

Question 3: Portfolio Construction

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Abstract

A brief discussion on methodologies of SWIX and ALSI indexes by looking at the performance over time.

1. Introduction

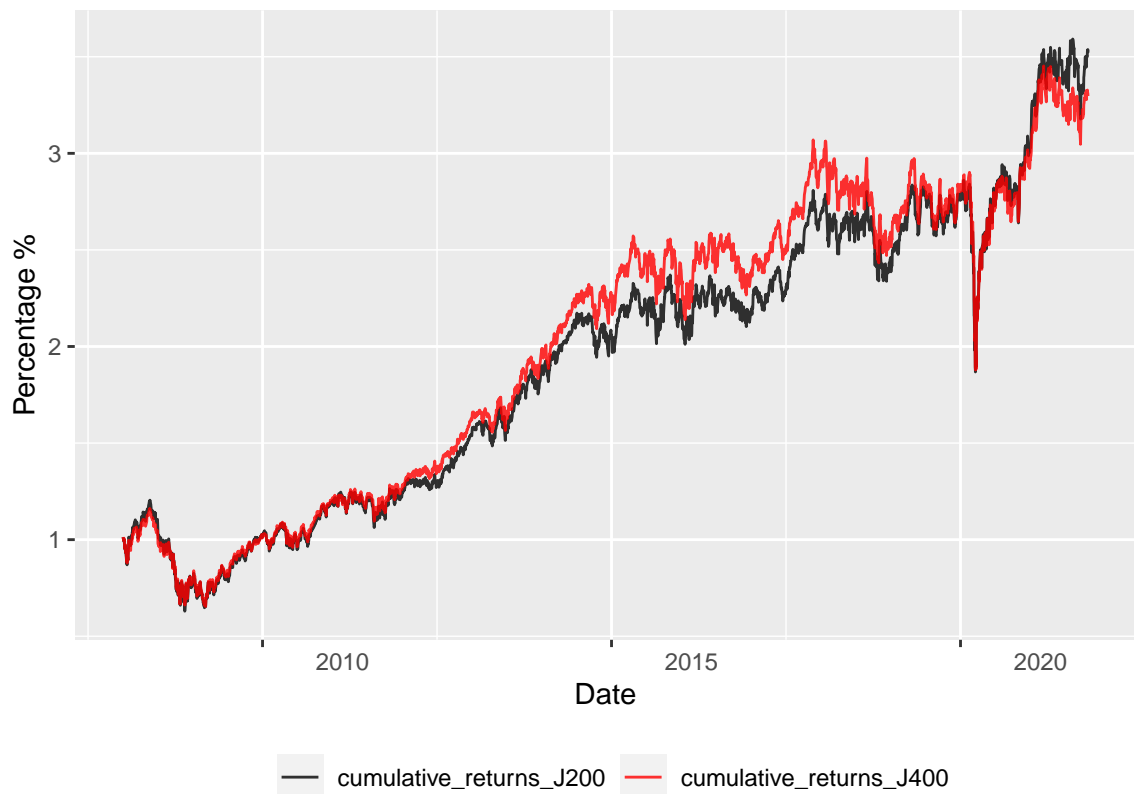
Using the information on the ALSI (J200) and SWIX (J400) Top 40 Indexes, this report offers a brief discussion on methodologies of SWIX and ALSI indexes by looking at the performance of difference explained differing sector exposure.

2. The Data

I make use of the function from the practical to impute missing returns, if any, in the data.

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.

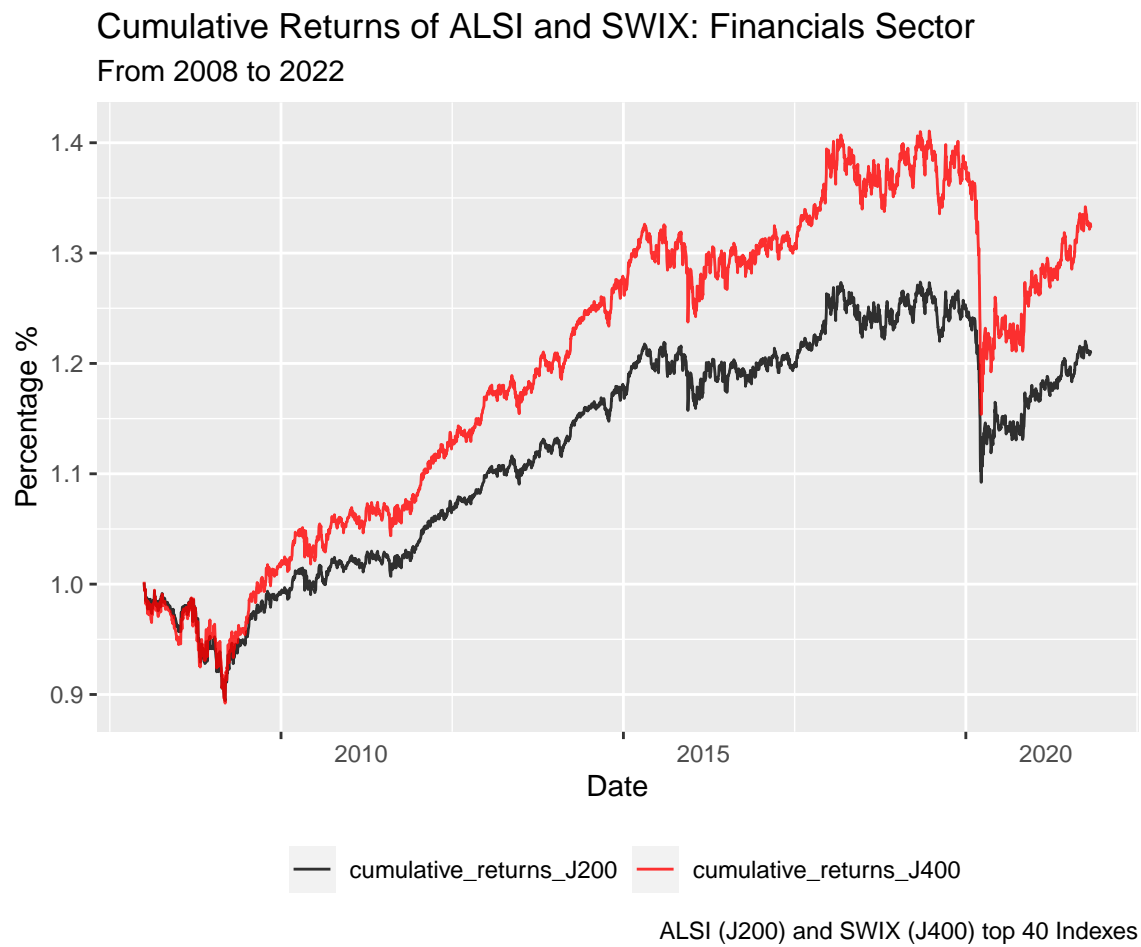
Cumulative Returns of ALSI and SWIX Weighted Indexes From 2008 to 2022



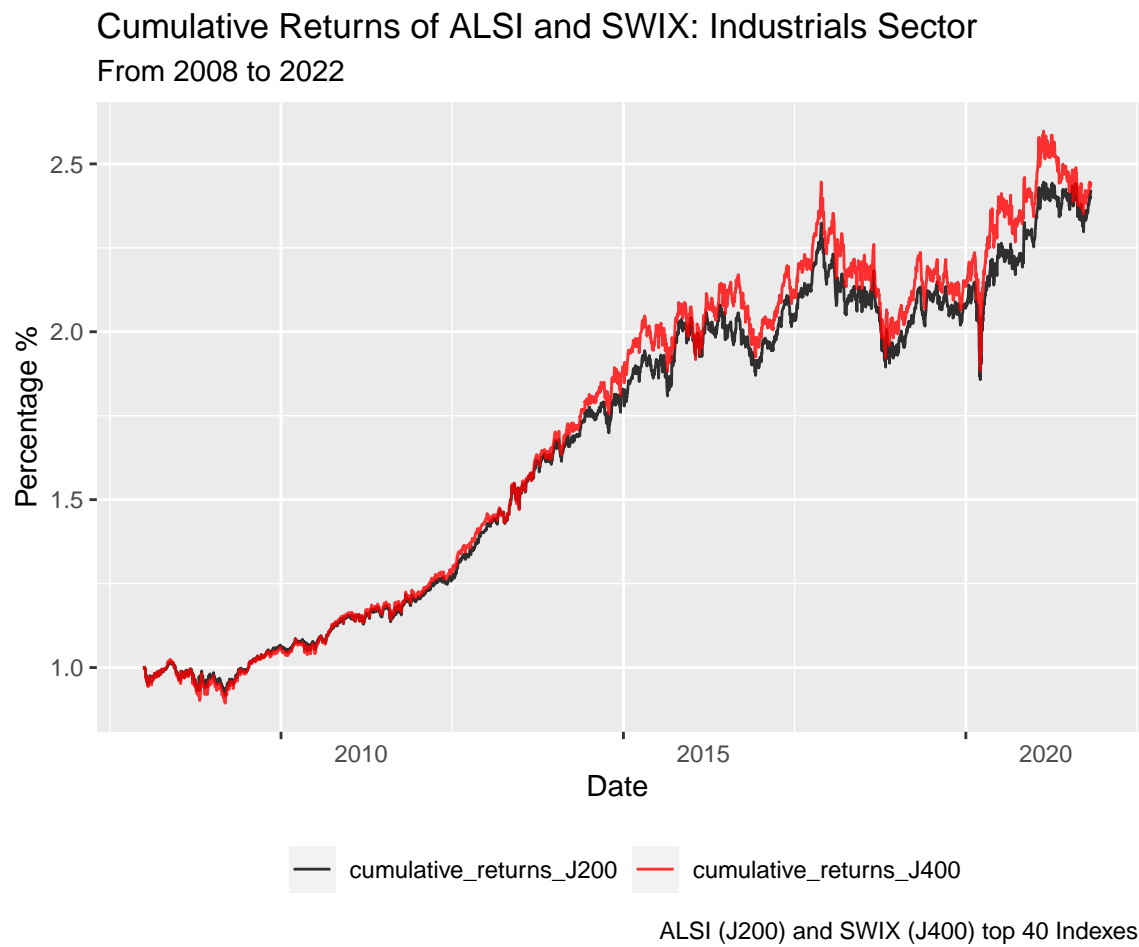
ALSI (J200) and SWIX (J400) top 40 Indexes

3. Stratification of Indexes

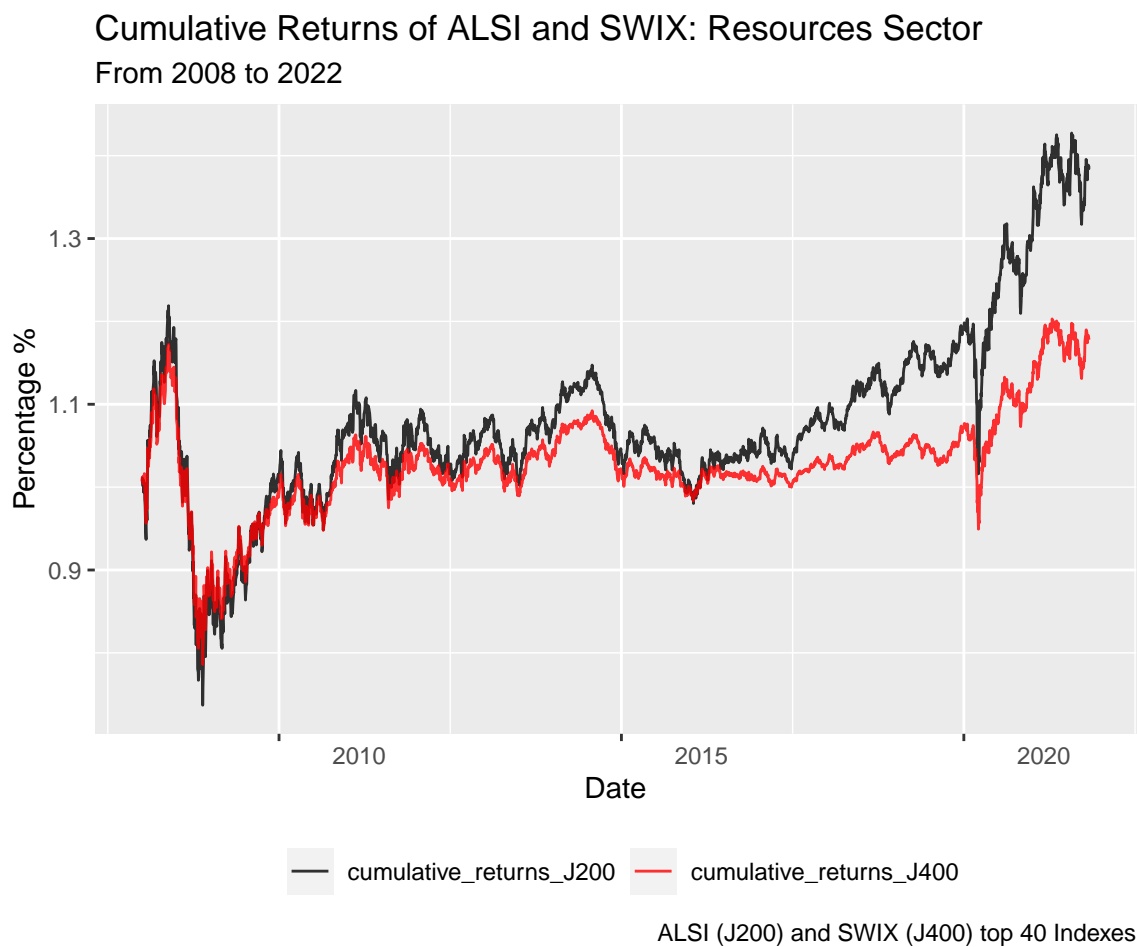
Next, I Break down cumulative returns by industry to get a better idea of reasons for different performance. I begin with the financials. From the graph below it appears that the SWIX weights financials more heavily than the ALSI and therefore outperforms the ALSI.



It appears that both indexes weight industrials similarly in their portfolios.

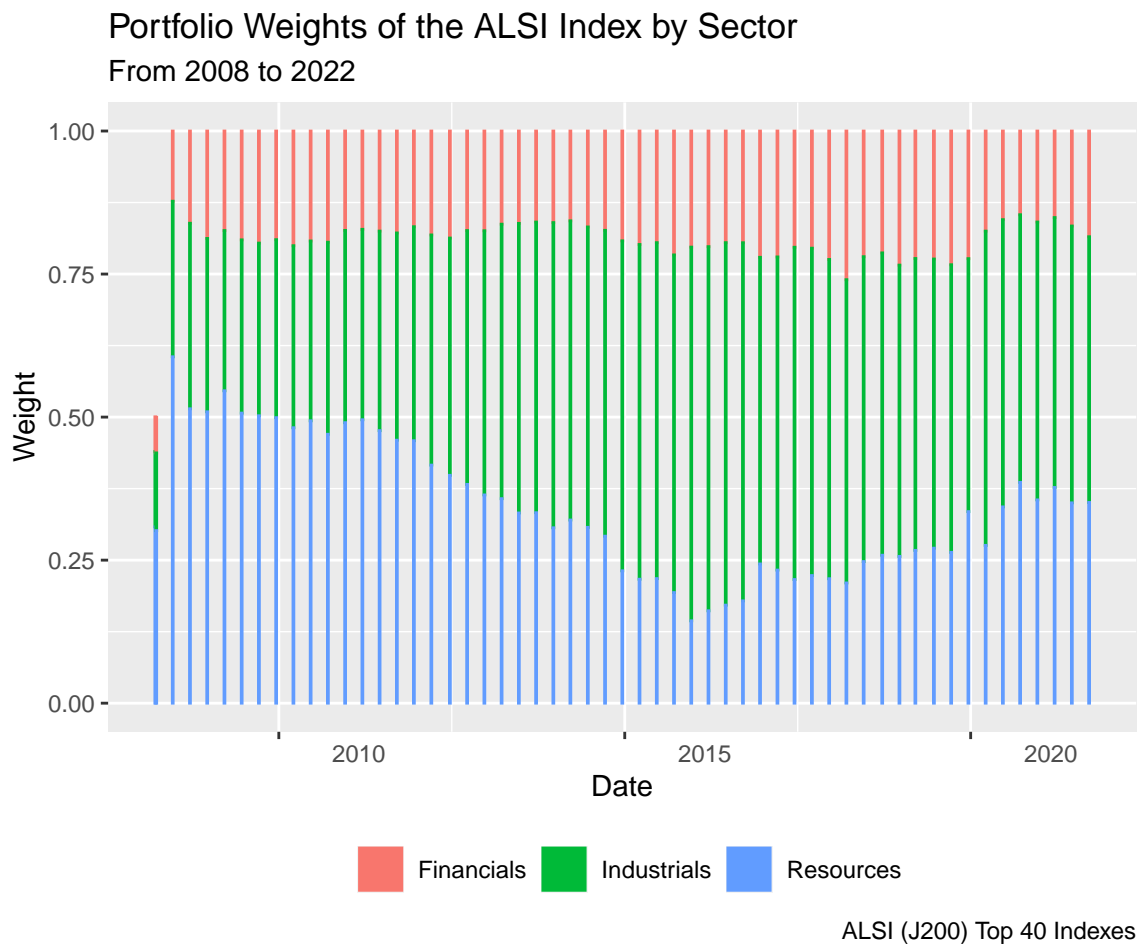


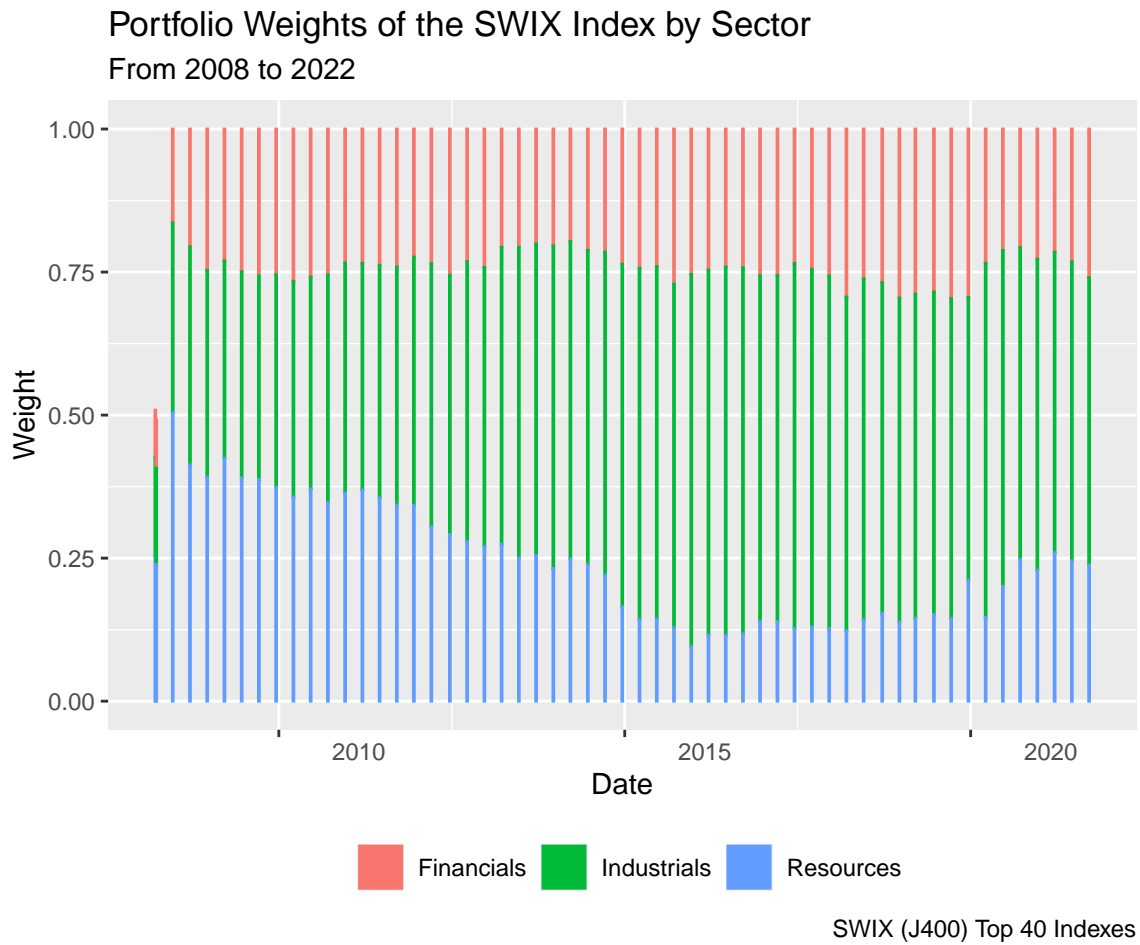
From the graph below, it appears that the ALSI weights resources more heavily than the SWIX and therefore outperforms the SWIX.



To determine the weights per sector for each index. I select the Top 40 stocks per date and then re-scale the weight to add to 1 at each date. I then group and summarise the weights by sector.

I one can see from the Portfolio Weights graphs below both indexes allocate a substantial amount to industrials. However, performance differences between the two indexes can be explained by the differences in weights between financials and resources.



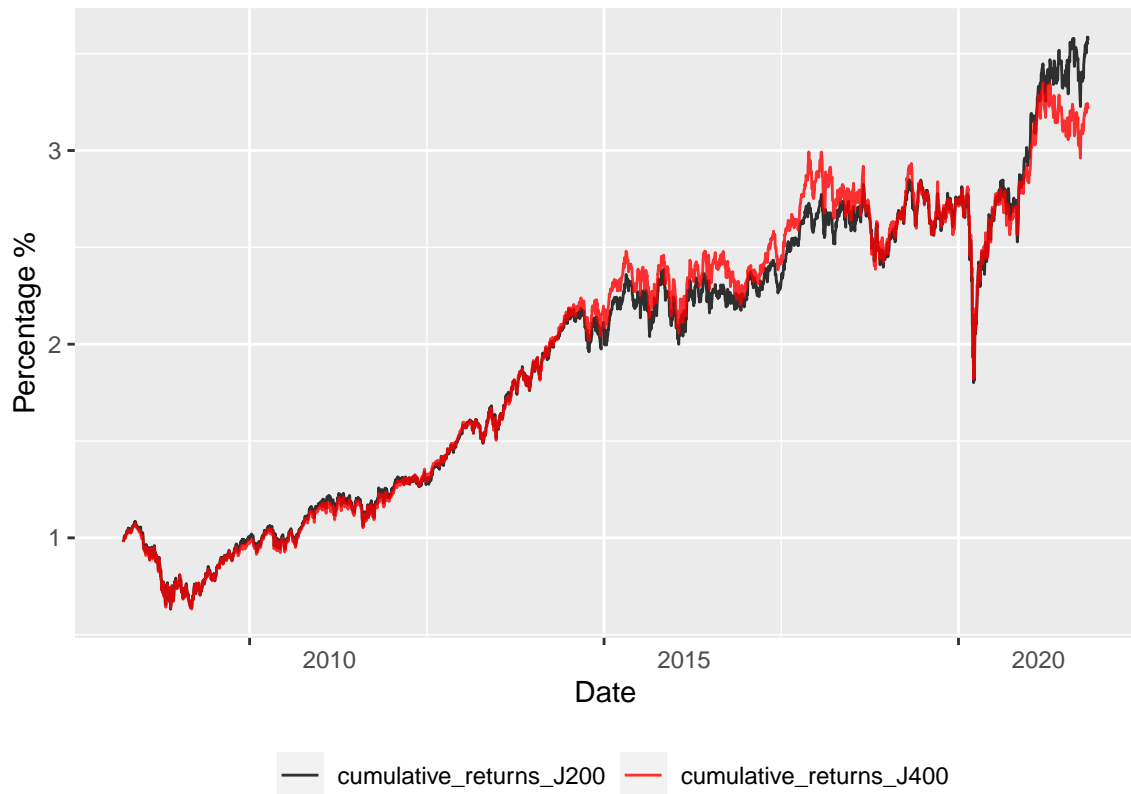


4. Capping Indexes

The impact different capping levels would on both the SWIX and ALSI (6% and 10%), is that the ALSI(J200) outperforms the SWIX by an slightly greater margin than before the capping. This may be due higher weights of financial equities which have performed well recently.

Cumulative Returns of Capped Weighted Indexes

ALSI (10%) and SWIX (6%), from 2008 to 2022



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