

IRP 7: Individual Research Project

Topic

Risk index for cryptos

Involvement

- IRP belongs to WP4 (Blockchain applications)
- WP Leader: HUB (Berlin)
- Two supervisors from secondments: ROY, and FRA

Objectives

The cryptocurrency market is exceptional: it is volatile, with a constantly shifting market structure. As cryptocurrencies evolve into a class of investable assets, the **need for an index product** arises. We investigate the **dependencies of tail risk events within cryptocurrencies**, which entails identifying coins with high or low joint tail event risks. Based on this, we intend to **develop a risk index for cryptocurrencies** to measure joint tail events, which will be an important tool for communicating risks to the public and regulators.

Deliverables

Develop a risk index to understand, measure and forecast upcoming risk flows from all cryptocurrency market participants and risk drivers. The possibility of pinpointing co-tress components in a dynamic network context makes the tool versatile and flexible for Digital Finance. The index will provide a thorough understanding of cryptocurrencies, and measure the dependencies and spillover effects in tail risk events within cryptocurrencies. It helps investors to manage risks and support decision-making.

