

WORKING PAPERS

CeBER Working Paper No. 2023-02

Flip the coin: Heads, tails or cryptocurrencies?

António Portugal Duarte

University of Coimbra, Centre for Business and Economics Research, CeBER and Faculty of Economics

Fátima Sol Murta

University of Coimbra, Centre for Business and Economics Research, CeBER and Faculty of Economics

Nuno Baetas da Silva

University of Coimbra, Centre for Business and Economics Research, CeBER and Faculty of Economics

Beatriz Rodrigues Vieira

University of Coimbra, and Faculty of Economics

Abstract: This paper analysis and compares the volatility of seven cryptocurrencies — Bitcoin, Dogecoin, Ethereum, BitcoinCash, Ripple, Stellar and Litecoin — to the volatility of seven centralized currencies — Yuan, Yen, Canadian Dollar, Brazilian Real, Swiss Franc, Euro and British Pound. We estimate GARCH models to analyze their volatility. The results point to a considerably high volatility of cryptocurrencies when compared to that of centralized currencies. Therefore, we conclude that cryptocurrencies still fall far short of fulfilling all the requirements to be considered as a currency, specifically regarding the functions of store of value and unit of account.

Keywords: Centralized currencies, cryptocurrencies; GARCH models; volatility

JEL Classification: E51, G12, G15; G17, G23.

CeBER Faculdade de Economia Universidade de Coimbra Av. Dias da Silva, 165 3004-512 COIMBRA | **PORTUGAL**

Tel.: +351 239 790 599 Fax: +351 239 790 514 E-mail: ceber@uc.pt GPS: 40.214698 -8.408988



