



**BFX3355 Property Investment
Team Assignment Question
2025 Semester 1**

Project Background

An unlisted property trust is examining a proposal to purchase a mixed-use building located in Melbourne's CBD. The details of the proposal are as follows:

The building consists of ground floor retail stores, 3 floors leased by an established convention centre operator, 5 floors of modern office space leased to a state government department with a long lease, and the remaining top 15 floors of modern office space leased to various business tenants. All available space is assumed to be leased during the holding period with a provision for vacancy, reflected in the occupancy rate, to allow for changes in occupancy. All leases have annual upward rent reviews which reflect the expected market rent. Operating expenses like management fees, building maintenance costs, council/water rates, and others are quoted as percentages of actual rent received (i.e., adjusted for vacancy). Building insurance premium is quoted on the initial building value and will not be adjusted due to depreciation or refurbishment. All values given are nominal.

There is an ongoing refurbishment program in place for the top 15 floors. One floor is refurbished each year, starting with floor 9 in year 2 and progressing up a floor each successive year. The refurbishment is required by the Victorian Building Authority (VBA) and must be carried out as scheduled, no matter which investor owns the building. When a floor is being refurbished, all tenants on the floor must vacate. Therefore, during the refurbishment of the floor, no rent is received. Operation expenses, such as management fees, building maintenance, and other management costs, are still incurred, and they are based on the actual rent collected after adjustment for vacancy (including the vacancy due to refurbishment). However, the Melbourne City Council's water rates only account for general vacancy and will still apply to floors under refurbishment (i.e., based on the rent to be collected if there were no refurbishment). Further, the cost of refurbishing each floor equals 80% of the lost gross rent (adjusted for occupancy) during the year of refurbishment. After the 1-year refurbishment, the floor will be let out again immediately at the new market annual rent, which equals to the originally expected market annual rent (adjusted to include the growth of the missing year), plus an additional 1% premium to the annual rent growth rate. The new annual growth rate of rent on the refurbished floor continues in all following years. This refurbishment constitutes a yearly capital improvement from year 2 onwards, which is *capitalised* and follows the depreciation schedule of building structure. Assume that lifts, aircons, and all fittings have economic lives longer than 10 years.

The purchase can be funded by both debt and equity. Borrowed funds cannot exceed 90% of the purchase price. Loan finance is interest-only and for 20 years. The investor can meet any annual operational shortfall in cash flow. Operational shortfalls in cash flow are funded at the same rate as the project's required return. Cash throw-offs (i.e., after-tax operational surpluses) are re-invested



at the prevailing safe re-investment rate. The trust is subject to the corporate tax rate. Australia's corporate tax rate, and the land tax and stamp duty rates for Victoria apply. GST is to be ignored.

The property is held for 10 years and the selling price is determined using the direct capitalization method. The out-going forward cap rate, which is assumed to equal the in-going forward cap rate. The investor is not eligible for the 50% capital gain discount.

Questions

The trust consults you for the financial feasibility of this property investment opportunity. Please work on the following questions using Excel models. The trust has also requested a 500-word Executive Summary that highlights your analyses findings, recommendations about the property and model limitations. The Executive Summary is to be placed in the 2nd worksheet of your Excel workbook, followed by your Excel models. Your Group Assignment coversheet must be signed, scanned and placed as a pic file into the 1st worksheet of your Excel workbook.

1. Suppose that the trust borrows a debt equal to 70% of the purchase price. Construct a spreadsheet model to analyse the profitability of this investment opportunity via NPV, IRR and MIRR. Is the investment profitable?

Please note that your model MUST be dynamic rather than hard-coded. In other words, your model should be able to accommodate alternative scenarios (different sets of input variables e.g., LVR, interest cost) and can calculate the profitability outcomes (NPV, IRR, and MIRR) accordingly.

2. Provide a sensitivity table for the impact of changing LVR (in the range of 40% - 90%, incrementing by 5% per step) on the investment's NPV and IRR. What is the break-even LVR that makes the project profitable? At what LVR is the investment profitability maximised, if profitable at all? Provide analyses to all these questions answers in the Executive Summary.

Please note that you Excel model should allow for the use of Goal Seek and Solver to examine the effect of changing key input variables (e.g., LVR) on result variables (e.g., NPV) and to find the break-event values. Do not involve no hardcoding in any formula and functions.

3. Provide a sensitivity table for the impact of changing Convention Centre occupancy rate (in the range of 70% to 95%, incrementing by 5% per step) on the investment's NPV and IRR. Discuss the results in the Executive Summary.
4. Would you recommend the property to the fund manager? What are the limitations of your valuation model? Discuss in the Executive Summary. *Hint:* Not all values given are needed in your calculation and modelling, but they may be useful in making recommendations.



Instructions

Data for all variables will be provided to each team on the course website. To ensure that students do not modify the initial data accidentally, **the data on the original worksheet provided may NOT be editable**. Students are free to create a copy of this worksheet, within the same workbook or in another workbook for your valuation and submission.

Each group is assigned a team number and a unique set of data for their assignment. The data provided cannot be changed. **If the assignment submitted does not correspond with the correct data set supplied to your group, it will result in a mark of zero.**

All students will find the Excel workshop materials available on Moodle beneficial when completing this assignment and are required to work through these materials before commencing the assignment.

Students who see staff in consults asking how to do Excel setup questions such as the valuation template, Data Tables, Goal Seek or Solver will be directed to complete the Excel Workshop, if this has not been done so.