Thematic ETFs as geopolitical safe havens

The rise of ETFs offers investors an alternative to traditional instruments and enables them to get direct access to a wide range of thematic strategies, from clean energy to artificial intelligence, or other specific market segments. This characteristic further enhances the attractiveness of ETFs, especially given the evidence showing that ETFs linked to renewable energy and ESG criteria exhibit relatively low correlations with traditional and digital financial assets, highlighting their possible role as alternative assets for portfolio diversification and hedging strategies.

While many previous studies have predominantly focused on traditional safe-haven assets, such as gold, safe-haven currencies such as the Japanese yen and sovereign bonds (especially US Treasuries and Japanese bonds), as well as alternative assets such as cryptocurrencies, papers on thematic ETFs remain relatively limited, especially concerning the effects of geopolitical risk (GPR) and their connectedness with traditional financial assets.

Our research fills this gap in the literature by examining the dynamic linkages between sector ETFs and the returns of various asset classes, including cryptocurrencies, energy commodities and major stock indices, over the period from 1 January 2023 to 22 September 2025.

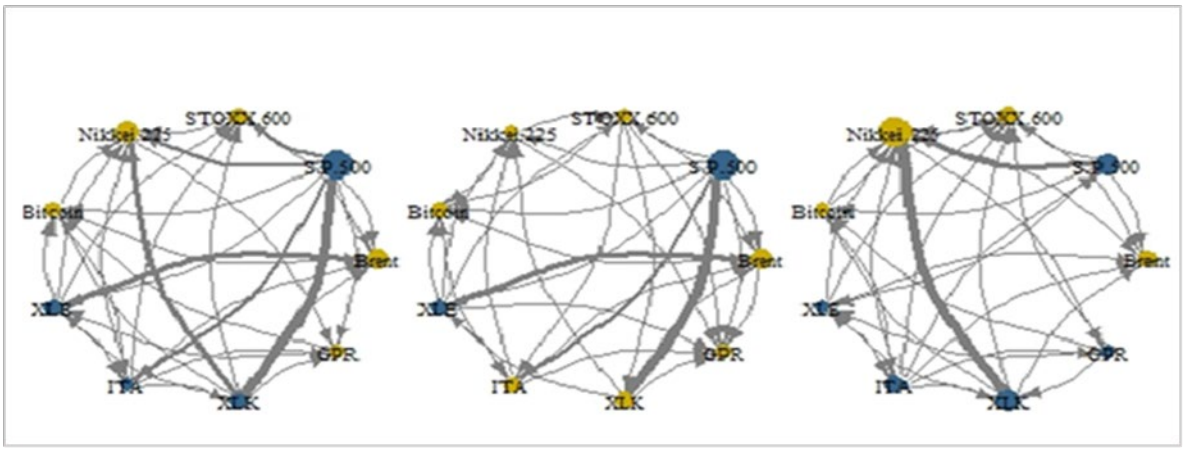
The analysis concerns the recent period characterised by geopolitical developments affecting global financial markets, such as the Israeli-Palestinian conflict and escalating tensions between Israel and Iran, which have increased regional uncertainty and disrupted global oil trade.

More specifically, our study employs an empirical measure of connectedness which captures both contemporary and lagged relationships between the returns of different asset classes.

The results contribute to a better understanding of the instantaneous as well as lagged information transmission, thereby providing practical guidance to investors for adjusting their strategies during periods of financial turbulence.

Specifically, the findings imply that the dynamics of the Total Connectedness Index (TCI) are mainly driven by contemporaneous, rather than lagged, effects.

Figure 1: Network Connectedness



Notes: Overall (Left), Contemporaneous (Centre) and Lagged (Right) Connectedness

Figure 1 displays pairwise net directional connectedness measures (total, contemporaneous, and lagged). Emitters are shown in blue and receivers in yellow, while the thickness of the arrows reflects the intensity of shock transmission.

Some major stock market indices, such as the Nikkei 225 and the STOXX 600, as well as the Brent oil price, exhibit highly negative contagion effects, indicating that they are net receivers. Bitcoin (BTC) displays slightly negative spillovers, is less sensitive to shocks, and appears to be a relative safe haven. By contrast, the S&P 500 Index stands out as the largest net emitter of shocks and plays a central role in transmitting global volatility.

Defence (ITA) and technology (XLK) ETFs also appear to act as emitters, but only to a moderate extent. The Energy ETF (XLE) exhibits a hybrid behaviour, alternating between the roles of emitter and receiver depending on market conditions – it absorbs shocks related to the turbulence of the conflict in the Middle East and also exhibits high exposure to other markets. Thus, under some market conditions, defence and technology ETFs can act as partial safe havens.

Future work could extend the analysis in several ways. First, longer data spans and additional assets could be examined, for instance sovereign bonds or other commodities such as gas, wheat and gold.

Further, investor sentiment could be included in the model in order to gain a better understanding of portfolio diversification in the face of geopolitical risks. Finally, other types of models could be applied to shed more light on spillovers between not only asset returns but also their volatility.