JAMES A. GRAASKAMP COLLECTION OF TEACHING MATERIALS

II. CLASSES AT THE UNIVERSITY OF WISCONSIN--MADISON

F. Business 551: Real Estate Finance
(Was Income Property and Residential Finance until Fall of 1982; Graaskamp divided 551 into two separate courses--551 and 552 and renamed 551 "Income Property Finance and Group Investment")

2. Selected Exams: Fall 1977-Fall 1987

Index

Final Exam
Real Estate Finance - Business 551

Prof. James A. Graaskamp
December 22, 1977

Name_____
Section: Wed., Fri. (circle one)

1. 40 points. The following conclusion or statements resemble investment conclusion presented by Coldwell Banker in various sections of their monograph REAL ESTATE ANALYSIS. Circle to indicate which are true or false. The number wrong will be subtracted from the number right and the adjusted score multiplied by 4 points each.

T F Past market experience has shown that: THE BUYERS'PRETAX CASH FLOW RETURNS HAVE BEEN CLOSER TO THE LENDER'S INTEREST RATE RATHER THAN THE LOAN CONSTANT.

T F Second notes should not inflate the price. Buyers should attempt TO PAY OFF THE SECOND NOTE FASTER, INSTEAD OF INCREASING THE AMOUNT OF THE SECOND SELLERS NOTE BY EXTENDING THE REPAYMENT PERIOD.

T F AFTER THE PRICE IS ESTABLISHED, THE BUYER SHOULD DETERMINE WHETHER TO USE THE EXISTING LOAN OR THE NEW FINANCING.

T F ONCE THE PRICE IS DETERMINED, THE AMOUNT AND TERMS OF THE SELLER'S 2ND NOTE CAN BE NEGOTIATED.

T F SINCE THE AVERAGE RETURN DOES NOT PROPERLY CONSIDER THE TIMING OF THE RECEIPTS, THE INVESTOR'S COMPARISON OF INVESTMENT ALTERNATIVES COULD BE DISTORTED BY USING THE AVERAGE RETURN RATHER THAN THE ATDY.

T F POINTS (1% OF THE LOAN BALANCE) MUST BE CAPITALIZED AND DEDUCTED FOR INCOME TAX PURPOSES OVER THE TERM ON THE LOAN, EXCEPT A NORMAL AMOUNT OF POINTS ON A PERSONAL RESIDENCE LOAN WILL BE ALLOWED.

T F IF IN THE YEAR OF RESALE THE INVESTOR IS IN A HIGHER TAX BRACKET THAN DURING THE HOLDING PERIOD, (SEE THE 50% TAX BRACKET SHOWN IN PARENTHESIS) ACCELERATED DEPRECIATION GENERALLY WILL ONLY OUTPERFORM S/L WHERE THE BUILDING TO PRICE % IS HIGH (80% AND ABOVE), THE USEFUL LIFE IS SHORT (25 YEARS OR LESS) AND THE PROPERTY IS HELD AT LEAST 10 YEARS.

T F Coldwell Banker's experience in the sales of over 100 of these properties during the last 4 years shows that MAJOR TENANT BANK BRANCHES SELL AT APPROXIMATELY ONE POINT BELOW THE LONG TERM REAL ESTATE INTEREST RATE.

T F THE INVESTOR SHOULD BE AS CONCERNED ABOUT WHAT HE HAS TO OFFER THE NEXT BUYER AS WITH WHAT HE IS BUYING; FOR, THE ORIGINAL BUYER'S RESALE ASSUMPTIONS ARE THE NEXT BUYER'S PURCHASE ASSUMPTIONS.

T F THE INVESTOR SHOULD BE AWARE THAT A 10 TO 15% DOWNPAYMENT WITH A 4% PRETAX CASH FLOW RETURN WILL OUTPERFORM A 10% PRETAX CASH FLOW RETURN WITH A 25% DOWNPAYMENT IN ALL TAX BRACKETS.

Name _____

II. 60 points. Briefly define six of the following terms and describe their possible significance to analysis for an income property lender.

1. Disenchantment clause:

2. Percentage clause with recapture provision:

3. Reimbursable income:

4. Full floor occupancy:

Name_____

5. The Hawaiian plan:

6. Condemnation clause:

7. Wrap-around mortgage:

8. Participation in defined net income:

Name _____

III. 60 points. Compare and contrast <u>three</u> of the following income property loan situations or investments.

1. Mortgage foreclosure versus Chapter XII bankrupcy proceedings.

2. Real estate syndication share versus real estate equity investment trust share.

Name _____

3. Real estate sale and leaseback versus conventional income property mortgage loan.

4. Tax increment financing versus tax shelter loan.

Name _____

IV. 40 points. Using the ratios and concepts of MR CAP, briefly suggest what variables a borrower would have to modify to improve each of the following situations.

1. An office building, to be built on a ground lease where ground rents are 7% of land value, has a net income to market value ratio of .085 when the market rate for mortgage loans on a leasehold is .0975 with 30 year term.

2. What factors could explain a project with a high default point, a very low cash on cash after taxes and a high rate of return to equity after taxes.

Name _____

3. What factors could explain an increasing net worth at the end of the first year even though the net loan balances were increased due to a working capital loan to cover operating cash losses during the first year?

4. What is the significance of a situation where the cumulative cash out of the project without sale would exceed the cumulative cash in excess of equity net to the owner with sale of the property?

CRUNCHING NUMBERS FOR FINANCE

I. A number of items from 550 provide a basis for income property analysis for a preliminary financial analysis.
   A. Basic MINI-MOD cash-flow formats suggest the basic element and initial key financial ratios.
   B. What numbers should be tested on MINI-MOD? First the project must make sense on a pre-tax basis, which should remind you of the "front door and back door" approach to feasibility:
      1. Front Door approach:
         Total project cost = mortgage balance + equity capital
         Cash dividend on equity + debt service = net income
         Net income + expenses + real estate tax + vacancy = required gross receipts
         Required gross receipts/space units = rental price/unit

      2. Back door approach:
         Gross rents - vacancy - expenses = net income available for debt service + equity dividends
         Gross rents x desired default point = maximum expenses and outlays
         Break even cash - expenses = income available for debt service
         Income available for debt service/ $1,000/year of loan debt service = maximum loan
         Maximum loan + equity capital to be committed = total project budget

II. These are reversible equations once one learns how to state key variables as ratios to some other basic unit which might be total replacement cost or monthly rent from a basic one bedroom unit or whatever.
   A. Front Door Approach where total replacement cost is known.
      1. Definitions of total replacement cost, total construction cost, total budget, etc. to be elaborated later
      2. Computation of the mortgage and equity constant to be developed later
   B. Basic revenue unit can be per square foot, per room, per bed, or per standard one bedroom apartment.
      1. For example basement space might be 1/2 regular office space but first floor retail could be two times regular office space.
      2. Certain items such as parking income or concessions could be added into line 20 and thus be used to reduce required monthly gross from rental areas (similar to service income as compared to space income).

III. Development of a mortgage and equity constant to determine an overall capitalization rate on net income.
   A. Simple investment band
   B. Evolution of the Ellwood rate
   C. Evolution of the FHA constant
   D. For Monday compute what is total investment value if expenses are 35% of gross, cash equity constant is 5% and 1 bedrooms go at $220 per month?

COMPONENTS	PCT. DEPR	BEGIN USE	USEFUL LIFE	DEPR METHOD		COST
LAND	.00	1	.	0	$	40000.
BUILDING	1.00	1	35.	3	$	165300.
PARKING	.50	1	10.	3	$	7200.
FURNISHINGS	1.00	1	7.	1	$	13200.
ELEVATOR	.80	1	12.	3	$	12500.
TRANSACTION COST	1.00	1	35.	3	$	1800.
7TH YR REFURBISH	1.00	8	7.	1	$	10000.
TOTAL INITIAL INVESTMENT					$	240000.

GROSS RENT	$ 46080.	RATE OF GROWTH OF GROSS RENT	.0200
EXPENSES	$ 8400.	RATE OF GROWTH OF EXPENSES	.0200
R E TAXES	$ 9000.	RATE OF GROWTH OF R E TAXES	.0500
INCOME TAX RATE	.3000	RATE OF GROWTH OF PROJECT VALUE	.0100
VACANCY RATE	.0500	WORKING CAPITAL LOAN RATE	.0900
EQUITY DISCOUNT RATE	.1800	EXTRAORDINARY EXPENSES	$ 7625.
STAGING YR(0),FACTOR	.00	COST OF EQUITY CAPITAL	.1200

	1	2	3	4	5	6	7	8	9	10
CASH EQUITY REQUIRED	45000.	45000.	45000.	45000.	45000.	70000.	70000.	70000.	70000.	70000.

FINANCING PLAN

FIRST ASSUMED MORTG. $ 180000.
MONTHLY PAYMENT $ 1477. INTEREST RATE .0775 STARTS 1 ENDS 5 BONUS INTEREST .0000 OF GROSS RENT

	1	2	3	4	5	6	7	8	9	10
PRINCIPAL	3919.	4234.	4574.	4942.	5339.	.	.	.	.	.
INTEREST	13812.	13497.	13157.	12790.	12393.	.	.	.	.	.
BALANCE	176080.	171845.	167270.	162328.	156989.	.	.	.	.	.

SELLERS 2ND MORTG. $ 15000.
MONTHLY PAYMENT $ 185. INTEREST RATE .0850 STARTS 1 ENDS 5 BONUS INTEREST .0000 OF GROSS RENT

	1	2	3	4	5	6	7	8	9	10
PRINCIPAL	994.	1082.	1178.	1282.	1396.	.	.	.	.	.
INTEREST	1236.	1148.	1053.	948.	835.	.	.	.	.	.
BALANCE	14005.	12922.	11743.	10460.	9064.	.	.	.	.	.

REFINANCED FIRST $ 170000.
MONTHLY PAYMENT $ 1421. INTEREST RATE .0800 STARTS 6 ENDS 10 BONUS INTEREST .0400 OF GROSS RENT

	1	2	3	4	5	6	7	8	9	10
PRINCIPAL	.	.	.	.	.	3593.	3891.	4214.	4564.	4943.
INTEREST	.	.	.	.	.	13470.	13171.	12848.	12499.	12120.
BALANCE	.	.	.	.	.	166406.	162515.	158300.	153736.	148792.

REFURBISH CHATTEL $ 10000.
MONTHLY PAYMENT $ 150. INTEREST RATE .0900 STARTS 8 ENDS 10 BONUS INTEREST .0000 OF GROSS RENT

	1	2	3	4	5	6	7	8	9	10
PRINCIPAL	.	.	.	.	.	.	.	938.	1026.	1122.
INTEREST	.	.	.	.	.	.	.	861.	773.	677.
BALANCE	.	.	.	.	.	.	.	9061.	8035.	6913.

	1	2	3	4	5	6	7	8	9	10
GROSS RENT	46080.	47001.	47923.	48844.	49766.	50688.	51609.	52531.	53452.	54374.
LESS VACANCY ALLOWANCE	2304.	2350.	2396.	2442.	2488.	2534.	2580.	2626.	2672.	2718.
EFFECTIVE GROSS INCOME	43776.	44651.	45527.	46402.	47278.	48153.	49029.	49904.	50780.	51655.
LESS REAL ESTATE TAXES	9000.	9450.	9900.	10350.	10800.	11250.	11700.	12150.	12600.	13050.
LESS EXPENSES	16025.	8568.	8736.	8904.	9072.	9240.	9408.	9576.	9744.	9912.
NET INCOME	18751.	26633.	26891.	27148.	27406.	27663.	27921.	28178.	28436.	28693.
LESS DEPRECIATION	11469.	10537.	9640.	8775.	7940.	6762.	5942.	7729.	7144.	6571.
LESS INTEREST	15049.	14646.	14210.	13739.	13229.	15497.	15236.	15812.	15411.	14972.
TAXABLE INCOME	-7768.	1449.	3039.	4633.	6236.	5403.	6742.	4637.	5880.	7149.
PLUS DEPRECIATION	11469.	10537.	9640.	8775.	7940.	6762.	5942.	7729.	7144.	6571.
LESS PRINCIPAL PAYMENTS	4914.	5317.	5753.	6224.	6735.	3593.	3891.	5152.	5590.	6065.
CASH THROW-OFF	-1213.	6669.	6926.	7184.	7441.	21582.	8793.	17213.	7434.	7655.
LESS TAXES	.	434.	911.	1390.	1870.	1620.	2022.	1391.	1764.	2144.
CASH FROM OPERATIONS	-1213.	6234.	6014.	5794.	5570.	19961.	6770.	15822.	5670.	5510.
WORKING CAPITAL LOAN(CUM BALANCE)	1213.	.	.	.	.	.	.	.	.	.
SPENDABLE CASH AFTER TAXES	.	4911.	6014.	5794.	5570.	19961.	6770.	5822.	5670.	5510.
TAX SAVINGS ON OTHER INCOME	2330.	.	.	.	.	.	.	.	.	.

* *

	1	2	3	4	5	6	7	8	9	10
MARKET VALUE	240000.	242400.	244800.	247200.	249600.	252000.	254400.	266800.	269200.	271600.
BALANCE OF LOANS	191298.	184767.	179014.	172789.	166054.	166406.	162515.	167362.	161771.	155706.
NET WORTH OF PROPERTY	48701.	57632.	65785.	74410.	83545.	85593.	91884.	99437.	107428.	115893.
CAPITAL GAIN	7853.	18106.	28359.	38613.	48866.	59119.	69373.	81055.	92566.	103922.
CAPITAL GAINS TAX	1177.	2715.	4253.	5791.	7329.	8867.	10405.	12158.	13884.	15588.
INCOME TAX ON EXCESS DEPRECIATION	1084.	1890.	2426.	2702.	2729.	2401.	1828.	1362.	772.	57.

* *

	1	2	3	4	5	6	7	8	9	10
PERCENT INITIAL EQUITY PAYBACK AFTER TAX	.0517	.1609	.2946	.4233	.5471	.6369	.7336	.8168	.8978	.9765
NET INCOME-MARKET VALUE RATIO	.0781	.1098	.1098	.1098	.1098	.1097	.1097	.1056	.1056	.1056
RETURN ON NET WORTH BEFORE TAXES	.0552	.3203	.2616	.2403	.2227	.2828	.1762	.2695	.1551	.1500
RETURN ON NET WORTH AFTER TAXES	.0837	.2476	.2280	.2132	.1993	.2830	.1627	.1517	.1457	.1400
CASH RETURN ON ORIG CASH EQUITY BEF TAX	-.0269	.1482	.1539	.1596	.1653	.3083	.1256	.2459	.1062	.1093
CASH RETURN ON ORIG CASH EQUITY AFT TAX	.0517	.1091	.1336	.1287	.1237	.2851	.0967	.0831	.0810	.0787
DEFAULT RATIO	.9763	.8339	.8054	.8029	.8004	.7808	.7796	.8126	.8109	.8092
LENDER BONUS INTEREST RATE	.0000	.0000	.0000	.0000	.0000	.0122	.0124	.0129	.0127	.0134

* *

	1	2	3	4	5	6	7	8	9	10
PRESENT VALUE OF PROJECT BEFORE TAXES	236272.	241180.	244044.	246091.	247482.	250665.	250564.	252753.	252195.	251580.
PRESENT VALUE OF PROJECT AFTER TAXES	236329.	238585.	240136.	241150.	241708.	244513.	244111.	243513.	242850.	242141.
EQUITY RATE W/ COST OF CAPITAL AT .120	.0837	.1599	.1779	.1821	.1816	.1904	.1838	.1778	.1728	.1684

Real Estate Finance - 551
12 Weeks Exam

Wednesday, November 15, 1978 — Prof. J. A. Graaskamp

1. (45%) Briefly compare the following mortgage lending intermediary institutions on the six subsystems identified in terse descriptive phrases on this exam sheet:

Institutions Sybsystem Pattern	Savings & Loan Association	Commercial Bank Mortgage Operations	Life Insurance Mortgage Operation
1. Principal capital attraction systems	PASSBOOKS SELF EMPLOYED PENSIONS 6 MONTHS CERTIFICATES HLD LOANS	BANK CAPITAL LONG TERM SAVINGS HOLDING COMPANY BONDS CORRESPONDENT BANK SYSTEM	LIFE INSURANCE PREMIUMS REINVESTED EARNINGS
2. Major investment preference system	RESIDENTIAL MORTGAGES TREASURY BONDS MISCELLANEOUS REAL ESTATE	CUSTOMER MORTGAGES CONSTRUCTION LOANS PARTICIPATION LOANS FOR CORRESPONDENTS WAREHOUSE LOANS	LARGE COMMERCIAL LOANS EQUITY OWNERSHIP FNMA & GNMA CERTIFICATES COLLATERAL TRUST SHARES
3. Major liquidity systems	NEAR-CASH RESERVES HOME LOAN BANK LOANS NEW SAVING FLOWS FREDDIE MAC ON CALL FHLMC	CASH RESERVES FEDERAL RESERVE BANK SECONDARY MARKET	PREMIUM FLOWS SHORT TERM BONDS CREDIT LINES
4. Major safety systems	FSLDIC HLB FHA & PMI	FDIC FRB FEDERAL GUARANTEES (FHA, SBA, FMHA)	STATE INSURANCE REGULATION CAPITAL MASS CONTRACT PROVISIONS
5. Institutional ownership and control	MUTUAL OR CO-OP STOCK CONTROL, WEST COAST HOLDING COMPANIES	PRIVATE STOCK HOLDING COMPANIES	STOCK OR MUTUAL
6. Major source of regulation	FEDERAL CHARTERS - HLB STATE CHARTERS FSLDIC	COMPTROLLER OF CURRENCY FRB FDIC STATE CHARTER COMMISSIONS	STATE INSURANCE COMMISSIONS

11. (25%) Compare and contrast the three major institutional secondary mortgage markets in the following chart in terse descriptive phrases.

Institutional Attributes	FNMA	GNMA	FHBMC
1. Preferred residential loan types purchased	FHA & VA PLUS CONVENTIONAL	NON-MARKET LOANS OLD GOVERNMENT LOANS TANDOM PLAN MULTIFAMILY RENTAL	CONVENTIONAL SINGLE FAMILY AND PMI LOANS FROM SAVING AND LOAN ASSOCIATIONS
2. Sources of capital	STOCK SOLD TO ORIGINATORS BONDS SOLD TO PUBLIC NOTES TO TREASURY COMMITMENT FEES RETAINED EARNINGS BANK LINES	RUN-OFF OF OLD GOVERNMENT PROGRAMS U.S. TREASURY DISCOUNTED SALES	HOME LOAN BANK PUBLIC BOND SALES RETAINED EARNINGS MORTGAGE BACKED SECURITIES MORTGAGE BACKED GNMA SECURITIES
3. Ownership distribution	STOCKMARKET INVESTORS PLUS ALL INSTITUTIONS DOING BUSINESS	OWNED BY HUD	TWELVE FEDERAL HOME LOAN BANK DISTRICTS
4. Degree of federal government control	PRESIDENT APPOINTS CHAIRMAN OF BOARD AND FIVE MEMBERS OUT OF FIFTEEN	COMPLETE FEDERAL CONTROL	FHLBS REGULATED BY THREE MAN BOARD APPOINTED BY PRESIDENT FOR REVIEW BY CONGRESS

III. (30%) Write a short essay on one of the two following questions:

A. Identify basic tactical alternatives available to the federal government to funnel real estate credit to land uses consistent with national priorities.

B. Discuss the pros and cons of mortgage lending to accomplish social purposes such as neighborhood development, equal housing opportunities or other elements of social equality.

A.

1. DIRECT LENDING
2. FEDERAL REGULATION OF BUY AND SELL TRANSACTIONS
3. BUILDING PERMITS
4. INDIRECT FINANCING OF LOCAL PUBLIC AGENCIES
5. REGULATION OF BANKING INTERMEDIARIES
6. LOAN GUARANTEES
7. CONSUMER SUBSIDIES
8. INCOME TAX SUBSIDIES
9. PRODUCTION SUBSIDIES
10. TAX PENALTIES
11. MODIFICATION OF COURT ENFORCEMENT OF MORTGAGE CONTRACTS

B.

PRO:

1. CITY BUILDING CAPITAL
2. JOBS REQUIRE NEW CONSTRUCTION
3. ECONOMIC ACTIVITY CREATES DEMAND FOR ANCILLARY ESTABLISHMENTS WHICH GENERATE FURTHER DEMAND FOR REAL ESTATE WITH MULTIPLIER IMPACT ON NEIGHBORHOOD
4. SYNERGY OF CRITICAL MASS IMPROVES MORALE AND POLITICAL STABILITY
5. S & L's AND BANKS SHOULD SERVE AS COMMUNITY DEVELOPMENT BANKS WITH SAVINGS GENERATED FROM PEOPLE IN THAT COMMUNITY

CON:

1. CAPITAL FROM INTERMEDIARIES IS HELD IN TRUST AS FIDUCIARY WITH EMPHASIS ON SAFETY
2. AREA DETERIORATES AND LEADERSHIP GROUP MOVES OUT; GENEROUS FINANCING OF LOW INCOME PEOPLE LEFT BEHIND FINANCES EXODUS OF ORIGINAL NEIGHBORHOOD
3. FREE MARKET OPERATES TO EXPRESS CONSUMER PREFERENCE AGAINST NEIGHBORHOOD AND CAPITAL SHOULD FLOW TO POINTS OF EFFECTIVE CONSUMER DEMAND
4. WHICH COMES FIRST, DESIRE TO LEAVE OR TO REBUILD OR AVAILABILITY OF CAPITAL
5. IMPACT OF INDIVIDUAL LOANS ON INDIVIDUAL PARCELS IS INSIGNIFICANT UNLESS ALL PROPERTY OWNERS REDEVELOP AT THE SAME TIME
6. FORCED PRIVATE INVESTMENT SHIFTS RISK FROM SOCIETY TO INDIVIDUAL SAVERS WHEN IT IS A FULL SOCIETY PROBLEM
7. SOCIAL CHANGE BY LEGISLATION IS UNREALISTIC

Business 551 - Income Property Loans
12 Weeks Quiz

Monday, November 26, 1979 Prof. J. A. Graaskamp

I. (30%) Explain three of the following concepts from your readings and lectures.

1. Timing the loan to maximize value
2. Loan participation
3. Yield on a wraparound mortgage

II. (20%) Write on one of the following two questions:

A. Discuss the pros and cons of a sale and leaseback versus a sale and buyback, suggesting contract provisions which could mitigate the major difficulities of either plan.

OR

B. Identify by name and briefly describe six alternative methods for modifying rents due on a leaseback deal over the long term of the lease.

III. (30%) Write on one of the two following questions:

A. Discuss how design and construction of a shopping center can be modified to permit leasing terms which protect the mortgage lender who finances the shopping center developer.

OR

B. Compare and contrast alternative methods for financing land development and the relative advantages and disadvantages of each from the developers viewpoint.

IV. (20%) Explain the following entries from the MR CAP form:

20.	Back-Door	Back-Door Loans	Investment Default	B/4 Tax	Beginning Year	End Year
30.	Default Ratio	Cash-On-Cash	Year	% Change	Equity B/4 Tax	Reserve B/4 Tax

551-1
Real Estate Finance - Residential
Twelve Week Exam

Firday, November 21, 1980

Prof. James Graaskamp
Instr. Kim Peterson

I. Identify the exact name of the following agencies and briefly describe their key functions. Write on eight of the acronym list below. (40%)

1. WHFA
2. HOLC
3. FNMA
4. GNMA
5. HHM
6. HHFA
7. LPA
8. FHA
9. HUD
10. TIF

II. Compare and contrast the risk management functions of two of the following new mortgage formats: (16%)

1. PLAM's as compared to SAM's
2. VRM 's vs. GRM's
3. Mortgages funded with GO bonds compared to mortgages funded with RO bonds.

III. What is a mortgage-backed security? What factors affect yield? Why are such securities an important new segment of the capital market for residential mortgages? (20%)

IV. Write a short essay on one of the following two questions: (24%)

1. There is now a futures market for residential mortgages. Compare and contrast the mechanism and purposes of the FNMA auction to the GNMA mortgage certificate traded in the Chicago commodities market.

   OR

2. Thoroughly discuss the structural problems and current reforms which will sharply modify savings and loan operations in the next few years. Be sure to treat specifically such problems as disintermediation, capital market pressures, regulatory changes, traditions, and any other matter that you consider necessary for a thorough response.

Business 551
INCOME PROPERTY FINANCE
Six Weeks Exam

Monday, October 5, 1981 Prof. J. A. Graaskamp

I. Write on one of the following two topics: (25%)

A. Discuss relationship of income property foreclosure to bankruptcy and recent significant reform to the Bankruptcy Act.

B. Discuss the problems for the borrower and the lender in trying to use deeds in lieu of foreclosure on distressed income property.

II. Write on one of the following two topics: (25%)

A. Discuss the various concepts, protocols and constraints to be considered by the borrower when developing a strategy for financing an income property.

B. Discuss the important elements in preparation and negotiation of the loan application for an income property.

III. Write on one of the following topics: (25%)

A. Compare and contrast the risk mangement process for a single family residential loan with the risk management methods of income property mortgage lending.

B. Briefly describe how the basic borrower/lender relationship quickly evolves into a multiple party contract in the development of a new multiple tenant income property.

IV. Let PV (i,t) = present value of 1$ pmt = payment per period
FV (i,t) = future value of 1$ mtg = mortgage face amount
PV_a (i, t) = present value of 1$/period mtg bal = mortgage balance remaining
FV_a (i, t) = future value of 1$/period i = interest rate
t = number of periods

Using these symbols, set up equations for the following. DO NOT work out answers. Example: Lenders effective interest rate on a 50,000 mortgage with 5% prepayment penalty, 30 yr term, 16% interest when repayment occurs after 60 monhths. Answer: Find i by trial and error such that:
50,000 = pmt PV_a (i, 60) + mtg bal PV (i, 60) + .05 mtg bal PV (i, 60)
where pmt = 50,000/PV_a (16/12,360) and mtg bal = PV_a (16/12,300) pmt.

a. mortgage payment, 50,000 mtg, term 25 yrs, interest 15%
b. mortgage balance remaining, 60,000 loan, 30 yr term, 16% interest
c. balance due on a rising debt reverse mortgage after 4 years with $400/mo. payment and 15% interest
d. lenders effective rate of return on a 60,000 loan, 30 yr. term, 14% interest with 3 discount points when loan is repaid in 3 years.

Six Weeks Exam A
REAL ESTATE FINANCE-BUSINESS 551

Monday, October 4, 1982 J. Graaskamp & J. Hilliard

I. Define and explain five of the following concepts as used in this course: (25%)

1. Leverage
2. Tri-partite agreement
3. Wrap-around loan
4. Title theory
5. Collective mortgages
6. Default point

II. Compare three of the following concepts: (30%)

a. Package mortgage vs. a blanket mortgage
b. Loan commitment vs. loan closing
c. Waivers of lien vs. architect's certificate
d. Stand-by loan vs. gap loan

III. Write a short essay on three of the following topics: (45%)

a. Briefly identify and describe the application of risk management concepts to income property mortgage lending.

b. Discuss the impact of bankruptcy and business reorganization of the borrower on the collection rights of a Wisconsin lender.

c. How does financial statement analysis specifically relate to income property mortgage lending?

d. What problems are inherent in accepting a deed in lieu of foreclosure?

e. Describe specifically how you would compute the remaining balance due on a 25-year monthly amortized mortgage with 16% interest at the end of the 17th year, eighth month, using symbols you define to represent the mathematical procedure.

Six Weeks Exam B
REAL ESTATE FINANCE-BUSINESS 551

Monday, October 5, 1982 J. Graaskamp & J Hilliard

I. Define and explain five of the following concepts as used in this course: (25%)

1. Negative leverage
2. Buy/sell agreement
3. Estoppel certificate
4. Lien theory
5. Equitable mortgages
6. Debt cover ratio

II. Compare three of the following concepts: (30%)

a. Package mortgage vs. a blanket mortgage
b. Loan commitment vs. loan closing
c. Waivers of lien vs. architect's certificate
d. Stand-by loan vs. gap loan

III. Write a short essay on three of the following topics:

a. Explain the concept and motivation of each party underlying the tri-partite agreement.

b. Discuss the analysis required of the borrower in preparing to make a request for an income property mortgage loan.

c. How does financial statement analysis specifically relate to income property mortgage lending?

d. When analyzing a distressed property, what process is involved in deciding to cure, hold, or sell the property at auction?

e. Define specifically how you would compute the balance due in eight years, eight months, on a reverse annuity mortgage paying $400 per month at 12% interest.

Six Weeks Exam - B. 551 Key

I-1. Negative leverage - The general definition is when net income as a percentage of total invested capital is less than the constant on the mortgage financing, but strictly the definition should be that the rate of return on capital invested is less than the interest rate on money borrowed.

5 each 2. Buy/sell agreement - is part of a construction loan agreement which requires the construction lender to sell his mortgage position to the permanent lender to maintain the earliest possible priority of lien date.

3. The Estoppel certificate is required by a permanent lender or buyer from tenants already in possession or other possessory interests indicating they have no outstanding claims against the property owner - they are estopped from suing the new buyer/lender for performance.

4. Lien theory states allow legal title to remain with the borrower so that a foreclosure action is to transfer legal title rather than cut off the equitable title . It postpones possession and rights of benefit until after redemption periods have been made.

5. An equitable mortgage is recognition by the equity court that an apparent sale or land contract was really intended to be a mortgage despite the documentation so that the debtor is provided the customary protection available to the mortgage borrower.

6. The debt/cover ratio is the ratio of net income available for debt service divided by the debt service on proposed financing. The ratio should be greater than 1 and the spread between the ratio and 1 indicates the income variance that could occur before the ability to pay the mortgage from the project proceeds was in doubt.

II-A. A package mortgage provides financing for not only land and building but all the fixtures and equipment necessary to make that particular property workable. Purchase of equipment is cheaper, payments are prolonged, repayment uniform and borrower deals with only one lender. A blanket mortgage covers two or more pieces of real estate as security or may cover an entire sub-division of individual lots subject to a releas clause for selling individual parcels.

10 each B. A loan commitment is the inital promise to make a loan under certain conditions while the loan closes is the procedure of checking off the details and conditions necessary to make a good mortgage loan just prior to the actual exchange of funds for the mortgage note

C. The architects certificate is an inspection certificate indicating that certain work has been done and completed to specifications, entitling the contractor to some proportion of the money. A waiver of lien is provided by the suppliers and mechanics upon payment indicating they have no further right to file a lien for work done to date.

D. A standby loan is a permanent loan commitment to fund a construction loan if no better deal is available. Terms are intended to discourage use of the loan unless other alternatives fall through. Lender makes his money by charging a fee for reserving funds in short term investments.

A gap loan is a form of standby which is intended to bridge any delay in construction or over-run in cost as situation may require.

III.A. Tripartite agreement defined obligation of borrower, construction lender and permanent lender. Construction lender knows exactly what conditions must be met so that permanent lender must fund the loan; permanent knows that borrower can't shop the deal around and must close with him; borrower knows that he won't lose his project because construction lender and permanent lender have a disagreement later.

(B) Borrower must have a cash flow plan and form of financing clearly in mind to define amount and type of required financing in his plan. Must define his negotiation position. Must choose a lender considering transaction specialties, protocol, competitive commitment, time required for decision and services offered.

15 each

(C) Lenders are interested in financial capacity of tenants expected to provide income, contractors expected to complete the project, and borrowers who are expected to repay as well as guarantors. Financial statement analysis will reveal liquidity, capacity, and cash needs which detract from project requirement.

D. To cure, hold, or sell a distressed property depends on whether the proglem is management, the economic cycle, or poor design and location. The time for holding and the cost of curing has to be analyzed carefully in terms of current costs of capital as well as public relations.

12 Weeks Exam
Income Property Finance 551

Friday, November 12, 1982

Prof. J. A. Graaskamp
John Hilliard

I. Compare and contrast each of the following for the similarities and distinct differences in terms of shifting risk between the parties such as tenant and landlord, owner and lender, or whomever: (40%)

A. Construction loan pricing at prime plus a load versus a false cap on prime.
B. Change of conditions clause versus termination for death or disability of tenant.
C. Base rent plus an annual CPI adjustment versus a stepped lease
D. Escalator clause versus a stop loss clause
E. Buyback versus a leaseback
F. Loan participation versus participating loan
G. Contingent interest versus stock warrants attached to mortgage
H. The rollover illusion versus the rolling block option

II. Discuss briefly the critical decision variables for: (30%)

A. Leasing or owning a retail store building for your own store.

OR

B. Subordination versus non-subordination of a ground lease.

III. Write on one of the two following questions: (30%)

A. How does a lender protect himself in a construction loan situation?

OR

B. Analyze the goals and limitations on a mortgage lender negotiating a contingent interest contract for a regional shopping center mortgage in Maryland.

REAL ESTATE FINANCE
BUSINESS 551
SIX WEEK EXAM

Monday, October 3, 1983 J. A. Graaskamp

I. Define and explain the purpose of FOUR of the following concepts as used in this course: (20 points)

1. wraparound mortgage
2. subordinated land lease
3. tripartite agreement
4. after acquired property clause
5. voluntary conveyance

II. Compare and contrast TWO of the following concepts: (30 points)

1. pleasure vs. pain vs. bailout in commercial mortgages.
2. loan commitment vs. loan closing.
3. foreclosure vs. receivership.

III. Write a short essay on TWO of the following using both lecture and/or quiz section materials and assigned readings where applicable: (30 points)

1. Discuss the implications to the lender of the 1978 Bankruptcy Reform Act and amendments thereto.
2. Discuss what factors if any will cause a lender to either subordinate the loan to a tenant lease or subordinate the tenant lease to the loan.
3. Describe specifically how you would compute the remaining balance in the sixth month, fifteenth year of a 15%, 27 year mortgage; use symbols you define to represent the mathematical formula.

IV. Write an essay on the following using examples where applicable: (20 points)

There are three critical concerns of a lender in the underwriting process, referred to as 'the essence of underwriting'. Identify and discuss them.

Six Weeks-Key

I.-1 Subordination is a voluntary and contractual modification of an interest to possess or benefit from real estate relative to specific parties or parties unknown in a time sequence and is used to avoid undesired contractual upsets as a result of foreclosure or related actions.

I.-2 Basis points are a way of measuring interest yield at 1/100th of 1% and converting fees, penalties, etc. to an annualized rate of return.

I.-3 Portfolio balance reflects diversification of mortgages by type of property, location, size of loan and maturity date to provide a desired rate of liquidation, safety and return.

I.-4 Hawaiian plan refers to Zeckendorf's idea to tier financing by leveraging on the constant by providing different forms of financial participation in the same deal.

I.-5 Debt cover ratio measures the financial risk, that is adequacy of net income to cover debt service commitments.

I.-6 Business risks is the potential variance of net income due to fluctuation in revenues and expenses and entreprenurial skill.

I.-7 Income property loan application is an offer to buy a specific amount of money at specific terms as well as a detailed set of documents describing the borrower, the property, and the tenants.

I.-8 The mortgage constant is the annualized total debt service payments divided by the original balance on the loan. Assuming full amortization it is the effective interest rate per period plus the sinking fund payment per period times the number of payments per year divided by opening loan balance

I.-9 Title insurance protects the lender or the owner or both against undiscovered flaws in the title and pays to defend the title or losing the defence, pays the balance due on the mortgage or the original cash equity of the owner.

II.-a Basic risks for the construction loan lender

1. poor quality construction or fraudulent draws for work not performed
2. inability to sell or rent a finished product
3. overrun of development costs
4. overrun of indirect marketing costs
5. latent defects
6. inadequate working capital
7. unknown mechanics liens

II.-b Evolution from conservative loan-to-value ratios to 100% LTV ratios, debt cover ratios borrowed from bond department have replaced LTV as major restraint, and a few lenders now prefer default point ratios. Value has developed from simple net income multiplier to investment band approach ala Ellwood. Rate of return analysis has varied from IRR to modified rate but currently favors cash-on-cash rate.

III.-a Bankruptcy laws were amended in 1979 as follows:

1. consolidated into single Chapter 11
2. foreclosure is stayed for 30 days and may be reviewed by the judge at request of mortgage lender
3. tenants not allowed to vacate due to bankruptcy
4. no cramdown provision for mortgage lender
5. lender has right to manage leases and receivership of income

III.-b Key ratios in finance statement credit analysis include acid-test, quick ratio, total debt-total assets, percent of total assets in land values, rate of return on investment capital, job turnover, ratio of discretionary income in excess of living requirements and current debt payments, default point and debt cover on proposed project, percent of prior rentals, percent of time devoted to real estate, percent of income to be sheltered.

Business 551
Twelve Weeks Exam
Real Estate Finance

11/11/83

Prof. James A. Graaskamp
T.A. Bob Gibson

1. Carefully define six of the following concepts as used in this course: (30 points)

   a. release payments
   b. percentage completed method of accounting
   c. stop loss clause
   d. convertable loan
   e. loan participation
   f. 'The Roll Over Illusion'
   g. 'Rolling Options for Residential Building Lots'
   h. clogged equity

2. Compare and contrast five of the following with respect to the risk assumed by each party involved: (50 points)

   a. Ground lease vs. subordinated ground lease.

   b. Periodic Percentage Draw vs. Draw on Trade basis.

   c. Long term lease with CPI adjustment vs. a stepped lease.

   d. Estimating an apartment buildings rented value vs. conversion value.

   e. Construction loan vs. land development loan.

   f. Mortgaged fee vs. mortgaged lease fee vs. operating lease.

   g. Construction loan vs. construction take out.

3. Write on one of the following: (20 points)

   a. Discuss the critical variables and constraints on the use of a real estate sale and leaseback of a central facility for a well established manufacturing firm.

   OR

   b. Develop the negotiation objectives of the borrower and lender for the allocation of risk in a commercial mortgage loan attached to a shopping center property, where the mortgage loan will participate in overage rents for the term of the mortgage.

NAME: _____

Final Exam
Income Property Finance 551

Wednesday, December 14, 1983

Prof. J. A. Graaskamp
Bob Gibson

PART I

Define or explain three of the following concepts as they apply to real estate finance in your readings and lectures. (12 points each)

A. Changing role of depository financial institutions in funding real estate.

B. Applications of portfolio theory to real estate.

C. Tax incremental financing in Wisconsin.

D. Accredited investor.

PART II

Part II is a matrix to compare significant attributes for different types of alternative group investments in real estate. There are 56 boxes worth 2 points each. Print key attributes tersely and legibly. If you need more space write on back of test sheet, referencing to column, letter, and row number. Provide enough detail to indicate that you understand differences between each investment form.

	(A) General Partnership	(B) 5 Limited Partners + Developer	(C) 100 Limited Partners @ 100,000/unit
(1) Control			
(2) Capital Contributions			
(3) Resale Liquidity			
(4) Method of Profit Distribution			
(5) Sanctions for Non-Performance			
(6) Maximum Liability of Typical Investor			
(7) Federal Income Tax Status			
(8) Security Registration Status			

NAME_____

	(D) Sub Chapter S	(E) Commingled Fund at Bank Trust	(F) Finite Corporation	(G) REIT
(1) Control				
(2) Capital Contributions				
(3) Resale Liquidity				
(4) Method of Profit Distribution				
(5) Sanctions for Non-Performance				
(6) Maximum Liability of Typical Investor				
(7) Federal Income Tax Status				
(8) Security Registration Status				

REAL ESTATE FINANCE
BUSINESS 551
SIX WEEK EXAM

Monday, October 8, 1984 Professor J. A. Graaskamp

I. Carefully define and explain the purpose of five of the following as used in this course: (25 points)

1. gap financing
2. chapter 11
3. esculpatory clause
4. tenant estoppal certificate
5. tripartite agreement
6. wrap around mortgage

II. Write briefly on two of the following concepts: (20 points)

1. Identify six techniques by which the lender can secure adequate cash to meet requirements of real estate projects.

2. Problems for the lender in the equity right of redemption period and the statutory right of redemption period (be sure to define each)

3. Debt cover ratio and the default ratio, define them and discuss when and who would use them.

III. Write a short essay on two of the following using both lecture and/or quiz section materials and assigned readings where applicable: (30 points)

1. Discuss the benefits and risks for both the lender and borrower of a variable rate mortgage as presented by John Oharenko in Guide to Real Estate Capital Markets.

2. Discuss the steps a borrower can take to resist foreclosure assuming their has been a breach on the loan.

3. Describe specifically, using formulas, how you would calculate the new payment on a variable rate mortgage whose interest rate rose from 13% to 13.5% at the end of the second year of a thirty year monthly payment loan. Specifically set up the formulas you would use to make the calculations (you do not have to do the calculations).

IV. There are three critical concerns of a lender in the underwriting process; identify and discuss them (hint: they are not pleasure, pain and bailout): (30 points)

INCOME PROPERTY FINANCE & GROUP INVESTMENT
Business 551

PROBLEM SET (QUIZ) #1

DUE: Noon on Friday, September 20, 1985. NAME: _____

GENERAL DIRECTIONS: Solutions will be graded on the basis of the four C's (clarity, completeness, conciseness, and correctness); hence, the solution set you submit should be free of errors; well-organized -- showing all steps of the solution and the numerical value of each interest factor used; logically concise; and, of course, correct.

1. Given a mortgage loan with the following terms, find the portion of the debt service that is interest and the portion that is principal for the first 2 months during the 22nd year of the loan's life and for the 22nd year as a whole.
   type of loan: full amortization, monthly payments, fixed rate
   interest rate: 13.0%
   term of loan: 30 years
   loan amount: $100,000

2. If the borrower pays off the loan described below as scheduled over the 30-year term, what will be the effective yield to the lender?

   type of loan: full amortization, monthly payments, fixed rate
   interest rate: 12.0%
   term of loan: 30 years
   points charged: 4 points
   prepayment penalty: 2% of outstanding loan balance
   loan amount: $80,000

3. If the borrower pays off the outstanding balance of the above loan (problem 2) after five years of timely debt service payments, what will be the lender's effective yield?

4. Suppose instead that the borrower desires a loan with the following terms. Assuming that the borrower will pay off this 15-year loan as scheduled, how many points should the lender charge to achieve a 12.55% effective yield?

   type of loan: full amortization, monthly payments, fixed rate
   interest rate: 11.0%
   term of loan: 15 years
   prepayment penalty: 2% of outstanding loan balance
   loan amount: $80,000

5. If the following interest rate changes occur on a variable rate mortgage loan and the loan is paid off early at the end of four years, what will be the lender's effective yield?

   type of loan: full amortization, monthly payments, variable rate
   interest rate: initially 11.0%
   years 2 & 3: 12.0%
   year 4: 13.0%
   loan amount: $150,000
   points charged: none
   term of loan (fixed): 30 years
   prepayment penalty: 2% of outstanding loan balance

6. Ten years ago the seller of the subject property took out an assumable loan from another financial institution. The new buyer would like to take advantage of the low, fixed interest rate on the **assumable loan** by obtaining a **wraparound mortgage loan** from his bank. If the buyer makes the payments on the wraparound loan as scheduled, what will be the new lender's effective yield on the wraparound loan?

Assumable loan:		Wraparound mortgage loan:	
type of loan:	full amortization, monthly payments, fixed rate	type of loan:	full amortization monthly payments, fixed rate
interest rate:	8.0%	interest rate:	10.0%
term of loan:	25 years	term of loan:	20 years
loan amount:	$200,000 (originally)	loan amount:	$300,000 (Note: This is the face amount of the new loan.)

Note: Problem #7 will be on a separate sheet distributed in your discussion section -- it also forms part of this problem set.

Business 551

REAL ESTATE INCOME PROPERTY FINANCE

Six Weeks Exam

Wed., October 9, 1985 Prof. J.A. Graaskamp, Guenther & Osgood

I. Write on <u>four</u> of the following five compare-and-contrast items with reference to terms as used in this class. (20%)

* A. Market risk versus interest risk on a commercial loan
B. Buy/sell feature in construction loan versus hold/sell decision for REO
C. Credit analysis versus credibility analysis
D. First mortgage versus land contract
* E. Mortgage convenants versus loan terms

II. Discuss the concept and desirability of leverage in current real estate markets. (20%)

III. Write on <u>one</u> of the following two essay topics. (25%)

A. Itemize the types of issues addressed in a comprehensive letter of commitment from the lender to the applicant borrower for a speculative office building to be built and financed when completed by the lender.

OR

B. Discuss the relative disadvantages of foreclosure, deed in lieu of foreclosure, bankruptcy, and workout for the lender who has provided funds under a first mortgage loan.

IV. Discuss the critical items required for a closing on a commercial loan with an existing building with a dozen tenants of different size and quality already in place prior to refinancing. (20%)

V. (15%) -ON BACK-

INCOME PROPERTY FINANCE AND GROUP INVESTMENT
Business 551

MIDTERM EXAM 1

v.

Given the following information regarding a new wraparound loan and the underlying old loan, set up the appropriate present value equation that could be solved for the lender's effective yield (showing all known parameters used in looking up or computing the relevant interest factors) and set up all of the appropriate supporting calculations that would produce parameters (values) needed for the present value equation. Be sure your notation is very clear to the examiner.

Miscellaneous information:

Anticipated holding period by investor (borrower): 10 years
Net operating income (for this upcoming year): $150,000; with a forecasted growth rate of 5% compounded annually.

Wraparound loan:

Minimum debt cover ratio: 1.2
Type of loan: fixed-rate, full amortization, monthly payments
Interest rate: 11%
Term: 25 years
Prepayment penalty: 1% of outstanding loan balance (through yr.15

Old loan:

Original loan balance: $800,000
Type of loan: fixed-rate, full amortization, monthly payments
Interest rate: 9%
Term: 30 years originally; only 8 years remain.

REAL ESTATE 551

Final Exam--Fall, 1985

Friday, December 20th — Professor James A. Graaskamp

I. 30 points

Briefly define or explain the following terms and techniques as used in this course. Write on five of the six.

A. Partial Release Clause

B. Contiguity Clause

C. Open-End Pension Fund

D. Industrial Development Bond Financing

E. Construction Loan Interest Hedge

F. UDAG

II. 30 points

Write on one of the following two important articles:

A. Discuss all the various devices for risk control that will build lender protection into a construction loan agreement and administration policy.

or

B. Discuss the changing role of depository financial institutions relative to the availability of funds to the real estate industry.

III. 30 points

Discuss historical returns and risks of real estate investment as well as development loans as presented by Professor Zerbst, Barbara Canbom, and Robert O'Connor.

or

Discuss analytical methods and standards for credit rating of commercial mortgage backed bonds as developed in your readings.

IV. 60 points (2 points each)

To be filled in on attached matrix.

IV 60 points	Corporate Ownership	Joint Venture Partner	Limited Partnership Investor
1. Management Control for Investor			
2. Management Control for Developer			
3. Federal Income Tax Benefits or Disadvantages			
4. Ease of Sale of Investment Unit			
5. Degree of SEC Regulation			

IV 60 points	Industrial Bond Investor	TIF Financed Project	S&L Service Corporation
1. Management Control for Investor			
2. Management Control for Developer			
3. Federal Income Tax Benefits or Disadvantages			
4. Ease of Sale of Investment Unit			
5. Degree of SEC Regulation			

Business 551 - Final Exam

Fall Semester 1986 Prof. James A. Graaskamp

I. Write an essay on one of the following two topics for 40% of exam grade. Begin on page 1 of your blue book for ease of grading by Prof. Graaskamp.

A. Discuss the changing role of traditional depository financial institutions and the sources of funds to finance commercial real estate.

OR

B. Discuss the basic pattern of investment returns and risks to real estate as presented in the classic article, "Real Estate: Historical Returns and Risks," by Robert Zerbst and Barbara Cambon, Journal of Portfolio Management.

II. Define 10 of the following terms as used in this commercial real estate finance course. (60% of exam grade)

A. Rolling Option (or Rolling Block Option)

B. REMIC

C. UDAG

D. Partial Release Provisions

E. Industrial development bonds

F. Reasons why America cannot afford its cost of capital (according to The Economist)

G. Finite REIT

H. Commingled fund for pension fund investment

I. Service corporation

J. Floating interest rate

K. Leveraged sale/leaseback

L. Equity leases

'87

BUSINESS 551

REAL ESTATE FINANCE

FINAL EXAM

December 22, 7:45 a.m.

Prof. Graaskamp
Teaching Assistant Mark Eppli

(50 pts) I. Concisely define five of the following terms:

A. CMO
B. REMIC
C. UDAG
D. Finite REIT
E. IRB
F. PIG

(50 pts) II. Write an essay on one (1) of the following three (3) subjects:

A. Discuss the concepts of commercial mortgage backed securities and the problems of providing credit rating standards for such mortgage backed bonds.

- OR -

B. Discuss various concerns when negotiating a real estate joint venture to finance a commercial property with the aid fo a major financial institution.

- OR -

C. Discuss the new public/private strategy for downtown shopping malls as described by Frieden and Sagalyn.

(50 pts) III. Briefly describe one of the following articles:

A. "Real Estate: Historical Returns and Risks" by Zerbst and Cambon.

- OR -

B. "Capital From Japan: Japanese Investment in U.S. Real Estate" by Hideki Mitani.

Business 551 - Final Exam

Fall Semester 1986 Prof. James A. Graaskamp

I. Write an essay on one of the following two topics for 40% of exam grade. Begin on page 1 of your blue book for ease of grading by Prof. Graaskamp.

A. Discuss the changing role of traditional depository financial institutions and the sources of funds to finance commercial real estate.

OR

B. Discuss the basic pattern of investment returns and risks to real estate as presented in the classic article, "Real Estate: Historical Returns and Risks," by Robert Zerbst and Barbara Cambon, Journal of Portfolio Management.

II. Define 10 of the following terms as used in this commercial real estate finance course. (60% of exam grade)

A. Rolling Option (or Rolling Block Option)

B. REMIC

C. UDAG

D. Partial Release Provisions

E. Industrial development bonds

F. Reasons why America cannot afford its cost of capital (according to The Economist)

G. Finite REIT

H. Commingled fund for pension fund investment

I. Service corporation

J. Floating interest rate

K. Leveraged sale/leaseback

L. Equity leases

Business 551 - Six weeks exam key

I-A. Bankruptcy proceedings seeking a business reorganization can forestall foreclosure, sometimes indefinitely, permitting the borrower to stall and sometimes permitting the bankruptcy court to redefine terms of payment under "cram down proceedings." Significant reforms in the Bankruptcy Act standardize reorganization for individuals, partnerships, and corporations and establishes courts of bankruptcy. While bankruptcy or reorganization provide an automatic stay of foreclosure, a secured creditor can complain for lack of adequate protection and if the judge does not act otherwise in thirty days, the stay will be terminated. Bankruptcy can not terminate a lease but the trustee must provide adequate assurances of where the rents will come from or that assignment can not disrupt tenant mix. Further requires additional cash payments for continuation of the lease.

B. A deed in lieu of foreclosure is one alternative to default, it offers the hope of speed in gaining control and use of the property and may be done to avoid a merger of interest. Aside from negotiation with the borrower who may wish to stall, some of the problems include:

1. title problems relative to equitable redemption
2. avoiding extinguishing the mortgage with an agreement not to sue the borrower for deficiency
3. residual interest or repurchase options may lead to claims by by the borrower of malfeasance
4. insolvency problems may lead to charges of a fraudulent bulk transfer
5. encroaches on the security of mechanics liens and the fact that a debtor having no other asset grants such a deed may constitute an act of bankruptcy.
6. the income tax problem of release from liability
7. lender must be careful not to pay other creditors directly

II-A. Concepts, protocals and constrainsts include concern for established banking connections and limits, conflicts of interest of credit sources, specialization of credit sources in certain types of loans, size of loan and lending capacity.

B. Preparation of a loan application. Identify borrower's critical objectives and determine lender's goals to decide terms and conditions to be requested. The loan package would include a full application, planned specifications and leases and construction contracts.

III-A. Risk management for single family loans allows lay-off of risk on insurance companies, control of interest risk with variable interest rate mortgages, and control of foreclosure risk with guarantees, and control of liquidity through secondary markets. Income property risk management depends on exchange of private contracts.

III-B. Construction loan has evolved to a tripartite agreement but the permanent lender needs to understand leases from other tenants.

BUSINESS 551

REAL ESTATE INCOME PROPERTY FINANCE
SIX WEEKS EXAM

Wednesday, October 8, 1986 Prof. J.A. Graaskamp, Schack

1. Briefly define eight of the following ten terms as used in this class. (40%)

   A. Classic Stradle
   B. Preference Payment
   C. Lien Theory
   D. Business Risk
   E. Estopel Certificate
   F. Subordination
   G. Wraparound Loan
   H. Buy/Sell Agreement
   I. Sleeper Clause
   J. Foreclosure in Bankruptcy

2. In the context of this course, briefly summarize the theme or basic concept discussed in one of the following readings. (20%)

   A. "Financial Real Estate Developments" by Robert Joyce
   B. "Winning the Bankruptcy War," by Michael S. Polk
   C. "The Triple Revolution in Real Estate Finance," by Anthony Downs

3. Discuss risk management provisions included by the lender in the letter of commitment from Union Mutual Life Insurance Company to DeWitt Hills Realty Trust. (20%)

4. Given the following information regarding a new wraparound loan and the underlying old loan, set up the appropriate present value equation that could be solved for the lender's effective yield (showing all known parameters used in looking up or computing the relevant interest factors) and set up all of the appropriate supporting calculations that would produce parameters (values) needed for the present value equation. Be sure your notation is very clear to your friendly T.A. (20%)

Business 551
Six-Weeks Exam

Fall 1987

J. Graaskamp
M. Epply

(20%) I. Compare and contrast four of the following five terms as used in this course:

A. Foreclosure vs. Chapter 11
B. Financial Leverage vs. Negotiation Leverage
C. Escalator Clause vs. Pass Through Clause
D. Net Operating Income vs. Distributable Cash
E. Credit Enhancement vs. Credit Analysis

(30%) II. In reference to the DeWitt letter of commitment from Union Life Insurance Company, identify five sources of selective "pain" which could be applied by the lender to discipline the borrower for "carelessness" short of foreclosure.

(25%) III. Write on one of the following two short essay questions:

A. Briefly identify the various methods by which a commercial mortgage loan lender for permanent fifteen year mortgage can reduce the severity of loss in the event of foreclosure on the property.

OR

B. Discuss the risks, strategies and protocols a borrower planning to construct an income property should consider when selecting a lender to whom he will apply for financing.

(25%) IV. What risk does the lender incur when attempting to enforce the terms of a delinquent loan on an income property pre-leased to multiple tenants with construction unfinished at the time that covenants are breached by the borrower?

REAL ESTATE FINANCE 551
Tweleve-Weeks Exam

November 23, 1987

Prof. James A. Graaskamp
T.A. Mark Eppli

I. Define FOUR of the following terms as used in this course: (20%)

A. Office Lease Work Letter
B. Factors inPricing Construction Loan Interest Rates
C. Loan Participation
D. Sale and Leaseback
E. Securitization

II. Write a short essay on ONE of the following subjects: (20%)

A. Discuss the pros and cons of financing by means of an unsubordinated ground lease.

(OR)

B. Discuss the factors to be considered by both borrower and lender of structuring real estate financing as a sale and leaseback of an exisiting building project.

III. Discuss a risk management viewpoint relative to: (25%)

A. Methods and limitations of hedging interest rate fluctuations for the developer during the development term.

(OR)

B. The contract provisions and methods available to the construction lender intended to offset the risks of the construction loan.

IV. Discuss the changing array of sources for commercial real estate capital and mortgage loans in the United States as discussed by John McMahan, Maisel, and others. (35%)

Real Estate Finance 551

Problem Set #2

With the information provided and the BFCF program determine the Internal Rate of Return on a Before and After tax basis.

I. To run the BFCF program the following must first be done.
   1. Determine Loan-to-Cost Ratio _____
   2. Determine Improvement to Value Ratio _____
   3. Determine Composit Life of Components _____

II. Run BFCF Program.
   1. What is B/4 Tax I.R.R. _____
   2. What is After Tax I.R.R. _____

   Change Resale Price to Original Value
   3. What is B/4 Tax I.R.R. _____
   4. What is After Tax I.R.R. _____
   5. Print Mortgage Report
   6. Print Depreciation Schedule

III. Identify four (4) significant factors which were presented with the data statement but could <u>not</u> be adequately addressed within the BFCF program.

IV. Utilizing some of the information output by the BFCF program you will now attempt to overcome some of the limitations of the BFCF program by analyzing the data with the RATES program.

   To run the RATES program the following must first be done.
   1. Depreciate construction expense over life of construction period.
   2. Determine <u>Net Receipts</u> on a before and after tax basis.
   3. Identify <u>all</u> outlays ** Hint - there are six (6).
   4. Using the PETE program create two (2) data files for the RATES program: one for the B/4 basis and another for the after tax basis.
      Note: Outlays are negative (-) and receipts are positive (+).
   5. Run the RATES program.

Turn the following in for grade:

I. All Work
II. BFCF Output
III. Discussion
IV. All Work - listing of data files, program output

Source of Funds

1.	Limited partners capital contribution	2,055,000
2.	Permanent mortgage	9,947,079
	Interest = 6.75%	
	Term = 40 years	
	Pmts/Yr = 12	
3.	Construction period operating revenue	46,661
	Total	12,048,740

Limited Partner Capital Contribution

9/15/77	164,400
7/15/78	431,550
7/15/79	739,800
8/1/80	431,550
8/1/81	287,700
Total	2,055,000

Use of Funds

Component	Cost	Life
Building & Structures	5,520,328	50
	2,551,504	20
Cabinets, elevators, land improvements, electrical, plumbing and heating	481,232	20
Special Equipment	52,492	10
Furniture	48,500	8
Appliances	301,647	8
Tenant Improvements	200,000	8
Carpeting	243,094	5
Painting & Decorating	107,539	4
Land	396,678	0
Builder Fees	1,082,794	28.57
Construction Period Expenses	1,062,932	3
Total	12,048,740	

Net Income

Year	Amount	
1977	-40,151	Construction Period
1978	-42,735	Construction Period
1979	-42,735	Construction Period
1980	872,057	First Year of Normal Operation
↓	↓	
1996	872,057	

Depreciation Method = 200% Declining Balance
Income Tax Rate = 50%
Resale Price = $1 more than mortgage balance

RF#

Assume:

12% return on an equity of 30%

7% interest on a loan of 70% ratio to price

Investment Band Approach:

$R = (.30 \times .12) = .036$

$+(.7 \times .07) = .049$

$R = .085$

Alternative with coefficient (C):

$R = Y - MC$ where $C = Y - I$

$.12 - .07 = .05$

$R = .12 - (.05 \times .7)$

$R = .12 - .035$

$R = .085$

OAR = .085 + recapture

$$OAR = Y - mc \pm \text{adj. for depreciation}$$

$$C = y + p\,\left|1/s_{\overline{n}|}\right| - f$$

$$P = \frac{s_p - 1}{sm - 1} \quad (S = \text{column 1})$$

or

$$P = \left(\frac{f}{I} - 1\right)(sp - 1)$$

$$F = \frac{\text{Monthly Installment} \times 12}{\text{Amount of Mortgage}}$$

(Column 6)

$$\text{dep.} = \frac{R - r}{\left|1/s_{\overline{n}|}\right.}$$

$$\text{app.} = \frac{r - R}{\left|1/s_{\overline{n}|}\right.}$$

I.

$20,000 Income
15 Year Amort. — 60% Loan Ratio
6% Interest; 12% To equity
10% Depreciation; 5 Yr. Projection Period

$$OAR = .12 - (.6 \times .0565) + (.10 \times .1574)$$
$$= .12 - (.03390) + (.01574)$$
$$= .08610 + .01574$$
$$= .10184$$

$$V = \$20,000 / .10184$$
$$= \$196,380 \text{ OR } \$196,000 \text{ (Rounded)}$$

II

$20,000 Income
15 Yr. Amort. – 60% Loan Ratio
6% Int.; 12% To equity
10 % Depreciation; 5 Yr. Projection Period
Add a 2'nd Mortgage at 8%, 10 Yr. Term, for 20% of Purchase Price

$$OAR = [Y - (M_1C_1 + M_2C_2)] + Dep.$$
$$= [.12 - (.6 \times .0565 + .2 \times .0376)] + (.10 \times .1574)$$
$$= [.12 - (.03390 + .00752)] + (.01574)$$
$$= [.12 - .04142] + (.01574)$$
$$= .07858 + .01574$$
$$= .09432$$
$$V = \$20,000/.09432$$
$$= \$212,040 \text{ or } \$212,000 \text{ (Rounded)}$$

III.

Conditions same as before, how much higher a 1'st mortgage ratio is needed to increase yield to 16%?

Y	=	.16
+ Dep. Factor	=	.01454
		.17454
- Cap. Rate from Prob. I	=	.10184
Mortgage Influence Req'd. ⟶		.07270

Total Mortgage Influence of 15 year, 6%, 100% loan = .0936

Required Ratio = .0727/.0936

= 77.67% or 78% (Rounded)

IV.

If We Bought The Property In Problem I, How Far Could The Property Decline In Value Before Yield Fell Below 8%?

$$r = Y \pm MC$$

$$\text{Dep.} = \frac{R - r}{1 - S_{\overline{n}|}}$$

$$\text{App.} = \frac{r - R}{1/S_{\overline{n}|}}$$

$$r \text{ (at } 8\%) = .08 - (.6 \times .0197)$$
$$= .08 - .01182$$
$$= .06818$$

(A.) % of dep. $= \dfrac{R - r}{1/S_{\overline{n}|}}$

$= \dfrac{.10184 - .06818}{.1705}$

$= \dfrac{.03266}{.1705}$

$= 19.155\%$ or 19% (Rounded)

(B.) % of dep $= \dfrac{.09432 - .06818}{.1705}$

$= \dfrac{.02614}{.1705}$

$= 15.331\%$ or 15% (Rounded)