

**National Association of REALTORS®
2009 REALTORS® Conference and Expo
San Diego, California**

Using Investment & Lease
Analysis To Sell or Lease
Properties
Neil Osborne

Sunday, November 15
9:00am-10:15am



**How to use Investment Analysis Techniques to
Sell or Lease properties during these challenging times**

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To obtain a more extensive handout and other educational materials visit www.investitsoftware.com

Cap Rate Review

$$\text{Cap Rate} = \frac{\text{Net Operating Income} \times 100}{\text{Sale Price}}$$

Assumptions: 1. Property is never sold. Why would you buy at a 4.50% Cap rate and borrow at 6.50%

2. The Net Operating is constant and goes on forever

Year 1 \$120,000 Year 2 \$120,000 Year 3 \$120,000 forever

$$\text{Market Value} = \frac{\text{Net Operating Income}}{\text{Cap Rate}} = \frac{\$120,000}{8\%} = \$1,500,000$$

The Sale Price is very sensitive to the Cap Rate and Rent

A small change in the "Cap Rate" or "Rent" creates a large change in value.

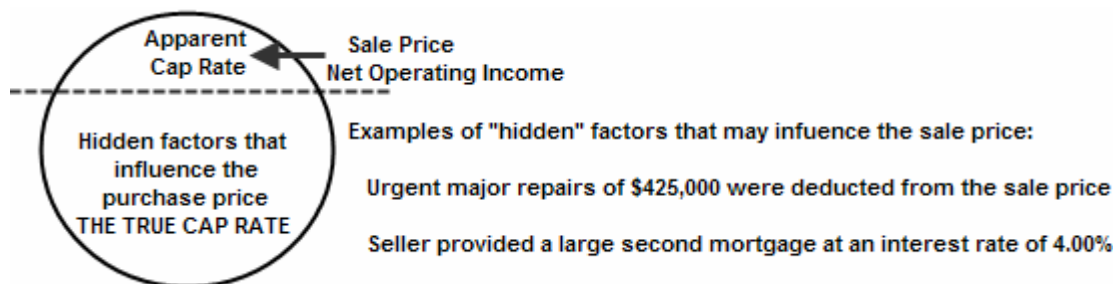
If the Cap Rate goes from 8% to 9% the value of the property drops by 1/8 or 12.5%

Rent Example: 50 Unit building, rent increase \$50 per Unit per Mo. Cap Rate 8.50%

$$\text{Increase in value} = \frac{50 \text{ Units} \times \$50 \times 12}{8.50\%} = \$352,941$$

Issues with using Cap Rates to determine the Property Values

The "Cap Rate" is just the tip of the iceberg



Example: The impact of "urgent major repairs" on the Sale Price and the Cap Rate

Sale Price: \$3,200,000
Net Operating Income: \$275,000 per year

$$\text{"Apparent Cap Rate"} = \frac{\$275,000 \times 100}{\$3,200,000} = 8.59\%$$

BUT... the buyer deducted \$425,000 because the roof had to be replaced, the elevator has to be upgraded and to satisfy a City work order to upgrade to current fire standards

Sale Price based on a "Normal" building = \$3,200,000 + \$425,000 = \$3,625,000

$$\text{"True Cap Rate"} = \frac{\$275,000 \times 100}{\$3,625,000} = 7.59\% \text{ versus an "Apparent Cap Rate" of 8.59\% which is a 12\% difference}$$

Long Term Real Estate Investment Analysis

An Investor is considering buying an apartment building and needs a 11% IRR before tax

1. Invests in the building and future capital improvements such as replacing the roof in 6 years
2. The building generates income and incurs expenses which change over time
3. Financed and possibly refinanced in five years time
4. Sold in ten years time

Is this a good deal or not for the investor?

The best way to analyze long term real estate investments is to develop the Net Cash Flow. Cap Rates are far too simplistic for properly evaluating a real estate investment.

The end result is the Net Cash Flow Report is the Money Tree. The financial measures we use to evaluate long term real estate investments are the Internal Rate of Return (IRR) and Net Present value (NPV)

Net Cash Flow (Before Tax)						
Parklane Place 40 Unit Apartment Building Investment Analysis Rental Units Example						
Year	Investment	Financing		Operating Cash Flow (Before Tax)	Sale Proceeds (Before Tax)	Net Cash Flow (Before Tax)
		Borrow	Paid Back			
Year 1 Jan-Year 1 Dec	\$ (4,220,000)	\$ 2,000,000	-	\$ 83,804	-	\$ (2,136,196)
Year 2 Jan-Year 2 Dec	-	-	-	91,630	-	91,630
Year 3 Jan-Year 3 Dec	-	-	-	99,778	-	99,778
Year 4 Jan-Year 4 Dec	-	-	-	107,800	-	107,800
Year 5 Jan-Year 5 Dec	-	-	-	116,555	-	116,555
Year 6 Jan-Year 6 Dec	-	-	-	125,161	-	125,161
Year 7 Jan-Year 7 Dec	-	-	-	134,477	-	134,477
Year 8 Jan-Year 8 Dec	-	-	-	143,782	-	143,782
Year 9 Jan-Year 9 Dec	-	-	-	153,169	-	153,169
Year 10 Jan-Year 10 Dec	-	-	(1,594,349)	163,110	4,751,028	3,319,789
					Total	\$ 2,155,946

Financial Returns (Before Tax) with Financing		
Internal Rate of Return (IRR)	8.13%	←
Net Present Value (NPV) at 11.00%	(\$ 433,859)	←
Modified Internal Rate of Return (MIRR)	7.39%	

Need to drop the price by \$433,859 in order to achieve an IRR of 11.00%

A frame work for exploring creative financing

Creative financing between the seller and the buyer can be used to create a sale which may not be possible based on the seller's price and conventional financing.

One approach is to develop and review the operating cash flow before tax and then structure seller financing based on the available cash flow before tax .This is best illustrated with an example.

Investment. Shopping Center with leases and % Rents. Analysis Period: 9 years

Purchase Price: \$12,000,000 based on 6.17% Cap Rate

Conventional First Mortgage: \$7,500,000, 25 year amortization, interest rate 6.00% Debt Service Ratio: 1.28

Equity required by the buyer: \$4,500,000 (37%) Result: Internal Rate of Return (Before Tax): 12.57%

Operating Cash Flow Yearly
Park Royal Village
Investment Retail + Rent Roll & Categories

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9
CASH FLOW BEFORE TAX									
Potential Gross Income	1,004,000	1,143,920	1,177,142	1,211,370	1,246,975	1,322,064	1,360,544	1,396,125	1,432,144
Less: Vacancy & Credit Loss Allow.	-	-	-	-	-	-	-	-	-
Effective Gross Income	1,004,000	1,143,920	1,177,142	1,211,370	1,246,975	1,322,064	1,360,544	1,396,125	1,432,144
Operating Expenses	264,000	271,920	280,160	288,400	297,160	305,920	315,320	324,720	334,440
Net Operating Income	740,000	872,000	896,982	922,970	949,815	1,016,144	1,045,224	1,071,405	1,097,704
Less: Principle Payments	133,503	141,737	150,479	159,760	169,614	180,076	191,182	202,974	215,493
Interest payments	446,368	438,134	429,392	420,111	410,257	399,796	388,689	376,897	364,378
CASH FLOW BEFORE TAX	160,129	292,129	317,110	343,098	369,943	436,273	465,352	491,533	517,832

← Examine the Cash Flow before Tax for potential for additional mortgage payments →

Exploring Creative Financing with the seller based on the operating cash flow before tax

1. Change the term of the first mortgage from 10 years to 5 years i.e., pay off the first mortgage at the end of 5 years
2. Create seller financing as follows;
\$1,480,000 second mortgage Interest Rate: 9.00% Term: 5 years
Fixed payment;
Year 1 \$6,000 per mo Year 2 \$9,000 per mo Year 3 \$11,000 per month Year 4 \$13,000 per mo Year 5 \$15,000
3. Year 6 January. Refinance with a conventional first mortgage
\$10,000,000 Interest Rate: 6.50% 25 year amortization DSR: 1.25
Use the refinancing to pay off; First Mortgage
Investor pockets \$143,600 Mortgage \$6,744,906
Seller Financing \$3,111,49

Result using creative financing; Investor's equity changes from \$4,500,000 (37.50%) to \$2,000,000 (25.00%)
The Investor's Internal Rate of Return (IRR) changes from 12.57% to 16.75% before tax a 33% increase

Cash Flow after the creative financing

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9
CASH FLOW BEFORE TAX									
Potential Gross Income	1,004,000	1,143,920	1,177,142	1,211,370	1,246,975	1,322,064	1,360,544	1,396,125	1,432,144
Less: Vacancy & Credit Loss Allow.	-	-	-	-	-	-	-	-	-
Effective Gross Income	1,004,000	1,143,920	1,177,142	1,211,370	1,246,975	1,322,064	1,360,544	1,396,125	1,432,144
Operating Expenses	264,000	271,920	280,160	288,400	297,160	305,920	315,320	324,720	334,440
Net Operating Income	740,000	872,000	896,982	922,970	949,815	1,016,144	1,045,224	1,071,405	1,097,704
Less: Principle Payments	133,503	141,737	150,479	159,760	169,614	165,110	176,168	187,966	200,554
Interest payments	530,368	546,134	561,392	576,111	590,257	645,139	634,081	622,283	609,694
CASH FLOW BEFORE TAX	76,129	184,129	185,110	187,098	189,943	205,895	234,975	261,156	287,455

Cash flow before the creative financing

CASH FLOW BEFORE TAX	160,129	292,129	317,110	343,098	369,943	436,273	465,352	491,533	517,832
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Lease Comparison Analysis

When comparing leases you calculate the total costs each year and then use a Discount Rate to calculate the Net Present Value (NPV) and the Net Effective Rent

Note: You cannot calculate the Internal Rate of Return (IRR) because there is no investment.

Example:

A tenant is considering two different spaces and has established the following annual costs taking in to account the base rent, additional rent, free rent and parking costs.

Which is the best proposal from a financial perspective? Using a 10.00% Discount Rate

$$\text{Net Effective Rent} = \frac{\text{Net Present Value}}{\text{No. of Years} \times \text{Area}}$$

Year	Space A	Space B
	4,000 Sq Ft	4,000 Sq Ft
1	\$120,000	\$115,000
2	130,000	122,000
3	142,000	131,000
4	145,000	135,000
5	148,000	140,000
6	150,000	172,000
7	152,000	176,000
8	154,000	178,000
9	157,000	182,000
10	163,000	185,000
NPV at 10%	\$878,089	\$901,884
Net Effective Rent at 10%	$\frac{\$878,089}{10 \text{ yrs} \times 4,000 \text{ Sq Ft}}$ <p>\$21.95 per Sq Ft per Yr \$1.83 per Sq Ft per Mo</p>	$\frac{\$901,884}{10 \text{ yrs} \times 4,000 \text{ Sq Ft}}$ <p>\$22.55 per Sq Ft per Yr \$1.88 per Sq Ft per Mo</p>

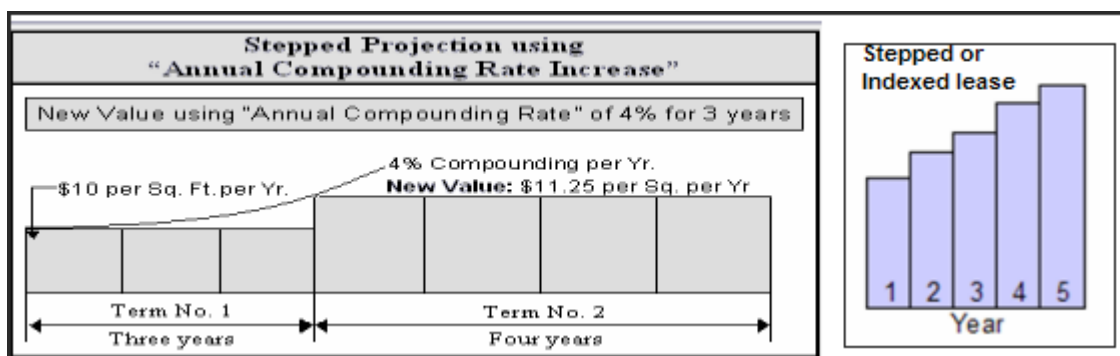
From a Tenant's perspective Space A has the lowest Net Present Value (NPV) and is the best deal from a financial perspective

Landlord Lease Analysis. Office Space
 Net Cash Flow and Net Effective Rent

Landlord. Net Cash Flow & Net Effective Rent (Before Tax)							March 06, 2007		
Capital Plaza							Investor Pro		
Office Lease Analysis Landlord							Lease Analysis Landlord Office		
LANDLORD									
Year	Leasehold Improvements Costs	Financing of Improvements		Tenant Loans		Operating Cash Flow (Before Tax)	Termination Costs (Before Tax)	Net Cash Flow (Before Tax)	
		Borrow	Paid Back	Loan	Paid Back				
Year 1 Jan-Year 1 Dec	\$ (73,000)	\$ 55,000	-	\$ (30,000)	-	\$ 96,891	-	\$ 48,891	
Year 2 Jan-Year 2 Dec	-	-	-	-	-	177,529	-	177,529	
Year 3 Jan-Year 3 Dec	-	-	-	-	-	175,225	-	175,225	
Year 4 Jan-Year 4 Dec	-	-	-	-	-	173,106	-	173,106	
Year 5 Jan-Year 5 Dec	-	-	-	-	-	171,316	-	171,316	
Year 6 Jan-Year 6 Dec	-	-	-	-	-	193,027	-	193,027	
Year 7 Jan-Year 7 Dec	-	-	-	-	-	191,129	-	191,129	
Year 8 Jan-Year 8 Dec	-	-	-	-	-	189,174	-	189,174	
Year 9 Jan-Year 9 Dec	-	-	-	-	-	187,160	-	187,160	
Year 10 Jan-Year 10 Dec	-	-	-	-	-	185,088	(25,000)	160,088	
Total Net Cash Flow (Before Tax)								1,666,643	
Net Present Value (NPV) at 13.00%								851,945	
Before Tax Summary									
Total Rentable Area		8,400 Sq. Ft							
Total Usable Area		7,119 Sq. Ft							
Total Net Cash Flow		\$ 1,666,643							
Average Annual Net Cash Flow		\$ 166,664 per Year							
Average Monthly Net Cash Flow		\$ 13,889 per Month							
		Rentable Area			Usable Area				
Total Rate		\$ 198.41 Sq. Ft			\$ 234.11 Sq. Ft				
Average Effective Annual Rate		\$ 19.84 Sq. Ft per Yr			\$ 23.41 Sq. Ft per Yr				
Average Effective Monthly Rate		\$ 1.65 Sq. Ft per Mo			\$ 1.95 Sq. Ft per Mo				
Net Present Value at 13.00%		\$ 851,945							
Net Effective Rent at 13.00%		\$ 10.14 Sq. Ft per Yr			\$ 11.97 Sq. Ft per Yr				
		\$ 0.85 Sq. Ft per Mo			\$ 1.00 Sq. Ft per Mo				

Using different types of lease arrangements to creatively structure the lease

Stepped Lease



Lease Comparison Analysis. Stepped Lease versus an Escalating Lease

Analysis Period: 10 year Perspective: Landlord Industrial Rentable Area: 5,000 Sq Ft Discount Rate: 10.00% before tax

Alternate No. 1 Stepped Lease with two five year terms starting at \$15.00 per Sq ft per yr.
 Increase at the end of each term based on 3.00% compounding for 5 years

Alternate No. 2 Stepped Lease with three year terms starting at \$15.00 per Sq ft per Yr.
 Increase at the end of each term based on 3.00% compounding for 5 years

Alternate No. 3 Escalating Lease starting at \$15.00 per Sq ft per yr.
 Annual increase: 0.75% each year uniform increase or \$1.126 per year increase
 Result

Type of Lease	Net Effective Rent at 10.00%
Five Year Term Lease	\$16.19% per Sq Ft per Yr
Three Year Term Lease	\$16.75 per Sq Ft per Yr
Escalating Lease →	\$19.05 per Sq Ft per Yr

Buy v Lease analysis

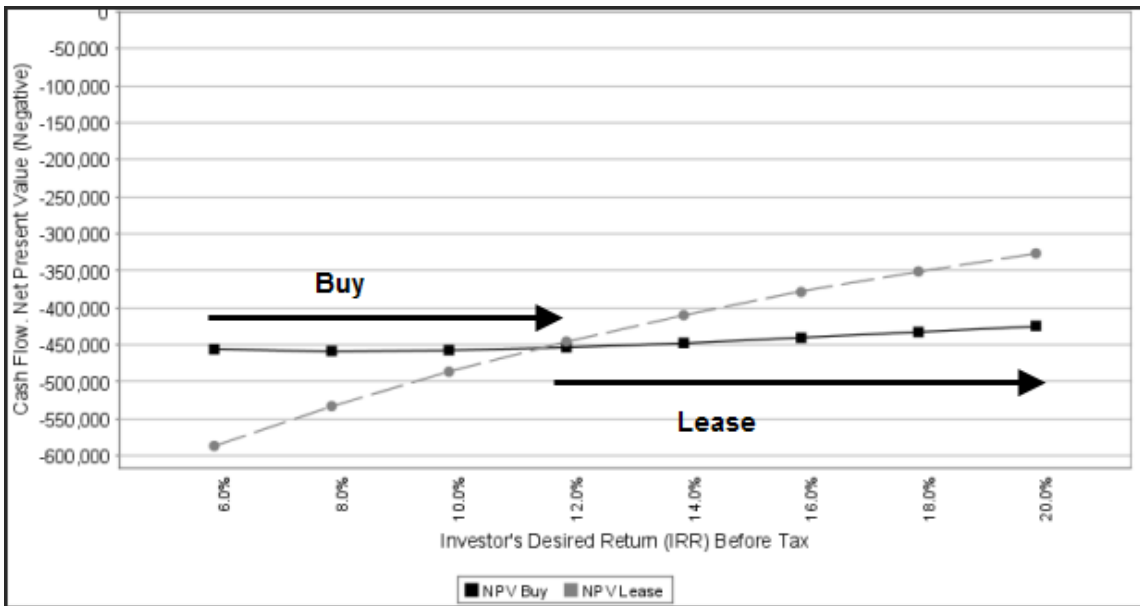
Is a special application of investment analysis.

The approach is to develop the Net Cash Flow for buying and then deduct the Net Cash Flow for leasing to create the Buy v Lease Cash Flow Difference .Note: Buy versus Lease should be done after tax

Buy v Lease Comparison (After Tax)							September 11, 2009	
Cedar Plaza							Investor Pro	
Buy v Lease Analysis							Buy v Lease	
Year	Investment	BUY			Sale Proceeds (After Tax)	Net Cash Flow (After Tax)	LEASE	BUY v LEASE
		Financing Borrow	Financing Paid Back	Operating Cash Flow (After Tax)			Leasing Expenses (After Tax)	Cash Flow Difference (After Tax)
Year 1 Jan-Year 1 Dec	\$ (850,000)	\$ 700,000	-	\$(58,403)	-	\$(208,403)	\$(47,858)	\$(160,745)
Year 2 Jan-Year 2 Dec	-	-	-	(59,031)	-	(59,031)	(48,093)	(10,938)
Year 3 Jan-Year 3 Dec	-	-	-	(59,920)	-	(59,920)	(48,551)	(11,369)
Year 4 Jan-Year 4 Dec	-	-	-	(60,845)	-	(60,845)	(49,010)	(11,834)
Year 5 Jan-Year 5 Dec	-	-	-	(61,827)	-	(61,827)	(49,473)	(12,354)
Year 6 Jan-Year 6 Dec	-	-	-	(62,851)	-	(62,851)	(50,262)	(12,589)
Year 7 Jan-Year 7 Dec	-	-	-	(63,959)	-	(63,959)	(51,499)	(12,460)
Year 8 Jan-Year 8 Dec	-	-	-	(65,115)	-	(65,115)	(53,279)	(11,836)
Year 9 Jan-Year 9 Dec	-	-	-	(66,341)	-	(66,341)	(55,611)	(10,730)
Year 10 Jan-Year 10 Dec	-	-	(475,068)	(67,832)	1,054,789	511,889	(57,367)	569,256
Total						\$ (196,402)	\$ (524,254)	\$ 327,852
Net Present Value (NPV) at 8.45%						\$ (299,647)	\$ (339,146)	\$ 39,499

BUY v LEASE Financial Returns (After Tax)
 Internal Rate of Return (IRR) 10.57%
 Net Present Value (NPV) at 8.45% \$ 39,499

Buying compared to Leasing provides an Internal Rate of Return (IRR) of 10.57% after tax



Sale Lease Back. Case study

An investment company is looking at a Sale Lease Back of an office building. Their Desired Return (IRR) is 12.00% before tax based on a five year analysis.

You have been asked to evaluate the investment and make a presentation and recommendations to the Investment committee. The owner is asking \$5,300,000 and the acquisition costs are \$20,000
 Financing: \$3,000,000 at 7.00% 25 year amortization

Revenue. The twist.

The owner will lease back at above market rents for 18 months at \$22.50 per Sq. Ft per Yr (nnn). Then vacate.

You predict the following after the current owner moves at the end of 18 months

It will take 3 months lease up. There will be no income during this period
 Base Rent: New Tenant: Starts Year 2 Oct Term 1: 5 years \$18.00 per Sq. Ft per Yr (nnn). Free Rent: First two months
 Sale: Based on a 7.00% Cap Rate using the Net Operating Income for the year following the sale (Year 11)

Questions to be answered

1. Based on the above information, what is the Return (IRR) before tax? **Answer 9.77%**
2. How much should the investor pay to get the Desired Return (IRR) of 12.00% before tax? **Ans: \$5,090,000**
3. Based on the price that provides the 12.00% IRR before tax, how much a year does the initial investment have to increase and is this realistic? **Answer 3.44% May be realistic**
4. Can the financing be increased? If so, how does it affect the financial returns? **Yes**
5. What should the presentation package include?

Risk Assessment

Debt Coverage Ratio: Shows how much the cash flow exceeds the mortgage payments
 Default Ratio (Breakeven Point): What % of the building has to be rented to breakeven?
 Yearly Operating Cash Flow report

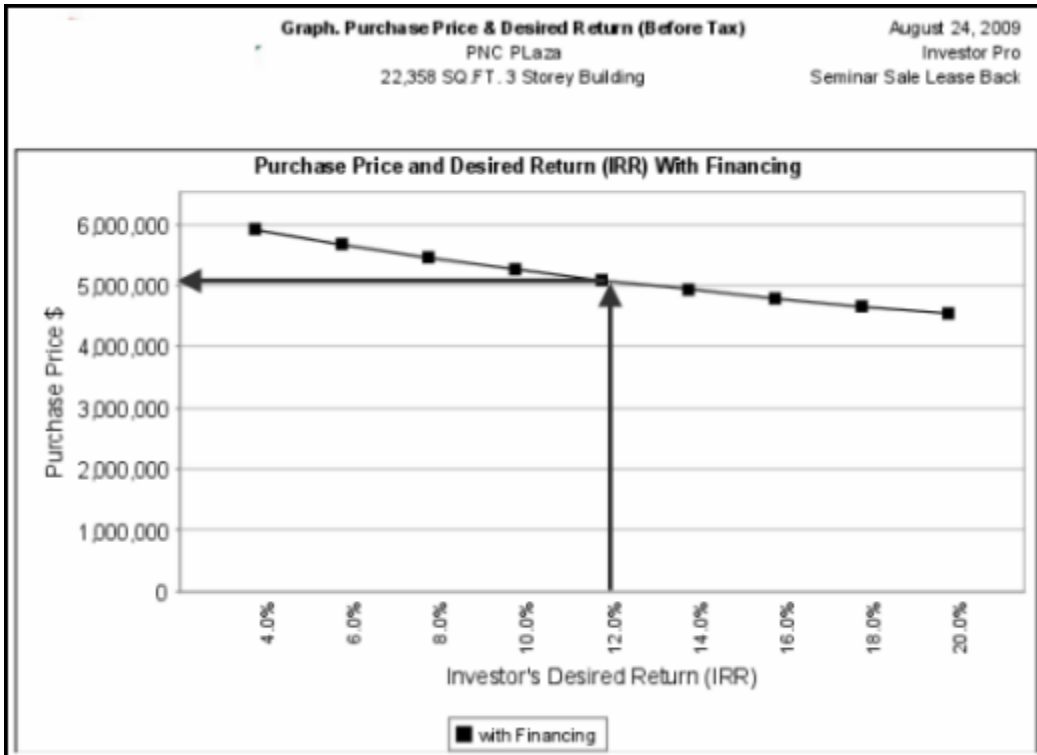
Financing Potential.

Debt Coverage Ratio: Generally around 1.25 but depends on the lender and the risk
 Default Ratio (Breakeven Point) If less than 85% may be an opportunity to increase the first mortgage
 Loan to Value Ratio: 75% (Today 65%)

Net Cash Flow (Before Tax)						
PNC PLaza						
22,358 SQ.FT. 3 Storey Building						
Year	Investment	Financing Borrow	Financing Paid Back	Operating Cash Flow (Before Tax)	Sale Proceeds (Before Tax)	Net Cash Flow (Before Tax)
Year 1 Jan-Year 1 Dec	\$ (5,320,000)	\$ 3,000,000	-	\$ 261,233	-	\$ (2,058,767)
Year 2 Jan-Year 2 Dec	-	-	-	(57,188)	-	(57,188)
Year 3 Jan-Year 3 Dec	-	-	-	158,173	-	158,173
Year 4 Jan-Year 4 Dec	-	-	-	158,499	-	158,499
Year 5 Jan-Year 5 Dec	-	-	(2,731,337)	158,824	5,550,142	2,977,629
					Total	\$ 1,178,346

Financial Returns (Before Tax) with Financing	
Internal Rate of Return (IRR)	9.43% ←
Net Present Value (NPV) at 12.00%	(\$ 229,446) ←

To get the Desired Return (IRR) of 12.00% before tax.



Goal Seeking Results: Before Tax

To achieve an Internal Rate of Return (IRR) of 12.000% before tax

With financing

a) Buy the property for **\$ 5,090,554** or
 b) Sell the property for **\$ 6,301,061** which is a **3.443%** Annual Compounding Appreciation Rate

Without financing

a) Buy the property for **\$ 4,549,331** or
 b) Sell the property for **\$ 7,310,395** which is a **6.563%** Annual Compounding Appreciation Rate

↑ **May be a little optimistic**

The appraisal approach to value

Present Value Appraisal							
PNC Plaza							
22,358 SQ.FT. 3 Storey Building							
Year	Net Operating Income	Present Value Discount Factor at 12.00%	Present Value Net Operating Income	Property Reversion (Sale)	Present Value Discount Factor at 12.00%	Present Value Property Reversion (Sale)	Overall Present Value
Year 1 Jan-Year 1 Dec	513,383	0.89285714	458,378				458,378
Year 2 Jan-Year 2 Dec	269,962	0.79719388	215,212				215,212
Year 3 Jan-Year 3 Dec	410,323	0.71178025	292,060				292,060
Year 4 Jan-Year 4 Dec	410,648	0.63551808	260,974				260,974
Year 5 Jan-Year 5 Dec	410,974	0.56742686	233,197	5,550,142	0.56742686	3,149,300	3,382,497
		Present Values	1,459,821			3,149,300	4,609,121
CASH FLOW. PRESENT VALUE SUMMARY							
	Present Value Net Operating Income		1,459,821	31.67%	←		
	Present Value of Reversion (Sale)		3,149,300	68.33%	←		
	Present Value at 12.00%		4,609,121	100.00%			

Too much reliance on Capital Appreciation

Note: Present Value is calculated before tax and excludes financing and capital expenditures

Risk Assessment & Financing Potential

Financial Operating Ratios			
Year	Debt Coverage Ratio	Default Ratio (Breakeven) (Using PGI)	Overall Operating Expense Ratio (Using PGI)
Year 1	2.04	58.66%	18.75%
Year 2	1.07	95.29%	28.59%
Year 3	1.63	70.04%	22.29%
Year 4	1.63	70.14%	22.64%
Year 5	1.63	70.24%	22.98%

Could increase the financing (points to Debt Coverage Ratio column)
Measures the degree of risk (points to Default Ratio column)

Presentation Package

What should be included in the presentation package to the investment committee?

Keep it brief. Don't include too many reports. Focus on the highlights

Include reports that are easy to follow without technical financial knowledge

Title Page with building photograph

Executive page. One to two pages

- Overview of the investment opportunity
- Critical assumptions
 - Analysis period
 - Lease up period after the 18 months
 - Lease rate at the end of the 18 month
 - Lease projections. Terms, renewal rates
 - Recoverable expenses
 - Leasehold improvement costs
 - Leasing fees
 - Financing
 - How the sale price at the end of the ten years is calculated
- Results
 - Purchase price to achieve a 12% Return (IRR)
 - Annual increase in value to achieve the desired return
 - Risk assessment. Default Ratio
- Recommendation & conclusions
 - Purchase price
 - Consider increasing the financing

Reports (limit the number of reports)

- Net Cash Flow
- Operating cash flow
- Graph. Purchase Price versus Desired Return (IRR)
- Detailed reports can be provided later if requested
- TIP Use "Snagit screen capture program www.techsmith.com

