

# REAL ESTATE FINANCE

Volume 32, Number 2

Fall 2015

## Understanding the Ponzi Rental Rate: The Challenges with Using Net Effective Rents to Analyze Prospective Lease Deals within Real Estate Investment Trusts

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This article discusses the challenges and shortcomings of using the Net Effective Rent (NER) method to analyze prospective lease deals in real estate as it pertains specifically to Real Estate Investment Trusts (REITs) and other real estate entities that have an explicit cost of equity, *i.e.*, dividend distributions to unit holders.

The majority of real estate institutional investors will use the discounted NER and compare actual/proposed NER against a budgeted NER. Many an asset manager or analyst have been lulled into a false sense of security by mistakenly believing that so long as the Proposed NER is greater than the Budgeted NER, the prospective lease deal is profitable or accretive simply because it is above budget. What is frequently ignored is how the budgeted NER is obtained, as most often the leasing assumptions generated are the best estimates of the leasing

manager given forecasted or current market conditions.

It is entirely possible to purchase a property at market prices, lease the property at market rates with market incentives and commissions, finance the property at market interest rates and incur negative cash flows without realizing it.

The Ponzi Rental Rate (PRR), to be described in depth in this article, is the net effective rental rate at which the real estate investor will be truly cash flow neutral over the life of the asset or term of the lease, taking into consideration all financing and building depreciation factors. There is an unlevered version (U-PRR) and levered version (L-PRR) and these rates can be thought of as break-even rates. They are not *subjective* like budgeted NER assumptions, but *objective* as they are determined solely by the tangible acquisition and financing costs, terms, and conditions that were put into place at the time the property was acquired.

### WHY THE PONZI SCHEME REFERENCE?

In the world of institutional real estate investing, real estate investment trusts (REITs) and similar dividend paying entities have received an undeserved reputation as being Ponzi schemes due to a few REITs engaging in the practice of paying out more dividend distributions than they earn in investment income, *i.e.*, greater than 100 percent payout ratio. This has led to the running joke that REITs operate much like pyramid schemes, whereby they raise funds from a new group of investors in order to pay an older set of unit holders and lenders.

The use of the “Ponzi” moniker is for the sole purpose of conceptualizing the underlying problem rather than suggesting that REITs are pyramid schemes.

### How REITs Work

The basic premise behind how a real estate investment trust operates is as follows:

If for every dollar you collect in rent, you pay less than a dollar in distributions, you are **accretive** and well on your way to increasing your FFO<sup>1</sup> per share and AFFO<sup>2</sup> per share. Put another way, if the net operating income (NOI) yield on the property the company is buying is 6 percent and the dividend yield on the equity shares issued to buy the property is 5 percent, assuming no leverage then the REIT is accretive by 1 percent and this will boost earnings per share.

For non-real estate investors, the funds from operations (FFO) can be either thought of as earnings before interest, taxes, depreciation, and amortization (EBITDA) or Cash Flow from Operations<sup>3</sup> (CFO) and the adjusted funds from operations (AFFO) can be thought of as Free Cash Flow (FCF), which is equal to Cash Flow from Operations less Cash Flow from Investments (CFI). In reality, the CFI that REITs use for the deduction is not an actual number, but an estimate typically based on a percentage of gross revenues as most commercial appraisers will use that method to deduct a structural reserve. FFO and AFFO is calculated at the macro or portfolio level.

### Problem with How REITs Use AFFO to Calculate Distributable Cash

There are a few flaws with using the AFFO approach to figure out distributable cash in that it ignores the following:

- The Capital Expenditure (Capex) deduction that REITs use to calculate the AFFO typically is an average estimated allowance across the entire portfolio, and is not property specific. For example, a REIT may use a 1 percent of effective gross revenue (EGR) as its Capex deduction but for an older property, its forecasted 10-year average Capex may turn out to be 5 percent of EGR.
- Mortgage principal repayments are not factored into AFFO because they fall under Cash Flow from Financing (CFC) activities. As the bank always gets paid first, these principal repayments reduce the true cash available for distribution.
- Investors seem to forget that while real estate as a whole generally appreciates, it is the underlying land that tends to appreciate in value while the physical building depreciates over a 50-year period on average. This is not accounted for and will be discussed under Return of Capital issues subsequently.
- Preferred stock dividends also are accounted for under financing cash flows, but in principle, operate like interest only debt with an infinite amortization period. This is also not accounted for in AFFO.

By the time all the debt and preferred equity holders have been accounted for, there actually is far less money available for distribution than what the AFFO model would lead an investor to believe.

### Why Does It Matter?

The \$64,000 question becomes: How does a fund manager's problem become a leasing or asset manager's problem? While the two job responsibilities and pay may seem a universe apart, the two have more in common than is realized when it comes to underwriting and negotiating prospective lease deals.

The following is a simple comparison between fund managers and leasing and/or asset managers' focus and responsibilities:

#### *Fund Manager*

- Looks at NOI yield, typically on an unleveraged basis while comparing the property's NOI yield against the shares' dividend yield
- Looks at FFO/AFFO, typically on a per-share basis
- Does not look at any cash flows on a per-square foot basis except for rents

- Bottom line focused
- Does not think about NER in yield terms (effectively a net cash flow yield)

### ***Leasing and/or Asset Manager***

- Focuses solely on NER<sup>4</sup> per square foot on an actual vs. budget vs. market basis
- Ignores any yield except for the discount rate used to calculate NER, and does not care about the cost of debt or equity or any financing terms
- Does not think about cash flow on a bottom-line basis
- Top line focused
- Does not think about NER in yield terms (does not think about the net effective rental cash flow psf that would pay for required debt and equity distributions)

The failure to bridge the two worlds is contributing to an underwriting environment in which:

- Leasing managers do not have an objective hurdle rate to target because they are misled into believing that all they need to do is beat budget and/or market rates.
- Budgeted NERs are set only relative to market expectations and nothing else.
- The portfolio manager who originally underwrites the property acquisition does not have an objective means to determine if the underwritten rents are accretive even if both the market rent and purchase price is at fair value.
- Deals may turn out to be long-term dilutive with a resulting loss in shareholder value many years down the road even though everyone thinks it is accretive on an AFFO or conventional yield comparison basis.

## **HOW LEASING MANAGERS CURRENTLY DO LEASING**

Most if not all leasing managers use an NER calculator on a spreadsheet to evaluate potential lease deals. The NER on an undiscounted basis simply is the sum of all the rental cash flows throughout the term of the lease less all leasing incentives and commissions divided by the term of the lease to get an equivalent “average” rental rate that you could hypothetically charge to the tenant that would bring you the same amount of cash flow throughout the term.

The NER on a discounted basis<sup>5</sup> is what is commonly used in North America and is simply the annuity due of the net present value of all the rental cash flows less incentives and commissions using the common discount rate of 10 percent.

In Exhibit 1, the leasing manager starts off with face rental rates of \$8.25psf but after all deductions of incentives and commissions ends up with a NER of \$5.10psf. A \$5.10psf NER is another way of saying that if the leasing manager were to charge \$5.10psf for three years and pay nothing else in incentives and commissions, he would generate the same cash flow and return based on a discount rate of 10 percent as a lease deal paying \$8.25psf less deductions.

The leasing manager would compare the proposed deal NER of \$5.10psf against his current year’s budget and if the proposed deal’s NER was greater than budget then he would be in the money. This is how leasing deals are analyzed in virtually every real estate company around the world with only minor variations in terms of discount rates used and other items added to the list of deductions such as hypothetical moving costs if analyzed from a tenant’s perspective.

If the proposed NER is greater than budgeted NER and the budgeted NER is at market, what’s wrong with this picture?

### **What’s Wrong with This Picture?**

The conventional NER model does not take into consideration the following cash-flow items:

1. Explicit Cash Flow Items (within the lease term).
  - a. The pro-rated underlying dividend per square foot that the property has to pay out to unit holders
  - b. The pro-rated interest expense per square foot
  - c. The pro-rated mortgage principal repayment per square foot
2. Implicit Non-Cash Flow Items (over the life of building).
  - a. The physical building’s depreciation over its remaining life
3. Recovery shortfalls from additional rent due to lease structures creating less than 100 percent recovery ratio within the lease itself.
4. Non-deal related non-recoverable capital expenditures.

Assuming that operating costs are a complete wash (#3 = zero) and there are no non-recoverable capital expenditures

## Understanding the Ponzi Rental Rate

## EXHIBIT 1

<b>Term:</b>		3.00 years	
<b>Op Costs</b>		\$5.56	
<b>Lease Start:</b>		January 1, 2015	
<b>Lease Expiry:</b>		December 31, 2017	
<b>Net Rent</b>	<b>Net Rent (Monthly)</b>	<b>Present Value</b>	<b>No. of Months</b>
\$8.25	\$0.69	\$7.89	12
\$8.25	\$0.69	\$7.14	12
\$8.25	\$0.69	\$6.46	12
\$0.00	\$0.00	\$0.00	0
\$0.00	\$0.00	\$0.00	0
\$0.00	\$0.00	\$0.00	0
\$0.00	\$0.00	\$0.00	0
\$0.00	\$0.00	\$0.00	0
\$0.00	\$0.00	\$0.00	0
\$0.00	\$0.00	\$0.00	0
		\$21.48	
Term:			36
<b>NPV of Net Rent</b>		\$21.48	
3,221.68	TI Cash	(\$0.77)	
18,660.64	LLW	(\$4.46)	
—	Amort. TW	\$0.00	
—	Listing Agent	\$0.00	
3,765.60	Tenant Rep	(\$0.90)	
—	PM OVR Fee	\$0.00	
8,629.50	# Net Free	(\$2.06)	3.0
—	# Gross Free	\$0.00	0.0
8,629.50	Free Rent		
—	Other	\$0.00	
	<b>Total Costs</b>	(\$8.19)	
<b>NPV of Budgeted Deal</b>		<b>\$13.29</b>	
<b>NER</b>		<b>\$5.10</b>	
<b>Effective Term:</b>		<b>2.60</b>	<b>years</b>
<b>Incntvs as % of Yr 1 Rent:</b>		<b>52.8%</b>	
<b>Months to Breakeven:</b>		<b>6.34</b>	<b>months</b>

(#4 = zero), then the property has to pay out a distribution per square foot equal to the dividend, interest, and principal payment at an absolute minimum in order to cover the cash flows over the amortization period of the loan (typically 25 years). There is a good chance that the amortization period is greater than the remaining useful life of the building. For

the sake of simplicity, assume that the interest rate does not change at the end of the mortgage term (typically five years).

The sum of these three amounts (dividends, interest, and principal payments) is actually determined at the point of acquisition and is not an assumption.

The example in Exhibit 2 is a building that was purchased for \$113.9psf of which \$47.0psf was financed by dividend-paying equity and \$66.8psf was financed by debt paying 4.01 percent amortized over a period of 300 months.

The mortgage yield is simply the mortgage payment including interest and principal divided by the loan issued at the time of acquisition. These mortgage payments will remain the same until the loan is fully paid off.

PV = \$66.8

N = 300

I = 4.01 percent compounded semi-annually but paid monthly (Canadian calculation)

$$\text{PMT} = \$0.351 \star 12 = \$4.22 \text{ per year}$$

The interest component will be the highest and the principal component will be the lowest at the beginning of the term and flip around at the end of the term. For simplicity's sake, to break out the interest from the principal, we have taken the interest only calculation as  $\$66.8 \star 4.01\% = \$2.68$  and taken the difference to be the principal.

The dividend per square foot is simply:  $\$47.0 \star 6.75\% = \$3.1725$

The sum of these two figures is \$7.40psf meaning that every year \$7.40psf is leaving the company's bank account to pay dividends and mortgage payments while the landlord is only collecting the equivalent of \$5.10psf. Therefore, even if \$5.10psf is above budget, the company is still losing \$2.30psf on a cash flow basis.

## The Counter-Argument for Ignoring Principal Repayments

But wait! When you pay down the principal, your equity in the property increases so you're really just paying yourself and your math no longer applies because you should be just looking at the interest only component of \$2.68psf.—Real Estate Investment Banker

This is a common argument that you hear and one that is flawed because a commercial property is compared against a

## EXHIBIT 2

GLA of Building (sf)	113,204	
All-in Acquisition Cost:	\$ 12,890,403	\$ 113.9
Going-in LTV:	58.7%	
Going-in Mortgage Amort Period:	300	months
Going-in Net Equity:	\$ 5,323,238	\$ 47.0
Going-in Mortgage:	\$ 7,567,165	\$ 66.8
Dividend Yield at Acquisition:		6.75%
Interest Cost at Acquisition:		4.01%
Principal Payment at Acquisition:		2.31%
Mortgage Yield at Acquisition:		6.32%
<b>RETURN ON CAPITAL CALCULATIONS:</b>		
<b>Unlevered Breakeven NER</b>	<b>\$</b>	<b>7.69 psf</b>
<b>Dividends Paid on Equity</b>	<b>\$</b>	<b>3.17 psf</b>
Add: Interest Paid on Loan		2.68 psf
<b>I/O Levered Breakeven NER</b>	<b>\$</b>	<b>5.85 psf</b>
Add: Principal Repayment		1.54 psf
<b>Fully Levered Breakeven NER</b>	<b>\$</b>	<b>7.40 psf</b>
<b>RETURN OF CAPITAL CALCULATIONS:</b>		
Percentage of Acquisition Cost Allocated to Building:	40.0%	
Building Allocation Cost:	\$ 5,156,161	\$ 45.5
Remaining Depreciation at Acq:	15 years	
<b>Sinking Fund Requirement (Inwood Method):</b>	<b>\$</b>	<b>1.31 psf</b>
<b>FULL CAPITAL RECOVERY BREAK-EVEN NER:</b>		
Unlevered Breakeven NER	\$	7.69 psf
Add: Sinking Fund Required		1.31 psf
<b>Unlevered Breakeven NER with Capital Recovery</b>	<b>\$</b>	<b>8.99 psf</b>
Fully Levered Breakeven NER	\$	7.40 psf
Add: Sinking Fund Required		1.31 psf
<b>Fully Levered Breakeven NER with Capital Recovery</b>	<b>\$</b>	<b>8.71 psf</b>

residential property, where that claim would be true. You as an individual do not have to pay dividends to a third-party, unless you count your spouse and children as shareholders. Exhibit 3 examines the argument further.

In summary, this author's argument is that every property should be treated as a REIT unto itself and every lease deal should be treated as a mini-REIT. The rental revenue that the new lease deal generates should be able to cover the property's proportionate share of debt and equity payments at an absolute minimum, otherwise the REIT's bank account will steadily decline to zero.

Fundamentally, if \$7.40 leaves your bank account and only \$5.10 enters your bank account over a defined time period, you will go broke. Everything that has been discussed above has been about the Return on Capital (ROC). The assumption is that you pay \$113.9 to earn \$5.10 and when you get tired of owning the property you sell it, get back at least \$113.9, pay the outstanding balance of the loan and keep the rest.

After all, real estate appreciates over time so you collect the income in the meantime and cash out with a nice capital gain upon sale. What if there is a flaw with this



## Understanding the Ponzi Rental Rate

### EXHIBIT 3

The Claim	The Counter
We should ignore the principal payments of \$1.54psf because you are just paying yourself.	In black and white terms, what is leaving the bank account? \$1.54psf or \$4.22psf? Who is the check written out to? The bank.
Your net book value goes up with each principal payment so the debt/equity ratio in the property changes each month so the math doesn't work.	<p>This is a half-truth. It is true that the debt/equity ratio in the property changes with each mortgage payment but the debt/equity ratio does not change at the corporate level. Equity shares are issued that pay dividends. <b>Unless you buy back the shares, there is no way to reduce the dividend payments.</b></p> <p>There is no way to take the increase in the property's equity and use that to buy back shares on the open market. <b>Only cash from the company's bank account can buy back shares on the stock exchange.</b></p> <p>In the example, dividends of \$3.17psf will be paid in perpetuity even after the mortgage has been paid off unless the shares are bought back.</p> <p><b>Shareholder's equity is just another type of liability and most non-accountants forget this.</b></p>
REITs re-finance their debt all the time, so you can safely ignore the principal repayment assumption even though there is a lag time.	<p>REITs generally try to lower their loan-to-value ratios over time. That means that when they refinance their debt, they refinance the outstanding balance at the time for the most part. They typically do not refinance to bring the LTV back to its original amount at time of acquisition by receiving money from the bank every five years. Even if they did that, they would still have to take that cash to buy back the equity shares.</p> <p>In the case of a REIT, an equity share that pays dividends is functionally no different than a bond. The only difference is that there is no amortization term and the size and timing of the "interest payment" is at the discretion of the company.</p>

line of thinking that is much closer to a myth than an assumption?

### YOU DON'T ACTUALLY GET YOUR MONEY BACK—NOT ALL OF IT ANYWAYS...

Every real estate model that exists has been focused on the Return ON Capital with the implicit assumption that you will always get a 100 percent return OF capital. After all, land simply does not disappear and only becomes scarcer over time. It is not like a mine or an oil well where once you have depleted all of the underlying resource there is nothing left but a pile of dirt that is a perfect site for a brownfield development opportunity.

Here's the rub: A commercial property is no different from a mine in that you are mining tenants for money. The physical building itself is the mine and eventually the mine runs out of tenants and collapses in on itself. All buildings depreciate and real estate investment models typically do not account for it.

To use an oversimplified example, suppose you buy a building for \$100 to collect a \$5/year rent. The building is brand new and is expected to last for 50 years. 100 percent of the cost of the property is attributable to the building (to maximize CCA of course) and only because you obtained the land for free. You issue one share for \$100 paying a 5 percent dividend and the investment is zero accretive (completely neutral). The real estate investment banker claims this is a 5 percent yield for the next 50 years but is it?

1. Purchase building for \$100.
2. Collect 50 years \* \$5 = \$250.
3. Sell the building and land for zero, because there's only land left.
4. Net profit is \$150. This is a 50 percent total return on investment. What is there to complain about?
5. You forgot that you had to pay \$250 to the shareholders over the past 50 years!
6. Shareholders want to retire and cash out their original investment of \$100.

7. They are sitting on worthless paper as there is nothing to sell.
8. There goes the retirement aspirations of investors who put their money into REITs.

If we do the math on a financial calculator to figure out the Internal Rate of Return (IRR) of the project, assuming a \$100 investment, 50 years of \$5 annual cash flows, a terminal value of zero, the IRR works out to be 4.43 percent.

But wait. IN REAL LIFE, nobody sells a property for zero. It can only appreciate.—Another wise Real Estate Investment Banker

Land appreciates. Buildings depreciate. That's real life. Buildings age, they wear and tear, and if left to their own devices will not be standing after 50+ years. Most people don't hold properties for several decades and for most investors, capital gains make up a good portion of the IRR. This is true, except that REITs aren't like most investors, as they are largely the buy and hold types.

The typical discounted cash flow (DCF) real estate model has a terminal value that is greater than the original acquisition price and the implicit assumption is that the property will be sold. At the property level, the NER is irrelevant because the face rate will be capitalized into the value of the building and you will make back a multiple of what you had put into the lease deal as commissions and incentives. This approach is acceptable for value-add and opportunistic investors but does not work for core income investors such as REITs where the intent is to hold properties to infinity and beyond.

## HOW DO YOU GET YOUR MONEY BACK?

...By sinking money into a sinking fund to avoid a sinking ship.—So says the asset manager

In the original example, we have determined that we must charge a minimum of \$7.40psf just to cover off all the debt and equity payments. However, we also know that if we hold the building until the end of its useful life and effectively get zero for the building, we can only sell the property for the value of the land and hope that the appreciation in the land more than offsets the loss in depreciation.

In Exhibit 4, we have assumed that the building is worth \$45.5psf and that there is only 15 years left before it falls down on itself. To ensure that at the end of 15 years we have \$45.4psf in the bank so that we can purchase or develop an equivalent building for the same price (a bit of a stretch but this is purely academic anyways) we do the math as follows:

FV = \$45.5

N = 15

I = 10 percent discount rate

PMT = \$1.31 (assume payments are made at the beginning of period)

This is a complicated way of saying that every year you put \$1.31 into an investment that pays 10 percent compounded annually in order to get \$45.5 in 15 years. Note that in that particular example, the math is done on a monthly and not annual basis, even if the rates are displayed on an annual basis.

### EXHIBIT 4

RETURN OF CAPITAL CALCULATIONS:		
Percentage of Acquisition Cost Allocated to Building:	40.0%	
Building Allocation Cost:	\$ 5,156,161	\$ 45.5
Remaining Depreciation at Acq:	15 years	
<b>Sinking Fund Requirement (Inwood Method):</b>	<b>\$</b>	<b>1.31 psf</b>
FULL CAPITAL RECOVERY BREAKEVEN NER:		
Unlevered Breakeven NER	\$	7.69 psf
Add: Sinking Fund Required		1.31 psf
<b>Unlevered Breakeven NER with Capital Recovery</b>	<b>\$</b>	<b>8.99 psf</b>
Fully Levered Breakeven NER	\$	7.40 psf
Add: Sinking Fund Required		1.31 psf
<b>Fully Levered Breakeven NER with Capital Recovery</b>	<b>\$</b>	<b>8.71 psf</b>

## Understanding the Ponzi Rental Rate

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The true NER you must charge to the tenant is \$7.40psf + \$1.31psf = \$8.71psf vs. the \$5.10psf we had thought was so amazing earlier.

### THE PONZI YIELD AND PRR

Taking the \$8.71 and dividing it by \$113.9 gives us 7.65 percent, which I term the “Ponzi Yield”. This would be the yield at which point the REIT would have to raise money from new investors to pay old investors if the yield on the property were lower, hence the term “Ponzi Yield”. The psf rate is the “Ponzi Rental Rate (PRR)” under the same principle.

$$\text{Ponzi Yield} = W_e \times \text{DIV}_e + W_d \times \text{PMT}_d + W_b \times \text{PMT}_f$$

Whereby:  $W_e$  = Weight of Equity (%)  
 $\text{DIV}_e$  = Dividend Yield (%)  
 $W_d$  = Weight of Debt (%) aka LTV  
 $\text{PMT}_d$  = Mortgage Yield (%)  
 $W_b$  = Weight of Building (%)  
 $\text{PMT}_f$  = Sinking Fund Annuity Due payment per \$1

Our example:  $(41.26\% \times 6.75\%) + (58.74\% \times 6.32\%) + (40\% \times 2.87\%) = 7.65\%$ .

In summary, if you were to PURCHASE the building given the debt and equity terms and rates, you would need to yield 7.65 percent on the asset in order to yield 6.75 percent for the equity holders over a 15 year holding period.

The Ponzi yield is only useful prior to purchase because you use it to adjust your purchase price. After you have purchased the property, then you must rely on the PRRate.

The Ponzi Rental Rate (unlevered or levered) is the summation of the following:

Dividends paid on equity psf  
+ Mortgage payments psf  
= Fully Levered Breakeven NER  
+ Sinking Fund Required psf  
= Fully Levered Breakeven NER including Capital Recovery aka PRR

If in our example, the property was purchased for \$113.9 assuming the debt and equity allocations, rates, building age, etc. the landlord would need to charge the Tenant an \$8.71psf NER to have zero accretion over the remaining life of the asset. If the landlord is only evaluating the deal

inside the term of the lease, then \$7.40psf will cover the cash outgoings from debt and equity payments.

As a side note, by doing both the unlevered and levered calculations, it is possible to determine if hypothetically you could deleverage the asset and still remain accretive.

As a final note, if one wishes to determine the breakeven Gross Effective Rent (GER), simply add the psf of the additional rent to the breakeven NER number above. Note that when you calculate the actual GER, you add the deal NER to the Additional Rent  $\times F$ , where  $F$  = the percent of additional rent that are fixed costs. In the event that all additional rent is variable, then the incremental rental revenue gained simply will be the net effective rent. If all of the additional rent is fixed, then the incremental rental revenue will be the gross effective rent. The simplest example to use is security expense. The building will be patrolled regardless of whether it is 100 percent occupied or 50 percent occupied as the security guard will not ignore the vacant space. Therefore if the building is 60 percent occupied, the landlord will take a 40 percent loss on additional rent recoveries. If a new tenant comes along, then the new additional rent recoveries go to the bottom line of the landlord. If the additional rent is completely variable, say janitorial, whereby only occupied space is cleaned and charged, than any new additional rent will be offset by the additional janitorial expense.

### THE TAXI ON THE TOLL ROAD ANALOGY

Let's imagine that an enterprising businessman has purchased a private road that connects two towns together that are on opposite sides of a mountain. This is the only road that runs through the mountain and he has the only vehicle that can navigate the treacherous terrain. To buy this business from the previous owner, he has incorporated a company and issued a 50/50 combination of debt and equity shares to investors to finance this venture. The vast majority of the funds raised will go towards purchasing a brand new vehicle and no value is assigned to the road. The entrepreneur generates income by shuttling people back and forth between the two towns for a fixed fee in each direction.

The specialized car costs \$250,000 to buy and will last for 20 years with regular maintenance. Annual fuel and maintenance costs are \$20,000. The owner wants to make



EXHIBIT 5

TAXI ON A TOLL ROAD EXAMPLE	
	YEAR 1
<b>REVENUE</b>	
Base rental income	\$ 25,000
Fuel and Maintenance Recovery	20,000
<b>TOTAL REVENUE</b>	<b>45,000</b>
<b>OPERATING EXPENSES</b>	
Fuel and Maintenance Expenses	20,000
<b>NET OPERATING INCOME BEFORE DEBT</b>	<b>25,000</b>
<b>DEBT SERVICING COSTS (YEAR 1)</b>	
Interest Payments	6,250
Principal Repayments	3,780
<b>TOTAL DEBT SERVICING COSTS</b>	<b>10,030</b>
<b>CASH AVAILABLE FOR DISTRIBUTION</b>	<b>14,970</b>
<b>EQUITY DIVIDENDS PAYABLE</b>	<b>8,750</b>
<b>NET ACCRETION (DILUTION)</b>	<b>\$ 6,220</b>

an annual profit of \$25,000 per year (10 percent yield) so charges a total of \$45,000 per year in gross revenue. The debt that he borrowed will be amortized over 20 years at a 5 percent interest rate. The equity he issued will pay a 7 percent dividend yield. Any money that is left over he gets to keep as bonus (the net accretion).

The cash flow statement is shown in Exhibit 5. Total net cash flow or accretion for 20 years will be  $\$6,220 \times 20 = \$124,400$  or a 49.76 percent total return on capital invested. After the debt is paid off, the distributable cash will rise to \$25,000 per year. He will then pocket  $\$25,000 - \$8,750 = \$16,250$  from Year 21 and onwards.

What's wrong with this picture? He won't have a vehicle to drive. The vehicle's useful life is only 20 years after which he has to buy a brand new one for \$250,000. He only has \$124,400 in the bank. When he was paying down the debt with principal repayments, **was he really paying himself or so goes the argument?**

No. The bank owned 50 percent of the vehicle to start and he was buying a piece of it from the bank every single year.

The underlying value of the road can rise to any value but unless a sale of the underlying road occurs, there is insufficient cash to continue operating the business. This is the fundamental flaw of REITs that do not take building depreciation into consideration.

## BUDGETING USING THE PRR METHOD

Conventional revenue budgeting and variance analysis has the leasing manager compare proposed or actual vs. budget. As discussed previously, this typical approach has a major short-coming in that budgeted lease rates and NER are loosely tied to market forecasts done six months in advance of the budget year, e.g., 2015 budgeted lease rates are done in the summer of 2014. Typically, the focus is on the Year 1 rental revenues and corresponding lease commissions and allowances, whereby the rental rates and tenant improvement allowances are deemed to be "at market", while landlord's work is deemed to be unit specific. The end result is that the budgeted NER for a particular lease or unit is completely arbitrary and reflects nothing on the profitability of the lease itself.

For the vast majority of real estate firms, financial managers understand the concept of recovery rates as it pertains to additional rent and recoverable operating expenses. What many people fail to realize, is that the exact same principle applies for REIT like organizations such that net rental revenue less debt and equity servicing costs should be greater than or equal to zero.

Ideally, at the time a proposed deal is analyzed, the following should be compared:

Proposed (A): \$5.00  
 Budget (B): \$4.50  
 Budget Variance (A-B): \$.50  
 Market (C): \$4.75  
 Market Variance (A-C): \$0.25  
 Fully Levered Breakeven (D): \$5.10  
 Breakeven Variance (A-D): -\$0.10

It also is possible to break it down further and compare the proposed deal against dividends and debt servicing individually although some may see this as overkill. What typically happens is that proposed is only compared against budget and loosely against market.

The second point that should be emphasized is that focusing on Year 1 cash flows can lead one to engage in short-sighted analysis for the following reasons:

- It is possible to have a higher NER deal with a lower Year 1 cash flow due to larger escalations or smaller allowances and commissions.

## Understanding the Ponzi Rental Rate

- It may be more desirable to compromise with a lower NER if the face rates contribute to an enhanced valuation due to the capitalization of face rates.
- If there are two possible lease deals to consider where both NERs are equivalent, then the one with the longer term generally is more desirable, *i.e.*, take the NPV into consideration.
- In the instances where there are differing NERs and differing terms, then divide the NPV by the NER and take the deal with the highest ratio. For example, \$5.00 NER and 5-year term is less desirable than \$4.90 NER and 7-year term if the objective is long-term income stability. The latter deal has a much higher NPV.

At the time a lease deal is analyzed, a financial manager will form one of two general conclusions:

1. If the proposed NER is greater than breakeven, then the lease deal is cash flow accretive and the risk profile is core.
2. If the proposed NER is less than breakeven, then the lease deal is cash flow dilutive and the risk profile is value-add because the gains come from the future sale.

A more detailed matrix below illustrates the various possible combinations:

- A: Cash Flow Accretive
- D: Cash Flow Dilutive
- VE: Valuation Enhancing
- VR: Valuation Reducing
- OB: Outperforming Budget
- UB: Underperforming Budget
- OM: Outperforming Market
- UM: Underperforming Market

As shown in Exhibit 6, there are actually 16 possible outcomes for a potential lease deal whereas typically only

two outcomes are considered (above or below budget). Out of the above-budget scenarios, only two out of the possible eight outcomes that are “Greater-than-budget” are desirable, which means that 75 percent of all greater than budgeted lease deals are potentially negative to the firm! Looking only at the budget numbers will result in a losing scenario the majority of the time.<sup>6</sup>

It should be noted that the bolded outcomes are the worst possible deals that a leasing manager can do and half of them could be inadvertently approved without knowledge of the full impact. In these scenarios, the lease deals would be both dilutive and value-reducing. The dilution impact would reduce the AFFO and by extension the share price of the REIT. The valuation-reducing impact would decrease the property’s value as the proposed deal would be potentially setting precedent rents below the in-place rents. That being said, it should be noted that a sub-optimal deal on vacant space is better than no deal if immediate cash flow is the primary driver. **The cash flow on the building would improve; however, it would still be dilutive to the building, but simply less dilutive than if the unit was vacant.**

## STRUCTURING LEASE PROPOSALS TO MAXIMIZE POTENTIAL NER

The conventional approach to lease proposals is to put forth a single option to the tenant with respect to the term, rental rates, and any inducements. The leasing manager will open with a higher than expected amount and then negotiate down to the closing rates and the NER and NPV heads in one direction....down. As tenants typically are commitment averse, the landlord rarely will get the maximum possible term out of them because from their perspective, they will simply commit to an extra year for the same or increased rent. Under a conventional lease proposal, it is impossible to determine the tenant’s maximum term that

### EXHIBIT 6

		Less than Breakeven		Greater than Breakeven	
		Less than Market	Greater than Market	Less than Market	Greater than Market
Less than In-Place Rents	Less than Budget	<b>D/VR/UB/UM</b>	<b>D/VR/UB/OM</b>	A/VR/UB/UM	A/VR/UB/OM
	Greater than Budget	<b>D/VR/OB/UM</b>	<b>D/VR/OB/OM</b>	A/VR/OB/UM	A/VR/OB/OM
Greater than In-Place Rents	Less than Budget	D/VE/UB/UM	D/VE/UB/OM	A/VE/UB/UM	A/VE/UB/OM
	Greater than Budget	D/VE/OB/UM	D/VE/OB/OM	A/VE/OB/UM	A/VE/OB/OM

## EXHIBIT 7

		INITIAL		COUNTER		FINAL
<b>3-YEAR</b>						
Year 1		8.50		8.50		8.50
Year 2		9.00		8.75		8.75
Year 3		9.50		9.00		9.00
TI/LLW		—		—	—	2.00
Comm	—	1.61	—	1.57	—	1.57
# mos FR		0		1		1
<b>NER</b>	<b>\$</b>	<b>8.35</b>	<b>\$</b>	<b>7.86</b>	<b>\$</b>	<b>7.09</b>
<b>NPV</b>	<b>\$</b>	<b>21.75</b>	<b>\$</b>	<b>20.47</b>	<b>\$</b>	<b>18.47</b>
<b>5-YEAR</b>						
Year 1		8.25		8.25		8.00
Year 2		8.50		8.50		8.25
Year 3		8.75		8.75		8.50
Year 4		9.00		9.00		8.75
Year 5		9.25		9.25		9.00
TI/LLW		—		—	—	2.00
Comm	—	2.44	—	2.44	—	2.37
# mos FR		1		3		3
<b>NER</b>	<b>\$</b>	<b>7.91</b>	<b>\$</b>	<b>7.56</b>	<b>\$</b>	<b>6.84</b>
<b>NPV</b>	<b>\$</b>	<b>31.29</b>	<b>\$</b>	<b>29.91</b>	<b>\$</b>	<b>27.05</b>
<b>7-YEAR</b>						
Year 1		8.00		8.00		7.75
Year 2		8.25		8.25		8.00
Year 3		8.50		8.50		8.25
Year 4		8.75		8.75		8.50
Year 5		9.00		9.00		8.75
Year 6		9.25		9.25		9.00
Year 7		9.50		9.50		9.25
TI/LLW		—		—	—	2.00
Comm	—	3.30	—	3.30	—	3.21
# mos FR		2		5		5
<b>NER</b>	<b>\$</b>	<b>7.74</b>	<b>\$</b>	<b>7.34</b>	<b>\$</b>	<b>6.73</b>
<b>NPV</b>	<b>\$</b>	<b>39.15</b>	<b>\$</b>	<b>37.15</b>	<b>\$</b>	<b>34.09</b>
<b>10-YEAR</b>						
Year 1		7.75		7.75		7.50
Year 2		8.00		8.00		7.75
Year 3		8.25		8.25		8.00
Year 4		8.50		8.50		8.25

Continued

Year 5		8.75		8.75		8.50
Year 6		9.00		9.00		8.75
Year 7		9.25		9.25		9.00
Year 8		9.50		9.50		9.25
Year 9		9.75		9.75		9.50
Year 10		10.00		10.00		9.75
TI/LLW		—		—	—	2.00
Comm	—	4.67	—	4.67	—	4.54
# mos FR		5		7		7
<b>NER</b>	<b>\$</b>	<b>7.43</b>	<b>\$</b>	<b>7.23</b>	<b>\$</b>	<b>6.71</b>
<b>NPV</b>	<b>\$</b>	<b>47.25</b>	<b>\$</b>	<b>45.96</b>	<b>\$</b>	<b>42.64</b>

they are secretly willing to commit to. Therefore, every lease deal is inherently sub-optimal.

One proven method to lease optimization is to adopt a matrix lease negotiation model which employs multiple offers of different terms and rates. This causes the tenant to effectively negotiate against himself, if less sophisticated, and creates psychological barriers that the tenant will not want to break through on the downside, without running the risk of embarrassment. The difference with this approach is that the landlord has multiple NER targets that vary with the length of term. With this approach, short-term deals are highly cash-flow accretive and market setting, while longer-term deals are less accretive but stabilize valuation.

Exhibit 7 summarizes by way of example how one might offer a multi-term proposal to a prospective tenant and lists out the corresponding NERs and net present value. Exhibit 8 summarizes the incremental changes from one stage to another and from one term to another.

The pricing and psychological rationale for this approach is as follows:

### Stage 1—Opening offer:

- To incentivize the tenant to move from a three year to five year lease, starting rents drop by \$0.25 and finish \$0.25 below on the last year. The tenant also gets one month net free.
- To incentivize a move from five years to seven years, starting rents drop by another \$0.25 and finish \$0.25 above on the last year. Relative to three year, the seven year starts \$0.50 below the first year and finishes at the same rate as the three year. The tenant also gets two months net free.

## Understanding the Ponzi Rental Rate

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### EXHIBIT 8

#### NER SUMMARY

	Initial	→	Counter	→	Final
<b>3-Year</b>	\$ 8.35	-\$ 0.49	\$ 7.86	-\$ 0.77	\$ 7.09
↓	-\$ 0.44		-\$ 0.30		-\$ 0.25
<b>5-Year</b>	\$ 7.91	-\$ 0.35	\$ 7.56	-\$ 0.72	\$ 6.84
↓	-\$ 0.18		-\$ 0.22		-\$ 0.11
<b>7-Year</b>	\$ 7.74	-\$ 0.40	\$ 7.34	-\$ 0.61	\$ 6.73
↓	-\$ 0.30		-\$ 0.11		-\$ 0.03
<b>10-Year</b>	\$ 7.43	-\$ 0.20	\$ 7.23	-\$ 0.52	\$ 6.71

#### STARTING RENT SUMMARY

	Initial	→	Counter	→	Final
<b>3-Year</b>	\$ 8.50	\$ -	\$ 8.50	\$ -	\$ 8.50
↓	-\$ 0.25		-\$ 0.25		-\$ 0.50
<b>5-Year</b>	\$ 8.25	\$ -	\$ 8.25	-\$ 0.25	\$ 8.00
↓	-\$ 0.25		-\$ 0.25		-\$ 0.25
<b>7-Year</b>	\$ 8.00	\$ -	\$ 8.00	-\$ 0.25	\$ 7.75
↓	-\$ 0.25		-\$ 0.25		-\$ 0.25
<b>10-Year</b>	\$ 7.75	\$ -	\$ 7.75	-\$ 0.25	\$ 7.50

#### TI/LLW SUMMARY

	Initial	→	Counter	→	Final
<b>3-Year</b>	\$ -	\$ -	\$ -	-\$ 2.00	-\$ 2.00
↓	\$ -		\$ -		\$ -
<b>5-Year</b>	\$ -	\$ -	\$ -	-\$ 2.00	-\$ 2.00
↓	\$ -		\$ -		\$ -
<b>7-Year</b>	\$ -	\$ -	\$ -	-\$ 2.00	-\$ 2.00
↓	\$ -		\$ -		\$ -
<b>10-Year</b>	\$ -	\$ -	\$ -	-\$ 2.00	-\$ 2.00

#### FREE RENT SUMMARY

	Initial	→	Counter	→	Final
<b>3-Year</b>	—	1.00	1.00	—	1.00
↓	1.00		2.00		2.00
<b>5-Year</b>	1.00	2.00	3.00	—	3.00
↓	1.00		2.00		2.00
<b>7-Year</b>	2.00	3.00	5.00	—	5.00
↓	3.00		2.00		2.00
<b>10-Year</b>	5.00	2.00	7.00	—	7.00

- To incentivize a move from seven years to ten years, starting rents drop by another \$0.25 and finish \$0.50 above the seven year on the last year. Relative to the five year, starting rents drop by \$0.50 on the first year and finish \$0.75 above the last year of the five year. The tenant also gets five months net free.
- This approach under Stage 1 allows the landlord to extract the maximum term from the tenant. The rates are structured in such a way that from the three year to the seven year, the tenant is explicitly leaving money on the table to have the flexibility of a shorter term. Only the tenant knows how long they truly intend to stay given their business prospects so this method captures the maximum possible term without significant financial compromise by the landlord. A psychological floor is created by whereby the tenant knows that if he wants to push rates down below a certain point, he must be willing to take on an additional term.

### **Stage 2—Counteroffer:**

- Three year: Escalations drop to \$0.25 such that Year Three Rent finishes at the same rate as Year Two AND you get one month net free.
- Five year: Escalations and starting rent remains the same but free rent triples to three months. The landlord would argue the point that the tenant is only paying 11 months out of 12 for each year.
- Seven year: Escalations and starting rents remain the same but free rent increases to five months from three months. The landlord would argue the point that the tenant is effectively only paying 11 months out of 12 for the first five years.
- Ten year: Escalations and starting rents remain the same but free rent increases to seven months from five months. The landlord would argue the point that the tenant is effectively only paying 11 months out of 12 for the first seven years.

### **Stage 3—Final offer:**

- All terms: Add in landlord's work or TI of \$2.00psf, which is equivalent to another three months of free rent.

While a sophisticated tenant or tenant's broker likely will be able to see the strategy that is inherently deployed, there are still psychological barriers in play and the tenant will not go through the exercise of a multiple NER calculation whereas the landlord will. As brokers earn more

commission with increased terms, the broker also is incentivized to play along. Although this approach is not fool-proof, this negotiation matrix is inherently asymmetrical to the benefit of the landlord as **it induces the tenant to negotiate against his own requirements and seek the maximum term possible instead of the minimum term.**

In order for this approach to work correctly, the outgoing rates must be structured in such a manner that there is no contradiction as one moves left to right or top to bottom through the matrix. The final NER should be in line with the agreed-on breakeven NER to be used and the starting rents are calculated by working backwards to get to the starting position and keeping them in line or slightly above market.

There are three major principles of influence at work in this matrix-style negotiation model:

1. **Reciprocity**—This is the traditional give and take model. On paper, the prospective tenant can see what the landlord is “giving” as a compromise for extending the term. This induces the tenant to accept what is “given” in spite of the fact that the financial terms are inherently in the landlord's favor and consistent with the landlord's financial objectives. Under a traditional model, the tenant rejects the landlord's offer and counters with his own terms. Under the new model, the tenant rejects one option and chooses in favor of another because the terms are pre-negotiated. This gives the illusion of choice and self-determination.
2. **Commitment and Consistency**—If people commit, orally or in writing, to an idea or goal, they are more likely to honor that commitment because of establishing that idea or goal as being congruent with their self-image. If they see themselves as being in business for the long-term with stable growth, they instinctively will lean towards the option that gives them maximum forward visibility. Also, at a more subtle level, the act of striking out what the tenant doesn't want by default causes them to choose what is remaining. It takes an extra step to strike out what is remaining and negotiate the terms AND not look greedy because the rates are bounded by the longer terms.
3. **Scarcity**—At the time of the initial offer, the landlord will clearly outline to the tenant that there are incentives for committing longer and that if they are in the



business for the long haul, they are leaving money on the table by not choosing the longer term. It is simply incongruent with the tenant's objectives to minimize cash outlays to accept anything less than the optimal term. Psychologically, it is difficult to give up free rent and pay higher rental rates simply for having a shorter term if they themselves know they are in business for the long-term at that location. From a business standpoint, if market rents are rapidly escalating or stable, or if growth prospects are stable or growing moderately, it makes sense to commit longer.

There are only three instances where a tenant is incentivized to minimize term:

- i. Business prospects are poor,
- ii. Market rents are expected to drop drastically, or
- iii. Expected growth is so large the tenant can see himself outgrowing the space in a few years.

With respect to the third scenario, this can be easily overcome in a multi-tenanted building because the tenant can simply expand if space is available in any of the landlord's nearby premises, knowing that the landlord will be more than happy to accommodate.

This negotiation approach has been proven to work on small-bay multi-tenanted complexes. It generally will be less effective on larger space users where lease terms are more a function of well-thought out space planning requirements and there is less flexibility to play with the length of the lease.

## CONCLUSION

This author believes that it is a fundamental mistake for leasing managers to simply compare the proposed NER against the budgeted NER in isolation. While leasing managers typically do not care about the investment performance of the building as they are not investment analysts, they should be made aware of the breakeven NER required of the property that they are leasing. On the flip side, fund managers need to move beyond thinking about NOI yields and interest and focus more on cash-on-cash and mortgage yields and factoring in depreciation.

**That being said, it is not a black and white decision to simply not do a deal because it is dilutive.** Some cash flow is better than no cash flow and the example analysis has not factored in the impact of additional rents (we have assumed that all additional rents are variable costs and a wash), but the leasing and asset manager should be aware of the ideal target (PRR) and if they approve deals that are dilutive, they should be aware of by how much they are dilutive.

It is easy to set budgeted NERs based on market expectations, but these are moving targets that change from year to year, whereas the PRR is fixed from the point of acquisition and does not change without a modification to financing terms and conditions. Many portfolio managers forget the difference between the mortgage term and amortization period and sometimes fail to realize that the average amortization period of the portfolio loans can be greater than the average remaining life expectancy of the buildings. **Therefore, if interest rates don't change and the mortgage payments remain the same, by the time the loan is fully paid off, the building is functionally obsolete if not demolition-ready, with little value to a potential occupier.**

## NOTES

1. FFO: The most commonly accepted and reported measure of REIT operating performance. Equal to a REIT's net income, excluding gains or losses from sales of property, and adding back real estate depreciation. Source: [www.REIT.com](http://www.REIT.com) glossary.
2. AFFO: This term refers to a computation made by analysts and investors to measure a real estate company's cash flow generated by operations. AFFO usually is calculated by subtracting from Funds from Operations (FFO) both (1) normalized recurring expenditures that are capitalized by the REIT and then amortized, but which are necessary to maintain a REIT's properties and its revenue stream (e.g., new carpeting and drapes in apartment units, leasing expenses and tenant improvement allowances), and (2) "straight-lining" of rents. This calculation also is called Cash Available for Distribution (CAD) or Funds Available for Distribution (FAD). Source: [www.REIT.com](http://www.REIT.com) glossary.
3. Note that Cash Flow from Operations (CFO) includes interest payments but not principal payments, which are handled under Financing Cash Flows.
4. The Net Effective Rent (NER) is the effective rent to the landlord over the term of the lease after taking the present value of the net rental income for the term, then deducting the present value of leasing commissions, tenant improvement allowances, landlord's work, lease takeover costs, free rent periods, then amortizing the present value over the term of the lease similar to an annuity, such that if the landlord were to charge the NER as the sole face rate with no allowances or deductions, an identical rate of return would be achieved, based on the discount rate used.
5. The common discount rate used is 10 percent. It also is the discount rate used in the included examples.
6. In the grander scheme of things, valuation impact is greater than accretion impact because incremental cash flows are capitalized. That is why it is possible to do zero or negative NER deals and still make money when you sell the building later on.

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