The yield curve calculated in 3 is:

Assume no arbitrage:

EAR for one year forward treasury rates:

August 2004: f(0,1,2) = (1 + y(2)/2)^4 / (1+y(1)/2)^2 = 2.471%

August 2005: f(0,2,3) = (1 + y(3)/2)^6 / (1+y(2)/2)^4 = 3.6539%

August 2005: f(0,3,4) = (1 + y(4)/2)^8 / (1+y(3)/2)^6 -1 = 4.4629%

bond equivalent basis = (sqrt(1+f) – 1)\*2

August 2004: 2.456%

August 2004: 3.6211%

August 2005: 4.577%

The forecast error is large. Firstly it should perfectly match or with very small margin given no arbitrage assumption; secondly, the prediction got the wrong slope since it overestimate rates on the short end and underestimate on the long end.