UNDERCAPITALIZED AND INEXPERIENCED: AN EXPERIMENT IN INVESTMENT REAL ESTATE

A Project

Presented to the faculty of the Department of Public Policy and Administration

California State University, Sacramento

Submitted in partial satisfaction of
the requirements for the degree of

MASTER OF SCIENCE

in

Urban Land Development

By

Brett Russell Arriaga

FALL
2013

UNDERCAPITALIZED AND INEXPERIENCED: AN EXPERIMENT IN INVESTMENT REAL ESTATE

A Project

by

Brett Russell Arriaga

Approved by:

_____, Committee Chair
Sudhir Thakur, Ph.D.

_____, Second Reader
Nuriddin Ikromov, Ph.D.

_____
Date

Student: Brett Russell Arriaga

I certify that this student has met the requirements for format contained in the University format manual, and that this project is suitable for shelving in the Library and credit is to be awarded for the project.

_____, Department Chair _____
Robert W. Wassmer, Ph.D. Date

Department of Public Policy and Administration

Abstract

of

UNDERCAPITALIZED AND INEXPERIENCED: AN EXPERIMENT IN

INVESTMENT REAL ESTATE

by

Brett Russell Arriaga

STATEMENT OF PROBLEM: This Project was prepared to recount and analyze my personal experience in acquiring, rehabilitating, leasing and disposing of a small income producing asset. The asset is a Victorian Italianate residential duplex, constructed in 1880 and located in midtown Sacramento. The Project explores the challenges facing undercapitalized and inexperienced investors and offers my strategy in leveraging a small savings to overcome these barriers. My recommendation will be determined by achieving two criteria 1) the project must return an after-tax Internal Rate of Return (IRR) of 20% and a positive after-tax Net Present Value (NPV); and 2) the potential for replication by similarly undercapitalized and inexperienced investors in a normal market.

SOURCES OF DATA: Data were collected using a myriad of sources, including online research, correspondence with industry professionals, various publications and actual financial figures obtained through ownership records.

CONCLUSIONS REACHED: The calculated after-tax IRR of the project is 208.15% and an after-tax NPV (20% required rate of return) of $109,155. Despite these large financial measurements of return, the project's success was found to be heavily influenced by the favorable real estate market conditions of 2012-2014. As a result, the project is not considered to be replicable in a normal market, and therefore not recommended to all investors.

_____, Committee Chair
Sudhir Thakur, Ph.D.

_____
Date

ACKNOWLEDGEMENTS

Thanks to Dr. Thakur and Dr. Ikromov for their comments and helping me refine my ideas for this project.

Thanks to Mr. Jim Jeffers for his tremendous contribution in providing me a 29-page broker's opinion of value free of charge.

TABLE OF CONTENTS

Page

LIST OF TABLES

Tables Page

LIST OF CHARTS

Charts Page

LIST OF EXHIBITS

Exhibits Page

CHAPTER 1

INTRODUCTION

Financing a postgraduate degree can limit a student's financial resources to pursue other interests outside of the classroom. In addition to working, many students turn to student loans to help ease the burden of school expenses. Simon (2011) reports that over half of all graduate students will borrow an average of $31,000 in addition to any undergraduate debt already accrued. Whether a student pays for school out-of-pocket or accumulates student loan debt, the costs associated with attending school diminishes a student's ability to amass savings during graduate school. This can be especially disheartening for graduate students with aspirations of starting a business or establishing an asset base because startup capital is essential in these activities. So how are undercapitalized and inexperienced students learning the intricacies of business or investment fields expected to utilize their knowledge in these high-cost of entry fields? This was my dilemma in 2011 and this project shares my experience in using financial leverage to acquire, rehabilitate, lease and dispose of a small real estate income producing asset.

For nearly a decade, I attended universities pursuing an undergraduate degree and a subsequent master's degree in urban land development. I was already putting my degree to use as a housing analyst at a governmental agency, but the real estate investment field

has always fascinated me. Much like other students my savings were drastically low. In all my years of attending school, I only managed to accumulate $22,000 in savings. So the question became, how could I leverage a meager $22,000 into a real-estate investment project that would allow me to 1) put my postgraduate degree to work in the investment field; 2) gain experience in investment real estate such as property management and rehabilitation; and 3) capitalize on the depressed real-estate market?

I began my search online through LoopNet, the largest online commercial real estate website that lists available commercial properties nationwide. My initial search of available properties in Sacramento was intimidating because I learned even a small investment project required an initial capital outlay of $200,000, aside from any necessary cash reserves. Asking friends and family to join as potential investors was out of the question because most were hit hard by the economic recession. To make matters worse, even if I were to acquire the funds from family members necessary for such a project, how would I obtain additional funding from financial institutions with no experience in an already tight credit market? This led me to the realization that I had to start thinking smaller and strategically if I was going to leverage my funds into an investment property.

The bulk of this project recounts my novice experiment with acquiring, rehabilitating, leasing and planned disposition of an income producing asset. In my writing, I

chronologically narrate the events that occurred during the project timeline from summer 2011 through an expected disposition date of March 2014. Next, I analyze the results of the experiment using quantitative and qualitative approaches using actual figures. Lastly, I offer my recommendation for other undercapitalized and inexperienced investors eager to take a shot at the real estate investment game.

CHAPTER 2

STRATEGY

As mentioned earlier, in 2011 the national real estate market was still reeling from the housing crisis. Though opinions vary as to the specific causes of the housing crisis beginning in 2006, most critics agree that low and creative financing techniques, relaxed standards for mortgage loans, irrational exuberance from all market participants played the key roles in its downturn (Holt, 2009). As a result of this catastrophe, credit markets for conventional mortgages were the tightest in decades which resulted in stringent down payment requirements of at least 20% of purchase prices. With only $22,000 in my savings that would equate to a housing value of around $110,000 with a minimum 20% down payment requirement.

Despite property values being the lowest in decades, areas that supported $110,000 purchase prices were not areas I preferred to make my first investment. The areas with real estate listings of $110,000 were located in run-down neighborhoods which made me uncertain as to whether I could secure qualified tenants. On the other hand, I noticed that rental income listed on properties in these areas offered the best mortgage to cash flow ratio of other rental areas. For example, several properties during this time period could be acquired around $60,000 but annual potential rental income could be in excess of $10,000 annually. Aside from great mortgage to rent ratios, these types of properties also

came with significant drawbacks. The tenant pool in these areas are typically less qualified which could mean a higher tenant default risk. Another characteristic of neighborhoods offering investment properties below $110,000 are drastically higher crime rates than other parts of Sacramento. The tradeoff being that a rental property would generate more rent in these areas to account for the extra risk on behalf of the landlord. Being new to real estate investment, high-risk investments like these were not in my plan.

Constrained by my lack of funds, I had to start thinking more creatively if I was going to have a chance to leverage my small savings into an investment. I realized the only way I could afford both an investment property and a place to live was to combine the two by occupying the property. This would allow me a place to live while garnering property management and rehabilitation experience simultaneously.

Federal Housing Administration (FHA)

After some cursory online research, I discovered the Federal Housing Administration (FHA) loan program on the United States Department of Housing and Urban Development website. FHA mortgages are not funded by the federal government, instead they are mortgages guaranteed through the FHA and reimburse lenders in case of foreclosure. The major benefit of this program is the low down payment requirement of only 3.5% and easier qualifying standards than conventional mortgages. As with every

government funded program, there were standards and guidelines that must be followed. Some of the guidelines relevant to my personal circumstances are listed here:

1. Home must be owner occupied
2. The property must be appraised for at least the purchase price.
3. Available for 1 to 4 unit properties
4. Borrowers must have a 2-year job history with same employer or within the same field
5. A minimum credit score of 580, but lenders can overlay stricter minimum scores for qualifying
6. The gross debt to income ratio:
    a. Front-end ratio: calculated by dividing total payment (accounting for principal, interest, escrow deposits, taxes, hazard insurance, mortgage insurance premium, homeowners, etc.) by total gross monthly income. The maximum ratio to qualify is 31%.
    b. Back-end ratio: calculated adding total payment (as explained above) to all monthly revolving and installment debt (car loans, student loans, credit cards, etc) then dividing that amount by total gross monthly income. The maximum ratio to qualify is 56.999%.

All of these standards appeared promising, so I began to investigate the program's drawbacks. I found that borrowers are required to pay an annual premium mortgage insurance (PMI) in the amount 2.25% (of total loan amount) annually. This can substantially increase the Annual Percentage Rate (APR) for the loan, which is the true cost of the loan when accounting for fees. After speaking with several agents, I learned that purchasers utilizing FHA loans are typically less competitive in the bidding process when pitted against buyers using a conventional loan product. The reason being that the

FHA program is a government sponsored program and fulfilling every piece of documentation can slow the escrow process and offer less certainty of closing.

The FHA also allows for income from other units to be used for income qualifying purposes (HUD 2011, 4-E-11). For example, in a four unit owner-occupied property a buyer may use the expected income generated from the other three units as part of income qualifying. To calculate the additional income that could be applied for qualifying, gross rents must adjust for vacancy factors and operational expenses. The FHA calculates this as the greater of the appraiser's estimate of vacancies and expenses or those listed in the jurisdictional Homeownership Center (HOC). The HOC for downtown-midtown Sacramento was 75% of total rents, meaning that only 75% of total gross rents may be used in this calculation. This provision allowed me to expand the horizon of available properties beyond my current income level, thereby allowing me to leverage my meager savings into an even more valuable asset.

FHA 203(k)

Despite its downsides, FHA program seemed like the best financial program to fit my needs, but I was also interested in adding value to a property. After further research, I discovered another program offered through the FHA that provides monies to repair or upgrade homes which can be folded into the loan. The program is referred to as the FHA 203(k), as it is contained in Section 203(k) of the National Housing Act (HUD 1991).

Since FHA defines its single-family definition as 1-4 unit properties, this was an excellent program for my objectives.

There are two types of 203(k) loans available to qualified homebuyers. The first is the standard 203(k) loan that could fund an unlimited amount of reconstruction. In fact, the 203(k) can fund total reconstruction of homes. For standard 203(k) loans with rehabilitation budgets over $35,000, the buyer is required to work with a HUD consultant whose job is to provide a work write-up of all expenditures. Though this may add to the cost of the loan, the benefit of using a consultant ensures homebuyers are not overpaying for work by estimating costs in your area. The second is the FHA 203(k) streamline. The streamline loan has a maximum repair budget of $35,000, but offers less red tape than a standard 203(k). Under the Streamline 203(k) loan, no HUD consultant is necessary.

My strategy in summer of 2011 was finally taking shape: utilize an FHA 203(k) loan to leverage myself into an income producing asset with an opportunity to add value by rehabilitating the property. However, as I came to find out, there are other restrictive subtleties of the FHA program that I was not aware of but would not uncover until later.

CHAPTER 3

MARKET SELECTION

Given that I would be occupying the property, its location was not only an investment decision but also a personal one. Being within 15-20 minutes of driving from my place of employment in downtown Sacramento was the most important feature I considered in my decision and it eliminated cities within the Counties of El Dorado, Placer, San Joaquin, Amador, Sutter, and Solano. This left the cities within the Sacramento and Yolo Counties. After some deliberation, I chose the markets of West Sacramento, Davis and midtown-downtown Sacramento as my prime markets for investment. I proceeded to explore these markets individually to make an informed decision for an investment.

West Sacramento

After a quick drive through West Sacramento and a search of available inventory, I decided it was not an area that fit my investment objectives. The City of West Sacramento is a pleasant community, but it is geared more for families and its stock of multifamily rental properties is low. In addition, there was no 'pull' for potential tenants, such as employment centers and a vibrant nightlife. If I were to purchase an investment property in West Sacramento it would have to be suitable for families and multifamily properties are not the optimal product type for families.

Davis

After eliminating West Sacramento, I turned my attention to the Davis housing market. Davis is located in Yolo County about ten miles southwest of downtown Sacramento and is home of University of California, Davis. Student enrollment at UC Davis is over 30,000 and continues to climb. Given the high student population and the fact that most students rent, Davis seemed like an ideal place for an investment. However, a quick search of available multifamily properties in the city revealed a particularly expensive housing market.

In comparison to multifamily properties in Sacramento, Davis is an expensive market. I researched three multifamily properties for sale in Davis in early July, 2011 which are listed in Table 1. When accounting for a total mortgage payment including principle, interest, taxes, insurance (PITI) and private mortgage insurance (PMI) the total rents do not cover three-quarters of those costs. Assuming I would be occupying one of the units the total mortgage burden would be even more. When I accounted for potential vacancies and other miscellaneous costs, the financial investment side of a multifamily property in Davis appeared unattractive.

Table 1

MULTIFAMILY LISTINGS IN DAVIS, CA (available July 1, 2011)

	Sale Price	Units	Rents/unit	Total monthly Rent	PITI*	% of Rents/Total PITI*
Duplex	$ 495,000	2	$ 1,100	$ 2,200	$ 3,220	68%
Fourplex	$ 640,000	4	$ 750	$ 3,000	$ 4,164	72%
Duplex	$ 589,000	2	$ 1,550	$ 3,100	$ 3,832	81%

*Estimated using Yahoo amortization (3.5% down, 4.7% rate, 30-year, including PMI)

Source: Multiple Listing Service

Multifamily asset prices in Davis are influenced by slow housing production and an increasing student population resulting in a low apartment vacancy rate of 3.2%, where 5% vacancy is considered 'ideal' (UCD, 2010). This low supply of housing fuels a rapid growth in asset appreciation in the City of Davis. While the Davis real estate market can be thought of as a safe investment, it failed to offer a profitable cash flow versus mortgage debt as I was looking for in 2011.

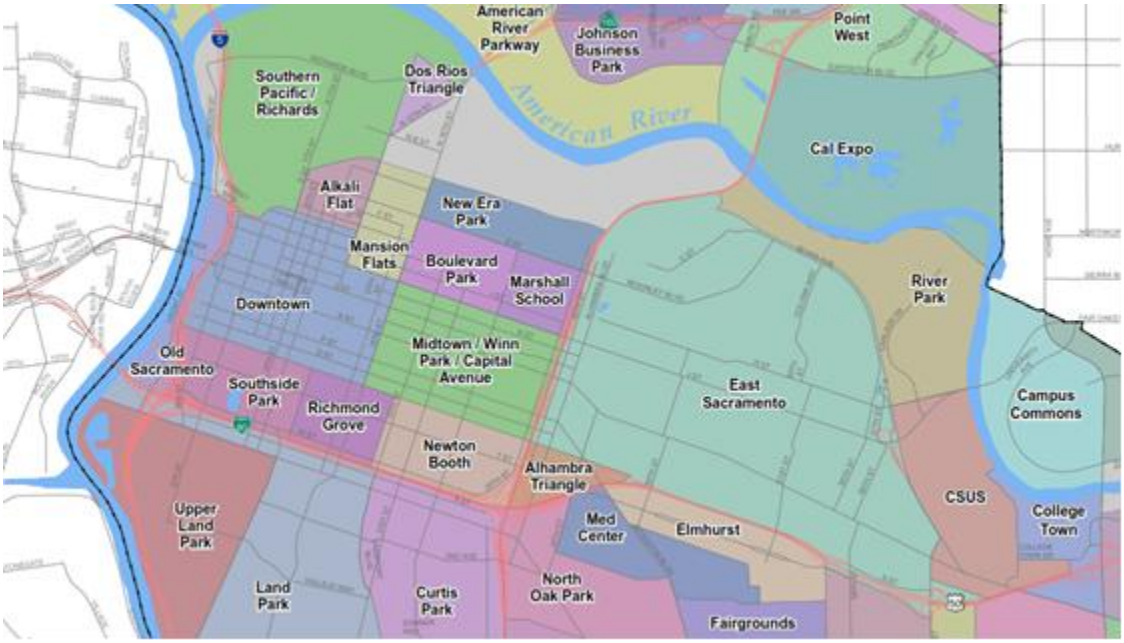
Downtown-Midtown Sacramento

After some research into the Davis and West Sacramento markets, I honed in on the downtown and midtown markets of Sacramento. Despite being next to one another, the downtown and midtown markets are intrinsically different. The downtown market serves as the central business district for the City of Sacramento, while the midtown area is largely comprised of single-family and multifamily complexes with a scattering of retail

and office uses. Exhibit A maps the downtown and midtown areas as well as those immediately surrounding.

Exhibit A

Map of Downtown-Midtown Sacramento



Source: City of Sacramento, 2010

Working and living close to the midtown and downtown areas, I noticed a significant amount of investment occurring in these markets and wanted to research the market to get a better understanding. Particularly, my focus would be on the multifamily market, but

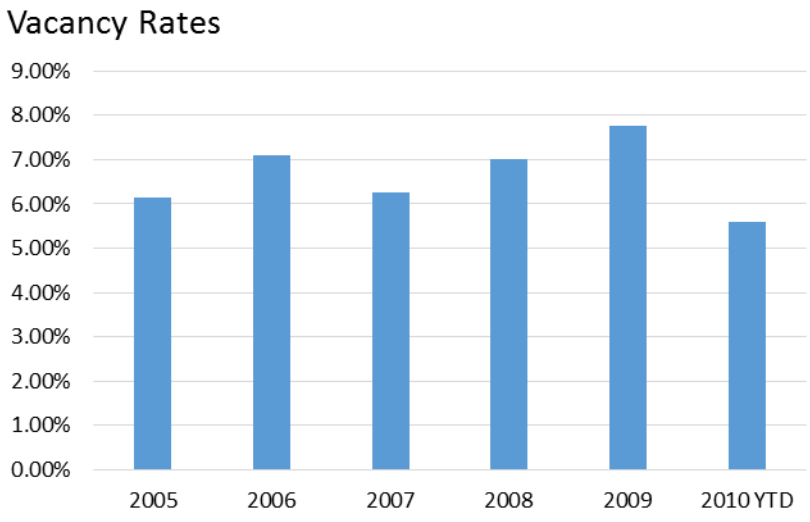
other indicators such as current development trends would also lend insight into the market.

I first turned to local business publications to gain an insight into the investment side of the downtown-midtown markets. The first article I came across in the Sacramento Business Journal discussed the heating up of the Sacramento multifamily housing market (Shaw, June 2011). The article interviewed numerous Bay area investors finding affordable properties in the Sacramento market at a "steep discount." The article also highlighted the shifting of people from ownership to rental housing. Another article from the same publication (Shaw, January 2011) discussed shrinking office vacancies in Sacramento. The article indicates that office vacancies dropped .9 percent in a single quarter in the Sacramento office markets comprising El Dorado, Placer, Sacramento and Yolo counties. Increasing business activity coupled with an improving multifamily housing market indicated to me that this may be an opportunity to capitalize on a recovering real estate market.

The most extensive and insightful data I came across was found in the CB Richard Ellis annual market report (2011). Each year CB Richard Ellis, a prominent national commercial brokerage firm, produces a market outlook for the Sacrament area. The report highlights some of the changing dynamics of the Sacramento multifamily housing market.

Vacancy rate refers to the space in commercial properties that are not under lease. It is normal for commercial properties, particularly those with multiple tenants, to experience some level of vacancy. Vacancy can result from a variety of factors including a lack of qualified tenants, the time it takes to find and qualify new tenants or even tenants breaking leases prematurely. As Chart A shows, the period from 2009 to 2010 experienced a dramatic drop in vacancy rates for multifamily housing. Since housing stock was not decreasing in 2010, it meant that rental housing was experiencing a sharp increase in demand.

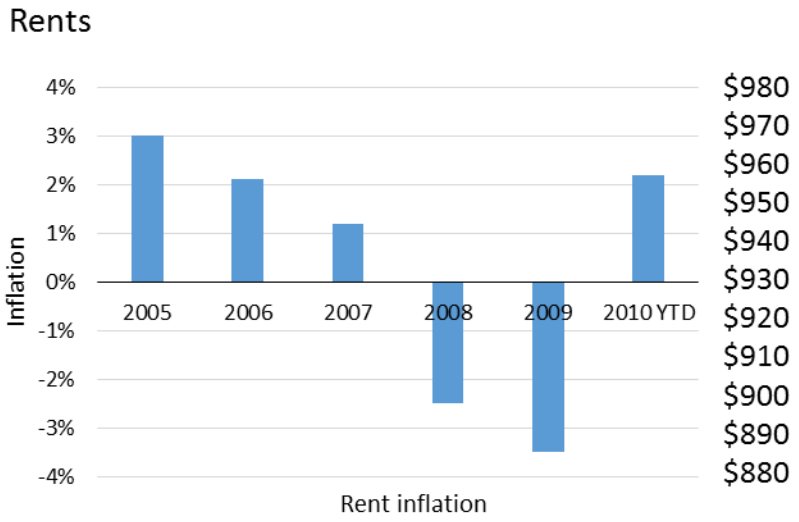
Chart A



Source: CBRE Market Outlook, 2011

A comparison among Chart A and B illustrates the economic principle that increases in demand results in increased prices as decreases in vacancy rates in 2010 resulted in increases in rents in the same year.

Chart B



Source: CBRE Market Outlook, 2011

Given the promising investor outlook and my own personal financial constraints, downtown and midtown Sacramento possessed all the qualities I was looking for in an investment property.

After I concluded this market research I added another component to my investment strategy. I wanted to find a property where I could increase rents, thereby increasing the cash flow and overall value of the property. I based my assumption that an increase in rents would result in an increase in asset value from the principle of the capitalization (cap) rate. The capitalization rate equation is written as:

$$\textit{Capitalization Rate} = \frac{\textbf{Annual Net Operating Income (NOI)}}{\textbf{Cost or value of Asset}}$$

The cap rate is widely used in commercial real estate when assessing the attractiveness of a commercial investment property because it takes into account operating expenses and income. Assuming I could keep expenses constant, any increase in income (rents) would increase the value of the asset to keep the cap rate constant.

CHAPTER 4

SITE IDENTIFICATION

Once I decided on the downtown-midtown Sacramento market, the task of searching and bidding for potential properties began. In summer 2011, Sacramento was still experiencing a deflated real estate market so inventory of available homes outnumbered qualified buyers. During a two month period, I viewed eight multifamily properties with my agent and made offers on three. For ease of comparison, Tables 2, 3 and 4 summarize the properties I made offers on and notes the relevant parameters important in my decision.

Table 2

Investment 1

Asking price: $447,000 Fourplex (3,600 sf)

Off-street Parking:	No	Lot size:	small (.09 acre)
Laundry:	Yes	Condition:	medium
Central Heat/Air	No	Zoning:	C-2
Dishwasher:	No	Architecture:	Victorian (1800's)

	Sq. feet	Mo. Rent
Unit #1 (1 bed, 1 bath)	900	$850
Unit #2 (1 bed, 1 bath)	900	$832
Unit #3 (1 bed, 1 bath)	900	$800
Unit #4 (1 bed, 1 bath)	900	$750

Gross monthly rent:	$3,232
Mo. rent/gross mortgage (PITI)* :	111%
Annual Gross Rents:	$38,784

Comments: The condition of the units were dated and the structure only required very little deferred maintenance. The property is also located on a major downtown thoroughfare as well as across the street from a popular downtown Sacramento bar. Nice central location in midtown and close to amenities.

*Estimated using Yahoo amortization (3.5% down, 4.7% rate, 30-year, including PMI)
Source: Multiple Listing Service

Table 3

Investment 2

Asking price: $495,000 Fourplex (3,600 sf)

Off-street Parking:	Yes (2 one-car garage)	Lot size:	small (.07 acre)
Laundry:	Yes	Condition:	medium
Central Heat/Air	No	Zoning:	R3A-S
Dishwasher:	No	Architecture:	Victorian (1922)

	Sq. feet	Mo. Rent
Unit #1 (1 bed, 1 bath)	900	$900
Unit #2 (1 bed, 1 bath)	900	$900
Unit #3 (1 bed, 1 bath)	900	$900
Unit #4 (1 bed, 1 bath)	900	$850
Gross monthly rent		$3,550
Mo. rent/gross mortgage (PITI)* :		110%
Annual Gross Rents:		$42,600

Comments: Deferred maintenance appeared to exist in the wiring and plumbing systems and in the front stoop entryway. The property is located at the outler edge of midtown and is neither close to employment nor close to popular eating and drinking establishments. However, the interior units were in good condition and the availability of off-street parking was a perk.

*Estimated using Yahoo amortization (3.5% down, 4.7% rate, 30-year, including PMI)
Source: Multiple Listing Service

Table 4

Investment 3

Asking price: $277,000		Duplex (1,804 sf)		
Off-street Parking: 4 total (tandem)			Lot size:	small (.07 acre)
Laundry:	Yes (shared)		Condition:	dated, tired
Central Heat/Air	Yes		Zoning:	R-3
Dishwasher:	Yes		Architecture:	Victorian (1880) Italianate
	Sq. feet	Mo. Rent		
Unit #1 (2 bed, 1 bath)	926	$1,150		
Unit #2 (2 bed, 1 bath)	878	$1,150	Mo. Rent	
Gross Mo. Rent		$2,300		
Mo. rent/gross mortgage (PITI)* :		128%		
Annual Gross Rents:		$27,600		

Comments: Relative to the other properties, this one has the best central location in midtown and is located on a quiet street. All appliances were ruined or missing and there were numerous health and safety issues. The landscaping was in complete disrepair which gave the house a poor appearance. Despite all these issues, the 'bones' of the structure were in good condition.

*Estimated using Yahoo amortization (3.5% down, 4.7% rate, 30-year, including PMI)
Source: Multiple Listing Service

All three properties possessed their relative strengths in terms of income and amenities. For example, Investment #1 possessed very little deferred maintenance and had a large income stream, while Investment 3 had numerous amenities, but a lot smaller income stream. Investment 2 promised the highest rental income but also had the highest price tag.

While waiting for responses from my offers, I made numerous Craigslist searches of available rental units in and around the areas surrounding the properties. Of all three properties, I determined that Investment 3 had the best potential for rental increases as its quoted rents of $1,150 per unit were below market for the area. Though all appliances would have to be replaced, the amenities such as central heat and air, dishwasher, off-street parking are things tenants don't typically find in the area, particularly those in older Victorian homes. A call from my lender made the decision a lot easier.

Unbeknownst to me, and my lender for that matter, were the additional FHA conditions for 3- and 4-unit properties. According to FHA guidelines (2011, p. 2-B-8), "the maximum mortgage amount for three and four unit properties is limited so that the ratio of the monthly mortgage payment divided by the monthly net rental income does not exceed 100%." The monthly mortgage amount is calculated as: the sum of PITI, PMI, hazard insurance, and any homeowner's association dues. In addition, this calculation must account for the jurisdictional HOC discussed in Chapter 2, whereby only 75% of the gross income can be used for this calculation. Table 5 shows the breakdown for Investments 1 and 2.

Table 5

FHA breakdown for 3- and 4-unit properties

Investment 1	
Rents less HOC:	$1,725
Adjusted Mo. Rent / (PITI)*	59%
Investment 2	
Rents less HOC:	$2,662
Adjusted Mo. Rent / (PITI)*	83%

*Estimated using Yahoo amortization
(3.5% down, 4.7% rate, 30-year, including PMI)

After factoring in the FHA imposed vacancy factors, Investments 1 and 2 were infeasible for purchase. In addition, FHA requires cash reserves for 3- and 4-unit properties to be equal to 3 months PITI payments. This meant that in addition to down payment and other real estate transaction fees, my cash reserves at time of closing must be at least 3 times a single mortgage payment. This calculated out to an additional $8,724 for Investment 1 and $9,660 for investment 2. These supplemental FHA requirements for 3- and 4-unit properties eliminated Investments 1 and 2 as viable options and forced my hand in pursuing Investment 3.

Investment 3 was listed as a short-sale and months passed without any indication of acceptance from the mortgage servicer. A short-sale is a property listed for sale at a price lower than the amount owed on the mortgage note. When a homeowner wants to dispose of a property but owes more than it is worth, a short-sale will allow the avoidance of additional penalties associated with a foreclosure. However, the holder of the mortgage, or mortgagor, must approve the lower sales price. In the case of Investment 3, the property was financed with a first and second mortgage meaning that two separate lenders would have to agree to the price reduction.

A quick online review of the Investment 3 through Zillow, an online real state database, revealed that the property sold six years earlier in 2005 for $575,000, meaning a 6- year price reduction of $298,000. Factor in seller's closing costs and any negotiated concessions which would originate from the seller and it is easy to see the eventual sale would result in a substantial loss to the mortgagor. Aware of the considerable loss at stake to the mortgage holder, I was sure an approval notification would take several months.

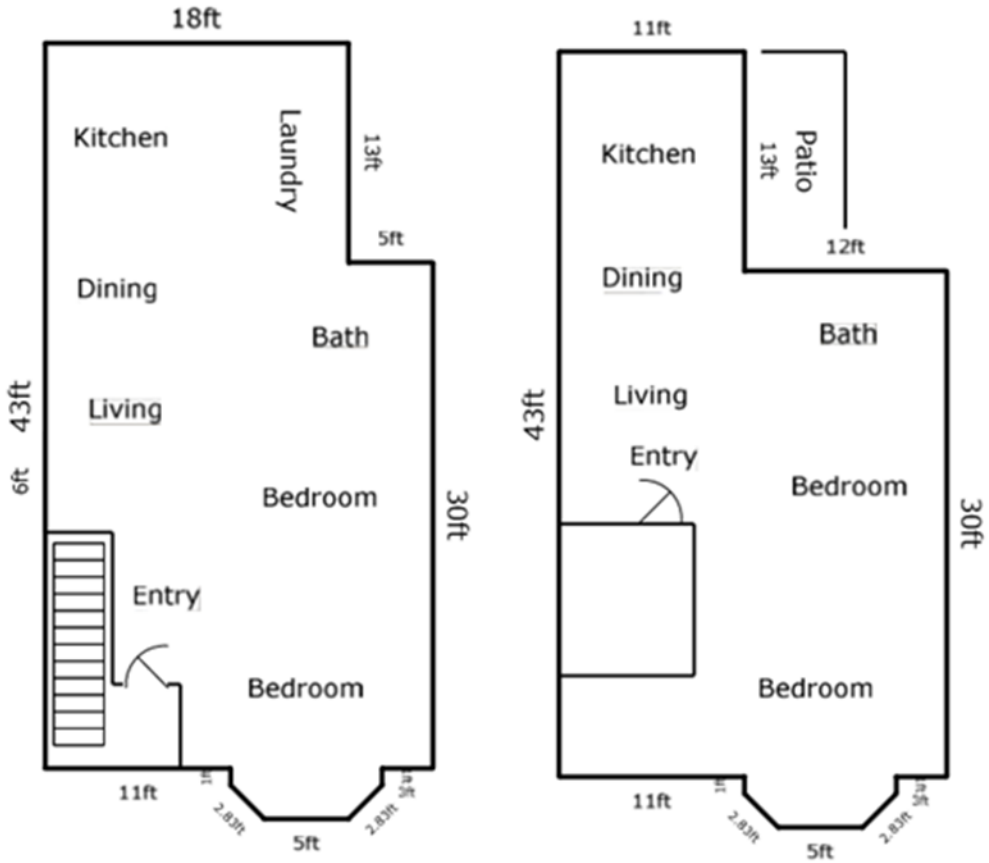
CHAPTER 5

ACQUISITION

After months of waiting and no communication from the bank, I received word on November 17, 2011 that the offer to purchase was accepted on Investment 3. The offer was good through January 6, 2012 which presented a couple of problems. First, this was during height of the holiday season and second, all inspections and bids would have to be completed by this date. I was forced to take time off work to facilitate the leg-work associated with the obtaining inspections and bids. Exhibit B shows the floor plan of Investment 3 while Exhibits C and D illustrate its condition.

EXHIBIT B

Subject Property Floor Plan



Unit 1
[947 Sq ft]

Unit 2
[856 Sq ft]

EXHIBIT C

Subject Property, frontal view

EXHIBIT D

Subject Property, side view

Inspections

The first inspection scheduled was the pest inspection. The pest inspection is the first step in determining the extent of wood destroying pests and organisms and must be completed by a qualified inspector. The report is broken into two sections. Section one notes areas of active termite infestation or other wood-destroying insects or organisms causing dry-rot fungus. Section two of the report, highlights areas the inspector believes could be section one issues, but could not visually inspect.

The pest inspection was completed on November 23, 2011 and identified seven areas of the house with section one issues and five areas of section two issues. The report outlined repair estimates of section one issues totaling $6,275 and section two issues of $940. Also indicated on the report was the need for a roof inspection that was yet to be conducted. All of the issues identified in the report were dry-rot organisms, no pests were found.

Given the age of the structure, the run-down condition of the interior and identification of $6,275 of section one issues, I decided to spend a little more money for a full inspection. A full inspection would ensure a more in-depth assessment of the overall condition of the structure's plumbing, electrical and other systems. Full inspections are not an FHA requirement, but I felt it would be money well spent since the structure was close to 130 years old. And as indicated in Table 4, there appeared to be additional health and safety issues.

To be on the safe side, I also ordered a sewer inspection which are not typically included in full-inspections and are also not a FHA requirement. Older Victorian homes in downtown Sacramento are known for disintegrating sewer lines because many of them were made from clay which back up frequently. Other issues with sewer lines include invading tree roots that cause cracks and leaks. The extra cost for the sewer inspection

ran $250, which included an entire inspection of the sewage line using a camera that detects the smallest of issues.

The sewer and full home inspections were conducted on November 29, 2011. The sewer inspection revealed a newer sewer line that was constructed of ABS plastic and showed no intrusion from tree or plant roots. The full inspection re-identified the same issues found in the pest report but also uncovered numerous other problems that would need to be addressed, including: replacement of roof over the laundry room, reconstruction of the upper unit's deck, replacing electrical outlets and repairing plumbing issues. The bid for all health and safety issues, excluding those uncovered in the section one report, was $9,975. Since the costs of the full home and sewer inspections came out of my pocket, I decided to hold off on the roof inspection until there was more certainty in the purchase.

Obtaining Qualified Rehabilitation Bids

I chose the streamlined FHA 203(k) product loan which did not require the hiring of a qualified Housing and Urban Development (HUD) consultant. It was up to me to decide which upgrades to select and to obtain all qualified bids from contractors. As the end of December 2011 approached, I knew all the bids would not be ready by January 6, 2012. My agent was able to secure an extension that ran through January 20, 2012 which only added a small window of time to complete this process.

On January 10, 2012, I submitted bids to my lender that listed all the desired repairs shown in Table 6. A few days later I received word from my lender that there were some problems. First, the FHA 203(k) loan does not allow rehabilitation funds to be used for minor landscaping improvements. Second, my lender preferred to only have three contractors per project, but absolutely no more than four. Third, per FHA guidelines, if the property is over 30 years old, a contingency reserve of 10% is required in escrow to be reserved for cost overruns. The contingency reserve was calculated after adjusting for additional costs that applied towards 203(k) loans (Table 7). If, at the end of the repairs there is money left over in the reserve, it is applied towards the principal of the loan. Lastly, I needed to submit proof that all contractors were licensed, insured and bonded in the state of California.

Table 6

Rebilitation bids

Health and Safety issues	$6,975.00
Appliances (Delivery and installation)	$5,060.61
2 dishwashers, 2 refrigerators, 2, ovens and hoods	
Hardwood flooring (materials and labor)	$10,081.20
New Interior paint (walls, wood and cabinets)	$3,750.00
New granite countertops with backsplash in both units	$4,325.00
Replace 15 light and 6 recessed fixtures 6 recessed	$2,170.00
Landscaping improvements	$2,500.00
Total	$34,861.81

Table 7

Funds available for Contractor bids

Fees	$1,003.50
Origination of 203(k), discount, completion inspection	
Remainder 203(k) minus fees	$34,146.50
Contingency Reserve on Repair Costs	$3,090.00
Maximum available for contractor bids	***$30,900.00***
Total of 203(k) funds	$34,993.50

This was an enormous blow to my momentum because the banks approval was only good until January 20th. I contacted my agent and requested that he submit an extension to the offer. He said there was no guarantee that the bank would accept, but he would submit the request. I did not receive approval of the extension until January 31st, 2012 which was extended until February 15, 2012. During the period of January 20th- 31st, I was in a state of limbo. Technically, I was not in contract and if the bank wanted to take the property back to market, they could do so without recourse.

To shave off nearly $4,000, I decided to remove the electrical and landscaping bid. To utilize less contractors I consolidated the appliance order with the granite contractor bid, which added slightly more to the previous appliance portion because the granite contractor was only able to provide certain brands and model types.

The most difficult part of my lender's requests was getting proof of insurance and bonding from our contractors. Bonding refers to the contractor carrying a bond that gives homeowners the opportunity to be reimbursed for poor workmanship or non-performance by a licensed contractor. Contractor insurance refers to insurance for accidents that could occur on the homeowner's premises thereby absolving the homeowner of liability. This proved very difficult as many of my contractors initially refused to provide them. After providing some explanation of their necessity, they acquiesced.

On February 5, 2012, I finally gathered all the requested contractor documents and revised my new bid as shown in Figure 8. On this same day, I was notified by my lender that the loan could not close in 10 days before the February 15th target date. The paperwork required in an FHA 203(k) left very little time to close a loan of this nature.

Table 8

Rebilitation bids * revised

Health and Safety issues		6,975.00
Kitchen (consolidated)		9,985.00
appliances and granite		
Hardwood flooring (materials and labor)		10,081.20
New Interior paint (walls, wood and cabinets)		3,750.00
	Total	$30,791.20

I had my agent send another extension request to the seller's agent who warned that the possibility of another extension was dim, but they would submit. At this point, I knew that if I didn't close by the date of the new extension, the bank would take the property back to market. I had most my ducks in a row, but I couldn't afford another hang up. I decided to order a 2-year roof certification since this had to be completed by the loan closing date. The bid for repairs for the contractor to guarantee the roof for two years cost $650. This was the last thing I had to do to make the transaction go smoothly and it would have to come out of my pocket without a guarantee of the loan closing. I decided to risk the money and ordered the repairs on February 20th, 2012. As shown in Figure 3, up to this point total risk amounted to $1,400 or 6% of my total savings on a deal that had no guarantee of closing.

Table 9

Monies at risk

Full Inspection	$500
Sewer Inspection	$250
2-year roof certification	$650
Total	$1,400
% of total savings	6%

On March 6, 2012, my agent forwarded me a new copy of the approval letter discussing that any additional days beyond March 9, 2012 would have an interest charge that would be applied towards the purchase price. Several days later we were able to close the loan.

After 8 months of waiting, obtaining bids, capital outlays for inspections and repairs, four extensions and hundreds of emails to lenders, my agent and contractors, the loan finally closed on March 9, 2012. The next leg of the project was about to begin.

CHAPTER 6

REHABILITATION

Though I was somewhat relieved from finally securing the property, there was still a lot of work ahead. Per the agreement on the FHA 203(k) loan, all work had to be completed within 30 days of close. This did not come to my attention until the loan closed and was part of the hold-back agreement in the contract. If repairs were not completed within 30 days, other fees could be applied to the loan. Fortunately, in 2012 the housing market was also affecting home improvement contractors who had significant trouble finding work. Soon after receiving bids, my contractors were contacting me to ask when they could begin so I knew there was a chance the rehabilitation could finish on time if the contractors were scheduled strategically.

I created a schedule for the contractors that worked best for them and the project. I began with the contractor hired to do all the health and safety repairs. Next, the painters would complete their work since this is the messiest of all the contractors and should be done prior to laying granite and hardwood to prevent stains. However, I ensured that the painters would return for any touch-up work. Next, the floor contractor would have the structure to himself to lay all the flooring while dressing the baseboards. Finally the kitchen and granite contractor could finish both kitchens.

Rehabilitation Issues

To oversee some of the repairs, I had to take more leave time from my job. The first unforeseen problem was an extensive plumbing leak in the bottom unit. The shower ceiling in the bottom unit was moldy and needed to be replaced. When the sheetrock was removed it revealed an extensive plumbing causing the mold. In the bid, the contractor only budgeted for a ceiling replacement as it was believed to have been moisture from the shower causing the mold. The cost to repair the plumbing leak added $450 to the budget.

The next issue was the location of the return for the heating, ventilation and air conditioning (HVAC) system in the bottom unit. The return was located directly in front of an interior door that leads to the front bedroom. The metal cover for the return was bowed downward, presumably caused by the foot traffic. I was quoted $500 to move the return to another part of the house which required it to be extended and fitted with another grate. I agreed to the reconfiguration in order to avoid a potential liability down the road.

A portion of the flooring bid was to demolish and dispose of the existing carpet. When the flooring contractor exposed the existing subfloor, the layer beneath the finished floor, it was in terrible condition. In fact, certain parts of the subfloor in the upper unit were so

disintegrated that it exposed ceiling wires powering the lower unit. The contractor strongly recommended a whole new subfloor for the entire upper unit. Seeing the condition of the subfloor myself, I had no choice but to agree to the extra cost which came to $800.

After the subfloor was installed, the contractor stocked the house with the hardwood and underlayment materials. Underlayment sits between the subfloor and the flooring material. The purpose of underlayment is to absorb the imperfections of the subfloors while providing a smooth, hard surface that gives the actual flooring material extra support. I noticed the subfloor the contractor had brought and inquired about its quality. He admitted it was the thinnest material available but that it was the quality of the material he quoted in his bid. After verifying the bid, I asked how much more it would cost for a higher quality underlayment that could provide better noise insulation for the bottom unit from people constantly walking on the second floor. After doing the math, the contractor quoted an extra $425 for a quality underlayment and it was added to the bid.

About three days before my granite contractor was set to begin his phase of repairs, I received a call from him saying that the appliances would not arrive for three months, or around June 2012. The appliance allowance is in our loan agreement hence they are required to be present in both units within the 30 day deadline. I contacted him the next

morning to convey my level of frustration informing me about a three month delay only three days prior to his commencement of work. After some negotiation, I was able to convince the contractor that I would purchase the appliances on his corporate credit account, then he would be reimbursed for them later. Though he was apprehensive to the terms, he agreed.

Fortunately, I was still on leave from work so I had some time to drive around Sacramento to comparison shop and find stores with appliances in stock. In total, I needed two dishwashers, two ovens with hoods, and two refrigerators. I decided on a local store that had all appliances in stock and could deliver and install. The extra charge for the appliances ran $420 over the granite contractor's appliance bid and had to be applied to the project.

Part of the granite bid was removal of the existing countertops in both units. The bottom unit countertops were designed with a tile backsplash and when the demolition team was removing the tile it also pulled chunks of drywall out from behind the tile. I contacted my granite contractor who told me that this is typical in removing tile since tile glue is so powerful. He did not include repair for the drywall in his bid before the new backsplash would be applied. I argued that the person doing the bid knew of the tile backsplash and it should have been included. He refused to pay for the repair, so I had to hire my health

and safety contractor to fix the drywall. The cost to fix the drywall and texture was an extra $350.

Total of all cost overruns are displayed in Table 10 and show a grand total of $2,945, only $145 shy of the entire contingency reserve. To this day, I am unsure how I would have covered these repairs and upgrades if FHA did not require the contingency reserve. Luckily, the program is crafted in a way to ensure novices like myself are not caught off guard with unexpected issues that commonly arise in these sorts of projects.

Table 10

Cost Overruns

Plumbing leak		$450
HVAC return relocation		$500
New subfloor for upper unit		$800
Underlayment upgrade		$425
Appliance		$420
Drywall repair		$350
	Total	$2,945
Contingency Reserve		$3,090
Less cost overruns		$145

At day 27, I scheduled the lender's final inspection to verify all repairs before releasing the final checks to our contractors. The inspection went well and the inspector was surprised that cost overruns were only a little less than 10% of total repairs. She was also thoroughly impressed that four contractors were able to complete a project of this magnitude on time and under 30 days, something she said is unheard of. The next phase of the project was to move myself in and find tenants.

CHAPTER 7

OCCUPATION OF ASSET

Unaware of the actual date the property would be available for occupation, I paid rent through the end of April 2012. The FHA 203(k) can be financed in a way to allow for no mortgage payments for up to six months while repairs are taking place. The interest accrued during the non-payment period is then added to the principal balance of the loan. In effect, it would work as a negative amortization loan during this period. Since I was confident the repairs would take no longer than two months, I elected only two months non-payment. This made the first mortgage payment due in May, 2011.

Busy with work and moving, I wasn't ready to advertise the lower unit until May 2011. To familiarize myself with tenant and landlord rights, I consulted a publication written and distributed by the California Department of Consumer Affairs (DCA), titled "*California Tenants, A guide to residential tenants' and Landlords' rights and responsibilities.*" The publication offers a wealth of information in almost every aspect of tenant-landlord relationships. Some of the highlights from the guide included Tenant Screening services, application fees, what a lease should include, security deposit and entering the rental unit.

I also found that the DCA puts out a free, Basic Rental Agreement or Residential Lease that I used as the base in drafting my lease. There were some important areas that are excluded from the basic lease provided by DCA such as an asbestos addendum. The presence of asbestos was indicated on the full-home inspection of the property. The inspection notes that the tiles are in good condition and are harmless if left undisturbed, but according to the DCA handbook, "*A leading reference for landlords recommends that landlords make asbestos disclosures to tenants whenever asbestos is discovered in the rental property*" (p. 23). Other addendums I added to my lease were for periodic pest control treatments and a mold notification addendum. The pest control addendum notifies the tenants with the pesticides being used during quarterly spraying while the mold notification notifies the tenants' responsibilities in circulating air flow to prevent mold.

Once I had my lease the way I wanted it, I asked several renters in the area how their landlords' application process worked. I found that many landlords used an online service, called e-renter, that qualifies tenants based on the criteria established by the landlord. For example, I would input parameters such as moderate-credit, then the service would pull the applicants' credit report to see if it fell within a moderate credit score as determined by e-renter. The service would then send a reply email with an approval or disapproval status. The cost for the online service was $25 which I included in the application fee for the property.

Before I advertised and met with potential tenants I consulted the DCA guidebook again and learned about important fair housing laws. For example, while a landlord may ask the source of income for a potential tenant, it is illegal to discriminate on the basis of that source of income. This and other information regarding fair housing laws gave me a good place to start and made me comfortable in finally advertising the property.

Given my employment obligations, moving and creating a lease, reviewing fair housing laws, I wasn't able to advertise the property until the end of May. I wrote a glowing write-up for the property where I focused on two aspects. First, I emphasized the numerous amenities not typically found in downtown rentals, such as two off-street parking spots per unit, central heat and air, garbage disposal, new appliances, new flooring, new granite, large kitchen and a shared washer and dryer with only one other unit. Second, I focused on the property's central location and mentioned popular establishments by name located within several blocks.

The advertisement worked well and within 36 hours of posting I received over 20 calls and scheduled fifteen viewings for the property. From the viewings, nine submitted applications and four were strongly qualified. I ran all four tenants through the e-renter service and all four passed the credit qualifying test. After deliberating for a couple of days, I decided on a couple that I believed to be best suited for the property and were

committed to staying in the area for several years. I believed these two factors increased the likelihood of them renewing their lease after a year. A one-year lease was signed later that week and occupation of the lower unit commenced on July 1, 2012.

CHAPTER 8

STABILIZATION AND ASSET VALUATION

By January 2013, I managed to save additional capital to invest in landscaping improvements. As mentioned earlier, the FHA 203(k) loan does not allow for minor landscaping improvements (HUD 1991, 1-4) so I was on my own with these upgrades. I felt it was a worthwhile investment because I could raise the rent above the current $1,400 asking price.

First on the list of improvements was the addition of a low-profile wrought iron fence and a tall wooden fence for the side yard. I chose a wooden privacy fence for the side yard but opted to have the posts made of wrought iron because the posts from the previous wood fence were badly rotted. The cost for the entire front 4-foot ornamental wrought iron fence and the side yard wood fence with iron posts was $5,500. Second on the list of landscaping improvement consisted of lawn remediation, sprinkler repair and adding a non-visible drip system for the existing shrubbery. I elected to do the second part of the landscaping improvements myself and add a bit of 'sweat equity' to the investment. Materials for the second part ran $1,200, not counting my investment of time.

Once I received a bid from the wrought iron fencing contractor I scheduled a meeting with the Senior Planner from the Historic Preservation to apply for the building permit.

The property is registered as an historic property with the City of Sacramento so all exterior improvements that may affect the appearance must be approved. My selection of fence design and materials was well-received by the city official because I chose a design and look reminiscent of the home's time period. The side yard fencing standards were less stringent and focused mainly on the 6-foot height requirement and consisting of one paint color. This was a minor building permit and no building permit fee was required. The building permit was approved on March 1, 2013.

In July 2013, the tenants in the lower unit renewed their lease through June 2014. Given the new improvements, I added a rental increase of $100 to $1,500 per month. I did this for a few reasons, after noticing the apparent spike in rental prices and the newly installed landscaping amenities, I felt $1,400 might be slightly below market. The tenants had no qualms with the rental increase.

After July 2013, all the planned renovations for the property were complete and the asset was now stabilized so it was time to receive an opinion value to help analyze the return on investment.

Asset Valuation

During the fall of 2013, I solicited the help of Mr. Jim Jeffers, a local real estate agent who represents sellers and buyers of home and investment real estate. Mr. Jeffers specializes in the downtown and midtown Sacramento real estate markets as well as the areas immediately surrounding them. I asked Mr. Jeffers to provide me with a broker's opinion of value (BOOV) on the property for a sell date of March 30, 2014. He toured the property on November 6, 2013 and two days later sent me a 29-page BOOV of the subject property. The BOOV showed a March 30, 2014 expected value of $510,000 which is based on recent and for sale properties in surrounding neighborhoods (J. Jeffers, personal communication, November 8, 2013).

CHAPTER 9

FINANCIAL ANALYSIS

Cash Flow Analysis: Internal Rate of Return (IRR)

To measure the return of the project, I relied upon IRR cash flow analysis. The IRR can be thought of as the annualized rate of growth an investment is expected to generate. Before jumping into the analysis metrics, it is important to disclose some assumptions I employed in evaluating the property's performance. I attempted to remain moderately conservative in my assumptions and are listed here:

Assumptions

1. Given that half of the property is owner-occupied and no rent was technically collected for the owner-occupied unit, I assumed additional rental income equal to that of the other unit. The logic being that if I was not living on the premises then I would be paying comparable rent elsewhere. This is an important characteristic to fully evaluate the asset's investment performance.
2. The analysis uses a future asset disposition date of March 30, 2014 so a five month market forecast will be assumed.
3. As of this writing, 2013 taxes are not completed so actual figures could not be utilized. The tax deductions for 2013 were calculated by extrapolating actual 2012 tax data.

To calculate the IRR, I utilized the initial investment amount of $19,406.84 which includes the down payment, monies at risk and associated acquisition fees and is displayed in Table 11. The down payment and acquisition fees are actual figures

obtained from the final settlement statement. From this initial investment date, the cash in-flows and out-flows were inputted for the two year period to arrive at a final IRR and are arranged in Appendix B. The results show a before-tax annualized IRR of 209.48% and an after-tax annualized IRR of 208.15%.

Table 11

Initial Investment

Down Payment and acquisition fees*	$18,007
monies at risk (Table 9)	$1,400
Total	**$19,407**

*Obtained from settlement statement

There was only a minor difference in the before- and after-tax IRR which could be attributed the hefty tax deduction received from the rehabilitation repairs. Only the rehabilitation and expenses applied to the rental unit could be applied as a tax deduction. In addition, the unit was not occupied the entire year which allowed a lower level of rental income to be generated so the tax deductions versus collected rent for 2012 were tilted in my favor.

Cash Flow Analysis: Net Present Value (NPV)

The NPV of a project is generally used to base the decision in accepting or rejecting a proposed investment by comparing the present value of net cash inflows less the initial investment while taking inflation and required returns into account. If the NPV of a prospective project is positive it should be accepted and rejected if NPV is negative.

Before calculating NPV, a required rate of return must be determined and should take into account various factors such inflation, risk, competing investments, etc. For this project, I chose a required rate of return of 20%. I chose a high rate of return given the propensity for high inflation in 2012 and the relatively high risk nature of the project. Appendix B shows the NPV calculation of a before-tax NPV of $109,607 and an after-tax NPV of $109,155. Given that any positive NPV is reason to undertake a project, the project should be undertaken, or in this case, is evidence the project is operating successfully.

The NPV calculation bolsters the results of the IRR further demonstrating the financial success of the project. Despite the pleasing financial results, other factors may be at work attributing to these outcomes. In the next section, I intend to uncover factors contributing to this large return and offer my recommendation to others interested in similar real estate projects.

CHAPTER 10

CRITIQUE AND RECOMMENDATION

As indicated in the previous chapter, the project is expected to return an after-tax IRR of 208.15% and NPV is $109,155 with a 20% required rate of return. By most standards, these performance results are large considering my limited financial exposure and the low-risk investment product type. It is incumbent on me to explore some of the external factors that may have contributed to the unusually high IRR and personally share some of the difficulties I endured during the experiment. The intent of the critique is to assist me in offering a recommendation to others eager to take on a similar small real estate investment project.

Abnormal Appreciation

As many Sacramento homeowners are aware, the period from 2012 to 2013 experienced tremendous gains in Sacramento real estate. This period is marked by sharp rises in property values after being devalued for many years. Zillow (2013), an online property value tracking database, reports that Sacramento area property values rose 45.4% from March 1, 2013 through September 1, 2013. So it goes without saying that much of the property appreciation occurred during a period of historically unusual gains in property values.

To control for the irregular gains in this market, a newly calculated sale price must be determined. In a normal real estate market, values rise 3 to 5 percent annually so an average annual 4% appreciation rate will be assumed for this exercise which calculates to a two-year compounded annual appreciation rate of 8.16%. As mentioned earlier, Zillow calculated a 45.4% increase in home values over a year and a half. Since no actual data is available at the time of this writing, forecasted data must be used for September 2013 through March 2014. New evidence suggests that after September 2013, property values are expected to level off and show little signs of increase in the short term (Van der Meer, 2013). The broker who provided a BOOV also confirmed the expected leveling off of property values and expects a modest increase of 3% from October 2013 through March 2014. This calculates to total appreciation rate of 48.4% for the entire holding period of the asset. Table 11 shows the methodology for adjusting the sales price to control for the abnormal appreciation experienced during 2012-2014.

Table 12

Adusted Value of Property

Purchase Price	$277,000
2-year appreciation @ 48.4%	$411,068
Normal 2-year appreciation @ 8.16%	$299,603
Value attributable to abnormal appreciation	$111,465
Broker's Opinion of value (BOOV)	$510,000
Adjusted value of property	**$398,535**

The difference in the purchase price and the adjusted value can be thought of as the true increase in value due to rehabilitation, increased rents and gains resulting from a distressed sale.

Utilizing the cash flow data for March 2012 through March 2014 from Appendix A and substituting the adjusted value of the property reveals the adjusted IRRs. Appendix B shows the final cash flow and tax consideration resulting in adjusted before-tax IRR of 105.59% and after-tax IRR of 104.32%. NPV also took a large hit when accounting for abnormal appreciation with a before-tax NPV of 37,619 and an after-tax NPV of 37,167. This is significantly different from the actual IRR's and NPV's of the property but is important to note for project replication purposes.

Personal Time Reconciliation

Being undercapitalized and inexperienced leaves little room to pursue real estate projects on a full-time basis. Not only was I fortunate to have enough leave credit available at my place of work, but I was also fortunate to have supervisors that allowed me time-off during this period. If it wasn't for my presence during the acquisition and rehabilitation phases, I might not have been able to meet all lender deadlines. This is an important

factor in evaluating the project's overall return because the IRR and NPV calculations do not take into account my own time invested over the course of the project.

As discussed in the preceding chapters, no project manager was hired for bid acquisition and overseeing of the rehabilitation work. As a result, these duties and responsibilities became my own and some effort should be taken to include the opportunity cost of my time and labor.

To arrive at a value of my time expended on the project, I used a hybrid of my own hourly wage and cost of hiring a project manager. The costs were divided into two separate parts. The first part was bid acquisition. I obtained eight separate bids from contractors and reviewed their write-ups and ultimately decided on four. The second leg of the project was the overseeing of all contractor work. Factoring in my own hourly wage with the cost of a project manager, I arrived at conservative estimates of $4,000 for bid acquisition and $5,000 for supervising contractor work. The insertion of these expenses were added into the financial worksheet at the time they would have been incurred. The $4,000 figure is added to March 2012 and supervision portion was added to April 2012 since rehabilitation took 30 days.

Appendix D folds the adjustment for abnormal appreciation together with the opportunity cost or sweat equity cost and displays an after-tax IRR of 69.73% and an after-tax NPV of $28,244, with a required rate of return of 20%. By most accounts, these figures still represent a strong return on investment. However, other qualitative factors should be examined to justify a recommendation for project replication.

Stress Consideration

In addition to taking leave time from work, a lot of nights and weekends were spent finishing little projects and dealing with broker and contractor issues. I can honestly say these were the most stressful periods in my life because things felt like they were falling apart on a daily basis. While I casually mentioned some encounters with my contractors and lender, I can assure you many of them were much more emotionally charged than I alluded to earlier.

Many of these disagreements and misunderstandings revolved around my low reserves and inexperience due to unfamiliarity of common construction and lending practices. My heightened stress and anxiety during this period is an important consideration and is extremely difficult to quantify and incorporate in the project's financial model. Since these considerations are not incorporated into the financial results of the project, an aspiring investor should not ignore its personal implications.

Availability of Contractors

Anyone who has worked with multiple contractors knows that there is always a strong likelihood of delayed completion. The depressed real estate market during 2012 led to a lower volume of home improvement projects and a surplus of available contractors. There is no doubt in my mind that if my contractors weren't hungry for work, all four contractors could not have completed the entire rehabilitation work in under 30 days.

Lack of Adequate Cash Reserves

Taking on rehabilitation of an income property while being undercapitalized and inexperienced was an intimidating venture. One way I hedged against this risk was by ordering a full-inspection prior to my purchase to uncover potential issues, but this still does not ensure absolute certainty.

While the IRR suggests the project was a success, there should be some consideration given to the 'what if' scenario. I concede things could have gone drastically wrong because my cash reserves after closing were only around $3,000 and I was in no financial position to handle major cost overruns. There is no way to truly analyze what could have happened, but it is enough to say that being substantially undercapitalized like I was, the project was one large expense away from being a disaster.

Recommendation

The process of recounting and analyzing the results of the experiment provided a great opportunity to reflect on the project. Though the financial results of the project are pleasing, one cannot ignore the 'luck' factor leading to the project's success. A negative change in any one of these features could have significantly reduced the project's profitability and endangered its survival. It is for the reasons discussed in this chapter that I recommend an undercapitalized and inexperienced individual not undertake a real estate investment project of this nature.

APPENDIX A

DATA REFERENCE FOR FINANCIAL MODELING

Acquisition Data		Loan Data	
Purchase Price	$277,000	Interest Rate	4.38%
Rehabilitation	$34,855	Years amortized	30
Buy Costs	$10,279	Principal and interest	$1,699
Down Payment	($18,007)	Private Mortgage Insurance	$288
Acquisition Costs (Table 9)	($1,400)		
Loan Amount	$340,286		

Monthly Operating Expenses		Depreciation	
Property Taxes	$289	Assessed Value	$282,539
Insurance*	$76	Land (58%)	$81,936
Electricity*	$14	Improvement (42%)	$59,333
Water, Sewer, Garbage*	$150	No. Yrs.	27.5
Pest Control	$87 (Quarterly)	Yr. Depreciation	$2,158

Adjustment of Abnormal Inflation		Opportunity cost of Sweat Equity	
Appendix C		*Appendix D*	
Adjusted Purchase Price:	$398,535	March 2012	($4,000)
		April 2012	($5,000)

AMORTIZATION TABLE			
Amount Financed			$304,272.16
Interest Rate			4.38%
Months Amortized			360
Principal and interest			$1,519.19
	Interest	**Principal**	**Balance**
			$304,272.16
April-12	$1,109.33	$409.86	303,862.30
May-12	$1,107.83	$411.36	303,450.94
June-12	$1,106.33	$412.86	303,038.08
July-12	$1,104.83	$414.36	302,623.71
August-12	$1,103.32	$415.87	302,207.84
September-12	$1,101.80	$417.39	301,790.45
October-12	$1,100.28	$418.91	301,371.54
November-12	$1,098.75	$420.44	300,951.10
December-12	$1,097.22	$421.97	300,529.13
January-13	$1,095.68	$423.51	300,105.62
February-13	$1,094.14	$425.05	299,680.56
March-13	$1,092.59	$426.60	299,253.96
April-13	$1,091.03	$428.16	298,825.80
May-13	$1,089.47	$429.72	298,396.08
June-13	$1,087.90	$431.29	297,964.79
July-13	$1,086.33	$432.86	297,531.93
August-13	$1,084.75	$434.44	297,097.49
September-13	$1,083.17	$436.02	296,661.47
October-13	$1,081.58	$437.61	296,223.86
November-13	$1,079.98	$439.21	295,784.65
December-13	$1,078.38	$440.81	295,343.84
January-14	$1,076.77	$442.42	294,901.43
February-14	$1,075.16	$444.03	294,457.40
March-14	$1,073.54	$445.65	294,011.75

APPENDIX B

Cash Flow Analyses: IRR and NPV

MONTHLY OPERATING INCOME									
Year 1 (2012)	***April***	***May***	***June***	***July***	***August***	***September***	***October***	***November***	***December***
MONTHLY OPERATING INCOME									
Gross Income	$1,400	$1,400	$1,400	$2,800	$2,800	$2,800	$2,800	$2,800	$2,800
Less Vacancy									
Effective Gross Income	$1,400	$1,400	$1,400	$2,800	$2,800	$2,800	$2,800	$2,800	$2,800
MONTHLY OPERATING EXPENSES									
Property Taxes	$0	$289	$289	$289	$289	$289	$289	$289	$289
Private Mortgage Insurance (PMI)	$0	$288	$288	$288	$288	$288	$288	$288	$288
Insurance	$0	$76	$76	$76	$76	$76	$76	$76	$76
Electricity	$14	$14	$14	$14	$14	$14	$14	$14	$14
Water, sewer, garbage	$191	$149	$146	$149	$155	$154	$146	$147	$147
Improvements									
Pest Control				$87				$87	
TOTAL OPERATING EXPENSES	$205	$816	$813	$903	$822	$821	$813	$901	$814
Expenses as % of income	15%	58%	58%	32%	29%	29%	29%	32%	29%
NET OPERATING INCOME	**$1,195**	**$584**	**$587**	**$1,897**	**$1,978**	**$1,979**	**$1,987**	**$1,899**	**$1,986**
Monthly Principal and Interest	$0	$1,519	$1,519	$1,519	$1,519	$1,519	$1,519	$1,519	$1,519
CASH FLOW (BEFORE TAXES)	**$1,195**	**($935)**	**($932)**	**$378**	**$459**	**$459**	**$468**	**$380**	**$467**

MONTHLY OPERATING INCOME												
Year 2 (2013)	***January***	***February***	***March***	***April***	***May***	***June***	***July***	***August***	***September***	***October***	***November***	***December***
MONTHLY OPERATING INCOME												
Gross Income	$2,800	$2,800	$2,800	$2,800	$2,800	$2,800	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000
Less Vacancy												
Effective Gross Income	$2,800	$2,800	$2,800	$2,800	$2,800	$2,800	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000
MONTHLY OPERATING EXPENSES												
Property Taxes	$289	$289	$289	$289	$289	$289	$289	$289	$289	$289	$289	$289
Private Mortgage Insurance (PMI)	$288	$288	$288	$288	$288	$288	$288	$288	$288	$288	$288	$288
Insurance	$76	$76	$76	$76	$76	$76	$76	$76	$76	$76	$76	$76
Electricity	$14	$14	$14	$14	$14	$14	$14	$14	$14	$14	$14	$14
Water, sewer, garbage	$144	$144	$144	$146	$150	$152	$159	$162	$161	$163	$162	$150
Improvements		$6,700										
Pest Control	$87				$87				$87			
TOTAL OPERATING EXPENSES	$898	$7,511	$811	$813	$904	$819	$826	$829	$915	$830	$829	$817
Expenses as % of income	32%	268%	29%	29%	32%	29%	28%	28%	30%	28%	28%	27%
NET OPERATING INCOME	**$1,903**	**($4,711)**	**$1,989**	**$1,987**	**$1,896**	**$1,981**	**$2,174**	**$2,171**	**$2,085**	**$2,170**	**$2,171**	**$2,183**
Monthly Principal and Interest	$1,519	$1,519	$1,519	$1,519	$1,519	$1,519	$1,519	$1,519	$1,519	$1,519	$1,519	$1,519
CASH FLOW (BEFORE TAXES)	**$383**	**($6,230)**	**$470**	**$468**	**$377**	**$462**	**$654**	**$651**	**$566**	**$651**	**$652**	**$664**

MONTHLY OPERATING INCOME			
Year 3 (2014)	***January***	***February***	***March***
MONTHLY OPERATING INCOME			
Gross Income	$3,000	$3,000	$3,000
Less Vacancy			
Effective Gross Income	$3,000	$3,000	$3,000
MONTHLY OPERATING EXPENSES			
Property Taxes	$289	$289	$289
Private Mortgage Insurance (PMI)	$288	$288	$288
Insurance	$76	$76	$76
Electricity	$14	$14	$14
Water, sewer, garbage	$150	$150	$150
Improvements			
Pest Control	$87		
TOTAL OPERATING EXPENSES	$904	$817	$817
Expenses as % of income	30%	27%	27%
NET OPERATING INCOME	**$2,096**	**$2,183**	**$2,183**
Monthly Principal and Interest	$1,519	$1,519	$1,519
CASH FLOW (BEFORE TAXES)	**$577**	**$664**	**$664**

TAX CONSIDERATION			
Year:	**2012**	**2013**	**2014**
Net Operating Income	$21,000	$17,998	$6,462
Annual Interest	9,930	13,045.00	3,225.48
Annual Depreciation	$1,726	$2,158	$539
Other deductions[1]	$7,742	$7,000	$1,936
TAXABLE INCOME	**$1,602**	**($4,205)**	**$762**
Tax Bracket	28%	28%	28%
TAX (savings)	$449	($1,177)	$213
Before tax cash flow	$1,938	($232)	$182,193
less tax	$449	($1,177)	$1,319
AFTER TAX CASH FLOW	**$2,387**	**$945**	**$180,874**

[1]Other property deductions contained on 2012 taxes

DISPOSITION OF ASSET (2014)	
Sale Price	$510,000
Sales Cost 7%	$35,700
Less mortgage balance	$294,012
Before tax cash flow	$180,288
Original Cost basis	$277,000
Accumulated depreciation	$4,423
Adjusted basis	**$272,577**
Depreciation recapture 25%	$1,106
AFTER TAX CASH FLOW FROM SALE	**$179,182**

BEFORE & AFTER TAX CASH FLOW (ANNUAL)			
Year:	**2012**	**2013**	**2014**
Before-tax cash flow	$1,938	($232)	$182,193
After-tax cash flow	$2,387	$945	$180,874

MONTHLY CASH FLOWS												
Year 2012			**Mar-12**	**Apr-12**	**May-12**	**Jun-12**	**Jul-12**	**Aug-12**	**Sep-12**	**Oct-12**	**Nov-12**	**Dec-12**
Before-tax cash flow			($19,407)	$1,195	($935)	($932)	$378	$459	$459	$468	$380	$467
After-tax cash flow			($19,407)	$1,195	($935)	($932)	$378	$459	$459	$468	$380	$18
Year 2013	**Jan-13**	**Feb-13**	**Mar-13**	**Apr-13**	**May-13**	**Jun-13**	**Jul-13**	**Aug-13**	**Sep-13**	**Oct-13**	**Nov-13**	**Dec-13**
Before-tax cash flow	$383	($6,230)	$470	$468	$377	$462	$654	$651	$566	$651	$652	$664
After-tax cash flow	$383	($6,230)	$470	$468	$377	$462	$654	$651	$566	$651	$652	$1,841
Year 2014	**Jan-14**	**Feb-14**	**Mar-14**									
Before-tax cash flow	$577	$664	$182,856									
After-tax cash flow	$577	$664	$181,537									

IRR & NPV	
Before-tax IRR	**209.48%**
Before-tax NPV	**$ 109,607**
After-tax IRR	**208.15%**
After-tax NPV	**$ 109,155**

APPENDIX C

ADJUSTMENT TO CASH FLOW ANALYSES: ABNORMAL APPRECIATION

TAX CONSIDERATION			
Year:	**2012**	**2013**	**2014**
Net Operating Income	$21,000	$17,998	$6,462
Annual Interest	9,930	13,045.00	3,225.48
Annual Depreciation	$1,726	$2,158	$539
Other deductions[1]	$7,742	$7,000	$1,936
TAXABLE INCOME	**$1,602**	**($4,205)**	**$762**
Tax Bracket	28%	28%	28%
TAX (savings)	$449	($1,177)	$213
Before tax cash flow	$1,938	($232)	$78,530
less tax	$449	($1,177)	$1,319
AFTER TAX CASH FLOW	**$2,387**	**$945**	**$77,211**

[1]Other property deductions contained on 2012 taxes

DISPOSITION OF ASSET (2014)	
Sale Price	$398,535
Sales Cost 7%	$27,897
Less mortgage balance	$294,012
Before tax cash flow	$76,626
Original Cost basis	$277,000
Accumulated depreciation	$4,423
Adjusted basis	**$272,577**
Depreciation recapture 25%	$1,106
AFTER TAX CASH FLOW FROM SALE	**$75,520**

BEFORE & AFTER TAX CASH FLOW (ANNUAL)			
Year:	**2012**	**2013**	**2014**
Before-tax cash flow	$1,938	($232)	$78,530
After-tax cash flow	$2,387	$945	$77,211

MONTHLY CASH FLOWS												
Year 2012			**Mar-12**	**Apr-12**	**May-12**	**Jun-12**	**Jul-12**	**Aug-12**	**Sep-12**	**Oct-12**	**Nov-12**	**Dec-12**
Before-tax cash flow			($19,407)	$1,195	($935)	($932)	$378	$459	$459	$468	$380	$467
After-tax cash flow			($19,407)	$1,195	($935)	($932)	$378	$459	$459	$468	$380	$18
Year 2013	**Jan-13**	**Feb-13**	**Mar-13**	**Apr-13**	**May-13**	**Jun-13**	**Jul-13**	**Aug-13**	**Sep-13**	**Oct-13**	**Nov-13**	**Dec-13**
Before-tax cash flow	$383	($6,230)	$470	$468	$377	$462	$654	$651	$566	$651	$652	$664
After-tax cash flow	$383	($6,230)	$470	$468	$377	$462	$654	$651	$566	$651	$652	$1,841
Year 2014	**Jan-14**	**Feb-14**	**Mar-14**									
Before-tax cash flow	$577	$664	$79,194									
After-tax cash flow	$577	$664	$77,875									

IRR & NPV	
Before-tax IRR	**105.59%**
Before-tax NPV	**$ 37,619**
After-tax IRR	**104.32%**
After-tax NPV	**$ 37,167**

APPENDIX D

ADJUSTMENT TO CASH FLOW ANALYSES: OPPORTUNITY COST & ABNORMAL APPRECIATION

TAX CONSIDERATION			
Year:	**2012**	**2013**	**2014**
Net Operating Income	$21,000	$17,998	$6,462
Annual Interest	9,930	13,045.00	3,225.48
Annual Depreciation	$1,726	$2,158	$539
Other deductions[1]	$7,742	$7,000	$1,936
TAXABLE INCOME	**$1,602**	**($4,205)**	**$762**
Tax Bracket	28%	28%	28%
TAX (savings)	$449	($1,177)	$213
Before tax cash flow	$1,938	($232)	$78,530
less tax	$449	($1,177)	$1,319
AFTER TAX CASH FLOW	**$2,387**	**$945**	**$77,211**

[1]Other property deductions contained on 2012 taxes

DISPOSITION OF ASSET (2014)	
Sale Price	$398,535
Sales Cost 7%	$27,897
Less mortgage balance	$294,012
Before tax cash flow	$76,626
Original Cost basis	$277,000
Accumulated depreciation	$4,423
Adjusted basis	**$272,577**
Depreciation recapture 25%	$1,106
AFTER TAX CASH FLOW FROM SALE	**$75,520**

BEFORE & AFTER TAX CASH FLOW (ANNUAL)			
Year:	**2012**	**2013**	**2014**
Before-tax cash flow	$1,938	($232)	$78,530
After-tax cash flow	$2,387	$945	$77,211

MONTHLY CAS FLOWS												
Year 2012			**Mar-12**	**Apr-12**	**May-12**	**Jun-12**	**Jul-12**	**Aug-12**	**Sep-12**	**Oct-12**	**Nov-12**	**Dec-12**
Before-tax cash flow			($23,407)	($3,805)	($935)	($932)	$378	$459	$459	$468	$380	$467
After-tax cash flow			($23,407)	($3,805)	($935)	($932)	$378	$459	$459	$468	$380	$18
Year 2013	**Jan-13**	**Feb-13**	**Mar-13**	**Apr-13**	**May-13**	**Jun-13**	**Jul-13**	**Aug-13**	**Sep-13**	**Oct-13**	**Nov-13**	**Dec-13**
Before-tax cash flow	$383	($6,230)	$470	$468	$377	$462	$654	$651	$566	$651	$652	$664
After-tax cash flow	$383	($6,230)	$470	$468	$377	$462	$654	$651	$566	$651	$652	$1,841
Year 2014	**Jan-14**	**Feb-14**	**Mar-14**									
Before-tax cash flow	$577	$664	$79,194									
After-tax cash flow	$577	$664	$77,875									

IRR & NPV	
Before-tax IRR	**70.62%**
Before-tax NPV	**$ 28,696**
After-tax IRR	**69.73%**
After-tax NPV	**$ 28,244**

REFERENCES

Holt, J. (2009). A Summary of the Primary Causes of the Housing Bubble and the Resulting Credit Crisis: A Non-Technical Paper *The Journal of Business Inquiry, 8*, 120-129.

Ross, S.E., Niebling, B.C., Heckert, T.S., (1999) Sources of Stress Among College Students. College Student Journal, 33, 2, 312-218

Simon, C.C., (2011, July 24). R.O.I. (return on investment of graduate school) (Education Life Supplement). *The New York Times.* Retrieved from http://www.nytimes.com

University of California, Davis (UCD), (2010, December 16). Little Change in Apartment Vacancy Rate, Average Rent. *UC Davis, News and Information*. Retrieved from http://news.ucdavis.edu/search/news_detail.lasso?id=9701

U.S. Department of Housing and Urban Development (HUD) . (1991). *203K Handbook, Rehabilitation Home Mortgage Insurance.* Retrieved from http://www.hud.gov/offices/adm/hudclips/handbooks/hsgh/4240.4/42404HSGH.pdf

U.S. Department of Housing and Urban Development (HUD) . (2011). *Mortgage Credit Analysis for Mortgage Insurance on One- to Four-Unit Mortgage Loans (4155.1)*. Retrieved from http://www.hud.gov/offices/adm/hudclips/handbooks/hsgh/4155.1/41551HSGH.pdf

CA Department of Consumer Affairs (DCA). (2010). *California Tenants, A Guide to Residential Tenants' and Landlords' Rights and Responsibilities.* Retrieved from: http://www.dca.ca.gov/publications/ landlordbook/catenant.pdf

Shaw, M. (2011, June 10). Multifamily Housing Market Heats Up. *Sacramento Business Journal*. Retrieved from http://www.bizjournals.com/sacramento/print-edition/2011/06/10/multifamily-housing-market-heats-up.html?page=all

CB Richard Ellis. (2011). *Market Outlook 2011, Sacramento, California.* Retrieved from http://www.cbre.us/o/sacramento/Pages/market-reports.aspx

Shaw, M. (2011, January 21). Commercial Brokers Rejoice Over Decline In Office Vacancies. *Sacramento Business Journal.* Retrieved from http://www.bizjournals.com/sacramento/print-edition/2011/01/21/decline-in-office-vacancies.html

Zillow. (2013, October 10). *Sacramento Home Prices and Home Values, Zillow Home Value Index* [graph]. Retrieved from http://www.zillow.com/local-info/CA-Sacramento-home-value/r_20288/

Van der Meer, B. (2013, September 18). Sacramento's housing market is cooling, no matter who you ask. *Sacramento Business Journal*. Retrieved from http://www.bizjournals.com/sacramento/news/2013/09/18/sacramento-housing-market-cooling.html?page=all