

In this work we study the HJM model of the term structure of interest rates driven by a Lévy process. We study the no-arbitrage dynamics of the discounted bond prices and obtain a risk-neutral dynamics of the short rate as a consequence. We study in particular the short rate process and formulate a criteria for mean reversion. The theory gives us a machinery producing short rate processes associated with a general Lévy driver and general volatility structure and we show the non-emptiness of the theory by demonstrating the previous on an example of an OU type process associated with the generalized inverse Gaussian distribution. The upshot is an explicitly given short rate process that generalizes the Vašíček model, and moreover stays positive. Finally we study numerical methods for thus constructed short rate process such as simulations and lattice approximations.