A Class of Quadratic Options for Exchange Rate Stabilization

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Abstract

We propose the use of a new option which we call "quadratic," and that central banks could use to smooth exchange rate volatility through the hedging strategies of the issuers. We derive analytic pricing and hedging formulas. We suggest a criterion to derive the optimal (for the Central Bank) option parameters. Finally, we perform several simulation exercises which show the effectiveness of using this option, with or without conventional spot interventions.

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