Manulife Securities

Internal rate of return… the new math

Performance measurement is a critical part of the investment management process. It helps identify whether the performance of your personal investments are on track.

Until recently, Modified Dietz was the industry's favoured method for calculating personal rates of return, largely because it's a simple calculation. However, the Modified Dietz calculation takes mathematical shortcuts, which means it can only **estimate** the true money-weighted rate of return.

Internal rate of return… a clearer equation

In contrast to the Modified Dietz calculation, an Internal rate of return (IRR) calculation does not estimate. It is a more complex mathematical calculation that provides you with a precise personal rate of return. For these reasons, Canadian securities regulators now require IRR to be used as the new industry-wide standard for calculating personal rates of return.

What you need to know about the change to IRR

The shift to an IRR calculation doesn't change how your personal basket of investments has actually performed – it simply provides you with a **clearer picture** of your performance results.

Comparing results: Modified Dietz vs. IRR calculations

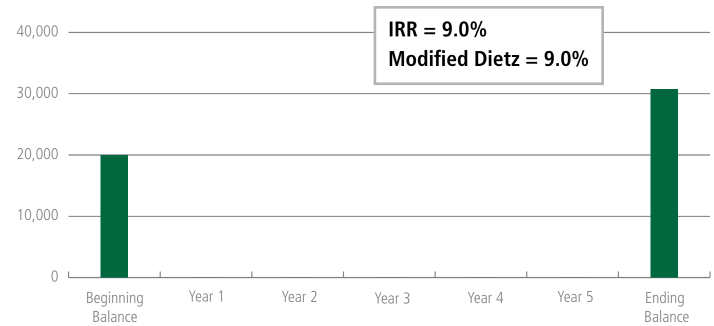
When comparing your historical rates of return, which used the Modified Dietz calculation, with your new reports that use the IRR method, you may see differences in the results. Any such discrepancies are reflective of the two different calculation methods only. In this situation, it is important to understand that there has been no change in the underlying value of your investments. For example, when no deposits, withdrawals or transfers are present in your account, the IRR calculation will be no different than the Modified Dietz calculation.

Below we have provided you with three scenarios of what you can expect to see when comparing past rates of return, based on the Modified Dietz calculation, with your rates of return calculated with the IRR method:

EXAMPLE 1:

Account starts with $20,000 and there are no deposits, withdrawals or transfers.

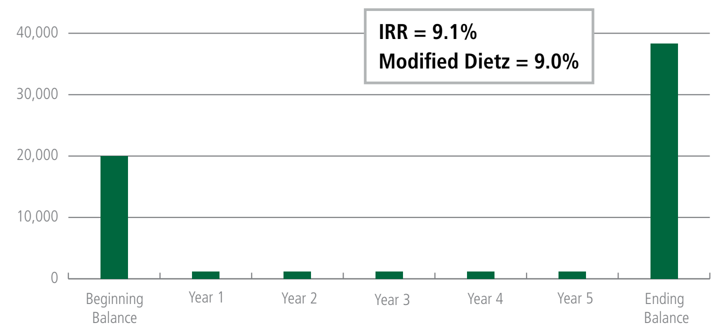
As mentioned earlier, when no deposits, withdrawals or transfers are present in the account, the IRR calculation will be no different than the Modified Dietz calculation.



EXAMPLE 2:

Account starts with $20,000 and there is a $100 deposit every month for 5 years.

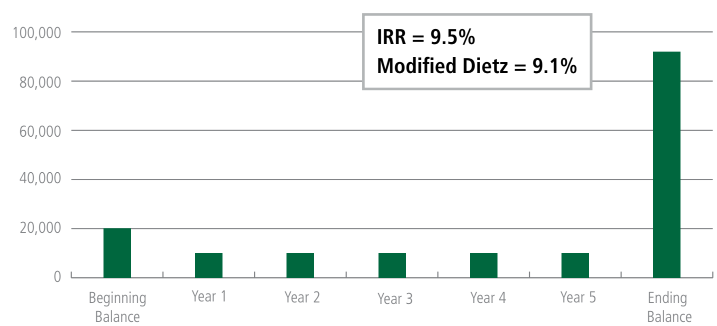
When small deposits, as compared to the beginning balance are introduced to the account, the difference between the IRR calculation and the Modified Dietz calculation will be negligible.



EXAMPLE 3:

Account starts with $20,000 and there is a large $10,000 deposit every year for 5 years.

We can see that because of the mathematical shortcuts inherent in the Modified Dietz calculation, it has a more difficult time estimating the true personal rate of return, particularly when large deposits are introduced (as compared to the beginning balance). Conversely, the IRR calculation more properly accounts for these large deposits and calculates the true personal rate of return.



The bottom line

The move to an IRR calculation provides you with a clearer, more precise view of your personal rate of return, enabling you to better understand the value of your investments and whether you are on track to meeting your goals.

For more information,
please contact your advisor.

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