

### CRE Proforma – Risk Analysis

Change the Lease detail figures to those noted below. Check Figure – ATCF in Year 3 should be \$428,201.

Year/ Suite	1	2	3	4	5	6	7	8	9	10	11
A	2	2	2	2	30	8	8	8	8	8	8
B	4	4	4	4	4	4	30	8	8	8	8
C	3	3	3	3	3	40	8	8	8	8	8
D	6	6	6	6	6	6	6	6	6	6	6

For all Suites use a 2.5% Cost Growth Rate. Change the size of Suite A and Suite B to 25000 sq.ft.

Suite A: \$18 Contract Rent, \$0 Expense Stop, 3% Rental Growth Rate.

Suite B: \$28 Contract Rent, \$7 Expense Stop, 0% Rental Growth Rate, \$33 Rental Rate starting year 7.

Suite C: \$15 Contract Rent, \$0 Expense Stop, 3% Rental Growth Rate, 4.5% Sales Growth Rate, 3% of Sales above \$3,000,000. Initial Sales estimated at \$4,500,000.

Suite D: \$30 Contract Rent, \$99 Expense Stop, 0% Rental Growth Rate, 15000 Misc. Income.

Use the following input assumptions

CRE Proforma	Purchased Real Estate
Input Data	
Going Out Cap Rate	8.0%
Selling Expense	7.0%
7- yr Building Improvement %	14%
15-yr Land Improvements	500,000
Purchase Price	15,000,000
Acquisition Costs	45,000
Land Value	2,500,000
Marginal Tax Bracket	35.0%
Depn Recapture Rate	35.0%
Capital Gain Rate	15.0%
Equity Hurdle Rate	15.0%
Depreciation Period	39
Mortgage LTV	65.0%
Amort Term (Years)	25
Maturity (Years)	10
Rate	6.000%
Points	2.00%
Prepay Penalty (%)	0.00%

## Fin 5433 Homework: Risk Analysis via Proforma

Note: In this homework use your proforma to implement a number of the risk analysis strategies of Chapter 13. You should probably save your base case proforma under a separate name so that as you make changes you can still recover your original base case. You need not turn in your proformas – just turn in the results.

1. Change a single assumption:
  - a. Plot the BTIRR and ATIRR v. Mortgage Rate for rates of 4 - 14%
  - b. Plot the BTIRR and ATIRR v. LTV from 0-95% LTV
  - c. Plot the Effective Tax Rate for LTV from 0-95%
2. Partition the IRR. For the base case scenario, partition the IRR as shown in the text and lecture.
3. Marginal rate of return. To illustrate how the rate of return can be dependent on how long our holding period is, compute the IRR as if you have a 5 year holding period? This is probably most easily accomplished by using  $NOI_6$  to get the sales price, and then rework the sales portion of the proforma to correct the adjusted basis calculation, and the correct loan payoff. Compute the IRR's using the 5 year cash flow figures. Turn in the "Proforma" tab that shows these changes and the result. Is it better to plan to sell after 5 years than after 10 years?
4. Scenario Analysis – simplified version. We will create a pessimistic and optimistic scenario to compare to our base case. We will make the following modifications. (Use 10 yr proforma). What are the BRIRR and ATIRR for the following scenarios?

	Pessimistic	Optimistic
GPI	90% of base	120% of base
Vacancy Losses	125% of base	50% of base
Mortgage Rate	7.50%	5.25%
LTV	50%	90%
Going Out Cap Rate	11%	7%

One way to effect the change on the first two items is to simply put the appropriate factor as a multiplier on line 35 and 36. For the other changes, you simply need to input the appropriate figure into the proper input cell.