Abstract

The characteristics of a successful financial forecasting system are the exploitation of inefficiencies of a given market and the precise application to that market. Overwhelming evidence indicates that opportunities exist for consistent positive returns over a given period of time. This project aims to provide means for the yield curve projection of government bonds. An ensemble of networks such as back propagation, radial basis function, linear regression, is used to predict the yield. The yield is forecasted using technical analysis using historical data and the output is tested for accuracy and accordingly assigned weights. Using the ensemble of neural networks, accuracy has been tried to be maximized and offer near to actual prediction. Using the yield curve, the investor can assess not only the yield of that bond, but can also the interest rates, and hence, has a very useful tool in his hand for investment purpose, thus
making decisions about whether to invest or not, and if invest then when to invest. The yield curve prediction not only provides the investor a tool to make investment decisions in bond market, but it also serves as a tool to gauge the macroeconomic conditions of the country and hence predict the movement in various other markets as well, and hence make investment decisions accordingly.

References

- (2009), FIMMDA-NSE Debt Market (Basic) Module, National Stock Exchange of India Ltd., Mumbai.
- D SN Sivanandam, SN Deepa (2007), Principles of Soft Computing, Wiley India (P) Ltd., New-Delhi
- Amanda J. C. Sharkey, Combining Artificial Neural Nets: Ensemble and Modular Multi-Net Systems (Perspectives in Neural Computing)

Index Terms

Computer Science

Artificial Intelligence

Keywords

Ensemble  ANN  BPN  RBF  Bonds  Financial Forecasting.