Empirical Review of Models used for Predicting Financial Market Crashes Using Market Data

Project: Literature Review

By Ping-Chieh Tu, Adrien Bélanger, and Inigo Torres

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Overall objective to keep in mind:

"In this milestone, the objective is to review the related literature to your proposal. This will better inform your methodology for your project if it involves a new idea, and it is necessary if you are comparing existing methods for a certain domain. It may even lead to a change of proposal, once you learn about existing methods out there. If you are producing a literature survey on a research topic, in this stage, you just provide a "breadth" review, in which you emphasize covering as many related works as possible and providing some preliminary organization without going into much detail."

Evaluation Criterias:

- Putting your proposal into context of related literature
- Coverage (are you adequately covering most relevant works)

Introduction Adrien (Goes with Background)

"Start with a broad picture of the research area in order to position your work. It is important to demonstrate perspective."

Background on Time Series and Financial Market Crashes Adrien

- Define time series in financial analysis
  [?]
  - Explain market crashes and justify our definition
  - Review work on financial crash prediction, review different methods
  - Identify gaps in literature that our project adresses and what is new about it

Review of Relevant Models and Methods

- Justify why we chose those three models by finding similar work Oscar ?

Arima Oscar

- Overview of ARIMA
  - Review its application in time series analysis in our context

Reccurent Neural Networks Adrien

- Overview of Recurrent Neural Networks (RNNs)
  - Review its application in time series analysis in our context

Transformers Inigo

- Overview of Transformers
  - Review its application in time series analysis in our context

Criterias and Analysis Oscar?

- Summarize criterias and metrics in literature for comparing models.
  - Justify the selection of those comparison methods based on sources

Adapt proposal: Inigo