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*A description of price systems for markets with transaction costs and some control problems for finance problems*

**Abstract:** In a discrete time market with transaction costs, Kusuoka(1995) first gave a price formula for derivatives using preconsistent price systems ( Here we use the term "price system" for short). A similar result for diffusion price model was also obtained by Cvitanic-Karatzas(1996). We consider binomial model and give a dynamic to generate the price systems. We can combine the original dynamics of stock price and the dynamics for price system to reformulate some finance problems (such as pricing derivatives, portfolio optimization problem) as stochastic control problems. From this relation, dynamic programming approach can be used to study these finance problems.