FX Carry Suprise Index Technical Writeup (Rough Draft)

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1 Introduction

This paper covers a strategy regarding carry. At the specific moment (the date listed on the writeup) the strategy and its idea is in its infancy. Its yet to be decided if it's worth pursuing further but for the most part the results have proven to be successful. At this time the modeling has only used Citi Surprise Indices as inputted variables and the Deustche Bank G10 FX Carry Index as a proxy for carry returns. Although the Deustche Bank Index is not tradable its a reasonable proxy for carry and its been used in other buy-side literature as a proxy. If further initial tests prove useful then incorporating individual carry return indices will be necessary.

2 Data

The Deustche Bank index and Citi Surprise Indices were collected from Bloomberg Terminal. Since its a G10 index only the "relevant" indices were used. Below is the data and what indices were used.

3 Initial Approach

The Citi Surprise index is *surprisingly* a good proxy for trading the DB Carry Index. Conditioning on the Citi Surprise Index generates can generate reasonable returns, and then extending that model to OLS performs well.

3.1 Raw Citi Surprise Index

The Citi Surprise index is a non-stationary time series that generates positive and negative values. Below is a plot of the raw values of the Citi Surprise indices.

All Citi Surprise Indices
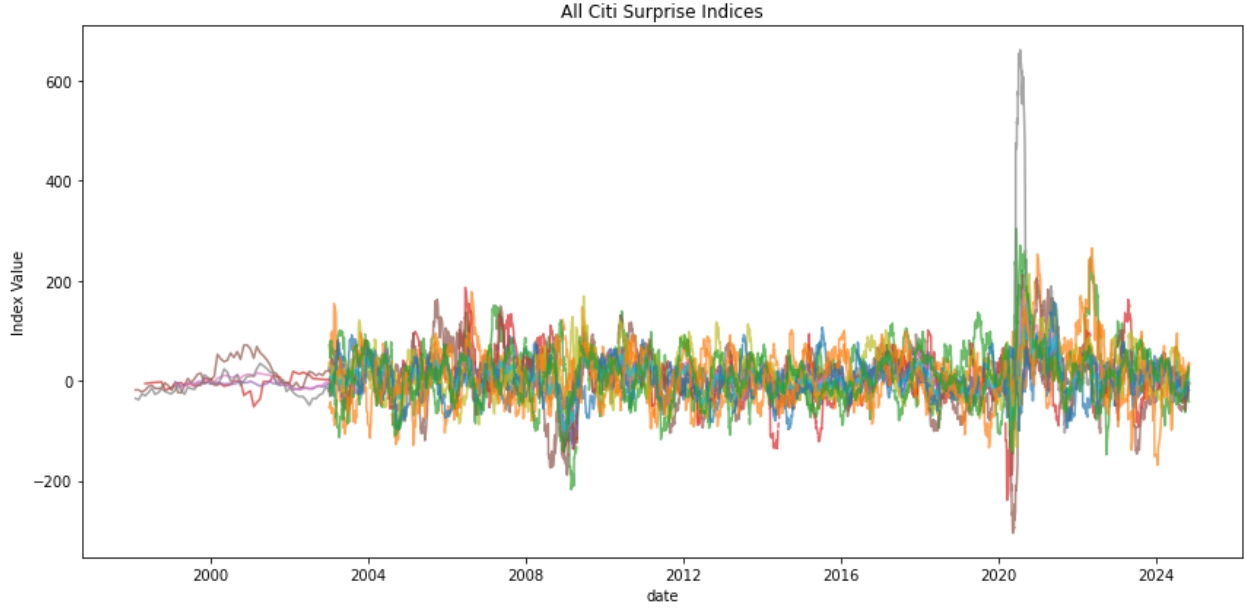
From a time series quality standpoint they have reasonable Q-Q plots which may serve itself useful if signal optimization is ever needed.

Q-Q Plot of Raw Citi Surprise Indices
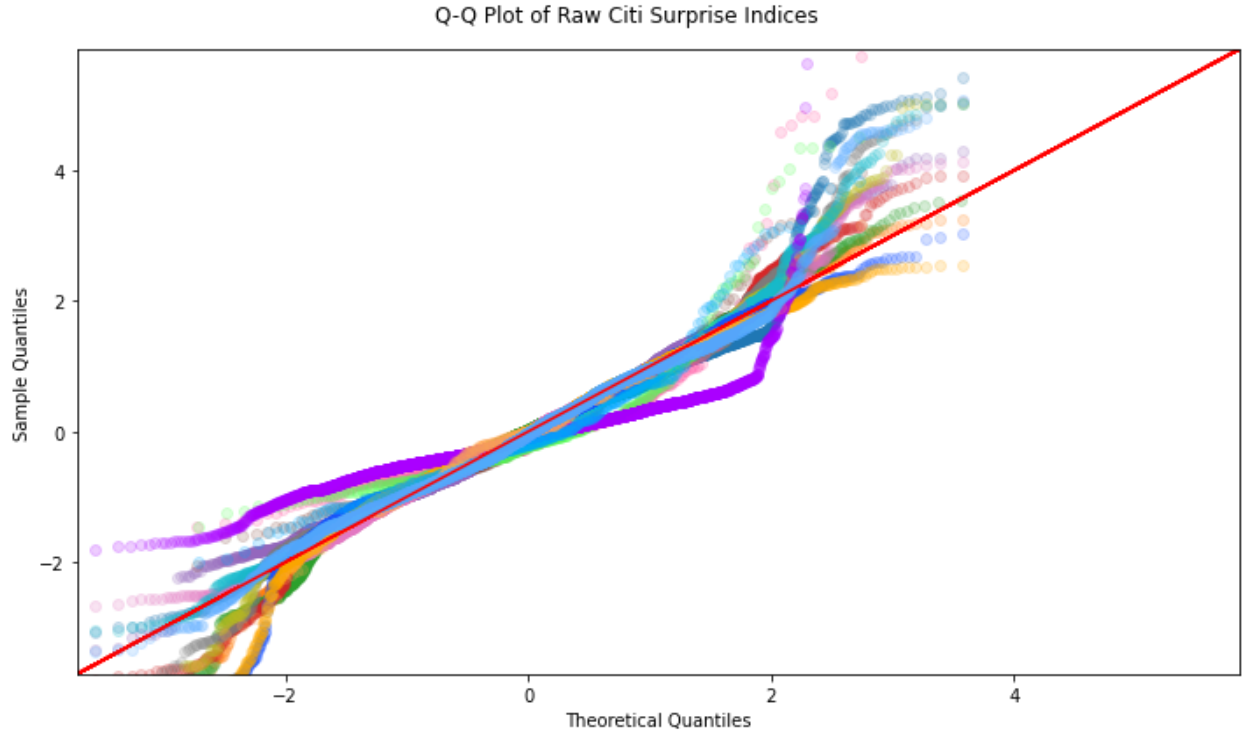
3.2 Conditioned Raw Citi Surprise Index

Trading the DB Index based on a couple of Citi Surprise indices shows some reasonable results. *Cherry-Picking* some Citi surprise indices shows reasonable results. They are somewhat *cherry-picked* but their is a reasonable argument to use the G10 & G10 Fixed Weight as an indicator. Even the use of the Citi US surprise make sense since USD is the international reserve currency. Citi Surprise Indices like Japan,

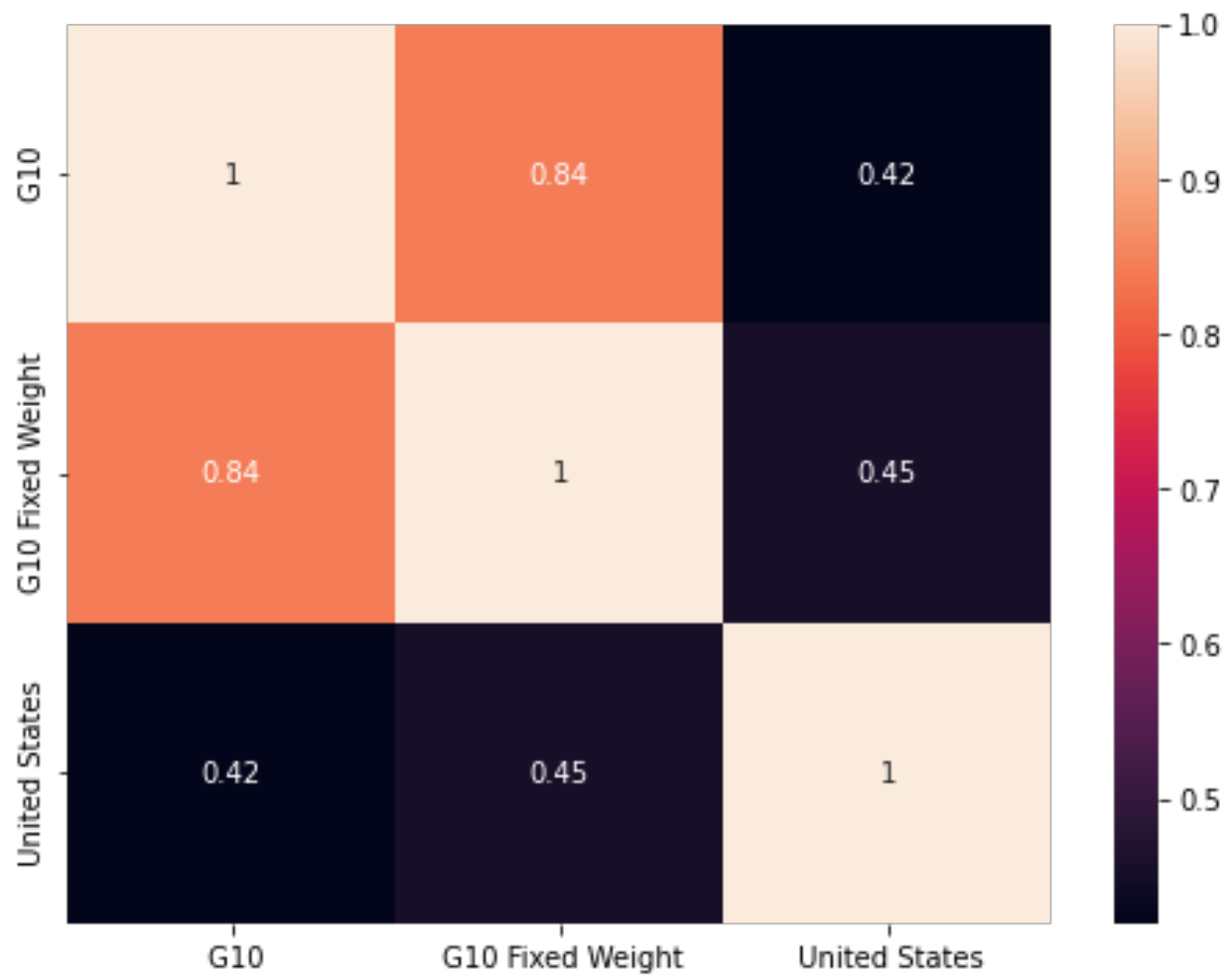Australia, and UK likely have less application to G10 carry.
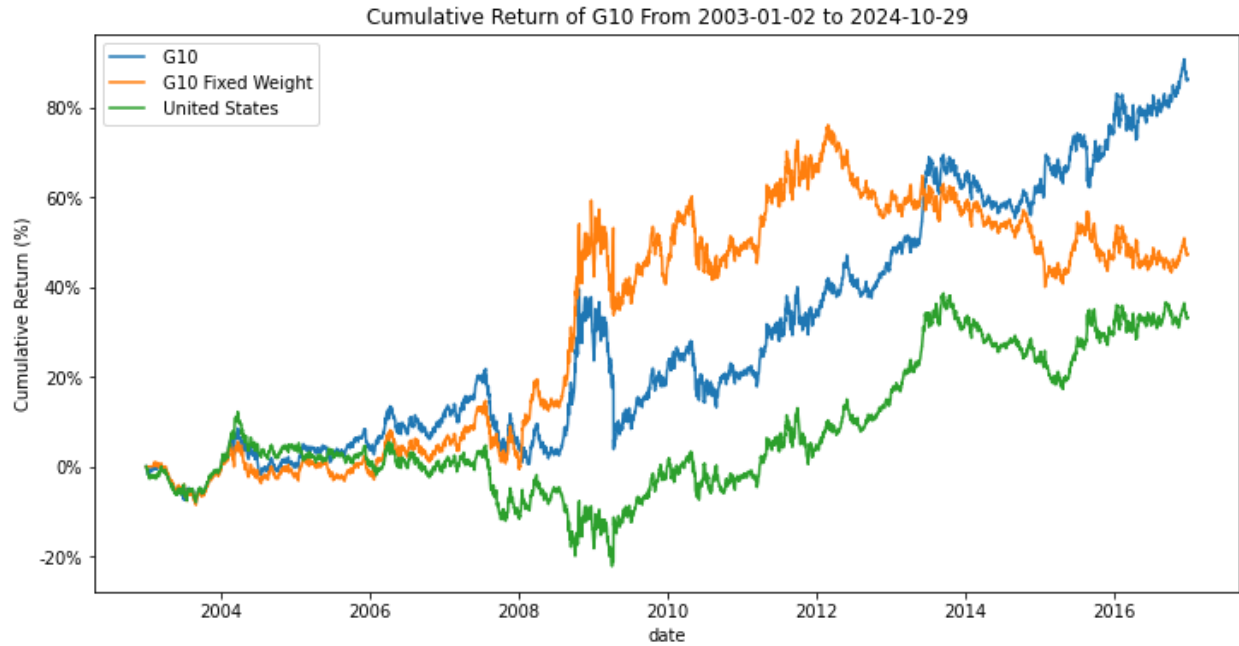
Graphically its evident that most of the returns drivers come post '08 financial crisis which ended covered interest parity (CIP). This hypothesis needs to be fully tested later on. Those sharpes are reasonable for FX.

Annualized Sharpe of Each Strategy
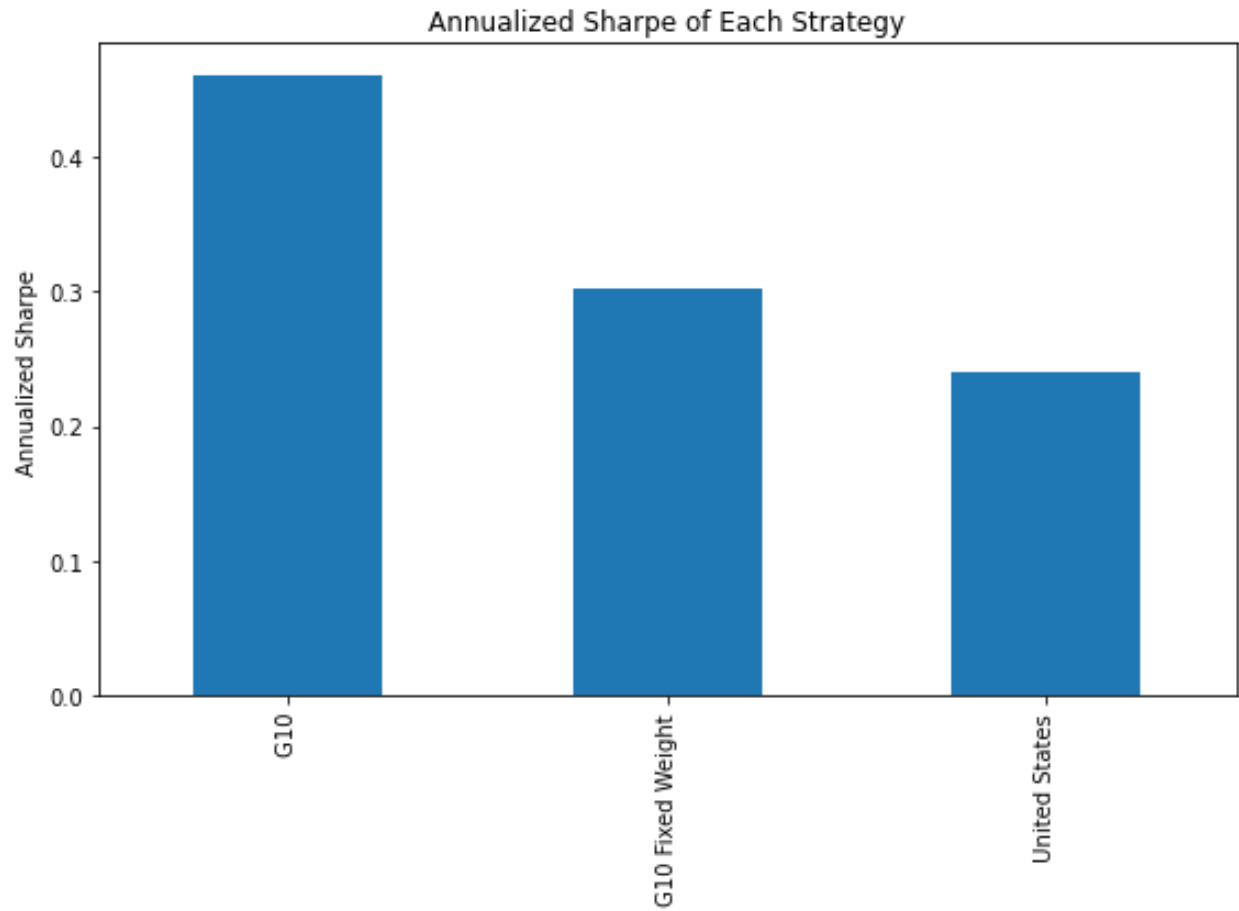
The correlation between the strategies is quite high. In this case the correlation between G10 and the G10 fixed weight has a 83% correlation. The correlation between United States and its G10 & Fixed Weight G10 is around 40% correlation.

Correlation Matrix of Each Strategy

4 OLS Extension