Sensitivity Analysis

Sensitivity Analysis (SA) investigates how the variation in the output of a numerical model can be attributed to variations of its input factors [@Pianosi2016]. To ensure the robustness of the main findings of the previous section I have carried out two robustness tests.

Firstly the equation **??** had been re-estimated using dependent variables accelerated by one year in a sense that observations in independent and control variables are now lagged two year behind corporate financial performance. Based on the results of the table **??**, estimators of both TobinsQ and Roa model had been estimated with the *pooled ols estimation*. Results are reported in table **??** and confirms results of the previous section.

Secondly, I have used an alternative proxy for approaching corporate environmental performance, namely the Green Score assigned to each company of the NewsWeek Green Ranking. The score is based on a weighted average of the key performance indicators of the ranking. Concretely, it means that equation **??** becomes the following equation.

$$Y_{it+1} = \alpha + \beta_1 GS_{it} + Controls_{it} + u_{it} \tag{1}$$

where Y_{it+1} is a proxy of CFP measured as ROA or Tobin's Q, GS_{it} is a proxy for a firm's green score, $Controls_{it}$ is a vector of control variables that includes firm size, industry sector, financial leverage and growth and lastly u_{it} which is the error term.

Based on the results of p-value of table **??**, equation1 had been estimated with the *pooled ols estimators* (for TobinsQ) and the *fixed effect estimation* (for Roa). Results are reported in table **??** and confirms findings of the previous section. Consequently, the sensitivity analysis supports that CEP do have a significant and positive effect on CFP (short and long-term).