TIME-CONSISTENCY OF INDIFFERENCE PRICES AND MONETARY UTILITY FUNCTIONS

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We consider an economic agent with dynamic preference over a set of uncertain monetary payoffs. We assume that the agent's preferences are given by utility functions, which are updated in a time-consistent way as more information is becoming available. Our main result is that the agent's indifference prices are time-consistent if and only if his preferences can be represented with utility functions that are additive with respect to cash. We call such utility functions monetary. The proof is based on a characterization of time-consistency of dynamic utility functions in terms of indifference sets. As a special case, we obtain the result that expected utility leads to time-consistent indifference prices if and only if it is based on a linear or exponential function.