EQUITY

"exploring quantifiable IT yields"

Explanation of forecast quality assessment

Quantifying IT forecast quality

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http://www.cs.vu.nl/equity/

Introduction

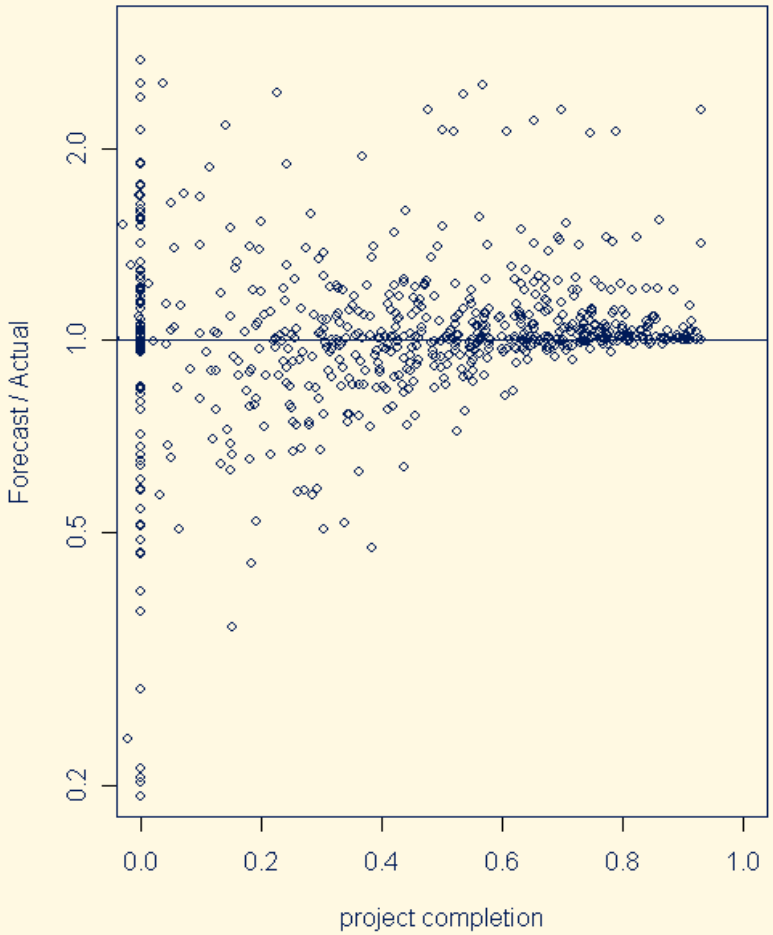
- The f/a plot, EQF values and reference cone allow you to assess the quality of forecasts made in your organization.

- These tools combined, reveal potential biases, quantify the quality and detect outliers.

Real-world example

To assess forecasts made in your organization, first plot the forecast to actual ratios in an f/a plot.

Here we plotted 667 f/a ratios of the forecasted costs of 140 projects.



Real-world example

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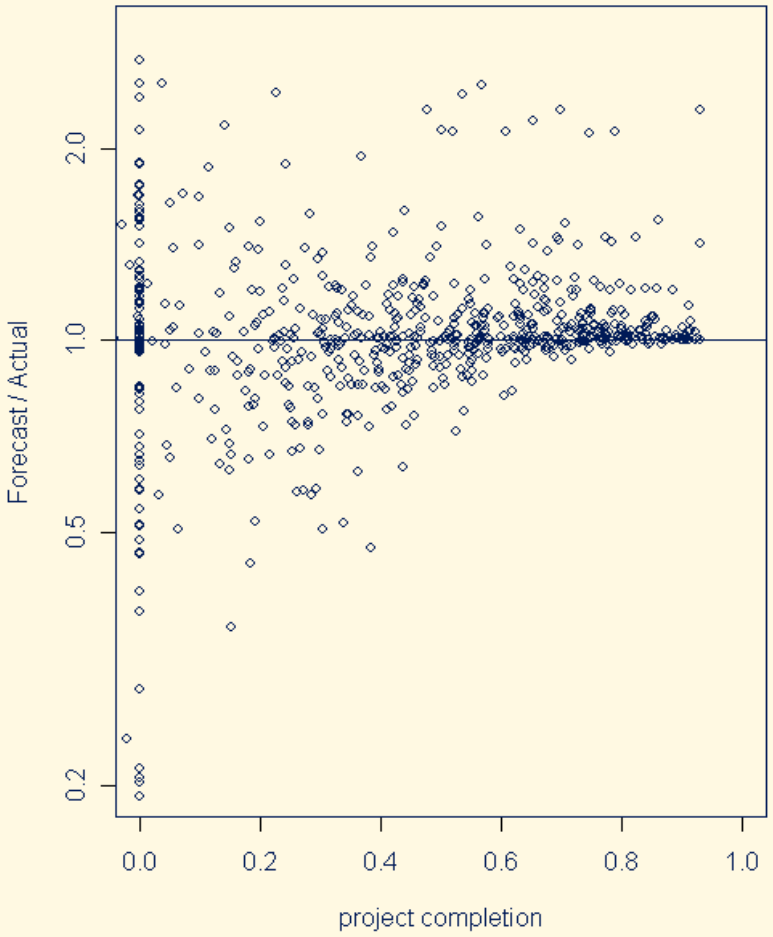
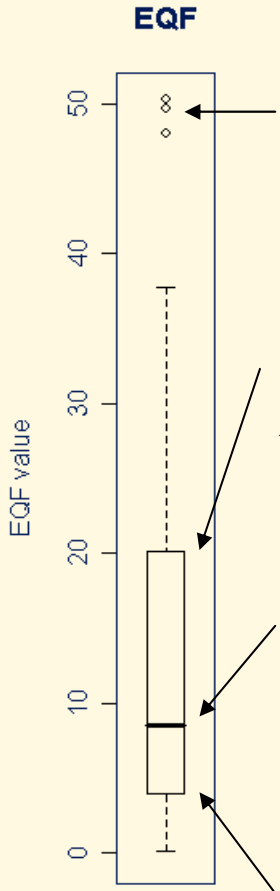
After plotting the f/a ratios, calculate for each project the EQF value.

For this example it resulted in 140 EQF values.

We depict these values using a boxplot on the right of the f/a plot.





These points are extreme values.

75% quantile: 25% of projects has value greater than 20.

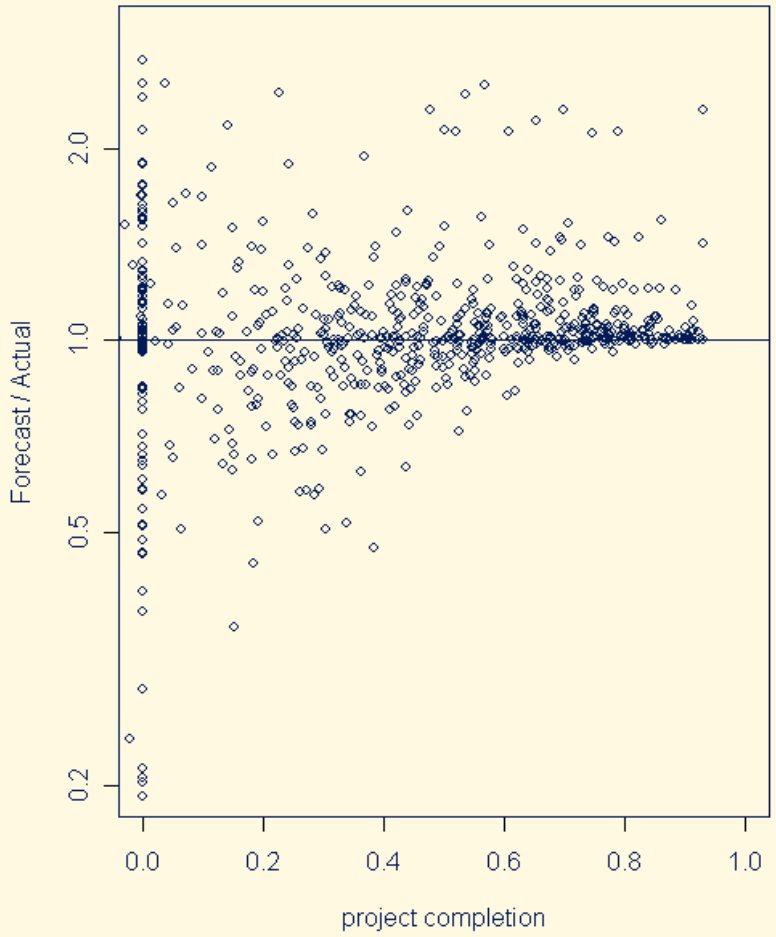
median: 50% of projects has value greater than +/- 9.

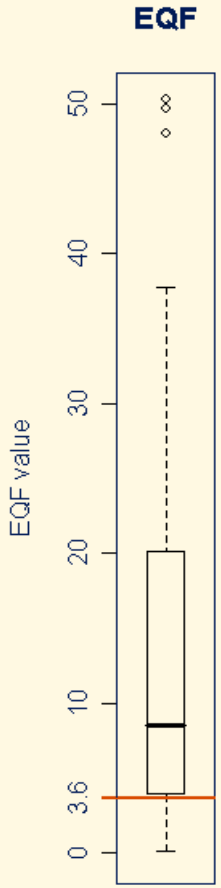
25% quantile: 75% of projects has value greater than +/- 4.

Real-world example

To assess the f/a ratios in the f/a plot, we want to draw a reference cone.

To draw this, we chose the 20% quantile of the EQF values.



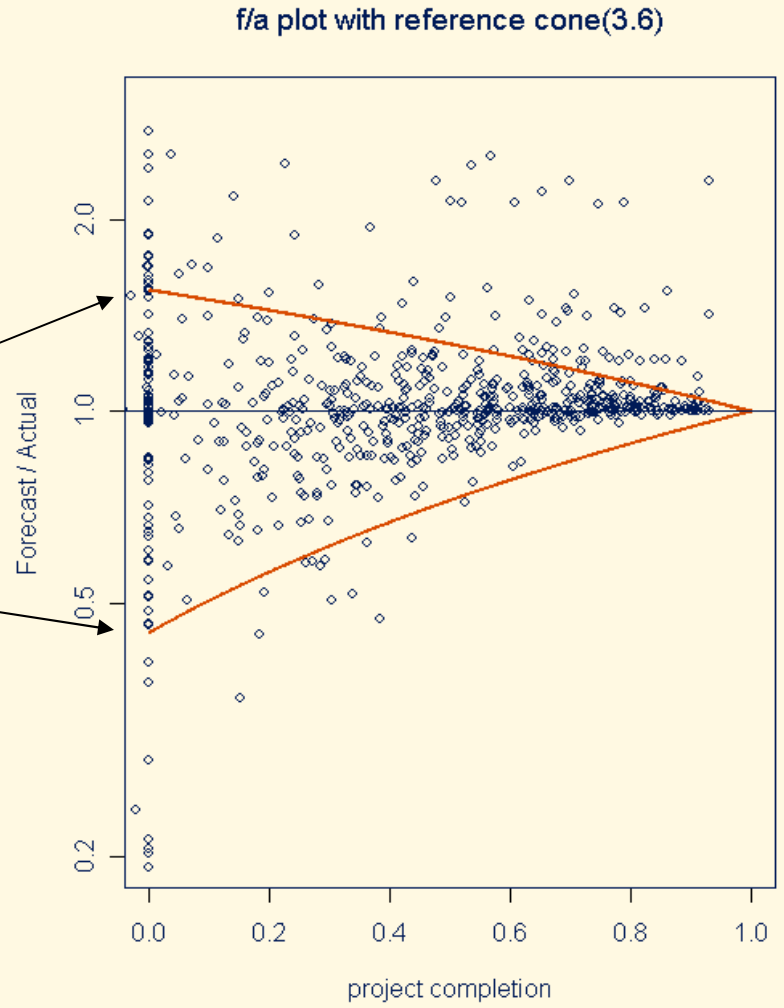


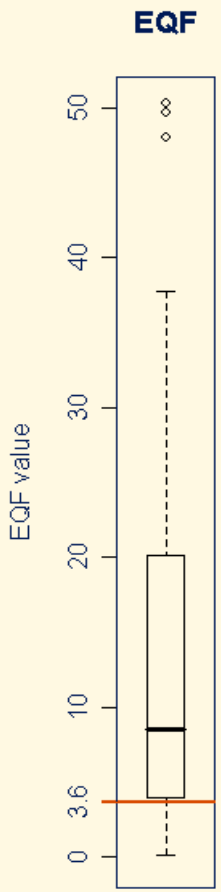
20% quantile: 80% of projects has value greater than +/- 3.6.

Real-world example

With the chosen EQF value, we draw the reference cone.

With these tools we are able to assess the forecasting quality.

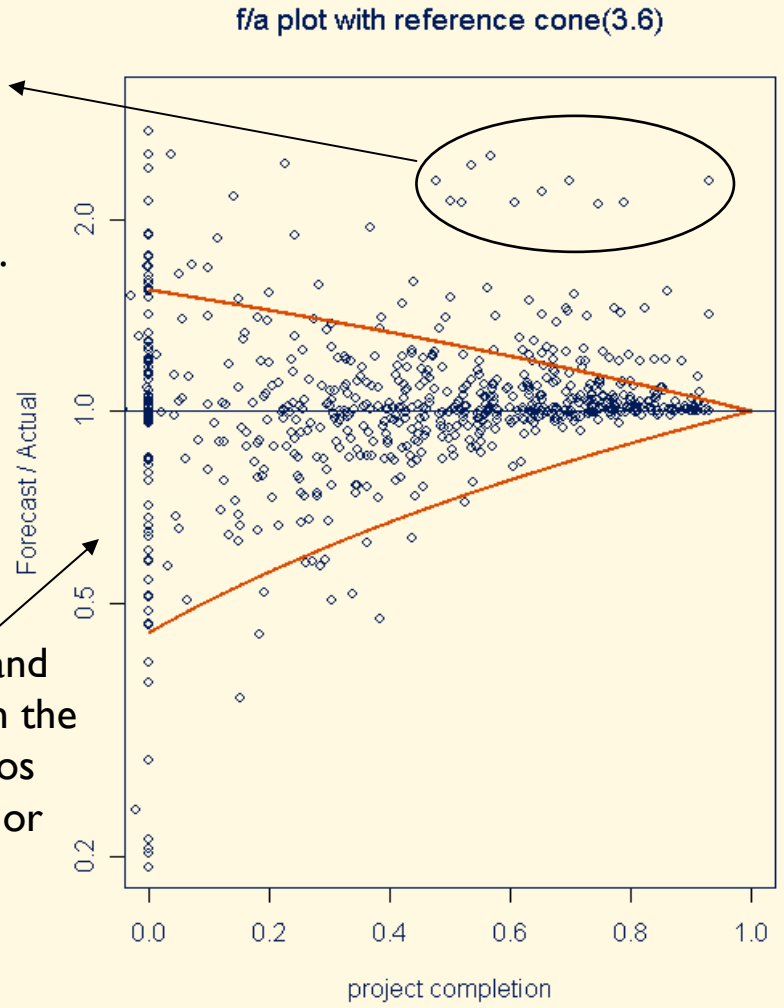


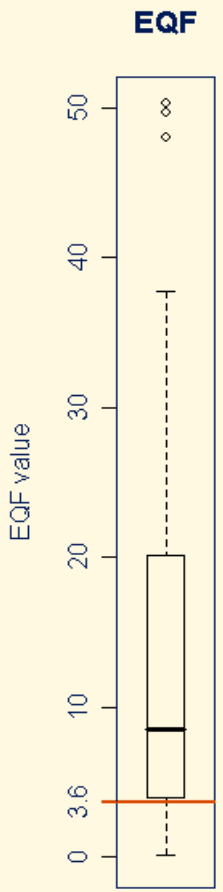


Assessment of example 1

These values are far outside the reference cone. They represent outliers that are interesting to investigate.

The f/a ratios resemble and are in general well within the reference cone. The ratios show no bias for under- or overestimation.





The quality of the forecasts in terms of EQF is reasonable. Half of the projects is able to obtain an EQF value of 9 or higher.

Assessment of example 2

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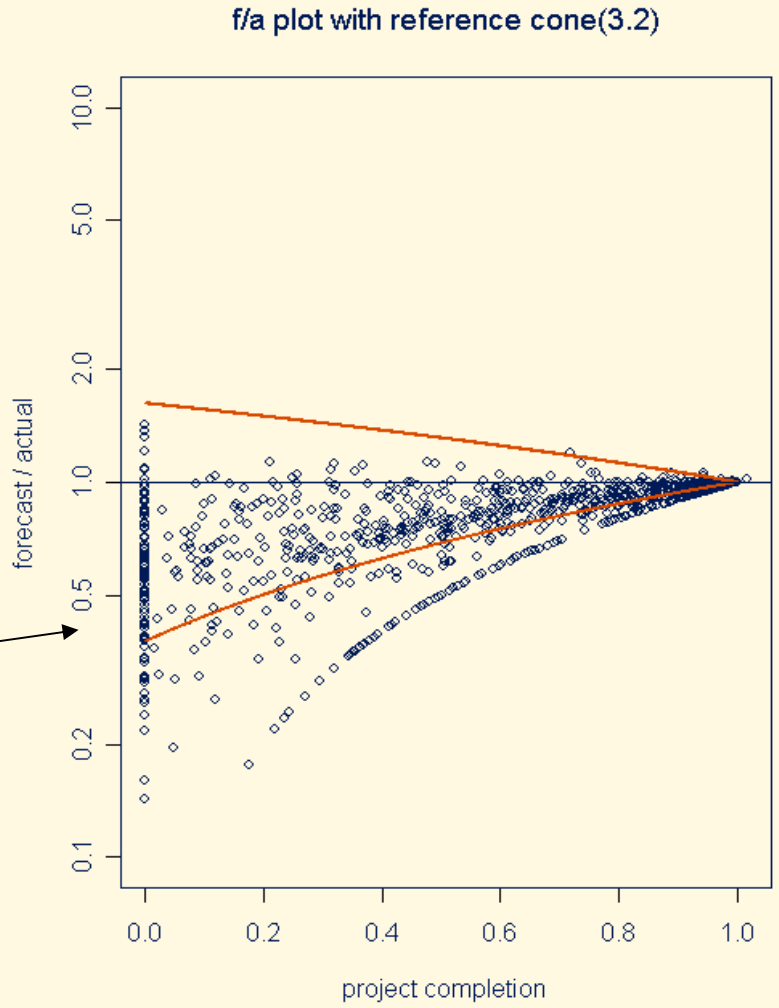
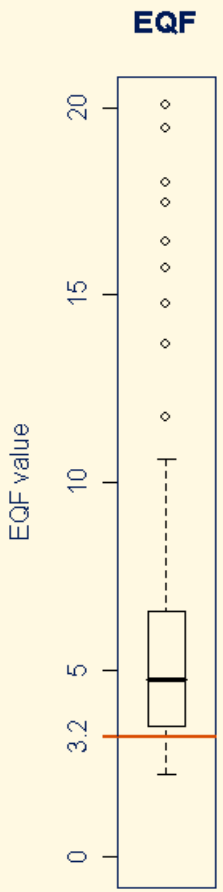
The f/a ratios resemble the reference cone. However, a large amount of ratios is below the reference cone.

This indicates the organization has a bias toward underestimating.





The quality of the forecasts is considerably less than in the previous organization.

75% of the projects has an EQF value of +/- 7 or less.