

Investors #1 Question?

- What is the “Calculated Rate of Return” given the initial investment and the estimated future cash flows of the investment?
- When calculated from data relating to a specific investment (an initial investment and estimate of cash flows from the investment) we call this the Internal Rate of Return (IRR)
- IRR is used as a basis of comparison with an investors standard or expected rate of return

Cash Flow Analysis, Park Place Apartments

N	\$
0	(\$550,00)
1	\$29,321
2	\$33,210
3	\$36,649
4	\$40,257
5	\$43,430+ \$851,731

IRR Proof Park Place Apartments IRR = 14.67%

Year	Amount Invested BOY	Interest Due EOY	Cash Flow	Remaining Balance EOY
1	(\$550,000)	\$80,685	\$29,321	(51,364)
2	(601,364)	\$88,220	\$33,210	(\$54,910)
3	(\$656,274)	\$96,275	\$36,649	(59,626)
4	(\$715,900)	\$105,023	\$40,257	(64,766)
5	(\$780,666)	\$114,524	\$43,430 +\$851,73	(\$29)/Nil (0)

1
=\$895,16

IRR Shortcomings

There are Five Specific Shortcomings to Consider when using the IRR in Investment Selection

- 1) Potential Multiple Yield Scenario (Rare yet when you have positive and negative cash flows that breakeven)**
- 2) Negative Cash Flows may be incorrectly planned for based on IRR expectations versus safe rate preinvesting in order to ensure capital availability (Failure to reach the finish line will negate all returns)**
- 3) Reinvestment of cash flows as they exit the investment are unaccounted for (Internal Rate of Return means while money is internal)**
- 4) Investment Duration differences aren't correctly accounted for**
- 5) Initial Investment differences aren't correctly accounted for**

FMRR – Financial Management Rate of Return (to the rescue)

IRR Shortcoming

1. Multiple Yields
2. Negative Cash Flow Treatment
3. Positive Cash Flow Treatment
4. Comparing Investments of different Durations
5. Comparing Investments with different Initial Investments

FMRR Solution

1. Discounting negative cash flows solves this problem
2. Discounts negative cash flows at a safe rate and plans in advance
3. Reinvests positive cash flows at prevailing rates to maximize wealth
4. Investments are maintained at reinvestment rates over comparable time to maximize wealth
5. Invests total portfolio over same time in order to maximize wealth

FMRR Components

Cash Flows After Tax (CFAT)

Safe Rate: That rate, such as a guaranteed rate from a bank, that you can be sure you will not lose principal, yet you will earn a lower return. This rate is used for small sums of available cash and/or any projected negative cash flows which must be funded in advance.

Reinvestment Rate: That rate available to larger sums of capital wherein the investors options are much wider. This rate is used when positive cash flows have accumulated a minimum balance and there are no negative cash flows anticipated in the future.

Wealth Maximization: Considers an Investors entire portfolio wherein the final result isn't about a rate of return. Its about how much wealth have you accumulated over a period of time.

Multiple Yields e.g.

N	\$
0	(\$50,000)
1	\$300,000
2	(\$550,000)
3	\$300,000

This investment will give you an error on your calculator and yet if you try to solve the Net Present Value of the investment using 0, 100, 200 as your "I" you get the same answer.

FMRR has a solution for this investment

Negative Cash Flows

N	\$
0	(\$400,000)
1	(\$400,000)
2	(\$400,000)
3	\$1,800,000

- Failure to plan for Negative Cash Flows, correctly, is the most common reason for Failed Investments!

Planning for Negative Cash Flow

N	\$	1	2
0	(\$400,000)	(\$380,952)	(\$362,812)
1	(\$400,000)	\$400,000	
2	(\$400,000)		\$400,000
3	\$1,800,000		

Reinvestment of Cash Flow

N	A	B
0	(\$50,000)	(50,000)
1	45,000	0
2	26,000	\$78,125
IRR	30%	25%
AW	\$71,000	\$78,125

N	\$(A)
0	(\$45,000) if i= 12%
1	\$50,400 + \$26,000
AW	\$76,400
FMRR	23.61%

Investment Duration Differences

N	A	B	A+
0	(\$50,000)	(\$50,000)	
1	-0-	-0-	
2	\$78,125	-0-	\$78,125
3		\$93,045	\$87,500
IRR	25%	23%	12%

Investment Duration Differences

N	A	B	A+
0	(\$50,000)	(\$50,000)	
1	-0-	-0-	
2	\$78,125	-0-	(\$78,125)
3		\$93,045	\$87,500
FMRR		23%	20.51%
AW		\$93,045	\$87,500

Initial Investment Difference

N	A	B	A+
0	(\$50,000)	(\$75,000)	(\$25,000)
1			
2	\$78,125	\$111,630	\$31,360
IRR	25%	22%	12%

Initial Investment Difference

N	A	B	A+
0	(\$50,000)	(\$75,000)	(\$25,000)
1			
2	\$78,125	\$111,630	\$31,360
FMRR		22%	20.82%
AW		\$111,630	\$109,485

Financial Management Rate of Return (FMRR)

This tool looks at a particular Investor's Investments and Available Capital in a portfolio sense

The goal of any Investor is to receive a return on and a return of their investment! Making it to the sale date is imperative for most investments, especially Real Estate!

FMRR is a responsible way to plan an investment, Setting funds aside before needed to fund any expected negative cash flows, and reinvesting positive cash flows at prevailing rates based on available amounts

FMRR requires an Investor to compare and consider Investments in an Apples to Apples comparison. If one Investment is longer than the other FMRR asks, What will you do with the money when you receive it early? or If one Investment costs more than the other FMRR asks What will you do with the money left over?