

What-if analysis

FINANCIAL MODELING IN EXCEL



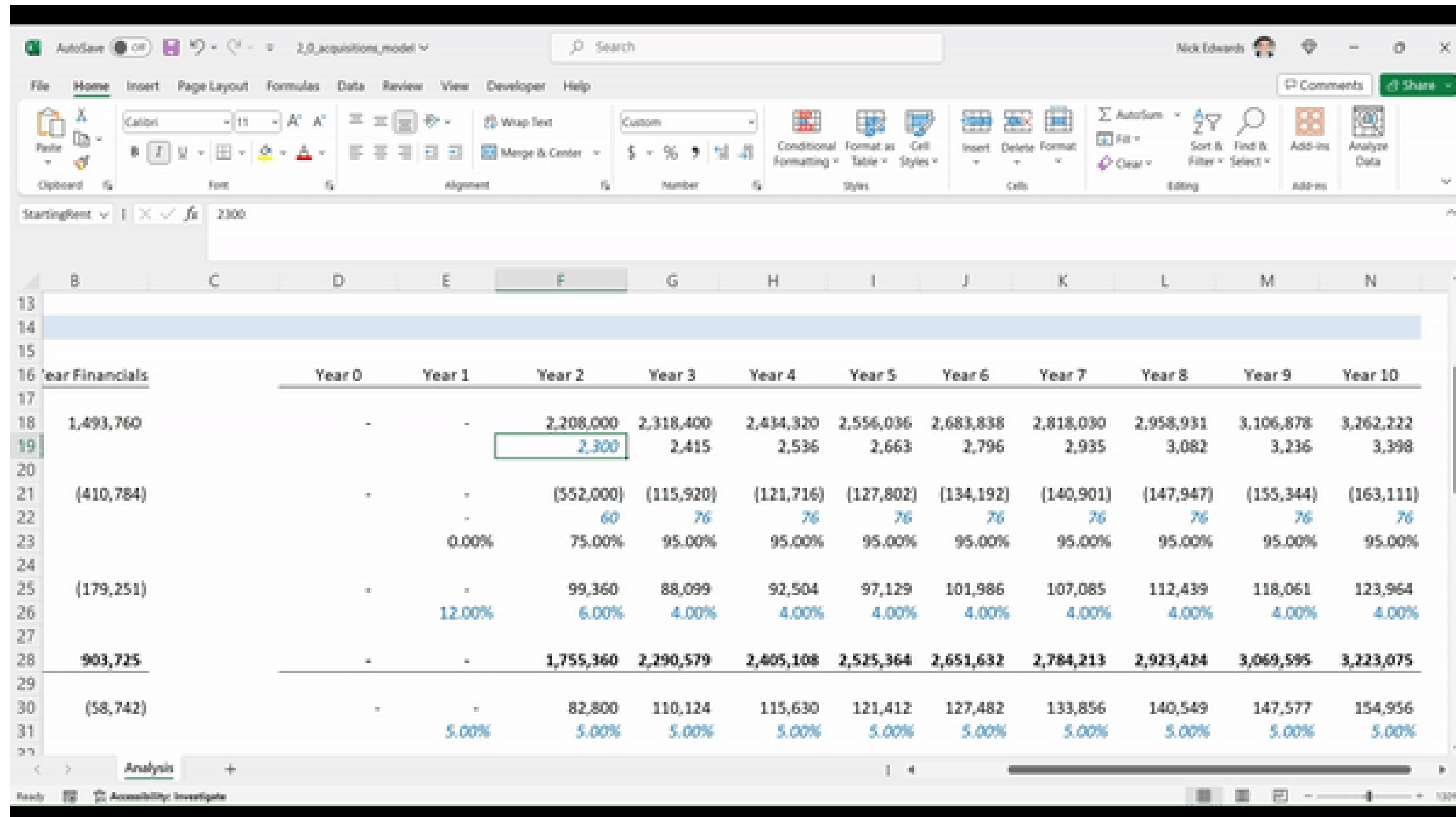
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What is what-if?

- **What-if analysis** evaluates different scenarios to see what might happen
 - Also called **scenario analysis**
- Asks the questions "what if..."
 - ...I raise the price?
 - ...I offer a discount?
- Make more informed business decisions



What-if analysis in financial models



The screenshot shows an Excel spreadsheet titled "2_0_acquisitions_model". The "Home" tab is active. The formula bar shows "StartingRent" and the value "2,300". The spreadsheet displays a table of financial data from Year 0 to Year 10. The "StartingRent" input cell (F19) is highlighted with a green border and contains the value 2,300. The table shows various financial metrics across 11 years, with the "StartingRent" value being a key input for the model.

| | Year 0 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 |
|-----------------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Year Financials | | | | | | | | | | | |
| 1,493,760 | - | - | 2,208,000 | 2,318,400 | 2,434,320 | 2,556,036 | 2,683,838 | 2,818,090 | 2,958,931 | 3,106,878 | 3,262,222 |
| | | | 2,300 | 2,415 | 2,536 | 2,663 | 2,796 | 2,935 | 3,082 | 3,236 | 3,398 |
| (410,784) | - | - | (552,000) | (115,920) | (121,716) | (127,802) | (134,192) | (140,901) | (147,947) | (155,344) | (163,111) |
| | | | 60 | 76 | 76 | 76 | 76 | 76 | 76 | 76 | 76 |
| | 0.00% | | 75.00% | 95.00% | 95.00% | 95.00% | 95.00% | 95.00% | 95.00% | 95.00% | 95.00% |
| (179,251) | - | - | 99,360 | 88,099 | 92,504 | 97,129 | 101,986 | 107,085 | 112,439 | 118,061 | 123,964 |
| | | 12.00% | 6.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% | 4.00% |
| 903,725 | - | - | 1,755,360 | 2,290,579 | 2,405,108 | 2,525,364 | 2,651,632 | 2,784,213 | 2,923,424 | 3,069,595 | 3,223,075 |
| (58,742) | - | - | 82,800 | 110,124 | 115,630 | 121,412 | 127,482 | 133,856 | 140,549 | 147,577 | 154,956 |
| | | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% | 5.00% |

Types of what-if analysis

Scenario Analysis

- Analyzes one or more variable changes
- Specific scenarios

Types of what-if analysis



Scenario Analysis

- Analyzes one or more variable changes
- Specific scenarios

Sensitivity Analysis

- Analyzes a range of inputs
- More open ended

Sensitivity table

| | | Price Sensitivity | | | | |
|--------|-------|-------------------|----------|----------|----------|----------|
| | | Demand | | | | |
| | | 1,000 | 2,000 | 3,000 | 4,000 | 5,000 |
| Supply | 1,000 | \$ 5.00 | \$ 10.00 | \$ 15.00 | \$ 20.00 | \$ 25.00 |
| | 2,000 | \$ 2.50 | \$ 5.00 | \$ 7.50 | \$ 10.00 | \$ 12.50 |
| | 3,000 | \$ 1.67 | \$ 3.33 | \$ 5.00 | \$ 6.67 | \$ 8.33 |
| | 4,000 | \$ 1.25 | \$ 2.50 | \$ 3.75 | \$ 5.00 | \$ 6.25 |
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Sensitivity table

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Sensitivity table

Price Sensitivity Demand

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Let's practice!
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