Solutions to Questions - Chapter 18
Structuring Real Estate Investments: Organizational Forms and Joint Ventures

Question 18-1

What is the difference between an IRR preference and an IRR lookback?

With an IRR preference the investor receives all additional cash flow from sale (after each party has received capital equal to their initial investment) until they have received a specified IRR. With an IRR lookback the cash flow after each party has received capital equal to their initial investment is split in a predetermined proportion. An IRR preference will always give the investor a return that is equal to or better than what the return would be with an IRR lookback.

Question 18-2

What is the advantage of the limited partnership ownership form for real estate syndications?

The advantage of a limited partnership is that any tax losses can be allocated to the partners to reduce their personal taxable income.

Question 18-3

How can the general partner-syndicator structure the partnership to offer incentives to limited partners?

The syndicator can offer the limited partner a greater proportion of the tax losses and a greater proportion of the cash flow that is available for distribution.

Question 18-4

Why is the Internal Revenue Service concerned with how partnership agreements in real estate are structured?

The IRS does not want the allocation of taxable income (or losses) to differ from the allocation of cash flow in an extreme manner such that there is no "substantial economic effect" of the allocations.

Question 18-5

What is the main difference between the way a partnership is taxed versus the way a corporation is taxed?

Corporations cannot allocate losses to shareholders. Also, corporations are taxed at the corporate level and shareholders are taxed on dividends they receive. Partnerships are not taxed at the partnership level.

Question 18-6

What are special allocations?

The term "special allocation" refers to allocations of income (losses) in different proportions to the partners. For example, the limited partners may be allocated all of the tax losses but only half of the cash flow.

Question 18-7

What causes the after-tax IRR ($ATIRR_e$) for the general partner to differ from that of the limited partner?

The $ATIRR_e$ for the general partner can differ from that of the limited partner due to differences in the way cash flow and taxable income is allocated to each partner as well as differences in their marginal tax rates.

Question 18-8

What is the significance of capital accounts? What causes the balance in a capital account to change each year?

The capital accounts are used to keep track of allocations to each partner of cash flow and taxable income. They increase when the partner is allocated income and decrease if the partner is allocated losses. They also increase when the partner makes a cash contribution to the partnership and decrease when cash is distributed to the partner.

Question 18-9

How does the risk associated with investment in a partnership differ for the general partner versus a limited partner?

The general partner is personally liable for the debts of the partnership whereas the limited partner has "limited liability" like a shareholder in a corporation.

Question 18-10

What are the different ways that the general partner is compensated?

General partners can receive a number of different fees for structuring the partnership, acquiring property on behalf of the partnership, managing the partnership, etc. They may also receive an allocation of cash flow from operations and/or sale of properties.

Question 18-11

How do you think the federal income tax policy affects the desirability of investing in real estate partnerships?

The depreciable life for real estate income property has varied considerably over time as federal tax policy has shifted in its desire to encourage investments in real estate. This impacts the ability of investors to invest in properties that can generate losses for tax purposes. One of the benefits of a partnership compared to a corporate structure is the ability to use these tax losses to offset other sources of income to the investor.

Question 18-12

What concerns should an investor in a real estate syndication have regarding general partners?

The investor should be concerned about the general partner's ability to manage the partnership including acquisition and/or development of properties, property management, etc. The investor should also be concerned about whether the general partner is likely to act in the best interest of the limited partner.

Question 18-13

Differentiate between public and private syndications? What is an accredited investor? Why is the distinction used?

Private partnerships are exempt from registration requirements of Regulation D of the Securities Act of 1933 which can substantially reduce the costs of setting up a partnership. An accredited investor is one that meets certain criteria that, in general, apply to investors who can afford to invest in the partnership and who should understand the risks associated with the investment. If the securities are sold only to accredited investors, it is not necessary to provide investors with the information otherwise required to obtain an exemption under Regulation D.

Question 18-14

How are general partners usually compensated in a syndication? What major concerns should investors consider when making an investment with a syndication

General partners can receive a number of different fees for structuring the partnership, acquiring property on behalf of the partnership, managing the partnership, etc. They may also receive a disproportionate allocation of cash flow from operations and/or sale of the properties. The investor should be concerned about the general partner's ability to manage the partnership including acquisition and/or development of the properties, property management, etc. The investor should also be concerned about whether the general partner is likely to act in the best interest of the limited partner.

Question 18 – 15

What is the main difference between organizing a real estate venture as a corporation versus a general partnership? How does a limited partnership have some of the characteristics of both?

A corporation provides limited liability to shareholders whereas the general partners in a general partnership have liability. But a corporation is taxed at the entity level and dividends paid to shareholders may also be subject to taxation. Partnerships are not taxed at the partnership level. Taxable income and losses flow to the partner's tax return. If there are tax losses, this also flows to the partner's tax return which can offset other taxable income whereas with a corporation the tax losses cannot be passed through to the shareholders. A limited partnership is taxed like a general partnership but the limited partners do not have any personal liability. The liability is incurred by the general partner in the limited partnership.

Solutions to Problems - Chapter 18
Partnerships, Joint Ventures, and Syndications

INTRODUCTION

The problems in this chapter parallel that of the example in the textbook. We have assumed the syndication expenses can not be expensed or amortized. That is, they are capitalized but not depreciated. Note that this is similar to the tax treatment of land. The proper way of handling syndication fees is somewhat controversial and depends on the specific nature of the syndication expense. Some commentators have suggested that syndication costs might be amortizable over the life of a limited partnership, but most practitioners are dubious of this position. Most writers suggest that fees paid for services rendered in connection with acquisition of the property can be capitalized as part of the basis of the acquired asset and depreciated over the recovery period of that asset. Examples of service relating to the acquisition of an asset include negotiation of a lease of the partnership's property, negotiation of the partnership's purchase of real estate, and legal and brokerage fees paid by the syndication with respect to acquisition of the asset. However, legal and marketing fees related to the creation of the syndication securities are capitalized but cannot be depreciated. Rather, these fees would be deductible only upon termination or liquidation of the partnership (see *Promoters' and Managers' Compensation*, Page 511).

For simplicity, we have chosen to assume that all "syndication fees" are capitalized but not depreciated. However, the instructor may want to bring this issue to the attention of the students.

Problem 18-1

Table 1

Year	Initial Investment	Cash flow from Operations	Total Cash flow	ABC fund return from operations	Newtown Developers Inc. return from operations	Remaining operating cash flow to be split	ABC fund from sale for 11% IRR	ABC fund cash flow for 11% IRR
0	-$100,000,000		-$100,000,000					-$45,000,000
1		$2,000,000	$2,000,000	$2,000,000	$0	$0		$2,000,000
2		$4,000,000	$4,000,000	$2,250,000	$1,750,000	$0		$2,250,000
3		$9,000,000	$9,000,000	$2,250,000	$2,750,000	$4,000,000		$4,250,000
4		$12,000,000	$12,000,000	$2,250,000	$2,750,000	$7,000,000		$5,750,000
5		$14,000,000	$164,000,000	$2,250,000	$2,750,000	$9,000,000	$51,345,082	$58,095,082
IRR			**14.77%**					**11.00%**

Table 1 continued..

Year	Newtown Developers Inc. return of initial investment	Remaining cash flow from sale to be split	Newtown Developers Inc.	Check
0			-$55,000,000	$0
1			$0	$0
2			$1,750,000	$0
3			$4,750,000	$0
4			$6,250,000	$0
5	$55,000,000	$43,654,918	$84,077,459	$0
IRR			**12.62%**	

Year	Cash flow from Operations	ABC fund Inc. return from operations	Newtown Developers Inc. return from operations	Remaining operating cash flow to be split	Year	ABC fund Inc. cash flow from Operations	ABC fund Inc. return of initial investment	ABC fund additional cash flow from Sale	Total Cash Flow
					0				-$45,000,000
1	$2,000,000	$2,000,000	$0	$0	1	$2,000,000			$2,000,000
2	$4,000,000	$2,250,000	$1,750,000	$0	2	$2,250,000			$2,250,000
3	$9,000,000	$2,250,000	$2,750,000	$4,000,000	3	$4,250,000			$4,250,000
4	$12,000,000	$2,250,000	$2,750,000	$7,000,000	4	$5,750,000			$5,750,000
5	$14,000,000	$2,250,000	$2,750,000	$9,000,000	5	$6,750,000	$45,000,000	$6,345,082	$58,095,082
									11.00%

Year	ABC fund Inc.	Newtown Developers Inc.
0	-$45,000,000	-$55,000,000
1	$2,000,000	$0
2	$2,250,000	$1,750,000
3	$4,250,000	$4,750,000
4	$5,750,000	$6,250,000
5	$79,922,541	$84,077,459
IRR	**17.30%**	**12.62%**

Problem 18-2
(REFER TO TEMPLATE 18_1.XLS)

ASSUMPTIONS:

COST BREAKDOWN		FINANCING	
Land	1,000,000	**Loan Amount**	8,000,000
Improvements	9,000,000	**Interest rate**	11.00%
Points	100,000	**Term**	25
Subtotal	10,100,000	**Points**	100,000
Organization fee	100,000	**Pmts / Year**	12
Syndication expenses	100,000	**Amortized over loan term**	
Total funding required	10,300,000	**Annual Pmt**	940,909
Years amortized	5		

PARTNERSHIP FACTS AND EQUITY REQUIREMENTS				
	Equity capital contribution	**Cash distrib. Operations**	**Tax. Income Operations**	**Alloc. gain Sale**
General partner	10.00%	10.00%	10.00%	15.00%
Limited Partners	90.00%	90.00%	90.00%	85.00%
# of Limited Partners	35			

OPERATING AND TAX PROJECTIONS			INITIAL EQUITY REQUIREMENTS	
Potential gross income	1,750,000		**Land**	1,000,000
Projected growth in PGI	3.00%		**Improvements**	9,000,000
Vacancy and coll. Loss	10.00%	of PGI	**Points on Loan**	100,000
Operating Expenses	35.00%	of EGI	**Organization fee**	100,000
Depreciable Life	31.5	years	**Syndication fee**	100,000
Projected Resale	13,500,000		**Total**	10,300,000
Tax rate-Limited Partner	28.00%		**Less loan**	8,000,000
Tax rate-General Partner	28.00%		**Equity**	2,300,000
Selling Expenses	5.00%		**General Partner**	230,000
Holding Period	5	years	**Limited Partners**	2,070,000

Loan Information:

Year	1	2	3	4	5
Interest	876,833	869,419	861,146	851,916	841,618
Loan Balance	7,935,925	7,864,435	7,784,672	7,695,680	7,596,389

Depreciation per year 285,714

STATEMENT OF BEFORE-TAX CASH FLOW

Year	1	2	3	4	5
Potential gross income	1,750,000	1,802,500	1,856,575	1,912,272	1,969,640
Vacancy and collection loss	175,000	180,250	185,658	191,227	196,964
Effective gross income	1,575,000	1,622,250	1,670,918	1,721,045	1,772,676
Operating Expenses	551,250	567,788	584,821	602,366	620,437
Net operating income	1,023,750	1,054,463	1,086,096	1,118,679	1,152,240
Debt service	940,909	940,909	940,909	940,909	940,909
Before-tax cash flow	82,841	113,554	145,188	177,771	211,331

Distribution of BTCF					
General Partner	8,284	11,355	14,519	17,777	21,133
Limited Partners	74,557	102,199	130,669	159,994	190,198

STATEMENT OF INCOME (LOSS)

Year	1	2	3	4	5
Net operating income	1,023,750	1,054,463	1,086,096	1,118,679	1,152,240
Less: Interest	876,833	869,419	861,146	851,916	841,618
Depreciation	285,714	285,714	285,714	285,714	285,714
Amortization of:					
Organization fee	20,000	20,000	20,000	20,000	20,000
Loan fee	4,000	4,000	4,000	4,000	84,000
Taxable income	(162,798)	(124,670)	(84,764)	(42,951)	(79,092)
Distribution of Taxable Income					
General Partner	(16,280)	(12,467)	(8,476)	(4,295)	(7,909)
Limited Partners	(146,518)	(112,203)	(76,287)	(38,656)	(71,183)

CALCULATION OF CAPITAL GAIN

Sales Price		13,500,000
Sales Costs		675,000
Original costs basis	10,100,000	
Accumulated depreciation	1,428,571	
Adjusted basis		8,671,429
Total taxable gain		4,153,571
Allocation of Gain		
General Partner		623,036
Limited Partners		3,530,536

CAPITAL ACCOUNTS - LIMITED PARTNERS

Year	0	1	2	3	4	5
Equity	2,070,000					
Plus Income(loss)		(146,518)	(112,203)	(76,287)	(38,656)	(71,183)
Plus Gain from Sale						3,530,536
Less Cash Distributed		74,557	102,199	130,669	159,994	190,198
Total for Year	2,070,000	(221,075)	(214,402)	(206,957)	(198,650)	3,269,155
Balance	2,070,000	1,848,925	1,634,523	1,427,566	1,228,917	4,498,071

CAPITAL ACCOUNTS – GENERAL PARTNER

Year	0	1	2	3	4	5
Equity	230,000					
Plus Income(loss)		(16,280)	(12,467)	(8,476)	(4,295)	(7,909)
Plus Gain from Sale						623,036
Less Cash Distributed		8,284	11,355	14,519	17,777	21,133
Total for Year	230,000	(24,564)	(23,822)	(22,995)	(22,072)	593,993
Balance	230,000	205,436	181,614	158,618	136,546	730,540

(a)
ATIRR:
AFTER-TAX CASH FLOW AND ATIRR - LIMITED PARTNERS

Year	0	1	2	3	4	5
Operation:						
BTCF	(2,070,000)	74,557	102,199	130,669	159,994	190,198
Taxable Income		(146,518)	(112,203)	(76,287)	(38,656)	(71,183)
Taxes	0	(41,025)	(31,417)	(21,360)	(10,824)	(19,931)
ATCF	(2,070,000)	115,582	133,616	152,030	170,817	210,129
Reversion:						
BTCF						4,498,071
Capital gain						3,530,536
Taxes						988,550
ATCF						3,509,521
Total ATCF	(2,070,000)	115,582	133,616	152,030	170,817	3,719,651
ATIRR	**17.11%**					

(b)
ATIRR:
AFTER-TAX CASH FLOW AND ATIRR - GENERAL PARTNER

Year	0	1	2	3	4	5
Operation:						
BTCF	(230,000)	8,284	11,355	14,519	17,777	21,133
Taxable Income		(16,280)	(12,467)	(8,476)	(4,295)	(7,909)
Taxes	0	(4,558)	(3,491)	(2,373)	(1,203)	(2,215)
ATCF	(230,000)	12,842	14,846	16,892	18,980	23,348
Reversion:						
BTCF						730,540
Capital gain						623,036
Taxes						174,450
ATCF						556,090
Total ATCF	(230,000)	12,842	14,846	16,892	18,980	579,437
ATIRR	**24.53%**					

(c)
The general partner receives a higher IRR. This is due to the fact that the general partner is allocated a higher proportion of the gain (and therefore the cash flow) at sale of the property.

Problem 18-3

Before tax cash flow:

Net operating income	$ 250,000
Less debt service (interest only)	-200,000
Before-tax cash flow	$50,000

Taxable income:

Net operating income	$250,000
Less depreciation	250,000
Less interest cost	200,000
Taxable income	$-200,000

(a)
Capital Accounts after First Year of Operations

	A's Capital Account	*B's Capital Account*
Initial equity contribution	$500,000	0
Less loss allocation	$-180,000	$-20,000
Less cash flow distribution	-45,000	-5,000
Ending balance	$275,000	$-25,000

(b)
Cash from sale

Sales price	$3,000,000
Less mortgage balance	2,000,000
Cash flow	$1,000,000

(c)
Cash distributions from sale

Cash flow from sale (from part b)		$1,000,000
Distribution to A:		
Initial investment	$500,000	
Less prior distrib.	-45,000	
Distribution to A		455,000
Remaining cash		$545,000
Distribution to A (50%)		272,500
Distribution to B (50%)		272,500

(d)
Capital gain from sale after 1 year:

Sales price		$3,000,000
Purchase price	$2,500,000	
Depreciation taken	250,000	
Adjusted basis		2,250,000
Gain		$750,000
Allocation of gain to A		375,000
Allocation of gain to B		375,000

(e)
Capital Accounts after Sale of Building

	A's Capital Account	B's Capital Account
Balance prior to sale	$275,000	$-5,000
Return of original equity		
Less previous cash distribution	-455,000	NA
50 percent remaining cash proceeds	-272,500	-272,500
50 percent of gain	375,000	375,000
Ending balance	$-77,500	$77,500

Problem 18-4

The general partner's return is now 13.68% versus 22.24% and the limited partner's return is also 13.68% versus 13.15%. The general partner's return drops and the limited partner's return increases so that the returns are exactly the same for both partners because there are now no "special allocations." Contribution of equity allocations of all income and capital gains is the same percentage for a particular partner, even though the limited partner's percentage differs from the general partner.