

RE 618/890 – Real Estate Investment Analysis
Fall 2001

Midterm Exam #2 – November 8

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T-Th 8:00-9:15

You have 1 hour and 15 minutes to complete this exam. I know its long; don't worry, just do the best you can in the time allotted. I would spend a few minutes looking it over before you begin; start with the questions you know best and work on the others last. The number of points for each question is intended to indicate how much time you should spend on each. This weighting incorporates both the time it should take you to answer the question and its relative importance.

I've tried to eliminate any ambiguity about how to interpret the questions on the exam.

Nevertheless, if you make any assumptions not explicitly stated in the questions, make sure you write them down so I can see what you are doing.

1) (5 points) Tex is a petroleum engineer in Fort Worth, but he and his wife own two rental properties that they operate on the side. This year Tex earned \$65,000 in salary and bonuses, and his wife earned \$30,000. They also took several short positions in the stock market, and earned \$35,000 in short term gains from these investments. One of their rental properties generated positive taxable income of \$10,000, while the other lost \$15,000. In addition, Tex and his wife have \$10,000 of suspended losses that have carried forward from prior years. Assume that Tex and his wife file a joint tax return.

a) What is the total taxable income Tex and his wife will report on their return for this year?

b) What happens to the passive losses they are unable to use this year?

- 2) (15 points) Cal is selling a regional shopping center in Sacramento. According to the terms of the purchase contract, Cal will receive \$350,000 cash, carry a \$600,000, 2-year purchase-money fully-amortizing mortgage with 10% interest and annual payments, and the buyer will assume an existing first mortgage with an outstanding balance of \$550,000. Cal's adjusted tax basis in this property is currently \$750,000, and he will incur transaction costs of 85,000.
- a) Calculate Cal's total realized gain on this sale, and the amount of the gain Cal will recognize this year, next year, and the following year.

- b) Will Cal have any other tax liabilities from this arrangement? Explain.

3) (25 points) Virginia currently owns an apartment complex in Richmond with a fair market value of \$600,000 (80% of the value is attributable to improvements). The current mortgage balance on the complex is \$420,000, and its adjusted tax basis is \$280,000. Georgia owns an office building in Atlanta. Its fair market value is \$1,200,000 (75% of the value attributable to improvements), with a \$900,000 mortgage balance and an adjusted tax basis of \$500,000. They would like to complete a tax-deferred exchange for these properties (assuming one another's mortgages), and each is able to put up cash to balance the equities (if necessary). They will each incur transaction costs equaling 5% of the fair market value of their current properties.

a) Calculate Virginia's realized, recognized, and deferred gain from this exchange.

b) Calculate Virginia's substitute basis in her new property.

c) Calculate the depreciation allowance Virginia can claim on her new property in the first year of ownership, assuming that the property is placed in service during the month of November. How much will she be able to claim in subsequent years?

d) Calculate all of the above information for Georgia.

- 4) (30 points) Mary is analyzing a 75,000 square foot Class-A commercial office building in downtown Baltimore. Rents in this building will be \$25 per square foot (psf) next year and are expected to increase by 3% per year for the foreseeable future. The average vacancy rate for Class-A office space in downtown Baltimore is currently 10%. The operating expense ratio for this property is 45%. The tax assessor's office currently estimates the value of the building to be \$10 million, with 10% of this value attributable to land. The asking price for this property is \$11.5 million, and acquisition costs are expected to be 5%.

Financing is available for up to 75% of the purchase price, with a 20-year term, 7.25% interest, monthly payments, and 2 discount points.

The property will be put in service on January 1, 2002. The expected holding period is 5 years (expected sale date of December 31, 2006), at which time it will be sold at an 8% cap rate (based on projected NOI for 2007). Transaction costs at the time of sale are expected to be 5% of the gross sale price.

Mary will be taxed at the 28% rate on ordinary income, 25% for depreciation recapture, and 20% for long-term capital gains.

- a) Complete the attached Cash Flow Analysis Worksheet for years 1 and 2 for this property. to calculate NOI, cash flow before taxes, and cash flow after taxes for 2002 and 2003.
- b) Complete the attached Alternative Cash Sales Worksheet to determine the sale proceeds after tax from the disposition of this property. Assume that projected NOI in 2007 will be \$1,075,951. (Hint: Don't forget to calculate the tax savings associated with unamortized loan points.)
- c) If cash flow after taxes from operations will be \$135,922, \$152,358, and \$165,813 in 2004, 2005, and 2006, respectively, what is the after-tax net present value of this investment at a 15% discount rate? What is the after-tax internal rate of return on this investment? Based on this analysis, is this a worthwhile investment for Mary?