



# Property Report : Duplex: Mansfield Texas

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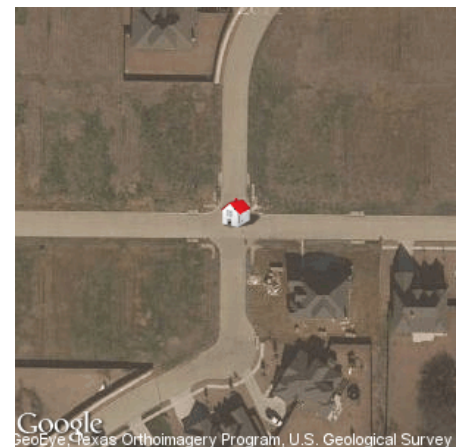
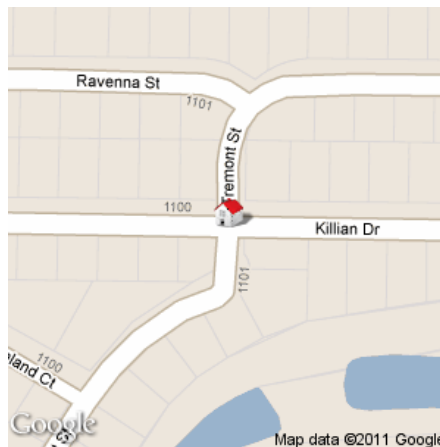
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## Executive Summary

### Property Description

Name	Duplex: Mansfield
	Texas
Address	Killian Dr, Mansfield
Type	Singlefamily
Size	2536 SF
Rooms	8 rooms : 6 bed. + 4 bath. + 2 kitchens



<b>Purchase Price</b>	<b>\$ 249,900</b>
Rent	\$ 2,600/month

### Financing Overview

Purchase Price	\$ 249,900
Down Payment	\$ 49,980
Mortgage (30yr @ 5.50%)	\$ 199,920
Loan-to-Value (LTV)	80.00 %
Closing Costs	\$ 3,500
<b>Total Aquisition Cost</b>	<b>\$ 255,900</b>

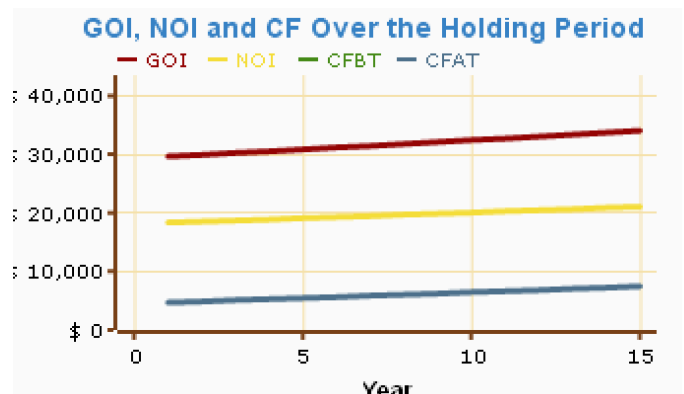
### Income, Expenses and Cash Flow (Year 1)

Gross Operating Income (GOI)	\$ 29,640
Total Expenses	\$ 11,279
<b>Net Operating Income (NOI)</b>	<b>\$ 18,361</b>
Annual Debt Service	\$ 13,621
Rehabilitaion	\$ 0
<b>Cash Flow Before Taxes (CFBT)</b>	<b>\$ 4,740</b>
Income Tax Liability	\$ 0
<b>Cash Flow After Taxes (CFAT)</b>	<b>\$ 4,740</b>

### Financial Analysis

Holding period of 15 years and discount rate of 10% were used for calculation of NPV and IRR. The rest of the financial measures are for the 1st year only and therefore doesn't provide such exact information.

Net Present Value (NPV)	<b>\$ 116,674</b>
Internal Rate of Return (IRR)	13.33 %
Cash on Cash Return	8.47 %
Return on Equity (ROE)	8.47 %
Capitalization Rate	7.35 %
Gross Rent Multiplier (GRM)	8.01
Debt-coverage Ratio (DCR)	2.29
Operating Expense Ratio (OER)	38.05 %



### Resale Analysis

Sale Price in year 15 (Appreciation:1%)	\$ 290,126
<b>Sale Proceeds (Before Tax)</b>	<b>\$ 130,893</b>
Optimal Holding Period (based on NPV)	30 years

## Property Description

This a Duplex. 2 units, 2 titles (or one if you want). New homes (2011), from the builder. Smart floor plan. Info is based on 2 units

Price	<b>\$ 249,900</b>
Address	Killian Dr, Mansfield, 76063, TX
Country	US
Year Built	2011
Type	Singlefamily
Size	2536 SF
Number of Bedrooms	6
Number of Bathrooms	4
Number of Rooms	8
Number of Kitchens	2

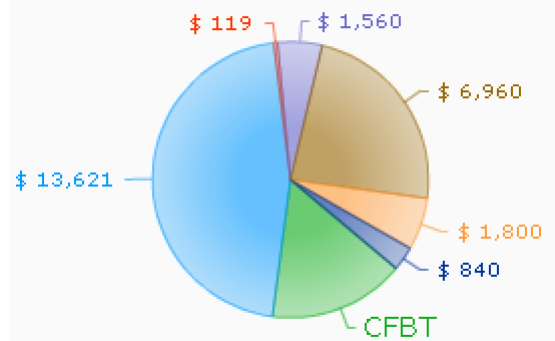


## Operation Effectiveness

### The Annual Property Operating Data

Incomes		% of GOI
•Gross Scheduled Rent Income	\$ 31,200	
<b>Total Gross Income</b>	<b>\$ 31,200</b>	
Vacancy loss	\$ 1,560	
<b>Gross Operating Income</b>	<b>\$ 29,640</b>	<b>100.00 %</b>
Expenses		
• Repairs	\$ 119	0.40 %
• Manager	\$ 1,560	5.26 %
• Prop_Taxes	\$ 6,960	23.48 %
• HOA	\$ 1,800	6.07 %
• Leasing	\$ 840	2.83 %
<b>Total Expenses</b>	<b>\$ 11,279</b>	<b>38.05 %</b>
<b>Net Operating Income</b>	<b>\$ 18,361</b>	<b>61.95 %</b>

### Gross Operational Income Distribution



### Operating Ratios

<b>Operating Expense Ratio</b>	<b>38.05 %</b>
<b>Break-Even Ratio</b>	<b>81.32 %</b>

### Cash Flow (1st year)

•Net Operating Income	<b>\$ 18,361</b>	<b>61.95 %</b>
Annual Debt Service	\$ 13,621	45.96 %
Rehabilitation	\$ 0	0.00 %
<b>Cash Flow Before Taxes (CFBT)</b>	<b>\$ 4,740</b>	<b>15.99 %</b>
Income Tax Liability	\$ 0	0.00 %
<b>Cash Flow After Taxes (CFAT)</b>	<b>\$ 4,740</b>	<b>15.99 %</b>

#### Gross scheduled income (GSI)

represents the total of monthly rents for the particular property, including the potential rents from vacant units and uncollectable rents.

#### Vacancy and Credit Loss

represents the part of the potential rental income that is lost because of unoccupied units or uncollectable rent from tenants.

#### Gross Operating Income (GOI)

is the actual income which is expected to be collected in the property.

#### Operating Expenses

are expenses necessary for maintaining the property and ensuring its continued ability to produce income (doesn't include mortgage payments or depreciation).

#### Net Operating Income (NOI)

is simply the gross operating income minus operating expenses.

#### Cash Flow

represents all the inflows and outflows of cash for a certain property (including mortgage payments). We can calculate cash flow before taxes (CFBT) or cash flow after taxes (CFAT) which is CFBT minus any tax liability arising from the operation of the property.

#### Operating Expense Ratio

is the ratio of the operating expenses to the gross operating income (GOI).

#### Break-Even Ratio (BER)

is another benchmark used by mortgage lenders. It estimates how vulnerable is a certain property to defaulting on its mortgage if part of the rental income is declined. Most of the lenders are looking for BER of 85% or less.

#### To learn more..

[RealEstateAnalysisFREE.com/dictionary/](http://RealEstateAnalysisFREE.com/dictionary/)

## Financial Effectiveness

### Financial Measures

Net Present Value	\$ 116,674
Internal Rate of Return	13.33 %
Profitability Index	3.08
House P/E Ratio	3.05
Annual Depreciation	\$ 7,270

Holding period of 15 years and discount rate of 10% were used for calculation of NPV and IRR. The rest of the financial measures are for the **1st year only** and therefore don't provide such an exact information.

#### Net Present Value (NPV)

is probably the best measure of any investment thanks to its complexity. It takes into account all future cash flows including the selling price, and it converts all these amounts to their present values using discount rate required by the investor. Therefore in contrast from most of the measurements, NPV count fully with the time value of money. More information and example is on the blog.

#### Internal Rate of Return (IRR)

is a rate which an investment will return over the estimated period of ownership. It is in fact the discount rate that produces NPV of zero.

#### Profitability Index

is very similar to NPV. It also calculates with the present values of future cash flows and discount rate, therefore it takes in account the time value of money. Profitability index is a ratio which shows if the present value of the cash flows is worth the initial investment.

#### House P/E Ratio

is often used when measuring other investment tools, such as stocks. The Real Estate P/E ratio counts with the initial investment and annual net operating income.

### Investment Return Ratios

Cash on Cash Return	8.47 %
Return on Investment	12.93 %
Return on Equity	8.47 %
Capitalization Rate	7.35 %
Gross Rental Yield	12.48 %
Gross Rent Multiplier	8.01

#### Cash on Cash Return

is in fact equity dividend rate. It is a ratio between annual cash flow before taxes and the total initial investment, expressed as a percentage. It is not an exact measurement of an investment, because it does not take in account the future value of money.

#### Return on Investment

is very similar to Cash on Cash Return, but also takes in account appreciation of the property in the first year.

#### Return on Equity

is one of the financial measures used as well on other types of investments. In Real Estate the return means cash flow after taxes (CFAT) and equity is the initial investment.

#### Gross Rental Yield

can be used for a particular property or also as a market indicator when using median values of rent and house prices. It is counted from gross scheduled rent and initial investment.

#### Capitalization Rate

is calculated as ratio of the net operating income and the value of the property. It is in fact the discount rate, used for discounting the future income to determine its present value.

#### Gross Rent Multiplier

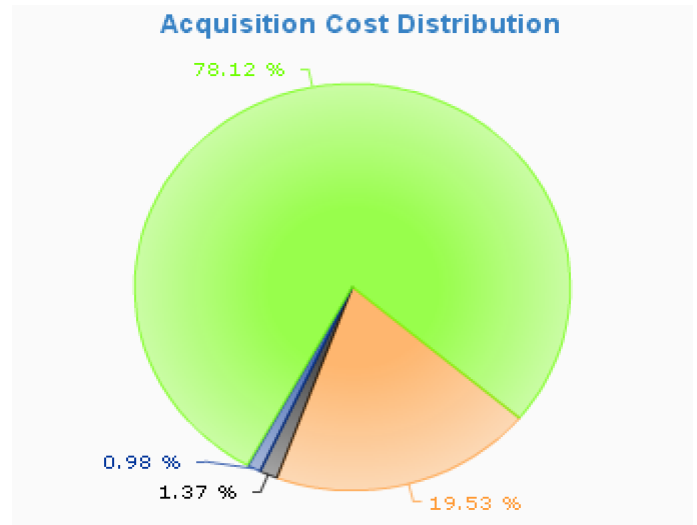
is counted as a ratio of market value of the property and gross scheduled income.

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## Financing Overview and Analysis

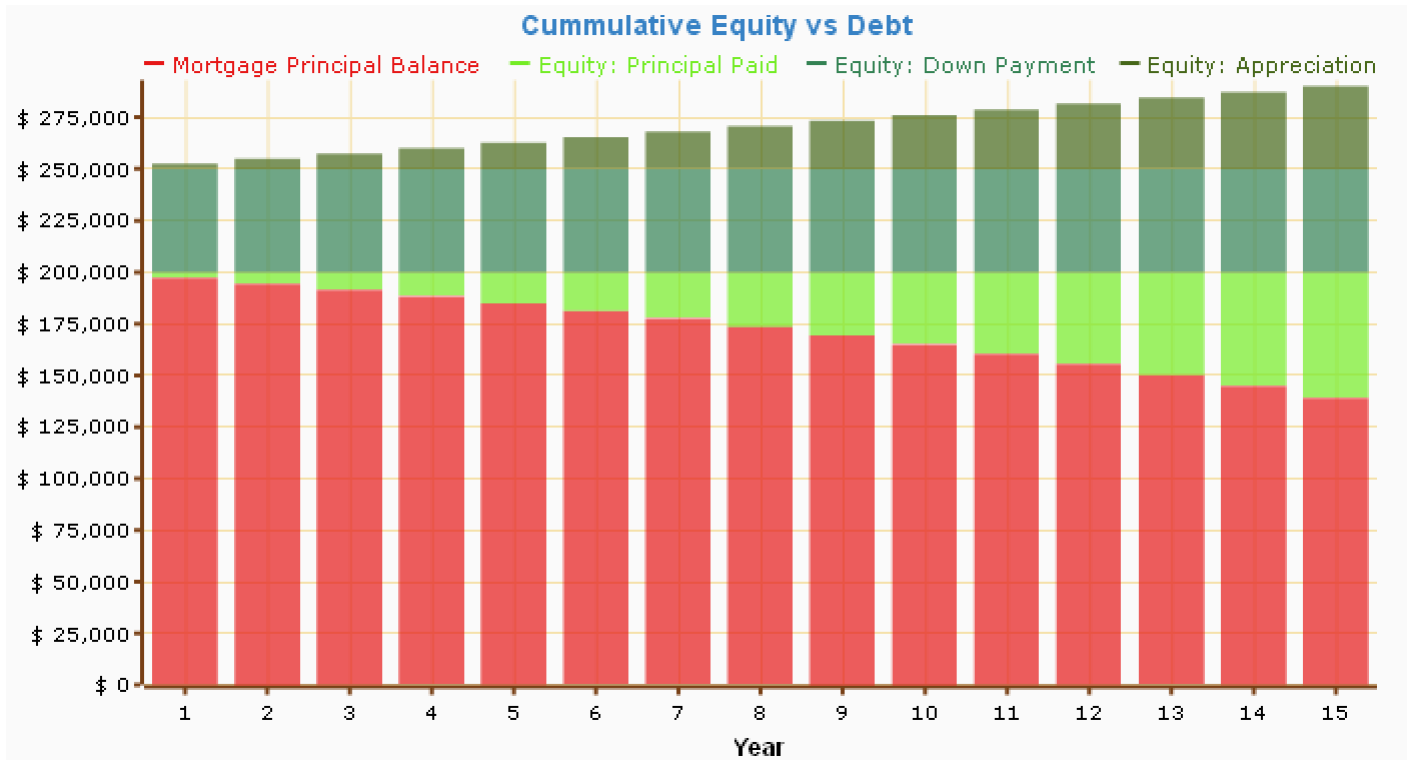
Acquisition Cost	
Purchase Price	\$ 249,900
Closing Costs	\$ 3,500
Loan Costs	\$ 2,500
<b>Total</b>	<b>\$ 255,900</b>



Financing		% of Acq.
Down Payment + Costs	\$ 49,980	19.53 %
Mortgage	\$ 199,920	78.12 %
<b>Loan to Value Ratio</b>		<b>80.00 %</b>
Debt Coverage Ratio		2.29

Mortgage	
Mortgage Amount	\$ 199,920
Length	30 years
Interest Rate	5.50 %
Monthly Payment	\$ 1,135.12

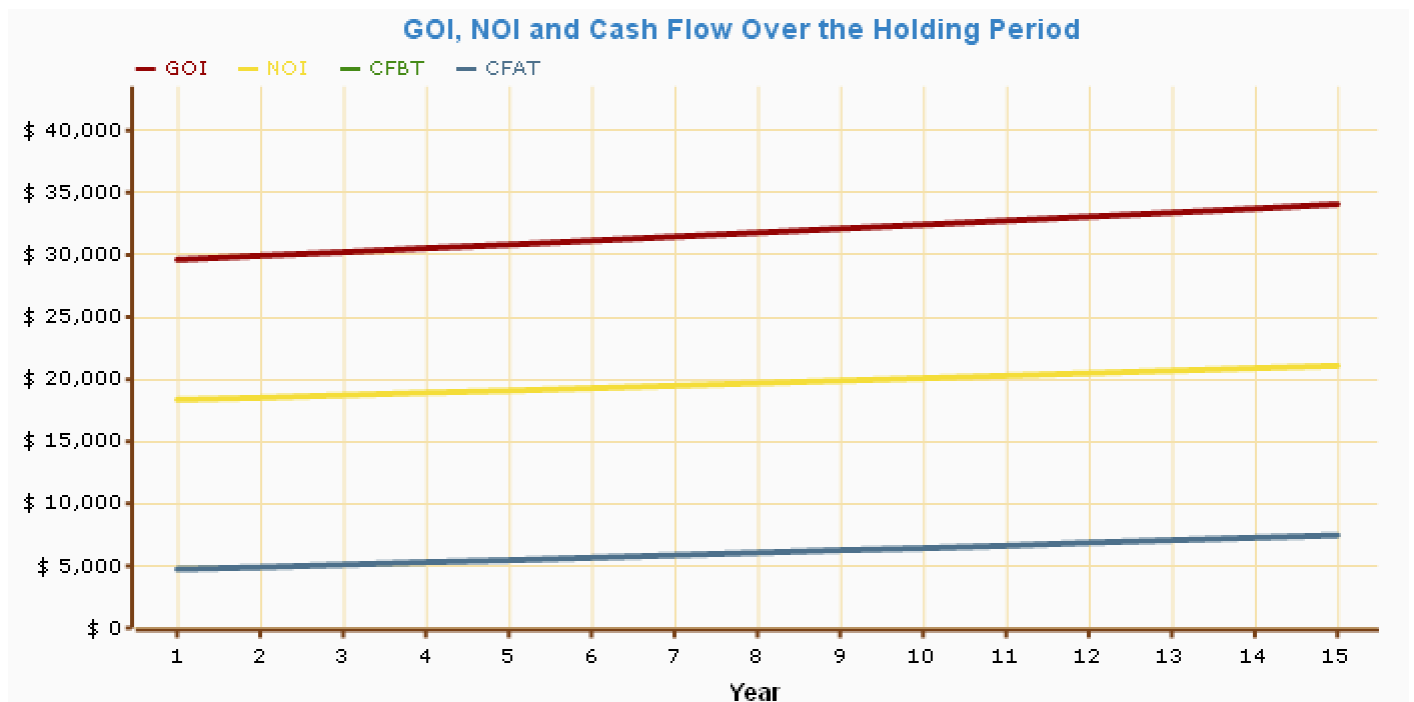
- Down Payment
- Closing Costs
- Loan Costs
- Mortgage



This chart shows the process of accumulation of the equity which belongs to the investor. There is some equity right from the beginning - the down payment. Over the time the equity is rising by paying off the principal of the mortgage and also by appreciation over the years. Basically all the green parts is the cummulative equity belonging to the investor and the red part belongs to the bank.

## Long Term Financial Forecast

Year	0	1	5	10	15
<b>Operational Analysis</b>					
Gross Scheduled Income	\$ 0	\$ 31,200	\$ 32,467	\$ 34,123	\$ 35,864
Vacancy Loss	\$ 0	\$ 1,560	\$ 1,623	\$ 1,706	\$ 1,793
<b>Gross Operating Income</b>	<b>\$ 0</b>	<b>\$ 29,640</b>	<b>\$ 30,844</b>	<b>\$ 32,417</b>	<b>\$ 34,070</b>
Expenses	\$ 0	\$ 11,279	\$ 11,737	\$ 12,335	\$ 12,964
<b>Net Operating Income</b>	<b>\$ 0</b>	<b>\$ 18,361</b>	<b>\$ 19,107</b>	<b>\$ 20,082</b>	<b>\$ 21,106</b>
<b>Financing</b>					
Mortgage Payment	\$ 0	\$ 13,621	\$ 13,621	\$ 13,621	\$ 13,621
Payment Interest Part	\$ 0	\$ 10,928	\$ 10,267	\$ 9,208	\$ 7,815
Payment Principal Part	\$ 0	\$ 2,693	\$ 3,354	\$ 4,413	\$ 5,806
<b>Cash Flow</b>					
Rehabilitation	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
<b>Cash Flow Before Taxes</b>	<b>\$ -55,980</b>	<b>\$ 4,740</b>	<b>\$ 5,486</b>	<b>\$ 6,460</b>	<b>\$ 7,485</b>
Depreciation	\$ 0	\$ 7,270	\$ 7,270	\$ 7,270	\$ 7,270
Taxes	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
<b>Cash Flow After Taxes</b>	<b>\$ -55,980</b>	<b>\$ 4,740</b>	<b>\$ 5,486</b>	<b>\$ 6,460</b>	<b>\$ 7,485</b>



# Resale Analysis

## Resale Price Evaluation Methods

The property is sold after 15 years.

♦ <b>Appreciation (1.00%)</b>	<b>\$ 290,126</b>
Cap Rate (7.35%) & NOI	\$ 287,156
Gross Rent Multiplier	\$ 287,254

## Sale Proceeds

In the resale analysis we don't count with taxes which might occur when selling the property. The tax laws for the resale are rather complex and subjected to frequent changes, and are different in every country.

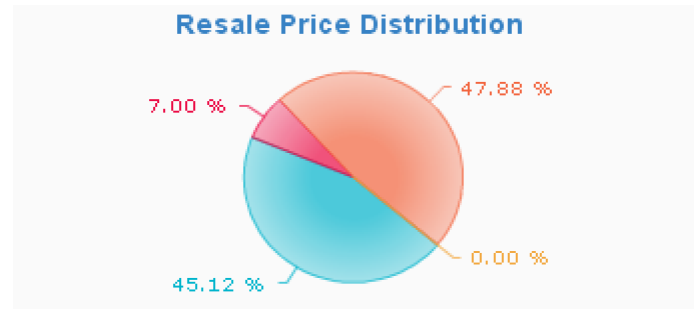
♦ <b>Projected Selling Price</b>	<b>\$ 290,126</b>
Costs of Sale (7.00%)	\$ 20,309
Mortgage Balance Payoff	\$ 138,924
Early Payoff Penalty (0.00 %)	\$ 0
<b>Sale Proceeds Before Tax</b>	<b>\$ 130,893</b>

## Net Assets and Yield

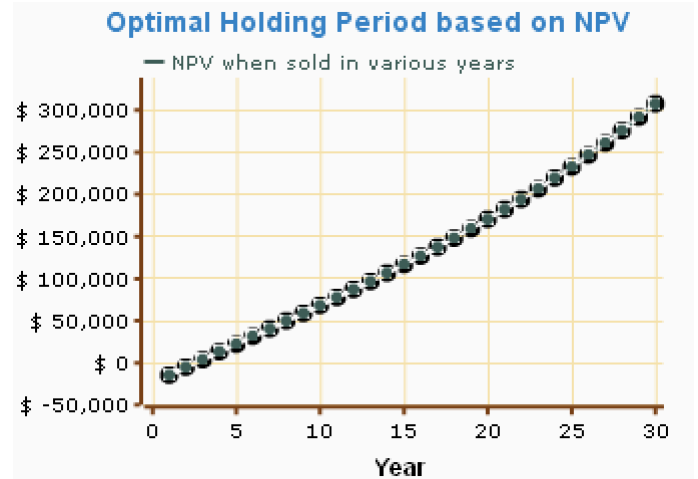
Net Assets	
Sale Proceeds Before Tax	\$ 130,893
Down Payment	\$ 49,980
<b>Net Assets</b>	<b>\$ 80,913</b>
Yield	
Annual Net Assets	\$ 5,394
Average Cash Flow (After Taxes)	\$ 6,083
<b>Average Annual Yield</b>	<b>\$ 11,477</b>
<b>Average Annual Return</b>	<b>4.59 %</b>

## Optimal Holding Period based on NPV

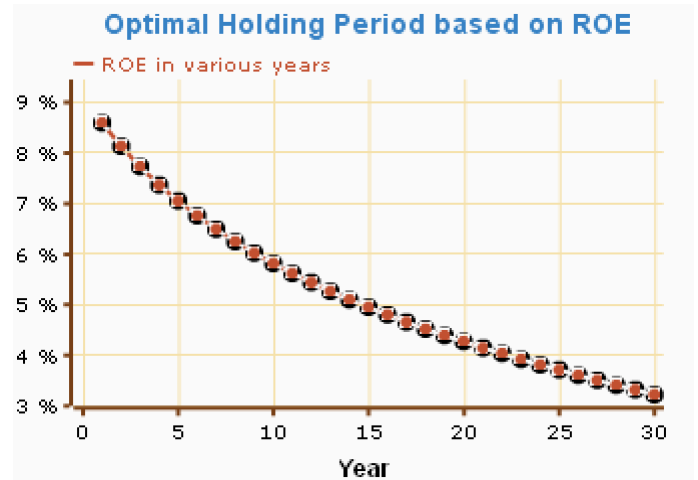
♦ <b>Holding Period</b>	<b>30 years</b>
Max NPV	\$ 307,865



- Sale Proceeds
- Costs of Sale
- Mortgage Balance Payoff
- Early Payoff Penalty



This chart shows Net Present Value (NPV) when property is sold in various years, i.e. when sold in 5th year, the NPV is calculated from 5 years of Cash Flow (including the selling price) and this NPV is displayed in year 5. Optimal holding period can be estimated, using this method - when NPV is the highest. Please note that appreciation growth can change these numbers severely. It has sometime sense to sell the property even before the end of the mortgage period.



This chart shows the ratio of Cash Flow After Taxes and the accumulated equity in each year. When the return on equity starts going substantially lower, it indicates possibility of sale. However this method isn't as accurate as the NPV method above.

## Sensitivity Analysis

### Loan to Value ratio

Your current LTV ratio is: 80.00%.

LTV	NPV	IRR
<b>80.00 %</b>	<b>\$ 116,674</b>	<b>13.33 %</b>
0%	\$ -77,251	5.44 %
10%	\$ -65,211	5.82 %
20%	\$ -53,172	6.27 %
30%	\$ -41,133	6.82 %
40%	\$ -29,094	7.49 %
50%	\$ -17,054	8.33 %
60%	\$ -5,015	9.42 %
70%	\$ 7,024	10.96 %
80%	\$ 19,063	13.33 %
90%	\$ 31,102	17.77 %

This sensitivity analysis is using the configured holding period, the length and interest rate of the first mortgage and discount rate of 10%. It counts only with a conventional type of loan.

### Mortgage Ammortization (Length)

Your current mortgage ammortization is 30 years.

Years	NPV	IRR
<b>30</b>	<b>\$ 116,674</b>	<b>13.33 %</b>
5	\$ -51,041	5.68 %
10	\$ -37,310	5.69 %
15	\$ -26,426	5.70 %
20	\$ -2,851	9.52 %
25	\$ 10,615	11.83 %
30	\$ 19,063	13.33 %

This sensitivity analysis is using the loan amount and interest rate of the first mortgage and discount rate of 10%. It counts only with a conventional type of loan.

## Market Indicators

We were not able to generate automatically all the market indicators and therefore we include their definitions and data sources, so you can do the calculations by yourself.

### Price to Rent Ratio

$$\text{Price to Rent Ratio} = \frac{\text{Median House Price}}{\text{Median Annual Rent}}$$

Data Source: [Census Fact Finder](#)

Price to rent ratio (P/R) is a great and simple calculation showing the attractiveness of a certain Real Estate market or area. It compares median house price and median rent in that market. This ratio actually says how many annual rents would have to be spent for buying an average house. Some markets with very high ratio (i.e. California P/R is 25) do not show such a good opportunity for an investment, because the return on investment would be most probably low. This ratio can help an investor to decide which market to invest in. [Learn more..](#)

### Price to Income Ratio

$$\text{Price to Income Ratio} = \frac{\text{Median House Price}}{\text{Familial Disposable Income}}$$

Data Source: [Census Fact Finder](#)

Price to Income ratio helps with identifying real estate bubbles. The price of Real Estate properties is a result of local demand and supply on the Real Estate market. It was proven that in a long term the demand is mainly influenced by the familial disposable income and therefore there is a close connection between the median familial disposable income and median house prices. [Learn more..](#)

### Vacancy Rate

Data Source: [Census Housing Vacancies](#)

Vacancy rate is a good market indicator for investors as well, because it shows possible problems in a certain rental market. Investment in such a market is much more risky and an investor should use at least the same vacancy rate in the property's calculations as the rate the market shows. [Learn more..](#)