Stock fluctuations are correlated and amplified across networks of interlocking directorates

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Additional Figures

Correlation between control proximity matrices and market similarity

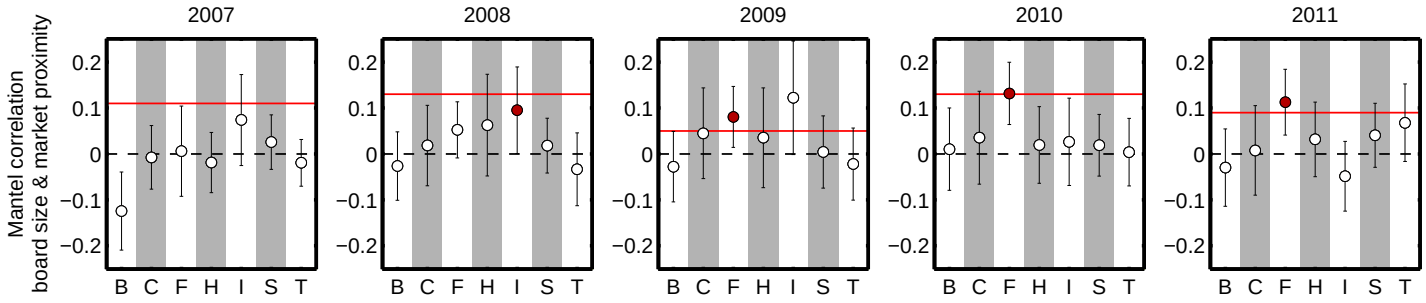

Fig. S1: Board size and market similarity. Equivalent to Figure 2 but looking at the correlation between the matrices of board size (number of directors) and market similarity of traded corporations in each year.

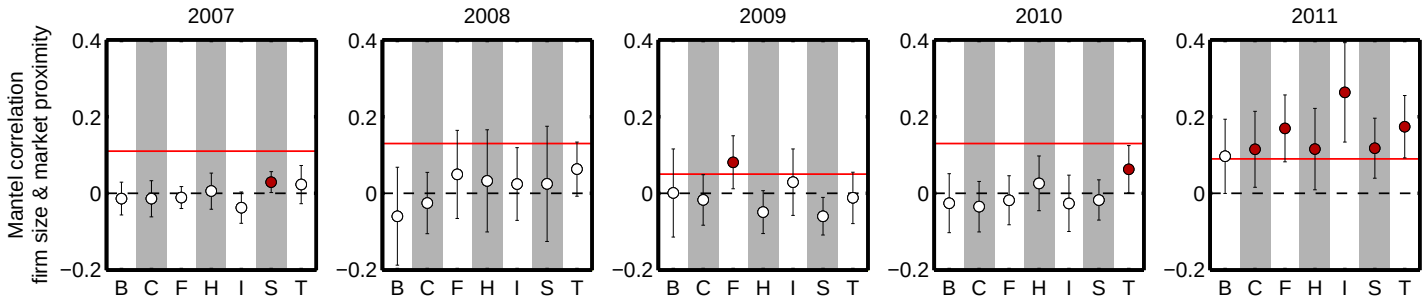

Fig. S2: Firm size and market similarity. Equivalent to Figure 2 but looking at the correlation between the matrices of firm size (average price of the stock in the year) and market similarity of traded corporations in each year.

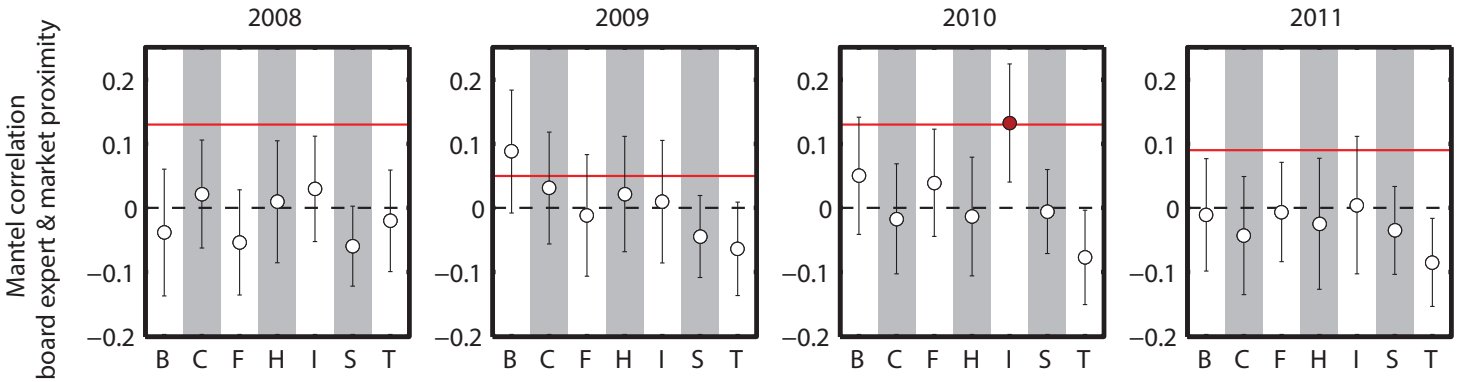

Fig. S3: Board expert and market similarity. Equivalent to Figure 2 but looking at the correlation between the matrices of board expert (fraction of directors with financial expertise) and market similarity of traded corporations in each year. Note that we have data of whether a director is considered a financial expert only for the period 2008-2011.

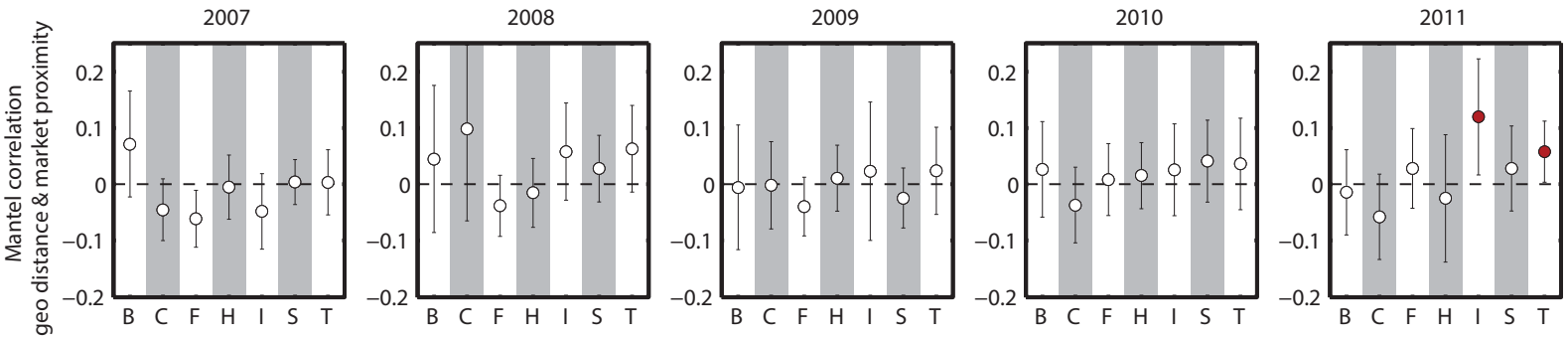

Fig. S4: Geographic distance and market similarity. Equivalent to Figure 2 but looking at the correlation between the matrices of geographic distance and market similarity of traded corporations in each year.

Robustness of correlations between network proximity and market similarity

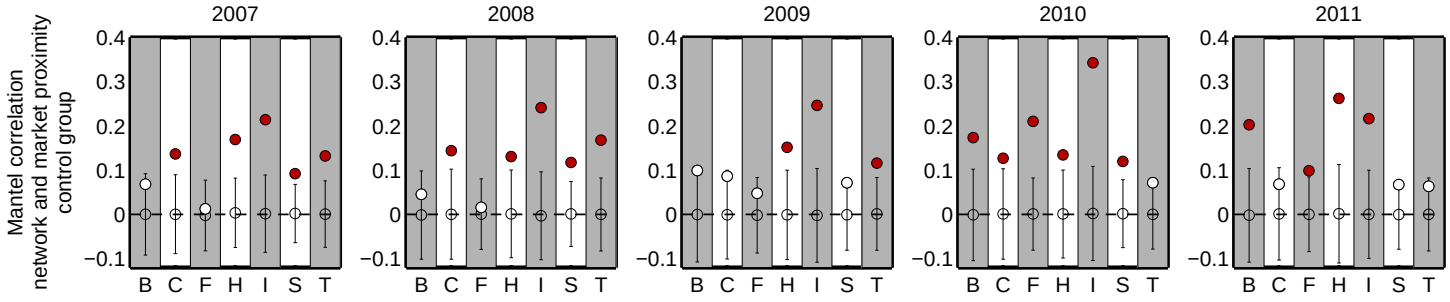

Fig. S5: Randomly-generated matrices of network proximity. Equivalent to Figure 2 but the error bars correspond to the 95% confidence intervals of the expected correlations between network proximity and market similarity when we randomly generate new matrices of network proximity. These new matrices are generated by bootstrapping elements with replacement from the original matrices of network proximity. Circles correspond to the correlations observed in Figure 3.

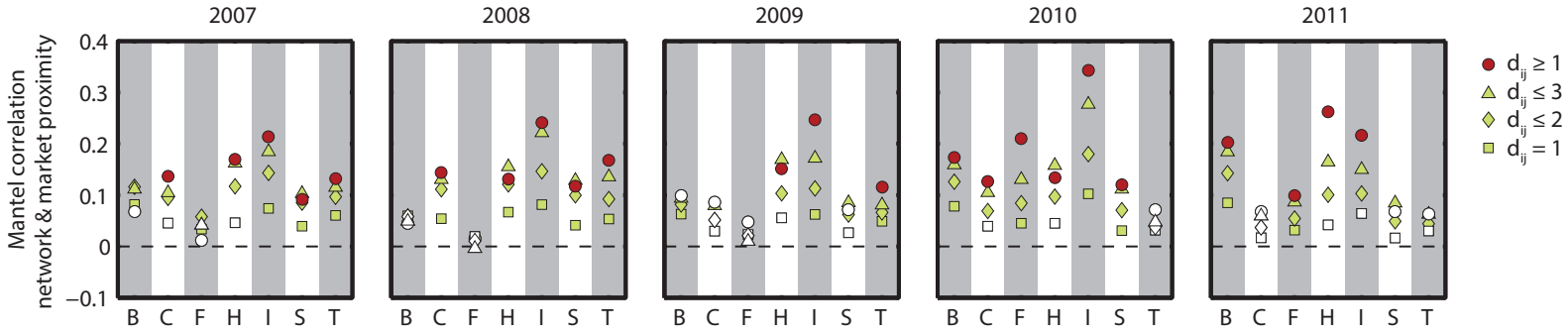

Fig. S6: Importance of interlocking networks. Equivalent to Figure 2 but the matrices of network proximity are extracted by disconnecting boards after a certain degree of separation d_{ij} has been exceed. Squares, diamonds, and triangles correspond to the correlations when considering $d_{ij} = \infty$ after 1, 2, and 3 degrees, respectively.

Effects of control factors on yearly stock returns

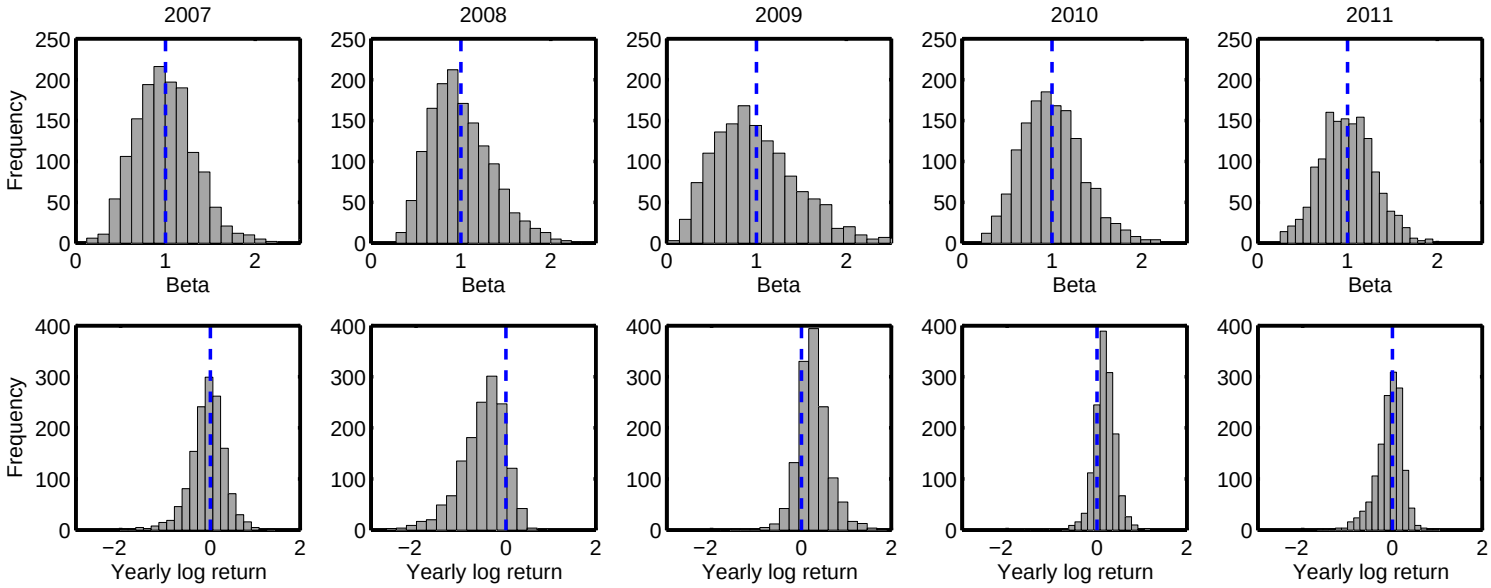

Fig. S7: Short-term and long-term stock performance. The first row corresponds to the distributions (histograms) of betas—short-term stock performance—in each year. The second row corresponds to the distributions (histograms) of yearly stock log returns—long-term stock performance—in each year.

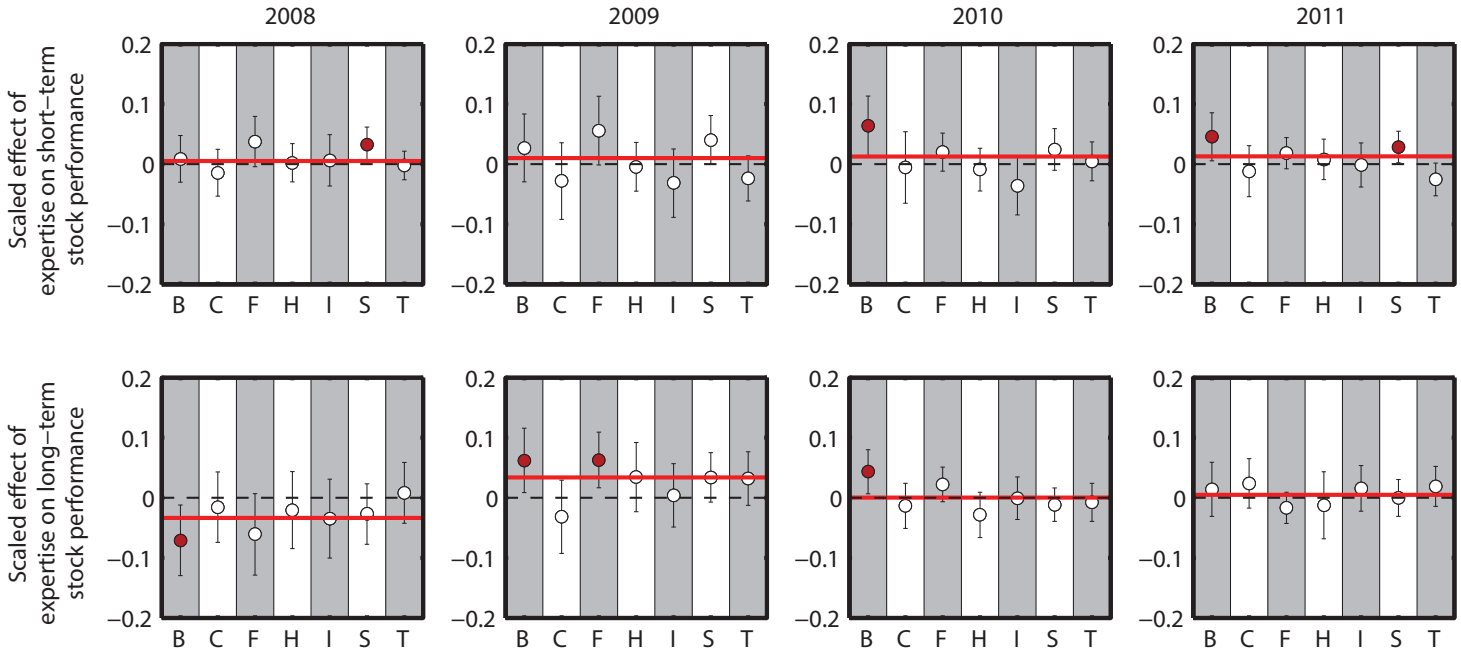

Fig. S8: Effect of board expertise on yearly stock returns. Equivalent to Figure 4 but looking at the effect of board expertise (fraction of directors with financial expertise) on yearly stock returns of traded corporations in each year. Note that we have data of whether a director is considered a financial expert only for the period 2008-2011.

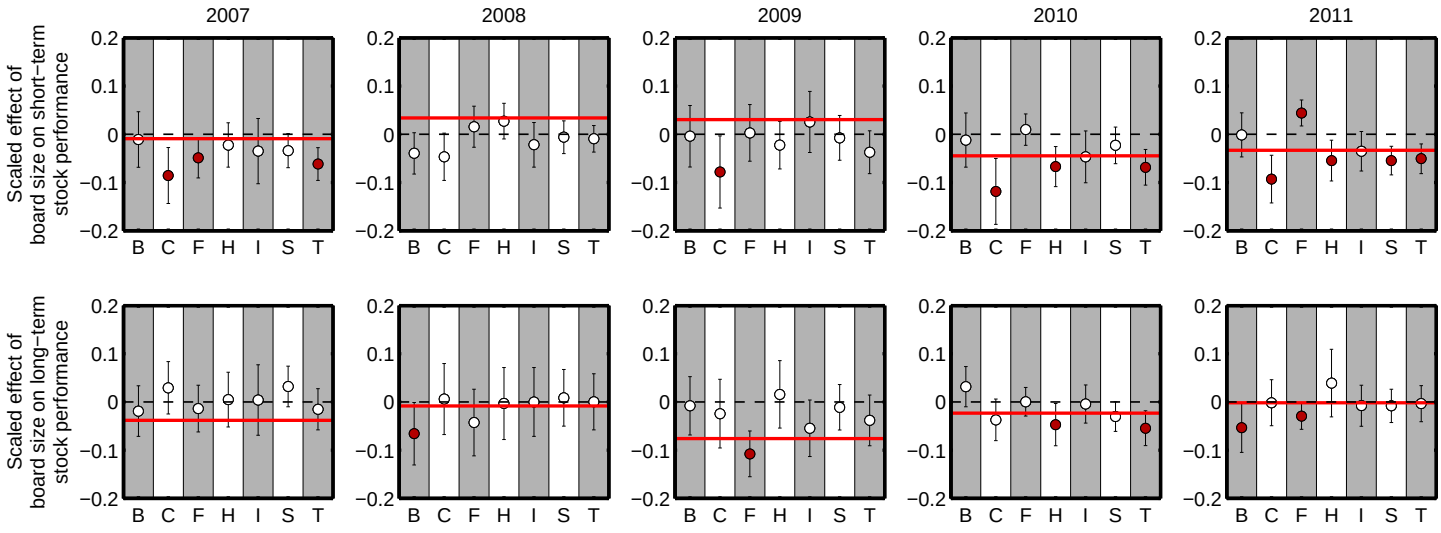

Fig. S9: Effect of board size on yearly stock returns. Equivalent to Figure 4 but looking at the effect of board size (number of directors) on yearly stock returns of traded corporations in each year.

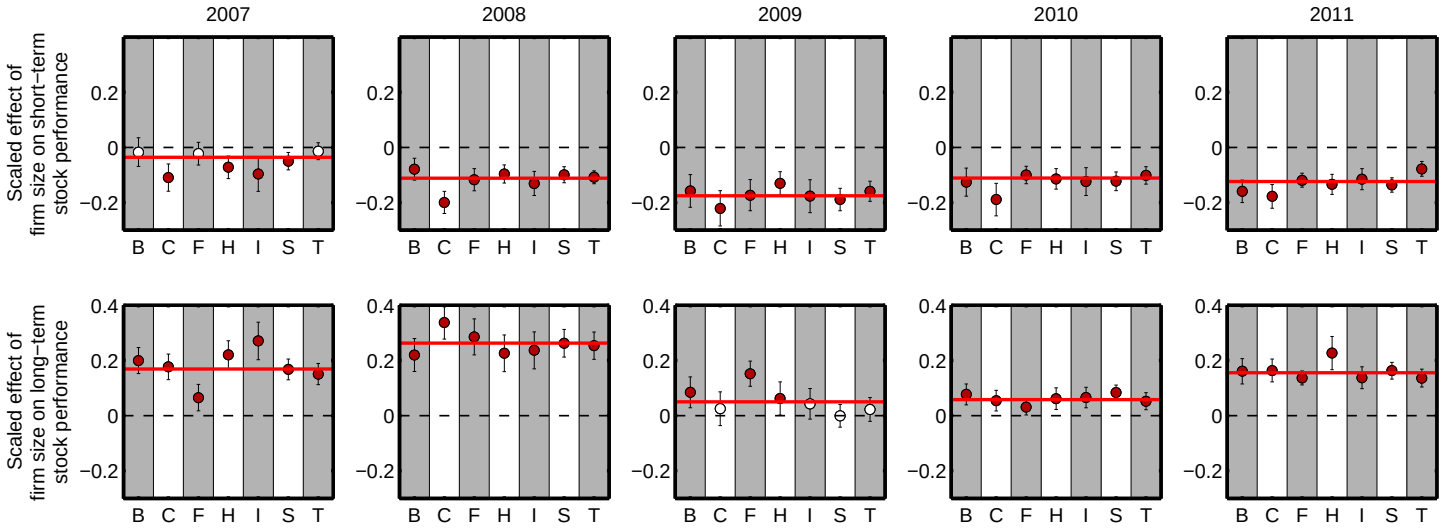

Fig. S10: Effect of firm size on yearly stock returns. Equivalent to Figure 4 but looking at the effect of firm size (average price of the stock in the year) on yearly stock returns of traded corporations in each year.