We study a general equilibrium model with nominal loans and collateral constraints tied to housing values. Within this framework, we explore the possibility that a housing bubble might be generated by expectations that are not based on fundamentals. Initially agents receive an imperfect signal (news) about future demand, which affects their expectations about the future. High expectations lead to high housing investment and prices. When the future unravels, the signal turns out to be false. Agents re-adjust their investment, and a housing market recession follows. Nominal loans and collateral constraints enhance the impact of housing values on aggregate demand. We then ask the question: should the Fed respond to housing prices when they are not driven by fundamentals? We calibrate our model and use simulations to evaluate alternative interest rate policies by comparing their effects on the loss function of the Fed.