

Step 5. Financing

Development has a sequence of financing needs

- A. Land acquisition and preconstruction
- B. Construction
- C. Gap or "mezzanine" financing
- D. Postconstruction

5. Financing (continued)

A. Land acquisition and preconstruction costs

- Cost of the land
- Preconstruction costs ("soft costs"):
- Title examination
- Feasibility analysis
- Market research and testing
- Permitting process (legal and architectural fees)
- Typical dilemma: Banks and other institutions are reluctant to lend on asset with no cash flow
- Solutions
 - Option
 - Contract for deed
 - Joint venture with landowner or future tenant
 - Build-to-suit arrangements
 - Use of equity partners



B. Construction Financing

- Covers cost of land; soft costs; hard costs
- Typically from a bank
- Floating rate (over prime rate or LIBOR)
- Less risky than acquisition financing:
 - No title, environmental or ecological risks
 - Permits all in hand
- May require "takeout commitment" for riskier projects
- Repaid in stages as construction progresses on basis of invoices for construction costs or by degree of completion

5. Financing (continued)

C. Mezzanine debt

- Problem: Banks usually lend only 70 80% of construction costs
- Developer may seek high-interest-rate debt to fill gap
 - Can be second mortgage debt
 - Often secured instead by pledge of ownership shares
- More expensive that first mortgage construction debt, but cheaper than equity financing



D. Post-construction financing

- Usually pays off construction debt shortly after issue of certificate of occupancy
- Funding may be in stages:
 - "Floor loan" for part of full amount until a certain occupancy or other conditions are achieved
 - "Gap" or mezzanine financing may be used until requirements for full loan are reached

5. Financing (continued)

- D. Post-construction financing (continued)
 - Miniperm loan
 - Combines construction loan and short-term post-construction financing
 - Allows project to achieve a "track record" of operations
 - May extend for two or three years beyond completion of construction
 - Enables developer to seek better terms for the final ("permanent") financing

Risk Stages of an Income-Producing Property and Four Alternative Financing Sequences

Construction Period	Lease-up Period	Stable Operations
Construction Loan with Take-out	Risky Permar	nent Loan
Commitment		
Construction Loan	Mezzanine Loan	Safe Permanent Loan
Commitment	Floor Loan	-
Open-Ended Co	nstruction Loan	Safe Permanent Loan
Mininerm	Loan	Safe Permanent Loan
- Miniperini	Loan	

Chapter 16:

Commercial Mortgage Types and Decisions



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"Commercial" Mortgage Loans vs. Home Loans

- Commercial mortgages & notes for existing properties <u>not as standardized</u> as home loans
- Documents are longer & more complex
- Often no personal liability:
 - Legal borrower often is a single asset entity (usually a LLC or LP)
 - Actual investors shielded from personal liability



When Do We See Recourse Loans?

- Nonrecourse loans dominate the lending practices of pension funds, life companies, and CMBS originators
- But...commercial banks are likely to require some form of credit "enhancement"
- Often a guarantee by organizer/sponsor of the investment to make lender whole in the event lender suffers a capital loss on loan



- Some lenders also unwilling to relieve borrowers from personal liability if a "willful" act of borrower cause a capital loss for lender
 - Examples: borrower fraud, environmental problems, unpaid property tax obligations
- How is this accomplished?
 - A "carve-out" clause is often included in the note
 - This "bad boy" clause holds borrower(s) personally liable for lender losses caused by such problems



Attractions of a Balloon Mortgage to Lender

- Reduces interest rate risk on "permanent" mortgages
- Reduces default risk
 - Default risk is generally much greater for commercial mortgage loans than home loans
 - Often no personal liability
 - No FHA/PMI insurance (as in home mtg. market)
 - Borrowers are more "ruthless" about exercising their default options than home owners

Commercial Mortgage "Spreads" over Treasuries





Other Forms of Permanent Financing for Existing Properties

- Floating (i.e., adjustable) rate mortgage
 - Interest rate on loan changes periodically based on movement in an index rate
 - Index rate is typically LIBOR, but may be "prime" rate or other short term benchmark rate

Other Forms of Permanent Mortgage Financing (continued)

- Joint Venture
 - Lender likely:
 - provides a mortgage loan to project
 - also provides some equity capital
 - receives mortgage interest plus share of equity cash flows
 - Borrower likely:
 - provides the project
 - provides local market expertise & management effort

Joint Venture (continued)

- Often between a developer/organizer of a development/investment opportunity and a:
 - pension fund
 - life insurance company
 - REIT
- Institutional investor's share of operating & sale cash flows are negotiated

Other Forms of Permanent Financing for Existing Properties

- Sale-leaseback
 - Owner-user (bank, restaurant, drug store, etc.) sells property to long-term RE investor such as a
 - pension fund
 - limited liability company
 - REIT
 - User then leases property back from the investor(s) & occupies it under a long-term net lease





- Supplements underlying first mtg. loan
- Sometimes is a 2nd mortgage loan (i.e., secured by the property)
- In recent years, often is a non-mortgage loan secured by a pledge of borrower's equity ownership interest in property
 - If borrower defaults, mezzanine lender takes over borrower's ownership position...giving them more control

Adding a Mezzanine Loan or Second Mortgage to the Capital Stack



Other Forms of Permanent Financing for Existing Properties

- FHA insured loans for investment in low & moderate income multifamily housing www.hud.gov/local/shared/working/localpo/xmfhsgprograms.cfm?state=ak
- Freddie Mac & Fannie Mae multifamily lending programs
 - Many targeted to low & moderate income housing
 - See Fannie & Freddie websites
 (www.fanniemae.com and www.freddiemac.com)

More on Multifamily Mortgage Finance

- Multifamily properties provide housing for \approx 17 million U.S. families
 - There are \approx 115 million U.S. households
- In 2012Q1, outstanding mtg. debt on U.S. multifamily properties totaled \$844 billion (Board of Governors of the Federal Reserve System, June 7, 2012, page 104) This is like a 3rd party taking out a \$50,000 mortgage on behalf of the renter
- Fannie & Freddie held in portfolio, or had securitized, \$352 billion (42%) of the \$844 billion

More on Multifamily Mortgage Finance

- \approx 49% of multifamily units financed by Fannie Mae serve families earning < 80% of area median income (AMI)
 - Which meets Federal Housing Finance Agency's (FHFA) "special affordable" housing goal requirement for Fannie Mae & Freddie Mac
- 48% of multifamily units financed by Fannie Mae were in designated underserved markets





Debt Yield Ratio

Indicator of lender's mortgage "return"

$$DYR = \frac{NOI_1}{Loan Amount}$$

- Cash-on-cash return lender would enjoy if it foreclosed & took title to property on day of loan origination
- Does not consider contract interest rate or amortization period
- DYR only considers how large loan is relative to property's NOI
- Typical minimum DYR is 9.0% or higher

Borrower's Decision Making Process: Loan Size

- Reasons for use of debt by investors:
 - Limited financial resources/accumulated wealth
 - Debt alters risk & equity return of investment
 - "Magnifies" rate of return on invested equity
 - This magnification known as positive (or negative) leverage
 - Diversify investment portfolio (that is can buy more buildings)
 - Increase after tax return

When is Use of Leverage Expected to be Favorable?

- Increased leverage will increase expected return when....
 - the rate of return without leverage exceeds the cost of debt

- This is called positive leverage
- MM Eqn:
- $R_{L} = R_{U} + D/E(R_{U}-R_{D})$



Borrower's Decision Making Process (continued)

• Financial risk:

- Risk that NOI will be insufficient to cover ("service") the mortgage payment obligation
- A negative annual cash flow may lead to default and foreclosure
- This risk increases with leverage
- Negative CF probably results from increased vacancy

Borrower's Decision Making Process: Refinancing

- Refinancing involves a NPV decision
 - Even more focused on NPV than home mortgage refinancing
 - More sophisticated borrowers
 - Fewer non-financial considerations

Borrower's Decision Making Process: Refinancing (continued)

- Must account for lockout periods and/or prepayment penalty
- NPV = PV of payment savings
 Refi Cost Prepay Penalty
 - Should discount monthly savings at current market mortgage rate
- Expected holding period after refinancing is important assumption
- Refinancing uncommon due to prepayment restriction (penalty or lockout)

Borrower's Decision Making Process: Default

- For lenders, default is the signature risk of commercial mortgages
 - Borrower seldom can cover for long the loan payment for a crippled commercial property
 - Loan is often non-recourse (good for borrower, bad for lender)

Loan Underwriting: Crunching the Numbers

Input	Assumption
Number of units	296 units with average monthly rent of \$534.91
Purchase price	\$13,375,000
Vacancy and collection losses	6% per year
Operating expenses	\$610,000 in year 1
Reserve for Capital expenditures This = \$300 per unit	\$88,800 in year 1. Expenditures are reserved for in calculation of <i>NOI</i> (i.e., an above-line treatment
Financing:	
Loan amount	\$10,000,000 (equals 74.7664% of price)
Interest rate (annual)	5.25%
Amortization schedule	25 years, monthly payments
Loan term	10 years
Annual payment	\$719,097 (\$59,924.77 × 12)*

*The calculator keystrokes for finding the monthly payment are N = 300; I/YR = 5.25/12; PV = 10,000,000; PMT = ?; and FV = 0. Loan payment calculations are discussed in detail in Chapters 14 and 15.

Gatorwood Before-Tax Cash Flow from Operations

Potential gross income (PGI)	\$1,900,000
 Vacancy and collection loss (VC) 	114,000
= Effective gross income (EGI)	1,786,000
 Operating expenses (OE) 	610,000
 Capital expenditures (CAPX) 	88,800
= Net operating income (NOI)	1,087,200
- Debt service (DS)	719,097
= Before-tax cash flow	\$ 368,103

Gatorwood Debt Coverage Ratio

$$DCR = \frac{NOI_1}{DS} = \frac{\$1,087,200}{\$719,097} = 1.51$$

- NOI in first year of operations is expected to be half again as large as mortgage payment
- Thus, there appears to be sufficient protection against a deterioration in the property's operating performance

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Lenders set a minimum standard for this ratio



CAP rate of the building

- The CAP rate is the "dividend" on the building
- CAP rate = NOI/Building Value
- Going-In CAP rate = 1087200/13,375,000
- **=** 8.13%
- This is not the total return on the building as it does not consider the capital gain.

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Operating Expense Ratio

- We will define the operating expense ratio as (note this is not the same as the textbook):
- (OpEx + CapEx)/EGI
- (610,000 + 88,800)/1,786,000 = 39%
- Compare this to similar properties to make sure it is reasonable for this investment opportunity

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Gatorwood Debt Coverage Ratio

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Lenders set a minimum standard for this ratio



Gatorwood: Determining Maximum Available Loan

- The property's NOI can support an \$11,199,208 loan to achieve a DCR=1.35
- However, maximum loan will be determined by lender's maximum allowable LTV if it is less than 83.7% (which is likely)

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Typical Terms on Commercial Mortgages: from Exhibit 16-4

A	partments	Industrial	Office	Retail
Spread over 10- year Treasury (bps)	250	275	275	275
Debt coverage ratio	1.35	1.45	1.50	1.50
Loan-to-value ratio	75%	65%	65%	65%
Amortization term (yrs.)	30	25	25	25
Loan term (yrs.)	10	10	10	10
Lender reserve requirement	\$300/yr	\$0.15/SF	\$0.20/SF	\$0.20/SF

What is the overall return to investor?

- We now need to add some additional assumptions:
 - Assume a 5-year holding period
 - Assume a 2% pre payment penalty at 5-years
 - Lender charges 2 points.
 - Assume the PGI, OpEx and CapEx grows at 3% per year and V&C remains at 6%. This means the NOI will also grow at 3% per year.
 - Assume the exit cap rate is .25% higher than the purchase cap rate
 - Assume 5% selling expenses at time of sale.

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What is the overall return to investor (as NPV and IRR)?

- Lenders do not want to lend on a project that does not appear beneficial to the investor.
 - What are the Annual Cash Flows to the Investor?
 - What is the NPV for the investor assuming a 12% discount rate?
 - What is the IRR for the investor?

Compute BTCF from operations by Year

Year	NOI	ADS	BTCF (Operating)
0			
1	1,087,200	719,097	368,103
2		719,097	
3		719,097	
4		719,097	
5		719,097	
6			
NOI is grov	ving at 3% each yea	ar	



Compute (Net) Sale Price

- Projected sale price:
- Terminal Cap = Going Cap Rate +0.25%
- NOI6/Terminal CAP rate
- Net Sales Price: Subtract 5% Selling Expense



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Table of Cash Flows

Year	BTCF Buy & Sell	BTCF Operating	Total BTCF
0			
1		368013	
2			
3			
4			
5			
Use the Tota	I BTCF to compute IRF	and NPV	

Permanent Loan Application and Approval Process

- Borrowers seeking to acquire or refinance an existing commercial property may submit loan requests directly to commercial banks, life insurance companies, or other direct lenders
- Informal discussions with loan officers in these firms can inform would-be borrowers of expected items in a loan submission package

Permanent Loan Application and Approval Process

- Another channel for loan requests is through mortgage bankers & brokers
 - Mortgage brokers specialize in putting together loan application packages that meet requirements of both borrowers and lenders
 - They also assist borrowers in assembling the loan submission package
 - For these services, mortgage brokers receive a fee at loan closing that may range from 1/2 to 1 percent of loan amount

Permanent Loan Application and Approval Process

- Relative to home loans, underwriting process for commercial loans is more complicated & more focused on property used as collateral for the loan
- Primary reason?
 - Payments on commercial RE loans are expected to come from income generated by property
 - Result? The commercial loan underwriting process focuses first on the property being pledged as collateral for loan

Permanent Loan Application and Approval Process

For more details see textbook

Construction and Development Financing

- Land acquisition financing
 - To finance purchase of raw land, often on urban fringe
- Land development loan
 - To finance installation of improvements to the land (sewers, utilities, etc.)
- Construction loan
 - To finance vertical construction
- Mini-perm loan
 - Provides financing for development phase, plus a short-term permanent loan upon completion of project

Construction and Development Financing

- Land acquisition financing
 - VERY risky; most traditional lenders will not touch
- Land development loan
 - If land is ready for development, demand for the expected finished product is less uncertain
- Construction loan
 - Arguably, collateral securing a construction loan is more valuable than collateral securing land acquisition & development loans

