PEI Alternative Insight

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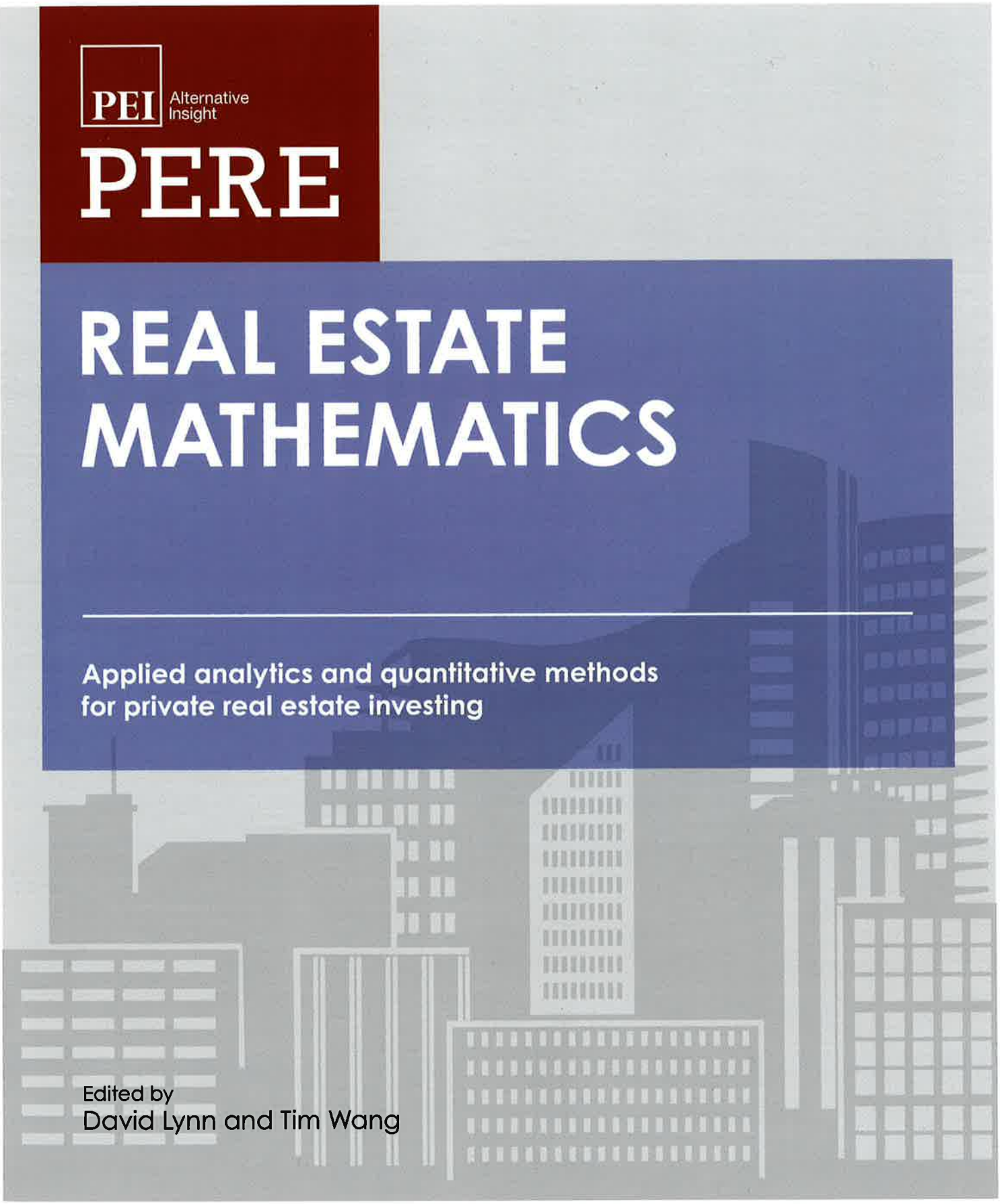
REAL ESTATE MATHEMATICS

Applied analytics and quantitative methods for private real estate investing



Edited by
David Lynn and Tim Wang

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SECTION III: FUND AND PORTFOLIO MANAGEMENT

11 Key considerations in joint-venture projects

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Introduction

Joint-venture structures are typically, but not exclusively, used for development or redevelopment projects. Real estate joint ventures (JV) in an institutional context come in various incarnations:

a) *A single-asset JV* is involves just one asset, generally with an established business plan, which is known at the inception of the venture. The duration of the venture would be based on the nature of the asset and its business plan.
b) *A multi-asset JV* includes more than one asset, with each asset identified at the outset. From an economic standpoint, it is little more than an amalgamation of single-asset JVs but with the economics – particularly incentive fees – likely cross-collateralised.
c) *A programmatic JV* is an arrangement where an operating partner[1] and an investor form an entity which will seek out new deals. Although some early assets might be pre-identified, new assets can be added from time to time. The duration for this type of JV can be several decades, although in all probability there would be a mechanism for the partners to terminate new investments earlier, if desired.

Most of this chapter will focus on single-asset JVs as it is generally easier to illustrate mathematical concepts using a simple structure.

Allocation of cash flow, waterfalls and incentive fees

Unlike fund structures, the incentive fee is often the primary source of profit for the operating partner in a JV. This is because JV operating partners are typically real estate operating entities, while fund managers are generally financial institutions.[2]

In the simple incentive fee structure described in Table 11.1, the operating partner receives 30 percent of cash flow after the project achieves a 10 percent internal rate of return (IRR). Much of the rest of this chapter will be spent making this simple example more complex.

In the example in Table 11.1, the initial investment is $10 million. There is limited operating cash flow, consistent with a development project. Three years later, the JV's asset is sold, producing a final year distribution (including operating cash flow) at the asset level of $19,031,250, which results in an IRR at the asset level of exactly 25 percent.

The mathematics are straightforward with the exception of the calculation of the 'Cash flow needed to hit the 10 percent hurdle' in year 3.[3] Although sometimes derived simply

[1] The non-technical term 'partner' will be used throughout, although actual JVs could be limited liability companies or other structures which do not technically have 'partners'.
[2] This is, of course, a significant oversimplification, but this distinction does drive some of the historical differences between fund waterfalls and JV waterfalls.
[3] In this example, the IRR hurdle will not be met prior to the sale date, so this computation need only be considered for the final distribution.

Table 11.1: **Single-hurdle waterfall**

	Time 0	Year 1	Year 2	Year 3	IRR
Asset cash flow	-$10,000,000	$0	$400,000	$19,031,250	25.0%
Less: Management fee to operating partner*	0	0	-100,000	-100,000	
Net cash flow before incentive fee	**-10,000,000**	**0**	**300,000**	**18,931,250**	**24.5%**
Cash flow needed to hit the 10% hurdle	-10,000,000	0	300,000	12,980,000	10.0%
Excess cash flow				5,951,250	
Less: Incentive fee paid to operating partner (30%)				-1,785,375	
Remaining cash flow paid to investor (70%)				4,165,875	
Total cash flow to investor	**-10,000,000**	**0**	**300,000**	**17,145,875**	**20.5%**
Total cash flow to operating partner	**0**	**0**	**100,000**	**1,885,375**	**N/A**
Cash flow from management fees			100,000	100,000	
Cash flow from incentive fees				1,785,375	

* To keep the example simple, the management fee is charged only when there is positive asset cash flow. In reality, the management fee in Year 1 could be paid by calling capital, or perhaps from a construction loan.

through trial and error, the precise number can easily be computed by calculating the net future value of the prior cash flows, using a discount rate equal to the hurdle rate.

Operating partner co-investment

Table 11.2 illustrates what occurs when the operating partner provides capital (in this case 10 percent) to the JV, making the operating partner also a co-investor. This is common in institutional JVs.

There are several items of note. First, while the operating partner IRR does not apply to Table 11.1 as there is no initial investment against which to calculate an IRR, an IRR can be calculated for the operating partner in Table 11.2, an impressive 56.1 percent as compared with the 20.5 percent achieved by the investor. However, the operating partner's return is comprised of three separate and distinct types of cash flow: 1) return of/on invested capital; 2) management fees; and 3) incentive fees. Operating partners tend to bristle somewhat when these three cash flows are added together, and with some justification. Management fees, after all, are fully or partially used to cover the expenses of managing the JV, while the incentive fee is a reward for both the 'sweat equity' which went into sourcing and securing the deal at the outset as well as managing the deal to its successful conclusion. Below are the operating partner IRRs based upon a variety of approaches:

- *All operating partner cash flow:* 56.1 percent
- *All cash flow except management fee:* 52.5 percent
- *Only return on/of co-investment capital:* 20.5 percent

Note that if only the return on/of capital is considered, the operating partner's IRR is the

Table 11.2: **Single-hurdle waterfall, with operating partner investment at 10%**

	Time 0	Year 1	Year 2	Year 3	IRR
Asset cash flow	-$10,000,000	$0	$400,000	$19,031,250	25.0%
Less: Management fee to operating partner*		0	-100,000	-100,000	
Net cash flow before incentive fee	**-10,000,000**	**0**	**300,000**	**18,931,250**	**24.5%**
Cash flow needed to hit the 10% hurdle	-10,000,000	0	300,000	12,980,000	10.0%
Excess cash flow				5,951,250	
Less: Incentive fee paid to operating partner (30%)				-1,785,375	
Remaining cash flow (70%)				4,165,875	
Remaining cash flow to investor (90%)				3,749,288	
Remaining cash flow to co-investor (10%)				416,588	
Total cash flow to investor	**-9,000,000**	**0**	**270,000**	**15,431,288**	**20.5%**
Total cash flow to operating partner	**-1,000,000**	**0**	**130,000**	**3,599,963**	**56.1%**
Cash flow as co-investor	-1,000,000	0	30,000	1,714,588	20.5%
Cash flow from management fees		0	100,000	100,000	
Cash flow from incentive fees				1,785,375	

* To keep the example simple, the management fee is charged only when there is positive asset cash flow. In reality, the management fee in Year 1 could be paid by calling capital, or perhaps from a construction loan.

same as the investor's which is logical since, in this regard, the operating partner is treated exactly the same as the investor.

Splits versus promotes

The introduction of operating partner co-investment creates some confusion, for the real estate industry still has not fully developed clear jargon. The example above follows the more typical construction in which the fundamental distinction is made between cash flow applied to invested capital (irrespective of the source of the investment) and cash flow applied as incentive fee that goes to the operating partner as the 'promoter' of the investment. This formulation, sometimes referred to as the 'promote' formulation. In a promote formulation, first cash flow is distributed to investors, *pari passu* until each has received a 10 percent IRR. After reaching the 10 percent IRR hurdle, cash flow is distributed 30 percent to the operating partner and 70 percent to the investors.

In this promote formulation in Table 11.2, the operating partner is also an investor and receives its return of/on capital just like any other investor. For a $100 distribution in excess of the hurdle, $30 would go to the operating partner as an incentive fee payment (promote). The remaining $70 would go to the investors, with 90 percent (or $63) going to the capital partner and 10 percent (or $7) going to the operating partner as co-investor. Therefore, the total to the operating partner would be $37.

However, some JVs use the 'splits' formulation to describe this same situation. Using this formulation, first cash flow is distributed 10 percent to the operating partner and 90 percent to the investor until each has received a 10 percent IRR. Any subsequent cash flows will be distributed 37 percent to the operating partner and 63 percent to the investor.

By inspection, it is clear that in the split formulation, the operating partner would receive the same $37 which was calculated using the promote approach. Although there is a trend towards using the promote formulation in documenting incentive fees, the split construction is still widely used. Incentive fees are articulated for the two formulations below:

$Sp = Pr + ((1 - Pr) \times A)$ $\quad 0.37 = 0.3 + (1 - 0.3) \times 0.1 = 0.3 + 0.07 = 0.37$

$Pr = (Sp - A) / (1 - A)$ $\quad 0.3 = (0.37 - 0.1) / (1 - 0.1) = 0.27 / 0.9 = 0.3$

where:
Sp is the incentive rate using the split formulation
Pr is the incentive rate using the promote formulation
A is the operating partner co-investment

Multiple hurdles

The multiple tiers of incentive fees structure is generally created to allow the operating partner to realise a greater percentage of the cash flow as the underlying asset performance improves. Most multi-tier incentive fee structures utilise two or three separate tiers, although the number of tiers can be higher if a 'catch-up' structure (discussed later in this chapter) is used. For purposes of illustration, an example with just one additional incentive fee tier is shown (see Table 11.3). For simplicity, this example will assume no operating partner co-investment.

- *Incentive fee Tier 1:* 30 percent over a 10 percent IRR
- *Incentive fee Tier 2:* 50 percent over a 20 percent IRR

Comparing Table 11.3 with Table 11.1 illustrates the additional computational complexity associated with even a single extra hurdle. The first five rows are identical, resulting in an excess over the first hurdle of 10 percent or $5,951,250. However, with the two-hurdle structure it is necessary to determine whether there is sufficient cash flow to also exceed the second hurdle of 20 percent, in which this case, a portion of the cash flow will be promoted at the higher 50 percent rate. Key data from Table 11.3 is summarised below:

- *Profit dollars (the sum of cash flow after management fees):* $9,231,250
- *Amount needed to meet the 10 percent IRR threshold in final year:* $12,980,000
- *Amount needed to meet the 20 percent IRR threshold in final year:* $16,920,000
- *Amount in excess of 20 percent hurdle:* $322,679

Therefore, in this example, the operating partner would receive an incentive fee payment of $1,849,911 which would be comprised of 30 percent of the cash flow in excess of that necessary to generate a 10 percent return, and an additional 20 percent (for a total of 50 percent) of the dollars in excess of the amount needed to generate a 20 percent IRR. Put another way, the operating partner would have earned $1,688,571 for the portion of the asset performance between a 10 percent and a 20 percent IRR, and an additional $161,339 for performance in excess of the 20 percent IRR hurdle.

Table 11.3: **Waterfall with a second hurdle added**

	Time 0	Year 1	Year 2	Year 3	IRR
Asset cash flow	-$10,000,000	$0	$400,000	$19,031,250	25.0%
Less: Management fee to operating partner*		0	-100,000	-100,000	
Net cash flow before incentive fee	**-10,000,000**	**0**	**300,000**	**18,931,250**	**24.5%**
Cash flow needed to hit the 10% hurdle	-10,000,000	0	300,000	12,980,000	10.0%
Excess cash flow above first hurdle				5,951,250	
Additional amount for investor to hit 20% hurdle				3,940,000	
Proof of 20% hurdle	-10,000,000	0	300,000	16,920,000	20.0%
Additional amount grossed up for post-first hurdle split				5,628,571	
Lesser of prior row and excess cash flow				5,628,571	
Promote to operating partner at 30%				1,688,571	
Excess cash flow paid to investor at 70%				3,940,000	
Excess cash flow above second hurdle				322,679	
Promote to operating partner at 50%				161,339	
Excess cash flow paid to investor at 50%				161,339	
Total cash flow to investor	**-10,000,000**	**0**	**300,000**	**17,081,339**	**20.4%**
Total incentive fees payable to operating partner				**1,849,911**	

* To keep the example simple, the management fee is charged only when there is positive asset cash flow. In reality, the management fee in Year 1 could be paid by calling capital, or perhaps from a construction loan.

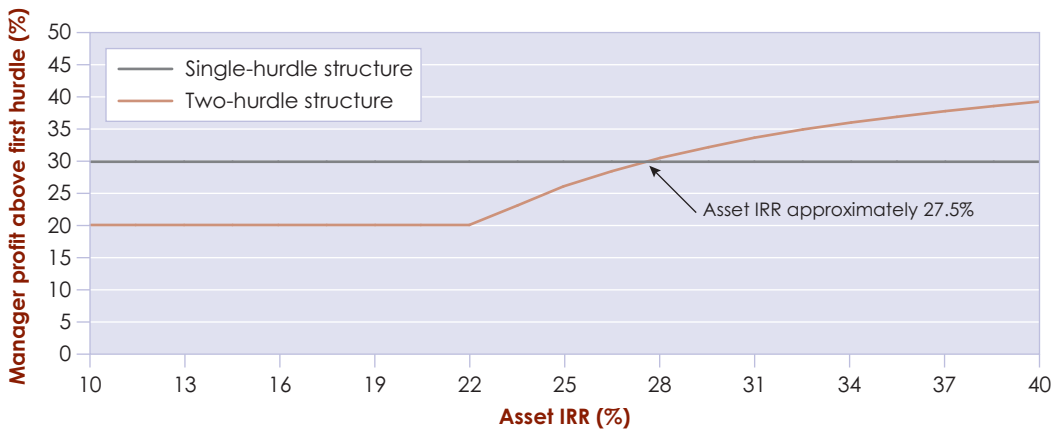
Multiple hurdles: a practical application

In some cases, there may be disagreement between an operating partner and an investor as to the proper level of incentive-fee compensation. Perhaps the operating partner believes the appropriate incentive-fee percentage is 35 percent over the hurdle, while the investor believes that it is 25 percent, but is willing to consider a higher number if the asset performs exceptionally. In such a circumstance, it is instructive to compare the results from two alternative structures:

- *'Compromise' single-hurdle structure:* 30 percent of profits above a 10 percent hurdle
- *'Compromise' multi-hurdle structure:* 20 percent of profits over a 10 percent IRR hurdle and 50 percent of profits over a 20 percent IRR hurdle

Figure 11.1 compares the results from these two structures. The two-hurdle approach allows the investor to realise its objective of limiting the incentive fee in the event that performance is 'good', and allows the operating partner to earn additional dollars if the asset performance is 'very good'.

Figure 11.1: **Comparison of single-hurdle and two-hurdle structures**



Notes: Single-hurdle structure includes a promote of 30% over a hurdle of 10%, and an asset management fee of 0.0%. Two-hurdle structure includes a promote of 20% over a hurdle of 10%, increasing to a promote of 50% over a hurdle of 20%, and an asset management fee of 0.0%.

Multiple hurdles advanced topic: investor-centric versus investment-centric

The term 'hurdle' has been used above without fully specifying its definition. Using the example in Table 11.3, there were two hurdles: one at a 10 percent IRR and one at a 20 percent IRR. However, this begs the question, just where in the analysis are these hurdles applied? For most institutional deals, hurdles reflect the net IRR earned by the investor. That is how the example in Table 11.3 is calculated. Therefore, the 30 percent operating partner participation begins when the investor has achieved a 10 percent IRR and the second-tier 50 percent operating partner participation in cash flow begins when the investor has achieved a 20 percent IRR. This approach is 'investor-centric'.

However, it is also possible to interpret hurdles as 'investment-centric'. There are two versions of investment-centric hurdles. First, the hurdle applies to the IRR that an asset achieves without consideration of JV expenses. In the examples used, this is the line in the tables titled 'Asset cash flow'. At this level there has not yet been an accounting for the JV management fee, or any incentive fee that might be paid to the operating partner. Second is to apply the hurdle after subtracting the management fee, but before accounting for any incentive fee payment. In the tables in this chapter, this is found on the line titled 'Net cash flow before incentive fee'.

Clearly it is easier (that is, it takes smaller amounts) to reach an IRR hurdle if it is measured at the asset cash flow level than if the hurdle is tested at the net cash flow before incentive fee level. Similarly it is easier to reach an IRR hurdle at the net cash flow before incentive fee level than at the 'Total cash flow to investor' level. Table 11.4 summarises the results that are obtained by applying the deal parameters used in Table 11.3 at the various levels discussed in this section.

As one would expect, the operating partner does better with investment-centric hurdles, and the investor does better with investor-centric hurdles. In theory, as with the splits versus promotes formulation, one could mathematically adjust the numbers to make the three

Table 11.4: **Applications of hurdles at different points in the waterfall**

Where hurdle is applied	Manager promote	Investor IRR
Asset cash flow	$2,294,625	19.3%
Net cash flow before incentive fee	$2,187,625	19.6%
Investor cash flow	$1,849,911	20.4%

approaches summarised in Table 11.4 equivalent. As a practical matter, however, the algebra is more difficult and perfect comparability can only be achieved at a single rate of return for the underlying investment. Therefore, rarely is this issue resolved in that manner.

Subordinated equity[4]

In all of the examples discussed above, there has been an implicit assumption that all capital contributed to the JV is treated equally (or *pari passu*) regardless of whether it has come from the investor or the operating partner. This is not always the case. By far the most common way for capital to be treated is for the operating partner's capital to be treated as subordinate to other investors' capital.

When all capital is not treated equally, waterfalls are more commonly expressed in terms of preferred returns rather than IRRs. Using the simple example from Table 11.2, these two formulations would read:

- *Preferred-return formulation (no subordination).* First, investors get their capital returned. Second, investors get a 10 percent preferred return. Third, of the remaining proceeds, the investors receive 70 percent and the operating partner receives 30 percent.
- *IRR-hurdle formulation (no subordination).* First, investors get a 10 percent IRR. Second, of the remaining proceeds, the investors receive 70 percent and the operating partner receives 30 percent.

There are a variety of ways in which an operating partner's equity could be subordinated. One of the more common ways is stated below, using the preferred-return formulation, with the parameters shown in Table 11.2:

- Sample waterfall with subordination of operating partner equity:
  - First, the investor gets its capital returned.
  - Second, the operating partner gets its capital retuned.
  - Third, to the investor until it has achieved a 10 percent return on its capital.
  - Fourth, to the operating partner until it has achieved a 10 percent return on its capital.
  - Fifth, 30 percent to the operating partner and 70 percent to the investor.

Table 11.5 runs the cash flows from Table 11.1 through this waterfall with subordination of operating partner equity. Note that the end result in this simplified case is virtually identical

[4] There is also the related concept of 'preferred' capital which can be contributed in the form of either debt or equity. This usually occurs when a project has unbudgeted capital needs and one or more partners contribute additional funds. These funds will typically earn a priority return and be first in the waterfall when capital is returned. There are many variations on this theme, and a discussion of this point is beyond the scope of this chapter.

Table 11.5: **Single-hurdle waterfall, with subordination**

	Time 0	Year 1	Year 2	Year 3	IRR
Asset cash flow	-$10,000,000	$0	$400,000	$19,031,250	25.0%
Less: Management fee to operating partner*	$0	$0	-$100,000	-$100,000	
Net cash flow before incentive fee	**-$10,000,000**	**$0**	**$300,000**	**$18,931,250**	**24.5%**
Less: Return of investor's capital			-$300,000	-8,700,000	
Less: Return of co-investor's capital				-1,000,000	
Less: Return of investor's preferred return				-2,949,000	
Less: Return of co-investor's preferred return				-331,000	
Excess cash flow				5,951,250	
Less: Incentive fee paid to operating partner (30%)				-1,785,375	
Remaining cash flow (70%)				4,165,875	
Remaining cash flow to investor (90%)				3,749,288	
Remaining cash flow to co-investor (10%)				416,588	
Total cash flow to investor	**-$9,000,000**	**$0**	**$300,000**	**$15,398,288**	**20.5%**
Total cash flow to operating partner	**-$1,000,000**	**$0**	**$100,000**	**$3,632,963**	**55.9%**

* To keep the example simple, the management fee is charged only when there is positive asset cash flow. In reality, the management fee in Year 1 could be paid by calling capital, or perhaps from a construction loan.

Table 11.6: **Applications of waterfall with subordination of operating partner equity**

	Operating partner	Investor
Capital treated pari passu		
Capital returned	$945,000	$8,505,000
Return on capital	$0	$0
Incentive fee	$0	N/A
IRR (excluding management fee)	-1.9%	-1.9%
Operating partner's capital is subordinated		
Capital returned	$450,000	$9,000,000
Return on capital	$0	$0
Incentive fee	$0	N/A
IRR (excluding management fee)	-23.4%	0.0%

to the result in Table 11.2. This occurs because there is sufficient cash flow to satisfy all of the hurdles in the waterfall.

However, should the project not be particularly successful, results can vary dramatically when operating partner equity is subordinated. Table 11.6 summarises the returns if the underlying asset results in net sales proceeds that are only slightly less than the amount invested.

Catch-ups

More common in funds, catch-ups are occasionally found in JVs as well. Catch-ups are an 'operating partner-friendly' concept that states rather than receiving a specific percentage of cash flow after a hurdle has been reached, the operating partner is entitled to a specified percentage of all profits, but not until after the investor has reached the hurdle. Going back to the asset in Table 11.1 as a point of reference, the incentive fee can be formulated as follows:

- *No catch-up.* The operating partner will receive 30 percent of cash flow after the investor has received a 10 percent IRR.
- *With catch-up.* After the investor has received a 10 percent IRR, the operating partner receives 100 percent of the cash flow until the operating partner has received 30 percent

Table 11.7: **Single-hurdle waterfall, with 100 percent catch-up**

	Time 0	Year 1	Year 2	Year 3	IRR
Asset cash flow	-$10,000,000	$0	$400,000	$19,031,250	25.0%
Less: Management fee to operating partner*	0	0	-100,000	-100,000	
Net cash flow before incentive fee	**-10,000,000**	**0**	**300,000**	**18,931,250**	**24.5%**
Cash flow needed to hit the 10% hurdle	-10,000,000	0	300,000	12,980,000	10.0%
Excess cash flow				5,951,250	
Catch-up algorithm					
Amount of profit to investor necessary to achieve 10% hurdle				3,280,000	
Additional profit amount to satisfy catch-up requirement (to operating partner)				1,405,714	
Excess cash flow remaining after satisfying catch-up requirement				4,545,536	
Incentive fee to operating partner at 30%				1,363,661	
Excess cash flow paid to investor at 70%				3,181,875	
Total cash flow to investor	**-10,000,000**	**0**	**300,000**	**16,161,875**	**18.2%**
Total incentive fees payable to operating partner				**$2,769,375**	

* To keep the example simple, the management fee is charged only when there is positive asset cash flow. In reality, the management fee in Year 1 could be paid by calling capital, or perhaps from a construction loan.

of the total profits. Thereafter, the operating partner receives 30 percent of the cash flow and the investor receives 70 percent.

Table 11.7 shows the results of applying the catch-up described above to the example used in Table 11.1. It should also be noted that catch-ups, like subordination, have many variations which can have a high degree of complexity.

Periodicity and compounding

Whether using the IRR-hurdle formulation or the preferred-return formulation, it is necessary to understand the periodicity of the cash flows that are used in the incentive fee calculation. Before computers and user-friendly spreadsheets, annual data or even aggregate total dollars might have been used. Now quarterly or monthly cash flows are the norm. In the case of the IRR-hurdle formulation, the XIRR (and XNPV) functions in Microsoft Excel allow for easy automation of daily analysis.

With respect to compounding hurdle rates, the IRR-hurdle formulation moots the need for this to be specified. However if an incentive fee is documented using the preferred-return formulation, it is important to specify both the periodicity and whether the any unpaid accrued return itself earns a preferred return, and how, if at all, it is compounded.

Items more likely to arise in multi-property or programmatic JVs

There are some issues that are unlikely (although not impossible) to arise in a single-asset JV, but which can be common in a multi-property JV.

Portfolio true-ups and clawbacks

In a fund context, there are several ways in which incentive fees can be cross-collateralised including, at the margin, simply calculating incentive fees based on portfolio performance. Although there is nothing that theoretically precludes a multi-property or programmatic JV from having an incentive fee structure that is entirely based upon performance at the portfolio level, such arrangements are atypical. More common are structures where some, or all, of the incentive fee is paid on an asset-by-asset basis, but the JV agreement includes a mechanism that allows for a return of some of that incentive fee to the investor should the overall portfolio not meet or exceed a pre-specified, portfolio-based test. This is sometimes referred to as a 'true-up'. The mechanism for returning to the investor some of the incentive fee previously distributed to the operating partner[5] is called a 'clawback'. The specific mathematics of a clawback are wholly dependent on the particular provisions that are incorporated into the JV's operating agreement. The clawback provision is frequently heavily negotiated. In most cases, operating partners are able to negotiate the provision so that only the after-tax portion of the incentive fee is subject to clawback, which increases the mathematical complexity, as it becomes necessary to determine the precise amount of the after-tax incentive fee.

Phantom income and tax distributions

Presuming that every asset within a multi-property JV is held in a separate special purpose entity, when that asset is sold profitably, taxes will be due. For the most part, these profits will not matter to tax-exempt institutional investors. However, taxable investors and the operating partner will be keenly interested in the tax liability associated with the disposition of an asset. This is particularly true because, often, not all of the cash from the sale of an asset will be distributed. Reasons for retaining some cash could include: a) increasing JV reserves; b)

[5] In some cases, a portion of the incentive fee is actually held in a reserve or holdback account.

potential contingent liabilities;[6] c) using the returned capital for other projects; or d) funding an incentive fee reserve account. For whatever reason, it is possible that an operating partner (and a taxable investor) might have a tax liability based upon profits from an asset sale even though there was no cash distributed.[7] This phenomenon is referred to as 'phantom income'. Many JVs have a provision that allows for payment to the operating partner of a 'tax distribution' sufficient to pay the tax liability associated with the phantom income.[8]

The mathematics of these tax distributions can be very complicated depending on the number of relevant taxing jurisdictions and the number of taxable investors. One simplifying assumption that is often made is to use the highest marginal tax rate of any taxable investor as the relevant rate for calculating the tax distribution for all investors.

Non-incentive fees

Unlike funds which charge a management fee and an incentive fee, the types of fees found in JVs are limited only by the imagination of the operating partner. While asset management fees are not uncommon in JVs, they are by no means universal and are, in some cases, replaced by a basket of other fees as described below. It would be rare to have all of these fees in any one JV.

- *Management/asset management fee.* In JVs this fee can be calculated as a percentage of a wide variety of factors including gross asset value, equity value, capital invested, unreturned capital, revenue or net operating income (NOI). In some cases, if the operating partner is earning a development fee (on a development asset) or a property management fee (on an operating asset), there may be no management fee, but rather management services will be baked into the development or property management fee.
- *Development fee.* This would apply to development projects and compensates the operating partner for sourcing and supervising development activities. This fee is generally a fixed percentage applied to project costs, although there can be some negotiation over just precisely which costs are allowed for purposes of this calculation. For example, land value and construction interest are sometimes excluded.
- *Construction management fee.* This fee compensates the operating partner for construction management services.[9] This fee could apply to both new construction and rehabilitation or redevelopment strategies. This fee is generally a fixed percentage applied to project hard costs and sometimes some or all soft costs.
- *Property management.* In some cases, the operating partner will be a real estate company that provides property management services. This fee is typically either a fixed percentage; a sliding scale of percentages, applied to revenue; or occasionally NOI.
- *Acquisition fee.* This fee compensates the operating partner for the costs associated with the acquisition of a project. When there is an acquisition fee, the fee is typically a fixed percentage or a sliding scale of percentages, applied to gross asset value or equity invested. In some cases, operating partners forego this fee and instead directly charge the JV for acquisition costs.[10]
- *Financing/refinancing fee.* An operating partner may charge a fee for sourcing and securing financing for a project. This is more likely if no external broker is utilised, although

[6] This is often an issue for development projects, particularly for-sale residential.
[7] More realistic would be a distribution of some cash, but not the full amount of the profit from the disposition of the asset.
[8] In some instances even tax-exempt investors negotiate for a 'tax-equivalent distribution'.
[9] In some cases some or all of these services are contracted out.
[10] In the case of a 'cost recovery' approach, there may be a spirited negotiation over the extent to which the operating partner can allocate its own internal costs to the JV.

occasionally a small fee may be charged even if a broker is used. This fee is generally a percentage applied to the amount of the financing secured. In cases where an external broker is used, the cost of the external broker may be deducted from the fee due to the operating partner.

- *Leasing fee.* An operating partner may provide brokerage services for a project. This fee is generally whatever is normal and customary in a given market for brokerage services. In cases where an external broker is used, the cost of the external broker will likely be deducted from the fee due to the operating partner.
- *Disposition fee.* This is a fee for disposing of an investment. This fee is more likely to be found if no external broker is used, although occasionally a small fee may be charged even if a broker is used. This fee is generally a percentage applied to the sales price. In cases where an external broker is used, the cost of the external broker may be deducted from the fee due to the operating partner.

Conclusion

Many of the mathematical issues discussed in this chapter are also found in other structures such as separate accounts and commingled funds. Although the underlying principles are relatively straightforward, the application of these principles in real-world situations can become very complex, whose degree is limited only by the imagination of the partners in a JV. □

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