PROGRESS REPORT - TEAM B1

Legend:	Complete	On Track	At Risk	Significant Issues

Project	Sprint No & Ending Date	Status	Comments
Spinnaker	Sprint 1 : January 31st – February 13th		*Current PMO: Linh To*

Accomplishments (Past Sprint)	Next Steps (Sprint Ahead)
• Completed EDA for the dataset • Created a github repo to streamline the progress • Understanding of the data with industry knowledge	• Research about potential models to use • Research about labels for supervised ML • Have classification criteria • Build a simple model (linear/logistic)

Milestones	Due Date	Status
EDA	Feb 1st	
First simple model	Feb 10th	
Second model	Feb 20th	
Refine models	Feb 27th	
Mid-term presentation	March 4th	

Risks / Issues / Constraints	Mitigation Approach
• Have limited knowledge about using models in financial context	• Have a meeting in person to discuss and share research together

PROGRESS REPORT - TEAM B1

Legend:	Complete	On Track	At Risk	Significant Issues

Project	Sprint No & Ending Date	Status	Comments
Spinnaker	Sprint 2 : February 13th – February 20th		*Current PMO: Linh To*

Accomplishments (Past Sprint)	Next Steps (Sprint Ahead)
• First draft of the presentation slides done with explanation about the dataset, EDA, first model • Researched more about the 2nd option to build a model, which includes removing industry effect (like SP500 data) to get the residuals, then using it as a signal	• Build VAR and ARIMA model time - series models, while building option 2 models

Milestones	Due Date	Status
EDA	Feb 1st	
First simple model	Feb 10th	
Second model	Feb 20th	
Refine models	Feb 27th	
Mid-term presentation	March 4th	

Risks / Issues / Constraints	Mitigation Approach
Issues with understanding the data, what to take as X and Y in the model	Have a meeting in person to discuss and share research together

PROGRESS REPORT - TEAM B1

Legend:	Complete	On Track	At Risk	Significant Issues

Project	Sprint No & Ending Date	Status	Comments
Spinnaker	Sprint 3 : February 20th – February 27th		*Current PMO: Linh To*

Accomplishments (Past Sprint)	Next Steps (Sprint Ahead)
• Built basic VAR and ARIMA models • Work on midterm presentation and status report to be submitted to Xi and Shawn for review	• Prepare for midterm presentation • Consider how to make the presentation clear and meaningful and next steps ahead

Milestones	Due Date	Status
EDA	Feb 1st	
First simple model	Feb 10th	
Second model	Feb 20th	
Refine models	Feb 27th	
Mid-term presentation	March 4th	
Refine models	March 17th	
Third model	March 31st	
Establish insights	April 14th	
Prepare materials for final	April 28th	
Final presentation	May 9th	

Risks / Issues / Constraints	Mitigation Approach
Finding a common metric to compare between classification models and regression models	Talking with Shawn to brainstorm how to solve this problem

PROGRESS REPORT - TEAM B1

Legend:	Complete	On Track	At Risk	Significant Issues

Project	Sprint No & Ending Date	Status	Comments
Spinnaker	Sprint 4 : February 27th – March 6th		*Current PMO: Linh To*

Accomplishments (Past Sprint)	Next Steps (Sprint Ahead)
• Finished slides and presentation • Present midterm	• Explore LSTM or neural network model • Reflect on past models and how to make them better • Continue with work on approach 2, removing effect of the economy through a proxy

Milestones	Due Date	Status
EDA	Feb 1st	
First simple model	Feb 10th	
Second model	Feb 20th	
Refine models	Feb 27th	
Mid-term presentation	March 4th	
Refine models	March 17th	
Third model	March 31st	
Establish insights	April 14th	
Prepare materials for final	April 28th	
Final presentation	May 9th	

Risks / Issues / Constraints	Mitigation Approach

PROGRESS REPORT - TEAM B1

Legend: Complete | On Track | At Risk | Significant Issues

Project	Sprint No & Ending Date	Status	Comments
Spinnaker	Sprint 5 : March 21st - March 28th		*Current PMO: Haiyuan Zhang*

Accomplishments (Past Sprint)	Next Steps (Sprint Ahead)
• Turn time-series model predictions (VAR AND ARIMA) into classification labels to compare with the same metric across all models (with logistic classification model) • Completed label generation with removing the influence of the economy	• Refine ARIMA model → explore ARIMAX to expand from univariate to multivariate by analyzing more input variables in the model • Standardize the train/test split process and use the same dataset for evaluation • Continue refining sector rotation labels to eventually apply to models

Milestones	Due Date	Status
EDA	Feb 1st	
First simple model	Feb 10th	
Second model	Feb 20th	
Refine models	Feb 27th	
Mid-term presentation	March 4th	
Refine models	March 17th	
Third model	March 31st	
Establish insights	April 14th	
Prepare materials for final	April 28th	
Final presentation	May 9th	

Risks / Issues / Constraints	Mitigation Approach
	Research on how to apply ARIMAX and LSTM model

PROGRESS REPORT - TEAM B1

Legend: Complete | On Track | At Risk | Significant Issues

Project	Sprint No & Ending Date	Status	Comments
Spinnaker	Sprint 6: March 28th - April 4th		*Current PMO: Haiyuan Zhang*

Accomplishments (Past Sprint)	Next Steps (Sprint Ahead)
• Refined ARIMA model to SARIMAX to expand from univariate to multivariate by analyzing more input variables in the model • Standardized the train/test split process • Explored LSTM model and did initial implementation (both with AssetEnds and labels as target variables) • Generated additional labels for figure engineering	• Run models with Sector Rotation Label and Removing Effect of Market Labels • Improve LSTM model • Get an overall accuracy comparison among all models

Milestones	Due Date	Status
EDA	Feb 1st	
First simple model	Feb 10th	
Second model	Feb 20th	
Refine models	Feb 27th	
Mid-term presentation	March 4th	
Refine models	March 17th	
Third model	March 31st	
Establish insights	April 14th	
Prepare materials for final	April 28th	
Final presentation	May 6th	

Risks / Issues / Constraints	Mitigation Approach
Testing models on all asset class and we might hit low accuracy	

PROGRESS REPORT - TEAM B1

Legend: Complete | On Track | At Risk | Significant Issues

Project	Sprint No & Ending Date	Status	Comments
Spinnaker	Sprint 7: April 4th - April 15th		*Current PMO: Song Lin*

Accomplishments (Past Sprint)	Next Steps (Sprint Ahead)
• Decided to scrap the LSTM model due to constraints of the dataset • Tested DES method with predictions • Ran model with Sector Rotation Label and Removing Effect of Market Labels	• Get an overall accuracy comparison among all models • Interpret the results and explain what the results mean and what the tradeable signal is • Work on integrating results into a final report • Work on presentation slides and poster • Finish building the OOP codes for DES method • Implement DES method to identify tradable signals across the series instead of only making prediction at the end

Milestones	Due Date	Status
EDA	Feb 1st	
First simple model	Feb 10th	
Second model	Feb 20th	
Refine models	Feb 27th	
Mid-term presentation	March 4th	
Refine models	March 17th	
Third model	March 31st	
Establish insights	April 14th	
Prepare materials for final	April 28th	
Final presentation	May 6th	

Risks / Issues / Constraints	Mitigation Approach

PROGRESS REPORT - TEAM B1

CURRENTLY IN PROGRESS

Legend: Complete | On Track | At Risk | Significant Issues

Project	Sprint No & Ending Date	Status	Comments
Spinnaker	Sprint 7: April 15th - April 28th		*Current PMO: Song Lin*

Accomplishments (Past Sprint)	Next Steps (Sprint Ahead)
• Get an overall accuracy comparison among all models • Interpret the results and explain what the results mean and what the tradeable signal is • Work on presentation slides and poster • Finish building the function codes for DES method • Implement DES method with three kinds of intervals (1-month, 3-month, 6-month) to identify tradable signals across the series instead of only making prediction at the end	• Work on presentation slides and poster • Practice presentations

Milestones	Due Date	Status
EDA	Feb 1st	
First simple model	Feb 10th	
Second model	Feb 20th	
Refine models	Feb 27th	
Mid-term presentation	March 4th	
Refine models	March 17th	
Third model	March 31st	
Establish insights	April 14th	
Prepare materials for final	April 28th	
Final presentation	May 6th	

Risks / Issues / Constraints	Mitigation Approach