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**Zhixin Yang\*** (zyang6@bsu.edu), Department of Mathematical Science, Muncie, IN 47306, and  
**Zhuo Jin** (zhuo.jin@unimelb.edu.au), Department of Economics, Melbourne, VIC 3010,  
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In this work, we considered defined contribution pension management with regime switching. The regime switching is described in terms of a continuous time Markov chain. Due to the bounded rationality and observation cost, we cannot observe the information of Markov chain with infinite precision. Therefore, we examined a hidden Markov chain instead. Our interest is to find out the optimal control under mean-variance criterion. Applying the stochastic dynamic programming techniques, we are able to derive the associated Hamilton-Jacob-Bellman equation. Because closed form solutions are basically impossible to obtain, our main efforts are devoted to designing a convergent numerical algorithm using Markov chain approximation. (Received September 20, 2017)