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Assume that New Aquatics Inc's EBIT has a $20 \%$ chance of equaling \$1,000,000, a $50 \%$ chance of equaling $\$ 6,000,000$, and a $30 \%$ chance of equaling $\$ 9,000,000$. Assume also that New Aquatic’s tax rate equals $35 \%$ and that the tax rate on equity income equals $20 \%$ and that the tax rate on interest income equals $30 \%$.
a. Considering only tax issues, determine the optimal level of interest expense for New Aquatics? (Note: Calculations required).
b. Assume New Aquatics reduced its debt below the level of debt you identified as optimal in part "a". Assume also that New Aquatic's stock price rose when the firm reduced its debt. How would you explain this reaction?

