developing from the ground up to purchasing existing projects based on the reduced risk, saved time and resources, and increased profitability. Existing buildings are purchased for less than replacement value; this is seen as the way to move forward in the future. George thinks, "Building and developing from the ground up is too costly, risky and time consuming and causes too much brain damage in comparison."

Product Types/Services

From 1989 to 1994, the firm developed both retail and shopping centers. They have built on speculation for lease to others, built under contract for a site owner or lessor and have managed properties after occupancy. Currently, they develop sites for lease to others, occasionally build on speculation for lease to others and build under contract to site lessors. More and more they buy existing buildings and remodel and lease them. At present they will only undertake ground up development if they are building to suit for a single credit tenant.

All financial planning, site assembly, property management, and marketing are done in house and leasing is done 90% in house. All legal, construction, engineering and design are contracted outside of the firm. They handle their own management and sales (though they gladly cooperate with brokers.) This has proved a very successful structure. Marketing and management are important functions of the Ow operation. Using independent contractors keeps firms leaner and more capable of sustaining through down markets. Doing 90% of their leasing in-house requires time and attention but also cuts external costs with commissions increasing the family's profit margin and employing family members. Having in-house equity holders doing the leasing, management and sales motivates the team to do what is best for the business at large.

Project Strategy

The firm has had experience undertaking projects of varying sizes. An example of a small project, involved the redevelopment and renovation of the Del Mar Theater in Santa Cruz CA, while an example of a large project, was purchasing the 386,000 sq. ft. Wrigley Chewing Gum Factory which they are still are in the process of redeveloping.

Several projects often operate concurrently, particularly raw land projects that do not require full attention coupled with other purchases.

George Ow Jr. usually has a lease or an exit strategy in place when he buys or builds. If he is developing from the ground up, he would have to contend with inflation in construction cost, cost overruns due to schedule delays or design changes, changes due to public regulation, unanticipated engineering problems, oversupply of competing facilities and changes in market interest rates that affect either current construction or permanent financing. By not having to develop or purchase any new properties, he feels in a very strong position to buy existing properties. George Ow Jr. feels that by buying existing buildings he eliminates a great deal of the timing risk-having a project come to market

when the market is unfavorable. Additionally, this practice allows for a smaller organization and lower overhead.

Financial Planning

In the early 1990s as well as today, the firm was 50% financed by nonparticipating secured loans, and 50% by permanent financing. Through the 1990s, they principally borrowed from banks including Wells Fargo, Bank of America, and Comerica that required personally guaranteed loans. In addition to these banks they now use insurance companies, which typically do not require personal guarantees (except for environmental and fraud carve outs) and offer better rates and terms. Since they buy or build to keep, many of their projects are paid off or greatly paid off at this point in time. Their overall debt to equity ratio is 1 part debt to 5 parts equity, however a new project could be 1/3 equity and 2/3 debt. Changes in financing have not affected the management structure of the firm. George Ow Jr. predicts that they will be in business 10 years and beyond using the same types of financing.

Overarching Risk Management Strategy

As far as risks he will not take with a development, George commented that he will, “Rarely build (ground up) in the future. My ideal investment is to purchase a solid existing building that is empty (owner is distressed). I want to pay one third to one half replacement cost and have tenant(s) ready to occupy by the time we close. At that time, the building will be worth twice as much as we paid. This is what I am always scanning near and far (locally) for.”

Mr. Ow sees a difference between the downturn of the early 1990s and that of today: “Both downturns brought fear and caused many developers to go belly up. During the “up” 80’s, the major International Shopping Center Convention had between 20,000 and 30,000 participants. When the downturn hit, participation was only 1/3 (went down by 2/3). I’ve been through 3 downturns since I got out of the Army in 1970. We rode through them all. I am looking to see what “buys” will come up and what will happen with the availability of financing.”

Conclusion

Ow Family Properties strategically buying and developing properties in a specified coastal market in Northern California fits the firm’s goals and organization consisting of ten family members. I strongly agree that moving from ground up development to purchasing existing properties and repositioning them reduces risk. It diminishes risk by enabling a better understanding of the market in which the project will be delivered, since it takes much less time and is less complicated to renovate than build ground up, and market conditions 3 to 6 months out are better understood than those 3 to 6 years out. Additionally, construction costs should be more predictable and change less. Not regularly building ground up is also effective for bringing costs down and the keeping the company small. They will build ground up only when building to suit for a single credit

tenant; which eliminates the uncertainty of market conditions growing poor and the building sitting vacant upon delivery. As a smaller firm, they maintain lower costs by balancing operations that can be efficiently completed in-house and outsourcing those that they lack internal expertise and efficiency in. At an overall debt to equity ratio of one part debt to five parts equity they are extremely secure and conservative, and although they may not realize as high returns as they would with more leverage, they have achieved a decidedly reliable group of assets that they can continue to hold indefinitely.

Jones Lang LaSalle

Address: 1801 K St NW # 1000, Washington DC 20006

Person Interviewed: KATHY ALLGIER, Partner

October 24 2008

Background

Jones Lang LaSalle's (JLL) history spans more than 200 years, beginning 1783 in London. In 1999, in the largest international real estate industry merger to date, JLW and LaSalle Partners joined to form Jones Lang LaSalle. Today, JLL is a financial and professional services firm specializing in real estate services and investment management. They have over 30,000 people in 700 cities and 60 countries. They assemble teams of experts to respond to changing client expectations and market conditions.

Practices/Services

Agency Leasing: Commercial property leasing focused on forging long-term tenant relationships.

Consulting: Strategic real estate consulting that considers the long term.

Corporate Solutions: A practice dedicated to solving complex occupancy challenges globally.

Corporate Capital Markets: Given the percentage of corporate budgets devoted to offices and other facilities, nothing dominates a balance sheet more than real estate. They help clients portfolios "shine when it comes to the bottom line," by designing a real estate action plan tailored to their client's objectives.

Energy and Sustainability: Their LEED certified energy management experts help clients develop sustainable real estate practices.

Facility Management: Efficiency, cost savings and continuous improvement from facility management experts.

Government Services: JLL specializes in strategic portfolio analysis, brokerage, facility and project management, as well as public-private partnerships. They feel they understand the politics, complex laws, regulations and policies that affect government real estate.

Hotels: They advise hotel investors, owners and operators helping them enhance their investments and operations.

LaSalle Investment Management: A wholly owned and operationally independent subsidiary of Jones Lang LaSalle, LaSalle Investment Management is active in a range of real estate capital and operating markets including private and public, debt and equity. They cover all real estate asset types across Europe, Asia Pacific and the Americas.

They have \$54 billion under management and their clients range from pension funds, corporations, sovereign wealth funds and endowments, to foundations, insurance companies and high net worth money managers.

Project and Development Services: JLL facilitates owner or tenant new facility build-out.

Property and Asset Management: Commercial property management that reduces risk and improves tenant retention.

Real Estate Investment Banking: They provide the lowest cost of capital with the best possible terms, arriving at an optimal capital structure.

Research: Extensive market coverage, innovative analysis and forecasting are backed by market knowledge and strong commercial acumen.

Retail: Jones Lang LaSalle offers unparalleled retail knowledge and experience. They have retail offices in 40 countries around the globe, and manage nearly 250 million square feet of retail with more than 600 properties worldwide.

Tenant Representation: They help organizations relocate or create a uniform platform for acquiring space and accommodating global expansion.

Valuation: JLL helps portfolio owners or institutional investors and lenders price single properties to global portfolios.

Investment Management

Mrs. Allgier started her career at Spalding & Slye in 1988. Spalding & Slye started as an at-risk developer and in response to the financial turmoil of the early nineties they created

a parallel fee/service based company. It is based on their success in the services side of their business that JLL bought Spaulding & Slye in 1996. JLL made this acquisition to boost its resources in the New England and Washington D.C. areas. JLL paid \$150 million in cash with additional payments subject to certain contract provisions and performance. All 500 employees at Spaulding & Slye were retained by JLL except for 80 in accounting, given that JLL was sufficiently staffed in that department. JLL financed the merger with its existing revolving credit facility and expects it to increasingly boost earnings over time. This transaction was aligned with JLL's articulated growth strategy of strengthening their local and regional service offerings globally.

Before the early nineties Spaulding & Slye would attempt to make 300 to 500% return on equity for each development project. However at risk development seems far less attractive to the partners (now at JLL) given the inherent risk involved and the sheer profitability of their fee based practices. JLL has not historically had an investment arm but is allowing the former management team of Spaulding & Slye to experiment with approved and extremely conservative equity investments. By acquiring Spaulding & Slye JLL acquired a team knowledgeable about the balance of services and investments. Spaulding & Slye learned how to operate a conservative investment arm without looking like competition to their clients on the service side. All investments will be made under a company entirely separate from JLL. JLL like Spaulding & Slye will allow certain employees to invest in the projects. To date the investment committee has only identified one project that will generate a conservative return of 16% that JLL has approved. This investment is currently being structured.

Growth Strategy

JLL will consider the integration of new practices provided a case can be made for the profitability of such endeavors. A trial period is granted in which the profitability is measured for each new venture. For example, JLL has recently approved their capital markets group to work in multifamily apartments. If it goes well, they will offer more services in the multifamily rental product type. JLL maintains the flexibility to retract the remainder of funds allocated for new endeavors if they are not profitable.

JLL has five principal goals/strategies including growth, superior global capital markets, strong money management, and world class operations. They consistently push to improve the productivity and effectiveness of their employees. Recently they focused on international growth in India and acquired an Indian company to critically boost their presence within the country.

Service Provider Risk Mitigation

As a service provider for the real estate industry, JLL faces the risk that the developers and institutions they are working with will decide to cancel contracted development projects. In addition they face market risk. Termination clauses in all their contracts make it so they can be let go at a moments notice. They do however have a pre-negotiated break up fee in every contract. The fee is based on multiple factors including

the size of the project, the predicted risk, and how much up front services rendered versus payments received have been completed by the time of the break up. The break up fee decreases per time spent on the project, because more payment has been accrued. This is based on the fact that JLL helps developers by allowing them to pay for all the time spent in the first months of each project in installments spread throughout the project, since the initial months require the most time and incur the greatest cost. JLL does a “sanity check,” basically a back of the envelope, if the developer has not created one that meets their standards.

There really isn't a project that is too small for an existing client. For example, they would immediately agree to the development of 1500 SF bank pad for Bank of America out in a suburban strip mall. They would not accept a one time project with a small company even if it was a large project. Mrs. Allgier provided the example of a 50 million dollar development in Norfolk, Virginia, that they turned down upon learning that the company would not be building again for ten years. They would have had to send talent to an unstaffed location, without the likelihood of repeat business.

JLL has three major subsets: Federal government, health care which is hospital development and industrial which is principally in California. Although they are quite active, they are not as fully equipped in retail and hotels. Their clients are divided between the users (i.e. Bank of America, Microsoft) and investors of real estate (i.e. Morgan Stanley). As a company they have made an extraordinary effort to shift to a more localized market approach. They learned that many institutional investors look for the best local property management company rather than the best international firm. Consequently, each office focuses on understanding their local market and hiring key players in each of their geographical territories. They never operate in a steady state but rather adjust to market changes and feedback. Although the firm is large and decentralized geographically there is a strong connection to the corporate entity. Each region has a market leader who participates weekly in national conference calls and webcasts to maintain a consistency with the national philosophy.

Conclusion

As a service provider JLL negotiates a break up fee in every contract to protect themselves in the event that one of their clients chooses to activate the termination clause that is within their contract and lets JLL go. JLL accommodates client and market preferences and demands making them competitive on an international and local level. It will be interesting to see them take on a few at-risk developments/investments. Given that they coach investors daily on managing and building developments and making effective investment decisions, I feel they are equipped with the talent, expertise, and infrastructure to manage their own developments and make wise investment decisions. I highly agree with their taking on a few conservative projects and trying their hand at at-risk investments. With their size even if it came to shutting down the few investments they initially try, due to a decision to stop this investment arm, they would not be greatly adversely affected.

Trammel Crow

Address: 1055 Thomas Jefferson St, NW Suite 650 Washington, DC 20007

Person Interviewed: Ed Morgan, Principal

September 30 2008

Background

Trammell Crow's portfolio covers around 30 major cities but they are focused in the Dallas, Southern California and the Washington D.C. area. Their portfolio includes roughly 500 million square feet valued at \$50 billion. The company serves developers, tenants, and investors in the development of office, industrial, retail, mixed-use, airport, multi-family residential and health care facilities. Trammell Crow offers development services to its clients that occupy buildings, and investment funding and joint-venture opportunities to its real estate investment clients. Trammell Crow went public in 1996. They are now a fee based company that has created a reputation of adding value to development projects. Given their steady cash flow from fees, they can easily withstand downturns. They were acquired by CBRE who now has around 6,000 employees. For several years after the acquisition Trammell Crow with its 300 employees accounted for about 30 to 35% of CBRE's income.

Financing

Trammell Crow can make financial commitments up to five billion dollars with CBRE's stamp of approval. Trammell Crow can internally make commitments up to 500 million; however the individual offices i.e. the DC office can only spend up to \$50,000 without consulting the management team. They have several equity lines, but none have been affected by the present market conditions. They rarely draw upon their lines of credit preferring to use all equity for the relatively small portion they contribute to each project.

Joint Ventures

They have several institutional partners and two to three billion dollars as a company to contribute towards investments. They have an equity pro rata share in each development project and since the shift toward limited ownership and fee development they now typically put forth as little of their own equity as possible (right around 10%).

Acquisitions Process

The DC team has three financial analysts who are the first in line to analyze an investment. Following the work of the analysts, a manager will research the investment and the decision to bring the opportunity to the organization as a whole is made.

Organizational Structure

Historically Trammel Crow was set up as a series of partnerships by geographical region. They learned they had sold too many partnerships since many of their subsidiary offices did not make it through the downturn of the early 1990s. They had decentralized in too grand a manner and regained central control switching to fee based development prior to being sold to CBRE. Currently, the name Trammel Crow is leased from the family.

Risk Mitigation

The shift from pure ownership and at risk development to fee based development has diminished much of the risk previously held by the company. Trammel Crow now holds the risk of a service provider which is the risk that owners will terminate projects; market conditions will impede the flow of client's deals, along with the risk that business slows to the extent that they can no longer maintain their overhead. Trammel Crow is able to put limits on their risk of a client canceling their agreement by placing a fee that will make them whole for any costs incurred by a cancellation.

Conclusion

It is wise that Trammel Crow has regained strength and net worth by shifting to fee development as a services provider, given that Trammel Crow has played with high levels of corporate decentralization and the at-risk game and almost lost everything during the early nineties. Despite being a principally fee based company they still serve as a partner in most of their deals, contributing around 10% of the equity. Their current strategy for earning fees (continually maintaining a cash flow) and investing with limited equity is the right place for the company.

ASB Capital Management LLC

Address: 7501 Wisconsin Ave # 200 Bethesda, MD 20814

Person Interviewed: Mandi Wedin, Vice President

October 8 2008

Background

ASB Real Estate Investments is a leading real estate investment management firm with over \$3 billion in core assets diversified throughout the country. They have 32 investment professionals and three regional offices in Washington D.C., Chicago, and San Francisco. They generate strong and stable real estate investment performance for Taft-Hartley pension fund investors.

ASB Real Estate Investments manages the ASB Allegiance Real Estate Fund, a commingled, open-ended equity real estate fund with 118 Taft-Hartley pension plan investors, as well as separately managed accounts for two other Taft-Hartley pension plan investors.

Most of their investments are made in partnership with strong local partners who act as on-site supervisory owners. They also engage the best property management and leasing firms in each market to create long-term real estate value. Since their inception, they have had a quality contractor policy that mandates the use of skilled union labor on all new development, renovation, and tenant space construction work.

Risk Management

ASB recognizes that returns are contingent on market risk. They differentiate between commodity and trophy buildings, with trophy buildings being the space that will gain more than its market share of tenants and interested buyers. They analyze investments determining what will adversely affect them. They perform sensitivity analyses to see where the project breaks and when the return no longer has value; they have a very clear expectation of their return. Their hard and soft cost construction contingencies are 15 to 20% until there is a GMP in place and then they decline to 5% with a GMP.

They typically hold properties for seven years with the operational flexibility to sell due to market opportunity. They do not commit to a specific hold period. They do ground up for industrial, multi-family (including condos community centers), office, and retail.

According to Mrs. Wedin the most underrated real estate risk management skill is the ability to ask tough questions that no one wants to ask. Asking these questions allows one to discuss and plan for the largest risks. When an opportunity is presented to them, a vice president and an analyst along with the regional manager will investigate the project, conduct an onsite visit, and then if they think it makes sense, they will put it in their pipeline to discuss at their weekly company wide meeting. After their thorough diligence and analysis they take each decision to an investment committee for further analysis.

Joint Ventures

They only accept partnerships with local developers who have a track record in both the specific product type and geographic location. The more they contribute financially the more control in terms of financing, sale, approved budget, management day to day, and selling they require. They will invest up to 15% of the equity but typically contribute 1 to 5% which falls between 5 and 100 million dollars. They report to clients every quarter, and strive to develop a well leased income producing fund.

Growth Strategy

About six years ago a new president came on board. He saw long-term value in facilities with 24-hour use. He eliminated the suburban component shifting the property profile to top tier cities. Clearly, the overarching strategy is to invest in urban infill developments with 24 hour environments that are transit oriented and perform above market.

Organizational Structure

They have quite a bit of operational flexibility once they begin a project. The leasing and property and construction management can be fired for cause typically with 30 day notice. They have third party agreements with companies such as Jones Lang LaSalle who might serve as the construction manager. Each property is owned jointly as an LLC with their partners. They also have the ability to take over a project if a partner is failing to stick to the terms of the agreement.

The mentality at ASB is for every person to work very hard, performing at a higher level than they might at another company so that in periods of downturn and crisis they remain lean, avoiding layoffs which negatively affect moral. In this manner they have been very conservative about their growth plan, not bringing on too many people and looking for those who enjoy rising to a challenge. For instance they will hire someone with a financial background and will teach him or her construction management and development. They never want to give up their entrepreneurial spirit or their ability to be nimble by growing to a point where they are extremely large and decentralized. At present they can analyze and make decisions on investments within a week, their reputation is for operational efficiency and decisiveness.

Geographical Locations

ASB will only operate in the United States. Ground up development with all union workers can only be accomplished in the north and top tier southern cities and some airports. Since ASB is funded by union pension funds they are limited to doing ground up development in the northern half of the country as every trade must be union.

Financing

The properties that are leveraged average 50% debt; however only about 25% of the entire portfolio is leveraged. The firm has been affected by the changes in financing in this era; for instance, there was no debt available for commercial investments the week of the interview and Mrs. Wedin did not see any deals on the horizon. Over this past year they have had to stop development on two projects because debt was unavailable. However, given that they carry low LTV's they are less affected by the absence or decrease in available debt than many other companies. In ten years the interviewee thinks ASB will still be in existence and will still be operating as an investment manager on the real estate side.

The company at large is involved in feasibility studies and preliminary project evaluation, substantial commitment of resources to sites, acquisition, legal and financial planning and the decision to proceed with construction. All of these are approved by the executive team and investment committee.

They won't participate in an investment under \$5 million because they feel a small investment takes almost the same effort and legal fees as a large investment. They will

undertake multiple projects simultaneously depending on how long each will take to develop, lease up, and stabilize, as well as what part of the project they are on. Each investment “team,” a senior person (usually a VP) and an analyst, has about 10 to 15 simultaneous projects that they are working on at a given time.

Conclusion

ASB has fantastic risk mitigation tactics. They partner on most deals with prominent and sound local companies. They do thorough financial feasibility studies to determine where a given deal breaks, and they ask the tough questions that no one wants to ask. Additionally, they have flexible hold periods so they can sell projects whenever they see fit. They will only contribute up to 15% of the equity on an individual project and typically contribute between 1 and 5%. Thus, they put less capital at risk and ensure their partner, who will run the day to operations of the development, has contributed a majority of the equity and hence they strongly understand and believe in the project. ASB has the power to fire all vendors at cause with 30 days notice. They also have the contracted authority to take over any project in which the partner is failing to abide by the terms of the agreement. They focus on top tier cities with 24 hour operational environments. They keep an extremely lean staff by expecting more of each employee and training them on all of the skills associated with a real estate acquisition, development, and disposition. They are extremely conservative only leveraging about 25% of their portfolio and maintaining only about 50% debt to equity on each property in that small leveraged portion of their portfolio. Since their investments are made on behalf of pension funds they must be conservative in the amount they leverage their portfolio. I feel exceedingly confident with ASB’s capacity to handle and mitigate risk.

Rockwood Capital/ GlobAf Group, Inc.

Rockwood Address: 2 Embarcadero Center, 23rd Floor San Francisco, CA 94111

Person Interviewed: Lenka Dewa, Current Advisor/Former Vice President and Director of Development Rockwood, Current Chief Executive Officer and Director of GlobAf Group, Inc.

Interview conducted on Rockwood.

October 10 2008

Background

Rockwood Capital is a privately held real estate investment company that invests for institutional and high net worth clients. Mr. Dewa described Rockwood’s bottom line as generating returns for investors. The limited partners look at success in context to the funds’ structure and returns.

Risk Management

They focus on construction costs, market data, asset types, expected returns, and supply constraints. Rockwood always tries to conduct all possible due-diligence such as solid title insurance and legal investigation of zoning regulation recognizing that this is project

and location specific. The factor influencing the firm's growth and evolution to its present form is the talent of the partners, a core of real estate professionals who understand how to generate respectable returns and who have an impressive network of contacts. Their strategy if equated to baseball would be to get many steady runs rather than attempting a home run on each investment.

Mr. Dewa believes it is fundamental that real estate professionals should have a solid understanding of replacement cost when evaluating sites.

Joint Ventures

Rockwood partners with developers, although they have both a development and an investment arm. They look at existing properties they can get a good price on and they redevelop them. Rockwood is truly a value add rather than an opportunity fund. They focus on methods of adding value, leasing, repositioning, and selling the property per market conditions.

Geographical Locations

Rockwood looks at projects on an investment basis but their initial criterion is to build and buy within a 100 miles of both coasts. However, due to market opportunity Rockwood has completed investments in Chicago, Houston, and Denver. They would consider any product type that meets their criteria but as of yet they have not seen an industrial investment or publically owned building that has fit their target. They have done residential, retail, hotel, office, restaurant, shopping centers, mixed use, multifamily and single family residential as well as R&D. Initially they had a clause promising investors diversification at 25% residential, hotel, retail and office, however they no longer make this promise because of the changing capital markets the feasibility within a fund to be exactly composed of 25% of each of the above four product types becomes impossible, preventing the flexibility to choose what is best given the market.

Financial Planning

They leverage their projects around 60%, never at 90% debt although they had the opportunity to do so; they have always seen the flaws of such highly leveraged investments. The company started with funding from high net worth individuals such as the Rockefellers and they grew adding scope and size. A typical investment at Rockwood would consist of 25% equity; with the development partner contributing 3 to 50% equity and Rockwood committing 50 to 97% of the equity. Their characteristic debt is 75% on a project basis.

They are flexible enough to make changes to accommodate inflation in construction cost, cost overruns, delays or design changes, engineering problems, oversupply of competing projects, and changes in market interest rates that affect either construction or permanent financing. They typically bring 50% or more of the equity so they have the control and flexibility to make changes if investment criteria will not be met.

Investment Management

Rockwood puts forth a fund every two to three years; they give themselves three to five years to invest the money so there is overlap between the prior funds' completion and the raising of next fund. Each fund has grown in size aside from fund II, from fund I, which they limited to 83 million but realized a 32.7% IRR. Their hold period is typically 3 to 5 years however they only sell when market conditions are favorable. In current markets they hold despite reaching past their typical hold period.

Fund I (1990 to 2001) 20.7% IRR Realized Equity Invested: \$202.3 million, Fund II (1995 to 2001) 32.7% IRR Realized Equity Invested: \$83.0 million, Fund III (December 1998 to present) 15.2% Projected IRR Equity Committed: \$221.0 million, Fund IV (March 2000 to present) 24.7% Projected IRR Equity Committed: \$366.3 million, Fund V (May 2003 to present) 27.1% Projected IRR Equity Committed: \$460 million, Fund VI (May 2005 to present) 18.4% Projected IRR Equity Committed: \$657 million, Fund VII (June 2006 to present) 15.0% Targeted IRR Committed: \$1.094 billion.

Organizational Structure

By having multiple partners leading the firm, Rockwood truly feels like a team rather than a dictatorship.

Rockwood is currently a partnership although it was an S-Corporation at inception. The management company structures individual acquisitions based on tax patterns and benefits. The firm obtained this current legal form of organization in 2005 - 2006 when they restructured to gain efficiency. The use of s-corps on a project basis was common 20 years ago but since the LLC has gained greatest use.

Additional accounting staff has been added as the funds have grown along with offices being added on both the east and west coasts. It wasn't until Mr. Dewa came on board in 2001 that the firm built a functional successful development practice.

They handle the de-centralization of the company between the East and West by having an office management team at each location taking care of the day to day management of the space and supplies. There are conference calls between all the offices up to several times a week to every two weeks depending on need.

Acquisitions Process

They have a prescribed process for analyzing and undertaking a project. The first step is creating a pre-yellow book. The pre-yellow book is composed of an investment summary to be presented to the investment committee who will make the decision of whether or not to move forward with the given investment. If the decision to move forward is made \$50,000 to \$150,000 is allocated for further feasibility studies and research. If everything checks out well the investment will go before the investment committee and the purchase will be made. The project will either have a price committed to by the seller or an option

will be placed on the property so that when the investment committee gives the go ahead the investment can be closed with minimal adjustments. Within each fund a reserve is held for incidental costs, and all leasing will be done by a third party.

Market Conditions

Lenka believes it is the availability of leverage and the insatiable appetite of real estate buyers and developers that differentiates today's downturn from that of the early 1990s. The early nineties he feels, "Was when real estate truly became an asset class, there was excess liquidity in the market, corporate returns were high, and there was cap rate compression because of liquidity. Today securitization has flopped. He hopes it is for the better in the long run since there has been too much risk taking and over-leveraged ownership. With the housing boom there was a global expansion and an increase in commodity prices, ultimately people were buying beyond their means and we have seen the affects."

Conclusion

Rockwood is open to a range of project types and has the flexibility to compose each fund with as many different product types as they see fit. They have fantastic corporate wide communication and an in depth acquisitions process. The final approval for investments comes from an investment committee. Their acquisitions process starts with the creation of a pre-yellow book which summarizes the investment to enable a presentation to be made to the investment committee and a yellow book that includes the final terms of the investment to be made. Rockwood will only move forward with the acquisition if it is approved by the investment committee. They will only make investments in areas that are in high demand, principally located within 100 miles from a coast. They have always maintained around a 60% debt to equity ratio. They additionally retain great flexibility to change or cancel projects at every stage of the development given the need to do so. Rockwood is cognoscente of the risks entailed in real estate and they apply effective mitigation techniques whenever possible.

Vornado/Charles E. Smith

**Address: 2345 Crystal Drive, Suite 1000 Arlington Virginia 22202 Person
Interviewed: Mitch Bonanno, Senior Vice President of Development
October 7 2008**

Background

Vornado, incorporated in 1936 as Windsor-Fifth Avenue, is one of the largest owners and managers of commercial real estate in the United States. They have a portfolio over 100 million square feet. The company is primarily located in the New York and the Washington D.C. metropolitan area with the company's major foci including New York City office, Washington D.C. office, retail properties and merchandise marts.

The New York Office includes 28 office properties aggregating 16.1 million square feet, primarily in midtown Manhattan. The Washington D.C. office includes 88 properties aggregating 17.9 million square feet, located in the District of Columbia and northern Virginia. Their retail properties include 176 properties aggregating 21.8 million square feet in 21 states, Washington D.C. and Puerto Rico. Their merchandise marts include 8 properties aggregating 8.6 million square feet including a 3.4 million square foot merchandise mart in Chicago.

In addition to the focus on these four product types, Vornado has purchased industrial, warehouse, retail, shopping centers, and multifamily residential. They also have 32.6% interest in Alexander's Inc. 32.7% interest in Toys "R" US (16 million square feet of Toys "R" US real estate), Hotel Pennsylvania in New York City, mezzanine loans to real estate related companies and interests in other real estate. They also have ownership in public companies that own and manage office space, industrial and retail properties net leased to major corporations, student and military housing properties throughout the United States, 6 dry warehouse and industrial properties in New Jersey containing approximately 1.2 million square feet and other investments and marketable securities.

Geographical Locations

As a geographic strategy Vornado targets top tier cities such as New York, Washington D.C., and Chicago. All new ground up construction is done to an "A+" standard but they own some older product that they feel they manage to an "A" level although the permanent structure could not be called "A" quality due to its age.

Mitch describes Vornado as an extremely strategic player not averse to investing in new markets and product types. Before Toys "R" US, they purchased multiple McDonalds locations for the value of the real estate alone. They are deeply invested in Toys R US and Alexander's Inc. In fact, Michael D. Fascitelli who is President and a Trustee of the Board of Vornado Realty Trust is also President and a Trustee of Alexander's Inc. and on the Board of Toys "R" Us.

Joint Ventures

Vornado typically does not like to partner and does so only in situations where they otherwise could not be part of an investment. They have bought several large portfolios over time, including the Charles E. Smith Company and the Kaempfer Company, both in Washington D.C. Given that the Kaempfer Company owned all investments as a partner each of the properties in the portfolio that Vornado took over is jointly owned.

Investment Strategy

Vornado is not in the market to buy assets at retail but aims to get discounted properties so they can redevelop and hold them. They only sell due to extremely favorable market conditions. They own most investments without partners and they have the operational flexibility to sit on any purchase. For example, in Crystal City they sat on an older office

building for over a year before making the decision to convert it into apartments. They relish buying buildings that are 80% vacant and repositioning them. Vornado has had experience expanding a new product line when adding retail and merchandise marts (it had started with office). They will invest in a project of any size, however, time and subsequent returns are the leading factors in any investment decision. The firm has grown per a strategy of logic based on market reaction rather than an articulated plan.

Financial Planning

They have been expanding their retail portfolio based on their marketplace success with this product type. Although they typically do not leverage their construction projects, Steve Roth, chairman of the Board & Chief Executive Officer, had the insight to see that debt would not be easily attained in the coming year, and in 2007 they took out several construction loans. This was an excellent decision as they don't need any more financing and they understand that at this point in time they couldn't get debt. They use almost entirely the company's own equity, this small debt to equity ratio has allowed Vornado to withstand difficult times and become one of the largest owners of office in the NY and D.C. metro areas.

Organizational Structure

The organizational structure of the firm has changed to accommodate the acquisition of other entities such as Charles E. Smith and Kaempfer. In the DC office, an investment is moved forward first by a Senior VP and an analyst. Next it is approved or rejected by Mitchell N. Schear, the President of the Vornado/Charles E. Smith Washington D.C. Division. The investment then goes to the New York office and the final decision really comes down to whether or not Steve Roth would like to move forward with the development. The company is highly centralized in the sense that every acquisition decision has to go through the New York office but the day to day operations and oversight is conducted by the Washington D.C. office internally, without approval by the New York executive team. Vornado has a mix between in-house attorneys and outside legal planners. The in-house attorneys serve as both general counsel and leasing attorneys. Financial planning and site assembly are done in-house, but they use outside contractors for project design, engineering, construction, and some marketing. Their leasing and property management is done entirely in-house although they will cooperate with brokers if that situation arises. They do not have in-house architects or engineers, maintaining the operational flexibility to choose individuals and companies whose profile best fit the particular job.

Conclusion

Vornado diversifies their ownership and investments among properties and companies that hold real estate, such as Toy's "R" US and the Alexander Company. They principally buy underperforming dilapidated buildings and reposition them. Their acquisitions in the Washington D.C. area must be approved by multiple levels: first, by the head of the D.C. office, second by the New York headquarters and finally by the

Chairman and CEO, Steve Roth. They do their own leasing and property management and have some in-house attorneys, while they hire specialty attorneys for particular projects. This enables Vornado to do everything they have the talent to do and outsource everything else. Vornado is a strategic player who thinks outside of the box by making investments both directly in real estate properties and in the companies that own real estate.

SUMMARY /CONCLUSION

We began with an overview of financial downturns and went on to speak about managing real estate risk. We heard from a wide spectrum of developers from a family development company to some of the nation's largest private and public firms, private equity funds, as well as the world's largest real estate services provider.

The following ten risk management techniques comprise consistent topics throughout the interviews. They are prioritized in terms of expressed importance by the interviewees.

1. The degree to which the firms are leveraged on a per project, portfolio or fund basis.
2. How the company finds and performs feasibility studies and makes the decision whether to move forward with an acquisition.
3. The firm's geographical scope and the limitations placed on the number of regions and territories in which the firm will conduct business.
4. A firm's hiring practices and the number of operations done in-house versus contracted out. Some firms believe that it is more important to limit the number of employees, keeping the firm lean to survive hard times. Others feel that the benefit of having someone in-house with aligned interests and internal focus is of greater importance.
5. The company's average deal size and project mix including diversification and the focus on particular real estate product types.
6. How companies organize their construction agreements was expressed as an important way to reduce construction risk. All firms sought a Guaranteed Maximum Price (GMP) and used varying construction contingencies to allow for cost overruns. The companies build contingencies of 5 to 10% with a GMP understanding that the "guaranteed price" is guaranteed only for the specifications in the contract, making it the base price given inevitable change orders.
7. The growth in transaction and development volume was weighed towards response to market conditions rather than an articulated fixed growth strategy. Firms expressed the importance of real estate professionals consistently monitoring and reacting to the market.
8. Joint ventures and percentage ownership in projects enable firms to participate in large or complex deals based on availability and the amount of equity required. Additionally, joint ventures reduce risk by reducing the equity each company invests.

9. The concentration of decision making authority and the distribution of tasks and responsibilities were discussed as being spread within the firm, but ultimately all final decisions were made by a small group of managers.

10. The legal structures of the companies as well as the form of ownership of individual projects were defined as risk management techniques. Individual properties are held as separate legal entities, principally LLCs. Firms would not take on recourse as a company as a whole. They would sometimes take on recourse on individual properties that were entirely disconnected from the company as a whole.

Diane Schuman wrote, Managing a Development Company: Interviews with Successful Firms, in 1987. Although Ms. Schuman's book concentrated on questions regarding the general management of real estate firms, she additionally asked companies about their risk management practices. She asked many of the same questions in the early nineties as I did today and it is quite striking how the same questions received such different responses in each market environment. Conversely, some risk management practices have not and likely will never change. When asking about risk, Diane received answers focused around construction cost increases, zoning and public regulatory risks, engineering problems, and market risk particularly attuned to product type competition. Most of the firms Ms. Schuman interviewed conducted their own marketing because they felt the success of a project could be generated by successful advertising. After hardships in the early nineties there were several firms among those interviewed, including Trammel Crow and Spaulding and Slye (now Jones Lang LaSalle) that shifted their business practices from being at-risk developers to service providers.

In 1987, Ms. Schuman mentioned that, "Many more instruments are available today, the distinctions between debt and equity (are) beginning to blur." Creative financing was discussed in both Diane's and my interviews in terms of joint ventures, heavily capitalizing projects, and keeping enough funds in reserve. Pre-leasing was seen as a fantastic risk mitigation technique in both time periods. In 1987, firms financed to a level that would enable them to cover long carrying periods. Today, when traditional debt financing is non-existent, companies speak about seller financing as a potential means to acquire properties. Another difference lies in the poor office market in the late eighties. Developers would offer tenants equity to attract them to their projects. In 1987 developers discussed partnerships if the other company would bring major tenants or particular vendor relationships to the table. Today they will only do so to participate in projects they would otherwise not be able to be a part of, to gain equity, and to share risk. In 1987 Firms discussed rolling over commercial paper and issuing bonds secured by project assets. Many firms were beginning to purchase hedges and caps to fix their interest rates due to the newly available tax exempt hedges in the early nineties.

In both sets of interviews, fee development was undertaken to generate cash with the developer often receiving an equity kicker. Some firms in Ms. Schuman's interviews discussed selling properties to generate cash flow. The mentality in 1987 was that commercial real estate prices were decreasing and people should sell before further reductions occurred. Overbuilding was the primary concern. In both periods some real

estate companies stopped pursuing investments, and building certain product types that seemed too cyclical and unpredictable, such as residential. In both time periods larger projects were seen to have better economies of scale. The largest single point discussed in my interviews, but missing from Ms. Schuman's was a discussion on how leveraged each company was on a project and portfolio basis. This topic was the first to arise in each conversation today. The firms that are successful in today's market have been concerned with and focused on their degree of leverage and have kept debt around 65% throughout their projects. The degree to which firms were leveraged in 1987 was not revealed.

Some of the interviews I conducted were with the same firms or types of firms as those Ms. Schuman spoke with. Spaulding and Slye (now Jones Lang LaSalle) was interviewed in both. We each interviewed a rapidly growing family owned firm (Ow Family Properties), a medium sized centralized firm (JBG), a geographically diverse decentralized firm (Trammel Crow) and a private corporation (Opus).

My series of interviews principally differed from Ms. Schuman's in regard to the focus and intention of the questions. My focus was on managing risk within the real estate industry whereas her focus was on the overall management of a development company. She only interviewed development firms, whereas I interviewed private equity firms in order for them to serve as a benchmark for thorough risk management. I additionally interviewed the world's largest real estate services company to see what risks they face and their potential integration of an at-risk investment arm. Both sets of interviews were conducted in uncertain market conditions. More fear is certainly expressed today in the middle of a large downturn that has eliminated the availability of debt than during Ms. Schuman's interviews conducted before and during the beginning of the downturn of the early nineties.

As dire as the current economic situation looks, the cyclical nature inherent to our economy will inevitably shift to a period of growth, unfortunately not until after a great deal of pain is endured. Time will tell, but it is my hope that companies will not fall to the same failures of the past when thorough risk management techniques are known and lessons should be learned each day during these turbulent times.

Interview questions for Managing Real Estate Development Risk

1. Every development project is subject to various risks that will affect its profitability. How does your firm deal with real estate risks? For example, do you do a “worst-case” feasibility analysis before committing resources to a project?
2. Do you insist on contracts that shift all or part of the risk to others?
3. Are you locked in with respect to a particular risk once development begins, or have you the monitoring capability and operational flexibility to make major changes in a project while it is in process?
 - a. Inflation in construction cost
 - b. Cost overruns due to schedule delays or design changes
 - c. Delays or design changes due to public regulation
 - d. Unanticipated engineering problems
 - e. Oversupply of competing facilities then your project comes to market
 - f. Changes in market interest rates that affect either construction or permanent financing.
4. Does your firm usually try to hold a long-term equity in the projects it has developed, or does it try to build and get out? What considerations govern your policy on equity position?
5. What do you believe is the most underrated professional skill that all real estate professionals ought to have to manage risk?
6. What limitations do you place on the functional or geographic scope of your firm’s activities?
7. What risks will you not take with a development?
8. Have your sources and methods of financing been the same since the early 90’s? If not, how have they changed, and what was the impetus for this change?
 - a. Different types of projects
 - b. Different scale of operations
 - c. Harder or easier to find feasible projects
 - d. Different functional role for developers
 - e. Larger or smaller profits for developer
9. How have changes in financing affected the management structure of your firm?
10. If your firm is still in the same type of business 10 years from now, how do you think the typical project will be financed? If these arrangements are substantially

different from those that your firm now makes, what factors would precipitate the change?

11. What are the differences in your eyes between the downturn of the early 90's versus today?
12. How has the organizational structure of your firm changed over time? What factors influenced these changes?
13. What criteria must be satisfied for your company to initiate the development of a project?
14. Who participates in each of the following key decisions?
 - a. Feasibility studies and preliminary project evaluation
 - b. Substantial commitment of resources to site
 - c. Acquisition, legal and financial planning
 - d. Decision to proceed with construction
15. When your firm undertakes what is for you a medium sized project (specify approximate dollar value of constructions), how do you organize the project team?
16. What percentage of the development team are employees of the firm, of its subsidiaries, or independent contractors?
17. How would the team differ in the case of a project that was half the "medium" size?
18. How would the team differ in the case of a project that was twice the medium size?
19. Please answer yes or no: Has your firm any experience with:
 - a. Expanding a new product line (type of development)
 - b. Expanding into a new geographical area (too far from its home office for routine daily visits)
 - c. Undertaking project much smaller or much larger than usual for your firm
 - d. Undertaking several projects concurrently
 - e. Forward integration-adding downstream functions such as marketing or property management to existing development capabilities

*If "yes," was the experience generally successful? Why or why not? How has that experience affected the management structure of your firm?

*If "No," do you think your firm should try an innovation? Why or why not?

*What precautions would you advise for a development firm like yours that is contemplating this innovation?

20. Has your firm grown according to a planned growth strategy or more in response to market opportunity? Why?
21. Would you say that there is a “plateau” for development companies beyond which organizational change is necessary for growth to continue? At what point does decentralization become necessary? Or does it?

Real Estate Risk Management Study Questionnaire

Name of firm: _____

Address: _____

Name of Person filling out this questioner: _____

Title: _____

Telephone Number: _____

Instructions: Please answer the following question to the best of your ability. If you are not sure of the information provided, so indicate in the margins. If the question is inappropriate for your firm, please explain why. If you need help interpreting the questions, please call Sarah B. Cohen at (202) 350-9081 or send an email to ms.sarahcohen@gmail.com.

1. Legal form of organization (Circle appropriate response)

- a. Limited Liability Company
- b. Sole proprietorship
- c. Partnership
- d. Closely held corporation
- e. Public corporation
- f. Other _____

2. Names and locations of related firms (Parent firms, subsidiaries, overlapping partnerships, ect.):

<u>Name of Firm</u>	<u>Location</u>	<u>Relationship to your firm</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

A. In what year was this firm (or its precursor, if any) established?

Year _____

B. In what year did this firm obtain its current legal form of organization?

Year _____

C. Give a brief account of firm's development from its beginnings to the present (e.g., "Firm began as a merchant builder of single-family houses. Then expanded into building small shopping centers. From there...):

D. What were the critical factors influencing the firms' growth and evolution to its present form?

4. Organizational Structure

How would you describe the structure of authority and decision making in this firm?
(Circle appropriate response)

- A. Highly centralized
- B. Moderately centralized
- C. Moderately decentralized
- D. Highly decentralized
- E. Other

explain: _____

Has this changed from previous years, why?

During the five year period, 1989-1994, has the firm developed any of the following kinds of property? (Circle all that apply)

- | | |
|---------------|------------------------------|
| A. Office | G. Public Facilities |
| B. Industrial | H. Shopping Centers |
| C. Warehouse | I. Mixed Use |
| D. Retail | J. Multifamily residential |
| E. Restaurant | K. Single-family residential |

F. Hotel

L. Land development only

Please review the previous question and put a box around all the answers that apply to the projects you do today.

Please identify specializations if any in the early nineties and today.

During the five year period, 1989-1994 has the firm done any of the following? (Circle all that apply)

- A. Developed sites for sale or lease to others?
- B. Built on speculations for sale to others?
- C. Built on speculation for lease to others?
- D. Built under contract to a site owner or lessor?
- E. Managed property after occupancy?
- F. Other—

explain _____

Which of the following do you do today?

- A. Develop sites for sale or lease to others?
- B. Build on speculations for sale to others?
- C. Build on speculation for lease to others?
- D. Build under contract to a site owner or lessor?
- E. Manage the property after occupancy?
- F. Other—

explain _____

Please describe what caused any shift in any of these practices from the early nineties to today.

Legal form of organization for individual projects:

Often a project will be organized in a way that legally distinguishes it from the development firm. During the early 1990's did this firm use any of the following legal forms for individual projects? (Circle the letters for all that apply)

- A. Development Company as sole proprietor
- B. Closely held corporation for specific project
- C. Public Corporation for specific project
- D. Partnership, private syndication
- E. Partnership, public syndication
- F. Other—

explain: _____

Please review previous question and put a box around all the answers that apply to the legal forms you use today.

Please speak to the reasons for the change in the ownership in these two time periods :

Functional Scope of firm's activity:

For each of the following functions, indicate what percentage of the work on the last completed project was performed (1) in house, (2) by a related firm, (3) contracted out, or (4) not done. If the pattern varies greatly from project to project, so indicate.

	Percentage of Work				Total (100%)
	In House	Related Firm	Outside Contract	Not Done	
A. Legal Planning	_____	_____	_____	_____	_____
B. Financial Planning	_____	_____	_____	_____	_____
C. Site Assembly	_____	_____	_____	_____	_____
D. Project design	_____	_____	_____	_____	_____
E. Engineering	_____	_____	_____	_____	_____
F. Construction	_____	_____	_____	_____	_____
G. Marketing	_____	_____	_____	_____	_____
H. Leasing	_____	_____	_____	_____	_____
I. Property Management	_____	_____	_____	_____	_____

Is the pattern above typical for this firm's projects since inception?

Typical _____ Not Typical _____

If not typical, explain the typical pattern:

If there has been significant change in this pattern over the life of the firm please tell us what triggered the change and what implications the change have had on the success of the firm.

Project Financing: Indicate the sources of permanent financing (percentage distribution) for the firm's projects in the early 90's.

Source	Percentage of Permanent Financing
A. Development Company's equity	_____
B. Joint venture partner' equity	_____
C. Secured loans, participating	_____
D. Secured loans, nonparticipating	_____
E. Other—specify:	_____
Total	100%

Is the pattern above typical of the firm's permanent financing today?
Typical _____ Not typical _____

If "Not Typical," please tell us how it is currently structured today.

Please tell us what risk management techniques were used in obtaining financing in the early 1990's and today.

What is your typical debt to equity ratio? Has/how has that ratio changed through the company's time in business?

Thank you for completing this questionnaire. Please return it to:
Sarah B. Cohen
Johns Hopkins University Edward St. John Department of Real Estate
560 N St. SW #N201
Washington DC 20024