

REAL ESTATE **INVESTMENT 101**



COMMON TERMINOLOGY

01 Equity

The difference between what you owe on your mortgage and what your property is currently worth.

02 Principal & Interest (P&I)

The principal is the amount you borrowed and have to pay back, and interest is what the lender charges for lending you the money.

03 Amortization

The process of paying off your mortgage loan with regular monthly payments.

04 Operating Expenses

All costs associated with operating a property, excluding the monthly mortgage expense.

3 PARTS OF AN INVESTMENT PROPERTY

01 Income

Rental Income received from tenant.

02 Expenses

Repairs, insurance, maintenance, service charge, mortgage expenses, property management, and taxes.

03 Financing

Interest rate, terms, payment, and amortization schedule.



FINANCIAL BENEFITS OF AN INVESTMENT PROPERTY

01 CASH FLOW

Profit left after collecting income, paying all expenses and setting aside reserves for the future

02 PRINCIPAL REDUCTION

Mortgage payments made using rental income

03 APPRECIATION

Increase in property market value over time



Let's go through an example together!

You are at a family event and Sarah, your favourite Aunt, says she is about to make an offer on an apartment with money she recently inherited.



Aunt Sarah

"It sounds like a great opportunity! There has already been an AED 75,000 reduction in price."

Agent

"Whoa, slow down Aunt Sarah, let's analyse the property first and understand whether it's worth your money"



You offer to help your Aunt Sarah understand the properties rates of return and whether she should invest in the apartment. These are the property details:

- Cost of property = AED 2,200,000
- Down Payment = AED 480,000
- Loan Amount = AED 1,720,000
- Mortgage Interest Rate = 4%
- Amortized over = 30 years
- Annual rent = AED 165,000

- Monthly P&I = AED 8,212
- Total 1st year interest = AED 68,249
- Principal reduction = AED 30,290

- Vacancy period (1 month) = AED 13,750
- Annual Service Charges = AED 19,250
- Property Management (yearly) = AED 11,550



TIP

Look for an amortization calculator online to help identify these numbers for your client!

We have created a handy worksheet to help you analyse the different rates of return for any of your investor clients. For this example, we will go through each section of the worksheet to help you understand the different formulas. You can find the full worksheet at the end of this guide.

SECTION 1 - PROPERTY DETAILS

PROPERTY DETAILS

Purchase cost 2,200,000

Cash invested 480,000

Financing: Amount 1,720,000 Rate 4% P&I 8,212 (per month)

SECTION 2 - INCOME AND TOTAL OPERATING EXPENSES

INCOME AND TOTAL OPERATING EXPENSES

Annual rent 165,000 Minus Vacancy 13,750 = Gross Operating Income 151,250

Annual operating expenses

Property management 11,550 Insurance _____ Repairs _____

Service charges 19,250 Advertising _____ Utilities _____

Other _____

Total operating expenses

= 30,800

SECTION 3 – FINANCIAL BENEFITS OF THE INVESTMENT PROPERTY

3 FINANCIAL BENEFITS OF THE INVESTMENT PROPERTY

1. Gross operating income	=	<u>151,250</u>
Minus: operating expenses	=	<u>30,800</u>
Equals: net operating income.	=	<u>120,450</u>
Minus: annual debt service (monthly P&I x 12)	=	<u>98,544</u>

Equals: Cash Flow

= 21,906

2. Annual debt service	=	<u>98,544</u>
Minus: interest	=	<u>68,249</u>

Equals Principal Reduction

= 30,295

3. Appreciation (estimate)	=	<u> </u>
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SECTION 4 – RATES OF RETURN

RATES OF RETURN

Return on investment with appreciation	$\frac{\text{Cash flow} + \text{principal reduction} + \text{appreciation}}{\text{Cash invested}}$	= N/A
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Return on investment without appreciation	$\frac{\text{Cash flow} + \text{principal reduction}}{\text{Cash invested}}$	= 10.8%
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Capitalisation rate	$\frac{\text{Net operating income}}{\text{Purchase cost}}$	= 5.4%
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Cash on cash return	$\frac{\text{Cash flow}}{\text{Cash invested}}$	= 4.56%
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Well that depends, each client you interact with will have different financial goals, objectives, and risk tolerances. We can't set a number to be good or bad as this range will be different for each client. Look into your clients' needs and help them understand what sort of return they can expect by investing in property. It is then up to the client to decide whether these numbers work for them.

If you have investor clients, you must understand the different terminologies and formulas behind analysing a property. In this guide, we walk you through everything you need to know to work with investors!

So, should Aunt Sarah invest in this property?



GROSS OPERATING INCOME (GOI)

Definition

Rental income from tenant removing any vacant periods

Example

Anna has purchased a 3-bedroom townhouse in Town Square which she wishes to rent to a tenant for AED 105,000 annually. The townhouse will be vacant for 1 month as Anna plans to renovate the kitchen before the tenant comes in. What is Anna's Gross Operating Income (GOI)?

Formula

GOI = Annual Rent – Vacant Period

Annual Rent	= AED 105,000
Vacant Period (1 month's rent)	= AED 8,750
GOI	= 105,000 – 8,750 = AED 96,250

NET OPERATING INCOME (NOI)

Definition

All the revenue from a property minus all operating expenses

Example

Ben owns an investment property in Dubai Marina which gives him a Gross Operating Income of AED 90,000 annually. He pays AED 12,000 in service charges and AED 8,500 to a property manager. What is Ben's Net Operating Income?

Formula

NOI = GOI – Operating Expenses

GOI	= AED 90,000
Operating Expenses	= 12,000 + 8,500 = AED 20,500
NOI	= 90,000 - 20,500 = AED 69,500

CASH FLOW

Definition

The amount of profit you bring in each month after collecting income, paying all expenses, and setting aside reserves for future repairs.

Example

Carly owns a property in JVC with a Net Operating Income (NOI) of AED 60,000 annually. She is still paying off her mortgage with a monthly P&I of AED 3,800. What is Carly's annual Cash Flow?

Formula

Cash flow = NOI – Annual Debt Service

NOI	= AED 60,000
Annual Debt Service	= Monthly P&I x 12
	= 3,800 x 12
	= AED 45,600
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Cash Flow	= AED 60,000 - 45,600
	= AED 14,400

PRINCIPAL REDUCTION

Definition

The concept of your tenant buying your property for you over time by paying off your mortgage using rental income.

Example

Daniel pays a monthly P&I of AED 4,350 on his mortgage. This year, his total interest paid was AED 17,570. What was Daniel's Principal reduction for the year?

Formula

Principal Reduction = Annual Debt Service – Interest

Annual Debt Service	= Monthly P&I x 12
	= 4,350 x 12
	= AED 52,200
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Interest	= AED 17,570
Principal Reduction	= 52,200 - 17,570
	= AED 34,630

RENTAL YIELD

Definition

Measures the potential profitability of a rental property by looking at the total gross rent collected from a property compared to the property market value.

Example

Fatima owns an apartment in Jumeirah Village Triangle (JVT) which is currently valued at AED 1,150,000. She receives an annual rent of AED 46,000 from her tenant. Calculate the rental yield on Fatima's property.

Formula

Rental Yield = $\frac{\text{Annual Rent}}{\text{Current Market Value}}$

Annual Rent	= AED 46,000
Current Value Market	= AED 1,150,000
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Gross Rental Yield	= AED 46,000 / 1,150,000
	= 0.04/4%

RATES OF RETURN

01 RETURN ON INVESTMENT (ROI)

Definition

ROI is all about overall profitability (total gain or loss the property yields) over the entire time you own it. ROI is cumulative and takes into account all the debt and principal reduction of a property. ROI can be projected using fair market value but can only be determined when you sell.

True ROI measures total wealth build-up which can be seen as appreciation or principal reduction.



Example

Patrick has bought a property for AED 1,000,000 by putting down a deposit of AED 200,000. The remaining AED 800,000 will be mortgaged at 4% for 30 years. With this loan, Patrick has to make monthly payments of AED 3,819 (AED 45,828 per year).

The total first year interest on this loan is AED 31,744. Patrick will immediately get a rent of AED 80,000 as the property already has a tenant. His only expense is the AED 20,000 of service charges per year.

Formula

ROI with appreciation

$$\frac{\text{Cash flow} + \text{Principal Reduction} + \text{Appreciation}}{\text{Cash invested}}$$

ROI without appreciation

$$\frac{\text{Cash Flow} + \text{Principal Reduction}}{\text{Cash invested}}$$

Calculate Patrick's expected ROI

$$\begin{aligned}\text{Cash Flow} &= \text{NOI} - \text{Annual Debt Service} \\ &= (80,000 - 20,000) - 45,828 \\ &= \text{AED } 14,172\end{aligned}$$

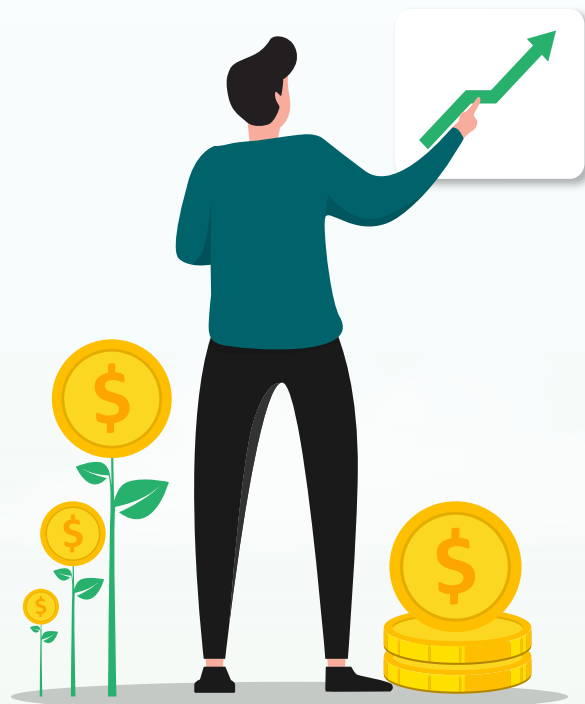
$$\begin{aligned}\text{Principal Reduction} &= \text{Annual Debt Service} - \text{Interest} \\ &= 45,828 - 31,744 \\ &= \text{AED } 14,084\end{aligned}$$

$$\begin{aligned}\text{ROI} &= (14,172 + 14,084) / 200,000 \\ &= 0.141 / 14.1\%\end{aligned}$$

02 CASH ON CASH RETURN

Definition

Is an annual measure of an investor's earnings on a property in comparison to the amount the investor spent to purchase it. It is used to understand cashflow and is an easy way to measure profitability.



Formula

$$\text{Cash on Cash Return} = \frac{\text{Cash Flow}}{\text{Cash invested}}$$

Example 1

In 2016, Sam purchased a 2-bedroom apartment in Dubai Investment Parks (DIP) for AED 800,000. He put down a down payment of AED 176,000 and financed the remaining amount. Over the years, he receives an average cash flow of AED 11,890. Calculate Sam's Cash on Cash return.

$$\begin{aligned}\text{Cash Flow} &= \text{AED } 11,890 \\ \text{Cash Invested} &= \text{AED } 176,000 \\ \text{Cash on Cash return} &= 11,890 / 176,000 \\ &= 0.068 / 6.8\%\end{aligned}$$

Example 2

Patrick has bought a property for AED 1,000,000 by putting down a deposit of AED 200,000. The remaining AED 800,000 will be mortgaged at 4% for 30 years. With this loan, Patrick must make monthly payments of AED 3,819 (AED 45,828 per year).

The total first year interest on this loan is AED 31,744. Patrick will immediately get a rent of AED 80,000 as the property already has a tenant. His only expense is the AED 20,000 of service charges per year.

Calculate Patrick's expected Cash on Cash return.

$$\begin{aligned}\text{Cash Flow} &= \text{NOI} - \text{Annual Debt Service} \\ &= (80,000 - 20,000) - 45,828 \\ &= \text{AED } 14,172 \\ \text{Cash on Cash return} &= 14,172 / 200,000 \\ &= 0.071 / 7.1\%\end{aligned}$$

03 CAPITALISATION RATE

Definition

This number is computed on the Net Operating Income a property is expected to generate and is used to estimate an investor's potential return on investment. It should NOT be used as the sole indicator of strength because it does not consider leverage, time value of money, or future cash flows.

This rate is used for cash purchases and is very useful for comparing properties.



Formula

$$\text{Capitalisation Rate} = \frac{\text{Net Operating Income}}{\text{Purchase Cost/Current Market Value}}$$

Example 1

In 2017, Tanya purchased a villa in Arabian Ranches for AED 2,700,000 which she has been renting to Mr Smith and his family. Today, her property is worth AED 3,220,000. Her Net Operating Income for this year is AED 120,000. Calculate the capitalisation rate for Tanya's villa.

$$\begin{aligned}\text{NOI} &= \text{AED } 120,000 \\ \text{Current Market Value} &= \text{AED } 3,220,000 \\ \text{Capitalisation Rate} &= 120,000 / 3,220,000 \\ &= 0.037 / 3.7\%\end{aligned}$$

Example 2

Patrick has bought a property for AED 1,000,000 by putting down a deposit of AED 200,000. The remaining AED 800,000 will be mortgaged at 4% for 30 years. With this loan, Patrick must make monthly payments of AED 3,819 (AED 45,828 per year).

The total first year interest on this loan is AED 31,744. Patrick will immediately get a rent of AED 80,000 as the property already has a tenant. His only expense is the AED 20,000 of service charges per year.

Calculate Patrick's expected Capitalisation rate.

$$\begin{aligned}\text{NOI} &= 80,000 - 20,000 \\ &= \text{AED } 60,000\end{aligned}$$

$$\begin{aligned}\text{Capitalisation rate} &= 60,000 / 1,000,000 \\ &= 6\%\end{aligned}$$

04 RETURN ON EQUITY

Definition

Provides important insights about the impact of changes in the property market. Property investors should continually evaluate how outside factors affect their property value.



Formula

$$\text{Return on Equity} = \frac{\text{Cash Flow}}{\text{Current Equity (Present Value)}}$$

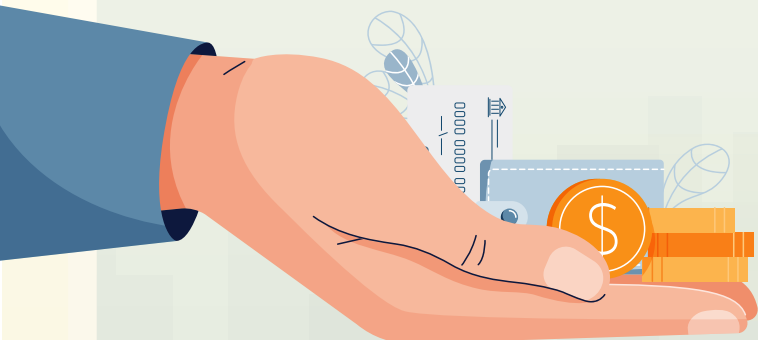
Example 1

You buy a rental home for AED 1,000,000 with AED 200,000 as the down payment. During the year of purchase it is worth AED 1,000,000 but you owe AED 800,000 with AED 200,000 in equity. Your annual cash flow is AED 36,000. Your Return on Equity is $36,000/200,000$ which equals to 18%.



10 years later...

You have paid down your mortgage and the home is now worth AED 1,180,000. The balance on the mortgage is AED 660,000. Your equity is now $1,180,000 - 660,000 = \text{AED } 520,000$. You are now getting AED 45,000 in rent which equals 8.6% Return on Equity.



ANALYSING INVESTMENT PROPERTIES WORKSHEET

PROPERTY DETAILS

Purchase cost _____

Cash invested _____

Financing: Amount _____ Rate _____ P&I _____ (per month)

INCOME AND TOTAL OPERATING EXPENSES

Annual rent _____ Minus Vacancy _____ = Gross Operating Income _____

Annual operating expenses

Property management _____ Insurance _____ Repairs _____

Service charges _____ Advertising _____ Utilities _____

Other _____

Total operating expenses _____

3 FINANCIAL BENEFITS OF THE INVESTMENT PROPERTY

1. Gross operating income = _____

Minus: operating expenses = _____

Equals: net operating income. = _____

Minus: annual debt service (monthly P&I x 12) = _____

Equals: Cash Flow = _____

2. Annual debt service. = _____

Minus: interest = _____

Equals Principal Reduction = _____

3. Appreciation (estimate) = _____

RATES OF RETURN

Return on investment with appreciation $\frac{\text{Cash flow} + \text{principal reduction} + \text{appreciation}}{\text{Cash invested}} = \underline{\hspace{2cm}}\%$

Return on investment without appreciation $\frac{\text{Cash flow} + \text{principal reduction}}{\text{Cash invested}} = \underline{\hspace{2cm}}\%$

Capitalisation rate $\frac{\text{Net operating income}}{\text{Purchase cost}} = \underline{\hspace{2cm}}\%$

Cash on cash return $\frac{\text{Cash flow}}{\text{Cash invested}} = \underline{\hspace{2cm}}\%$

RATES OF RETURN

$\frac{\text{Return}}{\text{Equity}} = \underline{\hspace{2cm}}\%$

$\frac{\text{Cash flow}}{\text{Amount invested}} = \underline{\hspace{2cm}}\%$

