

Fin 340 – Homework #12
Weighted Average Cost of Capital

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- 1) Pinkerton Products Incorporated (PPI) needs to estimate its weighted average cost of capital (WACC) in order to evaluate potential investment opportunities. It has assembled the following information:

Bonds

PPI bonds have a par value of \$1,000, with a 7 percent semi-annual coupon and 10 years until maturity. The bonds currently trade at 102.5 (meaning they are priced 2.5 percent above par value, or at \$1,025). The book value of the bond is \$1,200 million.

Common Stock

PPI has 45 million shares of stock outstanding that currently trade at \$62 per share. The book value of PPI's equity is \$1,800 million.

PPI recently paid a dividend of \$8.95 per share. Dividends are expected to grow at approximately 3 percent per year for the indefinite future.

The current risk-free rate is 7.75 percent and the market risk premium is 6 percent
PPI's beta is 1.6

Other Information

PPI's current corporate tax rate is 40 percent. In addition, its target capital structure is the same as its current capital structure (as defined by the market values of its debt and equity).

- a) Calculate PPI's weighted average cost of capital.

Hint: You will need to estimate the firm's target capital structure (the weights to use for common stock and bonds in the WACC calculation). To do so, make sure you use the *market values* of common equity and debt, not the book values. The market value of common equity can be calculated as the share price times the number of shares outstanding. The market value of the firm's debt is the book value times the current market premium (1.025).