

Table C.1: Granger causality test between conditional correlation and speculative pressure (robustness)

| Null Hypothesis                         | Pre-financialisation |         | Financialisation |          |
|---|----------------------|---------|------------------|----------|
|   | F Statistic          | p-value | F Statistic      | p-value  |
| $SP \nRightarrow \rho_{SP500-Wheat\ 1}$ | 0.104                | 0.7472  | 6.1064           | 0.0137** |
| $SP \nRightarrow \rho_{SP500-Wheat\ 2}$ | 0.1959               | 0.6582  | 7.0728           | 0.008*** |
| $SP \nRightarrow \rho_{SP500-Wheat\ 3}$ | 2.6934               | 0.1013  | 6.8467           | 0.009*** |
| $SP \nRightarrow \rho_{SP500-Wheat\ 4}$ | 3.0537               | 0.0811* | 5.4412           | 0.0199** |
| $\rho_{SP500-Wheat\ 1} \nRightarrow SP$ | 0.2096               | 0.6473  | 0.0022           | 0.9629   |
| $\rho_{SP500-Wheat\ 2} \nRightarrow SP$ | 0.3501               | 0.5543  | 0.001            | 0.9746   |
| $\rho_{SP500-Wheat\ 3} \nRightarrow SP$ | 0.0322               | 0.8577  | 0.179            | 0.6723   |
| $\rho_{SP500-Wheat\ 4} \nRightarrow SP$ | 0.0547               | 0.8152  | 0.0037           | 0.9517   |

*Note:*

The table reports the results of the Granger causality test between the first differences of conditional correlation and the first differences of speculative pressure during pre-financialisation period and financialisation period.  $\rho$  and  $SP$  represent conditional correlation and speculative pressure respectively. Speculative pressure is measured by  $\frac{NCL-NCS}{NCL+NCS}$  following [De Roon, Nijman, and Veld \(2000\)](#) and [Sanders, Boris, and Manfredo \(2004\)](#) where NCL represents non-commercial long position and NCS represents non-commercial short position.

\*  $\nRightarrow$  means “does not Granger-cause”. \*\*\*, \*\*, and \* denote statistical significance at 1%, 5%, and 10% level.

Table C.2: Granger causality test between conditional correlation and speculative pressure (robustness)

| Null Hypothesis                                    | Pre-financialisation |         | Financialisation |         |
|--|----------------------|---------|------------------|---------|
|  | F Statistic          | p-value | F Statistic      | p-value |
| $SP \nRightarrow \rho_{SP500-KC \text{ Wheat } 1}$ | 0                    | 0.9984  | 1.0493           | 0.306   |
| $SP \nRightarrow \rho_{SP500-KC \text{ Wheat } 2}$ | 0.2176               | 0.641   | 0.506            | 0.4771  |
| $SP \nRightarrow \rho_{SP500-KC \text{ Wheat } 3}$ | 0.011                | 0.9164  | 0.5111           | 0.4749  |
| $SP \nRightarrow \rho_{SP500-KC \text{ Wheat } 4}$ | 2e-04                | 0.9892  | 0.8011           | 0.371   |
| $\rho_{SP500-KC \text{ Wheat } 1} \nRightarrow SP$ | 0.5222               | 0.4702  | 0.3779           | 0.5389  |
| $\rho_{SP500-KC \text{ Wheat } 2} \nRightarrow SP$ | 0.0411               | 0.8394  | 0.7396           | 0.3901  |
| $\rho_{SP500-KC \text{ Wheat } 3} \nRightarrow SP$ | 0.0267               | 0.8703  | 0.5316           | 0.4661  |
| $\rho_{SP500-KC \text{ Wheat } 4} \nRightarrow SP$ | 0.0011               | 0.9733  | 0.1586           | 0.6906  |

*Note:*

The table reports the results of the Granger causality test between the first differences of conditional correlation and the first differences of speculative pressure during pre-financialisation period and financialisation period.  $\rho$  and  $SP$  represent conditional correlation and speculative pressure respectively. Speculative pressure is measured by  $\frac{NCL-NCS}{NCL+NCS}$  following De Roan, Nijman, and Veld (2000) and Sanders, Boris, and Manfredo (2004) where NCL represents non-commercial long position and NCS represents non-commercial short position.

\*  $\nRightarrow$  means “does not Granger-cause”. \*\*\*, \*\*, and \* denote statistical significance at 1%, 5%, and 10% level.

Table C.3: Granger causality test between conditional correlation and speculative pressure (robustness)

| Null Hypothesis                        | Pre-financialisation |         | Financialisation |         |
|--|----------------------|---------|------------------|---------|
|  | F Statistic          | p-value | F Statistic      | p-value |
| $SP \nRightarrow \rho_{SP500-Corn\ 1}$ | 2.2322               | 0.1357  | 6e-04            | 0.9805  |
| $SP \nRightarrow \rho_{SP500-Corn\ 2}$ | 0.8083               | 0.369   | 0.0024           | 0.9613  |
| $SP \nRightarrow \rho_{SP500-Corn\ 3}$ | 0.3059               | 0.5804  | 0.0486           | 0.8255  |
| $SP \nRightarrow \rho_{SP500-Corn\ 4}$ | 0.8795               | 0.3488  | 0.0641           | 0.8002  |
| $\rho_{SP500-Corn\ 1} \nRightarrow SP$ | 0.0012               | 0.9725  | 0.1416           | 0.7068  |
| $\rho_{SP500-Corn\ 2} \nRightarrow SP$ | 0.0822               | 0.7744  | 0.0781           | 0.78    |
| $\rho_{SP500-Corn\ 3} \nRightarrow SP$ | 0.0886               | 0.7661  | 0.0119           | 0.9132  |
| $\rho_{SP500-Corn\ 4} \nRightarrow SP$ | 0.142                | 0.7064  | 1e-04            | 0.9937  |

*Note:*

The table reports the results of the Granger causality test between the first differences of conditional correlation and the first differences of speculative pressure during pre-financialisation period and financialisation period.  $\rho$  and  $SP$  represent conditional correlation and speculative pressure respectively. Speculative pressure is measured by  $\frac{NCL-NCS}{NCL+NCS}$  following [De Roon, Nijman, and Veld \(2000\)](#) and [Sanders, Boris, and Manfredo \(2004\)](#) where NCL represents non-commercial long position and NCS represents non-commercial short position.

\*  $\nRightarrow$  means “does not Granger-cause”. \*\*\*, \*\*, and \* denote statistical significance at 1%, 5%, and 10% level.

Table C.4: Granger causality test between conditional correlation and speculative pressure (robustness)

| Null Hypothesis                           | Pre-financialisation |          | Financialisation |         |
|---|----------------------|----------|------------------|---------|
|   | F Statistic          | p-value  | F Statistic      | p-value |
| $SP \nRightarrow \rho_{SP500-Soybean\ 1}$ | 0.1147               | 0.735    | 2.0872           | 0.1489  |
| $SP \nRightarrow \rho_{SP500-Soybean\ 2}$ | 1.22                 | 0.2698   | 0.4621           | 0.4968  |
| $SP \nRightarrow \rho_{SP500-Soybean\ 3}$ | 2.3369               | 0.1269   | 0.261            | 0.6096  |
| $SP \nRightarrow \rho_{SP500-Soybean\ 4}$ | 4.8034               | 0.0288** | 0.2856           | 0.5932  |
| $\rho_{SP500-Soybean\ 1} \nRightarrow SP$ | 1.99                 | 0.1589   | 0.267            | 0.6055  |
| $\rho_{SP500-Soybean\ 2} \nRightarrow SP$ | 0.6445               | 0.4224   | 0.0198           | 0.8882  |
| $\rho_{SP500-Soybean\ 3} \nRightarrow SP$ | 0.7435               | 0.3889   | 0.0423           | 0.8372  |
| $\rho_{SP500-Soybean\ 4} \nRightarrow SP$ | 1.0409               | 0.308    | 0.4362           | 0.5091  |

*Note:*

The table reports the results of the Granger causality test between the first differences of conditional correlation and the first differences of speculative pressure during pre-financialisation period and financialisation period.  $\rho$  and  $SP$  represent conditional correlation and speculative pressure respectively. Speculative pressure is measured by  $\frac{NCL-NCS}{NCL+NCS}$  following [De Roon, Nijman, and Veld \(2000\)](#) and [Sanders, Boris, and Manfredo \(2004\)](#) where NCL represents non-commercial long position and NCS represents non-commercial short position.

\*  $\nRightarrow$  means “does not Granger-cause”. \*\*\*, \*\*, and \* denote statistical significance at 1%, 5%, and 10% level.

Table C.5: Granger causality test between conditional correlation and speculative pressure (robustness)

| Null Hypothesis                                | Pre-financialisation |         | Financialisation |         |
|--|----------------------|---------|------------------|---------|
|  | F Statistic          | p-value | F Statistic      | p-value |
| $SP \nRightarrow \rho_{SP500-Soybean\ Oil\ 1}$ | 0.8385               | 0.3602  | 0.2143           | 0.6435  |
| $SP \nRightarrow \rho_{SP500-Soybean\ Oil\ 2}$ | 0.9131               | 0.3397  | 0.2289           | 0.6325  |
| $SP \nRightarrow \rho_{SP500-Soybean\ Oil\ 3}$ | 0.5176               | 0.4722  | 0.2525           | 0.6155  |
| $SP \nRightarrow \rho_{SP500-Soybean\ Oil\ 4}$ | 0.8439               | 0.3587  | 0.2037           | 0.6519  |
| $\rho_{SP500-Soybean\ Oil\ 1} \nRightarrow SP$ | 1.505                | 0.2204  | 0.0089           | 0.9248  |
| $\rho_{SP500-Soybean\ Oil\ 2} \nRightarrow SP$ | 1.1224               | 0.2898  | 1e-04            | 0.9924  |
| $\rho_{SP500-Soybean\ Oil\ 3} \nRightarrow SP$ | 0.4883               | 0.485   | 1e-04            | 0.9913  |
| $\rho_{SP500-Soybean\ Oil\ 4} \nRightarrow SP$ | 0.6447               | 0.4224  | 0.0029           | 0.9571  |

*Note:*

The table reports the results of the Granger causality test between the first differences of conditional correlation and the first differences of speculative pressure during pre-financialisation period and financialisation period.  $\rho$  and  $SP$  represent conditional correlation and speculative pressure respectively. Speculative pressure is measured by  $\frac{NCL-NCS}{NCL+NCS}$  following De Roan, Nijman, and Veld (2000) and Sanders, Boris, and Manfredo (2004) where NCL represents non-commercial long position and NCS represents non-commercial short position.

\*  $\nRightarrow$  means “does not Granger-cause”. \*\*\*, \*\*, and \* denote statistical significance at 1%, 5%, and 10% level.

Table C.6: Granger causality test between conditional correlation and speculative pressure (robustness)

| Null Hypothesis                        | Pre-financialisation |         | Financialisation |           |
|--|----------------------|---------|------------------|-----------|
|  | F Statistic          | p-value | F Statistic      | p-value   |
| $SP \nRightarrow \rho_{SP500-Oats\ 1}$ | 0.0106               | 0.9179  | 2.1296           | 0.1449    |
| $SP \nRightarrow \rho_{SP500-Oats\ 2}$ | 0.0047               | 0.9452  | 6.6747           | 0.0099*** |
| $SP \nRightarrow \rho_{SP500-Oats\ 3}$ | 0.0143               | 0.9049  | 5.8671           | 0.0156**  |
| $\rho_{SP500-Oats\ 1} \nRightarrow SP$ | 0.0301               | 0.8623  | 0.3251           | 0.5687    |
| $\rho_{SP500-Oats\ 2} \nRightarrow SP$ | 0.3054               | 0.5807  | 0.3859           | 0.5346    |
| $\rho_{SP500-Oats\ 3} \nRightarrow SP$ | 0.4236               | 0.5154  | 0.0998           | 0.7521    |

*Note:*

The table reports the results of the Granger causality test between the first differences of conditional correlation and the first differences of speculative pressure during pre-financialisation period and financialisation period.  $\rho$  and  $SP$  represent conditional correlation and speculative pressure respectively. Speculative pressure is measured by  $\frac{NCL-NCS}{NCL+NCS}$  following De Roan, Nijman, and Veld (2000) and Sanders, Boris, and Manfredo (2004) where NCL represents non-commercial long position and NCS represents non-commercial short position.

\*  $\nRightarrow$  means “does not Granger-cause”. \*\*\*, \*\*, and \* denote statistical significance at 1%, 5%, and 10% level.

Table C.7: Granger causality test between conditional correlation and speculative pressure (robustness)

| Null Hypothesis                                      | Pre-financialisation |         | Financialisation |         |
|--|----------------------|---------|------------------|---------|
|  | F Statistic          | p-value | F Statistic      | p-value |
| $SI \nRightarrow \rho_{SP500-MPLS} \text{ Wheat } 1$ | 0.0538               | 0.8166  | 0.0175           | 0.8948  |
| $SI \nRightarrow \rho_{SP500-MPLS} \text{ Wheat } 2$ | 0.0182               | 0.8927  | 0.0071           | 0.9331  |
| $SI \nRightarrow \rho_{SP500-MPLS} \text{ Wheat } 3$ | 0.0474               | 0.8277  | 0.0336           | 0.8545  |
| $SI \nRightarrow \rho_{SP500-MPLS} \text{ Wheat } 4$ | 0.1669               | 0.6831  | 0.142            | 0.7064  |
| $\rho_{SP500-MPLS} \text{ Wheat } 1 \nRightarrow SI$ | 2.1231               | 0.1458  | 0.359            | 0.5492  |
| $\rho_{SP500-MPLS} \text{ Wheat } 2 \nRightarrow SI$ | 0.9298               | 0.3354  | 0.1467           | 0.7018  |
| $\rho_{SP500-MPLS} \text{ Wheat } 3 \nRightarrow SI$ | 1.1871               | 0.2765  | 0.1992           | 0.6555  |
| $\rho_{SP500-MPLS} \text{ Wheat } 4 \nRightarrow SI$ | 0.2696               | 0.6038  | 0.0441           | 0.8337  |

*Note:*

The table reports the results of the Granger causality test between the first differences of conditional correlation and the first differences of speculative pressure during pre-financialisation period and financialisation period.  $\rho$  and  $SP$  represent conditional correlation and speculative pressure respectively. Speculative pressure is measured by  $\frac{NCL-NCS}{NCL+NCS}$  following [De Roon, Nijman, and Veld \(2000\)](#) and [Sanders, Boris, and Manfredo \(2004\)](#) where NCL represents non-commercial long position and NCS represents non-commercial short position.

\*  $\nRightarrow$  means “does not Granger-cause”. \*\*\*, \*\*, and \* denote statistical significance at 1%, 5%, and 10% level.

Table C.8: Granger causality test between conditional correlation and speculative pressure (robustness)

| Null Hypothesis                                 | Pre-financialisation |         | Financialisation |         |
|---|----------------------|---------|------------------|---------|
|   | F Statistic          | p-value | F Statistic      | p-value |
| $SP \nRightarrow \rho_{SP500-Soybean\ Meal\ 1}$ | 1.6798               | 0.1955  | 0.1568           | 0.6923  |
| $SP \nRightarrow \rho_{SP500-Soybean\ Meal\ 2}$ | 1.8366               | 0.1759  | 0.4669           | 0.4946  |
| $SP \nRightarrow \rho_{SP500-Soybean\ Meal\ 3}$ | 2.6758               | 0.1024  | 0.7642           | 0.3823  |
| $SP \nRightarrow \rho_{SP500-Soybean\ Meal\ 4}$ | 3.5969               | 0.0584* | 0.5856           | 0.4443  |
| $SP \nRightarrow \rho_{SP500-Soybean\ Oil\ 1}$  | 1.6001               | 0.2064  | 0.4809           | 0.4882  |
| $\rho_{SP500-Soybean\ Meal\ 1} \nRightarrow SP$ | 1.4758               | 0.2249  | 0.001            | 0.9744  |
| $\rho_{SP500-Soybean\ Meal\ 2} \nRightarrow SP$ | 0.1765               | 0.6746  | 0.0927           | 0.7609  |
| $\rho_{SP500-Soybean\ Meal\ 3} \nRightarrow SP$ | 0.0013               | 0.9709  | 0.0527           | 0.8184  |
| $\rho_{SP500-Soybean\ Meal\ 4} \nRightarrow SP$ | 0.0213               | 0.8839  | 0.0465           | 0.8293  |
| $\rho_{SP500-Soybean\ Oil\ 1} \nRightarrow SP$  | 0.1001               | 0.7519  | 0.3847           | 0.5353  |

*Note:*

The table reports the results of the Granger causality test between the first differences of conditional correlation and the first differences of speculative pressure during pre-financialisation period and financialisation period.  $\rho$  and  $SP$  represent conditional correlation and speculative pressure respectively. Speculative pressure is measured by  $\frac{NCL-NCS}{NCL+NCS}$  following De Roan, Nijman, and Veld (2000) and Sanders, Boris, and Manfredo (2004) where NCL represents non-commercial long position and NCS represents non-commercial short position.

\*  $\nRightarrow$  means “does not Granger-cause”. \*\*\*, \*\*, and \* denote statistical significance at 1%, 5%, and 10% level.

Table C.9: Granger causality test between conditional correlation and speculative pressure (robustness)

| Null Hypothesis                               | Pre-financialisation |           | Financialisation |         |
|---|----------------------|-----------|------------------|---------|
|   | F Statistic          | p-value   | F Statistic      | p-value |
| $SI \nRightarrow \rho_{SP500-Rough\ Rice\ 1}$ | 7.6548               | 0.0059*** | 0.0605           | 0.8057  |
| $SI \nRightarrow \rho_{SP500-Rough\ Rice\ 2}$ | 8.5577               | 0.0036*** | 0.4528           | 0.5012  |
| $SI \nRightarrow \rho_{SP500-Rough\ Rice\ 3}$ | 4.8054               | 0.0289**  | 0.1417           | 0.7067  |
| $\rho_{SP500-Rough\ Rice\ 1} \nRightarrow SI$ | 1.4044               | 0.2366    | 0.9743           | 0.3239  |
| $\rho_{SP500-Rough\ Rice\ 2} \nRightarrow SI$ | 0.5924               | 0.4419    | 1.1452           | 0.2849  |
| $\rho_{SP500-Rough\ Rice\ 3} \nRightarrow SI$ | 1.0788               | 0.2995    | 1.5761           | 0.2097  |

*Note:*

The table reports the results of the Granger causality test between the first differences of conditional correlation and the first differences of speculative pressure during pre-financialisation period and financialisation period.  $\rho$  and  $SP$  represent conditional correlation and speculative pressure respectively. Speculative pressure is measured by  $\frac{NCL-NCS}{NCL+NCS}$  following De Roan, Nijman, and Veld (2000) and Sanders, Boris, and Manfredo (2004) where NCL represents non-commercial long position and NCS represents non-commercial short position.

\*  $\nRightarrow$  means “does not Granger-cause”. \*\*\*, \*\*, and \* denote statistical significance at 1%, 5%, and 10% level.

Table C.10: Granger causality test between conditional correlation and speculative pressure (robustness)

| Null Hypothesis                          | Pre-financialisation |         | Financialisation |         |
|--|----------------------|---------|------------------|---------|
|  | F Statistic          | p-value | F Statistic      | p-value |
| $SP \nRightarrow \rho_{SP500-Coffee\ 1}$ | 1.863                | 0.1728  | 0.4788           | 0.4891  |
| $SP \nRightarrow \rho_{SP500-Coffee\ 2}$ | 2.448                | 0.1182  | 0.7158           | 0.3978  |
| $SP \nRightarrow \rho_{SP500-Coffee\ 3}$ | 2.4978               | 0.1146  | 0.8558           | 0.3552  |
| $SP \nRightarrow \rho_{SP500-Coffee\ 4}$ | 1.8342               | 0.1762  | 0.8076           | 0.3691  |
| $\rho_{SP500-Coffee\ 1} \nRightarrow SP$ | 0.1608               | 0.6886  | 0.6161           | 0.4327  |
| $\rho_{SP500-Coffee\ 2} \nRightarrow SP$ | 0.0463               | 0.8298  | 1.4939           | 0.222   |
| $\rho_{SP500-Coffee\ 3} \nRightarrow SP$ | 0.1365               | 0.7119  | 1.7566           | 0.1854  |
| $\rho_{SP500-Coffee\ 4} \nRightarrow SP$ | 0.1661               | 0.6837  | 1.642            | 0.2004  |

*Note:*

The table reports the results of the Granger causality test between the first differences of conditional correlation and the first differences of speculative pressure during pre-financialisation period and financialisation period.  $\rho$  and  $SP$  represent conditional correlation and speculative pressure respectively. Speculative pressure is measured by  $\frac{NCL-NCS}{NCL+NCS}$  following De Roan, Nijman, and Veld (2000) and Sanders, Boris, and Manfredo (2004) where NCL represents non-commercial long position and NCS represents non-commercial short position.

\*  $\nRightarrow$  means “does not Granger-cause”. \*\*\*, \*\*, and \* denote statistical significance at 1%, 5%, and 10% level.



Table C.11: Granger causality test between conditional correlation and speculative pressure (robustness)

| Null Hypothesis                         | Pre-financialisation |         | Financialisation |         |
|---|----------------------|---------|------------------|---------|
|   | F Statistic          | p-value | F Statistic      | p-value |
| $SP \nRightarrow \rho_{SP500-Sugar\ 1}$ | 0.0161               | 0.8991  | 1.2592           | 0.2621  |
| $SP \nRightarrow \rho_{SP500-Sugar\ 3}$ | 0.9747               | 0.3239  | 2.7765           | 0.096*  |
| $SP \nRightarrow \rho_{SP500-Sugar\ 4}$ | 0.0367               | 0.8482  | 1.8698           | 0.1719  |
| $\rho_{SP500-Sugar\ 1} \nRightarrow SP$ | 0.2747               | 0.6004  | 0.0014           | 0.9703  |
| $\rho_{SP500-Sugar\ 3} \nRightarrow SP$ | 0.234                | 0.6288  | 0.1535           | 0.6953  |
| $\rho_{SP500-Sugar\ 4} \nRightarrow SP$ | 0.1104               | 0.7398  | 0                | 0.9969  |

*Note:*

The table reports the results of the Granger causality test between the first differences of conditional correlation and the first differences of speculative pressure during pre-financialisation period and financialisation period.  $\rho$  and  $SP$  represent conditional correlation and speculative pressure respectively. Speculative pressure is measured by  $\frac{NCL-NCS}{NCL+NCS}$  following De Roon, Nijman, and Veld (2000) and Sanders, Boris, and Manfredo (2004) where NCL represents non-commercial long position and NCS represents non-commercial short position.

\*  $\nRightarrow$  means “does not Granger-cause”. \*\*\*, \*\*, and \* denote statistical significance at 1%, 5%, and 10% level.

Table C.12: Granger causality test between conditional correlation and speculative pressure (robustness)

| Null Hypothesis                         | Pre-financialisation |          | Financialisation |          |
|---|----------------------|----------|------------------|----------|
|   | F Statistic          | p-value  | F Statistic      | p-value  |
| $SP \nRightarrow \rho_{SP500-Cocoa\ 1}$ | 5.7017               | 0.0173** | 5.2014           | 0.0228** |
| $SP \nRightarrow \rho_{SP500-Cocoa\ 2}$ | 5.6822               | 0.0175** | 4.4771           | 0.0346** |
| $SP \nRightarrow \rho_{SP500-Cocoa\ 3}$ | 5.31                 | 0.0216** | 4.5237           | 0.0337** |
| $SP \nRightarrow \rho_{SP500-Cocoa\ 4}$ | 5.835                | 0.016**  | 4.5999           | 0.0323** |
| $\rho_{SP500-Cocoa\ 1} \nRightarrow SP$ | 0.016                | 0.8993   | 4.8395           | 0.0281** |
| $\rho_{SP500-Cocoa\ 2} \nRightarrow SP$ | 0.0082               | 0.9281   | 3.4211           | 0.0647*  |
| $\rho_{SP500-Cocoa\ 3} \nRightarrow SP$ | 0.003                | 0.9562   | 3.1966           | 0.0742*  |
| $\rho_{SP500-Cocoa\ 4} \nRightarrow SP$ | 1e-04                | 0.9925   | 3.0516           | 0.081*   |

*Note:*

The table reports the results of the Granger causality test between the first differences of conditional correlation and the first differences of speculative pressure during pre-financialisation period and financialisation period.  $\rho$  and  $SP$  represent conditional correlation and speculative pressure respectively. Speculative pressure is measured by  $\frac{NCL-NCS}{NCL+NCS}$  following [De Roan, Nijman, and Veld \(2000\)](#) and [Sanders, Boris, and Manfredo \(2004\)](#) where NCL represents non-commercial long position and NCS represents non-commercial short position.

\*  $\nRightarrow$  means “does not Granger-cause”. \*\*\*, \*\*, and \* denote statistical significance at 1%, 5%, and 10% level.

Table C.13: Granger causality test between conditional correlation and speculative pressure (robustness)

| Null Hypothesis                          | Pre-financialisation |          | Financialisation |         |
|--|----------------------|----------|------------------|---------|
|  | F Statistic          | p-value  | F Statistic      | p-value |
| $SP \nRightarrow \rho_{SP500-Cotton\ 1}$ | 1.8926               | 0.1695   | 0.884            | 0.3474  |
| $SP \nRightarrow \rho_{SP500-Cotton\ 2}$ | 5.1396               | 0.0238** | 1.5598           | 0.212   |
| $SP \nRightarrow \rho_{SP500-Cotton\ 3}$ | 4.9523               | 0.0264** | 0.5383           | 0.4633  |
| $SP \nRightarrow \rho_{SP500-Cotton\ 4}$ | 3.8454               | 0.0504*  | 5e-04            | 0.9829  |
| $\rho_{SP500-Cotton\ 1} \nRightarrow SP$ | 1.962                | 0.1618   | 0.7542           | 0.3854  |
| $\rho_{SP500-Cotton\ 2} \nRightarrow SP$ | 0.5465               | 0.4601   | 0.0709           | 0.7901  |
| $\rho_{SP500-Cotton\ 3} \nRightarrow SP$ | 0.5031               | 0.4784   | 0.3658           | 0.5454  |
| $\rho_{SP500-Cotton\ 4} \nRightarrow SP$ | 0.3008               | 0.5836   | 0.268            | 0.6048  |

*Note:*

The table reports the results of the Granger causality test between the first differences of conditional correlation and the first differences of speculative pressure during pre-financialisation period and financialisation period.  $\rho$  and  $SP$  represent conditional correlation and speculative pressure respectively. Speculative pressure is measured by  $\frac{NCL-NCS}{NCL+NCS}$  following [De Roon, Nijman, and Veld \(2000\)](#) and [Sanders, Boris, and Manfredo \(2004\)](#) where NCL represents non-commercial long position and NCS represents non-commercial short position.

\*  $\nRightarrow$  means “does not Granger-cause”. \*\*\*, \*\*, and \* denote statistical significance at 1%, 5%, and 10% level.

Table C.14: Granger causality test between conditional correlation and speculative pressure (robustness)

| Null Hypothesis                                 | Pre-financialisation |         | Financialisation |         |
|---|----------------------|---------|------------------|---------|
|   | F Statistic          | p-value | F Statistic      | p-value |
| $SP \nRightarrow \rho_{SP500-Orange\ Juice\ 2}$ | 0.0024               | 0.9605  | 0.1534           | 0.6954  |
| $SP \nRightarrow \rho_{SP500-Orange\ Juice\ 3}$ | 0.0678               | 0.7947  | 0.7382           | 0.3905  |
| $SP \nRightarrow \rho_{SP500-Orange\ Juice\ 4}$ | 0.0412               | 0.8393  | 0.0687           | 0.7932  |
| $SP \nRightarrow \rho_{SP500-Orange\ Juice\ 5}$ | 0.0346               | 0.8525  | 0.0683           | 0.7939  |
| $\rho_{SP500-Orange\ Juice\ 2} \nRightarrow SP$ | 0.002                | 0.9644  | 0.5825           | 0.4455  |
| $\rho_{SP500-Orange\ Juice\ 3} \nRightarrow SP$ | 0.0074               | 0.9313  | 1.925            | 0.1657  |
| $\rho_{SP500-Orange\ Juice\ 4} \nRightarrow SP$ | 0                    | 0.9977  | 0.6972           | 0.404   |
| $\rho_{SP500-Orange\ Juice\ 5} \nRightarrow SP$ | 0.0276               | 0.8681  | 0.8209           | 0.3652  |

*Note:*

The table reports the results of the Granger causality test between the first differences of conditional correlation and the first differences of speculative pressure during pre-financialisation period and financialisation period.  $\rho$  and  $SP$  represent conditional correlation and speculative pressure respectively. Speculative pressure is measured by  $\frac{NCL-NCS}{NCL+NCS}$  following De Roon, Nijman, and Veld (2000) and Sanders, Boris, and Manfredo (2004) where NCL represents non-commercial long position and NCS represents non-commercial short position.

\*  $\nRightarrow$  means “does not Granger-cause”. \*\*\*, \*\*, and \* denote statistical significance at 1%, 5%, and 10% level.

Table C.15: Granger causality test between conditional correlation and speculative pressure (robustness)

| Null Hypothesis                          | Pre-financialisation |         | Financialisation |         |
|--|----------------------|---------|------------------|---------|
|  | F Statistic          | p-value | F Statistic      | p-value |
| $SP \nRightarrow \rho_{SP500-Lumber\ 1}$ | 2.1581               | 0.1424  | 0.1527           | 0.696   |
| $SP \nRightarrow \rho_{SP500-Lumber\ 2}$ | 1.2953               | 0.2556  | 0.256            | 0.613   |
| $\rho_{SP500-Lumber\ 1} \nRightarrow SP$ | 0.9869               | 0.3209  | 1.5271           | 0.2169  |
| $\rho_{SP500-Lumber\ 2} \nRightarrow SP$ | 0.0011               | 0.9731  | 1.1167           | 0.2909  |

*Note:*

The table reports the results of the Granger causality test between the first differences of conditional correlation and the first differences of speculative pressure during pre-financialisation period and financialisation period.  $\rho$  and  $SP$  represent conditional correlation and speculative pressure respectively. Speculative pressure is measured by  $\frac{NCL-NCS}{NCL+NCS}$  following De Roon, Nijman, and Veld (2000) and Sanders, Boris, and Manfredo (2004) where NCL represents non-commercial long position and NCS represents non-commercial short position.

\*  $\nRightarrow$  means “does not Granger-cause”. \*\*\*, \*\*, and \* denote statistical significance at 1%, 5%, and 10% level.

Table C.16: Granger causality test between conditional correlation and speculative pressure (robustness)

| Null Hypothesis                                | Pre-financialisation |          | Financialisation |         |
|--|----------------------|----------|------------------|---------|
|  | F Statistic          | p-value  | F Statistic      | p-value |
| $IR \nRightarrow \rho_{SP500-Live\ Cattle\ 1}$ | 4.8657               | 0.0278** | 3.5503           | 0.0599* |
| $IR \nRightarrow \rho_{SP500-Live\ Cattle\ 2}$ | 2.5428               | 0.1114   | 1.7712           | 0.1836  |
| $IR \nRightarrow \rho_{SP500-Live\ Cattle\ 3}$ | 1.1979               | 0.2742   | 3.5311           | 0.0606* |
| $IR \nRightarrow \rho_{SP500-Live\ Cattle\ 4}$ | 6.165                | 0.0133** | 0.7283           | 0.3937  |
| $\rho_{SP500-Live\ Cattle\ 1} \nRightarrow IR$ | 0.0389               | 0.8437   | 0.8395           | 0.3598  |
| $\rho_{SP500-Live\ Cattle\ 2} \nRightarrow IR$ | 3.27                 | 0.0711*  | 0.1881           | 0.6646  |
| $\rho_{SP500-Live\ Cattle\ 3} \nRightarrow IR$ | 4.1106               | 0.0431** | 0.0489           | 0.8251  |
| $\rho_{SP500-Live\ Cattle\ 4} \nRightarrow IR$ | 0.7689               | 0.3809   | 0.3368           | 0.5618  |

*Note:*

The table reports the results of the Granger causality test between the first differences of conditional correlation and the first differences of speculative pressure during pre-financialisation period and financialisation period.  $\rho$  and  $SP$  represent conditional correlation and speculative pressure respectively. Speculative pressure is measured by  $\frac{NCL-NCS}{NCL+NCS}$  following De Roon, Nijman, and Veld (2000) and Sanders, Boris, and Manfredo (2004) where NCL represents non-commercial long position and NCS represents non-commercial short position.

\*  $\nRightarrow$  means “does not Granger-cause”. \*\*\*, \*\*, and \* denote statistical significance at 1%, 5%, and 10% level.

Table C.17: Granger causality test between conditional correlation and speculative pressure (robustness)

| Null Hypothesis                                  | Pre-financialisation |         | Financialisation |         |
|--|----------------------|---------|------------------|---------|
|  | F Statistic          | p-value | F Statistic      | p-value |
| $SP \nRightarrow \rho_{SP500-Feeder\ Cattle\ 1}$ | 0.736                | 0.3913  | 0.0839           | 0.7722  |
| $SP \nRightarrow \rho_{SP500-Feeder\ Cattle\ 2}$ | 0.0885               | 0.7662  | 1e-04            | 0.9911  |
| $SP \nRightarrow \rho_{SP500-Feeder\ Cattle\ 3}$ | 0.6524               | 0.4196  | 0.1442           | 0.7043  |
| $SP \nRightarrow \rho_{SP500-Feeder\ Cattle\ 4}$ | 3.1212               | 0.0778* | 0.3175           | 0.5732  |
| $\rho_{SP500-Feeder\ Cattle\ 1} \nRightarrow SP$ | 0.0845               | 0.7713  | 1.1507           | 0.2837  |
| $\rho_{SP500-Feeder\ Cattle\ 2} \nRightarrow SP$ | 0.091                | 0.763   | 2.9055           | 0.0887* |
| $\rho_{SP500-Feeder\ Cattle\ 3} \nRightarrow SP$ | 0.0155               | 0.901   | 2.2315           | 0.1356  |
| $\rho_{SP500-Feeder\ Cattle\ 4} \nRightarrow SP$ | 0.3062               | 0.5802  | 1.8132           | 0.1785  |

*Note:*

The table reports the results of the Granger causality test between the first differences of conditional correlation and the first differences of speculative pressure during pre-financialisation period and financialisation period.  $\rho$  and  $SP$  represent conditional correlation and speculative pressure respectively. Speculative pressure is measured by  $\frac{NCL-NCS}{NCL+NCS}$  following De Roon, Nijman, and Veld (2000) and Sanders, Boris, and Manfredo (2004) where NCL represents non-commercial long position and NCS represents non-commercial short position.

\*  $\nRightarrow$  means “does not Granger-cause”. \*\*\*, \*\*, and \* denote statistical significance at 1%, 5%, and 10% level.

Table C.18: Granger causality test between conditional correlation and speculative pressure (robustness)

| Null Hypothesis                                | Pre-financialisation |         | Financialisation |         |
|--|----------------------|---------|------------------|---------|
|  | F Statistic          | p-value | F Statistic      | p-value |
| $IR \nRightarrow \rho_{SP500-Heating\ Oil\ 1}$ | 0.3903               | 0.5324  | 0.5773           | 0.4476  |
| $IR \nRightarrow \rho_{SP500-Heating\ Oil\ 2}$ | 0.2937               | 0.5881  | 0.6308           | 0.4273  |
| $IR \nRightarrow \rho_{SP500-Heating\ Oil\ 3}$ | 0.1637               | 0.6859  | 1.4282           | 0.2324  |
| $IR \nRightarrow \rho_{SP500-Heating\ Oil\ 4}$ | 0.08                 | 0.7774  | 1.5362           | 0.2155  |
| $\rho_{SP500-Heating\ Oil\ 1} \nRightarrow IR$ | 0.4866               | 0.4858  | 0.1445           | 0.704   |
| $\rho_{SP500-Heating\ Oil\ 2} \nRightarrow IR$ | 0.4476               | 0.5037  | 0.1138           | 0.736   |
| $\rho_{SP500-Heating\ Oil\ 3} \nRightarrow IR$ | 0.3938               | 0.5306  | 0.0355           | 0.8507  |
| $\rho_{SP500-Heating\ Oil\ 4} \nRightarrow IR$ | 0.3769               | 0.5395  | 0.0108           | 0.9171  |

*Note:*

The table reports the results of the Granger causality test between the first differences of conditional correlation and the first differences of speculative pressure during pre-financialisation period and financialisation period.  $\rho$  and  $SP$  represent conditional correlation and speculative pressure respectively. Speculative pressure is measured by  $\frac{NCL-NCS}{NCL+NCS}$  following De Roan, Nijman, and Veld (2000) and Sanders, Boris, and Manfredo (2004) where NCL represents non-commercial long position and NCS represents non-commercial short position.

\*  $\nRightarrow$  means “does not Granger-cause”. \*\*\*, \*\*, and \* denote statistical significance at 1%, 5%, and 10% level.

Table C.19: Granger causality test between conditional correlation and speculative pressure (robustness)

| Null Hypothesis                              | Pre-financialisation |           | Financialisation |         |
|--|----------------------|-----------|------------------|---------|
|  | F Statistic          | p-value   | F Statistic      | p-value |
| $SP \nRightarrow \rho_{SP500-Natural Gas 1}$ | 6.7419               | 0.0097*** | 1.9601           | 0.1619  |
| $SP \nRightarrow \rho_{SP500-Natural Gas 2}$ | 10.1501              | 0.0015*** | 1.2399           | 0.2658  |
| $SP \nRightarrow \rho_{SP500-Natural Gas 3}$ | 10.9876              | 0.001***  | 0.5584           | 0.4551  |
| $SP \nRightarrow \rho_{SP500-Natural Gas 4}$ | 12.0962              | 5e-04***  | 0.0488           | 0.8253  |
| $\rho_{SP500-Natural Gas 1} \nRightarrow SP$ | 0.1894               | 0.6636    | 0.7123           | 0.3989  |
| $\rho_{SP500-Natural Gas 2} \nRightarrow SP$ | 0.5773               | 0.4477    | 0.6636           | 0.4155  |
| $\rho_{SP500-Natural Gas 3} \nRightarrow SP$ | 0.332                | 0.5647    | 0.7146           | 0.3982  |
| $\rho_{SP500-Natural Gas 4} \nRightarrow SP$ | 0.0303               | 0.8618    | 1.1659           | 0.2806  |

*Note:*

The table reports the results of the Granger causality test between the first differences of conditional correlation and the first differences of speculative pressure during pre-financialisation period and financialisation period.  $\rho$  and  $SP$  represent conditional correlation and speculative pressure respectively. Speculative pressure is measured by  $\frac{NCL-NCS}{NCL+NCS}$  following De Roon, Nijman, and Veld (2000) and Sanders, Boris, and Manfredo (2004) where NCL represents non-commercial long position and NCS represents non-commercial short position.

\*  $\nRightarrow$  means “does not Granger-cause”. \*\*\*, \*\*, and \* denote statistical significance at 1%, 5%, and 10% level.



Table C.20: Granger causality test between conditional correlation and speculative pressure (robustness)

| Null Hypothesis                        | Pre-financialisation |         | Financialisation |           |
|--|----------------------|---------|------------------|-----------|
|  | F Statistic          | p-value | F Statistic      | p-value   |
| $IR \nRightarrow \rho_{SP500-Gold\ 1}$ | 0.2605               | 0.61    | 5.7832           | 0.0164**  |
| $IR \nRightarrow \rho_{SP500-Gold\ 2}$ | 0.1695               | 0.6807  | 6.0191           | 0.0144**  |
| $IR \nRightarrow \rho_{SP500-Gold\ 3}$ | 0.1609               | 0.6885  | 6.7587           | 0.0095*** |
| $IR \nRightarrow \rho_{SP500-Gold\ 4}$ | 0.2828               | 0.5951  | 5.3106           | 0.0214**  |
| $\rho_{SP500-Gold\ 1} \nRightarrow IR$ | 0                    | 0.9989  | 0.0016           | 0.9679    |
| $\rho_{SP500-Gold\ 2} \nRightarrow IR$ | 0.0044               | 0.9474  | 0.2153           | 0.6427    |
| $\rho_{SP500-Gold\ 3} \nRightarrow IR$ | 9e-04                | 0.9766  | 0.1811           | 0.6706    |
| $\rho_{SP500-Gold\ 4} \nRightarrow IR$ | 0.0016               | 0.9678  | 0.0395           | 0.8426    |

*Note:*

The table reports the results of the Granger causality test between the first differences of conditional correlation and the first differences of speculative pressure during pre-financialisation period and financialisation period.  $\rho$  and  $SP$  represent conditional correlation and speculative pressure respectively. Speculative pressure is measured by  $\frac{NCL-NCS}{NCL+NCS}$  following De Roon, Nijman, and Veld (2000) and Sanders, Boris, and Manfredo (2004) where NCL represents non-commercial long position and NCS represents non-commercial short position.

\*  $\nRightarrow$  means “does not Granger-cause”. \*\*\*, \*\*, and \* denote statistical significance at 1%, 5%, and 10% level.

Table C.21: Granger causality test between conditional correlation and speculative pressure (robustness)

| Null Hypothesis                          | Pre-financialisation |         | Financialisation |         |
|--|----------------------|---------|------------------|---------|
|  | F Statistic          | p-value | F Statistic      | p-value |
| $SP \nRightarrow \rho_{SP500-Copper\ 1}$ | 0.3266               | 0.5679  | 0.0189           | 0.8908  |
| $SP \nRightarrow \rho_{SP500-Copper\ 2}$ | 0.1363               | 0.7121  | 0.0315           | 0.8593  |
| $SP \nRightarrow \rho_{SP500-Copper\ 3}$ | 0.0186               | 0.8915  | 0.001            | 0.9747  |
| $SP \nRightarrow \rho_{SP500-Copper\ 4}$ | 0.0112               | 0.9157  | 0.0142           | 0.9053  |
| $\rho_{SP500-Copper\ 1} \nRightarrow SP$ | 0.979                | 0.3229  | 2.4032           | 0.1215  |
| $\rho_{SP500-Copper\ 2} \nRightarrow SP$ | 1.2261               | 0.2686  | 1.6324           | 0.2017  |
| $\rho_{SP500-Copper\ 3} \nRightarrow SP$ | 1.4571               | 0.2279  | 1.5217           | 0.2177  |
| $\rho_{SP500-Copper\ 4} \nRightarrow SP$ | 1.3174               | 0.2515  | 1.6901           | 0.1939  |

*Note:*

The table reports the results of the Granger causality test between the first differences of conditional correlation and the first differences of speculative pressure during pre-financialisation period and financialisation period.  $\rho$  and  $SP$  represent conditional correlation and speculative pressure respectively. Speculative pressure is measured by  $\frac{NCL-NCS}{NCL+NCS}$  following [De Roan, Nijman, and Veld \(2000\)](#) and [Sanders, Boris, and Manfredo \(2004\)](#) where NCL represents non-commercial long position and NCS represents non-commercial short position.

\*  $\nRightarrow$  means “does not Granger-cause”. \*\*\*, \*\*, and \* denote statistical significance at 1%, 5%, and 10% level.