

Problem Set 5
Real Estate Limited Partnerships (RELPs)

Objective: The objective of this assignment is to introduce students to how to analyze real estate limited partnerships (RELPs). We will compare prices of partnerships that trade in the relatively inefficient secondary partnership market relative to prices of partnerships that have been rolled up and trade on the stock market. Students will also learn how to evaluate the expected performance of a RELP offering from a cash flow perspective.

Assignment: Download the real estate data from my website (RELP2002.xls) and use the downloaded spreadsheet to answer the following questions. Please highlight your answers in yellow and turn in a hard copy of your results. ***This is an individual assignment.***

1. Illiquidity of RELPs: Although a secondary market for RELPs exists, this market is relatively inefficient with prices paid for RELPs frequently lower than their initial offer price. This discount is known as the "haircut". To increase liquidity for limited partners, some general partners have rolled up their partnerships into either a REIT or MLP (master limited partnership) structure. The worksheet labeled "Public Storage RELPs" contains the secondary partnership market prices of RELPs sponsored by Public Storage that were obtained from <http://www.spardata.com>. An adjacent worksheet named "PubStorage Stock Price" contains the stock price for the REIT known as Public Storage and its predecessor. Construct a value weighted RELP index based on secondary market prices. Next, calculate the average bi-monthly price of the REIT. Calculate the correlation between these two sets of prices. In addition to this, plot your results on a graph using the "Lines on 2 Axes" option located under Custom Types in Excel. Is there any relationship between prices in these two markets? Next, calculate the percentage change in prices (price appreciation) for each of the 2 series and compute the mean and standard deviation for each series. What is the haircut in terms of basis points (difference in price appreciation)? Which market should have higher volatility? Why? Is your calculated standard deviation of price appreciation for each series consistent with this economic intuition?

2, Structuring a Partnership: The Empire State Building.¹ A good example of the development of modern syndication, and one that will give some understanding of how this technique works, is the case of the Empire State Building, which has become a real estate financing landmark as well as a physical one. The building was completed in 1931 with a \$25-million equity investment plus a \$27-million first mortgage to cover its \$52-million cost. Occupying the 91,000-square-foot Fifth Avenue blockfront from 33rd to 34th Streets in midtown New York City, it rises 102 stories above the street, has two

¹Taken verbatim from Maisel and Roulac, *Real Estate Investment and Finance*, McGraw-Hill, 1976

stories below grade, and at 1,250 feet in height was for many years the tallest building in the world. There is a 22-story television tower on top of the building. The total net rentable area is approximately 1,753,000 square feet.

In 1951 a syndicate purchased the property for \$50 million plus \$1.5 million for legal and related expenses. Harry Crown, a prominent Chicago business executive who initially owned 24 percent of this syndicate, acquired full ownership by 1954. A new syndicate was set up in 1961 by Lawrence A. Wien and Harry B. Helmsley, two extremely successful real estate practitioners. They formed the Empire State Building Associates and, through an offering registered with the Securities and Exchange Commission, raised \$26 million through the sale of 2,600 units priced at \$10,000 each. In a complex arrangement, various rights were split among several parties.

The Empire State Building Associates venture is significant for several reasons. First, the Empire State Building was the world's tallest and best-known building. Second, the dollar volume of participations offered was substantial. Third, the syndication is in the form of a general partnership, whereas the majority of syndications are organized as limited partnerships. Fourth, the syndication utilizes a combination of a master lease and a sublease. Investors in the syndicate receive a relatively low-risk preferential return but have the opportunity for additional cash distributions. The agreement provides an opportunity for attractive additional profits to the promoters, providing that at the same time they increase the return to the investors.

The Arrangements among the Promoters, Investors, and Lenders: The Empire State Building Associates, the syndicate, was formed to purchase the master lease of both the Empire State Building and the land thereunder. With renewal privileges, the lease runs for approximately 114 years, to January 5, 2076. In addition to the syndicate, there were at least five other major parties to the agreement: (1) Lawrence A. Wien, Henry W. Klein, and Peter L. Malkin, of the law firm of Wien, Lane & Klein, who served in various capacities as promoters, syndicators, general partners, lawyers, and partners in a sublease; (2) Harry B. Helmsley, of the real estate firm of Helmsley-Spear, Inc., who acted as promoter, syndicator, real estate broker, building manager, rental agent, and partner in the sublease; (3) Prudential Insurance Company, which owned the building and the land separately; (4) the mortgage lender on the master lease; and (5) the sublessee, or actual operator of the building, which was the Empire State Building Company, a joint venture composed of Lawrence Wien (25 percent interest), Harry B. Helmsley (25 percent interest), Martin Weiner Realty Corporation (12.5 percent interest), and Cargo Dispatch, Inc. (37.5 percent interest), a wholly owned subsidiary of D. K. Ludwig's American-Hawaiian Steamship Company.

The Syndicate: The Empire State Building Associates was formed as a general partnership consisting of Wien, Klein, and Malkin, as individual general partners. These three entered into a participation agreement with the other investors, each of whom contributed a minimum of \$10,000. Under these agreements, each of the three partners acted as an "agent" for the participants in his one-third partnership. Each participant shared proportionately in all profits, losses, or liabilities to persons outside the venture.

The Master Lease: This was a net lease to the Empire State Building Associates (the syndicate). This master lease was purchased on December 27, 1961, for a contract price of \$65 million plus \$3 million for various fees and expenses. The money was raised as follows: \$26 million from the sale of participations in the Associates, sale of the building for \$29 million to Prudential Insurance Company (which had acquired the land for \$17 million in 1951), and a mortgage of \$13 million.

The Associates agreed to pay Prudential under the master lease an annual rent of \$3,220,000 for an initial term of 30 years and 9 days. There were four renewal options of 21 years each, with a rent of \$1,840,000 a year for the first renewal and \$1,610,000 for each subsequent term. Prudential, the master lessor, agreed to look solely to the partnership property for collection of any judgment which it might recover against the Associates. This agreement, in effect, eliminated any personal liability of the participants for lease obligations. Prudential also agreed to advance certain additional funds for modernization for a promise of increased rents.

The Associates, as the lessee, was obligated to pay real estate taxes and all other operating and maintenance expenses, to make all necessary repairs, to maintain insurance coverage, and to rebuild or replace the building in the event of fire or other casualty. However, these conditions were all effectively assumed by the sublessee.

The Sublease: The sublease from the Empire State Building Associates to the Empire State Building Company was for the same period as the master lease, less 1 day. The Building Company assumed all the tax, operating, insurance, and other obligations of the Associates under the master lease and leasehold mortgage.

The basic annual rent under the sublease was set so as to make possible an annual payment of \$900 per \$10,000 participation, plus the amounts required to enable the Associates to meet all mortgage requirements, to pay the rent under the master lease, and to defray all administrative costs. The initial minimum payment from the sublessee to the Associates was \$6,765,000. Furthermore, one-half of any funds made available upon renewal from reductions in the lease payments to Prudential was to go to the Associates.

Under the sublease, the Empire State Building Company retained the first \$1 million of net operating profit. Any net profits in excess of \$1 million were to be split evenly with the Associates. Of the Associates' share, 94 percent went to the participants, and 6 percent to the law firm of Wien, Lane & Klein. In effect, the participants were to be paid \$900 per share and then to split 47 percent of all net operating profits above the first million.

Promoters' Arrangements: The Empire State Building Associates, when formed, paid out \$3,000,000 in initial expenses. This covered \$1,100,000 to Wien, Lane & Klein, as promoters, for legal expenses and promotional activity; a \$500,000 real estate brokerage commission to Helmsley-Spear, Inc.; \$100,000 in estimated expenses of the offering; and the balance for all the many costs related to the real estate transfer and closing.

The agreement specified that, in addition, the law firm of Wien, Lane & Klein was to receive \$100,000 a year for supervising the Associates' partnership agreement, mak-

ing distributions to the participants, preparing and filing tax returns and other reports, and acting as general counsel. They were to receive \$90,000 a year from the sublessee for similar services, plus 3 percent of all net operating profits over a million dollars.

Helmsley-Spear, Inc., after its initial brokerage fee, received \$90,000 a year from the sublessee for building management services plus leasing commissions based on the recommended rates of the Real Estate Board of New York, Inc.

Participants' Income: The estimated income and expenses for the first year of ownership, based on a leasehold investment of \$39 million, with participations of \$26 million and mortgage of \$13 million, are shown in Table 1. The total cash available for distribution is \$2,340,000.

Table 1 Estimated First-Year Income Statement

Rent income		\$6,765,000	
Expenses:			
Master lease	\$3,220,000		
Interest on mortgage	837,113		
Supervisory fees	<u>100,000</u>		
Total expenses		<u>4,157,113</u>	
Net income before writeoff of leasehold		\$2,607,887	
Leasehold, writeoff over 30 years, 3½% of \$39,000,000			<u>1,300,000</u>
Net income		\$1,307,887	
Estimated cash available for distribution:			
Net income before leasehold writeoff		\$2,607,887	
Less annual amortization of mortgage		<u>267,887</u>	
Cash available for distribution		\$2,340,000	

This is \$900 per \$10,000 participation. During 1962, the first calendar year of ownership, \$397 of this would represent a return of invested capital and would not be subject to tax as ordinary income. An investor in the 50 percent tax bracket would report \$503 as taxable income and would be able to retain \$649 after taxes, or approximately 6.5 percent on the \$10,000 investment. In the second through the fifth years, the amount of the distribution constituting reportable income would range from \$510 to \$534, and by 1991 the full amount of all distributions would be reportable as income.

In addition to the initial agreed-upon payment of; \$900, in 1965 the participants began to receive overage payments as their share in the net operating profits. These payments have increased steadily, as shown in Table 2.

Compensation: This deal was structured in an attempt to give congruency to the goals of the promoters and investors in order to avoid some of the problems of conflicts of interest and compensation that plague many syndicates. The promoters were given a substantial incentive to perform. Specifically, they were awarded \$280,000 a year for services, plus the first \$1 million in operating profits, plus 53 percent of all additional profits. Although high, these are not extraordinary payments by current standards. The indicated total cost of \$3 million for the offering is a front load of 11.5 percent of the \$26 million raised. This, too, is far lower than many recent offerings, although it should be

noted that the size of the venture permitted economies of scale and consequently a reduced front-end load.

Table 2 Payments to Participants in Associates

Year	Overage payment	Total distribution	Payment as percent of \$10,000 investment
1962	\$ —	\$ 900	9.0
1963		900	9.0
1964		900	9.0
1965	49	949	9.5
1966	166	1,066	10.7
1967	212	1,112	11.1
1968	255	1,155	11.6
1969	305	1,205	12.1
1970	419	1,319	13.2
1971	538	1,438	14.4
1972	490	1,390	13.9
1973	532	1,432	14.3
1974	532	1,432	14.3

Questions:

- a. Financial Structuring: Provide a flowchart of the financial structure of the Empire State Building deal.
- b. Relationships: Provide another flowchart showing the relationships of the parties involved.
- c. Alignment of shareholder and management interests: Are the promoters motivated to work for the benefit of the limited partners? Will the general partners make money if the limited partners do not?
- d. Interest Owned: What is really owned by the syndicate?
- e. Compensation: How are the various parties being compensated? Where does the money come from?

3. Evaluating a Real Estate Limited Partnership Offering (from BF Chapter 12): Venture Capital Limited has formed a *private* real estate syndication to acquire and operate the Tower Office Building, with Venture acting as the general partner and 35 individual limited partners. The venture to be undertaken and relevant cost and financial data are summarized as follows:

Cost breakdown

Land	\$1,000,000	
Improvements	9,000,000	(capitalized)
Points	100,000	(amortized over loan term)
Subtotal	\$10,100,000	
Organization fee	100,000	(amortized over 5 years)
Syndication expenses	100,000	(capitalized)
Total funding required	\$10,300,000	

Financing

Loan amount	\$8,000,000
Interest rate	11%
Term	25 years (monthly payments)
Points	\$100,000

Partnership facts and equity requirements

Organization: December, year 0
 Number of partners: 1 general partner and 35 limited partners
 Equity capital contribution: general partner, 10%; limited partners, 90%
 Cash assessments: none
 Cash distributions from operations: general partner, 10%; limited partners, 90%
 Taxable income/losses from operations: general partner, 10%; limited partners, 90%
 Allocation of gain or loss from sale: general partner, 15%; limited partners, 85%
 Cash distribution at sale: based on capital account balances.

Operating and tax projections

Potential gross income (year 1)	\$1,750,000
Vacancy and collection loss	10% of potential gross income
Operating expenses (year 1)	35% of <i>effective</i> gross income
Depreciation method	Straight line, 31.5 years
Projected growth in income	3% per year
Projected resale price after 5 years	\$13,500,000
Limited partners' tax rate	28%
General partner's tax rate	28%
Selling expenses	5%

- Determine an estimated return ($ATIRR_e$) for a limited partner. (Hint: Consider all 35 limited partners as a single investor.)
- Determine an estimated return ($ATIRR_e$) for the general partner.
- Why do the returns differ for the general and limited partners?
- Partition the $ATIRR_e$ for the general and limited partner. What portion of the return is attributable to Before Tax Cash Flow from Operation, Tax Consequences, and sale proceeds? Is there a difference in the partitioning for the GP and LP? If so, what is the cause of this difference?

e. Using the Data Table command in Excel, perform a sensitivity analysis of how the general partner's (GP) $ATIRR_e$ will change given a change in both the GP's share of Taxable Gains/Losses and a change in the equity that the GP contributes to the partnership. Your table should resemble the following:

		GP's Share of Taxable Gains/Loss				
		5%	10%	15%	20%	25%
Equity Contributed by GP	1%					
	2%					
	3%					
	4%					
	5%					
	6%					
	7%					
	8%					
	9%					
	10%					

f. Using the Data Table command in Excel, perform a sensitivity analysis of how the limited partner's (LP) $ATIRR_e$ will change given a change in both the LP's share of equity contributed and a change in the price of the property on sale. Your table should resemble the following:

		LP's Share of Equity Contribution				
		70.0%	75.0%	80.0%	85.0%	90.0%
Price on Sale	10,500,000					
	11,000,000					
	11,500,000					
	12,000,000					
	12,500,000					
	13,000,000					
	13,500,000					
	14,000,000					
	14,500,000					
	15,000,000					
	15,500,000					
	16,000,000					
	16,500,000					
	17,000,000					
	17,500,000					
	18,000,000					

g. Suppose that 1 limited partner in the limited partnership decides to sell his partnership unit at the end of year 3. If the price that he receives for his unit is \$75,000 what is his after tax IRR from the sale of his LP unit? (Hint: You will need to calculate the limited partner's basis at the end of year 3 in order to calculate the taxable gain on sale of the LP unit). Is the limited partner better off selling his unit at the end of year 3 or holding his LP unit for 5 years? At what price would the limited partner be indifferent to selling his LP unit now versus waiting until the end of year 5?