Quiz A for 2:30 Class: 11/19/12

Use the following information to set up the calculations needed to determine the beta of Best Buy’s assets and Best Buy’s bonds.

Information on Best Buy’s assets: market value = $6 billion, book value = $5.1 billion, standard deviation of returns = 35%, average life = 12 years,

Information on Best Buy’s bonds: market value = $2 billion, book value = $2.1 billion, standard deviation of returns = 12%, maturity = 10 years, maturity value of debt = $2.9 billion

Information on Best Buy’s stock: market value = $4 billion, book value = $3 billion, standard deviation of returns = 40%, beta = 1.5

Returns on Treasuries by maturity: 1 -year = 0.2%; 5-year = 0.7%; 10-year = 1.6%; 12-year = 1.7%; 20-year = 2.2%; 30-year = 2.7%

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\beta_0 = \frac{1.5}{1 + \frac{35}{12}}
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\beta = \frac{1}{1 + \frac{35}{10}}
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\sigma = \frac{1}{1 + \frac{35}{20}}
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\sigma = \frac{1}{1 + \frac{35}{30}}
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\beta_5 = (1 - 8) \frac{1.5}{1 + \frac{35}{12}}
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