# QUICK Tankan correlates with BOJ Tankan and helps to forecast the results

QUICK Corp. observed a strong correlation between the business confidence diffusion index (DI) published by QUICK Tankan as well as by Bank of Japan (BOJ) Tankan, with the correlation coefficients for both manufacturing and non-manufacturing DIs exceeding 0.9.

Although BOJ Tankan DI for large companies and manufacturers attracts a great deal of interest in the market as an indicator of business confidence concerning Japanese companies, it lacks timeliness, because it is published only quarterly. QUICK Tankan DI, on the other hand, is published every month and also has a strong correlation with BOJ Tankan DI, and thus provides an early insight into the current business conditions of companies.

①QUICK Tankan DI for manufacturing (current, horizontal axis) and BOJ Tankan DI for manufacturing (large companies/current, vertical axis)
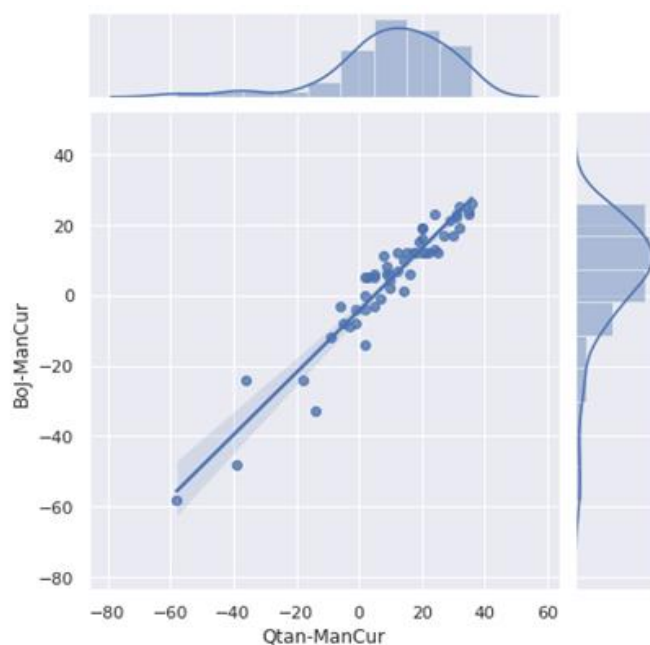

②QUICK Tankan DI for non-manufacturing (current, horizontal axis) and BOJ Tankan DI for non-manufacturing (large companies/current, vertical axis)
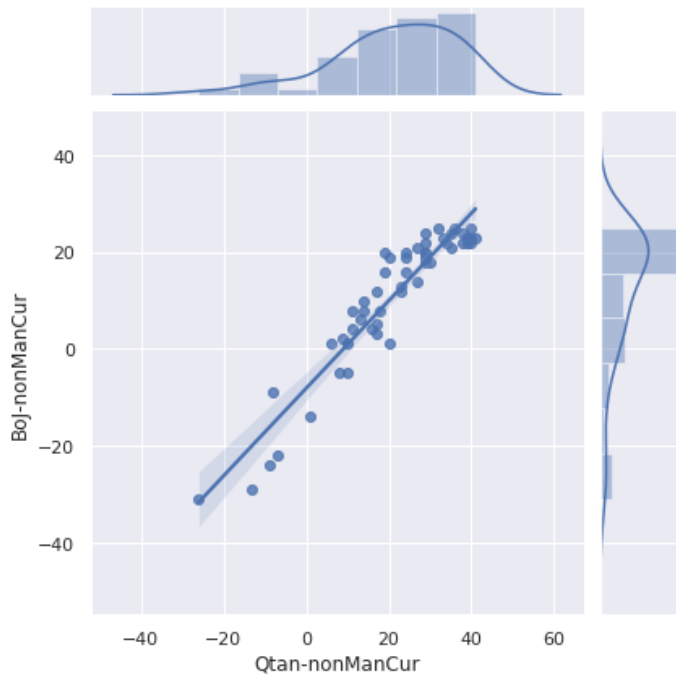
What if we use QUICK Tankan to forecast the results of BOJ Tankan? We used the Single Regression Model to analyze the data from December 2006 to March 2020 and derived the following equation for finding the correlation between QUICK Tankan DI and BOJ Tankan DI by respectively plotting them on X and Y axes.

$Y = 0.8821X - 4.411$
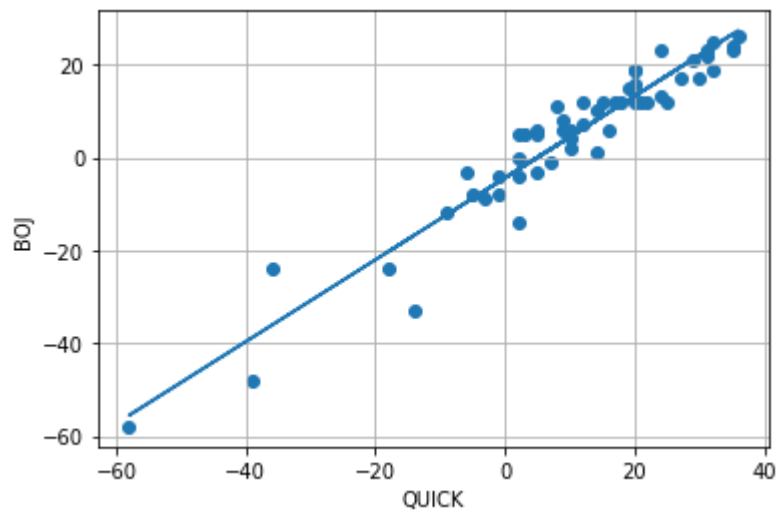
QUICK Tankan DI in June 2020 for manufacturing, published on 15 June, was −32. Substituting this value in the above equation gives us the value −35.52. The actual BOJ Tankan DI in June 2020 for manufacturing, announced subsequently on 1 July, was −34, a value quite close to −35.52.

The coefficient of determination of the above equation was 0.91. It ranges between 0 and 1, and a value closer to 1 indicates higher reliability of the variables used in the equation.