

Return on Equity

Return on Equity is a measure of profitability of a project such as a real estate development. It is simple in concept and application. The measure is a fundamentally sound way to assess profitability to an individual investor, a partnership, or a company, so its consideration is often required in governmental proceedings.

Yet many agencies and courts responsible for review of development projects do not understand it, and ignore it, even where legally required.

This page explains the concept and demonstrates its simplicity with a numeric example. Misuse of the concept is illustrated by a recent submission by Freeman Frazier Associates in a New York City zoning waiver application.

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What is RoE? A real estate company, partnership, or individual earns a profit, or return, that appears as the 'bottom line' on its income statement, a financial document subject to audits. The entity's financial performance is commonly judged by comparing that profit with the amount of capital employed to generate it, profit divided by capital or equity. When expressed as a percentage, the figure is Return on Equity (RoE). It is synonymous with Profit on Equity.

Why use RoE? It is a single measure that combines elements of both risk and reward of an undertaking. Return is the net amount of money remaining with an entity after project Income is reduced by project Expense, a net profit. As Return increases, the RoE increases.

If the entity provides less Equity (its contribution to project funding), it has placed less at risk. As Equity decreases, its RoE increases. A higher RoE indicates better use of the entity's resources.

RoE Isn't a Return on Total Expense or Return on Total Investment. The difference is explained in the example.

How is RoE used? A project developer will naturally attempt to increase a project's return and decrease its funding contribution, achieving a higher RoE.

The developer manages Expense and Income as best it can given market constraints. Then, Equity needs to be minimized. This is done by using Other Peoples Money (OPM) to help pay expenses.

OPM can come from limited partners, banks, other companies, or the mob. It is used during a project to fund as much as possible of the expense. Total project Expense is the sum of the entity's own funds and the OPM. The developer attempts to maximize the ratio of OPM to Equity, or leverage, thus increasing its RoE.

During the project, OPM flows in. At the end of the project, the OPM flows back to its source; it is repaid. 'Renting' OPM during the course of the project has a cost, whether it is called interest, dividend, fee, or share of profit. That cost is deducted from the developers profit, but is at a much lower rate because of the lower attached risk.

Example Demonstrating RoE Derivation

Table One. A developer puts up Equity of \$1,000,000 out of the total project expense of \$10,000,000.

A bank provides the remaining \$9,000,000 for a debt/equity ratio of 9:1, or 90% leverage.

Participant	Funding (Expense)	Participant's Take	Return	On	Notes
Developer Equity	1,000,000	500,000	50%	Equity	RoE: $500,000/1,000,000 = 50\%$
Bank Loan	9,000,000	560,000	7%	Loan	Interest @ 7%: $9,000,000 \times 0.07 = 560,000$
Overall Project	10,000,000	500,000	5%	Project Expense	Return on Project Expense: $500,000/10,000,000 = 5\%$

Although not shown, the project produces Income of \$11,060,000 before Interest expense. After deducting interest of \$560,000, the developer is left with a return (profit before tax) of \$500,000, and a Return on Equity of 50%.

Leverage Effect. The developer has increased its return from 5%, the inherent project Return on Total Project Expense, to a 50% Return on Equity by limiting his Equity to 10% of the Expense. The entity's net profit after taxes, depreciation, overhead, charitable contributions, and bribes will be considerably less than the project Return of 50%. This is another reason why a developer will reach for high returns from an individual project.

The elevated developer return is possible because the bank, in this example, is willing to earn only 7% on its lower-risk money, while the developer (typically) requires a much higher return to allow for market price shifts, development overruns, unforeseen problems, and greed. If the developer were satisfied by single-digit returns, it would put its money in a bank, or become a bank.

Leverage Limit. Banks, partners, or others expect their portion of the funding to be repaid whether the project succeeds or not. Their claim against profits is senior to the developer's. So, they may limit the debt/equity ratio to ensure that losses first come out of the developer's share.

They will also charge interest commensurate with their perceived risk. Higher costs of borrowing money also decrease project profitability, independent of leveraging.

The flip side of increasing RoE by leveraging, is a complete wipeout when a project produces a loss. Not only is the developer's profit gone, it is responsible for debt repayment out of funds it does not have.

Misuse of Return Calculation

Requirement. In support of zoning waivers applications in New York City, a developer is required to submit a financial analysis showing the amount of Equity provided and its Return on Equity.

The analysis provided by Freeman Frazier Associates (21 Dec '08) concerning its client's Proposed development, fails to provide those required items.

Table Two, Right. The first two columns repeat figures from the Freeman the letter to the NYC Board of Standards and Appeals dated 8 July 2008, Schedules A and B, for its client's Proposed development, with slight differences due to rounding. The figures show Income of \$34 million less Expense of \$27 million leaving a return (profit) of \$6.8 million.

	Project Expense (\$)	Project Economics (\$)	Developer Equity (\$)
Net Income		34,210,000	
Construction - Hard	(7,398,000)		(543,013)
Construction - Soft, w/o Interest	(3,969,000)		(291,325)
Interest	(2,353,000)		(172,710)
Lot Purchase	(12,347,030)		(906,272)
Carrying Costs	(664,000)		(48,738)
Taxes			(664,000)
TOTAL INVESTMENT		(26,731,030)	
Taxes		(664,000)	
Net Return (Profit)		6,814,970	
Equity Contribution			(2,626,058)
Annual Return on Project Expense, %		10.93	
Annual Return on Equity, %			111.22

Freeman's Return. Rather than providing the required Equity figures that relate to a developer's risk/reward, Freeman substitutes a Return on Project Expense (RoPE). It is a fiction because it does not devolve to any particular entity. It is an composite return on the contributions of both the lender and the developer. The denominator includes the much larger contribution of the lender, so it produces a figure closer to the loan interest rate (9.5% in this case) rather than the developer's return.

Use of Leverage Note the significant \$2.35 million in interest expense, paid on a loan of \$25 million. The loan as a percent of total expense is 93%, a highly leveraged project. Freeman has proposed a typical, highly leveraged real estate development.

The Developer's Equity is shown in the right column. It contributes \$2.6 million to the \$26 million cost of the project, for about 90% leverage, 10:1 debt to equity.

Return on Equity is the Return of \$6.81 million divided by the \$2.63 million Equity. Simply expressed, the developer earns \$2.63 for every dollar invested, as though a depositor gets \$2.63 interest for every dollar placed in a savings account. That's a 'wall-street-greed' sized return.

The 6.8/2.6 expressed as a percentage is a 260% return over the 28 month project term. Cut down to an annual, 12 month (12/28) figure, the RoE is 111%.

The Misuse. Representing a project with a 111% return as being a barely profitable 10.9% is clearly deceptive and misleading. It is knowingly false because Freeman has structured a highly leveraged, highly profitable project, then described it as marginal to a New York City agency in a quasi-judicial proceeding.

Moreover, Freeman claimed that the false figure is commonly used in proceedings before the BSA. In fact, in its resolution granting the client's waiver requests, the BSA supported this view, in spite of its own instructions requiring otherwise. It is said that this reflects the NYC

Bloomberg administration's bias toward development at any cost, particularly to its residents.