Assume the risk-free interest rate is 3% and that a risk-free bond that pays $1000 one year from today trades for $980.

a. Calculate the no-arbitrage price for the bond.
b. What set of transactions today will generate an arbitrage profit today?
c. What individual and total cash flow will these transactions create today and a year from today?
d. What “events” will create the individual cash flows one year from today?

\[ \text{PV (Bond)} = \frac{1000}{1.03} = 970.87 \]

Transaction: 
- Short bond $5
- Lend @ 3% $5

\[ \text{CFO} \begin{cases} +980 & \text{Buy back bond} \\ -970.87 & \text{Loan repaid} \end{cases} \]

\[ \text{CFi} \begin{cases} -1000 & \text{Loan repaid} \\ +1000 & \text{Loan repaid} \end{cases} \]