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Tomasz R. Bielecki (bielecki@iit.edu), **Igor Cialenco** (igor@math.iit.edu) and **Marcin Pitera*** (marcin.pitera@uj.edu.pl). *Dynamic limit growth indices.*

We will focus on the dynamic analog of Risk sensitive criterion, which is an objective function designed to measure the efficiency of the long run cumulative growth of the portfolio. The main result of our work is full time-consistency characterisation, with respect to the time-consistency definition proposed for dynamic acceptability indices by T. R. Bielecki, I. Cialenco and Z. Zhang (2012). We show that for risk-seeking case acceptance consistency is preserved, for risk-averse case we have rejection consistency and risk-neutral case does not possess any kind of consistency in general. Next we propose a new class of assessment indices which could be seen as a generalisation of the risk sensitive criterion. With infinite discrete time horizon and a wealth process V they could be described as

$$\varphi(V) := \liminf_{T \rightarrow \infty} \frac{\mu(\ln \frac{V_T}{V_0})}{T}$$

where $\mu : L^1 \rightarrow \bar{\mathbb{R}}$ is an assessment index. Next we define the dynamic analog of such indices and discuss its properties, propose explicit families and show connections with dynamic acceptability indices. (Received August 13, 2013)