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How Bad Will the Potential Economic Disasters Be? Evidences from S&P 500 Index Options Data

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Date Written: June 18, 2008

Abstract

This paper proposes a new methodology of using the S&P 500 index option data to gauge the magnitudes of the potential economic disasters in the U.S. with a setup incorporating a small-probability consumption jump and habit formation. The estimated economic disasters strike once every 36-64 years in the form of 13.5-17.6% consumption contractions, which induce 36-56% stock market crashes. These results are much more in line with the empirical observations than those estimated with Peso problem models in which habit formation is ignored. The setup also explains a wide variety of the observed pricing features of both options and stocks.

Keywords: economic disasters, habit formation, volatility smirk, equity premium**JEL Classification:** G10, G12[Suggested Citation](#) >[Show Contact Information](#) >[Download This Paper \(Delivery.cfm/SSRN_ID1150472_code892837.pdf?abstractid=1150472&mirid=1\)](#)[Open PDF in Browser \(Delivery.cfm/SSRN_ID1150472_code892837.pdf?abstractid=1150472&mirid=1&type=2\)](#)

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