

The equilibrium price of bubble assets

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Considering a simple economy, we derive a new Hamilton-Jacobi equation which is satisfied by the value of a "bubble" asset. We then show, by providing a rigorous mathematical analysis of this equation, that a unique non-zero stable solution exists under certain assumptions. The economic interpretation of this result is that, if the bubble asset can produce more stable returns than fiat money, agents protect themselves from hazardous situations through the bubble asset, thus forming a bubble's consensus value. Our mathematical analysis uses different ideas coming from the study of semi-linear elliptic equations.