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We solve a risk-sensitive benchmarked asset management problem of a firm when the stock is modeled by both a Markov regime-switching diffusion process and an external factor. It is also assumed that the benchmark depends on the economic factor. We use the general maximum principle to find the portfolio strategy that minimizes the risk sensitivity of an investor in such environment. This portfolio is given in a feedback form and depends on the solution to a regime-switching Ricatti equation. (Received September 25, 2017)