In this talk, we consider some non-standard renewal risk models with some dependent claim sizes and stochastic return, where an insurance company is allowed to invest her/his wealth in financial assets, and the price process of the investment portfolio is described as a geometric Lévy process. When the claim-size distribution belongs to some classes of heavy-tailed distributions and a constraint is imposed on the Lévy process in terms of its Laplace exponent, we obtain some asymptotic formulas for the tail probability of discounted aggregate claims and ruin probabilities holding uniformly for some finite or infinite time horizons.