

# The Asymmetry of Conditional Dependence Structures in the Cryptocurrency Market

Hassan Sadeghi\*

Mohsen Mohaghegh†

## Abstract

We use a quantile measure of tail asymmetry to examine dependence structures in both the cryptocurrency and equity market. We find that tail asymmetry is significantly stronger in cryptocurrencies. This happens because cryptocurrencies have largely weaker right-tail correlations while their left-tail correlations are stronger. Additionally, conditional tail asymmetry in equities is mostly found in tails that only contain very extreme returns and substantially weakens as the quantile tail criterion rises. In the cryptocurrency market, however, tail asymmetry remains significant throughout the entire joint distribution of returns. We verify the robustness of our findings through a series of parametric bootstraps.

---

\*Department of Finance, University of Zurich. hassan.sadeghi@uzh.ch.

†Department of Economics, Indian Institute of Management Ahmedabad. mohsenm@iima.ac.in.