INTRODUCTION TO THE FUNDAMENTALS OF COMMUNITY DEVELOPMENT FINANCING

Financial Structuring of Income Producing Real Estate: Rental Housing

Sunday, March 25, 2012 at 3:30 pm – 5:00 pm

Instructor:

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OBJECTIVES

By the end of this session, the participants will:

1) Be introduced to a conceptual framework for the financial feasibility analysis of affordable rental housing development;

2) Be familiar with a step-by-step approach to completing a preliminary financial feasibility analysis for rental housing serving low income tenants;

3) Understand the fundamental relationships between financial assumptions, the operating proforma, the development proforma, and the financial structure of the deal; and,

4) Have experienced the initial restructuring of the financing of a deal, and be able to identify possible approaches to making the numbers work.

METHODS

1. Lecturette
2. Case Exercise
3. Use of a Business Calculator
4. Full Group Discussion

GROUNDRULES

1. Everyone Participates
2. No Such Thing as a Dumb Question
3. Ask for Help & Help Each Other
4. Stay on Schedule
5. Have Fun

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THE CLAIRE BUILDING

The Claire is an eight-unit apartment building located in the Columbia neighborhood of Pleasantville. The Columbia Development Corporation (CDC), a community-based organization devoted to revitalizing the neighborhood, is currently considering the acquisition and rehabilitation of the Claire Building for the purpose of providing long-term affordable housing for low income residents of the area. The CDC has successfully developed several similar structures in the past two years. As a result, they have an established development team including an architect, a contractor and a property management company. CDC has had some initial discussions regarding the deal with Collateral Bank, a financial institution with limited experience in community development lending.

The CDC wants to develop these apartment units for low-income families, defined as making less than 50% of the median annual income for the Standard Metropolitan Statistical Area (SMSA). The current median income is $32,000 per year. CDC wants to ensure that these families do not have to pay more than 25% of their income for rent.

The owner of the building will not sell it for less than $70,000. The architect and the contractor have set a budget for construction hard costs at $100,000, with an additional $40,000 for soft costs. They estimate that an additional 10% of the total hard and soft construction costs should be included in the development budget as a contingency to cover unforeseen work necessary to complete the rehabilitation of the building. Allowance for vacancies and turnover is projected at 10% of gross rental income, and operating expenses are estimated to 40% of gross effective income.

Collateral Bank has indicated an interest in financing the deal. They will apply a 1.2 debt coverage ratio and a 50% loan to value ratio in calculating the maximum loan amount. The terms for the loan would be a 10% annual interest rate, 15 year amortization, with 2 points. (The points are included in the current budget for soft costs.) A preliminary appraisal has indicated that the "after rehab value" of the building would be $200,000. There are two public subsidy programs which may be accessible to the developer of this project, one each from the city and the state governments.

The city program provides a grant of up to 50% of hard construction costs, if the project serves families at 50% of median income and below, and requires those families to pay no more than 25% of their income for rent. The state program offers a "soft second" loan for up to 20% of the total of acquisition and hard construction costs, to be repaid at time of sale, provided that the building owner continues to meet the same income and housing cost requirements for the tenants as the city program. The loan will be forgiven after twenty years if there has been continuous compliance with these use restrictions. In addition to these two public subsidy programs, there is the possibility that the Columbia

Development Corporation might be able to obtain a $20,000 foundation grant to cover a portion of the development costs. The organization would prefer, if possible, to use these funds on another project currently under consideration.

After listing the assumptions and completing a cash flow proforma, a development proforma and a financial structure, consider revising your assumptions to explore the feasibility of the deal. You may change the vacancy allowance, the debt coverage ratio, the loan to value ratio, the amortization period and/or the annual interest rate. Determine how much of the $20,000 foundation grant you would need in order to make the numbers work. You must have a good rationale for whatever changes you propose.

THE CLAIRE BUILDING

ASSUMPTIONS

Goal

- Long Term Affordable Housing for Low Income Residents

Cash Flow

- Median Income $32,000

- Target Market 50% Median & 25% Income for Rent

- 8 Unit Apartment Building

- 10% Vacancy Allowance

- Operating Expenses @ 40% of Gross Effective Income

Development Costs

- Acquisition Price $70,000

- Hard Construction $100,000

- Soft Costs $40,000

- Financing Points Included in Soft Costs

- Contingency @ 10% Hard & Soft Costs

Financing

- 1.2 Debt Coverage Ratio   ("Repayment Cushion")

- 50% Loan to Value Ratio   ("Collateral Cushion")

- Appraised Value $200,000

- 10% Annual Interest Rate

- 15 Year Amortization

Subsidies

- City Program:

    - Grant for 50% Hard Construction Costs

    - Must Serve 50% Median Income, w/Cap of 25% Income for Rent

- State Program:

    - Soft Second Loan for 20% of Acquisition and Hard Construction Costs

    - Forgiven After 20 Years If Same Use Requirements as City Program Are Met

- Foundation Grant: $20,000 for Development Costs
    (Prefer to Use on Another Project)

THE CLAIRE BUILDING

CASH FLOW PROFORMA

+	Gross Scheduled Income	$32,000
-	Vacancy Allowance	(3,200)
=	Gross Effective Income	28,800
-	Operating Expenses	(11,520)
=	Net Operating Income (NOI)	17,280
-	Annual Debt Service	(14,400)
=	Cash Flow Before Taxes	$2,880

Note: Calculating "Maximum Annual Debt Service"

Debt Coverage Ratio (DCR) is 1.2
For Every $1 in Debt Service, Need $1.20 in Net Operating Income (NOI)

$$\frac{NOI}{DCR} = \text{Debt Service}$$

$$\frac{\$17,280}{1.2} = \$14,400 \text{ Annual Debt Service}$$

$14,400 \div 12 = -\$1,200$ Monthly Debt Service

10% Annual Interest Rate

15 Year Term

Loan Amount $111,669

DEVELOPMENT PROFORMA

Property Acquisition	$70,000
Hard Construction	100,000
Soft Costs	40,000
Contingency	+14,000
Total Development Costs	$224,000

Note: Projecting the "Contingency Budget"

• Consider Rehab vs New Construction

• Consider Experience of the Developer

FINANCIAL STRUCTURE

Maximum Loan Amount	$ 100,000
- Total Development Cost	(224,000)
= Equity & Subsidy Required (GAP) ($15,500 per unit)	$(124,000)
+ City Program Grant	50,000
+ State Program Soft 2nd Loan	34,000
GAP REMAINING ($5,000 per unit)	$ (40,000)

Note: Calculating "Maximum Loan Amount"

- Using 1.2 DCR Resulted in $111,668 Maximum Loan

- Appraised Value is $200,000

- Loan to Value Ratio is 50%

- $200,000   x   50%   = $100,000 Maximum Loan

- Assume the More Conservative Number

THE CLAIRE BUILDING

FINANCIAL RESTRUCTURING EXAMPLES

Assumptions: 10% Vacancy Allowance, 1.15 DCR, 10% and 9.5% Annual Interest Rates, 15 and 20 Year Terms.

Gross Scheduled Income $ 32,000

Vacancy Allowance   (3,200)   10% x Gross Scheduled Income

Gross Effective Income   28,800

Operating Expenses   (11,520)   40% x Gross Effective Income

Net Operating Income   17,280

Annual Debt Service   (15,026)   1.15 Debt Coverage Ratio (DCR)

$(15,026) ÷ 12 = $(1,252) Monthly Payment

  10%   Annual Interest Rate
  15   Year Term
  $116,524   Loan Amount
  58%   LTV

  10%   Annual Interest Rate
  20   Year Term
  $129,756   Loan Amount
  65%   LTV

  9.5%   Annual Interest Rate
  15   Year Term
  $119,914   Loan Amount
  60%   LTV

  9.5%   Annual Interest Rate
  20   Year Term
  $134,334   Loan Amount
  67%   LTV

Assumptions: 5% Vacancy Allowance, 1.15 DCR, 10% and 9.5%
                Annual Interest Rates, 15 and 20 Year Terms.

Gross Scheduled Income $32,000

Vacancy Allowance   (1,600) 5% x Gross Scheduled Income

Gross Effective Income   30,400

Operating Expenses   (12,160) 40% x Gross Effective Income

Net Operating Income   18,240

Annual Debt Service   (15,861) 1.15 Debt Coverage Ratio(DCR)

Cash Flow Before Taxes $ 2,379

$(15,860) ÷ 12 = $(1,322) Monthly Payment

10%   Annual Interest Rate
15   Year Term
$122,998   Loan Amount
61%   LTV

10%   Annual Interest Rate
20   Year Term
$136,965   Loan Amount
68%   LTV

9.5%   Annual Interest Rate
15   Year Term
$126,576   Loan Amount
63%   LTV

9.5% Annual Interest Rate
20 Year Term
$141,797   Loan Amount
71%   LTV

How to Use the HP-12C Calculator

Practice Exercises

Introduction

The following booklet contains practice
exercises to help you learn how to perform
basic real estate calculations on the HP-12C
calculator. The exercises are to be used in
conjunction with the *Owner's Handbook
and Problem Solving Guide* that comes with
the calculator.

Table of Contents

I. Simple Arithmetic

Examples:

To Calculate	Keystrokes	Display
4 + 5=	4 ENTER 5 +	9
54 – 23 =	54 ENTER 23 -	31
14 x 54	14 ENTER 54 x	756
160 ÷ 4 =	160 ENTER 4 ÷	40

Practice Exercises:

1. 465 + 3

2. 80 ÷ 12

3. 10 x 456

4. 7,035 – 2,546

Note: To display decimal places press f and the number of decimal places you wish to display. For example, if you wish to show three decimal places press f 3.

II. Compound Arithmetic

Examples

To Calculate	Keystrokes	Display
26 + 16 + 3 - 35 =	26 ENTER 16 + 3 + 35 -	10
(14 + 15) x 3 =	14 ENTER 15 + 3 x	87
16,000 ÷ 12 x .28 =	16000 ENTER 12 ÷ .28 x	373.33
(3 x 4) + (6 x 7) =	3 ENTER 4 x 6 ENTER 7 x +	12 42 54

Practice Exercises:

1. ((45 + 12) ÷ 12) x 16

2. 12 x (41 - 72)

3. (1900 ÷ 2) ÷ .10

4. (6 x 6) - (24 ÷ 4)

5. (12 x 2) + (6 x (4 + 4))

III. Percentage Calculations

Examples:

1. You want to buy a house that is selling for $75,000. The bank is willing to provide you with a mortgage for 80% of the total cost of the property. How much money will the bank lend you? How much money will you have to provide as a down payment (equity)?

Keystrokes:	Display:
75000 ENTER 80 %	60,000 (loan amount)
-	15,000 (equity required)

2. Market experts predict that rents will escalate by 5% per year for the next three years. Today, the median rent for a one-bedroom apartment in your neighborhood is $375 per month. Based on the above projection, what will average rents be like for the next three years?

Keystrokes:	Display:
375 ENTER 5 % +	393.75 (1st year)
5 % +	413.44 (2nd year)
5 % +	434.11 (3rd year)

III. Percentage Calculations (cont.)

Examples (cont.)

3. In your community, operating expenses on two-to-four family homes tend to represent approximately 35% of the effective gross annual income. If the effective gross annual income on a three-family house is $9,000, how much should you anticipate spending on operating expenses?

Keystrokes	Display
9000 ENTER 35 %	3,150

Practice Exercises:

1. The state defines low-income households as those that earn no more than 50% of the area median annual gross income. If the area median gross annual income is $32,250, what is the maximum income that qualifies a household as low-income?

2. According to national standards, a household should pay no more than 25% of their gross monthly income in rent. If one member of a household earns $15, 450 per year and another member earns $14,000 per year, what is the maximum monthly rent that this household can afford?

III. Percentage Calculations (cont.)

Practice Exercises (cont.)

3. There are 12,465 households in your neighborhood and 36% of those households are defined as low-income. How many low-income households are in your neighborhood?

4. If the average gross annual household income in the community is $19,540 and households typically spend 35% of their gross income on food, how much would an average family be expected to spend on food in a year? How much would a family spend on food in a month?

5. The cost of living is expected to rise by 2.5% in the next year. If the average moderate-income household spent $16,980 on shelter, food, clothing and other necessities last year, how much will that household spend this year?

6. A foundation offers you an interest-only mortgage for $100,000 with an annual interest rate of 7% for a term of 5 years. This means that you will only pay interest on the loan for five years, after which time you will pay back the loan amount in full. What will be your

annual interest payments to the foundation? How much will you have paid after five years?

IV. Calculating Debt Service Payments

Examples:

1. What would the <u>annual</u> debt service payment be on a $135,000 30-year loan with a 13.5% interest rate compounded <u>annually</u>?

Keystrokes:	Display:
135000 PV	135,000.00
13.5 i	13.50
30 n	30.00
PMT	-18,642.47

2. What would the <u>annual</u> debt service payment be on a $126,000, 30-year loan with an 11.25% interest rate compounded <u>monthly</u>?

Keystrokes:	Display:
126000 PV	126,000.00
11.25 g i	0.94 (monthly interest rate)
30 g n	360.00 (payment periods)
PMT	-1,223.79 (monthly debt service)
12 x	-14,685.47 (annual debt service)

Note: Before you perform any financial function, remember to clear the financial register. To do this, press the (gold) f key, then the CLx key. This clears both the financial and the memory registers.

IV. Calculating Debt Service Payments (cont.)
Examples (cont.):

3. If interest rates were at 10%, compounded <u>annually</u>, what would the <u>annual</u> debt service payments be on a $78,540, 25-year loan?

Keystrokes:	Display:
78450 PV 10 i 25 n PMT	78,450.00 10.00 25.00 -8,642.69 (Annual Debt Service)

4. What would the <u>monthly</u> debt service payment be on a $95,000 mortgage with an 8.5% interest rate compounded monthly and a term of 30 years? What would the monthly payment be if interest rates increased to 9%?

Keystrokes:	Display:

95000 PV
8.5 g i
30 g n
PMT
9 g i
PMT
	95,000.00
	    0.71 (monthly interest rate)
	   360.00 (payment periods)
	-730.47 (monthly debt service at 8.5%)
	-764.39 (monthly debt service at 9%)

IV. Calculating Debt Service Payments (cont.)

Practice Exercises:

1. Interest rates are now at 12% compounded monthly. The bank is willing to loan you $155,000 for 30 years. What will the total debt service payments be annually?

2. You want to borrow $50,000 from the bank. A 30-year loan with an interest rate of 8.75% compounded monthly is available. What will the total debt service payments be annually?

3. You need to borrow $72,500 to purchase a property. Bank A is offering a 30-year mortgage with interest rates of 11.5% compounded monthly, and Bank B is offering a 25-year mortgage with interest rates of 11.25% compounded monthly. Which bank loan offers lower monthly debt service payments?

4. You want to purchase a $110,000 property. You have $35,000 for the down payment. The city has indicated that it can provide you with a $20,000, 35-year loan with 2.5% interest rate compounded monthly. The bank will provide a 30-year loan at 10.5% compounded monthly. What will your total annual debt service payments be?

V.   Solutions

I. Simple Arithmetic

1) 468

2) 6.67

3) 4,560

4) 4,489

II. Compound Arithmetic

1) 76

2) –372

3) 9,500

4) 30

5) 72

III. Percentage Calculations

1) 16,125

2) 613.54

3) 4,487.4

4) a. 6,839
    b. 569.92

5) 17,404.50

6) a. 7,000 b. 35,000

IV. Calculating Debt Service Payments

1) -19,132.19

2) -4,720.20

3) Bank A: -717.96
 Bank B: -723.72

4) -6,895.27 (Bank: -6,037.28 + City: -857.99)