Question 2: Currency Hedging Analysis

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Abstract

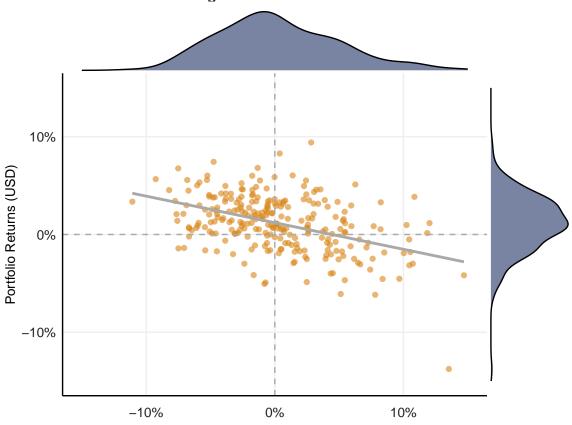
For this question I replicated the figure from the study "TRIMMING THE HEDGES: WHAT TO DO WITH THE RAND IN YOUR PORTFOLIO?", rebalanced the 60/40: 70/30 portfolio quarterly and compared a fully hedged and unhedged alternative and presented an alternative hedging strategy as comparison.

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1. Plotting





USD-ZAR Returns Calculations from 31 March 2023 – 31 August 2023

2. Table Replicated

USD-ZAR Correlation & Fund Performance Replication

Fund	ZAR Correlation	Returns (Ann.)	S.Dev (Ann.)
Global + Local (Hedged)	-0.0475612702853004	0.133904656630418	0.102122272454175
Global + Local (Hedged-LS)	-0.01031021409883	0.0251757971324742	0.150206652827204
Global + Local (Unhedged)	-0.0459039980544455	0.141802137114177	0.0950272849065569

3. Results

By rebalancing our straightforward 60/40 (local/global) and 70/30 portfolio quarterly and comparing a completely hedged versus unhedged approach, the outcomes are evident. It highlights that the significant inverse relationship between the rand and USD returns of global equities and bonds aids in lowering the portfolio's volatility. Furthermore, the general downward trend of the rand implies that leaving it unhedged generally enhances overall returns. The (Hedged-LS) fund reflects the hedged returns based on long and short positions in randomized ranked currencies. The comparison demonstrates that during Rand depreciation, the unhedged fund outperforms the naturally hedged fund, yet the Hedged-LS fund outperforms both strategies. Additionally, the unhedged fund displays the lowest volatility among the three approaches.