

Meeting Minutes

PWC ILab Teams Meeting on 22.12.2023, 9am

Agenda:	Presentation of the Status Update of the Overall Project and further Questions
Participants:	PWC: Christian Koellich, Florian Moemken, WU: Florian Pauer, Lukas Handler, Students: Arina Suhodolova, Sophie Grill, Alexei Volodin, Dinara Zainullina, Sebastian Herzog
Last Meeting:	07.12.23 at 10am
Next Meeting:	Online Teams Meeting on 12.01.2023 at 10:30am

Presentation of our Overall and Rolling PCA Results

<i>Team</i>	<ul style="list-style-type: none">– Description of extended dataset: we have obtained all daily data sets that we will need for the final analysis (commodities, bond indices, equity indices, macro data)– Random matrix method was added as an addition to the KMO test (results still need to be interpreted)– PCA test was performed both ways: with and without a rolling window; the optimal window size still needs to be tested– PCA without a rolling window identified 8 principal components explaining 90% of the variation– Regression on macro data was performed to check whether the code is working, we still need to explore/refine the regression analysis as it has shown R-squared of 0,9
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Open Topics and Adjustments to be made

<i>Moemken</i>	Remarks for KMO test and identifying the window size: <ul style="list-style-type: none">– Apply KMO not on the whole data set but start with a small window size and through the loop increase it by 1 day each time. Be careful not to get a window too big, maybe stop when KMO is at 0.85
<i>Pauer</i>	<ul style="list-style-type: none">– Use financial papers as reference for KMO threshold– Check which components heavily load on which input assets to understand what drives each PC then explain why its sometimes negative sometimes positive– Use macro events and match them on movement– Show a graph with average development of each asset group (instead of every individual variable) for a better visual and explain in more details what the inputs are– Deal with autocorrelation in the regression; AR(1)

Additional requirements for the next meeting

<i>Moemken</i>	<ul style="list-style-type: none">– Prepare a timeline for the next steps; what is going to be done by which date
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