Time evolutions of copulas and foreign exchange markets

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Time evolution of copulas is well visible in such a dynamical market as foreign exchange market (ForeX, FX, or currency market). We first show how several families of copulas evolving in time for EURO-JPY and CHF-JPY at ForeX market. Black-Scholes paradigm suggest to apply evolution of copulas with respect to heat equation. Stationary limit of such an evolution is proven to be an independence copula under strong regularity conditions. However, empirical observations of ForeX stock confirm that reality can be more delicate, because of the ForeX market violations. The manuscript shows that under slight changes of topology, the limiting object is not a copula, because the 1-Lipschitzianity continuity is violated. The authors study these kinds of convergences with respect to FEMA (Foreign Exchange Management Act) violations.

Convergence

Copula

Evolution

Forex

Lipschitzianity

Financial markets

Convergence

Copula

Evolution

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Lipschitzianity

Commerce