

## RE 618 / Fin 618 – Real Estate Investment Analysis

### Homework – Unlevered Investment Analysis

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- 1) Caden is considering investing in an office property with 35,000 rentable square feet. After researching comparable properties in the area and examining the current leases in the building, Caden believes that 25,000 square feet of this building will command premium rents averaging \$22 per square foot; the remaining 10,000 square feet are expected to rent for \$18 per square foot. The recent operating expense ratio for this building has been 45 percent, and Caden sees no reason to believe this will change with new management. The market vacancy rate is currently 7 percent, which matches the current vacancy in this building.

This is an emerging location in the market, so Caden believes that rents will rise by 5.5 percent over the next four years. After that, rents will stabilize and grow at the rate of inflation (expected to be 2.5 percent per year indefinitely).

Caden expects to hold the property for five years before selling it. Based on comparable sales of office buildings that are similar (but five years older) than this one, Caden estimates a terminal cap rate of 9.5 percent. In addition, using data from the county assessor's office, Caden has determined that office properties in this area have recently been appreciating by about 5 percent per year.

Caden's required rate of return on this investment (which is typical of that required by other investors in the market) is 13 percent.

Caden has the opportunity to purchase this property for \$4.3 million.

- a) Forecast this property's NOI over Caden's expected holding period.
- b) Calculate  $V_T$  and  $V_0$  under each of the four terminal value assumptions discussed in class.
- c) Calculate the NPV and IRR of this investment under each of the four terminal value assumptions discussed in class.
- d) Based on your calculations and the information given in this problem, what do you believe to be the value of the property today? Is this a good investment for Caden? Why or why not?