# Question 2: Currency Hedging Analysis

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## 1. Introduction

This question focuses on a recent article that discusses the misconception surrounding hedging out the Rand. By replicating the figure within that article I therefore show that hedging vary rarely has beneficial effects. I then go further by showing how the volatility of a portfolio can actually be increased through hedging

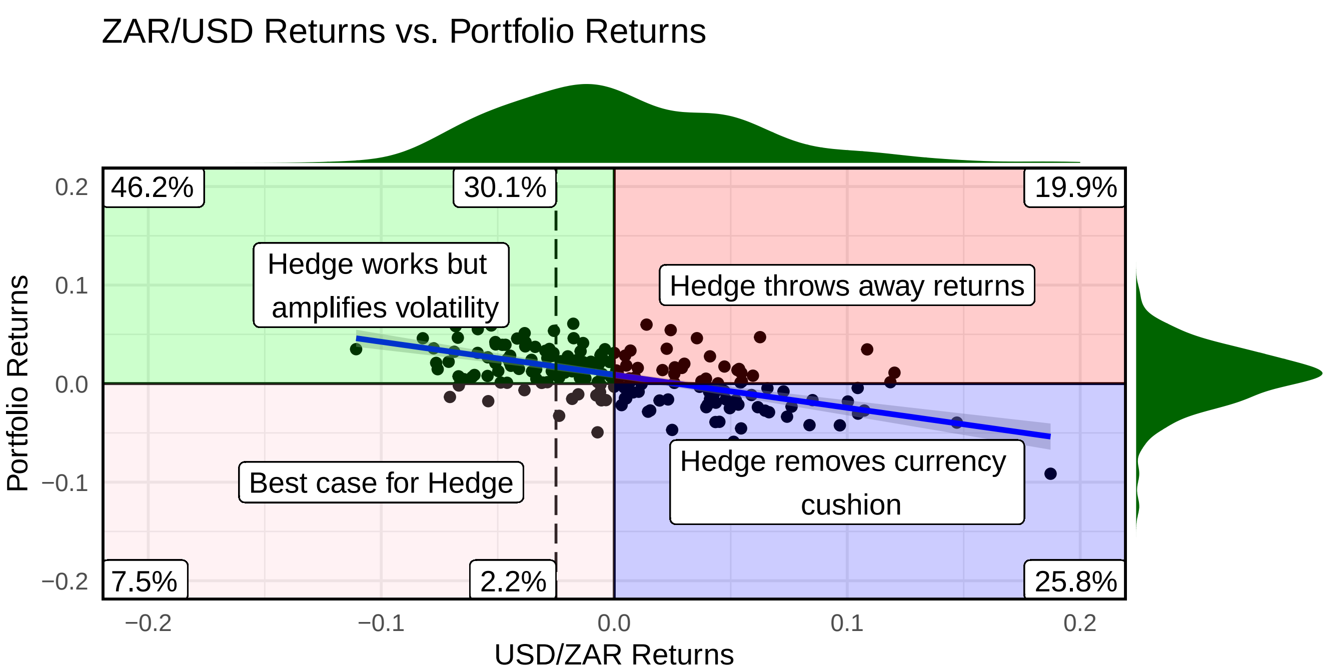


Figure 1.1: Replicated Figure

The graph interpretation can be done as follows. If we find ourselves in the top left quadrant, it means

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portfolio returns are positive and USD/ZAR returns are negative. In this case a hedge will work but it increases volatility, a less than desirable outcome. This occurs for 46.2% of observations and 30.1% if we apply a fee. The bottom left quadrant shows when portfolio and USD/ZAR returns are negative. This is the best case scenario for a hedge, yet it only occurs 7.5% of the time. 2.2% when applying a fee. The top right and bottom right quadrant shows outright negative positions to be in when hedging against the Rand. These occur 19.9% and 25.8% respectively.

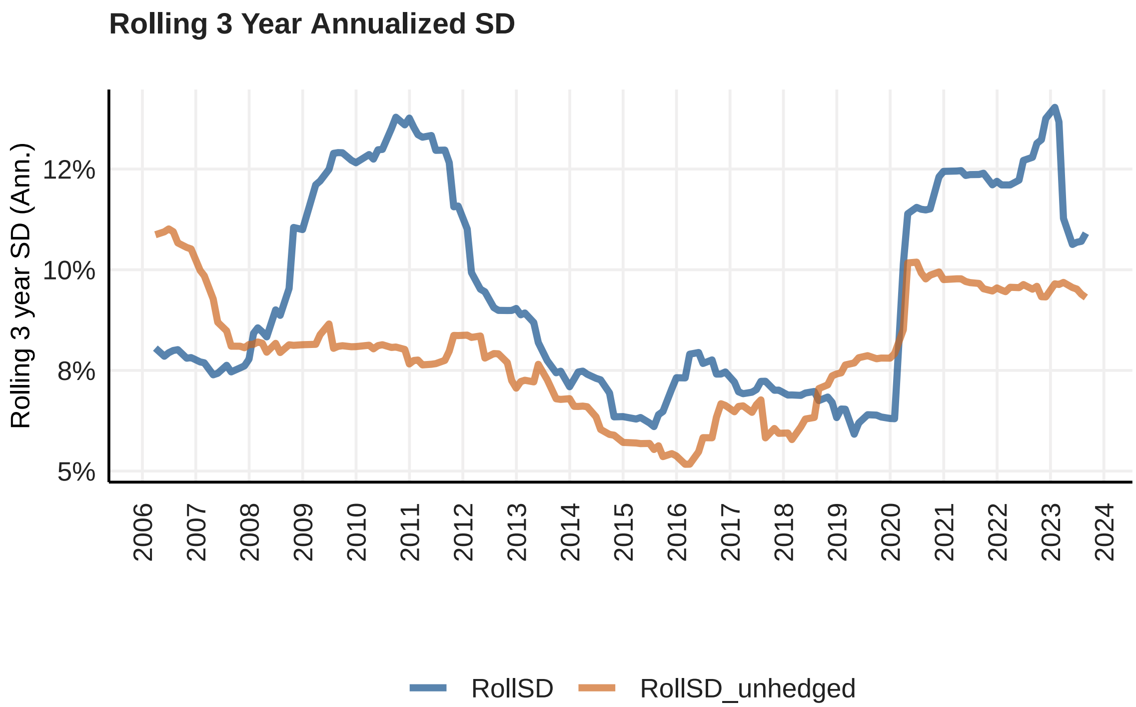


Figure 1.2: Rolling 3 Year Annualized SD

The graph displayed above illustrates the rolling three-year annualized standard deviation for both a hedged and an unhedged portfolio. What stands out is that, for most of the observed period, the unhedged portfolio exhibits lower volatility. This observation reinforces the points made earlier, demonstrating that hedging against the Rand actually elevates the portfolio's overall volatility. This outcome contradicts the primary goal of hedging against the Rand, which is to reduce volatility.