



UNIVERSITÀ  
DEGLI STUDI  
DI PADOVA

UNIVERSITÀ DEGLI STUDI DI PADOVA

MASTER DEGREE COURSE IN COMPUTATIONAL FINANCE

REGRESSION AND TIME SERIES MODELS

## Group Work 1 - Regression with CAPM Model

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Commissioned by:

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**Assignment 1**

**Assignment 2**

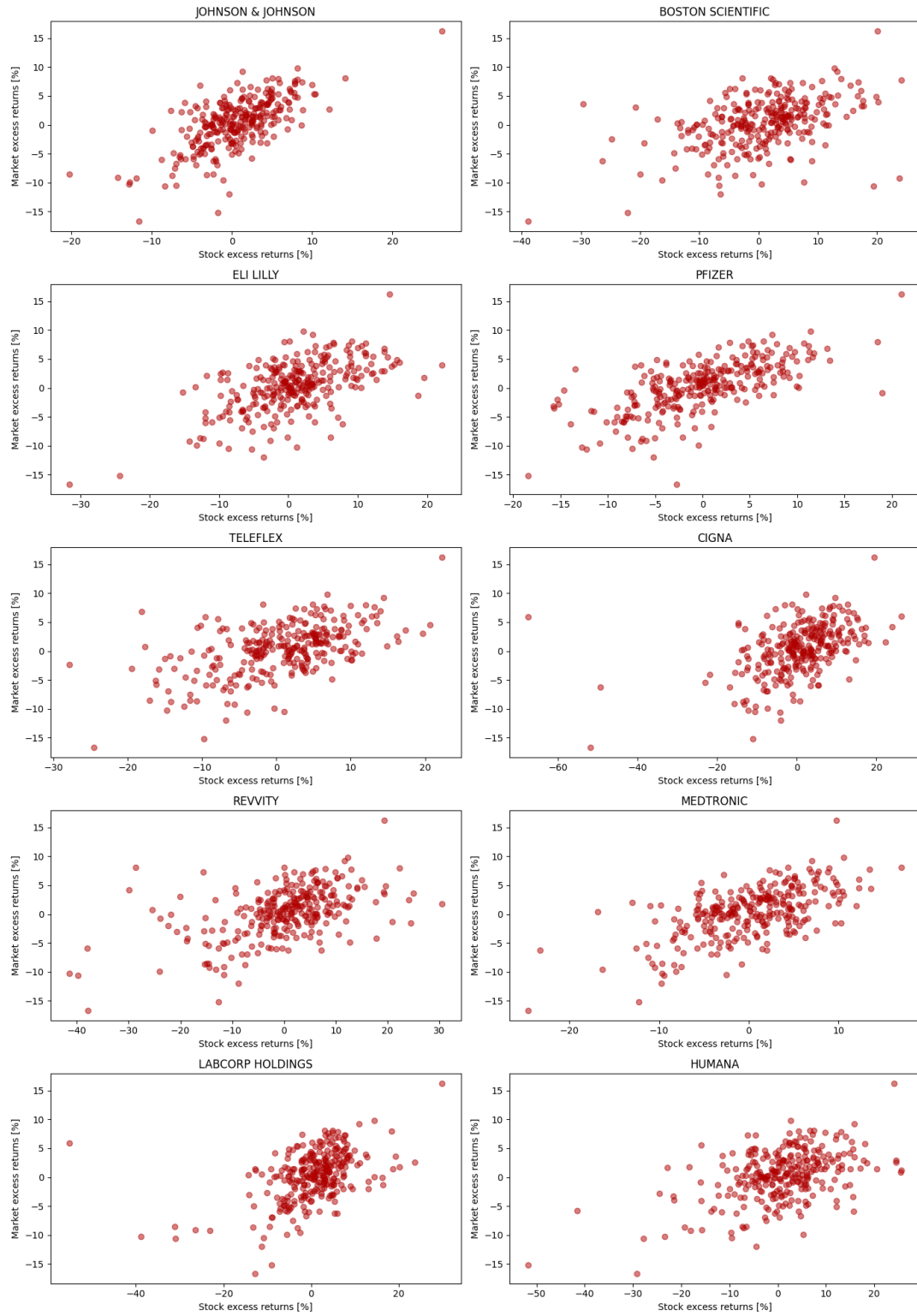
**Assignment 3**

**Assignment 4**

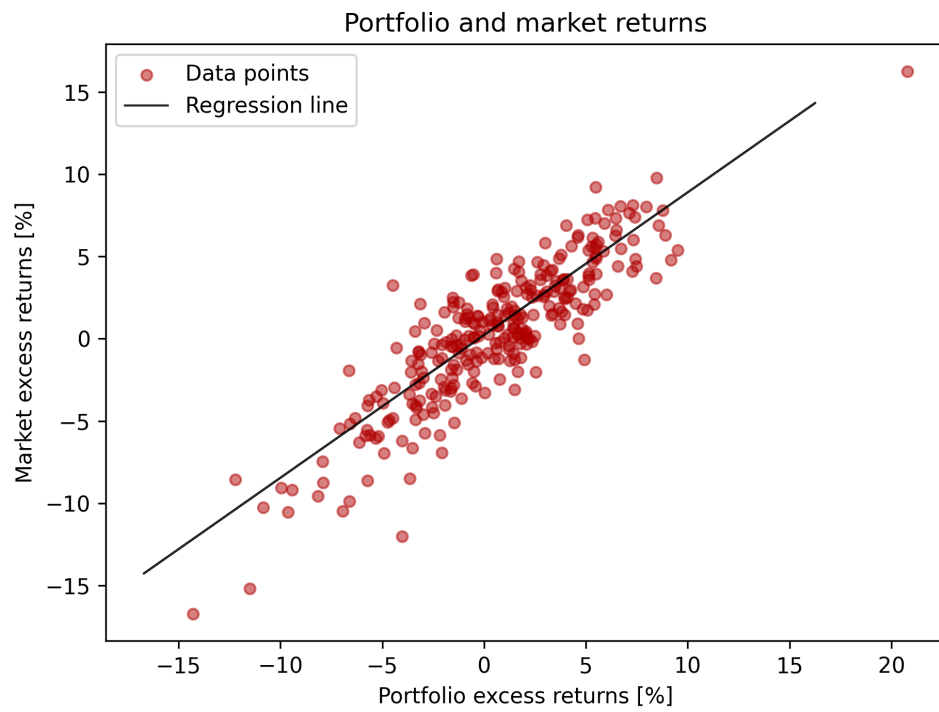
**Assignment 5**

**Assignment 6**

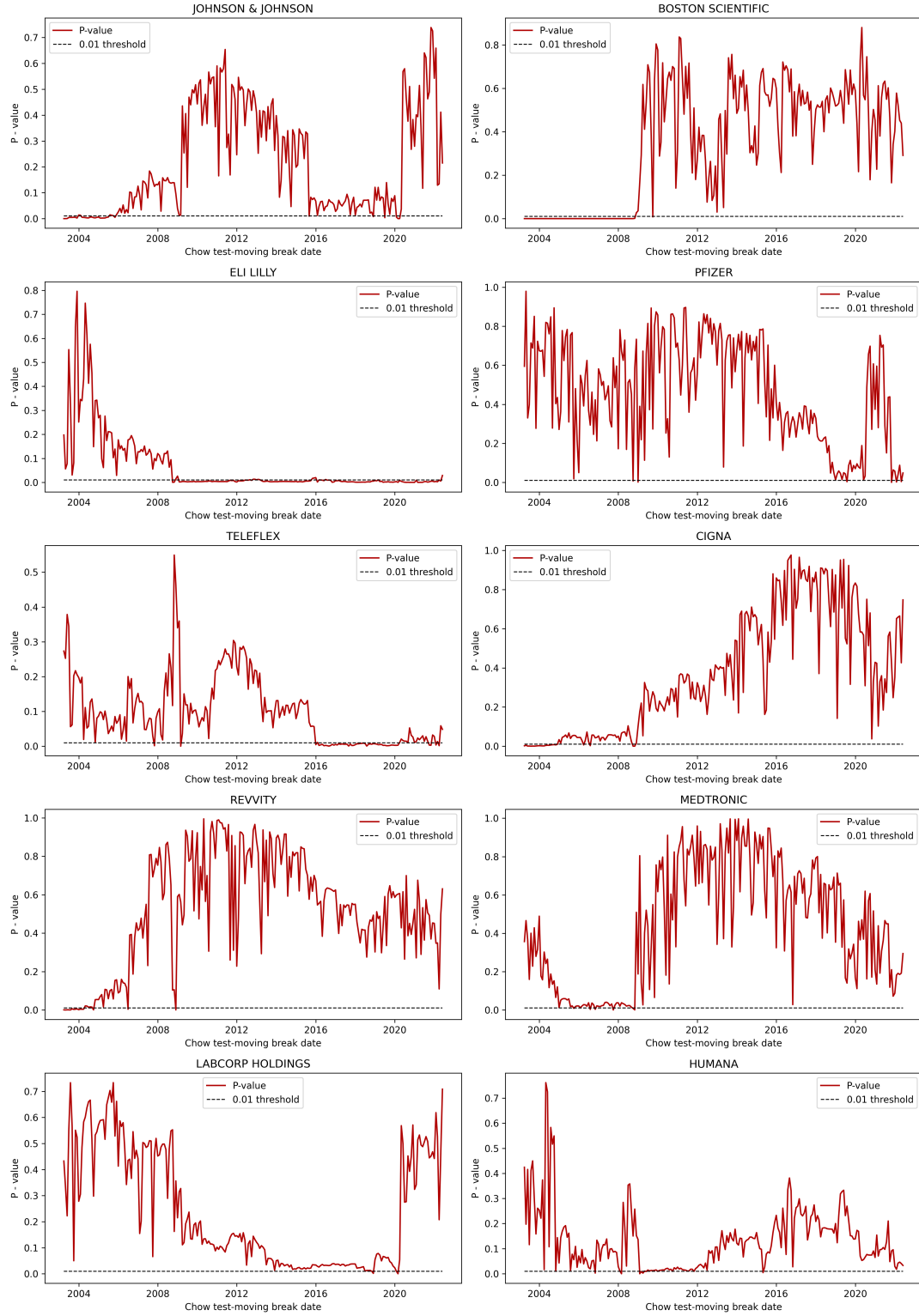
**Assignment 7**



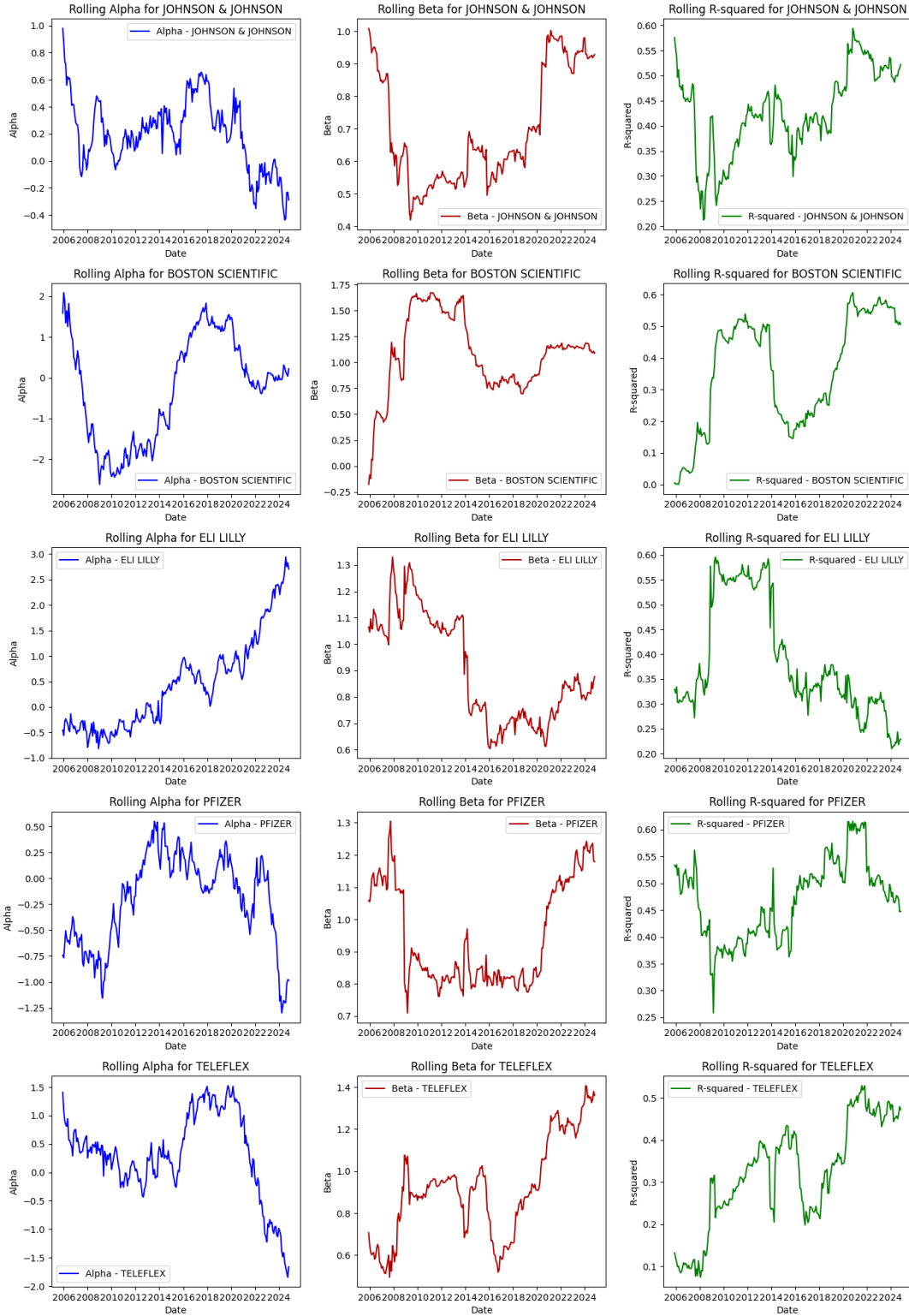
**Fig. 1:** Scatterplot of equities' log-returns against excess market returns.



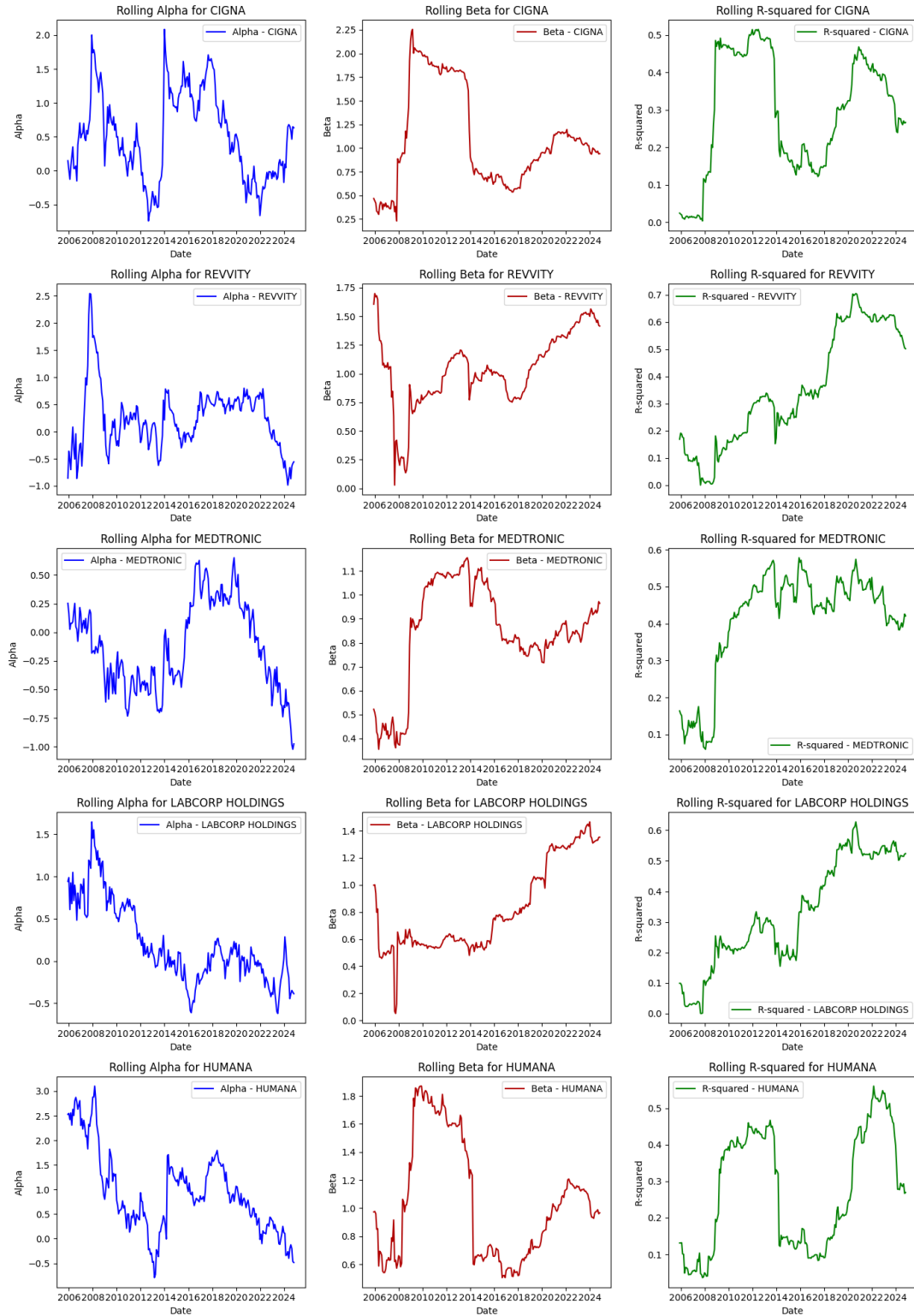
**Fig. 2:** Scatterplot of portfolio's returns against excess market returns, with linear regression.



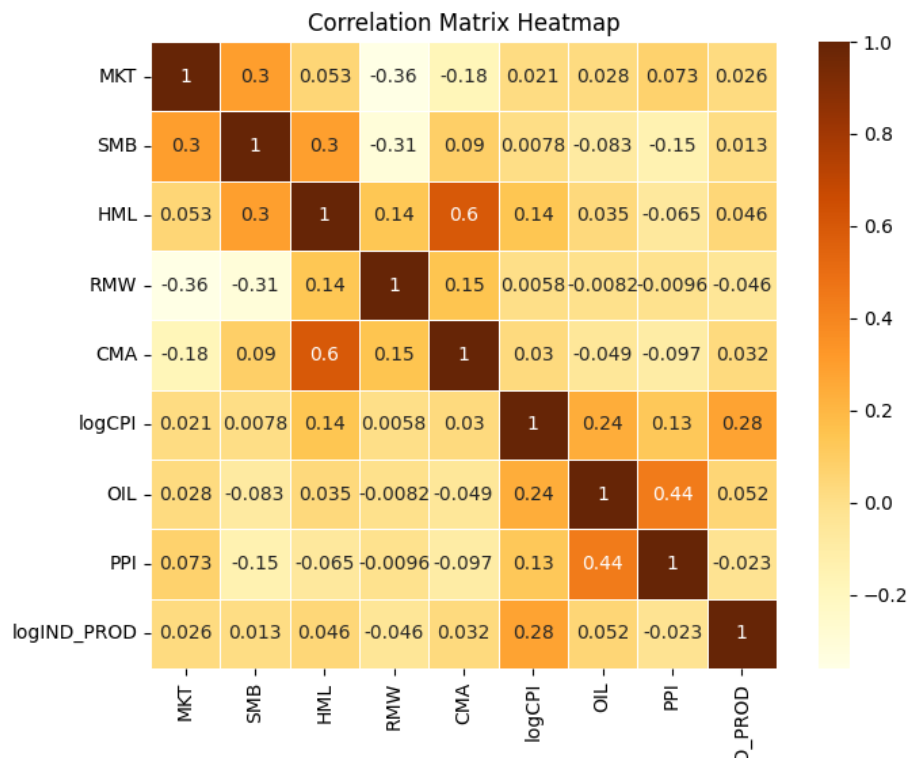
**Fig. 3:** Chow Test performed for all equities in search of structural breaks.



**Fig. 4:** Rolling quantities computed an all equities as an alternative of the Chow Test in search for structural breaks (1).



**Fig. 5:** Rolling quantities computed on all equities as an alternative of the Chow Test in search for structural breaks (2).



**Fig. 6:** Heatmap of the correlations between the chosen explanatory variables.