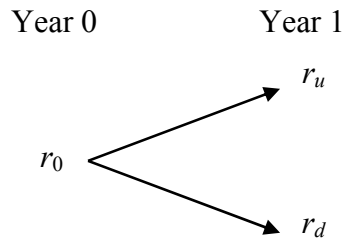


30. You are given the following market data for zero-coupon bonds with a maturity payoff of \$100.

Maturity (years)	Bond Price (\$)	Volatility in Year 1
1	94.34	N/A
2	88.50	10%

A 2-period Black-Derman-Toy interest tree is calibrated using the data from above:



Calculate  $r_d$ , the effective annual rate in year 1 in the “down” state.

- (A) 5.94%
- (B) 6.60%
- (C) 7.00%
- (D) 7.27%
- (E) 7.33%