

Multifamily Return Metrics



Key Objectives

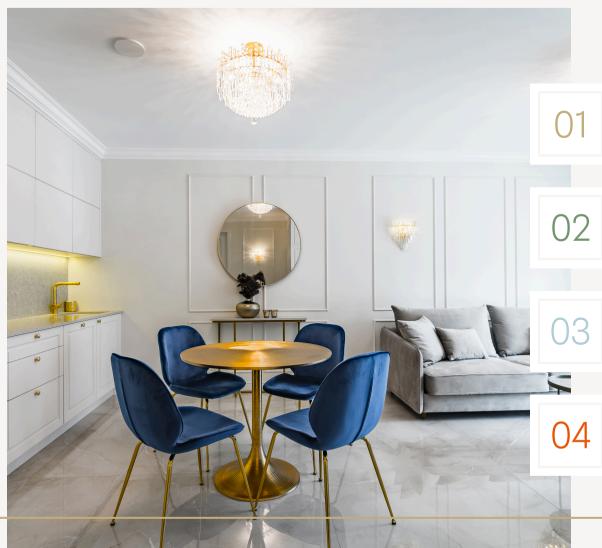
Understanding How Returns Are Calucated What Each Return Metric Means For The Deal

How Can Returns Be Manipulated Matching Returns With Your Investment Criteria



Data Used in Multifamily Return Metrics

Key Inputs of Return Metrics



Apart from your investment, the **4 primary return inputs** are:

CASH FROM OPERATIONS (Cash Flow)

Cash flow refers to the cash being generated by the operations of the asset.

CASH FROM CAPITAL EVENTS

Cash generated from a refinance, supplemental loan, &/or sale.

RETURN OF CAPITAL

Return of your investment

TIME

The length of the investment, often measured in years.

Return Metrics 4 commonly used multifamily return metrics

		Calculatio	on Inputs		
Return Metrics	Cash From Operations	Cash From Capital Events	Return of Capital	Time	
CoC Avg Cash on Cash	~	×	×	~	
AAR Average Annual Return	~		×	~	
IRR Internal Rate of Return	~	~		~	
EMx Equity Multiple	~		~	×	

CoC Average Cash-on-Cash Return

Cash on Cash

INPUTS Cash Flow Capital Event Cashflow Time

DEFINITION	Operational Performance Metric	ightarrow % of cash income earned on the cash invested in a property. ightarrow Typically represented as an annual average over the investment period.
CALCULATION	Cash Flow / Total Investment	 → CoC is derived by dividing the annual income after expenses, debt, reserves, and fees divided by the total investment. → Calculated for each time period and then averaged.
WHEN TO USE	Evaluate Operational Health	ightarrow CoC is a great operational metric to evaluate the projected health of the asset.
TIPS	Factors to Consider	 → Debt: Refinance, supplemental, cash injections may all affect CoC to the positive → CoC Return ≠ Preferred Return. → Evaulate CoC for every year of the proect. → Return on Capital or Return of Capital

CoC Examples

INPUTS

Cash Flow
 Capital Event
 Return of Capital
 Time

							SALE	
SCENARIO 1		Total	Year 1	Year 2	Year 3	Year 4	Year 5	OVERALL ASSUMPTIONS
SCENARIO I	Projected CoC Return	7.6%	3.6%	6.5%	9.0%	8.6%	10.1%	
Typical CoC outlay	CoC Distributions	\$37,866	\$3,631	\$6,462	\$9,010	\$8,621	\$10,142	
	ightarrow Lower initial CoC du ightarrow CoC improves signif ightarrow CoC dips slightly in y	ficantly once stab		period				\$100,000 investment
Findings:			of interest only p	enou				
		Total	Year 1	Year 2	Year 3	Year 4	SALE Year 5	Value-add project
SCENARIO 2	Projected CoC Return	7.6%	0.4%	5.6%	8.9%	10.6%	12.3%	value add project
Good overall CoC with	CoC Distributions	\$37,778	\$424	\$5,621	\$8,876	\$10,599	\$12,259	
poor cash flow in year 1	ightarrow Same average CoC a $ ightarrow$ VERY low CoC in Yea		ffer.					
Findings:	ightarrow Cash flow is very ba	ckended & sugge	sts aggressive ir	icome assumptio	ons.			Stabilize by year 3
					REFINANCE		SALE	
SCENARIO 3		Total	Year 1	Year 2	Year 3	Year 4	Year 5	and the second for the second of the
Identical to Scenario 1 with	Projected CoC Return	11.5%	3.6%	6.5%	9.0%	18.4%	20.3%	
refinance end of year 3	CoC Distributions	\$31,117	\$3,631	\$6,462	\$9,010	\$5,705	\$6,308	5-year hold
,	Capital Account	\$100,000	\$100,000	\$100,000	\$100,000	\$31,092	\$31,092	
Findings:	ightarrow CoC improves 3.9%	from scenario 1 d	ue to a return of	\$68,908 of partn	er capital			
								()

AAR Average Annual Return

Average Annual Return

INPUTS Cash Flow Capital Event Return of Capital Time

DEFINITION	Investment Performance Metric → This is a simple calculation that is helpful for a quick view of overall investment performance.
CALCULATION	Cash Flow + Cash From Capital Events / Total Investment / Years → Average yearly return percentage that includes the proceeds from capital events.
WHEN TO USE	Evaluate Investment Performance → AAR is a great metric to easily evaluate the performance of your initial investment in the deal.
TIPS	Factors to Consider \rightarrow AAR is a total investment metric and does not reflect when returns are made \rightarrow A refinance will usually result in a lower AAR compared to the IRR.

AAR Examples

INPUTS

Cash Flow
 Capital Event
 Return of Capital
 Time

		Total	Year 1	Year 2	Year 3	Year 4	SALE Year 5	
SCENARIO 1	Total Distributions	\$121,386	\$3,631	\$6,462	\$9,010	\$8,621	\$93,662	OVERALL ASSUMPTIONS
	Initial Investment	\$100,000						
Typical project outlay	AAR	24.3%						
Findings:	ightarrow Lower initial cash fl $ ightarrow$ Cash flow improves $ ightarrow$ Includes proceeds f	significantly once	e stabilized in ye	ear 3				\$100,000 investment
		Total	Year 1	Year 2	Year 3	Year 4	SALE Year 5	Value-add project
SCENARIO 2	Total Distributions	\$146,854	\$424	\$5,621	\$8,876	\$10,599	\$121,334	
Poor cash flow in year 1	Initial Investment	\$100,000						
	AAR	29.4%						
	ightarrow Higher AAR due to s	strong cash flow la	te in the projec	t driving higher e	xit valuation			
Findings:	\rightarrow Cash flow is very ba	-	-					Stabilize by year 3
				X. O	REFINANCI		SALE	
SCENARIO 3	Total Distributions	Total	Year 1	Year 2	Year 3	Year 4	Year 5	and the second
Identical to Scenario 1 with	Initial Investment	\$110,071	\$3,631	\$6,462	\$9,010	\$5,705	\$85,262	
refinance end of year 3	AAR	\$100,000 22.0%						5-year hold
Findings:	ightarrow Lower AAR due to re	turn of capital res	ults in lower cas	sh flow in year 4 8	£ 5.			
								$\langle \rangle$

IRR Internal Rate of Return

Internal Rate of Return

INPUTS Cash Flow Capital Event Return of Capital Time

DEFINITION	Investment Performance Metric → This is a complex calculation that is used to understand overall investment performance.
CALCULATION	$0 = \text{NPV} = \sum_{t=1}^{T} \frac{C_t}{(1 + IRR)^t} - C_0$ $\Rightarrow \text{ The rate at which the net present value of all cash flows (both positive and negative) from a property investment equal zero.}$ $\Rightarrow \text{ IRR considers all investment flows and is sensitive to investment timing.}$ The faster investor capital is returned the better the IRR will be.
WHEN TO USE	Evaluate Investment Performance → Use IRR to evaluate multiple investments that have different investment timings and cash outlays.
TIPS	 Factors to A refinance will usually result in a higher IRR as the calculation favors earlier cash distributions. → A longer hold will usually result in a lower IRR. → A lower cap rate will produce a higher IRR

IRR Examples

						SALE
	Total	Year 1	Year 2	Year 3	Year 4	Year 5
CoC Distributions	\$37,866	\$3,631	\$6,462	\$9,010	\$8,621	\$10,142
Return of Initial Investment	\$0	\$0	\$0	\$0	\$0	\$100,000
Proceeds from Refi/Sale	\$83,521	\$0	\$0	\$0	\$0	\$83,521
Total Distributions (in)/out	-\$100,000	\$3,631	\$6,462	\$9,010	\$8,621	\$193,662
IRR	18.6%					

 \rightarrow Lower initial cash flow due to renovations

 \rightarrow Cash flow improves significantly once stabilized in year 3

 \rightarrow Includes proceeds from sale in year 5

SCENARIO	2
Poor cash flow in yea	nr 1

SCENARIO 3

refinance end of year 3

Identical to Scenario 1 with

SCENARIO1

Typical project outlay

Findinas:

Findings:

Findings:

	Total	Year 1	Year 2	Year 3	Year 4	SALE Year 5
CoC Distributions	\$37,779	\$424	\$5,621	\$8,876	\$10,599	\$12,259
Return of Initial Investment	\$0	\$0	\$0	\$0	\$0	\$100,000
Proceeds from Refi/Sale	\$109,075	\$0	\$0	\$0	\$0	\$109,075
Total Distributions (in)/out	-\$100,000	\$424	\$5,621	\$8,876	\$10,599	\$221,334
IRR	20.9%					

 \rightarrow Higher IRR due to strong cash flow late in the project driving higher exit valuation.

 \rightarrow Cash flow is very backended & suggests aggressive income assumptions.

				REFINANCE		SALE	
	Total	Year 1	Year 2	Year 3	Year 4	Year 5	
CoC Distributions	\$31,117	\$3,631	\$6,462	\$9,010	\$5,705	\$6,308	
Return of Initial Investment	\$0	\$0	\$0	\$68,908	\$0	\$31,092	
Proceeds from Refi/Sale	\$78,954	\$0	\$0	\$0	\$0	\$78,954	
Total Distributions (in)/out	-\$100,000	\$3,631	\$6,462	\$77,919	\$5,705	\$116,354	
IRR	20.7%						

ightarrow Higher IRR from Scenario 1 due to return of capital earlier in the deal

Cash Flow V **Capital Event** Return of Capital ✓ Time

INPUTS

OVERALL ASSUMPTIONS

\$100,000 investment

Value-add project

Stabilize by year 3

5-year hold

EMX Equity Multiple

Equity Multiple

INPUTS Cash Flow Capital Event Return of Capital Time

DEFINITION	Investment Performance Metric → This is a simple ROI calculation → A multiple that indicates how many times the investor's initial equity has been returned through the investment period.
CALCULATION	All Investment Cash Flow / Total Investment \rightarrow All investment cashflows / total Investment \rightarrow Example) an EMx of 2.0x means that if you invest \$1,000 you will receive \$2,000 \rightarrow in return (your initial \$1,000 investment + \$1,000 in profits).
WHEN TO USE	Evaluate Investment Performance → Use EMx for a simple ROI evaluation for a deal.
TIPS	 Factors to Consider → EMx is a total investment metric and does not reflect when returns are made → A refinance will usually result in a lower EMx as capital is returned and results in lower future cash distributions. → A longer hold will usually result in a high EMx.

EMx Examples

						SALE
	Total	Year 1	Year 2	Year 3	Year4	Year 5
CoC Distributions	\$37,866	\$3,631	\$6,462	\$9,010	\$8,621	\$10,142
Return of Initial Investment	\$0	\$0	\$0	\$0	\$0	\$100,000
Proceeds from Refi/Sale	\$83,521	\$0	\$0	\$0	\$0	\$83,521
Total Distributions (in)/out	-\$100,000	\$3,631	\$6,462	\$9,010	\$8,621	\$193,662
EMx	2.21x					

ightarrow Lower initial cash flow due to renovations

ightarrow Cash flow improves significantly once stabilized in year 3

 \rightarrow Includes proceeds from sale in year 5

SCEN		0 2
Poor cash	flow ir	ı vear

SCENARIO 3 Identical to Scenario 1 with

refinance end of year 3

SCENARIO 1

Typical project outlay

Findinas:

Findings:

Findings:

SALE Year 5 Total Year 1 Year 2 Year 3 Year4 **CoC** Distributions \$37,779 \$424 \$5,621 \$8,876 \$10,599 \$12,259 Return of Initial Investment \$0 \$0 \$0 \$0 \$0 \$100,000 Proceeds from Refi/Sale \$109,075 \$0 \$0 \$0 \$0 \$109,075 -\$100,000 \$424 \$5,621 \$8,876 \$10,599 \$221,334 Total Distributions (in)/out 2.47x EMx

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				REFINANCI	E	SALE	
	Total	Year 1	Year 2	Year 3	Year 4	Year 5	
CoC Distributions	\$31,117	\$3,631	\$6,462	\$9,010	\$5,705	\$6,308	
Return of Initial Investment	\$0	\$0	\$0	\$68,908	\$0	\$31,092	
Proceeds from Refi/Sale	\$78,954	\$0	\$0	\$0	\$0	\$78,954	
Total Distributions (in)/out	-\$100,000	\$3,631	\$6,462	\$77,919	\$5,705	\$116,354	
EMx	2.10x						

ightarrow Higher IRR from Scenario 1 due to return of capital earlier in the deal

Cash Flow
 Capital Event
 Return of Capital
 Time

INPUTS

CALE

OVERALL ASSUMPTIONS

\$100,000 investment

Value-add project

Stabilize by year 3

5-year hold

EMx Examples

INPUTS Cash Flow Capital Event Return of Capital Time

OVERALL ASSUMPTIONS

\$100,000 investment

Value-add project

Stabilize by year 3

10-year hold

BONUS SCENARIO!

Same as scenario 1 with 10 year hold

										SALE
Total	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
\$105,054	\$3,631	\$6,462	\$9,010	\$8,621	\$10,142	\$11,286	\$11,880	\$13,209	\$14,638	\$16,176
\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$100,000
\$165,511	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$165,511
-\$100,000	\$3,631	\$6,462	\$9,010	\$8,621	\$10,142	\$11,286	\$11,880	\$13,209	\$14,638	\$281,687
3.71x										
	\$105,054 \$0 \$165,511 -\$100,000	\$105,054 \$3,631 \$0 \$0 \$165,511 \$0 -\$100,000 \$3,631	\$105,054 \$3,631 \$6,462 \$0 \$0 \$0 \$165,511 \$0 \$0 -\$100,000 \$3,631 \$6,462	\$105,054\$3,631\$6,462\$9,010\$0\$0\$0\$0\$165,511\$0\$0\$0-\$100,000\$3,631\$6,462\$9,010	\$105,054 \$3,631 \$6,462 \$9,010 \$8,621 \$0 \$0 \$0 \$0 \$0 \$165,511 \$0 \$0 \$0 \$0 -\$100,000 \$3,631 \$6,462 \$9,010 \$8,621	\$105,054\$3,631\$6,462\$9,010\$8,621\$10,142\$0\$0\$0\$0\$0\$0\$165,511\$0\$0\$0\$0\$0-\$100,000\$3,631\$6,462\$9,010\$8,621\$10,142	\$105,054 \$3,631 \$6,462 \$9,010 \$8,621 \$10,142 \$11,286 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$165,511 \$0 \$0 \$0 \$0 \$0 \$0 -\$100,000 \$3,631 \$6,462 \$9,010 \$8,621 \$10,142 \$11,286	\$105,054 \$3,631 \$6,462 \$9,010 \$8,621 \$10,142 \$11,286 \$11,880 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$165,511 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$160,000 \$3,631 \$6,462 \$9,010 \$8,621 \$10,142 \$11,286 \$11,880	\$105,054 \$3,631 \$6,462 \$9,010 \$8,621 \$10,142 \$11,286 \$11,880 \$13,209 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$10,142 \$11,286 \$11,880 \$13,209 \$10,142 \$11,286 \$11,880 \$13,209 \$10,142 \$11,286 \$11,880 \$13,209 \$10,142 \$11,286 \$11,880 \$13,209 \$10,142 \$11,286 \$11,880 \$11,2	\$105,054 \$3,631 \$6,462 \$9,010 \$8,621 \$10,142 \$11,286 \$11,880 \$13,209 \$14,638 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$10,142 \$11,286 \$11,880 \$13,209 \$14,638 \$14,638 -\$100,000 \$3,631 \$6,462 \$9,010 \$8,621 \$10,142 \$11,286 \$11,880 \$13,209 \$14,638 \$14,638 \$10,142

Findings:

ightarrow Longer holds result in higher EMx

Wrap Up Bringing it All Together

EMx Examples

Image: Second	ERALL ASSUMPTIONS	\$100,000 investr	nent	Value-ad	d project		Stabil	ize by year 3		10-year ho
Scenario Coc: 7.6% AR: 24.3% IR: 18.6% Coc: 7.6% AR: 24.3% Coc: 7.6% AR: 22.3% Coc: 7.6% AR: 22.3% Coc: 7.6% AR: 22.3% Coc: 7.6% AR: 22.3% Coc: 7.6% AR: 29.4% Coc: 7.6% AR:				Total	Year 1	Year 2	Year 3	Year 4		
Scenario Coc: 7.6% AR: 24.3% IR: 18.6% Coc: 7.6% AR: 24.3% Coc: 7.6% AR: 22.3% Coc: 7.6% AR: 22.3% Coc: 7.6% AR: 22.3% Coc: 7.6% AR: 22.3% Coc: 7.6% AR: 29.4% Coc: 7.6% AR:			Capital Account		\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	
Scenario		CoC: 7.6%				,				
Scenario 1 Typical project outlay AAR: 24.3% IR: 18.6% EMx: 2.21 Proceeds from per/Sale Stop		COC: 7.0%	CoC Return	,						Average
Typical project outlay IRR: 18.6% EMx: 2.21 IRR: 18.6% EMx: 2.21 IRR: 18.6% EMx: 2.21 Scents/Investment 18.6% EMx: 2.21 Scents/Investment 22.6% EMX: 2.21 Scents/Investment 22.6% EMX: 2.21 Scents/Investment 22.6% EMX: 2.21 Scents/Investment 22.6% EMX: 2.21 Scents/Investment 22.6% EMX: 2.21	SCENARI		Proceeds from Refi/Sale		\$0	\$0	\$0	\$0		Ū
Typical project outlay IRR: 18.6% Ann 22.5% No.	JOLINARI	O I AAR. 24.3 /	Total Profit Distributions						,	
No. 1 EMx: 2.21 Return of Initial Investment \$100,000 \$30 \$0 \$0 \$0 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000 \$100,000	Typical project or	IRR·18.6%	AAR		,	, .	. ,	,-		Events / investment /
Scenario	Typical project of				\$0	\$0	\$0	\$0	\$100,000	Time-based
No. No. <td></td> <td>FMx: 2.21</td> <td>Total Distributions (in)/out</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>,</td> <td>NOT Time-based</td>		FMx: 2.21	Total Distributions (in)/out						,	NOT Time-based
Ent 21x Image: Constraint of the state of the								· •		
20 SCENARIO 2 Poor cash flow in year 1 CoC: 7.6% AR: 29.4% Dor cash flow in year 1 CoC: 7.6% AR: 29.4% EM: 2.01% SCENARIO 2 Espital Account SCENARIO 2 Si00,000 Stop,075 SO			EMx							
Scenario Coc: 7.6% AAR: 29,4% Dor cash flow in year 1 Coc: 7.6% AAR: 29,4% IR: 20.9% EMx: 2.47 Coc: 11.5% AAR: 29,4% IR: 20.9% EMx: 2.47 Coc: 11.5% Coc Batributions Coc: 11.5% Stable										
Scenario 2 Scenario 3 Co: 7.6% AR: 29.4% Stoppon Ref/Sale Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon Stoppon <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>SALE</td> <td></td>									SALE	
Scenario 2 Poor cash flow in year 1 AAR: 29,4% IR: 20.9% EMx: 2.47 AAR: 20.4% IR: 20.9% EMx: 2.47 AAR: 20.4% IR: 20.9% EMx: 2.47 AAR: 20.4% IR: 20.9% EMx: 2.47 AAR: 20.4% IR: 20.7% IR: 20.7% EMx: 2.10 AAR: 20.4% IR: 20.7% IR: 20.7% IR: 20.7% EMx: 2.10 CoC: 11.5% AAR: 22.0% IR: 20.7% EMx: 2.10 AAR: 22.0% IR: 20.7% IR: 20.7% IR: 20.7% IR: 20.7% IR: 20.7% IR: 20.7% IR: 20.7% IR: 20.7% AAR: 22.0% IR: 20.7% IR: 20.7% AAR: 22.0% IR: 20.7% IR: 20		0-0-7.00		Total	Year 1	Year 2	Year 3	Year 4	Year 5	
SCENARIO 2 Poor cash flow in year 1 AAR: 29,4% IR: 20.9% EMx: 2.47 AAR: 29,4% IR: 20.9% EMx: 2.47 7.6% 0.4% 5.6% 8.9% 10.6% 12.3% SO 50 50 50 50 50 50 50 50 50 50 50 50 50		COC: 7.0%	Capital Account	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	
Poor cash flow in year 1 IRR: 20.9% EMx: 2.47 IRR: 20.9% EMx: 2.47 Proceeds from Ref/Sale \$109,075 \$0 \$0 \$0 \$00 \$00 \$0 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$00 \$0			CoC Distributions	\$37,779	\$424	\$5,621	\$8,876	\$10,599	\$12,259	
Poor cash flow in year 1 IRR: 20.9% EMx: 2.47 Total Profit Distributions S146,854 \$424 \$5,621 \$8,876 \$10,599 \$121,334 Cash flow + Cash Cash flow + Cash Total Distributions Cash flow + Cash Total Distributions Stop = 10 (Stop = 10 (Sto	SCENARIO	JZ AAR: 29.4 %	CoC Return	7.6 %	0.4%	5.6 %	8.9 %	10.6 %	12.3 %	Average
Cost optimistry in your your in your your in your in your your in your in your	De en eech flourier	IDD: 20 0%	Proceeds from Refi/Sale	\$109,075	\$0	\$0	\$0	\$0	\$109,075	Cosh flow + Conital
Image: Second	Poor cash flow in	/ear I INN. 20.9 /0	Total Profit Distributions	\$146,854	\$424	\$5,621	\$8,876	\$10,599	\$121,334	Events / Investment /
Image: Second		EMx. 2 /17	AAR	29.4 %						
IRR 20.9% Image: Constraint of the state of the			Return of Initial Investment	\$100,000	\$0	\$0	\$0	\$0	\$100,000	Time-based
EMx 2.47x O Col: 1.5% AGR: 22.0% Identical to Scenario 1 with refinance end of year 3 CoC: 1.5% IM: 2.10 AR: 22.0% Col Introduction 1 with refinance end of year 3 Figure 1 Vear 1 Vear 2 Vear 3 Vear 4 Vear 4 Vear 5 State 1 State 1 ABR: 22.0% State 1 Return of Initial Investment State 2 AR 22.0% Return of Initial Investment State 2 AR 22.0% Return of Initial Investment State 2 State 2 State 2 State 2 State 2 AR 22.0% Return of Initial Investment State 2 State 2 State 2 <td></td> <td></td> <td>Total Distributions (in)/out</td> <td>-\$100,000</td> <td>\$424</td> <td>\$5,621</td> <td>\$8,876</td> <td>\$10,599</td> <td>\$221,334</td> <td>NOT Time-based</td>			Total Distributions (in)/out	-\$100,000	\$424	\$5,621	\$8,876	\$10,599	\$221,334	NOT Time-based
Nome Co: 11.5% Co: 11.5% <thco: 11.5%<="" th=""> <thco: 11.5%<="" th=""> <</thco:></thco:>			IRR	20.9%						
SCENARIO 3AAR: 22.0%TotalYear 1Year 2Year 3Year 4Year 5Identical to Scenario 1 with refinance end of year 3AAR: 20.7%AAR: 20.7%S3,631S6,462S9,010S5,705S6,308Determine the finance end of year 3Determine the finance end of year 3			ЕМх	2.47x						
SCENARIO 3AAR: 22.0%TotalYear 1Year 2Year 3Year 4Year 5Identical to Scenario 1 with refinance end of year 3AAR: 20.7%AAR: 20.7%S3,631S6,462S9,010S5,705S6,308Determine the finance end of year 3Determine the finance end of year 3		CoC: 11 50/					REFINANCE		SALE	
SCENARIO 3AAR: 22.0%Capital Account\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000\$100,000				Total	Year 1	Year 2		Year 4		
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Identical to Scenario 1 with refinance end of year 3IRR: 20.7% EMx: 2.10IRR: 20.7% EMx: 2.1011.5%3.6%6.5%9.0%18.4%20.3%Average Cash flow + Capit Events / InvestmentCoc Return11.5%3.6%6.5%9.0%\$0\$0\$78,954Cash flow + Capit Events / InvestmentCash flow + Capit Events / 10,071\$3,631\$6,462\$9,010\$5,705\$116,354Cash flow + Capit Events / InvestmentCash flow + Capit Events / 10,071S0\$68,908\$0\$31,092Time-based										
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EMx: 2.10Total Profit Distributions\$110,071\$3,631\$6,462\$9,010\$5,705\$116,354Cash flow + Capit Events / InvestmentAAR22.0%Return of Initial Investment\$31,092\$0\$0\$68,908\$0\$31,092Time-based	refinance end of y	ear 3								-
AAR 22.0% Return of Initial Investment \$31,092 \$0 \$68,908 \$0 \$31,092 Time-based		EMx: 2.10								
Return of Initial Investment\$31,092\$0\$68,908\$0\$31,092Time-based					. ,			· •	. ,	Events / investment /
					\$0	\$0	\$68,908	\$0	\$31,092	Time-based
			Total Distributions (in)/out	-\$100,000	\$3,631	\$6,462	\$77,919	\$5,705	\$116,354	NOT Time-based

2.10x

EMx

In Summary

Calculation Inputs

- Alterite

Metric	Cash From Operations	Cash From Capital Events	Return of Capital	Time	
CoC Avg Cash on Cash Operational metric that calculates the % of cash income earned on the cash invested in a property	~	×	×		
AAR Average Annual Return Average yearly return percentage that includes the proceeds from capital events.	~		×		
IRR Internal Rate of Return The rate at which the net present value of all cash flows (both positive and negative) from a property investment equal zero. IRR considers all investment flows and is sensitive to investment timing.	~		~		
EMx Equity Multiple A multiple that indicates how many times the investor's initial equity has been returned through the investment period.	\checkmark		~	×	\mathcal{T}

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BUI

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Cash on Cash Additional Details

Cash on Cash DETAIL

INPUTS
Cash Flow Capital
Event Return of
Capital
Time

