

Question 3: Portfolio Construction

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Abstract

Abstract to be written here.

1. Introduction

Using the information on the ALSI (J200) and SWIX (J400) top 40 Indexes, write a brief research report in Texevier where you:

Compare the SWIX and ALSI methodologies by looking at the performance of different size indexes (large, mid and small caps), sector exposures and stock concentration over time. Use your discretion in writing a short report highlighting differences in the return profiles

2. The Data

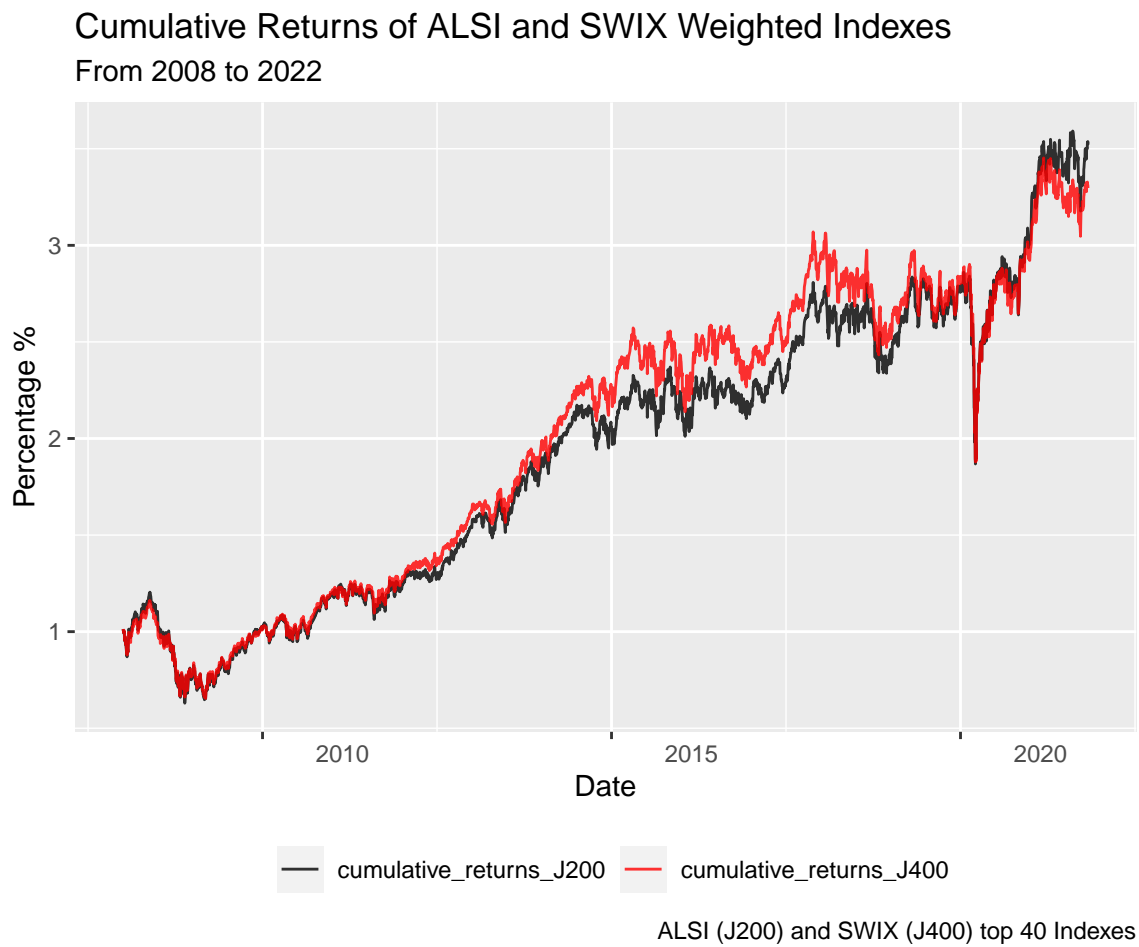
I make use of the function from the practical to impute missing returns

3. Stratification of Idexes

You may use stratification of data/usdzar.rds to provide insight into the different return profiles of both methodologies during different periods of currency performance and volatility.

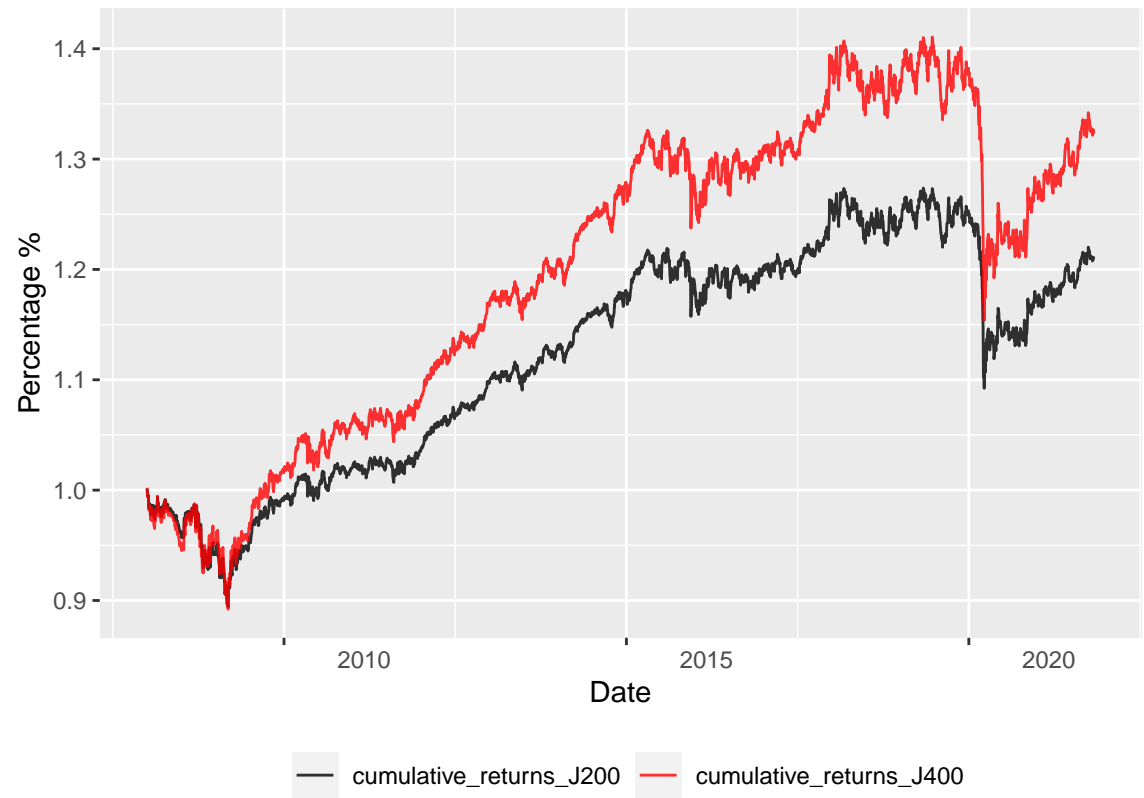
Here I reply on the courses practical notes. I begin by creating the index returns using this capped weight estimator using the tbl2xts framework. Begin by plotting the culumative returns for each index.

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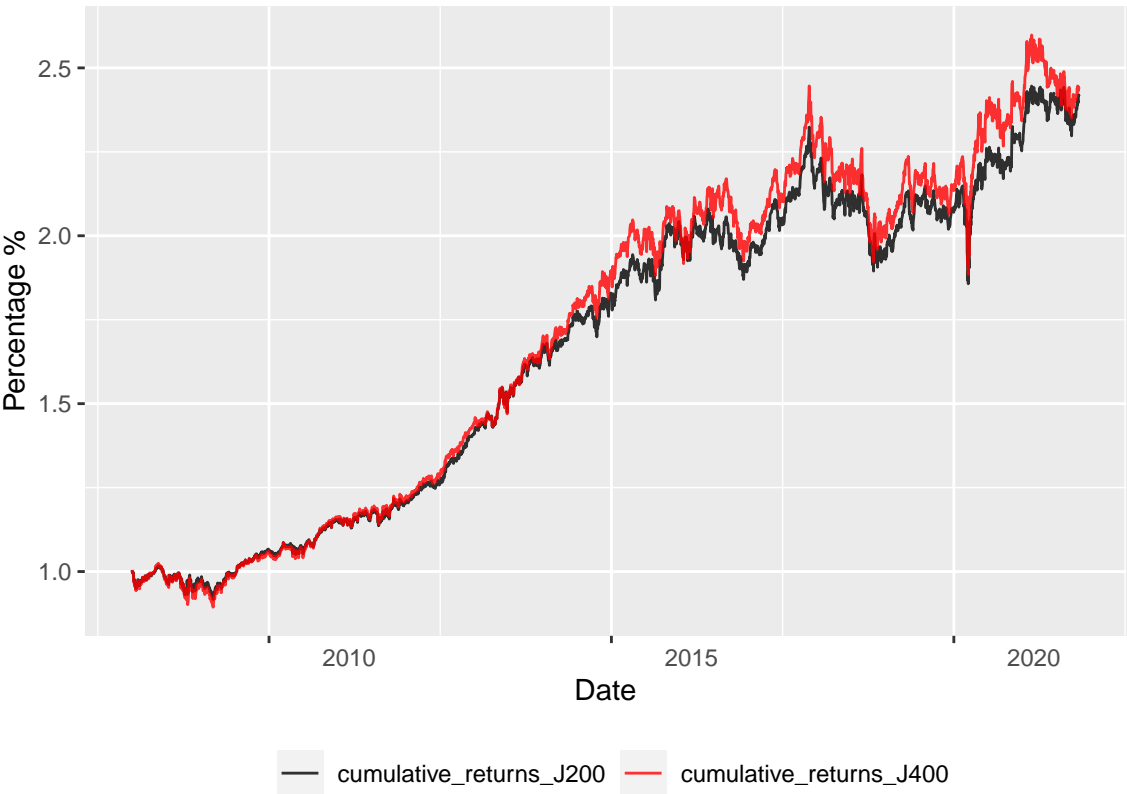
Break down cumulative returns by industry

Cumulative Returns of ALSI and SWIX: Financials Sector
From 2008 to 2022



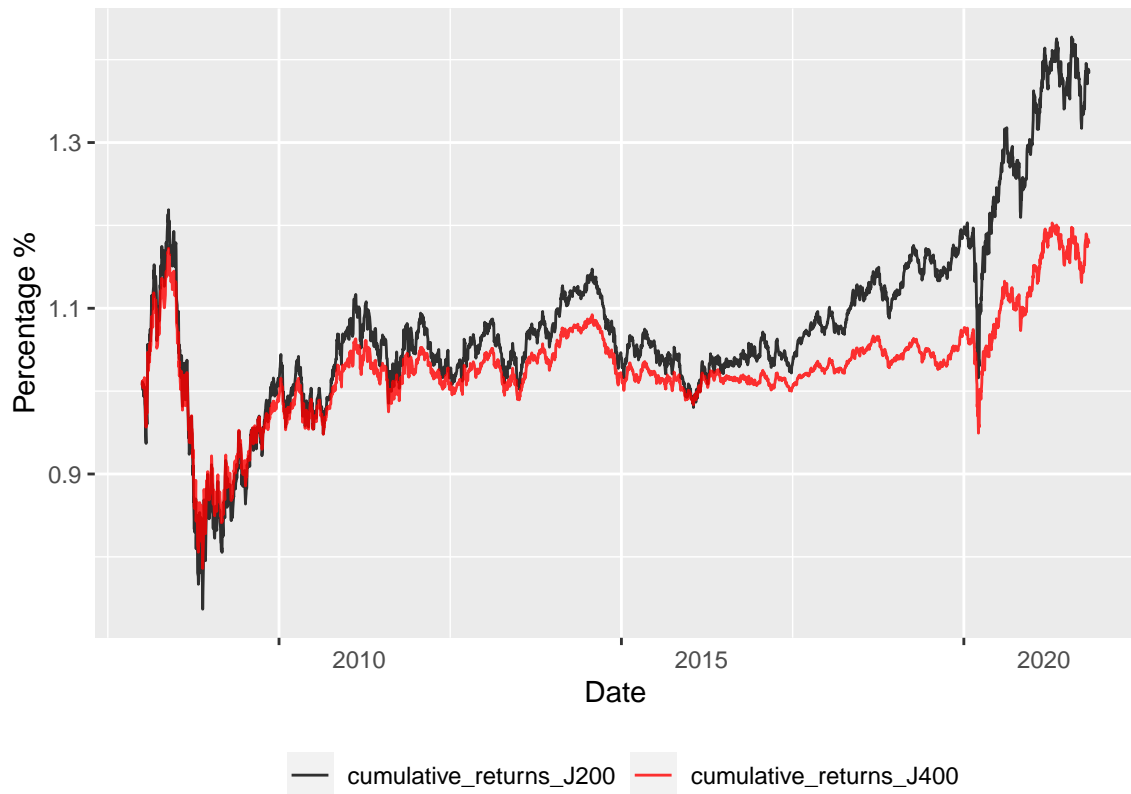
ALSI (J200) and SWIX (J400) top 40 Indexes

Cumulative Returns of ALSI and SWIX: Industrials Sector
From 2008 to 2022



ALSI (J200) and SWIX (J400) top 40 Indexes

Cumulative Returns of ALSI and SWIX: Resources Sector From 2008 to 2022



ALSI (J200) and SWIX (J400) top 40 Indexes

4. Capping Indexes

Answer the JSE's question on applying capping to the indexes - in particular looking at the impact different capping levels would have had on both the SWIX and ALSI (6% and 10%). Use data/Rebalance days.rds to identify the Rebalance Days during past quarterly rebalances.

```
##      date    Tickers Short.Name    Return    Sector Index_Name    J400
##      0        0        0        0        0        1239    2004
##      J200
##      1720
```

```
## # A tibble: 40 x 5
##   date      Tickers    weight RebalanceTime    sum
##   <date>    <chr>        <dbl> <chr>        <dbl>
```

```
## 1 2008-03-20 AGL SJ Equity 0.100 2008March 1
## 2 2008-03-20 BHP SJ Equity 0.0821 2008March 1
## 3 2008-03-20 SOL SJ Equity 0.0390 2008March 1
## 4 2008-03-20 MTN SJ Equity 0.0385 2008March 1
## 5 2008-03-20 CFR SJ Equity 0.0351 2008March 1
## 6 2008-03-20 IMP SJ Equity 0.0307 2008March 1
## 7 2008-03-20 SAB SJ Equity 0.0290 2008March 1
## 8 2008-03-20 SBK SJ Equity 0.0195 2008March 1
## 9 2008-03-20 AMS SJ Equity 0.0183 2008March 1
## 10 2008-03-20 REM SJ Equity 0.0147 2008March 1
## # ... with 30 more rows
## # i Use 'print(n = ...)' to see more rows
```