



Internal rate of return as an alternative analyzing tool

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The most important alternative to net present value (NPV) is the internal rate of return (IRR) for evaluating an investment. These two methods of analysis are closely related in that; the IRR on an investment is the required return that results in a zero NPV when the NPV is used as the discount rate. Based on the IRR rule, an investment is acceptable if the IRR exceeds the required return.

The NPV and IRR will always lead to identical decisions as long as two conditions are met. First, the project's cash flows must be conventional, meaning that the first cash flow (initial investment) is negative and all the rest are positive. Second, the decision must be independent, meaning that the decision on accepting or rejecting a project does not affect the decision to accept or reject any other project.

Suppose you are considering an investment that has a total up-front cost of \$ 435,440. The cash flows per year are as follows: Year 1 \$100,000, Year 2 \$200,000 and Year 3 \$300,000. What is the IRR? If we require an 18% return, should we take this investment? First we see that at a 0% discount rate we have NPV of \$164,560 (\$600,000-435,440). To determine if we should pursue this investment we must discount the future cash flows at a discount rate that results in a NPV of 0.00. Therefore, in the example above, using a 15% discount rate, we would have NPV of 0.00 (\$435,440-\$86,960-\$151,230-\$197,250). Since we require an 18% return, we would reject this investment.

One might conclude that by investing \$435,440 and realizing a return of \$164,560 after three years is still a great investment. However, when doing any analysis, especially IRR, the rate of return an investor requires must be respected. Knowing the rate of return an investor requires allows a commercial real estate agent to focus only on properties that meet those criteria. Certainly, other factors will enter into the equation of whether or not to invest in a particular property; such as condition, location, quality of tenants and lease terms; but if the numbers make sense and the IRR meets the requirements of an investor, you are well on your way to providing sound advice to your client.

Knowing different analysis techniques and providing different analytical comparisons to an investor will assist in their decision making process. For more information on analyzing investment property consult a commercial real estate professional.

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