

OBJECTIVES

Description

Act as if you were a FX portfolio manager willing to build a diversified currency trading strategy. The strategy will aim at capturing "carry", i.e. taking advantage of interest rates spreads between currencies, while controlling the volatility of the FX portfolio.

Investment universe

The Investment Universe is composed of 22 (properly rolled) FX futures. The universe can be called using the function [getTickersFXCarryStrategy](#).

```
> getTickersFXCarryStrategy()
  ticker                description baseCurrency quoteCurrency
1  AD Curncy            Australian Dollar      AUD      USD
2 AD-CD Curncy    Australian Dollar / Canadian Dollar      AUD      CAD
3 AD-JY Curncy      Australian Dollar / Japanese Yen      AUD      JPY
4 AD-NV Curncy    Australian Dollar / New Zealand Dollar      AUD      NZD
5  BP Curncy                British Pound      GBP      USD
6 BP-JY Curncy      British Pound / Japanese Yen      GBP      JPY
7 BP-SF Curncy      British Pound / Swiss Franc      GBP      CHF
8  BR Curncy                Brazilian Real      BRL      USD
9 BR-JY Curncy      Brazilian Real / Japanese Yen      BRL      JPY
10 BR-PE Curncy     Brazilian Real / Mexican Peso      BRL      MXN
11  CD Curncy                Canadian Dollar      CAD      USD
12 CD-NV Curncy    Canadian Dollar / New Zealand Dollar      CAD      NZD
13  EC Curncy                Euro Dollar      EUR      USD
14 EC-AD Curncy      Euro / Australian Dollar      EUR      AUD
15 EC-JY Curncy      Euro / Japanese Yen      EUR      JPY
16  JY Curncy                Japanese Yen      JPY      USD
17  NV Curncy                New Zealand Dollar      NZD      USD
18 NV-JY Curncy     New Zealand Dollar / Japanese Yen      NZD      JPY
19  PE Curncy                Mexican Peso      MXN      USD
20  RF Curncy                Euro / Swiss Franc      EUR      CHF
21  SE Curncy                Swedish Krona      SEK      USD
22  SF Curncy                Swiss Franc      CHF      USD
```

Example:

To be long Australian dollar and short US Dollar: buy the ticker AD.

To be short Canadian Dollar and long US Dollar: sell the ticker CD.

Benchmark

No benchmark.

Strategy definitions

A Strategy is a portfolio of Investable FX Indices. Its weights are managed dynamically on the basis of an algorithm which generates transaction signals.

The strategy must comply with the following constraints:

- **Each weight must be in a range of [-100%; +100%]**
- **The portfolio's annualised volatility must lie between 8% and 12% for the entire 2007::2016 period.**
- **First weights have to be generated before/on 2008-01-02 (1 year calibration/training. Rolling/expanding windows are allowed)**
- **Payout has to be replicable and contain no [lookahead bias](#)**
- **All time series data has to be called via the [DataFeatures](#) object - no data calls in your payout.**
- **Whole notebook has to be ran under 15 mins (excluding the testFXCarrySubmission function). Training of models/processing of data inclusive.**

For the avoidance of doubt, the number of Investable FX Indices that shall be used within the Strategy is subject to the team's discretion. The right balance between leverage and volatility is key here.

Strategy transactions

Transaction costs: No transaction costs.

Transaction frequency: The maximum transaction frequency is daily (no intraday trades). All trades are executed at market close prices.

Transaction signals: Transaction signals must be based on data available at close-of-business on the day prior to the execution.

Backtest period

The in-sample Backtest Period runs from January 2007 to December 2016.