

Bondai

Our Idea in Brief – To develop an AI based Bond Credit Rating system. The system keeps track of the financials (balance sheet, income statement and cashflow statement) along with company news, corporate fillings, global and local events, business environment and several other key factor to determine the long- and short-term credit rating of the companies. We aim to develop this system as an open source project, and when ready publish its ratings and corresponding report on a publicly accessible live website.

(Please refer to the additional files and the submitted code to view in detail the implementation and working of the prototype model).

Qualitative Impact –

An independent rating system, with its core fundamentals open to be scrutinized and improved by the open source community, along with its commission free model – will help individual investors and corporate bodies to make insightful financial decisions. Some of the very significant impacts would be –

1. Financial security of individual investors who rely solely on the credit ratings published by the rating agencies.
2. Assist corporate bodies in their investment research and help make insightful decisions, and prevent risks associated with lack of human perspective and ignorance.
3. An additional perspective towards the rating methodology, visualization of financial data and predicting the future-prospects and the financial stability of the company.
4. Push the companies to make effective financial and management decisions to obtain better bond credit ratings.
5. Prevent the risk of another major financial crisis due to the monopoly of few companies over the entire credit ratings system (*At present just three companies control over 95% of the global credit rating business*^[1]).

Overall, we assume – this system when implemented with its core principles of transparent fundamentals, open source implementations and publicly accessible reports and information, will not only individual and corporate investors in making risk free decisions but will also push the present agencies to reflect on their approach and methodologies, investment in technology and human resource and work in an investor friendly manner.

Quantitative Impact –

Incorrect pricing of risk is one of the major reasons associated with the 2007-09 global financial crisis. And even almost a decade later, the aftereffects of the financial crisis is visible today especially in countries like USA and Britain. Some of the major setbacks of the 2007-09 financial crisis were ^[2] –

1. Financial turmoil in about 54 countries across the globe with varying impact.
2. Political instability in the severely affected countries.
3. Increased un-employment where around 20 million people lost their jobs and
4. Huge impact on trade and industrial production.

We truly believe such a crisis resulting due to un-ethical approach, lack of human perspective, ignorance, errors and mis-judgement can be avoided by our proposed solution. Not only this, but technology working hand in hand with human will boost the risk calculation techniques, ratings factors and will impact the entire global financial system at both abstract and ground levels.

References –

1. https://en.wikipedia.org/wiki/Financial_crisis_of_2007%E2%80%932008
2. https://en.wikipedia.org/wiki/Effects_of_the_Great_Recession