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We introduce a stochastic dynamic optimization problem, where risk aversion is expressed by a stochastic ordering constraint. The constraint requires that a random reward sequence depending on our decisions dominates a given benchmark random sequence. The dominance is defined by discounting both processes with a family of discount sequences, and by applying a univariate order. We describe the generator of this order. We develop necessary and sufficient conditions of optimality for convex stochastic control problems with the new ordering constraint and we derive an equivalent control problem featuring implied utility functions. Furthermore, we prove the existence of an optimal random discount sequence such that the solution of the risk averse problem is also a solution of a risk neutral problem with this discount. Finally, we derive a version of the maximum principle for the problem with discounted dominance constraints. (Received February 25, 2007)