

# Week 11

Group 22

University of Melbourne

May 20, 2021

- Week 10:
  - Lit review of how bushfire/natural disaster data is processed and used in models
  - Preliminary correlation analysis of ROA and bushfire data
  - Preliminary correlation analysis of ROA and temperature data
  - Prepare report and presentation
  - Schedule the plan of next semester

## 1 First Section — Correlation Analysis

- Data Cleaning and Processing
- Result

## 2 Lit review

## 3 Plan for S2

# Data Cleaning and Processing

- Yahoo Finance provides incomplete address
- 14 companies locate in U.S
- All financial ratios have been cleaned

- P-value almost 1 between temp differ and ROA
- plots
- use state temperature instead of the US (need to debug)
  - correlation analysis between ROA and temp diff in different settings
  - ROA and the diff between the current year and past year
  - ROA and the diff between the current year and past  $n$  year
  - ROA difference/bushfires with the same setting

# Lit review

- analysis scenarios:
  - time series analysis based on correlation analysis
  - non-linear relationship analysis
  - causality analysis (tricky)
- achievable model: time series model
- data: more industries besides agriculture

- Next week:
  - Preliminary correlation analysis of ROA\_difference and climate data
  - Schedule the specific and solid plan of semester2
  - Finish the report and presentation



# The End