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A stochastic order for the analysis of investments affected by the time value of money

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Abstract

Time value of money reads that an amount of money at the present time is worth more than the same amount in future because its earning capacity and inflation. This fact is reflected in multiple financial concepts and in the final result of numerous investments by means of functions which satisfy appropriate properties. Motivated by the need to compare such investments we introduce an integral stochastic order generated by those functions. The maximal generator of the order is obtained. It is proved that the new stochastic order is generated by a non-stochastic partial order and the class of preserving mappings of such a partial order. Characterizations of the order are developed. Relevant properties, as well as connections with other stochastic orderings and examples, are studied.

JEL code: G11 Portfolio Choice; Investment Decisions Keywords: cash flow, maximal generator, stochastic order, time value of money

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