Computational Finance Project 8
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Question 1

a) The price of the pure discount bond is **975.3127**
b) The price of the coupon paying bond is **1056.7041**
c) The price of a European call on a pure discount bond is **8.8881** (using explicit calculation for underlying bond)
d) The price of a European call on coupon paying bond is **80.6603** (using Monte Carlo calculation for underlying bond)
e) The price of a European call on coupon paying bond through explicit method is **82.1390**

Question 2 (CIR Model)

a) The price of the European call on the discount bond using Monte Carlo simulations is **0.4089**
b) The price of the European call on the discount bond using Implicit Finite Difference Method is **0.4098**
c) The price of the European call on the discount bond using Explicit method is **0.3941**

Question 3 (G2++)

a) The price of the European Put option using G2++ model is **1.8655**

The price using the explicit formula is **1.8610.**

The prices from the G2++ model and the explicit formula converge and are almost the same.