CASE 6: TRIDEV REALTY PARTNERS

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Outline

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- *Assumptions*
- *Model Development*
- *Base Solution*
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Problem Statement

- **TriDev Inc.** was a real estate development company focused on building, purchasing and managing properties in California.
- **Vivian Lopez**, the CEO of TriDev Realty Partners, was going to make a choice of **whether she should sell** a shopping center immediately or wait until all new leases were renewed.
- The choice should be made **within 2 days**.
- The shopping center was offered at a price of **$22,500,000** at a market cap rate of **9%**.
- The future net income of the shopping center would be the deduction of rental income and the operation cost.
- The objective was to provide **a risk analysis of selling the shopping center**.

Assumptions

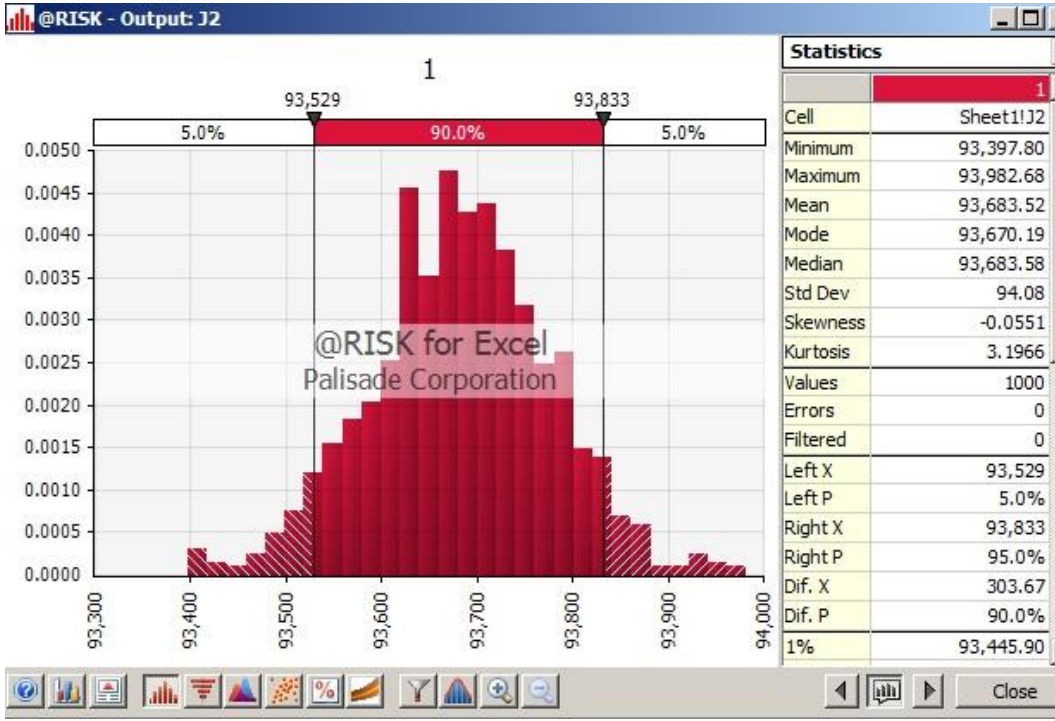
- The total rental income of 2011 is assumed to be **12 times the rental income of June 2011**, which is calculated by the same method in Exhibit 1.
- The new leases of 2011 would be increased at the rates in **Column 4** of **Exhibit 2**, which is the lease increase if renewed to market rate. Other scenarios would be studied in the sensitivity analysis.
- The hurdle rate, 10%, is used to calculate the future worth of offer.
- The future theoretical price would be caluclated by NOI (net operating income) divided by cap rate.
- If there is no tenant at a unit by June 2011, the rental inocme = 0 for that unit

Model Development

- We used **Excel** to model this case since we needed @Risk to help get a range of operating cost.
- We also used **Simul8** in order to deal with the uncertainties in leases.
- After all, the extreme cases of the results we got from @Risk and Simul8 were combined to form the final solution.

Model Development - Operation Cost

- $88,241 on June 2010
- increase 0.45%-0.55% monthly,
  - uniform distribution
- the increase lasts 12 months
- using @Risk
  - simulates 1000 times
  - 95% low is $93,529
  - mean is $93,685
  - 95% high is $93,833



Model Development - Tenants 5, 7, 18, 20, 21, 22

- Some tenants are not 100% sure they are going to renew their contracts
- Regardless, we want to know the probability if there would be tenants by June 2011
- Then we use Simul8 to simulate all scenarios
- Other tenants will pay a total of $232,285.6

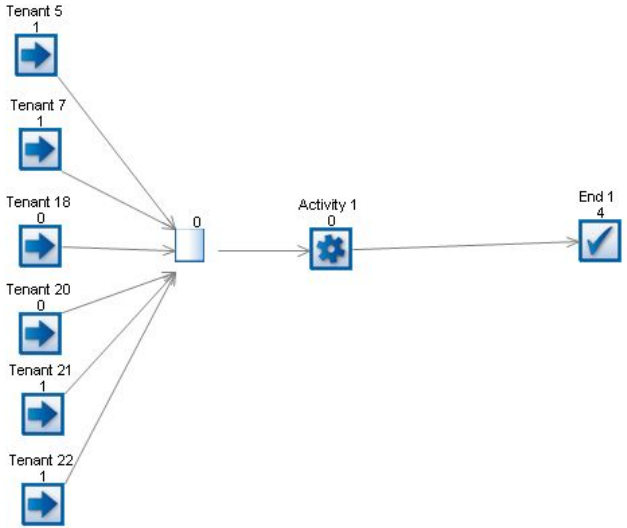
tenant	renew prob	new tenant prob	final prob
5	90%	10%	91%
7	90%	60%	96%
18	10%	60%	64%
20	50%	20%	60%
21	75%	30%	82.50%
22	0%	40%	40%

Model Development - Simulate uncertainty in tenants

- Each arrival follows the described probability profile in previous slide
- After simulating 1000 times,

uncertainty	
low 95	43314.05
average	48950.8
high 95	49587.55

rental income	
low 95	275599.6
average	281236.4
high 95	281873.1



Base Solution

- With uncertainty in NOI, we calculated all three cases: 8%, 9%, and 10%
- The FV of $22,500,000 in 1 year is $24,750,000
- Under 8% NOI, selling the property (waiting until) in 2011 is more profitable
- Under 9% NOI, in most cases selling the property (waiting until) in 2011 is more profitable
- Under 10% NOI, accepting the offer now is more profitable.

	low 95	mean	high 95			
rental income	275599.6	281236.4	281873.1		Original price	
operation cost	93833	93685	93529		22500000	
net income year	2184847	2250616	2256481			
8%	27310590	28132703	28206015		worth after a year	
9%	24276080	25006847	25072013		24750000	
10%	21848472	22506162	22564812			

Sensitivity Analysis - Price increase among tenants

- Another pricing increase approach would be to make sure that all units are filled with tenants by June 2011
- We would raise the price of (min%+final prob.*(market% - min%))
- Turns out to be more profitable

	low 95	mean	high 95
rental income	286856.4	286856.4	286856.4
operation cost	93833	93685	93529
net income year	2316281	2318057	2319929
8%	28953510	28975710	28999110
9%	25736453	25756187	25776987
10%	23162808	23180568	23199288

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22	0%	40%	40%

Sensitivity Analysis - Lease Increase Analysis

- In this section, it is assumed that the leases would be increased at rates in Column 3 of Exhibit 2, which is the minimum acceptable rent increase for Tridev.
- The results can be seen in the following table.

	low 95	mean	high 95
rental income	267935.65	273572.4	274209.15
operation cost	93833	93685	93529
net income year	2092879.8	2158649	2164513.8
8%	26160997.5	26983110	27056422.5
9%	23254220	23984987	24050153.3
10%	20928798	21586488	21645138

Sensitivity Analysis - Worst and Best Case

- With a high operation cost and low rental income (worst case), the expected loss to sell after a year is $271,619
- With a low operation cost and high rental income (best case), the expected gain to sell after a year is $530,946.8

	low 95	high 95
8%	2560590	3456015
9%	-473920	322013.3
10%	-2901528	-2185188
	-271619	530946.8

Conclusion

- In about half of the scenarios we analysed, Vivian Lopez should sell the shopping center in a year.
- Whether to accept the offer now would depend on NOI. The higher the NOI, the more likely Vivian should accept the offer.
- The more tenants renewed the lease, the less likely Vivian should accept the offer.
- The less the rent increases, the more likely Vivian should accept the offer.