

Review of: "A connection between Gompertz diffusion model and Vasicek Interest Rate model"

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Potential competing interests: No potential competing interests to declare.

The introduction can be extended; see the additional sources below.

The study is original, and the author shows that the Vasicek Interest Rate Model is a Gompertz diffusion process, as well as that the stochastic Gompertz diffusion process is a Vasicek Interest Rate Model. The two basic theorems, Theorem 3.1 and Theorem 3.3, are precisely formulated and proved. The main accent in this research is on the explicit form of functions given by the author at the end of the proofs of both theorems. Up to now, I don't know such a result in the literature of this subject.

I give a high mark to the provided research and the obtained results.

Having in mind the author's results, I suggest that the paper be accepted for publishing in the journal Qeios after minor revision. Namely, the paper can be improved by adding some extra key titles to the references:

Anguelov, R., Borisov, M., Iliev, A., Kyurkchiev, N., Markov, S. On the chemical meaning of some growth models possessing a Gompertzian-type property. *Mathematical Methods in the Applied Sciences*, 41, 18, 2018, 8365-8376.

Kyurkchiev, N., Iliev, A. *Extension of the Gompertz-type Equation in Modern Science: The 240th Anniversary of the birth of B. Gompertz*. LAP LAMBERT Academic Publishing, Saarbrücken, 2018, ISBN: 978-613-9-90569-0.