

## Università degli Studi di Padova

## MASTER DEGREE COURSE IN COMPUTATIONAL FINANCE REGRESSION AND TIME SERIES MODELS

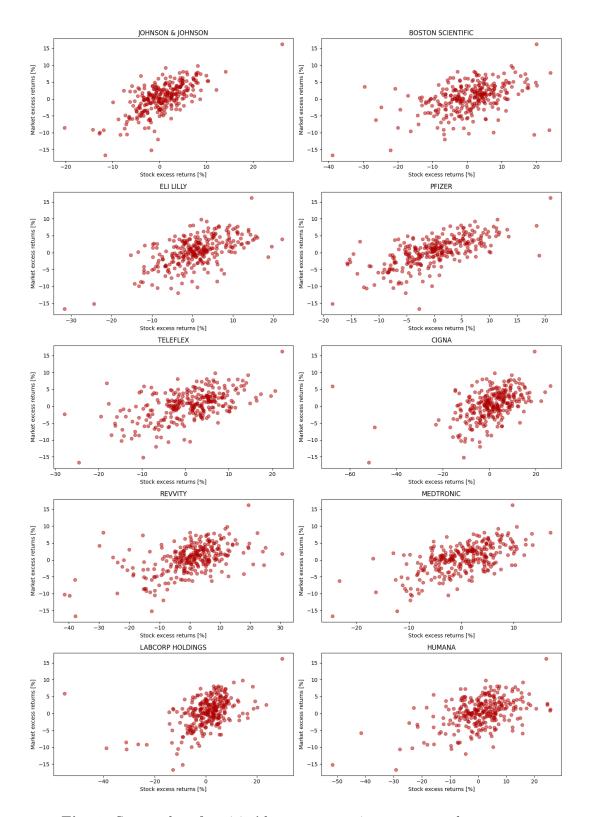
## Group Work 1 - Regression with CAPM Model

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Commissioned by:

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 $\textbf{Fig. 1:} \ \ \textbf{Scatterplot} \ \ \textbf{of} \ \ \textbf{equities'} \ \ \textbf{log-returns} \ \ \textbf{against} \ \ \textbf{excess} \ \ \textbf{market} \ \ \textbf{returns}.$ 

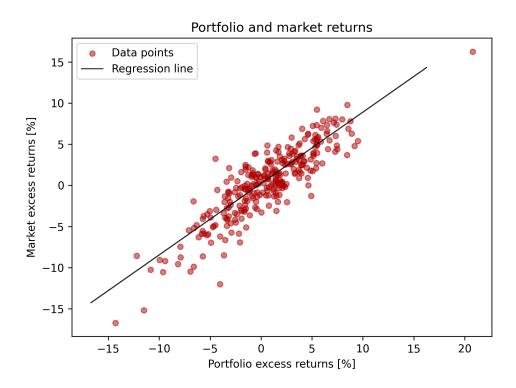


Fig. 2: Scatterplot of portfolio's returns against excess market returns, with linear regression.

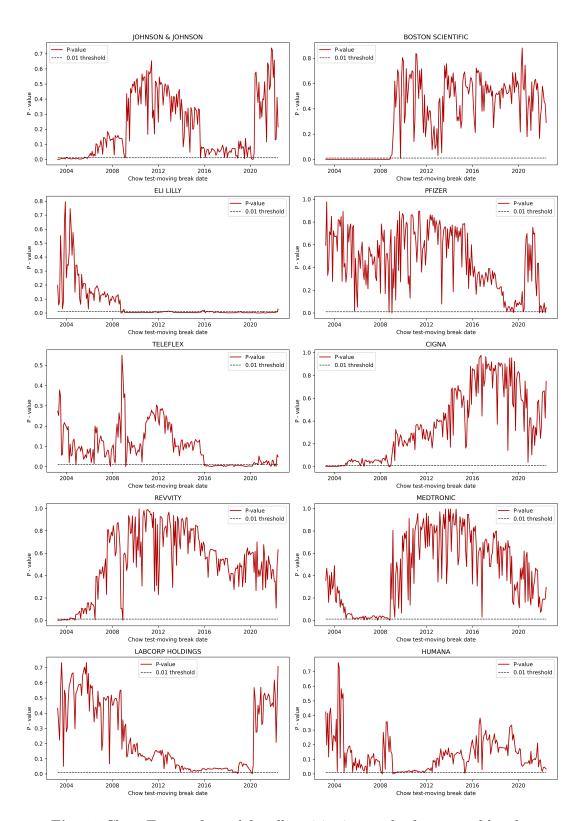
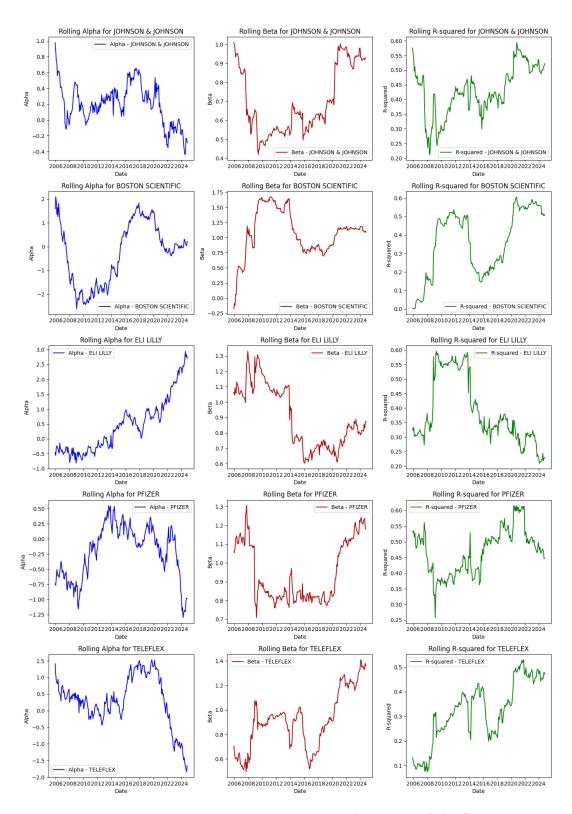


Fig. 3: Chow Test performed for all equities in search of structural breaks.



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

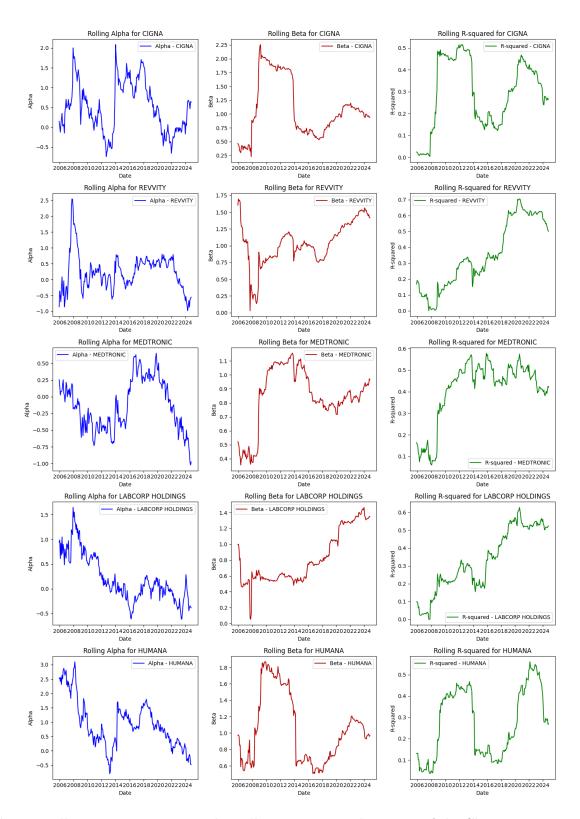


Fig. 5: Rolling quantities computed an all equities as an alternative of the Chow Test in search for structural breaks (2).

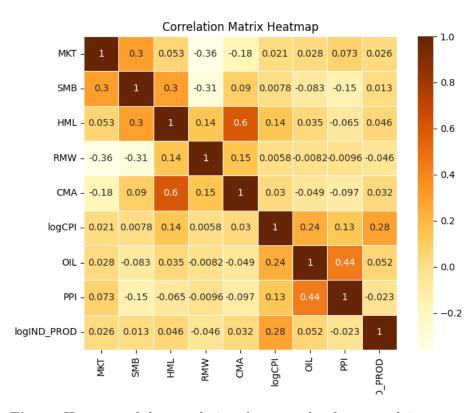


Fig. 6: Heatmap of the correlations between the chosen explainatory variables.