

FINANCE FOR PLANNERS

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Prepared for:

The City of Lemoore

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Intend to accomplish...

- ◆ Understand how a developer evaluates financial feasibility using income stream modeling (Global Textbook Principals).
- ◆ Identify what variables influence the process.
- ◆ Focus on variables which the public sector can control.
- ◆ Enable and empower the public sector to better establish incentives and assistance programs to stimulate growth/development per city goals.

The Time Value of Money

- ◆ The most important of all financial concepts
- ◆ Future value vs. present value
- ◆ The discount rate and the hurdle rate
(compounding, cost of capital/debt, opportunity cost)
- ◆ The internal rate of return
- ◆ The net present value

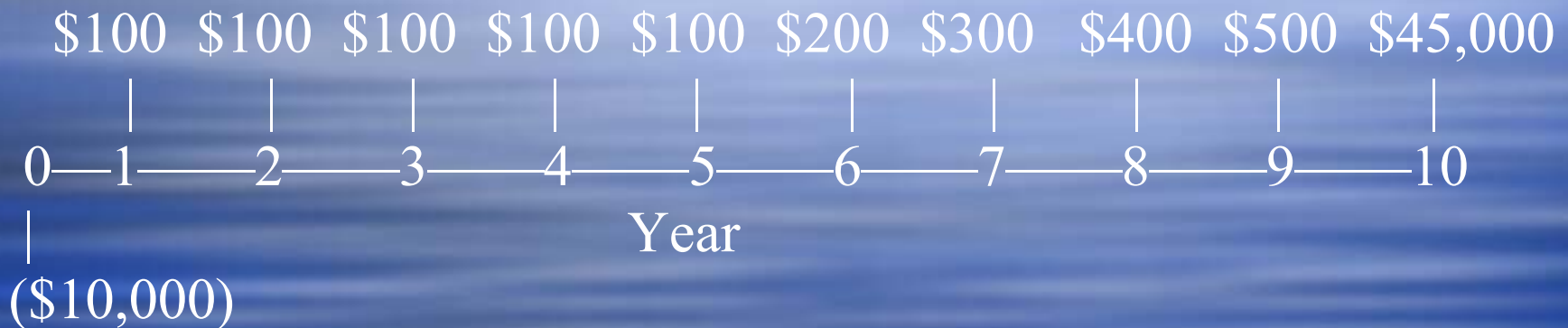
The Time Value of Money (cont.)

- ◆ Cash flow sign conventions
- ◆ Present value of annuity (fixed) vs. a cash flow
- ◆ Implications of the residual (reversion or sale)

The Premise of Time Value

- \$10,000 invested at 10% equals \$11,000 after one year (compounding).
- Therefore, the future value of \$10,000 at a discount rate (inverse of compounding) of 10% = \$11,000.
- Conversely, if your discount rate (opportunity cost) were 10%, \$11,000 one year from today would be worth \$10,000 to you today.
- If requested to choose between the two cases solely on value and not need, you would be indifferent between the two.

Sample Cash Flow



Scenario one:

Discount rate = **10%**

Net present value = \$8,394.02

(PV of \$18,394.02 less \$10,000)

Internal rate of return = 17.11%

(Discount Rate wherein NPV=0)

Scenario two:

Discount rate = **12%**

Net present value = \$5,428.16

(PV of \$15,428.16 less \$10,000)

Internal rate of return = 17.11%

(Discount Rate wherein NPV=0)

Cash Flow Model Components

- ◆ The Assumptions
- ◆ Derivation of the After Tax Equity Cash Flow
- ◆ The Intermediate Calculations
- ◆ The Total “After” and “Before” Tax Cash flow

Cash Flow Assumptions

	Number of Apartment Units:	29 (rounded)	
<u>PUBLIC SECTOR</u>	Permits, Fees, Design (Soft Costs):	12.00%	\$ 285,754 \$ 9.84 / ft.
	Project Delay in Months:	-	
	Land Subsidy:	\$ -	
	Additional Design Amenities / Exactions:	\$ -	
	Land Parcel Size:	43,560	
	Unit/Sq. Ft. of Land (as per zone):	1,500	
	Bonus Density Provision (number of units):	-	
	Units Per Acre:	29	
	Environmental Review (EIR/ND):	\$ 5,000	
	Reserved:	-	
<u>PRIVATE SECTOR</u>	Annual Rent Increase:	3.50%	
	Other Income per Month (per unit):	\$ 10	
	Owner's Marginal Tax Rate:	34.00%	
	Financing:		
	Term in Years:	30	
	Interest Rate:	6.00%	
	Amount Financed:	\$ 2,110,203	
	Payment:	\$ 153,304	
	Equity Investment (% / Actual):	25.00% \$ 703,401	
	LTV:	75.00%	
	Overhead Per Unit (Op. Exp.):	\$ 100	14.64% of Gross
	Inflation Factor (for Op. Exp.):	2.00%	
	Opportunity Cost (Discount Rate):	6.50%	
	Sq. Ft. Per Unit (includes common areas):	1,000	
Total Building Sq. Ft.:	29,040 (unrounded)		
Building Cost:	\$ 2,381,280 (unrounded)	\$ 82.00	
Brokerage Fee at Sale:	6.00%		
<u>MARKET</u>	Cap Rate for Residual Value Calc:	7.00%	
	Vacancy and Credit Loss:	5.00%	
	First Year Occupancy:	90.00%	
	Rent/Unit:	\$ 650.00	
	Useful Life (SL Dep) in Years:	27.50	
	Construction Cost per Sq. Ft.:	\$ 82.00	
	Land Cost per Sq. Ft.:	\$ 3.25	
	Total Land Parcel Cost:	\$ 141,570	
	Total Project Cost:	\$ 2,813,604	
	Debt Coverage Ratio:	1.04	

	<u>Before Tax</u>	<u>After Tax</u>
Internal Rate of Return:	9.82%	7.02%
Net Present Value:	\$241,073	\$29,972

After Tax Equity Cash Flow

	<u>ONE</u>	<u>TWO</u>	<u>THREE</u>	<u>FOUR</u>	<u>FIVE</u>	<u>SIX</u>	<u>SEVEN</u>	<u>EIGHT</u>	<u>NINE</u>	<u>TEN</u>	<u>ELEVEN</u>
GROSS POSSIBLE INCOME	\$ 206,712	\$ 237,719	\$ 246,039	\$ 254,650	\$ 263,563	\$ 272,788	\$ 282,335	\$ 292,217	\$ 302,445	\$ 313,030	\$ 323,986
Less: Vacancies and Credit Loss	(10,336)	(11,886)	(12,302)	(12,733)	(13,178)	(13,639)	(14,117)	(14,611)	(15,122)	(15,652)	(16,199)
GROSS EFFECTIVE INCOME	\$ 196,376	\$ 225,833	\$ 233,737	\$ 241,918	\$ 250,385	\$ 259,148	\$ 268,219	\$ 277,606	\$ 287,322	\$ 297,379	\$ 307,787
Less: Operating Expense	(65,750)	(67,065)	(68,406)	(69,774)	(71,170)	(72,593)	(74,045)	(75,526)	(77,036)	(78,577)	(80,148)
NET OPERATING INCOME	\$ 130,627	\$ 158,768	\$ 165,331	\$ 172,144	\$ 179,215	\$ 186,555	\$ 194,174	\$ 202,081	\$ 210,286	\$ 218,802	\$ 227,639
Less: Depreciation	(97,165)	(97,165)	(97,165)	(97,165)	(97,165)	(97,165)	(97,165)	(97,165)	(97,165)	(97,165)	(97,165)
Interest Payment	(126,612)	(125,011)	(123,313)	(121,514)	(119,606)	(117,584)	(115,441)	(113,169)	(110,761)	(108,209)	
TAXABLE INCOME	(93,150)	(63,407)	(55,147)	(46,535)	(37,556)	(28,194)	(18,432)	(8,254)	2,360	13,428	
Plus: Depreciation	97,165	97,165	97,165	97,165	97,165	97,165	97,165	97,165	97,165	97,165	
Less: Principle Repaid	(26,692)	(28,293)	(29,991)	(31,790)	(33,698)	(35,720)	(37,863)	(40,135)	(42,543)	(45,095)	
BEFORE TAX CASHFLOW	(22,677)	5,464	12,027	18,840	25,911	33,252	40,870	48,777	56,982	65,498	
Less: Taxes	-	-	-	-	-	-	-	-	(802)	(4,566)	
Plus: Tax Savings	31,671	21,558	18,750	15,822	12,769	9,586	6,267	2,806	-	-	
AFTER TAX EQUITY CASHFLOW	8,994	27,023	30,777	34,662	38,680	42,837	47,137	51,583	56,180	60,932	

Intermediate Calculations

(2 of 2)

Sale Proceed Calculation

Sales Price @ Target Year	\$	3,251,979	
Less: Book Value		<u>(1,939,120)</u>	
Gain on Sale:	\$	1,312,860	
Less: Brokerage Fee (after tax):	\$	(128,778)	
Cap Gains Tax	\$	(446,372)	
Recapture (ACRS):		n/a	
Proceeds:	\$	2,676,829	
Less: Outstanding Loan Balance:	\$	<u>(1,803,479)</u>	
NET PROCEEDS	\$	873,350	

Operating Expense Calculation

Monthly Overhead Per Unit	\$	100.00	15% (of Rent)
Misc.		-	
Subtotal	\$	<u>100.00</u>	
Annualized O.H. [x] Units	\$	34,800.00	
Property Tax [1.1% of Value]	\$	<u>30,949.64</u>	
Annual Total	\$	65,749.64	

Total Cash Flow Analysis

Year	0	1	2	3	4	5	6	7	8	9	10
After Tax Equity		\$ 8,994	\$ 27,023	\$ 30,777	\$ 34,662	\$ 38,680	\$ 42,837	\$ 47,137	\$ 51,583	\$ 56,180	\$ 60,932
Equity Requirement	\$ (703,401)										
Sales Proceeds											\$ 873,350
TOTAL AFTER TAX	\$ (703,401)	\$ 8,994	\$ 27,023	\$ 30,777	\$ 34,662	\$ 38,680	\$ 42,837	\$ 47,137	\$ 51,583	\$ 56,180	\$ 934,282
Before Tax Cashflow		(22,677)	5,464	12,027	18,840	25,911	33,252	40,870	48,777	56,982	65,498
Equity Requirement	\$ (703,401)										
Sales Proceeds											\$ 1,448,500
TOTAL BEFORE TAX	\$ (703,401)	\$ (22,677)	\$ 5,464	\$ 12,027	\$ 18,840	\$ 25,911	\$ 33,252	\$ 40,870	\$ 48,777	\$ 56,982	\$ 1,513,998

Commercial Cash Flows

- ◆ Units vs. leased premises – retail, office or industrial.
- ◆ Sizes and amounts vary per tenant.
- ◆ Revenue Participation / NNN vs. Gross.
- ◆ Usable vs. Rentable.
- ◆ Free Rent, T.I. Allowances, Size Discounts, Tenant Pricing Leverage.
- ◆ Net Operating Income is still the goal.

“What If” Scenarios...

- ◆ What if density is increased?
- ◆ What if the land cost is subsidized?
- ◆ What is the impact of permit fees?
- ◆ How critical are interest rates?
- ◆ How will imposed exactions impact the IRR and NPV?
- ◆ How much profit do rent subsidies add?