

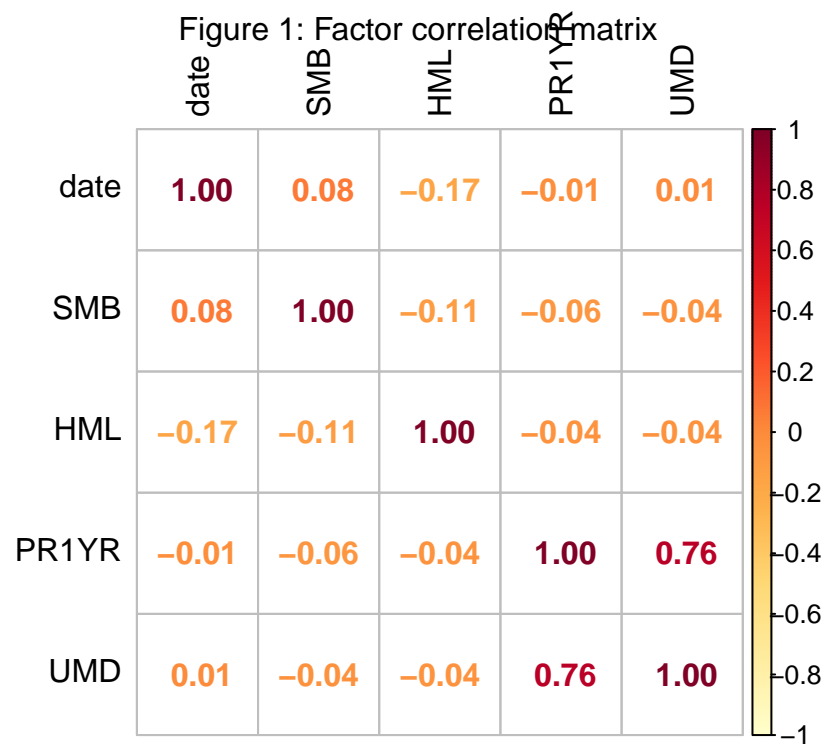
FIE401 - Second assignment

Is momentum priced in the Norwegian stock market?

Group 08

2022-10-11

Abstract



```
## starting httpd help server ... done
```

Table 1: Summary statistics size portfolios

| Statistic | Min | Pctl(25) | Mean | Pctl(75) | Max | St. Dev. |
|---------------|--------|----------|-------|----------|-------|----------|
| Small.size.1 | −0.267 | −0.007 | 0.044 | 0.070 | 1.007 | 0.103 |
| SIZE 2 | −0.121 | −0.011 | 0.037 | 0.067 | 0.371 | 0.076 |
| SIZE 3 | −0.263 | −0.011 | 0.028 | 0.058 | 0.403 | 0.076 |
| SIZE 4 | −0.212 | −0.012 | 0.026 | 0.057 | 0.332 | 0.072 |
| SIZE 5 | −0.170 | −0.014 | 0.027 | 0.060 | 0.359 | 0.068 |
| SIZE 6 | −0.158 | −0.009 | 0.030 | 0.064 | 0.797 | 0.077 |
| SIZE 7 | −0.234 | −0.015 | 0.025 | 0.058 | 0.381 | 0.070 |
| SIZE 8 | −0.211 | −0.016 | 0.023 | 0.062 | 0.554 | 0.070 |
| SIZE 9 | −0.250 | −0.019 | 0.019 | 0.059 | 0.252 | 0.073 |
| Large.size.10 | −0.279 | −0.020 | 0.015 | 0.054 | 0.219 | 0.064 |

Exploratory analysis

Figure 2: Density plot returns of small and large size portfolios

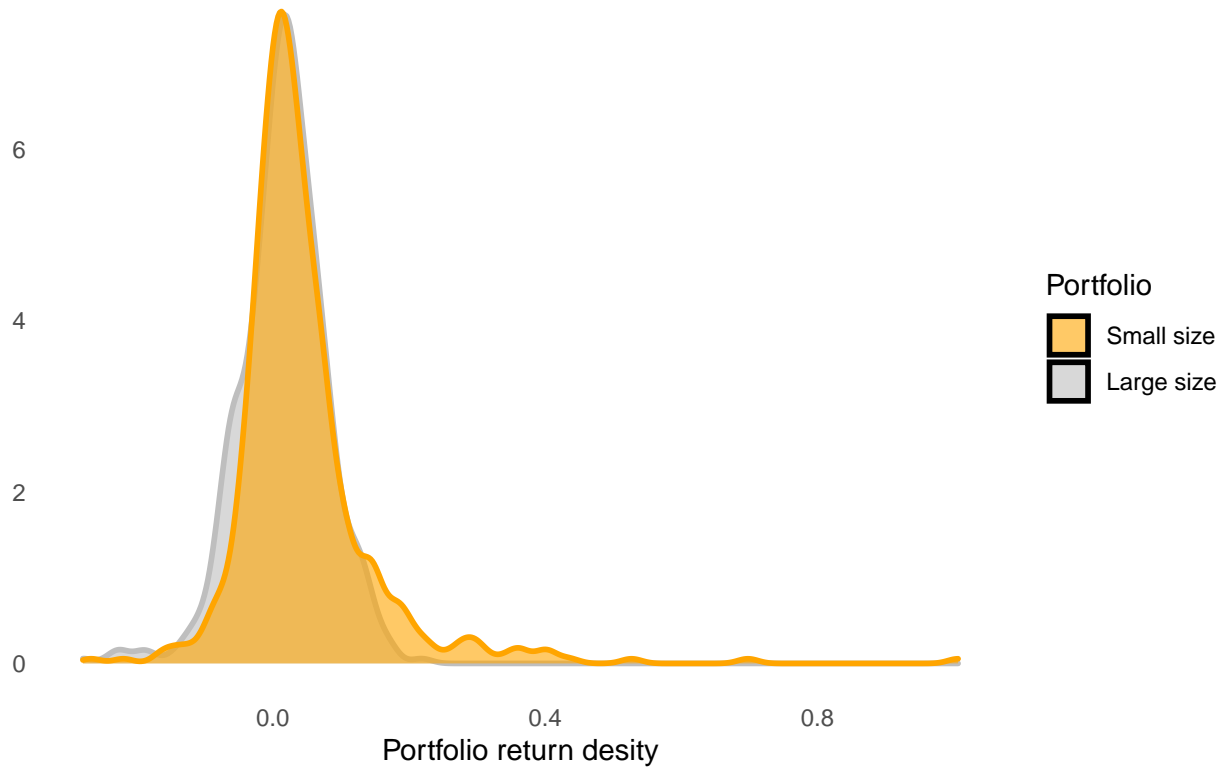


Table 2: Summary statistics book-to-market portfolios

| Statistic | Min | Pctl(25) | Mean | Pctl(75) | Max | St. Dev. |
|------------|--------|----------|-------|----------|-------|----------|
| Low.bm.1 | -0.265 | -0.023 | 0.021 | 0.063 | 0.666 | 0.082 |
| BM 2 | -0.331 | -0.028 | 0.023 | 0.060 | 0.884 | 0.100 |
| BM 3 | -0.344 | -0.025 | 0.015 | 0.056 | 0.311 | 0.076 |
| BM 4 | -0.269 | -0.022 | 0.020 | 0.057 | 0.270 | 0.074 |
| BM 5 | -0.285 | -0.027 | 0.018 | 0.063 | 0.302 | 0.079 |
| BM 6 | -0.316 | -0.029 | 0.019 | 0.061 | 0.524 | 0.081 |
| BM 7 | -0.294 | -0.025 | 0.022 | 0.069 | 0.312 | 0.081 |
| BM 8 | -0.285 | -0.020 | 0.023 | 0.070 | 0.461 | 0.089 |
| BM 9 | -0.264 | -0.018 | 0.027 | 0.064 | 0.852 | 0.093 |
| High.bm.10 | -0.254 | -0.021 | 0.027 | 0.070 | 0.333 | 0.086 |

Figure 3: Density plot returns of low and high BM portfolios

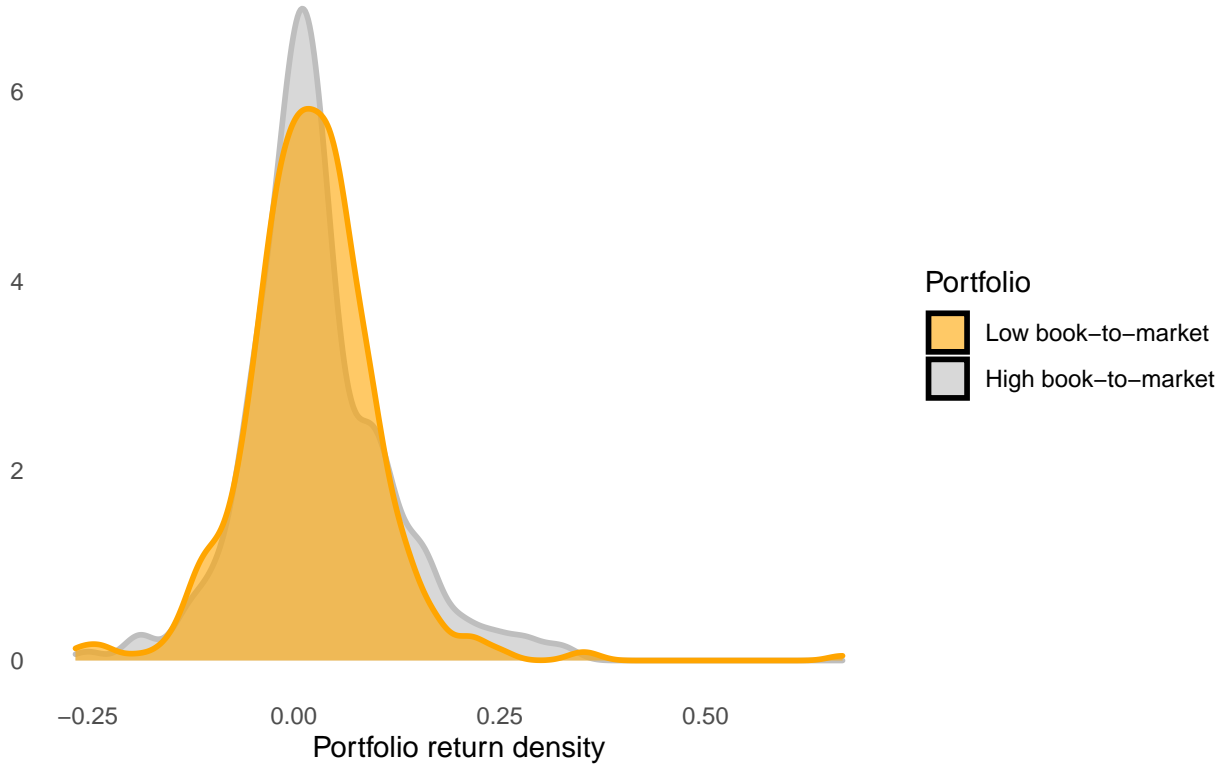


Table 3: Summary statistics momentum portfolio

| Statistic | Min | Pctl(25) | Mean | Pctl(75) | Max | St. Dev. |
|-----------|--------|----------|-------|----------|-------|----------|
| SMB | -0.288 | -0.018 | 0.012 | 0.038 | 0.289 | 0.049 |
| HML | -0.281 | -0.025 | 0.003 | 0.035 | 0.228 | 0.057 |
| PR1YR | -0.184 | -0.012 | 0.017 | 0.048 | 0.236 | 0.054 |
| UMD | -0.277 | -0.020 | 0.013 | 0.049 | 0.224 | 0.062 |

Figure 4: Size portfolio, momentum betas and returns

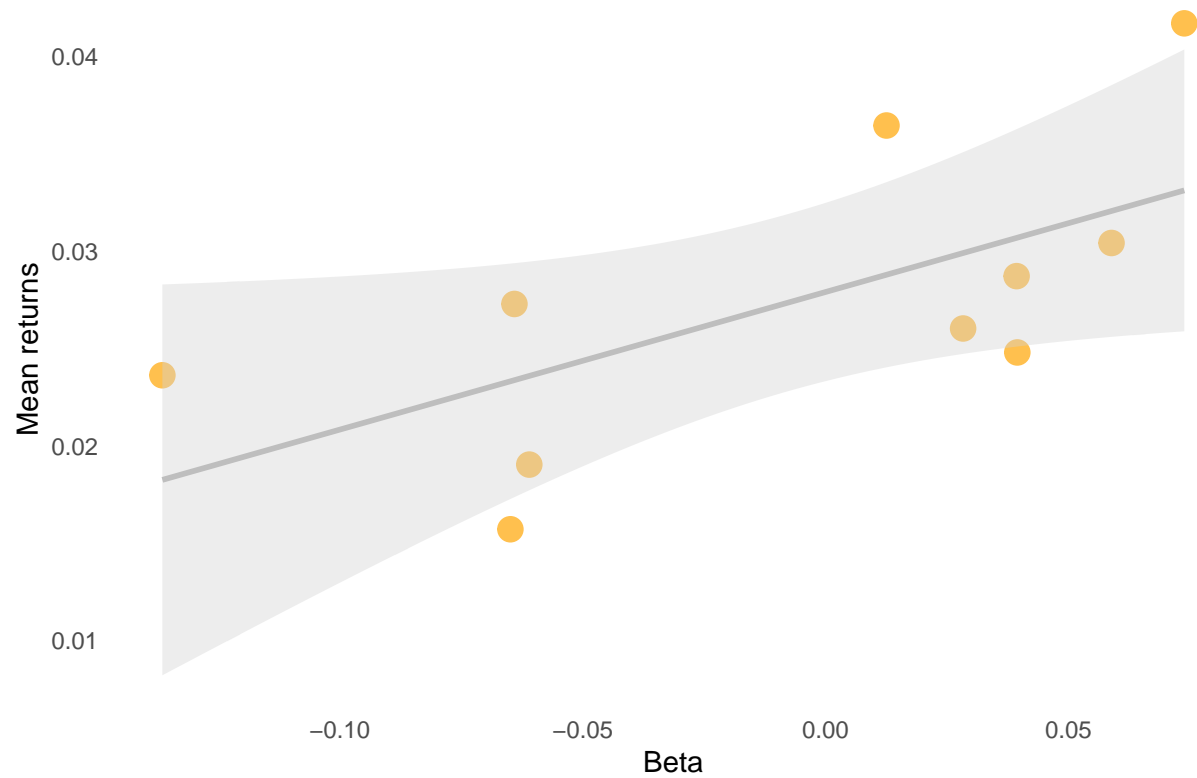


Table 4: Gamma significance test: Size

| estimate | statistic | p.value | parameter | conf.low | conf.high | method | alternative |
|------------|-----------|-----------|-----------|------------|-----------|-------------------|-------------|
| -0.0261579 | -1.945091 | 0.9738244 | 477 | -0.0483212 | Inf | One Sample t-test | greater |

Figure 5: BM portfolios, momentum betas and returns

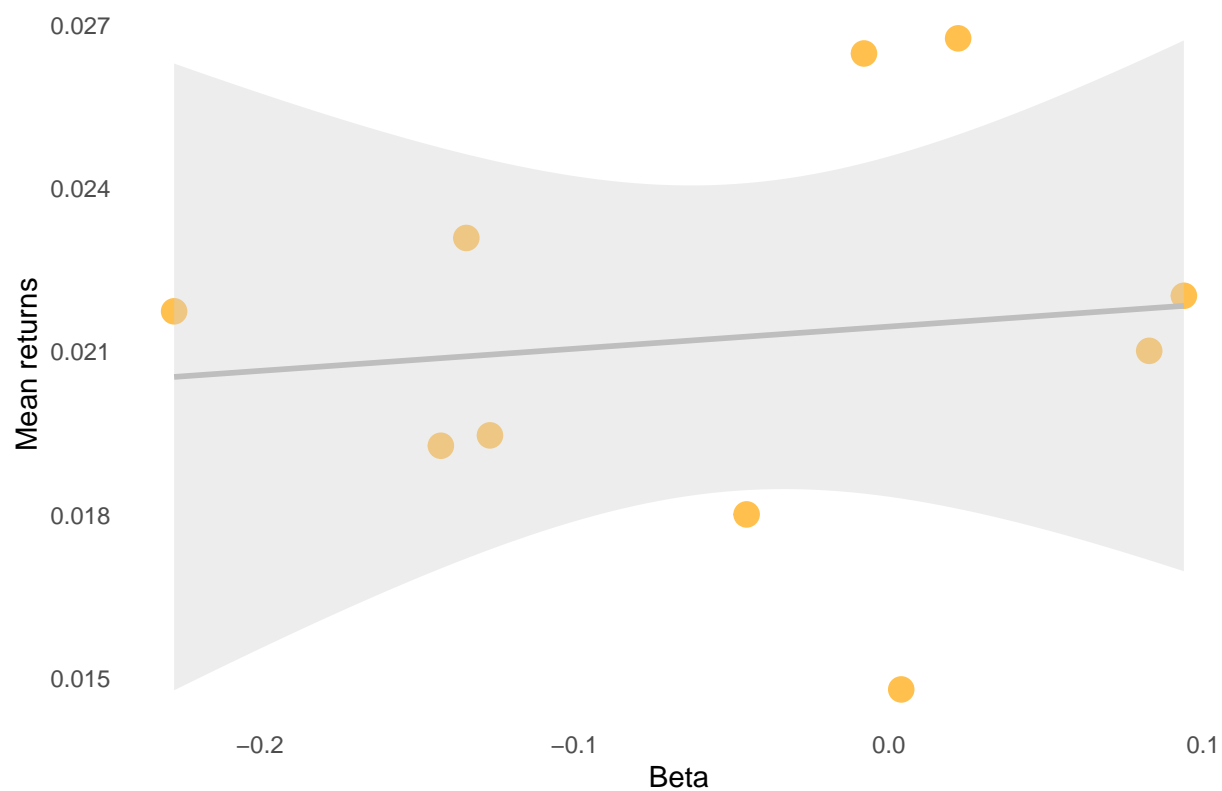


Table 5: Gamma significance test: Book-to-market

| estimate | statistic | p.value | parameter | conf.low | conf.high | method | alternative |
|-----------|-----------|-----------|-----------|------------|-----------|-------------------|-------------|
| 0.0040689 | 0.4275285 | 0.3345937 | 477 | -0.0116161 | Inf | One Sample t-test | greater |