

**Key Variables in Estimating the Cost of Capital**

2013 Ibbotson SBBI Valuation Yearbook: Appendix C, Table C-1  
As of December 31, 2012

**Yields (Riskless Rates)**

Long-term (20-year) U.S. Treasury Coupon Bond Yield<sup>5</sup> 2.41%

**Equity Risk Premium**

Long-horizon expected equity risk premium (historical): Large company stock total returns minus long-term government bond income returns<sup>6</sup> 6.70%

Long-horizon expected equity risk premium (supply side): historical equity risk premium minus price-to-earnings ratio calculated using three-year average earnings<sup>7</sup> 6.11%

**Size Premia (market capitalization in millions)<sup>8</sup>**

Decile	Smallest Company		Largest Company	Size Premium (Return in Excess of CAPM)
Mid-Cap (3–5)	\$1,912.240	–	\$7,686.611	1.12%
Low-Cap (6–8)	514.459	–	1,909.051	1.85
Micro-Cap (9–10)	1.139	–	514.209	3.81

**Breakdown of Deciles 1-10**

1-Largest	17,557.706	–	626,550.334	-0.37
2	7,747.951	–	17,541.302	0.76
3	4,250.360	–	7,686.611	0.92
4	2,772.831	–	4,227.668	1.14
5	1,912.240	–	2,759.391	1.70
6	1,346.619	–	1,909.051	1.72
7	822.077	–	1,346.528	1.73
8	514.459	–	818.065	2.46
9	254.604	–	514.209	2.70
10-Smallest	1.139	–	253.761	6.03

**Breakdown of the 10th Decile**

10a	166.154	–	253.761	4.23
10w	212.292	–	253.761	3.66
10x	166.154	–	212.031	4.66
10b	1.139	–	165.600	9.74
10y	96.483	–	165.600	8.90
10z	1.139	–	96.164	11.65

<sup>5</sup> Maturity is approximate.

<sup>6</sup> Expected risk premium for equities is based on the difference of historical arithmetic mean returns for 1926-2012. Large company stocks are represented by the S&P 500.

<sup>7</sup> A supply side equity risk premium estimate was first published in Ibbotson's 2004 SBBI Valuation Edition Yearbook.

<sup>8</sup> Return in excess of CAPM estimation. Mid-Cap stocks are defined here as the aggregate of size-deciles 3–5 of the NYSE/AMEX/NASDAQ; Low-Cap stocks are defined here as the aggregate of size-deciles 6–8 of the NYSE/AMEX/NASDAQ; Micro-Cap stocks are defined here as the aggregate of size-deciles 9–10 of the NYSE/AMEX/NASDAQ. The betas used in CAPM estimation were estimated from CRSP NYSE/AMEX/NASDAQ decile portfolio monthly total returns in excess of the 30-day U.S. Treasury bill total return versus the S&P 500 total returns in excess of the 30-day U.S. Treasury bill, January 1926–December 2012. Calculated (or Derived) based on data from CRSP US Stock Database and CRSP US Indices Database ©2013 Center for Research in Security Prices (CRSP), The University of Chicago Booth School of Business. Used with permission.