AFAANZ Grant 2019-20 (mentoring of developing researchers category) Outcome Report – Nandana Wasanthapathiranage

(1)   Name, Position, Contact Details for each applicant

Name	Position	Contact Details
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(2)   **Project Title :** Climate Risk Financial Disclosures: Do investors and analysts use them in their decision-making and , if so, how efficient are analysts in using them?

(3)   **Updated Project Summary** (500 words) including any variations between the project undertaken and the original application

This project examines the usefulness of climate risk financial disclosures by ASX listed companies for analysts and investors, and the efficiency with which analysts use such disclosures. For this purpose. Climate risk financial disclosures (CRFD) are hand-collected for the top 500 ASX listed companies by market capitalisation for 2018-2019. These corporate report disclosures are content analysed against the Guidelines provided by the Final Report of the Task Force on Climate-related Financial Disclosures (TCFD) and a CRFD score (including sub-scores for each category) is calculated for each company in the sample. Analysts' earnings forecasts and other financial data for these companies is collected from the Thomson Reuters Eikon and Datastream databases.

To examine the efficiency with which analysts use climate risk financial disclosures, following sequential regression models are employed.

$$CEPS1_i = \alpha + \beta 0\ CHGEPS_i + \beta 1\ CRFDScore_i + Controls \qquad (1)$$
$$FCEPS1_i = \alpha + \beta 0\ CHGEPS_i + \beta 1\ CRFDScore_i + Controls \qquad (2)$$
$$FCEPS1_i = \alpha + \beta 0\ CHGEPS_i + \beta 1\ CRFDScore_i + \beta 2FCEPS1_i + Controls \qquad (3)$$
$$FE_i = \alpha + \beta 0\ CHGEPS_i + \beta 0\ CRFDScore_i + Controls \qquad (4)$$

CEPS1 - Change in one-year-head EPS, CHGEPS - Current year change in EPS, CRFDScorei - Climate risk financial disclosure score, FEPS1 - Forecasted change in one-year-ahead EPS, FE- Forecast Error

If the CRFD Score in model 1 is significant with CEPS1, it indicates that CRFD Score is useful in predicting CEPS1. if the CRDF Score in model 2 is significant with FCEPS1, then it shows that analysts use CRFD when making their earnings forecasts. If CRFDScore in Model 3 is significant and gives incremental R-Squared contribution over FCEPS, it indicates that analyst forecast does not capture all the information content about future earnings embedded in CRFD, hence inferred that analysts are inefficient in using that information for earnings forecast. If the CRFDScore is significant in model 4, depending on the CRFD coefficient sign, it is inferred that analysts overreact or underreact to CRFD information.

In order to assess the usefulness of CRFD to investors, regression model 5 is employed.

$$ER_i = \alpha + \beta_0\, CHGEPS_i + \beta_1\, CRGDScore_i + \beta_2\, CHGEPS_i * CRFD\_Score_i + Controls \qquad (5)$$

ER- Excess return

If the CRFD Score is significant with returns, then it shows that CRFD is value relevant. If the interaction term with earnings is significant, earnings that take into account the climate risk financial disclosures are incrementally value relevant compared to earnings itself.

Disclosures about climate-related risks have been encouraged by multilateral organisations such as the G20 ( ), regulators (e.g. Reserve Bank of Australia - Fernyhough 2019; ASIC -Price 2018; APRA - Roddan 2017), quasi-regulators (e.g., ASX-Potter 2019a), investors (e.g., the Investor Group on Climate Change (IGCC), Australia/New Zealand). However, very little is know about whether the company produce CRFD are useful for decision making. To the best knowledge of the authors, no studies have examined the usefulness of climate risk financial disclosures to analysts (including analysts ability to use them) in making their earnings forecasts and how investors value these climate risk disclosures when making their investment decisions in an Australian context. Therefore, this study fills that research gap.

 (4) Funds Granted : AUD 2000

(5) Detailed Report on Expenditure of Funds against Budget Items, with variations explained

   Research Assistant Salaries and On costs = AUD 2260

(6) Outcomes, for example, working papers, presentations and publications (give full details, including abstracts)

Due to the COVID-19 impact, we experienced unexpected delays in carrying out this research project. Shifting to online delivery increased our workload substantially, and hence lot of time had to be devoted to preparing and managing the changeover to the new delivery model. Additionally, we initially budgeted this project for AUD 7500, as it required considerable time in hand collecting data from corporate report narratives. However, we were awarded AUD 2000. Therefore, we had to collect more of the data ourselves and spend time finding other means of financing to complete the data collection successfully. All these problems affected the progress of the research project. Nevertheless, the issue of climate related financial risk has not lost its currency and it is clear that Australian regulators will enforce disclosure under these voluntary TCFD guidelines, making analyst understanding and efficient use of the disclosures even more compelling to research.

However, we managed to complete the following tasks for the research project.

Content analysed the Climate risk financial disclosures (CRFD) of top 500 companies for two years against the Guidelines provided by the Final Report of the Task Force on Climate-related Financial Disclosures (TCFD) (2017) and calculated total CRFD scores and CRFD scores for the sub-categories (Governance, Strategy, Risk Management, Metrics & Targets). Collected analyst forecast data and financial data. Completed the preliminary literature and research methodology section.

*** In order to complete the balance of the project, four (04) months extension is requested.*

(7) Future Intentions for this Project (give full details)

a. Conference submissions b. Journal submissions c. Grant applications d. Projects

The authors expect to produce two journal articles related to this project. One journal article is on analysts' efficiency in using climate risk financial disclosures (CRFD). The second article is on the value relevance of CRFD, including the value relevance of earnings that takes into account the climate risk financial disclosures. Authors expect to submit one paper to AFAANZ 2021 conference.

(8) Summary of Outcomes and Benefits

Though climate risk disclosures are demanded by society and market participants, it is important to know whether these climate risk disclosures are useful for market participants, particularly for analysts and investors for their decision-making. It is not costless for corporates to make such disclosures and the disclosures could involve competitive disadvantage or other negative implications. Analysts are an important user group who act as an intermediary in information flow to the capital market. If they cannot understand these climate risk financial disclosures, or are inefficient in using this information, information asymmetry will increase in the market. This study will assist in better understanding whether the currently recommended climate risk financial disclosures are useful for market participants in their decision-making and better understanding of analysts' ability to use this information in making their earnings forecasts. If the currently recommended disclosures are found not to be useful, policymakers or regulators could be alerted to design and issue improved guidelines, or an education campaign, so that the usefulness of climate risk disclosures could be improved.