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Mizuho Financial Group, Inc
Mizuho Bank, Ltd.
IBM Japan, Ltd.

Mizuho Financial Group, Mizuho Bank and IBM develop new AI technology for financial market forecasting

Dynamic Boltzmann machine (DyBM) technology will help Mizuho forecast market trends and its volatility

Mizuho Financial Group (President & Group CEO: Yasuhiro Sato, Mizuho Bank (President & CEO: Koji Fujiwara) and IBM (NYSE: IBM) Japan (President: Elly Keinan) today announced the joint development of Mizuho's new Market Forecasting Tool. The tool uses advanced AI technologies developed by IBM Research - Tokyo, including a unique artificial neural network technology called dynamic Boltzmann machine (DyBM) which mimics the human brain's learning scheme. The Market Forecasting Tool is one of the unique approaches to predicting financial markets trends which utilize time-series prediction logics to extract similar trend dates and create future market trend predictions. The tool is being deployed within Mizuho Financial Group's Global Markets Company to work on Asset Liability Management (ALM) and Treasury portfolio operation.

ALM and Treasury portfolio are always important for banks, especially when loan demands are sluggish, and forecasting sharp rises and falls in interest rates and stock prices is a top priority.

Mizuho leveraged outputs of multiple forecast models using market data for the last two decades to identify past dates which have high degree of similarity with the current market, then mapped the subsequent price trends of each similar date to develop the new forecasting tool that predicts future price trends and volatility.

Mizuho will expand its strength in finding early warning signals of market volatility and forecasting the market using advanced AI technologies, and establish a sustainable competitive advantage. IBM Japan will help Mizuho work on Asset Liability Management (ALM) and Treasury portfolio operation with IBM technologies.