

## Intro

Your firm has been asked to fund the acquisition of The Lyric, a leading multifamily property in Seattle, Washington. The sponsor, Amadeus Capital Partners, plans to make light capital improvements to the property and boost its below-market rents up to market rates over five years. The Lyric has 234 units, including a mix of studios, 1-bedrooms, and 2-bedrooms, with an average size of 796 square feet, as well as 360 parking spots. Amenities include a rooftop deck, sky lounge, high-tech theater, fitness center, private balconies and patios, and front-load washers and dryers in each unit. The sponsor plans to acquire the property for approximately \$104 million USD (Cap Rate of 4.50%), spend approximately \$800,000 on capital improvements, boost the property's revenue growth and margins, and sell it within 3-5 years. The sponsor believes that prevailing Cap Rates in Seattle are dangerously low (the median rate is currently under 4.50%), so it plans to use a higher-than-normal LTV of 85% to do the deal.

Rather than a traditional Senior Loan and Mezzanine structure, the sponsor plans to use a Senior Loan (65% LTV), Mezzanine (10% LTV), and Preferred Equity (10% LTV), each with different terms. By doing so, the sponsor believes that it can earn an IRR of 20% or greater, significantly above the typical 8-10% IRR targeted in core and core-plus deals. Amadeus has asked your firm to participate by investing in the Senior Loan, Mezzanine, or Preferred Equity. Your job in this case study is to determine which, if any, of these tranches your firm should invest in, and to analyze the key risk factors and explain how you might mitigate them. Your firm is skeptical of this deal because it believes that the Seattle multifamily market is overheated and set to decline within the next 2-3 years. However, with the right terms, a credit investment could still pay off. To complete this analysis and make a decision, you will create multiple operational scenarios, including Base, Downside, and Extreme Downside cases, calculate the returns to all the investor groups, and complete a simple valuation of the property. The Base Case will represent continued, moderate rental and expense growth with no downturns or recessions. The Downside Case will reflect a moderate recession over Years 2-3, followed by a recovery, and the Extreme Downside Case will reflect a major recession over Years 2-3, followed by a recovery. Please use the following assumptions to complete the provided Excel template. You have three (3) hours to make the calculations and respond to the case study questions: Part 1 – Acquisition, Financing, and Exit Assumptions Use the following figures to set up the key model assumptions:

- Acquisition Date: 2018-12-31
- Going-In Cap Rate: 4.50%
- Acquisition Costs: 1.0% of Acquisition Price
- CapEx and Replacement Reserves: \$500,000

Use the following numbers for the Senior Loan, Mezzanine, and Preferred Equity:

Term	Senior Loan	Mezzanine	Preferred Equity
Loan-to-Value (LTV)	65.0%	10.0%	10.0%
Cash Interest Rate	L+2.0%; LIBOR Floor of 2.0%	4.0%	N/A
PIK Interest Rate	N/A	4.0%	10.0%
Issuance Fees	1.0%	1.0%	1.0%
Interest-Only Period	2 yrs	Entire Period	Entire Period
Amortization Period	30 yrs	N/A	N/A
Maturity	10 yrs	5 yrs	5 yrs
Prepayment Penalty	1.5%	1.5%	1.5%
Equity Percentage On Exit	N/A	N/A	5.0%

Assume that LIBOR rises from 1.90% in FY 19 to 2.40% in FY 23. Your firm is seeking a minimum Debt Yield of 6.0%, Cash Interest Coverage Ratio of 1.50x, and Debt Service Coverage Ratio (DSCR) of 1.20x. The property may be sold at the end of FY 21, FY 22, or FY 23. Assume Selling Costs of 2.0% and the following trends for Cap Rates:

Scenario	FY19	FY20	**FY21	** **FY	22** FY23
Base	4.55%	4.60%	4.65%	4.70%	4.75%

Scenario	FY19	FY20	**FY21	** **FY	22** FY23
Downside	4.55%	6.00%	5.50%	5.00%	5.00%
Extreme Downside	4.55%	6.50%	6.00%	5.50%	5.25%

These Cap Rates represent continued growth but an increasingly older building in the Base Case, a moderate recession and recovery in the Downside Case, and a major recession and recovery in the Extreme Downside Case. Cap Rates for similar multifamily properties in Seattle have ranged between 4.5% and 5.5% over the past ~7 years; the peak Cap Rate in the 2009 recession was 5.8%, and the peak rate in the 2001 recession was 7.3%.

## Operating Assumptions

The property's operational performance depends on overall market trends as well as the rent increases the sponsor is attempting to enact. Use the following assumptions for each line item:

- Market Rent per Unit per Month: \$2,500 in FY 18
- In-Place Rent per Unit per Month: \$2,300 in FY 18
- In-Place Rent Discount to Market Rent: 7.5% in FY 19 falling to 1.0% by FY 22
- Parking Fees per Spot per Month: \$150 in FY 18
- Utility Reimbursements % Utility Expense: 85.0% in FY 18 rising to 90% by FY 23
- Insurance per Gross Square Foot per Year: \$0.55 in FY 18
- Utilities per Unit per Month: \$130.00 in FY 18
- Replacement Reserves per Unit per Year: \$400.00 in FY 18
- Sales, Marketing & Administrative % EGI: 10.0% in FY 18 rising to 10.5% by FY 23
- % Apartment Unit Turnover: 10.0% in FY 18 rising to 20.0% by FY 23
- Tenant Improvements per Unit Leased: \$800.00 in FY 18

For the growth rates and figures that change in different scenarios, please use the assumptions that have already been input into Excel. These assumptions reflect a moderate 2-year recession in the Downside Case and a major 2-year recession in the Extreme Downside Case. The justification for each one is as follows:

- Income Growth Rate: Historically, rent has increased between 3% and 5% per year even in slow periods. In the last two recessions, rent declined by 3-5% before recovering.
- General Vacancy: The average vacancy rate for peer multifamily properties is 4%, and the maximum vacancy rate historically was 7-8% in the 2001 and 2009 recessions. Over the past five years, the average market vacancy rate has been 4-5%.
- Bad Debt & Concessions % In-Place Rent: The average percentage of peer properties is 2%; this one moves in-line with the vacancy rate during recessions because landlords must offer more incentives to win tenants.
- Expense Growth Rate: This one follows the approximate trends in income growth, but the percentages are lower – in recessions, operating expenses tend to decline due to lower property usage, and in healthy markets, the opposite happens.
- Tenant Improvement (TI) Growth Rate: This one increases substantially in downturns because landlords must offer more incentives to attract tenants; the peak in the last recession was approximately \$1,000 – \$1,050 per unit. TIs decline in growth markets because landlords gain more bargaining power over tenants.
- Leasing Commissions (LC) Growth Rate: This one also increases substantially in downturns because landlords must pay more to incentivize brokers. The peak percentage in the last recession was 10%, and LCs are typically 3% of effective rent in normal market conditions.

Finally, assume Capital Expenditures (CapEx) of \$1,000 per unit, \$1,500 per unit, \$750 per unit, and \$200 per unit in Years 1, 2, 3, and 5, respectively. The sponsor is budgeting for modest improvements, but not a full renovation. These improvements will ensure that the Average In-Place Rent moves closer to the Average Market Rent over a 5-year period.

## Property Pro-Forma

Complete the Pro-Forma, which has some of the expenses filled in, down to Adjusted NOI. Note the following points as you complete this exercise:

- Loss to Lease represents the difference between In-Place and Market Rents.
- Property Taxes should be based on a small percentage of the property's value, but to simplify the calculation, you can grow the historical taxes at the expense growth rate.
- In-Place and Effective Rent act as drivers for different line items, so be careful of the links.
- Tenant Improvements and Leasing Commissions should be linked to the annual apartment unit turnover percentage.

## Debt Service and Credit Stats and Ratios

You will NOT be able to use the IPMT and PPMT functions in this model because of the Senior Loan's Interest-Only Period and floating Interest Rate, so you'll have to calculate interest and principal repayment manually based on straight-line amortization. Make sure you account for Cash vs. PIK Interest, and always use the beginning balances to calculate interest so that you avoid circular references. When you're done, calculate the Debt Yield, Cash Interest Coverage Ratio, and Debt Service Coverage Ratio each year based on both NOI and Adjusted NOI.

## Returns to Equity Investors and Lenders

Start by calculating the returns to equity investors, including the cash-on-cash multiple and IRR, and include support for variable exit years. You must also account for the possibility of the lenders NOT receiving back the full principal they are owed upon exit. For example, if the Total Exit Proceeds are \$100, the Senior Loan principal is \$90, the Mezzanine principal is \$20, and the Preferred Equity principal is \$20, the Senior Lenders will receive back everything, the Mezzanine investors will receive back 50%, and the Preferred investors will receive nothing. Senior lenders rank highest, so they have the first claim to the property's cash flows. Make sure you apply this logic to the prepayment penalties and equity granted to Preferred investors. Next, calculate the returns to each group of lenders, including the issuance fees and prepayment penalties, principal repayment, cash interest, and equity granted (if applicable). You should also calculate the Recovery percentages for the lenders based on total principal repayments vs. the amount owed upon exit. The Recovery will almost always be 100% for the Senior lenders, but it might be significantly lower for the other groups, especially in the Extreme Downside case.

## Sensitivities

Create sensitivity tables at the bottom based on the three potential Exit Dates, three market scenarios, and the IRR and Recovery for each lender group. For the Equity Investors, just create a table for the IRR.

Below that area, create tables for the Market Scenario vs. Year 5 Exit Cap Rate and calculate the Recovery and IRR for the same groups. Use your judgment to pick the appropriate range for the Exit Cap Rates. Remember that as a lender, your job is to analyze the WORST-CASE possible outcome.

## Valuation and DCF Analysis

Create a simple DCF analysis for the property, and assume a Cost of Equity of 15% to calculate the Discount Rate. For the Terminal Cap Rate, assume that the Year 5 Exit Cap Rate in the selected scenario increases by 0.50% by the last projected year of the DCF. For the NOI Growth Rate and Adjusted NOI as a % of NOI, pick reasonable, simple percentages that make sense across all three scenarios. Create a sensitivity based on the Discount Rate and Terminal Cap Rate below the analysis. Use your judgment, the data in this document, and the deal assumptions to pick the ranges. Finally, review the Comparable Property Sales ("Comp-Sales"), the Rent Comps ("Apt-Comps"), and the Replacement Cost Analysis ("Replacement-Cost") to get a sense of the property's appropriate value. You do not need to make any calculations; instead, use this data to determine whether or not the purchase price and operating assumptions are reasonable. Part 8 – Case Study Questions Once you've completed the model, please respond to

the following questions: 1) Which tranche(s) of Debt, if any, would you recommend investing in? Assume that the targeted returns are close to the stated interest rates and that the Preferred Investors are seeking an IRR slightly above the Preferred interest rate due to the Equity Grant.

- 2) Does this deal make sense for the sponsor (Amadeus Capital Partners)? Would you recommend that they acquire the property at a 4.50% Cap Rate?
- 3) Are the operating assumptions reasonable across the three cases? Which data supports your conclusions?
- 4) What are the key risk factors for the lenders in this deal, and how might you mitigate them? For example, could you renegotiate the terms of the Debt to reduce these risks?
- 5) What is the significance of the valuation and DCF analysis here? Why might lenders care about these even if they do not assume the same risk as the equity investors?