A general equilibrium framework for the affine class of term structure models*

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Abstract. The Duffie and Kan (1996) model, which can be considered as the most general affine term structure formulation, was originally specified in terms of risk-adjusted stochastic processes for its state variables. The goal of the present paper is to derive a Duffie and Kan (1996) model' specification under the physical probability measure that is compatible with the formulation given by the authors under the equivalent martingale ("money market account") measure. For that purpose, the Duffie and Kan (1996) model will be fitted into a general equilibrium monetary framework. The resulting analytical solution for the vector of factor' risk premiums enables the econometric estimation of the model' parameters using a "time-series" or a "panel-data" approach, and nests, as special cases, several other specifications already proposed in the literature.

Key words: Affine term structure models – Change of measure – Feynman-Kač solution – Cash-in-advance models – Power utility – Log utility

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