"A Preferred-Habitat Model of the Term Structure of Interest Rates"

Abstract:
This paper determines the term structure of interest rates through the interaction between risk-averse arbitrageurs and investor clienteles for specific maturities. Absent the arbitrageurs, a bond's yield is determined by the subjective discount rate of the bond's investor clientele. Arbitrageurs bring yields in line with each other and with an exogenous short rate. For example, when the short rate is low, arbitrageurs do the carry trade, borrowing short and buying bonds. Bond risk premia are then positive because arbitrageurs bear the risk that the short rate goes up. Conversely, when the short rate is high, arbitrageurs do the reverse carry trade and risk premia are negative. The long rate depends not only on the short rate's long-run mean, but also on the investors' discount rate, and the more so the more risk-averse arbitrageurs are. When the short rate's long-run mean and the discount rate are time-varying, the former accounts for movements at intermediate maturities and the latter for the long end of the term structure. The model is set in continuous time and equilibrium yields are affine in the state variables.