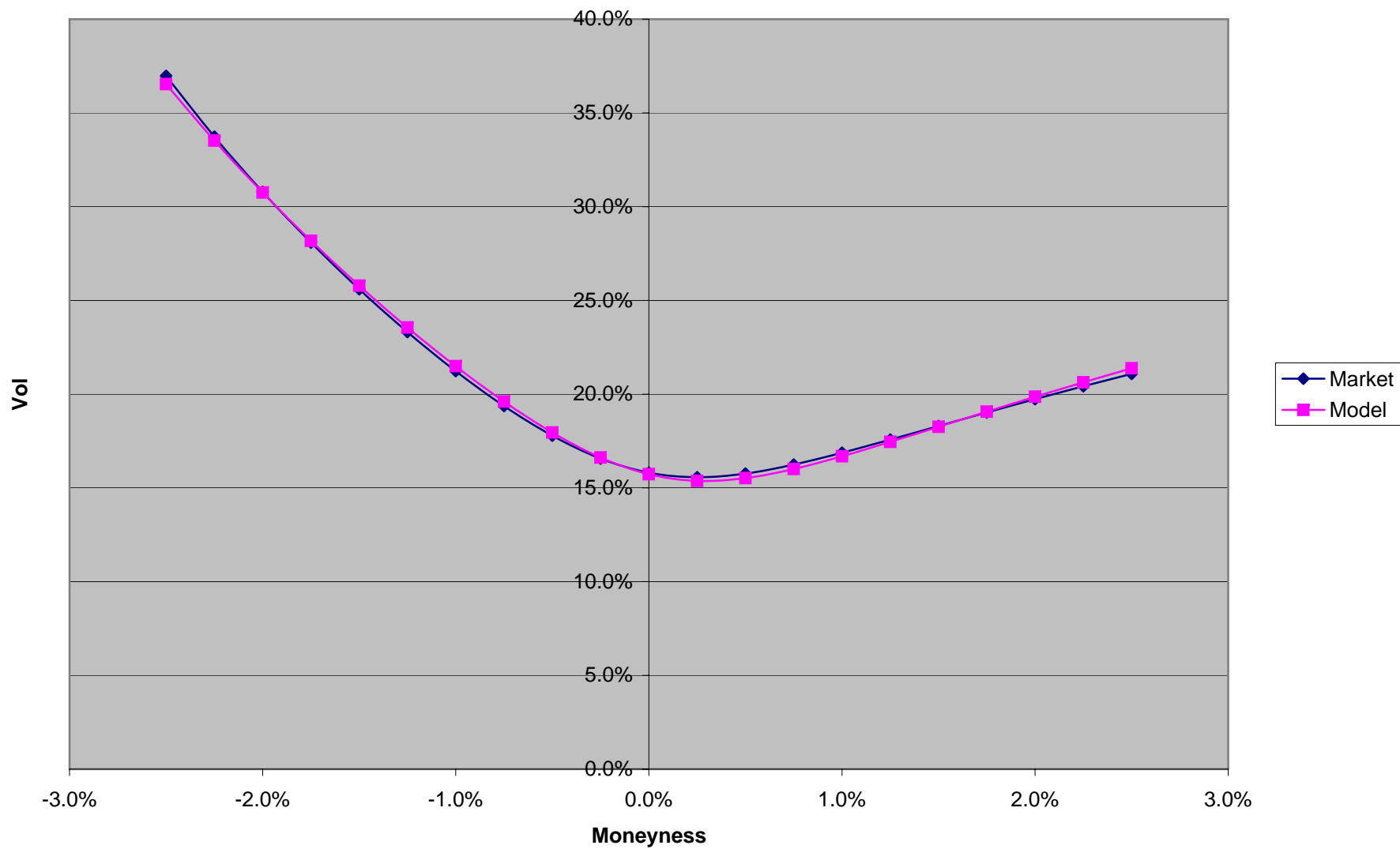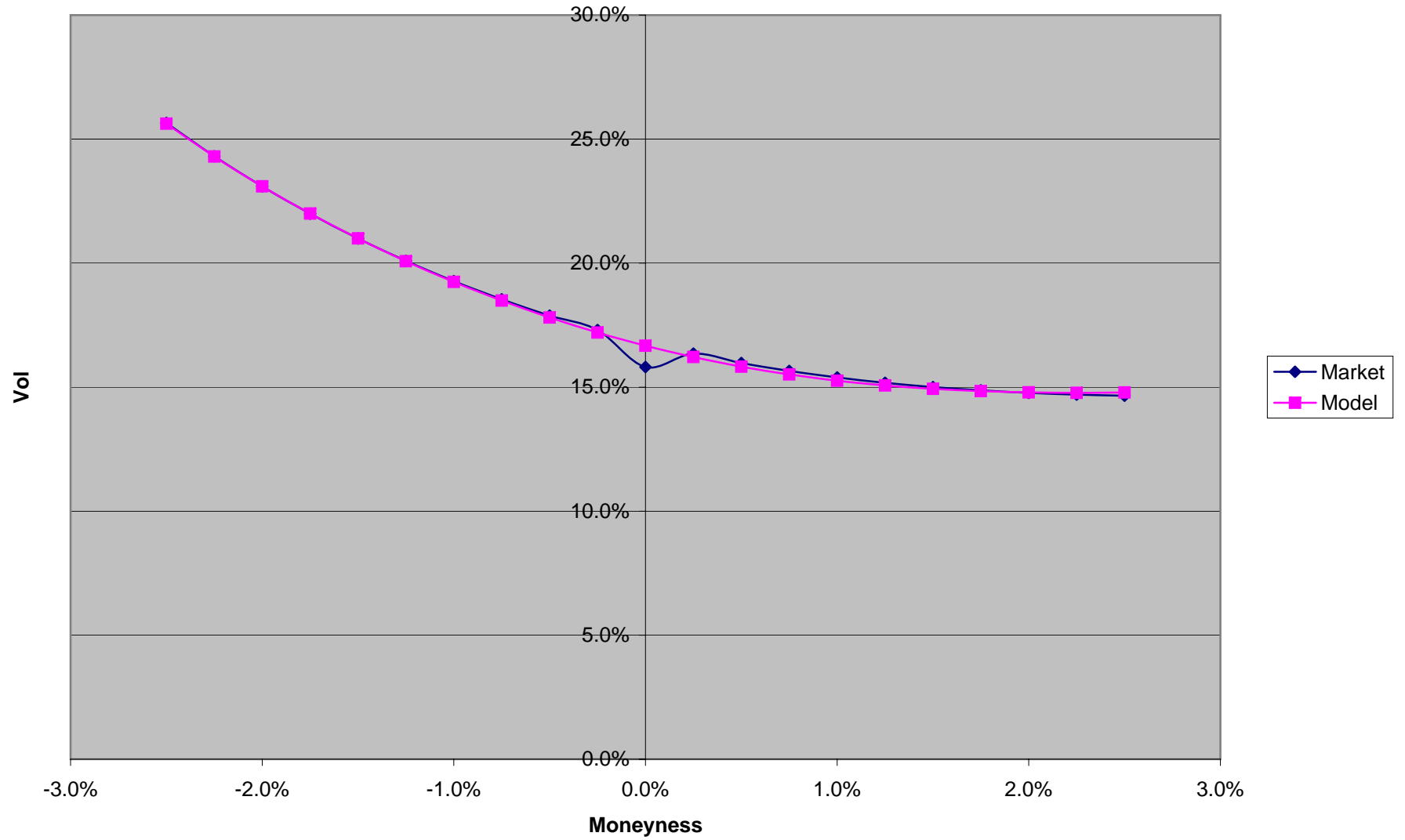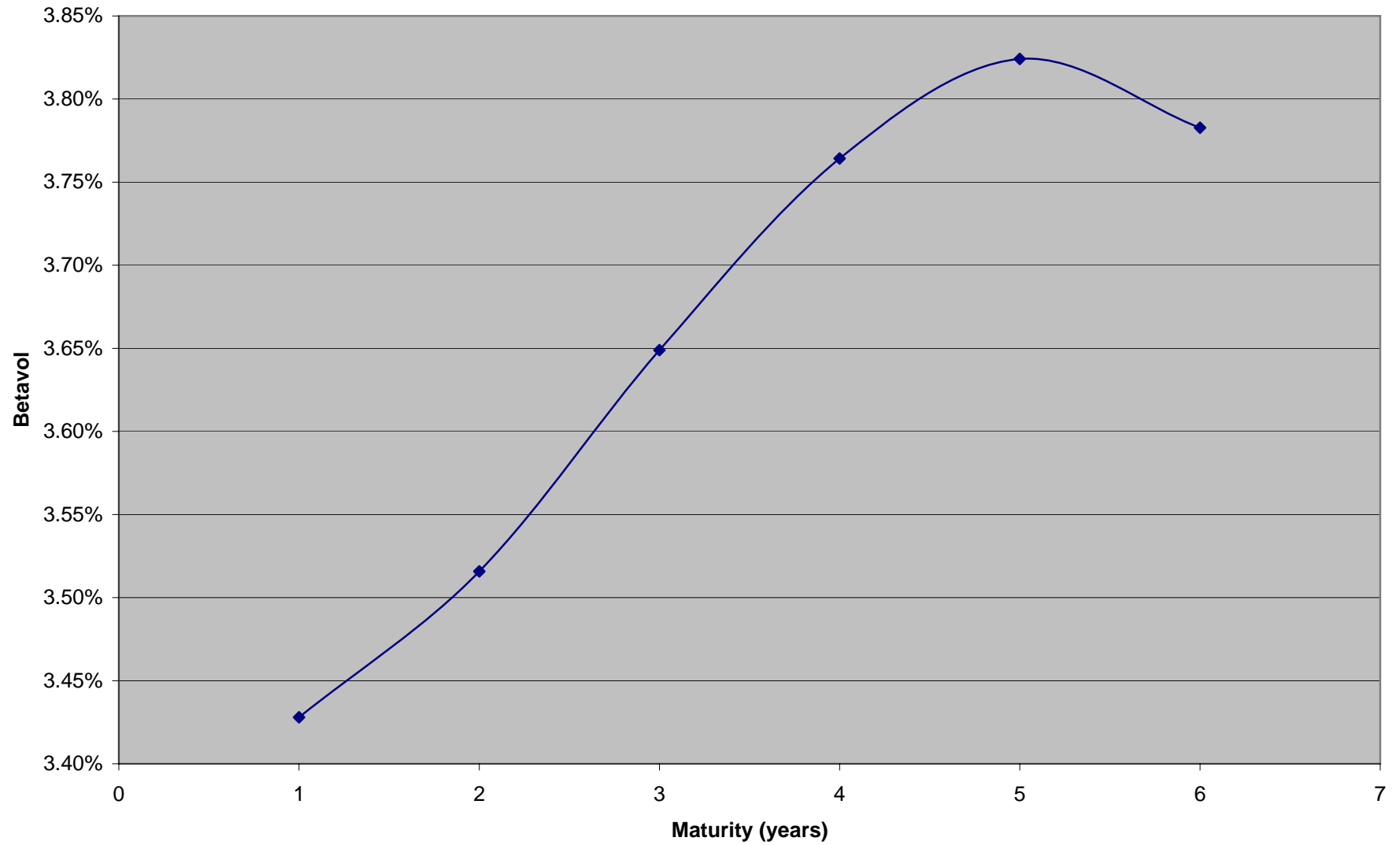Volatility smile for 3M->5Y swaptions
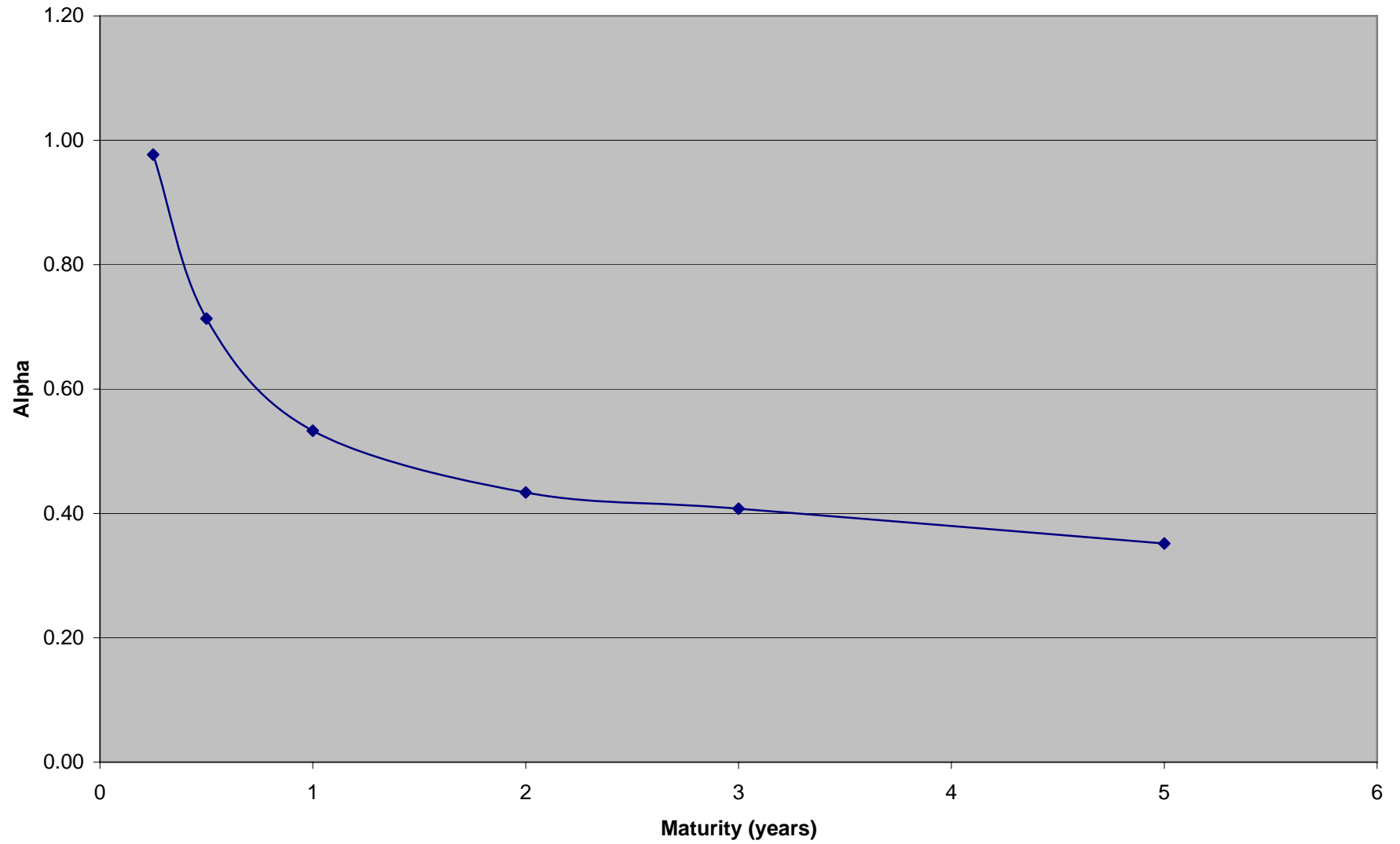
Volatility smile for 5Y->5Y swaptions

Betavol as function of option maturity

Alpha as function of option maturity

Rho as function of option maturity