

# Question Two

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<sup>a</sup>*Financial Econometrics, 2021*

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## Abstract

This document contains the detailed answers for question two of the Financial Econometric exam 2021.

*Keywords:* Question2, Finance, Financial Econometrics

*JEL classification* L250, L100

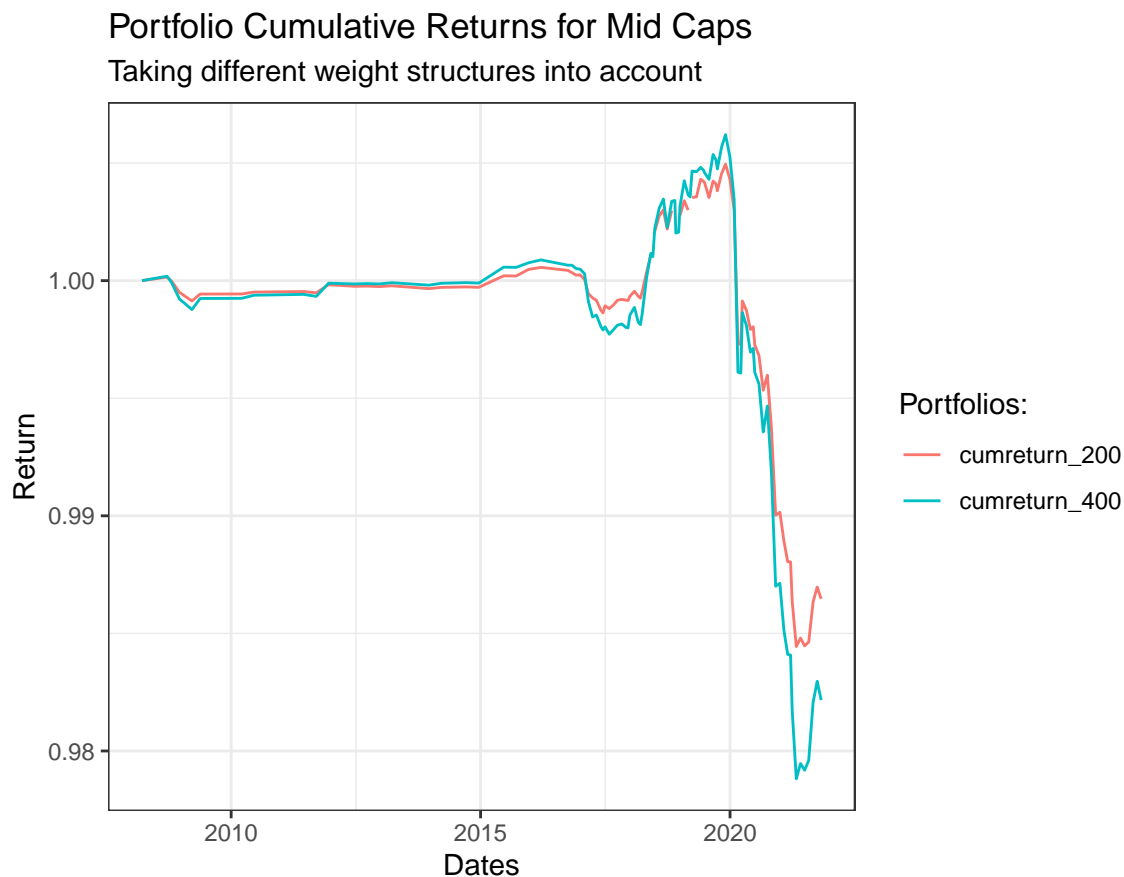
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## 1. Caparing SWIX and ALSI

### 1.1. Portfolio Return

The portfolio returns for large and mid caps are shown below. Because we are analyzing the Top 40, there are no small caps, and if there are, they make up such a small percentage of the portfolio that it makes no sense to analyze them.

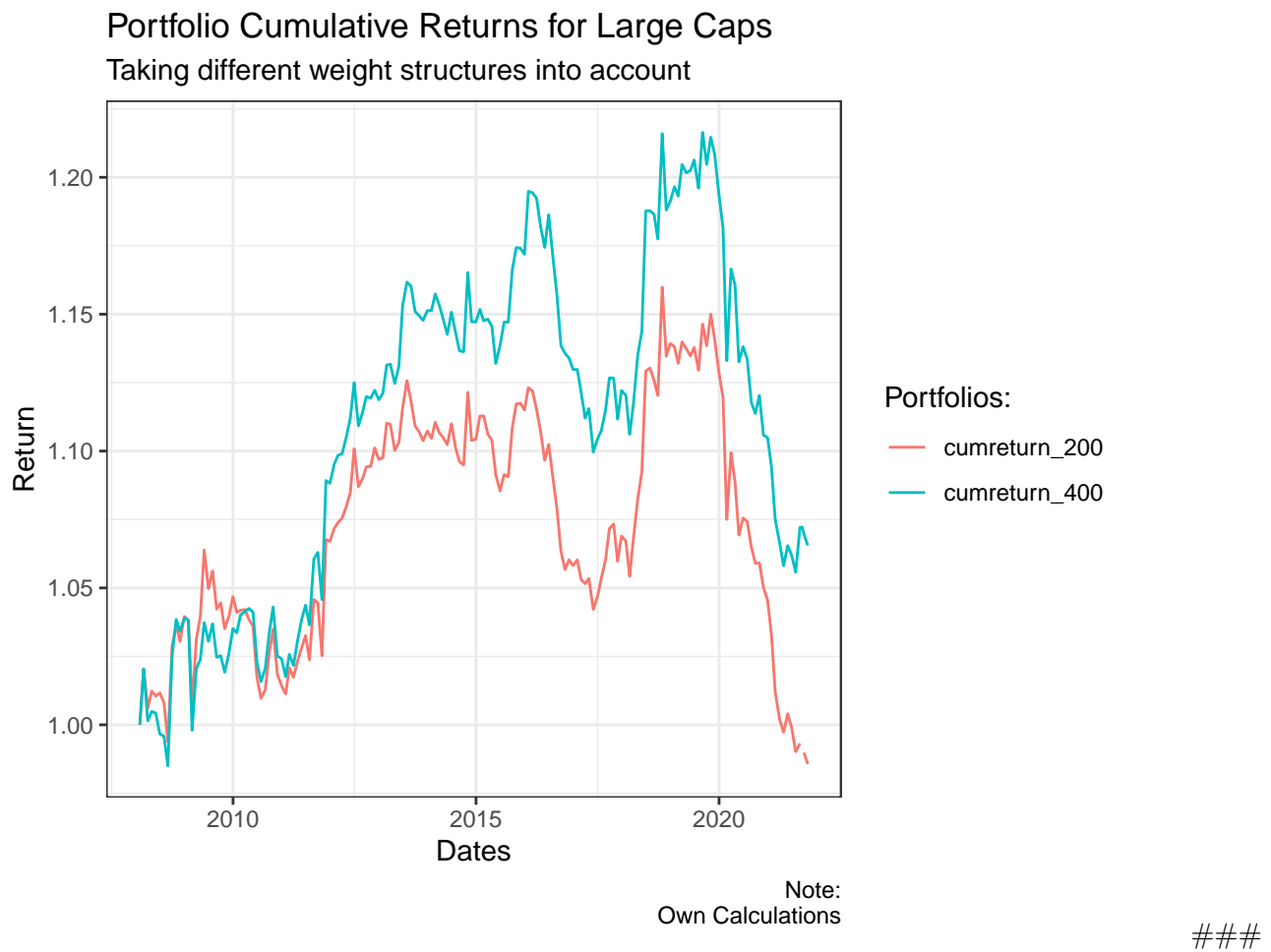
The graph for Mid caps return saw very constant returns up until mid year, 2017. Afterwhich it experienced a slight increase followed by a drastic decrease. This would be an indication of an negative, al though constant investment. Investors that are looking for a high return is unlikely to experience this. The SWIX outperforms the ALSI, which is a preference for when the market is constant/slight increase. However, during negative volatility, the SWIX performs worse. It is important to remember that mid-cap companies can turn into large-cap companies, which also make them attractive to investors. However, you will need to spot the diamond in the rough.



Note:  
Own Calculations

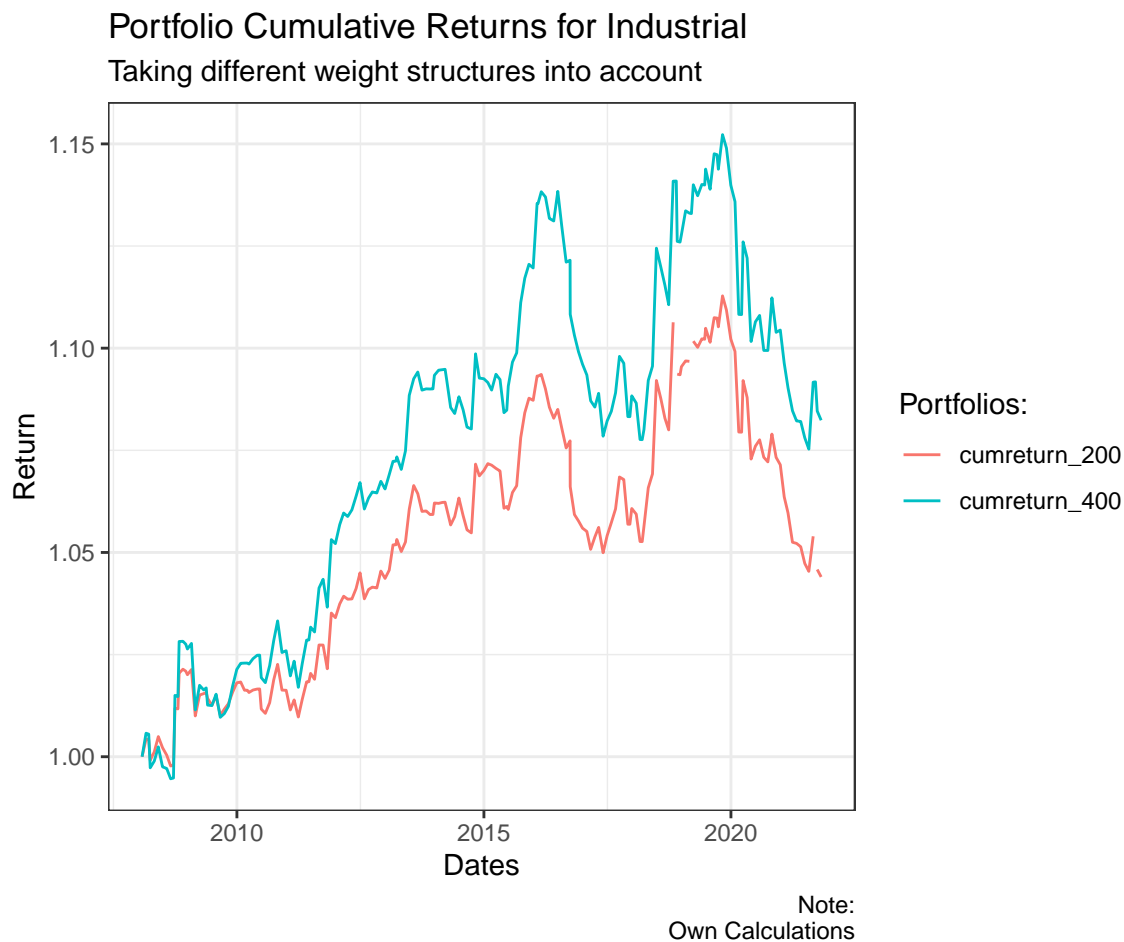
The portfolio cumulative returns for Large Caps experience much more volatility than Mid Caps. Large Caps are filled with companies that dominate in their industry, and while they are still affected by volatility, they have more of a chance to bounce back. They hold themselves well in times of recession or during any other negative event. Besides, they will usually have been functioning for decades and have good reputations. If you want to invest in a company's stocks by taking less risk, then large-cap stocks are a good option. These stocks are less volatile in comparison to mid-cap. The lower volatility makes them less risky.

As seen in the graph below, Large caps present a higher return, but also experienced a downturn with the depletion of economic events in 2020.



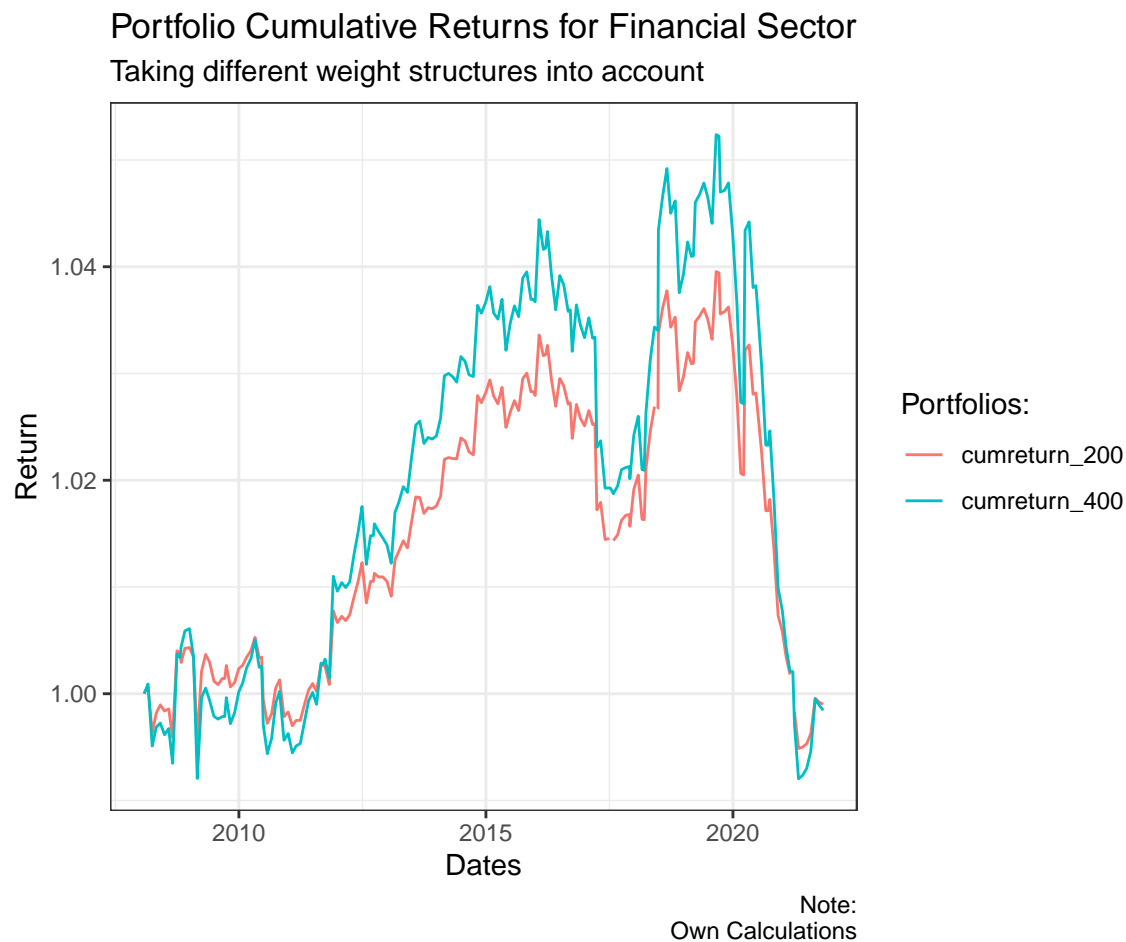
#### Sector Analysis

The industrial sector has performed relatively well compared to the financial sector (discussed below). The sector has been on an increasing trend with the COVID-19 pandemic resulting in slowdown and negative growth.



The graph below for the financial structure looks very similar to that of the large-caps (which was discussed above). This indicates that many of the financial sector companies that are being analyzed are large-cap companies. This implies that even though a sharp decrease can be seen, these companies have a high probability to bounce back.

There have been some aggressive monetary and fiscal policy responses to the COVID-19 pandemic, which would contribute towards stabilizing the market and ensuring the industry starts growing again.



#### 1.2. Stratification

I use the only the index from 2008 onward since this is the only data that is available. Stratification allows you to isolate the periods of high volatility and low volatility. There are slightly more periods of high volatility than low volatility. This could be an indication to steep negative or positive effects. As the top40 is relatively stable, investors should not panic in times of high volatility, but rather hold stock to ensure growth.

#### 1.3. Capping

I capped the SWIX to 6 percent and the ALSI to 10 percent (this is how I interpreted the question). I couldn't get the cap exactly right but I think I was on the right path, therefore I left the code in.