Israel IVS Forum

Israel Property Index Methodology

July 2022

Index formulae. Income Return (IR), also known as direct return, measures the ratio of Net Operating Income (NOI) to the capital used to generate NOI over the measurement period. This metric is calculated after deducting for all operating costs not covered by service charges.

The capital used includes beginning of period market value (MV_t) and half of net investments and acquisitions over the measurement period ($0.5CAPEX_t$). Net investments and acquisitions comprise capital spent on acquisitions (inclusive of transaction costs) and refurbishments minus capital received from sales during the period. The formula for Income Return is-

$$IR_t = \frac{NOI_t}{MV_{t-1} + 0.5CAPEX_t}$$

Net investments and acquisitions are divided by half, assuming they were evenly spread over the entire measurement period, so their average over the entire period was half of total net investments and acquisitions during the period (see for example [Brown & Matysiak, 2000], Page 575).

Capital Return (CR), also known as indirect return, measures the ratio of the change in market value less net investments and acquisitions over the measurement period, to the capital used to generate this over the measurement period. This measure of the "growth" component of performance is based on revaluations - conducted by real estate valuers - of assets held at the beginning of the period. Capital Return is calculated as the period-end market value (MV_t) less beginning of period market value (MV_{t-1}), less net investments and acquisitions over the period ($CAPEX_t$), divided by beginning of period market value and by half of net investments and acquisitions. The formula is-

$$CR_t = \frac{MV_t - MV_{t-1} - CAPEX_t}{MV_{t-1} + 0.5CAPEX_t}$$

Total Return (TR) is the most important comprehensive metric of investment performance, used to compare different asset types over different periods. Total Return includes capital and revenue components; it is obtained by summing the Income Return and Capital Return. The GIPS standards for performance measurement recognize Total Return as the standard comprehensive metric for measuring investment performance. The formula is-

$$TR_t = \frac{MV_t - MV_{t-1} - CAPEX_t + NOI_t}{MV_{t-1} + 0.5CAPEX_t}$$

Implied Cap Rate. This is the capitalisation rate implied by the ratio of net operating income to end-of-period market value. The Cap Rate is the inverse of the PE multiplier. It reflects pricing by the market or by valuers. The formula is-

$$CapRate_t = \frac{NOI_t}{MV_t}$$

BIBLIOGRAPHY

1. Brown, G.R. and Matysiak, G.A. (2000). *Real Estate Investment: A Capital Market Approach.* Financial Times/Prentice Hall: London.

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