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STOCHASTIC INEQUALITIES BASED ON COBB–DOUGLAS UTILITY FUNCTIONS

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Abstract. Consumer theory studies how individuals make choices given the prices of goods, budget constraints and their preferences. The preferences of a consumer are represented by a utility measure. One of the most important examples of utility mappings is given by the Cobb-Douglas functions. Frequently the quantities of goods involved in the selection problem are random instead of deterministic. Motivated by the need to compare the preferences and investments of a consumer when the quantities of goods are random and the utility belongs to the Cobb-Douglas family, a new stochastic order is introduced. The order is analyzed in detail, providing characterizations, conditions which lead to the order and properties derived from the order. Special emphasis is placed on the antisymmetric property of the new ordering. The proposed stochastic order weakens the concave order.

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