NERIVAL™
Business Valuations
Contact Eric Togneri
(678) 764-1732
eric@nericap.com
www.whatismybizworth.com

BizEquity and the "Cost of Capital" Discount Rates, Cap Rates, and Multiples

Introduction

In addition to properly calculating the firm's normalized profits or cash flows, the key component of every business valuation is the estimation of the "cost of capital" or the expected or required rate of return on investment. The BizEquity proprietary algorithm dynamically produces **discount rates (D), capitalization rates (C) and multiples (M)** which are:

- **Market-Based**
- **Industry-Specific**
- **Size-Adjusted**
- **Company-Specific Risk-Reflective**
- **Real Time-Updated Via Myriad Sources**

Each valuation method relies on cost of capital metrics such as **discount rates (D), capitalization rates (C) and multiples (M)** to generate estimates of value through the "transformation" of profits/cash flows into valuation results.

Discount Rates, Cap Rates and Multiples

- **Distinct metrics which can be derived separately or jointly**
- **Inter-related in mathematical and conceptual manner**
- **Possess common role as mechanism to transform profits/cash flows into estimates of business value**

⬤ A "<u>discount rate</u>" is "forward looking" and is the required and expected, risk-adjusted rate of return which is utilized to "discount" a series of future cash flows back into "present value".

> **Example**: venture capital firms often seek a required rate of return in the form of discount rates in the range of 30% to 40%.

> Common tool to directly estimate discount rate is Ibbotson Buildup Method, which is comprised of a risk-free rate, equity risk premium, size premium and company specific risk premium.

⬤ A "<u>capitalization rate</u>" is used to transform historical, current or "normalized" measures of profits or cash flow into a measure of business value.

> **Example**: golf course facilities are often valued via capitalization rates of 9% to 12%.

> Capitalization rates may be taken directly from the marketplace in the form of historical transaction data or survey data.

⬤ A "<u>multiple</u>" is the inverse of the "cap rate" and also transforms profits and cash flows into estimates of value.

> **Example**: the majority of small, owner-operated "main street" businesses will sell for a multiple of 1 to 3 times discretionary earnings.

> Multiples can be obtained from market transaction databases, industry-specific rules of thumb or created through various risk factor models such as ValueNetex.

Inter-Relationship Between C, D and M

Provided that the same measure of underlying profits or cash flows are utilized [pretax measure like seller's discretionary earnings (SDE) or operating cash flows (EBITDA) after-tax measure like after-tax profits or net cash flow to equity], it is possible to maneuver between these three metrics. The formal relationship between these three distinct metrics can be summarized as follows:

Capitalization Rate = Discount Rate less LT Growth Rate

C = D - G

20% = 25% - 5%

Capitalization Rate = Inverse of Multiple

C = 1/M

20% = 1/5

OR

Multiple = Inverse of Cap Rate

M = 1/C

5 = 1/20%

BizEquity Generation of Multiples, Cap Rates and Discount Rates

When valuing the great majority of small and medium-sized owner-operated businesses (going concerns), the most reliable benchmark of value is associated with market-based multiples of discretionary earnings or Adjusted EBITDA. Due to the presence of high tech and high growth firms which may or may not be profitable at present, the BizEquity algorithm is a **hybrid model** *which utilizes not only the common measures of profits, discretionary earnings and adjusted EBITDA but also revenues along with a net cash flow proxy within a DCF paradigm* to value firms of all types and sizes.

The precise selection of pertinent metrics is **company/industry/size-specific,** with most businesses valued in part via seller's discretionary earnings and revenues due to their common usage among market participants and within transaction databases.

Any given multiple has a corresponding capitalization and discount rate, whereby the *initial or "base" multiple will be adjusted as the algorithm is applied* throughout the 7-step process.

Examples*
Initial base underline multiple equals 2 times >>> equals cap rate of 50% >>> equals discount rate of 53%
Initial base multiple equals 3 times >>> equals cap rate of 33% >>> equals discount rate of 36%
Initial base multiple equals 4 times >>> equals cap rate of 25% >>> equals discount rate of 28%
Initial base multiple equals 5 times >>> equals cap rate of 20% >>> equals discount rate of 23%

*Based on assumed and constant expected future growth rate of 3% per annum.

Base multiple is driven up or down depending on size, profitability, expected growth and pertinent risk factors.

Primary Value Determinants

1) Size of company and magnitude of earnings
2) Profitability of company as compared to peer group or industry cohort
3) Growth in revenues and earnings - historical and projected
4) Degree of "hard assets" in the form of inventory and furniture, fixtures and equipment
4) Various company and firm-specific risk factors including:

    a) comparisons to industry benchmarks related to liquidity, solvency, activity and profitability
    b) impact of owner/key employee role on sustaining future profit and cash flow levels
    c) degree of customer concentration
    d) magnitude of recurring revenue streams
    e) presence of intellectual property
    f) rent versus ownership of underlying real estate

Example of Dynamic Valuation Algorithm

Base multiple of 3 times rises to reach 3.6 times
Base multiple of 3.6 times >>> equals cap rate of 27.7% >>> equals discount rate of 30.7%

OR

Multiple rises from 3.0 to 3.6 times (increase of 20%)
Cap rate falls from 33% to 27.7% (decrease of 16%)
Discount rate falls from 36% to 30.7% (decrease of 15%)