1148-60-228 **Yerkin Kitapbayev***, yerkin@mit.edu, and **Scott Robertson**. *Valuation and design of mortgage contracts.*

In this paper we discuss the default options embedded in mortgage contracts. It is well known that standard fixed-rate mortgages (FRM) provide incentive for strategic default of home owners when the house value declines significantly and is below the outstanding balance. The foreclosure process is usually very costly for lenders. To reduce the possibility of defaults, several alternative contracts have been proposed in the literature. Examples are adjustable balance mortgage (ABM), continuous workout mortgage (CWM), and shared responsibility mortgage (SRM). We tackle the valuation problems for each contract as the optimal stopping problems. Optimal default (if any) and prepayment boundaries are obtained using probabilistic methods. Some comparison of the contracts is carried out. (Received February 03, 2019)