Table 1. The basic information table of financial firms

| No | Stock code | ID | classification | No | Stock code | ID | classification |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 000002.SZ | VA | RE | 71 | 300059.SZ | EM | CMFS |
| 2 | 000006.SZ | ZHEN | RE | 72 | 300803.SZ | CP | OFS |
| 3 | 000011.SZ | PRD | RE | 73 | 600000. SH | SPD | MFS |
| 4 | 000031.SZ | GJ | RE | 74 | 600015.SH | HX | MFS |
| 5 | 000069.SZ | OCT | RE | 75 | 600016.SH | CMBC | MFS |
| 6 | 000402.SZ | FCS | RE | 76 | 600030.SH | CIT | CMFS |
| 7 | 000537.SZ | GYFZ | RE | 77 | 600036.SH | CMB | MFS |
| 8 | 000560.SZ | 5I5 | RE | 78 | 600061.SH | SDIC | CMFS |
| 9 | 000718.SZ | SUC | RE | 79 | 600095.SH | HHTG | CMFS |
| 10 | 000961.SZ | ZN | RE | 80 | 600120.SH | ZJFHC | OFS |
| 11 | 001914.SZ | CMPO | RE | 81 | 600155.SH | HBC | CMFS |
| 12 | 001979.SZ | CMSK | RE | 82 | 600369.SH | SWSC | CMFS |
| 13 | 002146.SZ | RS | RE | 83 | 600390.SH | MIN | OFS |
| 14 | 002208.SZ | HUCD | RE | 84 | 600517.SH | ZXDQ | OFS |
| 15 | 002244.SZ | BJ | RE | 85 | 600621.SH | SHCF | CMFS |
| 16 | 002285.SZ | SLH | RE | 86 | 600643.SH | AJ | OFS |
| 17 | 002314.SZ | NS | RE | 87 | 600705.SH | AVI | OFS |
| 18 | 600048.SH | PRE | RE | 88 | 600837.SH | HTSE | CMFS |
| 19 | 600064.SH | NJGK | RE | 89 | 600864.SH | HTGF | CMFS |
| 20 | 600094.SH | GT | RE | 90 | 600901.SH | JSFL | MFS |
| 21 | 600185.SH | GR | RE | 91 | 600908.SH | WX | MFS |
| 22 | 600208.SH | XH | RE | 92 | 600909.SH | HA | CMFS |
| 23 | 600223.SH | LS | RE | 93 | 600919.SH | JS | MFS |
| 24 | 600246.SH | VT | RE | 94 | 600926.SH | HZ | MFS |
| 25 | 600266.SH | BC | RE | 95 | 600928.SH | XA | MFS |
| 26 | 600325.SH | HF | RE | 96 | 600958.SH | ORI | CMFS |
| 27 | 600376.SH | BCDC | RE | 97 | 600999.SH | CMS | CMFS |
| 28 | 600383.SH | GEMD | RE | 98 | 601009.SH | NJCB | MFS |
| 29 | 600503.SH | DXE | RE | 99 | 601066.SH | CHI | CMFS |
| 30 | 600565.SH | DIMA | RE | 100 | 601077.SH | CIN | MFS |
| 31 | 600604.SH | SB | RE | 101 | 601099.SH | PAC | CMFS |
| 32 | 600639.SH | GB | RE | 102 | 601108.SH | CT | CMFS |
| 33 | 600641.SH | WY | RE | 103 | 601128.SH | CS | MFS |
| 34 | 600649.SH | SMI | RE | 104 | 601162.SH | TF | CMFS |
| 35 | 600665.SH | TD | RE | 105 | 601166.SH | IND | MFS |
| 36 | 600848.SH | SLHC | RE | 106 | 601169.SH | BOB | MFS |
| 37 | 600895.SH | ZJHTC | RE | 107 | 601198.SH | DX | CMFS |
| 38 | 601155.SH | SEZE | RE | 108 | 601211.SH | GTJA | CMFS |
| 39 | 000001.SZ | PAB | MFS | 109 | 601229.SH | SH | MFS |
| 40 | 000166.SZ | SWHY | CMFS | 110 | 601236.SH | HT | CMFS |
| 41 | 000563.SZ | SITI | OFS | 111 | 601288.SH | AGR | MFS |
| 42 | 000567.SZ | HDI | OFS | 112 | 601318.SH | PA | IN |
| 43 | 000617.SZ | CNP | CMFS | 113 | 601319.SH | PICC | IN |
| 44 | 000627.SZ | BIO | IN | 114 | 601328.SH | COMM | MFS |
| 45 | 000666.SZ | JW | CMFS | 115 | 601336.SH | NCI | IN |
| 46 | 000686.SZ | NE | CMFS | 116 | 601375.SH | CCSC | CMFS |
| 47 | 000712.SZ | GD | CMFS | 117 | 601377.SH | IS | CMFS |
| 48 | 000728.SZ | GS | CMFS | 118 | 601398.SH | ICBC | MFS |
| 49 | 000750.SZ | SS | CMFS | 119 | 601519.SH | DZH | OFS |
| 50 | 000776.SZ | GF | CMFS | 120 | 601555.SH | SCS | CMFS |
| 51 | 000783.SZ | CJ | CMFS | 121 | 601577.SH | CSHA | MFS |
| 52 | 000958.SZ | SJZ. | OFS | 122 | 601601.SH | CPIC | IN |
| 53 | 000987.SZ | YX | OFS | 123 | 601628.SH | LIFE | IN |
| 54 | 002142.SZ | NB | MFS | 124 | 601658.SH | PS | MFS |
| 55 | 002423.SZ | ZY | OFS | 125 | 601688.SH | HTSC | CMFS |
| 56 | 002500.SZ | SX | CMFS | 126 | 601788.SH | EBSCN | CMFS |
| 57 | 002647.SZ | MS | OFS | 127 | 601818.SH | CEB | MFS |
| 58 | 002673.SZ | WS | CMFS | 128 | 601838.SH | CD | MFS |
| 59 | 002736.SZ | GUO | CMFS | 129 | 601860.SH | ZJ | MFS |
| 60 | 002797.SZ | FC | CMFS | 130 | 601881.SH | GA | CMFS |
| 61 | 002807.SZ | JRCB | MFS | 131 | 601901.SH | FOU | CMFS |
| 62 | 002839.SZ | ZJG | MFS | 132 | 601916.SH | CZ | MFS |
| 63 | 002926.SZ | HXSE | CMFS | 133 | 601939.SH | CCB | MFS |
| 64 | 002936.SZ | ZZ | MFS | 134 | 601988.SH | CB | MFS |
| 65 | 002939.SZ | GW | CMFS | 135 | 601990.SH | NSC | CMFS |
| 66 | 002945.SZ | CL | CMFS | 136 | 601997.SH | GY | MFS |
| 67 | 002948.SZ | QD | MFS | 137 | 601998.SH | CNCB | MFS |
| 68 | 002958.SZ | QRCB | MFS | 138 | 603093.SH | NH | CMFS |
| 69 | 002966.SZ | SZ | MFS | 139 | 603323.SH | WJ | MFS |
| 70 | 300033.SZ | FI | OFS |  |  |  |  |

Table 2. Summary statistics for stock returns in the A-share market

| ID | Mean | SD | Max | Min | Skewness | Kurtosis | Jarque-Bera | ADF |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| VA | 0.0001 | 0.008 | 0.032 | -0.026 | 0.562 | 4.684 | 123.062\*\*\* | -16.378\*\*\* |
| ZHEN | 0.0024 | 0.022 | 0.090 | -0.101 | -0.083 | 4.502 | 68.495\*\*\* | -14.132\*\*\* |
| PRD | 0.0009 | 0.011 | 0.052 | -0.037 | 0.175 | 4.178 | 45.349\*\*\* | -15.999\*\*\* |
| GJ | 0.0028 | 0.037 | 0.301 | -0.189 | 0.558 | 10.061 | 1532.855\*\*\* | -16.205\*\*\* |
| OCT | -0.0002 | 0.021 | 0.085 | -0.080 | 0.098 | 4.322 | 53.568\*\*\* | -14.478\*\*\* |
| FCS | 0.0015 | 0.018 | 0.096 | -0.077 | 0.192 | 4.923 | 115.320\*\*\* | -15.901\*\*\* |
| GYFZ | 0.0013 | 0.015 | 0.055 | -0.055 | 0.013 | 3.840 | 21.200\*\*\* | -16.540\*\*\* |
| 5I5 | 0.0069 | 0.044 | 0.235 | -0.161 | 0.099 | 4.446 | 63.948\*\*\* | -14.950\*\*\* |
| SUC | 0.0061 | 0.034 | 0.123 | -0.119 | 0.109 | 3.615 | 12.791\*\*\* | -14.557\*\*\* |
| ZN | 0.0062 | 0.094 | 0.658 | -0.948 | -1.442 | 31.011 | 23787.820\*\*\* | -14.943\*\*\* |
| CMPO | 0.0004 | 0.012 | 0.040 | -0.055 | 0.022 | 4.167 | 40.941\*\*\* | -15.375\*\*\* |
| CMSK | 0.0010 | 0.012 | 0.055 | -0.057 | 0.190 | 4.931 | 116.200\*\*\* | -14.894\*\*\* |
| RS | 0.0030 | 0.071 | 0.436 | -0.518 | -0.295 | 15.333 | 4573.861\*\*\* | -17.736\*\*\* |
| HUCD | 0.0011 | 0.013 | 0.058 | -0.081 | -0.050 | 6.421 | 351.397\*\*\* | -14.543\*\*\* |
| BJ | 0.0026 | 0.025 | 0.108 | -0.122 | 0.143 | 5.242 | 153.290\*\*\* | -16.371\*\*\* |
| SLH | 0.0009 | 0.037 | 0.147 | -0.113 | 0.145 | 3.633 | 14.542\*\*\* | -14.932\*\*\* |
| NS | 0.0014 | 0.036 | 0.115 | -0.112 | -0.024 | 3.133 | 0.597\*\*\* | -15.305\*\*\* |
| PRE | 0.0006 | 0.009 | 0.038 | -0.037 | 0.271 | 4.199 | 51.918\*\*\* | -19.582\*\*\* |
| NJGK | 0.0015 | 0.010 | 0.046 | -0.049 | -0.007 | 4.659 | 82.558\*\*\* | -16.307\*\*\* |
| GT | 0.0041 | 0.033 | 0.134 | -0.108 | 0.209 | 4.259 | 52.795\*\*\* | -14.719\*\*\* |
| GR | 0.0028 | 0.018 | 0.065 | -0.057 | 0.330 | 3.774 | 31.076\*\*\* | -14.914\*\*\* |
| XH | -0.0028 | 0.051 | 0.208 | -0.166 | 0.183 | 4.003 | 34.222\*\*\* | -14.080\*\*\* |
| LS | 0.0007 | 0.013 | 0.043 | -0.068 | -0.230 | 4.607 | 83.877\*\*\* | -16.236\*\*\* |
| VT | 0.0025 | 0.018 | 0.075 | -0.073 | 0.214 | 4.719 | 94.105\*\*\* | -14.848\*\*\* |
| BC | 0.0020 | 0.026 | 0.103 | -0.120 | 0.012 | 4.894 | 107.581\*\*\* | -15.268\*\*\* |
| HF | 0.0030 | 0.018 | 0.068 | -0.052 | 0.075 | 3.604 | 11.633\*\*\* | -15.781\*\*\* |
| BCDC | 0.0033 | 0.023 | 0.096 | -0.103 | 0.021 | 5.149 | 138.551\*\*\* | -15.738\*\*\* |
| GEMD | 0.0003 | 0.013 | 0.048 | -0.044 | 0.271 | 3.756 | 25.959\*\*\* | -17.899\*\*\* |
| DXE | 0.0081 | 0.036 | 0.167 | -0.130 | 0.231 | 4.465 | 70.805\*\*\* | -15.380\*\*\* |
| DIMA | -0.0012 | 0.110 | 0.554 | -0.901 | -0.315 | 14.469 | 3957.884\*\*\* | -16.539\*\*\* |
| SB | 0.0019 | 0.016 | 0.065 | -0.046 | 0.284 | 3.775 | 27.653\*\*\* | -17.395\*\*\* |
| GB | 0.0015 | 0.009 | 0.042 | -0.042 | 0.349 | 5.044 | 139.966\*\*\* | -14.617\*\*\* |
| WY | 0.0004 | 0.011 | 0.035 | -0.033 | 0.150 | 3.460 | 9.036\*\*\* | -17.205\*\*\* |
| SMI | 0.0005 | 0.028 | 0.144 | -0.088 | 0.262 | 4.466 | 72.742\*\*\* | -15.210\*\*\* |
| TD | 0.0020 | 0.014 | 0.057 | -0.047 | 0.518 | 4.347 | 86.570\*\*\* | -15.549\*\*\* |
| SLHC | 0.0005 | 0.008 | 0.034 | -0.031 | -0.203 | 5.145 | 143.016\*\*\* | -16.348\*\*\* |
| ZJHTC | 0.0005 | 0.008 | 0.033 | -0.031 | 0.204 | 4.658 | 87.498\*\*\* | -16.378\*\*\* |
| SEZE | 0.0000 | 0.009 | 0.033 | -0.029 | 0.409 | 4.288 | 69.851\*\*\* | -15.656\*\*\* |
| PAB | 0.0003 | 0.008 | 0.043 | -0.029 | 0.378 | 4.446 | 79.878\*\*\* | -17.048\*\*\* |
| SWHY | 0.0000 | 0.024 | 0.090 | -0.084 | 0.126 | 3.762 | 19.349\*\*\* | -17.594\*\*\* |
| SITI | 0.0012 | 0.043 | 0.161 | -0.135 | 0.294 | 3.700 | 25.059\*\*\* | -15.775\*\*\* |
| HDI | 0.0012 | 0.011 | 0.057 | -0.039 | 0.451 | 5.372 | 193.127\*\*\* | -15.870\*\*\* |
| CNP | 0.0014 | 0.020 | 0.104 | -0.079 | 0.322 | 5.443 | 191.557\*\*\* | -15.991\*\*\* |
| BIO | 0.0029 | 0.035 | 0.140 | -0.156 | -0.028 | 4.737 | 90.650\*\*\* | -15.253\*\*\* |
| JW | 0.0016 | 0.011 | 0.046 | -0.047 | 0.052 | 5.105 | 133.247\*\*\* | -17.127\*\*\* |
| NE | 0.0013 | 0.012 | 0.077 | -0.056 | 0.359 | 5.872 | 263.001\*\*\* | -16.171\*\*\* |
| GD | 0.0012 | 0.009 | 0.045 | -0.033 | 0.505 | 5.878 | 279.104\*\*\* | -17.246\*\*\* |
| GS | 0.0014 | 0.013 | 0.053 | -0.036 | 0.211 | 3.698 | 19.961\*\*\* | -17.672\*\*\* |
| SS | 0.0003 | 0.031 | 0.150 | -0.119 | 0.148 | 4.652 | 84.521\*\*\* | -15.090\*\*\* |
| GF | 0.0001 | 0.008 | 0.036 | -0.028 | 0.781 | 6.346 | 409.007\*\*\* | -16.702\*\*\* |
| CJ | 0.0007 | 0.015 | 0.075 | -0.092 | -0.290 | 6.482 | 373.889\*\*\* | -17.158\*\*\* |
| SJZ | 0.0024 | 0.022 | 0.075 | -0.060 | 0.120 | 3.209 | 3.044\*\*\* | -17.111\*\*\* |
| YX | 0.0004 | 0.013 | 0.056 | -0.043 | 0.277 | 4.042 | 41.780\*\*\* | -16.834\*\*\* |
| NB | 0.0002 | 0.007 | 0.025 | -0.023 | 0.315 | 3.861 | 34.167\*\*\* | -15.925\*\*\* |
| ZY | 0.0009 | 0.012 | 0.053 | -0.058 | 0.187 | 4.576 | 78.713\*\*\* | -16.636\*\*\* |
| SX | 0.0020 | 0.016 | 0.078 | -0.053 | 0.405 | 4.459 | 83.558\*\*\* | -16.786\*\*\* |
| MS | 0.0018 | 0.015 | 0.075 | -0.042 | 0.832 | 5.319 | 244.483\*\*\* | -16.066\*\*\* |
| WS | 0.0012 | 0.012 | 0.055 | -0.043 | 0.252 | 4.774 | 102.108\*\*\* | -16.830\*\*\* |
| GUO | 0.0009 | 0.010 | 0.049 | -0.041 | 0.437 | 4.736 | 113.333\*\*\* | -15.232\*\*\* |
| FC | 0.0000 | 0.015 | 0.060 | -0.052 | 0.436 | 4.327 | 75.646\*\*\* | -15.680\*\*\* |
| JRCB | 0.0016 | 0.032 | 0.140 | -0.107 | 0.411 | 4.535 | 90.974\*\*\* | -15.864\*\*\* |
| ZJG | 0.0013 | 0.025 | 0.135 | -0.094 | 0.175 | 5.549 | 198.560\*\*\* | -14.855\*\*\* |
| HXSE | 0.0013 | 0.011 | 0.063 | -0.039 | 0.508 | 6.026 | 305.630\*\*\* | -16.327\*\*\* |
| ZZ | -0.0004 | 0.050 | 0.217 | -0.243 | 0.042 | 5.747 | 226.516\*\*\* | -18.181\*\*\* |
| GW | 0.0006 | 0.011 | 0.045 | -0.052 | 0.229 | 5.413 | 181.003\*\*\* | -17.153\*\*\* |
| CL | 0.0011 | 0.010 | 0.044 | -0.036 | 0.444 | 5.142 | 161.369\*\*\* | -17.008\*\*\* |
| QD | 0.0020 | 0.031 | 0.116 | -0.200 | -0.567 | 7.351 | 606.390\*\*\* | -14.383\*\*\* |
| QRCB | 0.0013 | 0.038 | 0.136 | -0.133 | -0.076 | 4.055 | 34.058\*\*\* | -16.863\*\*\* |
| SZ | -0.0002 | 0.017 | 0.072 | -0.067 | -0.226 | 4.524 | 75.776\*\*\* | -14.473\*\*\* |
| FI | 0.0003 | 0.006 | 0.035 | -0.025 | 0.649 | 7.060 | 545.046\*\*\* | -15.776\*\*\* |
| EM | 0.0003 | 0.008 | 0.040 | -0.040 | -0.047 | 5.993 | 268.987\*\*\* | -17.341\*\*\* |
| CP | 0.0001 | 0.009 | 0.043 | -0.030 | 0.566 | 5.403 | 211.696\*\*\* | -16.069\*\*\* |
| SPD | 0.0005 | 0.012 | 0.034 | -0.045 | -0.091 | 3.513 | 8.878\*\*\* | -16.138\*\*\* |
| HX | -0.0003 | 0.017 | 0.077 | -0.063 | 0.240 | 4.052 | 40.128\*\*\* | -15.247\*\*\* |
| CMBC | -0.0002 | 0.024 | 0.107 | -0.093 | 0.113 | 4.305 | 52.586\*\*\* | -15.603\*\*\* |
| CIT | 0.0002 | 0.005 | 0.031 | -0.024 | 0.324 | 5.548 | 207.388\*\*\* | -18.077\*\*\* |
| CMB | 0.0000 | 0.005 | 0.017 | -0.016 | 0.125 | 3.711 | 17.049\*\*\* | -17.534\*\*\* |
| SDIC | 0.0015 | 0.012 | 0.052 | -0.042 | 0.247 | 4.167 | 48.185\*\*\* | -15.599\*\*\* |
| HHTG | 0.0017 | 0.014 | 0.057 | -0.047 | 0.413 | 4.453 | 83.818\*\*\* | -15.753\*\*\* |
| ZJFHC | 0.0025 | 0.026 | 0.108 | -0.094 | 0.143 | 4.565 | 75.986\*\*\* | -15.949\*\*\* |
| HBC | 0.0015 | 0.013 | 0.068 | -0.047 | 0.662 | 5.722 | 274.863\*\*\* | -15.160\*\*\* |
| SWSC | 0.0017 | 0.028 | 0.099 | -0.105 | 0.000 | 3.938 | 26.383\*\*\* | -14.152\*\*\* |
| MIN | 0.0008 | 0.022 | 0.098 | -0.090 | -0.109 | 4.917 | 111.717\*\*\* | -15.275\*\*\* |
| ZXDQ | 0.0015 | 0.020 | 0.069 | -0.062 | 0.007 | 3.676 | 13.731\*\*\* | -17.007\*\*\* |
| SHCF | 0.0007 | 0.009 | 0.048 | -0.046 | 0.212 | 5.334 | 168.800\*\*\* | -17.322\*\*\* |
| AJ | 0.0014 | 0.015 | 0.049 | -0.069 | -0.164 | 4.469 | 67.938\*\*\* | -16.168\*\*\* |
| AVI | 0.0029 | 0.035 | 0.201 | -0.102 | 0.359 | 4.787 | 111.336\*\*\* | -14.073\*\*\* |
| HTSE | 0.0008 | 0.008 | 0.036 | -0.025 | 0.192 | 3.540 | 13.179\*\*\* | -16.338\*\*\* |
| HTGF | 0.0034 | 0.019 | 0.095 | -0.077 | 0.026 | 5.259 | 153.117\*\*\* | -15.562\*\*\* |
| JSFL | 0.0001 | 0.025 | 0.080 | -0.086 | 0.029 | 3.729 | 16.039\*\*\* | -15.774\*\*\* |
| WX | 0.0030 | 0.019 | 0.086 | -0.060 | 0.429 | 4.636 | 102.374\*\*\* | -15.366\*\*\* |
| HA | 0.0009 | 0.022 | 0.080 | -0.088 | 0.149 | 4.195 | 45.507\*\*\* | -15.355\*\*\* |
| JS | -0.0005 | 0.018 | 0.062 | -0.068 | -0.030 | 3.529 | 8.508\*\*\* | -17.644\*\*\* |
| HZ | 0.0007 | 0.009 | 0.032 | -0.037 | 0.146 | 3.637 | 14.730\*\*\* | -17.087\*\*\* |
| XA | 0.0043 | 0.028 | 0.125 | -0.100 | 0.068 | 3.950 | 27.634\*\*\* | -14.794\*\*\* |
| ORI | 0.0014 | 0.011 | 0.049 | -0.031 | 0.272 | 3.706 | 23.810\*\*\* | -17.164\*\*\* |
| CMS | 0.0006 | 0.007 | 0.031 | -0.020 | 0.483 | 5.110 | 161.521\*\*\* | -17.981\*\*\* |
| NJCB | 0.0007 | 0.011 | 0.043 | -0.064 | -0.127 | 4.564 | 75.283\*\*\* | -16.432\*\*\* |
| CHI | 0.0002 | 0.007 | 0.037 | -0.034 | 0.703 | 7.283 | 609.538\*\*\* | -17.629\*\*\* |
| CIN | -0.0003 | 0.027 | 0.119 | -0.088 | 0.195 | 4.288 | 54.371\*\*\* | -15.994\*\*\* |
| PAC | 0.0004 | 0.042 | 0.122 | -0.152 | -0.151 | 3.582 | 12.869\*\*\* | -14.736\*\*\* |
| CT | 0.0002 | 0.011 | 0.063 | -0.036 | 0.493 | 5.653 | 240.333\*\*\* | -16.618\*\*\* |
| CS | 0.0013 | 0.018 | 0.082 | -0.065 | 0.278 | 4.515 | 78.129\*\*\* | -16.421\*\*\* |
| TF | 0.0034 | 0.032 | 0.139 | -0.120 | 0.164 | 5.093 | 134.625\*\*\* | -14.716\*\*\* |
| IND | 0.0002 | 0.006 | 0.021 | -0.019 | 0.127 | 3.538 | 10.605\*\*\* | -17.767\*\*\* |
| BOB | -0.0002 | 0.021 | 0.081 | -0.078 | -0.025 | 4.456 | 63.668\*\*\* | -15.590\*\*\* |
| DX | 0.0010 | 0.009 | 0.043 | -0.024 | 0.253 | 3.480 | 14.565\*\*\* | -17.183\*\*\* |
| GTJA | 0.0002 | 0.006 | 0.034 | -0.015 | 0.645 | 5.657 | 261.664\*\*\* | -17.738\*\*\* |
| SH | 0.0006 | 0.015 | 0.064 | -0.049 | 0.269 | 4.362 | 64.360\*\*\* | -15.238\*\*\* |
| HT | 0.0010 | 0.010 | 0.059 | -0.051 | 0.244 | 6.455 | 365.303\*\*\* | -17.405\*\*\* |
| AGR | -0.0015 | 0.026 | 0.119 | -0.130 | -0.330 | 5.810 | 250.028\*\*\* | -16.389\*\*\* |
| PA | -0.0001 | 0.004 | 0.018 | -0.015 | 0.598 | 5.051 | 169.010\*\*\* | -16.449\*\*\* |
| PICC | 0.0019 | 0.019 | 0.075 | -0.062 | 0.282 | 4.137 | 48.319\*\*\* | -14.625\*\*\* |
| COMM | -0.0003 | 0.018 | 0.079 | -0.067 | 0.282 | 4.453 | 72.903\*\*\* | -15.358\*\*\* |
| NCI | 0.0003 | 0.006 | 0.024 | -0.024 | 0.171 | 5.629 | 210.842\*\*\* | -17.223\*\*\* |
| CCSC | 0.0022 | 0.027 | 0.108 | -0.093 | 0.098 | 3.832 | 21.899\*\*\* | -14.854\*\*\* |
| IS | 0.0012 | 0.013 | 0.048 | -0.041 | 0.159 | 3.365 | 7.042\*\*\* | -17.078\*\*\* |
| ICBC | 0.0004 | 0.021 | 0.073 | -0.085 | -0.082 | 4.208 | 44.598\*\*\* | -14.909\*\*\* |
| DZH | 0.0014 | 0.013 | 0.067 | -0.043 | 0.320 | 4.651 | 94.003\*\*\* | -16.775\*\*\* |
| SCS | 0.0012 | 0.013 | 0.067 | -0.068 | 0.065 | 5.364 | 168.131\*\*\* | -16.494\*\*\* |
| CSHA | 0.0013 | 0.012 | 0.049 | -0.045 | 0.024 | 3.947 | 26.949\*\*\* | -15.955\*\*\* |
| CPIC | 0.0007 | 0.006 | 0.029 | -0.021 | 0.358 | 4.417 | 75.615\*\*\* | -16.275\*\*\* |
| LIFE | 0.0006 | 0.006 | 0.031 | -0.020 | 0.606 | 4.973 | 160.861\*\*\* | -17.029\*\*\* |
| PS | -0.0004 | 0.025 | 0.080 | -0.091 | -0.061 | 3.416 | 5.631\*\*\* | -16.011\*\*\* |
| HTSC | 0.0002 | 0.007 | 0.033 | -0.021 | 0.376 | 4.265 | 64.954\*\*\* | -16.853\*\*\* |
| EBSCN | 0.0009 | 0.009 | 0.043 | -0.033 | 0.567 | 6.923 | 500.354\*\*\* | -15.706\*\*\* |
| CEB | 0.0011 | 0.033 | 0.149 | -0.153 | -0.002 | 5.504 | 188.062\*\*\* | -15.988\*\*\* |
| CD | 0.0010 | 0.011 | 0.047 | -0.038 | 0.309 | 4.424 | 72.304\*\*\* | -17.721\*\*\* |
| ZJ | -0.0014 | 0.049 | 0.196 | -0.161 | 0.001 | 4.156 | 40.059\*\*\* | -14.967\*\*\* |
| GA | 0.0006 | 0.009 | 0.037 | -0.027 | 0.286 | 3.741 | 26.311\*\*\* | -15.633\*\*\* |
| FOU | 0.0005 | 0.012 | 0.047 | -0.062 | -0.308 | 5.257 | 164.153\*\*\* | -15.366\*\*\* |
| CZ | 0.0000 | 0.036 | 0.186 | -0.216 | -0.220 | 6.009 | 277.451\*\*\* | -13.778\*\*\* |
| CCB | 0.0004 | 0.016 | 0.061 | -0.055 | 0.215 | 3.767 | 23.194\*\*\* | -17.239\*\*\* |
| CB | -0.0008 | 0.026 | 0.098 | -0.104 | -0.222 | 4.341 | 59.850\*\*\* | -16.127\*\*\* |
| NSC | 0.0006 | 0.011 | 0.049 | -0.051 | 0.525 | 6.222 | 344.541\*\*\* | -17.476\*\*\* |
| GY | 0.0001 | 0.016 | 0.072 | -0.057 | 0.280 | 4.878 | 115.284\*\*\* | -16.734\*\*\* |
| CNCB | 0.0023 | 0.024 | 0.100 | -0.079 | 0.082 | 3.978 | 29.483\*\*\* | -15.259\*\*\* |
| NH | 0.0015 | 0.009 | 0.036 | -0.031 | 0.199 | 3.841 | 25.946\*\*\* | -14.035\*\*\* |
| WJ | 0.0002 | 0.027 | 0.103 | -0.080 | 0.220 | 3.608 | 16.873\*\*\* | -15.869\*\*\* |

Table 3. Descriptive statistics for good information series

| ID | Mean | SD | Max | Min | Skewness | Kurtosis | Jarque-Bera | ADF |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| VA | 0.124 | 0.042 | 0.305 | 0.054 | 1.130 | 4.596 | 229.522\*\*\* | -24.921\*\*\* |
| ZHEN | 0.322 | 0.112 | 0.935 | 0.012 | 1.309 | 6.308 | 533.933\*\*\* | -27.796\*\*\* |
| PRD | 0.167 | 0.073 | 0.528 | 0.015 | 1.593 | 6.349 | 640.953\*\*\* | -24.542\*\*\* |
| GJ | 0.480 | 0.123 | 1.281 | 0.148 | 0.551 | 5.919 | 292.037\*\*\* | -28.058\*\*\* |
| OCT | 0.032 | 0.032 | 0.409 | 0.000 | 3.813 | 34.451 | 31419.713\*\*\* | -29.095\*\*\* |
| FCS | 0.281 | 0.080 | 0.659 | 0.018 | 1.366 | 6.949 | 691.677\*\*\* | -24.936\*\*\* |
| GYFZ | 0.225 | 0.091 | 0.759 | 0.000 | 1.065 | 5.985 | 403.509\*\*\* | -28.570\*\*\* |
| 5I5 | 0.680 | 0.230 | 1.420 | 0.000 | 0.463 | 2.678 | 28.785\*\*\* | -28.386\*\*\* |
| SUC | 0.555 | 0.146 | 1.162 | 0.000 | -0.118 | 4.107 | 38.429\*\*\* | -31.423\*\*\* |
| ZN | 0.849 | 0.925 | 8.475 | 0.153 | 3.175 | 16.793 | 6917.180\*\*\* | -24.999\*\*\* |
| CMPO | 0.203 | 0.064 | 0.500 | 0.070 | 0.729 | 3.683 | 77.749\*\*\* | -25.342\*\*\* |
| CMSK | 0.193 | 0.076 | 0.591 | 0.000 | 0.453 | 4.022 | 55.993\*\*\* | -24.429\*\*\* |
| RS | 0.707 | 0.692 | 5.384 | 0.000 | 2.186 | 9.665 | 1905.897\*\*\* | -17.982\*\*\* |
| HUCD | 0.197 | 0.082 | 0.648 | 0.088 | 1.574 | 5.828 | 537.140\*\*\* | -23.340\*\*\* |
| BJ | 0.364 | 0.100 | 0.819 | 0.099 | 0.074 | 3.241 | 2.405\*\*\* | -25.996\*\*\* |
| SLH | 0.588 | 0.198 | 1.382 | 0.000 | 0.266 | 3.635 | 20.575\*\*\* | -25.596\*\*\* |
| NS | 0.540 | 0.157 | 1.530 | 0.000 | 0.778 | 7.366 | 644.555\*\*\* | -23.983\*\*\* |
| PRE | 0.175 | 0.055 | 0.425 | 0.088 | 0.855 | 3.514 | 95.598\*\*\* | -26.247\*\*\* |
| NJGK | 0.167 | 0.051 | 0.311 | 0.072 | 0.271 | 2.170 | 29.442\*\*\* | -25.089\*\*\* |
| GT | 0.458 | 0.131 | 1.081 | 0.170 | 0.196 | 3.476 | 11.413\*\*\* | -24.592\*\*\* |
| GR | 0.289 | 0.103 | 0.801 | 0.000 | 0.594 | 5.119 | 177.023\*\*\* | -25.153\*\*\* |
| XH | 0.055 | 0.063 | 0.976 | 0.000 | 7.635 | 101.710 | 299305.05\*\*\* | -26.788\*\*\* |
| LS | 0.223 | 0.080 | 0.615 | 0.000 | 1.085 | 5.332 | 304.420\*\*\* | -24.351\*\*\* |
| VT | 0.254 | 0.081 | 0.682 | 0.000 | 1.271 | 6.096 | 481.480\*\*\* | -24.995\*\*\* |
| BC | 0.361 | 0.121 | 1.033 | 0.000 | 0.819 | 4.775 | 175.053\*\*\* | -26.869\*\*\* |
| HF | 0.276 | 0.069 | 0.719 | 0.065 | 1.422 | 6.989 | 720.165\*\*\* | -28.218\*\*\* |
| BCDC | 0.335 | 0.110 | 0.808 | 0.135 | 0.678 | 3.500 | 62.704\*\*\* | -24.336\*\*\* |
| GEMD | 0.224 | 0.069 | 0.502 | 0.065 | 0.740 | 3.384 | 70.152\*\*\* | -29.467\*\*\* |
| DXE | 0.546 | 0.154 | 1.612 | 0.000 | 1.345 | 7.361 | 787.712\*\*\* | -26.398\*\*\* |
| DIMA | 0.122 | 0.139 | 1.492 | 0.000 | 3.722 | 25.239 | 16499.171\*\*\* | -26.467\*\*\* |
| SB | 0.249 | 0.087 | 0.792 | 0.117 | 1.437 | 6.704 | 659.348\*\*\* | -27.061\*\*\* |
| GB | 0.143 | 0.058 | 0.417 | 0.042 | 1.672 | 6.353 | 672.728\*\*\* | -24.872\*\*\* |
| WY | 0.169 | 0.050 | 0.405 | 0.064 | 0.709 | 3.801 | 79.609\*\*\* | -24.889\*\*\* |
| SMI | 0.039 | 0.030 | 0.204 | 0.000 | 1.239 | 5.144 | 322.035\*\*\* | -28.417\*\*\* |
| TD | 0.210 | 0.097 | 0.599 | 0.003 | 0.928 | 3.720 | 118.951\*\*\* | -27.742\*\*\* |
| SLHC | 0.115 | 0.043 | 0.346 | 0.029 | 1.444 | 6.253 | 567.696\*\*\* | -22.168\*\*\* |
| ZJHTC | 0.131 | 0.047 | 0.374 | 0.014 | 1.640 | 7.771 | 1005.406\*\*\* | -26.760\*\*\* |
| SEZE | 0.143 | 0.052 | 0.383 | 0.000 | 1.393 | 5.627 | 439.765\*\*\* | -27.248\*\*\* |
| PAB | 0.145 | 0.037 | 0.305 | 0.065 | 0.682 | 3.375 | 60.048\*\*\* | -25.658\*\*\* |
| SWHY | 0.028 | 0.029 | 0.382 | 0.000 | 4.133 | 39.187 | 41336.139\*\*\* | -31.023\*\*\* |
| SITI | 0.052 | 0.043 | 0.238 | 0.000 | 1.366 | 5.129 | 359.987\*\*\* | -30.668\*\*\* |
| HDI | 0.148 | 0.052 | 0.416 | 0.046 | 1.389 | 6.541 | 607.818\*\*\* | -23.859\*\*\* |
| CNP | 0.264 | 0.105 | 0.697 | 0.000 | 0.754 | 4.252 | 115.356\*\*\* | -25.836\*\*\* |
| BIO | 0.528 | 0.152 | 1.364 | 0.155 | 0.178 | 3.795 | 22.780\*\*\* | -34.036\*\*\* |
| JW | 0.163 | 0.063 | 0.703 | 0.050 | 2.047 | 12.921 | 3455.602\*\*\* | -26.536\*\*\* |
| NE | 0.204 | 0.049 | 0.455 | 0.077 | 1.532 | 6.493 | 647.683\*\*\* | -24.929\*\*\* |
| GD | 0.143 | 0.058 | 0.367 | 0.000 | 1.142 | 4.291 | 206.526\*\*\* | -24.572\*\*\* |
| GS | 0.233 | 0.065 | 0.698 | 0.000 | 1.804 | 12.006 | 2823.911\*\*\* | -21.389\*\*\* |
| SS | 0.035 | 0.033 | 0.324 | 0.000 | 2.440 | 14.235 | 4501.142\*\*\* | -28.193\*\*\* |
| GF | 0.141 | 0.047 | 0.348 | 0.066 | 1.195 | 4.653 | 253.465\*\*\* | -23.489\*\*\* |
| CJ | 0.255 | 0.052 | 0.487 | 0.157 | 0.818 | 4.022 | 111.708\*\*\* | -23.786\*\*\* |
| SJZ | 0.351 | 0.086 | 0.961 | 0.000 | 0.925 | 8.836 | 1124.432\*\*\* | -27.587\*\*\* |
| YX | 0.206 | 0.067 | 0.516 | 0.073 | 0.475 | 3.638 | 39.280\*\*\* | -23.206\*\*\* |
| NB | 0.117 | 0.032 | 0.209 | 0.000 | 0.151 | 4.041 | 35.232\*\*\* | -25.325\*\*\* |
| ZY | 0.198 | 0.070 | 0.947 | 0.061 | 3.415 | 28.185 | 20427.858\*\*\* | -23.253\*\*\* |
| SX | 0.257 | 0.058 | 0.534 | 0.156 | 1.262 | 5.511 | 380.214\*\*\* | -24.816\*\*\* |
| MS | 0.230 | 0.109 | 0.788 | 0.000 | 0.885 | 5.473 | 277.468\*\*\* | -28.066\*\*\* |
| WS | 0.216 | 0.050 | 0.553 | 0.126 | 1.603 | 8.403 | 1184.301\*\*\* | -23.282\*\*\* |
| GUO | 0.171 | 0.039 | 0.346 | 0.099 | 1.332 | 5.346 | 378.187\*\*\* | -23.881\*\*\* |
| FC | 0.254 | 0.056 | 0.576 | 0.107 | 1.593 | 8.035 | 1064.840\*\*\* | -26.167\*\*\* |
| JRCB | 0.041 | 0.036 | 0.294 | 0.000 | 1.836 | 8.948 | 1465.905\*\*\* | -28.599\*\*\* |
| ZJG | 0.029 | 0.026 | 0.180 | 0.000 | 1.837 | 7.789 | 1093.136\*\*\* | -26.883\*\*\* |
| HXSE | 0.182 | 0.046 | 0.444 | 0.079 | 1.812 | 8.250 | 1221.045\*\*\* | -26.339\*\*\* |
| ZZ | 0.059 | 0.052 | 0.381 | 0.000 | 1.613 | 6.614 | 704.088\*\*\* | -29.291\*\*\* |
| GW | 0.190 | 0.069 | 0.613 | 0.000 | 2.005 | 9.523 | 1758.544\*\*\* | -25.227\*\*\* |
| CL | 0.162 | 0.077 | 0.653 | 0.047 | 1.940 | 8.220 | 1268.987\*\*\* | -22.705\*\*\* |
| QD | 0.414 | 0.142 | 1.017 | 0.000 | 0.100 | 2.812 | 2.254\*\*\* | -25.398\*\*\* |
| QRCB | 0.042 | 0.037 | 0.318 | 0.000 | 1.853 | 9.232 | 1577.509\*\*\* | -29.578\*\*\* |
| SZ | 0.022 | 0.019 | 0.139 | 0.000 | 1.680 | 6.934 | 803.062\*\*\* | -28.187\*\*\* |
| FI | 0.094 | 0.040 | 0.321 | 0.034 | 1.987 | 9.549 | 1760.778\*\*\* | -24.023\*\*\* |
| EM | 0.126 | 0.034 | 0.281 | 0.057 | 1.209 | 5.081 | 305.322\*\*\* | -25.531\*\*\* |
| CP | 0.132 | 0.045 | 0.315 | 0.049 | 0.968 | 4.147 | 151.819\*\*\* | -22.450\*\*\* |
| SPD | 0.016 | 0.013 | 0.085 | 0.000 | 1.333 | 5.226 | 361.876\*\*\* | -27.937\*\*\* |
| HX | 0.018 | 0.015 | 0.098 | 0.000 | 1.477 | 5.938 | 520.690\*\*\* | -26.885\*\*\* |
| CMBC | 0.024 | 0.022 | 0.152 | 0.000 | 1.995 | 8.678 | 1444.705\*\*\* | -28.877\*\*\* |
| CIT | 0.100 | 0.030 | 0.253 | 0.000 | 1.372 | 7.743 | 900.801\*\*\* | -22.265\*\*\* |
| CMB | 0.084 | 0.022 | 0.156 | 0.035 | 0.543 | 2.950 | 35.520\*\*\* | -25.774\*\*\* |
| SDIC | 0.208 | 0.056 | 0.467 | 0.102 | 0.961 | 4.989 | 229.374\*\*\* | -23.778\*\*\* |
| HHTG | 0.225 | 0.079 | 0.674 | 0.000 | 1.763 | 8.269 | 1205.820\*\*\* | -24.333\*\*\* |
| ZJFHC | 0.375 | 0.105 | 0.708 | 0.000 | -0.281 | 2.611 | 14.053\*\*\* | -25.413\*\*\* |
| HBC | 0.201 | 0.057 | 0.510 | 0.092 | 1.574 | 7.471 | 897.051\*\*\* | -22.918\*\*\* |
| SWSC | 0.037 | 0.035 | 0.214 | 0.000 | 1.940 | 7.830 | 1151.439\*\*\* | -27.201\*\*\* |
| MIN | 0.027 | 0.027 | 0.386 | 0.000 | 4.783 | 49.968 | 68926.303\*\*\* | -28.370\*\*\* |
| ZXDQ | 0.282 | 0.076 | 0.640 | 0.043 | 0.861 | 5.984 | 356.185\*\*\* | -26.354\*\*\* |
| SHCF | 0.154 | 0.053 | 0.413 | 0.066 | 1.396 | 5.504 | 422.001\*\*\* | -21.744\*\*\* |
| AJ | 0.212 | 0.044 | 0.380 | 0.104 | 0.482 | 3.541 | 36.707\*\*\* | -26.158\*\*\* |
| AVI | 0.497 | 0.107 | 1.081 | 0.116 | 0.833 | 4.384 | 140.776\*\*\* | -30.266\*\*\* |
| HTSE | 0.156 | 0.032 | 0.300 | 0.095 | 1.225 | 5.473 | 363.372\*\*\* | -23.762\*\*\* |
| HTGF | 0.303 | 0.081 | 0.843 | 0.167 | 1.761 | 8.925 | 1425.529\*\*\* | -25.451\*\*\* |
| JSFL | 0.029 | 0.026 | 0.213 | 0.000 | 2.066 | 9.921 | 1949.411\*\*\* | -28.068\*\*\* |
| WX | 0.282 | 0.055 | 0.578 | 0.000 | 0.074 | 11.027 | 1933.537\*\*\* | -23.762\*\*\* |
| HA | 0.030 | 0.030 | 0.231 | 0.000 | 2.257 | 10.026 | 2092.307\*\*\* | -25.481\*\*\* |
| JS | 0.022 | 0.022 | 0.186 | 0.000 | 2.206 | 11.050 | 2528.180\*\*\* | -28.243\*\*\* |
| HZ | 0.174 | 0.050 | 0.393 | 0.085 | 0.885 | 3.816 | 113.914\*\*\* | -25.412\*\*\* |
| XA | 0.378 | 0.114 | 0.993 | 0.000 | 0.407 | 3.113 | 20.305\*\*\* | -29.164\*\*\* |
| ORI | 0.208 | 0.064 | 0.496 | 0.000 | 1.285 | 6.644 | 596.673\*\*\* | -23.888\*\*\* |
| CMS | 0.129 | 0.041 | 0.322 | 0.064 | 1.562 | 5.743 | 518.599\*\*\* | -21.890\*\*\* |
| NJCB | 0.193 | 0.048 | 0.389 | 0.109 | 0.903 | 4.090 | 133.417\*\*\* | -25.163\*\*\* |
| CHI | 0.104 | 0.036 | 0.283 | 0.043 | 1.723 | 7.353 | 924.772\*\*\* | -21.304\*\*\* |
| CIN | 0.027 | 0.022 | 0.133 | 0.000 | 1.323 | 4.943 | 323.262\*\*\* | -28.194\*\*\* |
| PAC | 0.049 | 0.054 | 0.673 | 0.000 | 4.871 | 47.603 | 62530.258\*\*\* | -27.401\*\*\* |
| CT | 0.188 | 0.051 | 0.507 | 0.000 | 1.067 | 8.931 | 1192.053\*\*\* | -24.002\*\*\* |
| CS | 0.263 | 0.054 | 0.467 | 0.164 | 0.834 | 3.589 | 93.897\*\*\* | -27.095\*\*\* |
| TF | 0.034 | 0.030 | 0.227 | 0.000 | 1.785 | 7.453 | 977.226\*\*\* | -27.149\*\*\* |
| IND | 0.112 | 0.032 | 0.208 | 0.054 | 0.634 | 2.753 | 50.126\*\*\* | -26.816\*\*\* |
| BOB | 0.021 | 0.017 | 0.112 | 0.000 | 1.398 | 6.000 | 504.579\*\*\* | -28.869\*\*\* |
| DX | 0.173 | 0.041 | 0.399 | 0.103 | 1.466 | 6.272 | 579.143\*\*\* | -24.815\*\*\* |
| GTJA | 0.114 | 0.026 | 0.230 | 0.068 | 1.311 | 5.071 | 334.724\*\*\* | -23.823\*\*\* |
| SH | 0.016 | 0.013 | 0.081 | 0.000 | 1.506 | 5.933 | 530.193\*\*\* | -29.483\*\*\* |
| HT | 0.173 | 0.072 | 0.635 | 0.000 | 1.490 | 7.418 | 851.753\*\*\* | -22.243\*\*\* |
| AGR | 0.035 | 0.030 | 0.180 | 0.000 | 1.254 | 4.669 | 272.426\*\*\* | -26.753\*\*\* |
| PA | 0.060 | 0.017 | 0.140 | 0.023 | 0.639 | 3.871 | 71.702\*\*\* | -24.877\*\*\* |
| PICC | 0.022 | 0.020 | 0.130 | 0.000 | 1.708 | 6.456 | 708.574\*\*\* | -25.549\*\*\* |
| COMM | 0.019 | 0.016 | 0.104 | 0.000 | 1.379 | 5.575 | 426.898\*\*\* | -26.118\*\*\* |
| NCI | 0.086 | 0.027 | 0.216 | 0.034 | 0.883 | 4.270 | 141.820\*\*\* | -25.334\*\*\* |
| CCSC | 0.409 | 0.084 | 0.982 | 0.046 | 0.370 | 6.942 | 482.552\*\*\* | -31.554\*\*\* |
| IS | 0.243 | 0.055 | 0.475 | 0.000 | 0.055 | 6.470 | 361.513\*\*\* | -22.618\*\*\* |
| ICBC | 0.021 | 0.017 | 0.093 | 0.000 | 1.342 | 5.178 | 358.455\*\*\* | -28.037\*\*\* |
| DZH | 0.238 | 0.079 | 0.776 | 0.026 | 2.112 | 12.053 | 2994.202\*\*\* | -25.125\*\*\* |
| SCS | 0.220 | 0.052 | 0.599 | 0.000 | 0.966 | 10.588 | 1839.294\*\*\* | -22.985\*\*\* |
| CSHA | 0.195 | 0.041 | 0.390 | 0.105 | 0.845 | 4.266 | 133.628\*\*\* | -24.479\*\*\* |
| CPIC | 0.113 | 0.033 | 0.250 | 0.047 | 0.935 | 4.042 | 137.551\*\*\* | -26.470\*\*\* |
| LIFE | 0.108 | 0.031 | 0.242 | 0.051 | 0.929 | 4.161 | 143.962\*\*\* | -22.480\*\*\* |
| PS | 0.030 | 0.029 | 0.268 | 0.000 | 2.526 | 14.296 | 4594.009\*\*\* | -26.861\*\*\* |
| HTSC | 0.123 | 0.030 | 0.250 | 0.068 | 1.373 | 5.383 | 396.594\*\*\* | -23.236\*\*\* |
| EBSCN | 0.146 | 0.054 | 0.531 | 0.008 | 2.191 | 11.189 | 2588.037\*\*\* | -25.389\*\*\* |
| CEB | 0.035 | 0.030 | 0.187 | 0.000 | 1.704 | 7.230 | 885.213\*\*\* | -27.945\*\*\* |
| CD | 0.184 | 0.061 | 0.592 | 0.078 | 1.414 | 7.728 | 910.696\*\*\* | -24.346\*\*\* |
| ZJ | 0.051 | 0.046 | 0.400 | 0.000 | 1.882 | 9.578 | 1723.139\*\*\* | -29.698\*\*\* |
| GA | 0.174 | 0.039 | 0.402 | 0.112 | 1.641 | 7.082 | 823.067\*\*\* | -23.594\*\*\* |
| FOU | 0.222 | 0.054 | 0.664 | 0.025 | 2.003 | 12.282 | 3065.737\*\*\* | -26.397\*\*\* |
| CZ | 0.037 | 0.047 | 0.920 | 0.000 | 10.342 | 184.505 | 1001159.5\*\*\* | -29.448\*\*\* |
| CCB | 0.018 | 0.016 | 0.113 | 0.000 | 1.663 | 6.893 | 786.738\*\*\* | -28.671\*\*\* |
| CB | 0.032 | 0.027 | 0.178 | 0.000 | 1.465 | 6.083 | 542.822\*\*\* | -29.069\*\*\* |
| NSC | 0.177 | 0.059 | 0.495 | 0.081 | 1.737 | 7.173 | 884.347\*\*\* | -23.413\*\*\* |
| GY | 0.019 | 0.015 | 0.111 | 0.000 | 1.604 | 7.029 | 795.650\*\*\* | -28.919\*\*\* |
| CNCB | 0.030 | 0.028 | 0.396 | 0.000 | 4.144 | 44.775 | 54414.327\*\*\* | -25.209\*\*\* |
| NH | 0.139 | 0.048 | 0.349 | 0.024 | 0.887 | 4.420 | 155.002\*\*\* | -21.222\*\*\* |
| WJ | 0.036 | 0.031 | 0.187 | 0.000 | 1.606 | 6.195 | 615.575\*\*\* | -28.783\*\*\* |

Table 4. Descriptive statistics for bad information series

| ID | Mean | SD | Max | Min | Skewness | Kurtosis | Jarque-Bera | ADF |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| VA | 0.124 | 0.042 | 0.305 | 0.054 | 1.130 | 4.596 | 229.522\*\*\* | -24.921\*\*\* |
| ZHEN | 0.322 | 0.112 | 0.935 | 0.012 | 1.309 | 6.308 | 533.933\*\*\* | -27.796\*\*\* |
| PRD | 0.167 | 0.073 | 0.528 | 0.015 | 1.593 | 6.349 | 640.953\*\*\* | -24.542\*\*\* |
| GJ | 0.480 | 0.123 | 1.281 | 0.148 | 0.551 | 5.919 | 292.037\*\*\* | -28.058\*\*\* |
| OCT | 0.032 | 0.032 | 0.409 | 0.000 | 3.813 | 34.451 | 31419.713\*\*\* | -29.095\*\*\* |
| FCS | 0.281 | 0.080 | 0.659 | 0.018 | 1.366 | 6.949 | 691.677\*\*\* | -24.936\*\*\* |
| GYFZ | 0.225 | 0.091 | 0.759 | 0.000 | 1.065 | 5.985 | 403.509\*\*\* | -28.570\*\*\* |
| 5I5 | 0.680 | 0.230 | 1.420 | 0.000 | 0.463 | 2.678 | 28.785\*\*\* | -28.386\*\*\* |
| SUC | 0.555 | 0.146 | 1.162 | 0.000 | -0.118 | 4.107 | 38.429\*\*\* | -31.423\*\*\* |
| ZN | 0.849 | 0.925 | 8.475 | 0.153 | 3.175 | 16.793 | 6917.180\*\*\* | -24.999\*\*\* |
| CMPO | 0.203 | 0.064 | 0.500 | 0.070 | 0.729 | 3.683 | 77.749\*\*\* | -25.342\*\*\* |
| CMSK | 0.193 | 0.076 | 0.591 | 0.000 | 0.453 | 4.022 | 55.993\*\*\* | -24.429\*\*\* |
| RS | 0.707 | 0.692 | 5.384 | 0.000 | 2.186 | 9.665 | 1905.897\*\*\* | -17.982\*\*\* |
| HUCD | 0.197 | 0.082 | 0.648 | 0.088 | 1.574 | 5.828 | 537.140\*\*\* | -23.340\*\*\* |
| BJ | 0.364 | 0.100 | 0.819 | 0.099 | 0.074 | 3.241 | 2.405\*\*\* | -25.996\*\*\* |
| SLH | 0.588 | 0.198 | 1.382 | 0.000 | 0.266 | 3.635 | 20.575\*\*\* | -25.596\*\*\* |
| NS | 0.540 | 0.157 | 1.530 | 0.000 | 0.778 | 7.366 | 644.555\*\*\* | -23.983\*\*\* |
| PRE | 0.175 | 0.055 | 0.425 | 0.088 | 0.855 | 3.514 | 95.598\*\*\* | -26.247\*\*\* |
| NJGK | 0.167 | 0.051 | 0.311 | 0.072 | 0.271 | 2.170 | 29.442\*\*\* | -25.089\*\*\* |
| GT | 0.458 | 0.131 | 1.081 | 0.170 | 0.196 | 3.476 | 11.413\*\*\* | -24.592\*\*\* |
| GR | 0.289 | 0.103 | 0.801 | 0.000 | 0.594 | 5.119 | 177.023\*\*\* | -25.153\*\*\* |
| XH | 0.055 | 0.063 | 0.976 | 0.000 | 7.635 | 101.710 | 299305.1\*\*\* | -26.788\*\*\* |
| LS | 0.223 | 0.080 | 0.615 | 0.000 | 1.085 | 5.332 | 304.420\*\*\* | -24.351\*\*\* |
| VT | 0.254 | 0.081 | 0.682 | 0.000 | 1.271 | 6.096 | 481.480\*\*\* | -24.995\*\*\* |
| BC | 0.361 | 0.121 | 1.033 | 0.000 | 0.819 | 4.775 | 175.053\*\*\* | -26.869\*\*\* |
| HF | 0.276 | 0.069 | 0.719 | 0.065 | 1.422 | 6.989 | 720.165\*\*\* | -28.218\*\*\* |
| BCDC | 0.335 | 0.110 | 0.808 | 0.135 | 0.678 | 3.500 | 62.704\*\*\* | -24.336\*\*\* |
| GEMD | 0.224 | 0.069 | 0.502 | 0.065 | 0.740 | 3.384 | 70.152\*\*\* | -29.467\*\*\* |
| DXE | 0.546 | 0.154 | 1.612 | 0.000 | 1.345 | 7.361 | 787.712\*\*\* | -26.398\*\*\* |
| DIMA | 0.122 | 0.139 | 1.492 | 0.000 | 3.722 | 25.239 | 16499.171\*\*\* | -26.467\*\*\* |
| SB | 0.249 | 0.087 | 0.792 | 0.117 | 1.437 | 6.704 | 659.348\*\*\* | -27.061\*\*\* |
| GB | 0.143 | 0.058 | 0.417 | 0.042 | 1.672 | 6.353 | 672.728\*\*\* | -24.872\*\*\* |
| WY | 0.169 | 0.050 | 0.405 | 0.064 | 0.709 | 3.801 | 79.609\*\*\* | -24.889\*\*\* |
| SMI | 0.039 | 0.030 | 0.204 | 0.000 | 1.239 | 5.144 | 322.035\*\*\* | -28.417\*\*\* |
| TD | 0.210 | 0.097 | 0.599 | 0.003 | 0.928 | 3.720 | 118.951\*\*\* | -27.742\*\*\* |
| SLHC | 0.115 | 0.043 | 0.346 | 0.029 | 1.444 | 6.253 | 567.696\*\*\* | -22.168\*\*\* |
| ZJHTC | 0.131 | 0.047 | 0.374 | 0.014 | 1.640 | 7.771 | 1005.406\*\*\* | -26.760\*\*\* |
| SEZE | 0.143 | 0.052 | 0.383 | 0.000 | 1.393 | 5.627 | 439.765\*\*\* | -27.248\*\*\* |
| PAB | 0.145 | 0.037 | 0.305 | 0.065 | 0.682 | 3.375 | 60.048\*\*\* | -25.658\*\*\* |
| SWHY | 0.028 | 0.029 | 0.382 | 0.000 | 4.133 | 39.187 | 41336.139\*\*\* | -31.023\*\*\* |
| SITI | 0.052 | 0.043 | 0.238 | 0.000 | 1.366 | 5.129 | 359.987\*\*\* | -30.668\*\*\* |
| HDI | 0.148 | 0.052 | 0.416 | 0.046 | 1.389 | 6.541 | 607.818\*\*\* | -23.859\*\*\* |
| CNP | 0.264 | 0.105 | 0.697 | 0.000 | 0.754 | 4.252 | 115.356\*\*\* | -25.836\*\*\* |
| BIO | 0.528 | 0.152 | 1.364 | 0.155 | 0.178 | 3.795 | 22.780\*\*\* | -34.036\*\*\* |
| JW | 0.163 | 0.063 | 0.703 | 0.050 | 2.047 | 12.921 | 3455.602\*\*\* | -26.536\*\*\* |
| NE | 0.204 | 0.049 | 0.455 | 0.077 | 1.532 | 6.493 | 647.683\*\*\* | -24.929\*\*\* |
| GD | 0.143 | 0.058 | 0.367 | 0.000 | 1.142 | 4.291 | 206.526\*\*\* | -24.572\*\*\* |
| GS | 0.233 | 0.065 | 0.698 | 0.000 | 1.804 | 12.006 | 2823.911\*\*\* | -21.389\*\*\* |
| SS | 0.035 | 0.033 | 0.324 | 0.000 | 2.440 | 14.235 | 4501.142\*\*\* | -28.193\*\*\* |
| GF | 0.141 | 0.047 | 0.348 | 0.066 | 1.195 | 4.653 | 253.465\*\*\* | -23.489\*\*\* |
| CJ | 0.255 | 0.052 | 0.487 | 0.157 | 0.818 | 4.022 | 111.708\*\*\* | -23.786\*\*\* |
| SJZ | 0.351 | 0.086 | 0.961 | 0.000 | 0.925 | 8.836 | 1124.432\*\*\* | -27.587\*\*\* |
| YX | 0.206 | 0.067 | 0.516 | 0.073 | 0.475 | 3.638 | 39.280\*\*\* | -23.206\*\*\* |
| NB | 0.117 | 0.032 | 0.209 | 0.000 | 0.151 | 4.041 | 35.232\*\*\* | -25.325\*\*\* |
| ZY | 0.198 | 0.070 | 0.947 | 0.061 | 3.415 | 28.185 | 20427.858\*\*\* | -23.253\*\*\* |
| SX | 0.257 | 0.058 | 0.534 | 0.156 | 1.262 | 5.511 | 380.214\*\*\* | -24.816\*\*\* |
| MS | 0.230 | 0.109 | 0.788 | 0.000 | 0.885 | 5.473 | 277.468\*\*\* | -28.066\*\*\* |
| WS | 0.216 | 0.050 | 0.553 | 0.126 | 1.603 | 8.403 | 1184.301\*\*\* | -23.282\*\*\* |
| GUO | 0.171 | 0.039 | 0.346 | 0.099 | 1.332 | 5.346 | 378.187\*\*\* | -23.881\*\*\* |
| FC | 0.254 | 0.056 | 0.576 | 0.107 | 1.593 | 8.035 | 1064.840\*\*\* | -26.167\*\*\* |
| JRCB | 0.041 | 0.036 | 0.294 | 0.000 | 1.836 | 8.948 | 1465.905\*\*\* | -28.599\*\*\* |
| ZJG | 0.029 | 0.026 | 0.180 | 0.000 | 1.837 | 7.789 | 1093.136\*\*\* | -26.883\*\*\* |
| HXSE | 0.182 | 0.046 | 0.444 | 0.079 | 1.812 | 8.250 | 1221.045\*\*\* | -26.339\*\*\* |
| ZZ | 0.059 | 0.052 | 0.381 | 0.000 | 1.613 | 6.614 | 704.088\*\*\* | -29.291\*\*\* |
| GW | 0.190 | 0.069 | 0.613 | 0.000 | 2.005 | 9.523 | 1758.544\*\*\* | -25.227\*\*\* |
| CL | 0.162 | 0.077 | 0.653 | 0.047 | 1.940 | 8.220 | 1268.987\*\*\* | -22.705\*\*\* |
| QD | 0.414 | 0.142 | 1.017 | 0.000 | 0.100 | 2.812 | 2.254\*\*\* | -25.398\*\*\* |
| QRCB | 0.042 | 0.037 | 0.318 | 0.000 | 1.853 | 9.232 | 1577.509\*\*\* | -29.578\*\*\* |
| SZ | 0.022 | 0.019 | 0.139 | 0.000 | 1.680 | 6.934 | 803.062\*\*\* | -28.187\*\*\* |
| FI | 0.094 | 0.040 | 0.321 | 0.034 | 1.987 | 9.549 | 1760.778\*\*\* | -24.023\*\*\* |
| EM | 0.126 | 0.034 | 0.281 | 0.057 | 1.209 | 5.081 | 305.322\*\*\* | -25.531\*\*\* |
| CP | 0.132 | 0.045 | 0.315 | 0.049 | 0.968 | 4.147 | 151.819\*\*\* | -22.450\*\*\* |
| SPD | 0.016 | 0.013 | 0.085 | 0.000 | 1.333 | 5.226 | 361.876\*\*\* | -27.937\*\*\* |
| HX | 0.018 | 0.015 | 0.098 | 0.000 | 1.477 | 5.938 | 520.690\*\*\* | -26.885\*\*\* |
| CMBC | 0.024 | 0.022 | 0.152 | 0.000 | 1.995 | 8.678 | 1444.705\*\*\* | -28.877\*\*\* |
| CIT | 0.100 | 0.030 | 0.253 | 0.000 | 1.372 | 7.743 | 900.801\*\*\* | -22.265\*\*\* |
| CMB | 0.084 | 0.022 | 0.156 | 0.035 | 0.543 | 2.950 | 35.520\*\*\* | -25.774\*\*\* |
| SDIC | 0.208 | 0.056 | 0.467 | 0.102 | 0.961 | 4.989 | 229.374\*\*\* | -23.778\*\*\* |
| HHTG | 0.225 | 0.079 | 0.674 | 0.000 | 1.763 | 8.269 | 1205.820\*\*\* | -24.333\*\*\* |
| ZJFHC | 0.375 | 0.105 | 0.708 | 0.000 | -0.281 | 2.611 | 14.053\*\*\* | -25.413\*\*\* |
| HBC | 0.201 | 0.057 | 0.510 | 0.092 | 1.574 | 7.471 | 897.051\*\*\* | -22.918\*\*\* |
| SWSC | 0.037 | 0.035 | 0.214 | 0.000 | 1.940 | 7.830 | 1151.439\*\*\* | -27.201\*\*\* |
| MIN | 0.027 | 0.027 | 0.386 | 0.000 | 4.783 | 49.968 | 68926.303\*\*\* | -28.370\*\*\* |
| ZXDQ | 0.282 | 0.076 | 0.640 | 0.043 | 0.861 | 5.984 | 356.185\*\*\* | -26.354\*\*\* |
| SHCF | 0.154 | 0.053 | 0.413 | 0.066 | 1.396 | 5.504 | 422.001\*\*\* | -21.744\*\*\* |
| AJ | 0.212 | 0.044 | 0.380 | 0.104 | 0.482 | 3.541 | 36.707\*\*\* | -26.158\*\*\* |
| AVI | 0.497 | 0.107 | 1.081 | 0.116 | 0.833 | 4.384 | 140.776\*\*\* | -30.266\*\*\* |
| HTSE | 0.156 | 0.032 | 0.300 | 0.095 | 1.225 | 5.473 | 363.372\*\*\* | -23.762\*\*\* |
| HTGF | 0.303 | 0.081 | 0.843 | 0.167 | 1.761 | 8.925 | 1425.529\*\*\* | -25.451\*\*\* |
| JSFL | 0.029 | 0.026 | 0.213 | 0.000 | 2.066 | 9.921 | 1949.411\*\*\* | -28.068\*\*\* |
| WX | 0.282 | 0.055 | 0.578 | 0.000 | 0.074 | 11.027 | 1933.537\*\*\* | -23.762\*\*\* |
| HA | 0.030 | 0.030 | 0.231 | 0.000 | 2.257 | 10.026 | 2092.307\*\*\* | -25.481\*\*\* |
| JS | 0.022 | 0.022 | 0.186 | 0.000 | 2.206 | 11.050 | 2528.180\*\*\* | -28.243\*\*\* |
| HZ | 0.174 | 0.050 | 0.393 | 0.085 | 0.885 | 3.816 | 113.914\*\*\* | -25.412\*\*\* |
| XA | 0.378 | 0.114 | 0.993 | 0.000 | 0.407 | 3.113 | 20.305\*\*\* | -29.164\*\*\* |
| ORI | 0.208 | 0.064 | 0.496 | 0.000 | 1.285 | 6.644 | 596.673\*\*\* | -23.888\*\*\* |
| CMS | 0.129 | 0.041 | 0.322 | 0.064 | 1.562 | 5.743 | 518.599\*\*\* | -21.890\*\*\* |
| NJCB | 0.193 | 0.048 | 0.389 | 0.109 | 0.903 | 4.090 | 133.417\*\*\* | -25.163\*\*\* |
| CHI | 0.104 | 0.036 | 0.283 | 0.043 | 1.723 | 7.353 | 924.772\*\*\* | -21.304\*\*\* |
| CIN | 0.027 | 0.022 | 0.133 | 0.000 | 1.323 | 4.943 | 323.262\*\*\* | -28.194\*\*\* |
| PAC | 0.049 | 0.054 | 0.673 | 0.000 | 4.871 | 47.603 | 62530.258\*\*\* | -27.401\*\*\* |
| CT | 0.188 | 0.051 | 0.507 | 0.000 | 1.067 | 8.931 | 1192.053\*\*\* | -24.002\*\*\* |
| CS | 0.263 | 0.054 | 0.467 | 0.164 | 0.834 | 3.589 | 93.897\*\*\* | -27.095\*\*\* |
| TF | 0.034 | 0.030 | 0.227 | 0.000 | 1.785 | 7.453 | 977.226\*\*\* | -27.149\*\*\* |
| IND | 0.112 | 0.032 | 0.208 | 0.054 | 0.634 | 2.753 | 50.126\*\*\* | -26.816\*\*\* |
| BOB | 0.021 | 0.017 | 0.112 | 0.000 | 1.398 | 6.000 | 504.579\*\*\* | -28.869\*\*\* |
| DX | 0.173 | 0.041 | 0.399 | 0.103 | 1.466 | 6.272 | 579.143\*\*\* | -24.815\*\*\* |
| GTJA | 0.114 | 0.026 | 0.230 | 0.068 | 1.311 | 5.071 | 334.724\*\*\* | -23.823\*\*\* |
| SH | 0.016 | 0.013 | 0.081 | 0.000 | 1.506 | 5.933 | 530.193\*\*\* | -29.483\*\*\* |
| HT | 0.173 | 0.072 | 0.635 | 0.000 | 1.490 | 7.418 | 851.753\*\*\* | -22.243\*\*\* |
| AGR | 0.035 | 0.030 | 0.180 | 0.000 | 1.254 | 4.669 | 272.426\*\*\* | -26.753\*\*\* |
| PA | 0.060 | 0.017 | 0.140 | 0.023 | 0.639 | 3.871 | 71.702\*\*\* | -24.877\*\*\* |
| PICC | 0.022 | 0.020 | 0.130 | 0.000 | 1.708 | 6.456 | 708.574\*\*\* | -25.549\*\*\* |
| COMM | 0.019 | 0.016 | 0.104 | 0.000 | 1.379 | 5.575 | 426.898\*\*\* | -26.118\*\*\* |
| NCI | 0.086 | 0.027 | 0.216 | 0.034 | 0.883 | 4.270 | 141.820\*\*\* | -25.334\*\*\* |
| CCSC | 0.409 | 0.084 | 0.982 | 0.046 | 0.370 | 6.942 | 482.552\*\*\* | -31.554\*\*\* |
| IS | 0.243 | 0.055 | 0.475 | 0.000 | 0.055 | 6.470 | 361.513\*\*\* | -22.618\*\*\* |
| ICBC | 0.021 | 0.017 | 0.093 | 0.000 | 1.342 | 5.178 | 358.455\*\*\* | -28.037\*\*\* |
| DZH | 0.238 | 0.079 | 0.776 | 0.026 | 2.112 | 12.053 | 2994.202\*\*\* | -25.125\*\*\* |
| SCS | 0.220 | 0.052 | 0.599 | 0.000 | 0.966 | 10.588 | 1839.294\*\*\* | -22.985\*\*\* |
| CSHA | 0.195 | 0.041 | 0.390 | 0.105 | 0.845 | 4.266 | 133.628\*\*\* | -24.479\*\*\* |
| CPIC | 0.113 | 0.033 | 0.250 | 0.047 | 0.935 | 4.042 | 137.551\*\*\* | -26.470\*\*\* |
| LIFE | 0.108 | 0.031 | 0.242 | 0.051 | 0.929 | 4.161 | 143.962\*\*\* | -22.480\*\*\* |
| PS | 0.030 | 0.029 | 0.268 | 0.000 | 2.526 | 14.296 | 4594.009\*\*\* | -26.861\*\*\* |
| HTSC | 0.123 | 0.030 | 0.250 | 0.068 | 1.373 | 5.383 | 396.594\*\*\* | -23.236\*\*\* |
| EBSCN | 0.146 | 0.054 | 0.531 | 0.008 | 2.191 | 11.189 | 2588.037\*\*\* | -25.389\*\*\* |
| CEB | 0.035 | 0.030 | 0.187 | 0.000 | 1.704 | 7.230 | 885.213\*\*\* | -27.945\*\*\* |
| CD | 0.184 | 0.061 | 0.592 | 0.078 | 1.414 | 7.728 | 910.696\*\*\* | -24.346\*\*\* |
| ZJ | 0.051 | 0.046 | 0.400 | 0.000 | 1.882 | 9.578 | 1723.139\*\*\* | -29.698\*\*\* |
| GA | 0.174 | 0.039 | 0.402 | 0.112 | 1.641 | 7.082 | 823.067\*\*\* | -23.594\*\*\* |
| FOU | 0.222 | 0.054 | 0.664 | 0.025 | 2.003 | 12.282 | 3065.737\*\*\* | -26.397\*\*\* |
| CZ | 0.037 | 0.047 | 0.920 | 0.000 | 10.342 | 184.505 | 1001159.5\*\*\* | -29.448\*\*\* |
| CCB | 0.018 | 0.016 | 0.113 | 0.000 | 1.663 | 6.893 | 786.738\*\*\* | -28.671\*\*\* |
| CB | 0.032 | 0.027 | 0.178 | 0.000 | 1.465 | 6.083 | 542.822\*\*\* | -29.069\*\*\* |
| NSC | 0.177 | 0.059 | 0.495 | 0.081 | 1.737 | 7.173 | 884.347\*\*\* | -23.413\*\*\* |
| GY | 0.019 | 0.015 | 0.111 | 0.000 | 1.604 | 7.029 | 795.650\*\*\* | -28.919\*\*\* |
| CNCB | 0.030 | 0.028 | 0.396 | 0.000 | 4.144 | 44.775 | 54414.327\*\*\* | -25.209\*\*\* |
| NH | 0.139 | 0.048 | 0.349 | 0.024 | 0.887 | 4.420 | 155.002\*\*\* | -21.222\*\*\* |
| WJ | 0.036 | 0.031 | 0.187 | 0.000 | 1.606 | 6.195 | 615.575\*\*\* | -28.783\*\*\* |

Table 5. Summary statistics for stock volatilities in the A-share market

| ID | Mean | SD | Max | Min | Skewness | Kurtosis | Jarque-Bera | ADF |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| VA | 0.0003 | 0.000 | 0.003 | 0.000 | 6.963 | 42.802 | 238.033\*\*\* | -8.747\*\*\* |
| ZHEN | 0.0005 | 0.001 | 0.013 | 0.000 | 14.602 | 148.662 | 3228.561\*\*\* | -16.473\*\*\* |
| PRD | 0.0006 | 0.001 | 0.010 | 0.000 | 9.396 | 65.354 | 581.601\*\*\* | -12.677\*\*\* |
| GJ | 0.0005 | 0.001 | 0.013 | 0.000 | 18.961 | 311.900 | 23271.713\*\*\* | -13.507\*\*\* |
| OCT | 0.0004 | 0.000 | 0.004 | 0.000 | 6.327 | 34.306 | 144.289\*\*\* | -9.271\*\*\* |
| FCS | 0.0003 | 0.001 | 0.008 | 0.000 | 14.092 | 144.755 | 3209.291\*\*\* | -14.310\*\*\* |
| GYFZ | 0.0008 | 0.001 | 0.012 | 0.000 | 7.717 | 49.756 | 353.578\*\*\* | -11.286\*\*\* |
| 5I5 | 0.0008 | 0.001 | 0.017 | 0.000 | 14.350 | 184.185 | 6897.701\*\*\* | -15.973\*\*\* |
| SUC | 0.0008 | 0.001 | 0.014 | 0.000 | 10.105 | 83.712 | 1064.406\*\*\* | -12.445\*\*\* |
| ZN | 0.0007 | 0.001 | 0.011 | 0.000 | 12.313 | 142.431 | 4211.589\*\*\* | -11.190\*\*\* |
| CMPO | 0.0007 | 0.001 | 0.007 | 0.000 | 6.847 | 46.293 | 323.417\*\*\* | -9.555\*\*\* |
| CMSK | 0.0005 | 0.001 | 0.006 | 0.000 | 7.559 | 69.129 | 941.614\*\*\* | -9.944\*\*\* |
| RS | 0.0005 | 0.001 | 0.008 | 0.000 | 10.533 | 106.425 | 2371.161\*\*\* | -9.782\*\*\* |
| HUCD | 0.0006 | 0.001 | 0.016 | 0.000 | 13.008 | 132.923 | 2538.735\*\*\* | -16.685\*\*\* |
| BJ | 0.0006 | 0.001 | 0.006 | 0.000 | 6.960 | 44.177 | 284.291\*\*\* | -9.712\*\*\* |
| SLH | 0.0009 | 0.001 | 0.015 | 0.000 | 10.253 | 87.160 | 1120.815\*\*\* | -12.468\*\*\* |
| NS | 0.0009 | 0.002 | 0.020 | 0.000 | 13.180 | 117.417 | 1993.642\*\*\* | -15.105\*\*\* |
| PRE | 0.0005 | 0.001 | 0.006 | 0.000 | 6.623 | 47.687 | 356.102\*\*\* | -9.657\*\*\* |
| NJGK | 0.0002 | 0.000 | 0.002 | 0.000 | 9.736 | 92.908 | 1472.486\*\*\* | -9.304\*\*\* |
| GT | 0.0004 | 0.001 | 0.009 | 0.000 | 17.514 | 229.130 | 7961.513\*\*\* | -11.879\*\*\* |
| GR | 0.0008 | 0.001 | 0.017 | 0.000 | 12.527 | 152.266 | 3857.491\*\*\* | -14.249\*\*\* |
| XH | 0.0004 | 0.000 | 0.005 | 0.000 | 14.632 | 173.291 | 4392.042\*\*\* | -11.055\*\*\* |
| LS | 0.0008 | 0.001 | 0.008 | 0.000 | 6.126 | 32.178 | 128.671\*\*\* | -10.526\*\*\* |
| VT | 0.0007 | 0.001 | 0.007 | 0.000 | 6.714 | 42.297 | 248.561\*\*\* | -13.036\*\*\* |
| BC | 0.0004 | 0.000 | 0.005 | 0.000 | 11.356 | 99.134 | 1733.211\*\*\* | -10.280\*\*\* |
| HF | 0.0005 | 0.001 | 0.013 | 0.000 | 17.614 | 293.929 | 19966.193\*\*\* | -14.298\*\*\* |
| BCDC | 0.0004 | 0.001 | 0.008 | 0.000 | 11.724 | 116.922 | 2055.253\*\*\* | -11.153\*\*\* |
| GEMD | 0.0005 | 0.001 | 0.003 | 0.000 | 4.442 | 18.811 | 39.672\*\*\* | -9.189\*\*\* |
| DXE | 0.0005 | 0.001 | 0.011 | 0.000 | 18.209 | 253.485 | 10833.555\*\*\* | -14.764\*\*\* |
| DIMA | 0.0006 | 0.001 | 0.009 | 0.000 | 13.521 | 160.122 | 3776.183\*\*\* | -10.498\*\*\* |
| SB | 0.0004 | 0.001 | 0.014 | 0.000 | 17.350 | 231.853 | 8600.518\*\*\* | -20.002\*\*\* |
| GB | 0.0004 | 0.001 | 0.010 | 0.000 | 15.697 | 197.958 | 6615.471\*\*\* | -13.646\*\*\* |
| WY | 0.0008 | 0.001 | 0.007 | 0.000 | 6.488 | 38.369 | 183.433\*\*\* | -10.786\*\*\* |
| SMI | 0.0003 | 0.000 | 0.005 | 0.000 | 17.107 | 219.237 | 7135.033\*\*\* | -9.212\*\*\* |
| TD | 0.0011 | 0.001 | 0.014 | 0.000 | 6.805 | 46.050 | 279.076\*\*\* | -11.345\*\*\* |
| SLHC | 0.0002 | 0.000 | 0.006 | 0.000 | 14.475 | 171.821 | 4910.753\*\*\* | -12.967\*\*\* |
| ZJHTC | 0.0003 | 0.001 | 0.007 | 0.000 | 12.882 | 132.147 | 3044.658\*\*\* | -14.150\*\*\* |
| SEZE | 0.0006 | 0.001 | 0.007 | 0.000 | 7.686 | 57.738 | 512.647\*\*\* | -9.833\*\*\* |
| PAB | 0.0003 | 0.000 | 0.002 | 0.000 | 4.571 | 22.198 | 53.552\*\*\* | -8.587\*\*\* |
| SWHY | 0.0003 | 0.000 | 0.005 | 0.000 | 14.500 | 165.495 | 4993.638\*\*\* | -9.423\*\*\* |
| SITI | 0.0004 | 0.000 | 0.004 | 0.000 | 14.680 | 186.516 | 5215.681\*\*\* | -10.567\*\*\* |
| HDI | 0.0005 | 0.001 | 0.016 | 0.000 | 17.837 | 233.375 | 7982.274\*\*\* | -20.969\*\*\* |
| CNP | 0.0004 | 0.001 | 0.007 | 0.000 | 10.088 | 65.865 | 625.893\*\*\* | -10.897\*\*\* |
| BIO | 0.0004 | 0.000 | 0.006 | 0.000 | 15.064 | 171.035 | 4272.045\*\*\* | -11.360\*\*\* |
| JW | 0.0004 | 0.001 | 0.013 | 0.000 | 18.903 | 249.299 | 9455.321\*\*\* | -18.599\*\*\* |
| NE | 0.0003 | 0.000 | 0.004 | 0.000 | 10.529 | 91.497 | 1569.325\*\*\* | -15.143\*\*\* |
| GD | 0.0005 | 0.001 | 0.013 | 0.000 | 17.542 | 274.529 | 17788.584\*\*\* | -19.023\*\*\* |
| GS | 0.0003 | 0.000 | 0.005 | 0.000 | 11.524 | 100.709 | 1570.008\*\*\* | -12.194\*\*\* |
| SS | 0.0003 | 0.000 | 0.007 | 0.000 | 20.301 | 300.562 | 14830.873\*\*\* | -15.679\*\*\* |
| GF | 0.0004 | 0.001 | 0.005 | 0.000 | 7.348 | 44.778 | 260.482\*\*\* | -11.436\*\*\* |
| CJ | 0.0002 | 0.000 | 0.004 | 0.000 | 13.690 | 171.640 | 6743.402\*\*\* | -14.964\*\*\* |
| SJZ | 0.0005 | 0.001 | 0.016 | 0.000 | 17.937 | 244.854 | 12506.290\*\*\* | -17.567\*\*\* |
| YX | 0.0004 | 0.001 | 0.010 | 0.000 | 13.721 | 146.030 | 3064.976\*\*\* | -18.386\*\*\* |
| NB | 0.0004 | 0.000 | 0.003 | 0.000 | 5.110 | 26.143 | 77.460\*\*\* | -8.584\*\*\* |
| ZY | 0.0004 | 0.001 | 0.012 | 0.000 | 17.523 | 206.197 | 6794.197\*\*\* | -20.344\*\*\* |
| SX | 0.0003 | 0.000 | 0.005 | 0.000 | 16.169 | 209.210 | 9489.261\*\*\* | -16.098\*\*\* |
| MS | 0.0009 | 0.002 | 0.020 | 0.000 | 10.973 | 89.807 | 1127.051\*\*\* | -17.409\*\*\* |
| WS | 0.0003 | 0.001 | 0.011 | 0.000 | 22.754 | 393.447 | 32291.340\*\*\* | -16.585\*\*\* |
| GUO | 0.0002 | 0.000 | 0.003 | 0.000 | 8.054 | 53.856 | 417.848\*\*\* | -11.294\*\*\* |
| FC | 0.0004 | 0.001 | 0.008 | 0.000 | 11.786 | 104.493 | 1560.860\*\*\* | -16.401\*\*\* |
| JRCB | 0.0003 | 0.000 | 0.004 | 0.000 | 14.484 | 201.155 | 8453.083\*\*\* | -10.968\*\*\* |
| ZJG | 0.0003 | 0.000 | 0.002 | 0.000 | 7.483 | 47.158 | 297.571\*\*\* | -11.019\*\*\* |
| HXSE | 0.0003 | 0.000 | 0.008 | 0.000 | 20.653 | 327.980 | 19652.202\*\*\* | -18.447\*\*\* |
| ZZ | 0.0003 | 0.001 | 0.013 | 0.000 | 33.462 | 708.724 | 76561.007\*\*\* | -16.564\*\*\* |
| GW | 0.0004 | 0.001 | 0.009 | 0.000 | 11.694 | 108.808 | 2213.223\*\*\* | -15.938\*\*\* |
| CL | 0.0007 | 0.001 | 0.018 | 0.000 | 12.386 | 109.951 | 1771.687\*\*\* | -18.192\*\*\* |
| QD | 0.0003 | 0.000 | 0.008 | 0.000 | 21.042 | 296.939 | 13145.054\*\*\* | -17.419\*\*\* |
| QRCB | 0.0003 | 0.000 | 0.007 | 0.000 | 20.929 | 327.210 | 16765.291\*\*\* | -14.241\*\*\* |
| SZ | 0.0002 | 0.000 | 0.004 | 0.000 | 20.055 | 417.184 | 49109.002\*\*\* | -13.403\*\*\* |
| FI | 0.0007 | 0.001 | 0.011 | 0.000 | 10.381 | 81.065 | 910.756\*\*\* | -11.851\*\*\* |
| EM | 0.0005 | 0.001 | 0.007 | 0.000 | 9.704 | 89.739 | 1273.162\*\*\* | -13.080\*\*\* |
| CP | 0.0009 | 0.001 | 0.012 | 0.000 | 8.152 | 58.446 | 521.794\*\*\* | -13.223\*\*\* |
| SPD | 0.0001 | 0.000 | 0.001 | 0.000 | 5.445 | 26.766 | 82.890\*\*\* | -8.050\*\*\* |
| HX | 0.0001 | 0.000 | 0.001 | 0.000 | 8.322 | 69.143 | 715.286\*\*\* | -6.650\*\*\* |
| CMBC | 0.0002 | 0.000 | 0.002 | 0.000 | 16.307 | 229.370 | 8354.447\*\*\* | -7.634\*\*\* |
| CIT | 0.0002 | 0.000 | 0.004 | 0.000 | 11.764 | 113.196 | 2294.508\*\*\* | -14.725\*\*\* |
| CMB | 0.0003 | 0.000 | 0.002 | 0.000 | 5.564 | 33.401 | 143.263\*\*\* | -8.810\*\*\* |
| SDIC | 0.0003 | 0.000 | 0.003 | 0.000 | 9.373 | 69.648 | 711.352\*\*\* | -12.237\*\*\* |
| HHTG | 0.0008 | 0.001 | 0.012 | 0.000 | 8.784 | 62.948 | 545.342\*\*\* | -15.669\*\*\* |
| ZJFHC | 0.0003 | 0.000 | 0.007 | 0.000 | 19.896 | 307.206 | 18035.159\*\*\* | -17.066\*\*\* |
| HBC | 0.0004 | 0.001 | 0.008 | 0.000 | 13.054 | 115.510 | 1902.759\*\*\* | -15.813\*\*\* |
| SWSC | 0.0004 | 0.001 | 0.013 | 0.000 | 28.950 | 589.997 | 77102.359\*\*\* | -20.444\*\*\* |
| MIN | 0.0002 | 0.000 | 0.008 | 0.000 | 24.130 | 503.790 | 68038.993\*\*\* | -15.797\*\*\* |
| ZXDQ | 0.0005 | 0.001 | 0.007 | 0.000 | 10.287 | 77.915 | 868.332\*\*\* | -13.737\*\*\* |
| SHCF | 0.0005 | 0.001 | 0.007 | 0.000 | 9.444 | 66.882 | 609.787\*\*\* | -14.325\*\*\* |
| AJ | 0.0002 | 0.000 | 0.005 | 0.000 | 21.763 | 367.306 | 25427.880\*\*\* | -16.190\*\*\* |
| AVI | 0.0004 | 0.001 | 0.008 | 0.000 | 12.767 | 106.787 | 1633.503\*\*\* | -12.698\*\*\* |
| HTSE | 0.0002 | 0.000 | 0.001 | 0.000 | 6.399 | 33.158 | 147.040\*\*\* | -10.418\*\*\* |
| HTGF | 0.0005 | 0.001 | 0.009 | 0.000 | 12.054 | 102.934 | 1496.987\*\*\* | -15.058\*\*\* |
| JSFL | 0.0002 | 0.000 | 0.002 | 0.000 | 8.498 | 70.792 | 682.344\*\*\* | -8.650\*\*\* |
| WX | 0.0003 | 0.000 | 0.004 | 0.000 | 10.710 | 84.182 | 1025.286\*\*\* | -9.753\*\*\* |
| HA | 0.0003 | 0.000 | 0.007 | 0.000 | 16.770 | 258.571 | 15787.649\*\*\* | -14.458\*\*\* |
| JS | 0.0002 | 0.000 | 0.002 | 0.000 | 4.453 | 23.047 | 56.771\*\*\* | -7.541\*\*\* |
| HZ | 0.0004 | 0.000 | 0.003 | 0.000 | 5.026 | 23.790 | 64.967\*\*\* | -9.144\*\*\* |
| XA | 0.0003 | 0.001 | 0.015 | 0.000 | 38.442 | 876.068 | 115205.686\*\*\* | -23.484\*\*\* |
| ORI | 0.0005 | 0.001 | 0.006 | 0.000 | 7.245 | 39.010 | 194.999\*\*\* | -12.497\*\*\* |
| CMS | 0.0003 | 0.000 | 0.003 | 0.000 | 7.151 | 45.560 | 330.142\*\*\* | -11.638\*\*\* |
| NJCB | 0.0002 | 0.000 | 0.002 | 0.000 | 5.021 | 24.776 | 68.034\*\*\* | -8.082\*\*\* |
| CHI | 0.0004 | 0.001 | 0.007 | 0.000 | 10.442 | 84.386 | 1060.090\*\*\* | -13.918\*\*\* |
| CIN | 0.0002 | 0.000 | 0.001 | 0.000 | 6.709 | 62.687 | 827.340\*\*\* | -5.848\*\*\* |
| PAC | 0.0005 | 0.001 | 0.006 | 0.000 | 10.692 | 88.078 | 1112.469\*\*\* | -12.740\*\*\* |
| CT | 0.0003 | 0.000 | 0.005 | 0.000 | 9.216 | 65.544 | 583.255\*\*\* | -12.502\*\*\* |
| CS | 0.0003 | 0.000 | 0.002 | 0.000 | 5.719 | 32.884 | 135.575\*\*\* | -8.872\*\*\* |
| TF | 0.0004 | 0.000 | 0.003 | 0.000 | 8.251 | 60.496 | 513.993\*\*\* | -10.617\*\*\* |
| IND | 0.0002 | 0.000 | 0.001 | 0.000 | 4.404 | 20.317 | 46.342\*\*\* | -7.948\*\*\* |
| BOB | 0.0001 | 0.000 | 0.001 | 0.000 | 9.031 | 106.102 | 2511.873\*\*\* | -5.571\*\*\* |
| DX | 0.0003 | 0.000 | 0.004 | 0.000 | 11.603 | 104.743 | 1560.782\*\*\* | -14.890\*\*\* |
| GTJA | 0.0002 | 0.000 | 0.002 | 0.000 | 8.229 | 58.217 | 451.067\*\*\* | -11.855\*\*\* |
| SH | 0.0001 | 0.000 | 0.001 | 0.000 | 7.588 | 53.468 | 403.681\*\*\* | -7.626\*\*\* |
| HT | 0.0005 | 0.001 | 0.009 | 0.000 | 10.990 | 85.347 | 1017.260\*\*\* | -18.349\*\*\* |
| AGR | 0.0003 | 0.000 | 0.001 | 0.000 | 7.206 | 65.519 | 649.231\*\*\* | -3.942\*\*\* |
| PA | 0.0002 | 0.000 | 0.001 | 0.000 | 4.613 | 22.499 | 57.620\*\*\* | -8.519\*\*\* |
| PICC | 0.0002 | 0.000 | 0.002 | 0.000 | 8.637 | 71.818 | 706.522\*\*\* | -9.251\*\*\* |
| COMM | 0.0001 | 0.000 | 0.001 | 0.000 | 11.101 | 114.636 | 1847.736\*\*\* | -5.916\*\*\* |
| NCI | 0.0003 | 0.000 | 0.002 | 0.000 | 5.994 | 30.987 | 138.791\*\*\* | -9.351\*\*\* |
| CCSC | 0.0004 | 0.001 | 0.015 | 0.000 | 21.475 | 378.316 | 32106.762\*\*\* | -16.202\*\*\* |
| IS | 0.0004 | 0.000 | 0.005 | 0.000 | 8.187 | 55.479 | 412.420\*\*\* | -13.140\*\*\* |
| ICBC | 0.0001 | 0.000 | 0.001 | 0.000 | 9.127 | 79.920 | 1031.793\*\*\* | -5.899\*\*\* |
| DZH | 0.0006 | 0.001 | 0.010 | 0.000 | 11.074 | 84.372 | 998.395\*\*\* | -16.954\*\*\* |
| SCS | 0.0003 | 0.000 | 0.005 | 0.000 | 10.778 | 85.439 | 1016.999\*\*\* | -12.562\*\*\* |
| CSHA | 0.0002 | 0.000 | 0.004 | 0.000 | 11.953 | 125.707 | 2236.012\*\*\* | -13.053\*\*\* |
| CPIC | 0.0003 | 0.000 | 0.002 | 0.000 | 5.666 | 28.993 | 101.845\*\*\* | -7.883\*\*\* |
| LIFE | 0.0004 | 0.000 | 0.004 | 0.000 | 7.040 | 48.607 | 335.802\*\*\* | -9.792\*\*\* |
| PS | 0.0003 | 0.000 | 0.004 | 0.000 | 10.590 | 104.759 | 1725.334\*\*\* | -9.709\*\*\* |
| HTSC | 0.0002 | 0.000 | 0.002 | 0.000 | 7.619 | 48.731 | 315.213\*\*\* | -12.029\*\*\* |
| EBSCN | 0.0005 | 0.001 | 0.006 | 0.000 | 8.249 | 49.994 | 353.501\*\*\* | -14.565\*\*\* |
| CEB | 0.0003 | 0.000 | 0.002 | 0.000 | 6.507 | 48.426 | 336.467\*\*\* | -5.122\*\*\* |
| CD | 0.0004 | 0.000 | 0.007 | 0.000 | 11.826 | 132.285 | 2618.281\*\*\* | -10.140\*\*\* |
| ZJ | 0.0003 | 0.000 | 0.004 | 0.000 | 15.055 | 168.534 | 4255.352\*\*\* | -10.692\*\*\* |
| GA | 0.0003 | 0.000 | 0.005 | 0.000 | 9.638 | 94.833 | 2149.819\*\*\* | -13.131\*\*\* |
| FOU | 0.0004 | 0.001 | 0.012 | 0.000 | 21.459 | 331.547 | 17075.812\*\*\* | -20.066\*\*\* |
| CZ | 0.0002 | 0.000 | 0.001 | 0.000 | 6.679 | 48.141 | 339.328\*\*\* | -6.269\*\*\* |
| CCB | 0.0001 | 0.000 | 0.002 | 0.000 | 11.568 | 120.069 | 2045.112\*\*\* | -8.427\*\*\* |
| CB | 0.0002 | 0.000 | 0.002 | 0.000 | 14.989 | 210.118 | 7798.430\*\*\* | -4.582\*\*\* |
| NSC | 0.0004 | 0.001 | 0.006 | 0.000 | 10.248 | 76.636 | 841.145\*\*\* | -16.660\*\*\* |
| GY | 0.0001 | 0.000 | 0.001 | 0.000 | 6.612 | 43.467 | 266.431\*\*\* | -7.662\*\*\* |
| CNCB | 0.0002 | 0.000 | 0.003 | 0.000 | 15.187 | 185.069 | 5472.752\*\*\* | -10.539\*\*\* |
| NH | 0.0004 | 0.001 | 0.014 | 0.000 | 23.716 | 431.853 | 36332.571\*\*\* | -19.660\*\*\* |
| WJ | 0.0003 | 0.000 | 0.003 | 0.000 | 8.062 | 53.559 | 413.401\*\*\* | -8.778\*\*\* |

Table 6. Descriptive statistics for good volatility information series

| ID | Mean | SD | Max | Min | Skewness | Kurtosis | Jarque-Bera | ADF |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| VA | 0.0002 | 0.000 | 0.002 | 0.000 | 3.682 | 24.480 | 154.680\*\*\* | -4.706\*\*\* |
| ZHEN | 0.0003 | 0.001 | 0.007 | 0.000 | 6.740 | 65.478 | 1225.577\*\*\* | -8.249\*\*\* |
| PRD | 0.0004 | 0.001 | 0.006 | 0.000 | 4.631 | 32.122 | 280.171\*\*\* | -6.827\*\*\* |
| GJ | 0.0003 | 0.001 | 0.011 | 0.000 | 14.324 | 278.176 | 22962.710\*\*\* | -8.846\*\*\* |
| OCT | 0.0002 | 0.000 | 0.002 | 0.000 | 3.224 | 17.508 | 75.617\*\*\* | -5.216\*\*\* |
| FCS | 0.0002 | 0.000 | 0.004 | 0.000 | 6.379 | 54.069 | 831.235\*\*\* | -7.712\*\*\* |
| GYFZ | 0.0005 | 0.001 | 0.005 | 0.000 | 3.382 | 17.794 | 79.386\*\*\* | -5.477\*\*\* |
| 5I5 | 0.0004 | 0.001 | 0.012 | 0.000 | 9.567 | 149.798 | 6574.702\*\*\* | -8.971\*\*\* |
| SUC | 0.0004 | 0.001 | 0.009 | 0.000 | 5.847 | 54.488 | 836.331\*\*\* | -6.628\*\*\* |
| ZN | 0.0004 | 0.001 | 0.005 | 0.000 | 4.047 | 24.349 | 156.381\*\*\* | -4.824\*\*\* |
| CMPO | 0.0004 | 0.000 | 0.003 | 0.000 | 2.683 | 13.978 | 44.793\*\*\* | -4.248\*\*\* |
| CMSK | 0.0003 | 0.000 | 0.005 | 0.000 | 4.910 | 57.165 | 909.088\*\*\* | -5.144\*\*\* |
| RS | 0.0003 | 0.000 | 0.006 | 0.000 | 7.436 | 89.280 | 2299.632\*\*\* | -6.078\*\*\* |
| HUCD | 0.0004 | 0.001 | 0.011 | 0.000 | 6.778 | 72.323 | 1496.849\*\*\* | -8.673\*\*\* |
| BJ | 0.0004 | 0.000 | 0.004 | 0.000 | 4.065 | 29.811 | 235.488\*\*\* | -5.434\*\*\* |
| SLH | 0.0005 | 0.001 | 0.009 | 0.000 | 5.663 | 54.305 | 828.135\*\*\* | -6.662\*\*\* |
| NS | 0.0005 | 0.001 | 0.013 | 0.000 | 6.950 | 65.421 | 1226.894\*\*\* | -8.182\*\*\* |
| PRE | 0.0003 | 0.000 | 0.004 | 0.000 | 3.932 | 34.504 | 316.305\*\*\* | -5.345\*\*\* |
| NJGK | 0.0001 | 0.000 | 0.002 | 0.000 | 5.889 | 68.063 | 1311.558\*\*\* | -4.644\*\*\* |
| GT | 0.0002 | 0.000 | 0.005 | 0.000 | 9.710 | 137.194 | 5515.524\*\*\* | -6.996\*\*\* |
| GR | 0.0004 | 0.000 | 0.007 | 0.000 | 4.790 | 45.883 | 579.227\*\*\* | -6.163\*\*\* |
| XH | 0.0002 | 0.000 | 0.003 | 0.000 | 6.887 | 76.220 | 1665.288\*\*\* | -4.978\*\*\* |
| LS | 0.0004 | 0.001 | 0.004 | 0.000 | 2.898 | 13.745 | 44.715\*\*\* | -5.859\*\*\* |
| VT | 0.0004 | 0.000 | 0.004 | 0.000 | 3.815 | 27.392 | 195.951\*\*\* | -6.159\*\*\* |
| BC | 0.0002 | 0.000 | 0.002 | 0.000 | 4.116 | 25.452 | 171.565\*\*\* | -4.577\*\*\* |
| HF | 0.0003 | 0.000 | 0.010 | 0.000 | 13.135 | 257.264 | 19602.129\*\*\* | -9.005\*\*\* |
| BCDC | 0.0002 | 0.000 | 0.004 | 0.000 | 5.119 | 43.975 | 535.129\*\*\* | -5.377\*\*\* |
| GEMD | 0.0003 | 0.000 | 0.002 | 0.000 | 1.916 | 7.173 | 9.631\*\*\* | -4.498\*\*\* |
| DXE | 0.0003 | 0.000 | 0.006 | 0.000 | 7.578 | 77.724 | 1743.995\*\*\* | -7.089\*\*\* |
| DIMA | 0.0004 | 0.000 | 0.006 | 0.000 | 7.778 | 93.033 | 2504.385\*\*\* | -6.401\*\*\* |
| SB | 0.0002 | 0.001 | 0.010 | 0.000 | 10.245 | 151.576 | 6748.414\*\*\* | -10.939\*\*\* |
| GB | 0.0002 | 0.000 | 0.007 | 0.000 | 9.746 | 138.387 | 5612.867\*\*\* | -8.417\*\*\* |
| WY | 0.0004 | 0.000 | 0.003 | 0.000 | 3.163 | 17.895 | 78.560\*\*\* | -5.227\*\*\* |
| SMI | 0.0001 | 0.000 | 0.003 | 0.000 | 9.541 | 124.707 | 4552.997\*\*\* | -4.796\*\*\* |
| TD | 0.0006 | 0.001 | 0.007 | 0.000 | 3.812 | 27.166 | 192.639\*\*\* | -6.162\*\*\* |
| SLHC | 0.0001 | 0.000 | 0.003 | 0.000 | 5.887 | 52.841 | 786.826\*\*\* | -7.114\*\*\* |
| ZJHTC | 0.0002 | 0.000 | 0.003 | 0.000 | 4.960 | 35.719 | 350.675\*\*\* | -7.518\*\*\* |
| SEZE | 0.0003 | 0.000 | 0.003 | 0.000 | 3.155 | 17.722 | 76.971\*\*\* | -5.085\*\*\* |
| PAB | 0.0002 | 0.000 | 0.001 | 0.000 | 2.427 | 12.736 | 35.509\*\*\* | -4.245\*\*\* |
| SWHY | 0.0002 | 0.000 | 0.003 | 0.000 | 9.283 | 124.416 | 4525.978\*\*\* | -5.377\*\*\* |
| SITI | 0.0002 | 0.000 | 0.002 | 0.000 | 6.774 | 75.107 | 1614.883\*\*\* | -5.350\*\*\* |
| HDI | 0.0003 | 0.000 | 0.008 | 0.000 | 9.114 | 124.476 | 4526.633\*\*\* | -7.367\*\*\* |
| CNP | 0.0002 | 0.000 | 0.003 | 0.000 | 4.425 | 26.307 | 186.458\*\*\* | -5.838\*\*\* |
| BIO | 0.0002 | 0.000 | 0.004 | 0.000 | 7.318 | 76.365 | 1678.985\*\*\* | -5.635\*\*\* |
| JW | 0.0002 | 0.000 | 0.005 | 0.000 | 8.272 | 100.210 | 2917.014\*\*\* | -8.481\*\*\* |
| NE | 0.0001 | 0.000 | 0.003 | 0.000 | 6.998 | 71.541 | 1468.115\*\*\* | -8.629\*\*\* |
| GD | 0.0003 | 0.000 | 0.004 | 0.000 | 4.480 | 31.249 | 263.479\*\*\* | -8.242\*\*\* |
| GS | 0.0002 | 0.000 | 0.002 | 0.000 | 5.066 | 34.880 | 335.696\*\*\* | -5.617\*\*\* |
| SS | 0.0002 | 0.000 | 0.003 | 0.000 | 7.847 | 99.360 | 2859.447\*\*\* | -6.516\*\*\* |
| GF | 0.0002 | 0.000 | 0.002 | 0.000 | 3.593 | 20.343 | 105.720\*\*\* | -5.910\*\*\* |
| CJ | 0.0001 | 0.000 | 0.003 | 0.000 | 10.199 | 150.221 | 6627.001\*\*\* | -8.811\*\*\* |
| SJZ | 0.0003 | 0.001 | 0.013 | 0.000 | 12.589 | 201.211 | 11976.399\*\*\* | -11.306\*\*\* |
| YX | 0.0002 | 0.000 | 0.006 | 0.000 | 6.793 | 68.779 | 1353.448\*\*\* | -9.549\*\*\* |
| NB | 0.0002 | 0.000 | 0.001 | 0.000 | 2.726 | 14.272 | 47.033\*\*\* | -4.691\*\*\* |
| ZY | 0.0002 | 0.000 | 0.008 | 0.000 | 10.070 | 134.563 | 5314.368\*\*\* | -10.843\*\*\* |
| SX | 0.0001 | 0.000 | 0.004 | 0.000 | 11.734 | 176.557 | 9201.866\*\*\* | -10.095\*\*\* |
| MS | 0.0004 | 0.001 | 0.010 | 0.000 | 5.373 | 43.467 | 525.900\*\*\* | -8.730\*\*\* |
| WS | 0.0002 | 0.000 | 0.009 | 0.000 | 15.682 | 322.016 | 30826.518\*\*\* | -9.553\*\*\* |
| GUO | 0.0001 | 0.000 | 0.002 | 0.000 | 4.709 | 34.487 | 324.040\*\*\* | -6.312\*\*\* |
| FC | 0.0002 | 0.000 | 0.005 | 0.000 | 6.444 | 58.256 | 965.802\*\*\* | -8.997\*\*\* |
| JRCB | 0.0001 | 0.000 | 0.001 | 0.000 | 4.308 | 34.829 | 326.190\*\*\* | -3.901\*\*\* |
| ZJG | 0.0001 | 0.000 | 0.001 | 0.000 | 3.414 | 19.573 | 96.382\*\*\* | -4.988\*\*\* |
| HXSE | 0.0002 | 0.000 | 0.004 | 0.000 | 8.006 | 84.066 | 2048.418\*\*\* | -10.626\*\*\* |
| ZZ | 0.0002 | 0.000 | 0.010 | 0.000 | 18.896 | 409.208 | 49929.996\*\*\* | -10.324\*\*\* |
| GW | 0.0002 | 0.000 | 0.006 | 0.000 | 7.526 | 84.376 | 2054.576\*\*\* | -9.147\*\*\* |
| CL | 0.0004 | 0.001 | 0.010 | 0.000 | 5.589 | 45.153 | 570.552\*\*\* | -8.243\*\*\* |
| QD | 0.0002 | 0.000 | 0.004 | 0.000 | 9.759 | 131.094 | 5036.674\*\*\* | -7.498\*\*\* |
| QRCB | 0.0002 | 0.000 | 0.004 | 0.000 | 9.108 | 122.340 | 4372.140\*\*\* | -6.801\*\*\* |
| SZ | 0.0001 | 0.000 | 0.003 | 0.000 | 17.723 | 405.927 | 49082.022\*\*\* | -9.051\*\*\* |
| FI | 0.0004 | 0.001 | 0.007 | 0.000 | 5.080 | 39.331 | 426.934\*\*\* | -6.235\*\*\* |
| EM | 0.0003 | 0.000 | 0.003 | 0.000 | 3.985 | 28.387 | 212.402\*\*\* | -6.258\*\*\* |
| CP | 0.0005 | 0.001 | 0.008 | 0.000 | 5.046 | 39.796 | 436.733\*\*\* | -7.826\*\*\* |
| SPD | 0.0001 | 0.000 | 0.000 | 0.000 | 2.776 | 14.211 | 46.948\*\*\* | -4.079\*\*\* |
| HX | 0.0001 | 0.000 | 0.001 | 0.000 | 4.835 | 45.721 | 575.574\*\*\* | -3.394\*\*\* |
| CMBC | 0.0001 | 0.000 | 0.001 | 0.000 | 10.071 | 148.889 | 6506.806\*\*\* | -4.710\*\*\* |
| CIT | 0.0001 | 0.000 | 0.002 | 0.000 | 4.212 | 28.280 | 213.011\*\*\* | -7.271\*\*\* |
| CMB | 0.0001 | 0.000 | 0.001 | 0.000 | 2.440 | 12.268 | 32.911\*\*\* | -4.308\*\*\* |
| SDIC | 0.0002 | 0.000 | 0.001 | 0.000 | 3.982 | 25.714 | 173.813\*\*\* | -5.186\*\*\* |
| HHTG | 0.0004 | 0.001 | 0.006 | 0.000 | 4.091 | 26.934 | 191.932\*\*\* | -7.888\*\*\* |
| ZJFHC | 0.0002 | 0.000 | 0.005 | 0.000 | 13.138 | 236.914 | 16621.920\*\*\* | -9.049\*\*\* |
| HBC | 0.0002 | 0.000 | 0.004 | 0.000 | 6.465 | 56.108 | 896.314\*\*\* | -8.780\*\*\* |
| SWSC | 0.0002 | 0.000 | 0.005 | 0.000 | 8.212 | 89.460 | 2323.524\*\*\* | -8.488\*\*\* |
| MIN | 0.0001 | 0.000 | 0.001 | 0.000 | 3.929 | 26.945 | 190.527\*\*\* | -4.632\*\*\* |
| ZXDQ | 0.0003 | 0.000 | 0.005 | 0.000 | 5.606 | 45.857 | 588.724\*\*\* | -7.778\*\*\* |
| SHCF | 0.0003 | 0.000 | 0.004 | 0.000 | 4.865 | 34.073 | 318.060\*\*\* | -7.359\*\*\* |
| AJ | 0.0001 | 0.000 | 0.003 | 0.000 | 14.635 | 279.644 | 23216.603\*\*\* | -9.679\*\*\* |
| AVI | 0.0002 | 0.000 | 0.005 | 0.000 | 6.796 | 57.792 | 956.075\*\*\* | -7.089\*\*\* |
| HTSE | 0.0001 | 0.000 | 0.001 | 0.000 | 3.687 | 20.912 | 112.565\*\*\* | -5.602\*\*\* |
| HTGF | 0.0003 | 0.001 | 0.005 | 0.000 | 6.293 | 50.868 | 734.925\*\*\* | -7.393\*\*\* |
| JSFL | 0.0001 | 0.000 | 0.001 | 0.000 | 4.484 | 39.308 | 419.610\*\*\* | -4.010\*\*\* |
| WX | 0.0001 | 0.000 | 0.002 | 0.000 | 4.943 | 34.008 | 317.776\*\*\* | -4.628\*\*\* |
| HA | 0.0002 | 0.000 | 0.002 | 0.000 | 4.301 | 29.201 | 228.151\*\*\* | -5.187\*\*\* |
| JS | 0.0001 | 0.000 | 0.001 | 0.000 | 2.245 | 10.063 | 21.012\*\*\* | -4.136\*\*\* |
| HZ | 0.0002 | 0.000 | 0.002 | 0.000 | 2.787 | 13.791 | 44.250\*\*\* | -5.007\*\*\* |
| XA | 0.0001 | 0.000 | 0.009 | 0.000 | 18.373 | 402.340 | 48246.894\*\*\* | -11.921\*\*\* |
| ORI | 0.0003 | 0.000 | 0.003 | 0.000 | 3.514 | 19.284 | 94.373\*\*\* | -6.409\*\*\* |
| CMS | 0.0002 | 0.000 | 0.001 | 0.000 | 2.829 | 12.503 | 36.699\*\*\* | -5.382\*\*\* |
| NJCB | 0.0001 | 0.000 | 0.001 | 0.000 | 2.446 | 12.237 | 32.779\*\*\* | -3.799\*\*\* |
| CHI | 0.0003 | 0.000 | 0.005 | 0.000 | 5.966 | 53.124 | 796.428\*\*\* | -7.900\*\*\* |
| CIN | 0.0001 | 0.000 | 0.001 | 0.000 | 5.078 | 54.117 | 814.842\*\*\* | -3.198\*\*\* |
| PAC | 0.0003 | 0.000 | 0.004 | 0.000 | 5.825 | 51.433 | 744.438\*\*\* | -6.855\*\*\* |
| CT | 0.0002 | 0.000 | 0.003 | 0.000 | 4.550 | 33.653 | 306.723\*\*\* | -5.728\*\*\* |
| CS | 0.0002 | 0.000 | 0.001 | 0.000 | 2.557 | 12.950 | 37.546\*\*\* | -4.248\*\*\* |
| TF | 0.0002 | 0.000 | 0.002 | 0.000 | 4.777 | 36.914 | 372.428\*\*\* | -5.667\*\*\* |
| IND | 0.0001 | 0.000 | 0.001 | 0.000 | 1.932 | 7.647 | 10.960\*\*\* | -3.982\*\*\* |
| BOB | 0.0001 | 0.000 | 0.001 | 0.000 | 7.037 | 92.729 | 2474.825\*\*\* | -3.327\*\*\* |
| DX | 0.0002 | 0.000 | 0.003 | 0.000 | 6.283 | 57.680 | 944.346\*\*\* | -8.345\*\*\* |
| GTJA | 0.0001 | 0.000 | 0.001 | 0.000 | 4.352 | 30.586 | 251.021\*\*\* | -6.305\*\*\* |
| SH | 0.0001 | 0.000 | 0.000 | 0.000 | 3.399 | 19.571 | 96.250\*\*\* | -3.470\*\*\* |
| HT | 0.0003 | 0.000 | 0.005 | 0.000 | 5.379 | 41.901 | 488.713\*\*\* | -8.600\*\*\* |
| AGR | 0.0001 | 0.000 | 0.001 | 0.000 | 2.737 | 20.865 | 104.734\*\*\* | -1.443\*\*\* |
| PA | 0.0001 | 0.000 | 0.001 | 0.000 | 2.615 | 13.763 | 42.961\*\*\* | -4.563\*\*\* |
| PICC | 0.0001 | 0.000 | 0.001 | 0.000 | 4.598 | 40.339 | 443.639\*\*\* | -4.833\*\*\* |
| COMM | 0.0001 | 0.000 | 0.001 | 0.000 | 5.485 | 59.740 | 1001.927\*\*\* | -2.499\*\*\* |
| NCI | 0.0002 | 0.000 | 0.001 | 0.000 | 3.665 | 21.619 | 120.115\*\*\* | -5.344\*\*\* |
| CCSC | 0.0002 | 0.001 | 0.012 | 0.000 | 15.808 | 324.408 | 31290.711\*\*\* | -10.325\*\*\* |
| IS | 0.0002 | 0.000 | 0.002 | 0.000 | 3.862 | 24.896 | 161.730\*\*\* | -6.109\*\*\* |
| ICBC | 0.0001 | 0.000 | 0.001 | 0.000 | 3.488 | 23.660 | 142.650\*\*\* | -2.344\*\*\* |
| DZH | 0.0003 | 0.001 | 0.005 | 0.000 | 5.444 | 39.786 | 441.527\*\*\* | -9.429\*\*\* |
| SCS | 0.0002 | 0.000 | 0.002 | 0.000 | 5.542 | 43.765 | 535.388\*\*\* | -6.264\*\*\* |
| CSHA | 0.0001 | 0.000 | 0.002 | 0.000 | 5.856 | 61.707 | 1075.104\*\*\* | -6.655\*\*\* |
| CPIC | 0.0002 | 0.000 | 0.001 | 0.000 | 2.598 | 12.205 | 33.521\*\*\* | -4.140\*\*\* |
| LIFE | 0.0002 | 0.000 | 0.002 | 0.000 | 3.019 | 16.869 | 68.649\*\*\* | -4.978\*\*\* |
| PS | 0.0002 | 0.000 | 0.002 | 0.000 | 6.048 | 70.347 | 1404.563\*\*\* | -4.586\*\*\* |
| HTSC | 0.0001 | 0.000 | 0.001 | 0.000 | 3.666 | 21.087 | 114.266\*\*\* | -5.710\*\*\* |
| EBSCN | 0.0003 | 0.000 | 0.003 | 0.000 | 3.584 | 18.990 | 92.118\*\*\* | -7.537\*\*\* |
| CEB | 0.0001 | 0.000 | 0.001 | 0.000 | 2.709 | 16.013 | 59.603\*\*\* | -2.361\*\*\* |
| CD | 0.0002 | 0.000 | 0.004 | 0.000 | 6.692 | 81.457 | 1900.380\*\*\* | -5.461\*\*\* |
| ZJ | 0.0002 | 0.000 | 0.003 | 0.000 | 8.835 | 100.219 | 2929.109\*\*\* | -6.253\*\*\* |
| GA | 0.0002 | 0.000 | 0.004 | 0.000 | 7.548 | 85.985 | 2134.320\*\*\* | -8.190\*\*\* |
| FOU | 0.0002 | 0.000 | 0.007 | 0.000 | 10.064 | 127.014 | 4735.364\*\*\* | -11.336\*\*\* |
| CZ | 0.0001 | 0.000 | 0.001 | 0.000 | 2.601 | 15.422 | 54.409\*\*\* | -2.501\*\*\* |
| CCB | 0.0001 | 0.000 | 0.001 | 0.000 | 5.922 | 64.694 | 1183.914\*\*\* | -4.483\*\*\* |
| CB | 0.0001 | 0.000 | 0.001 | 0.000 | 5.655 | 56.653 | 901.972\*\*\* | -1.845\*\*\* |
| NSC | 0.0002 | 0.000 | 0.004 | 0.000 | 5.613 | 45.288 | 574.281\*\*\* | -9.346\*\*\* |
| GY | 0.0001 | 0.000 | 0.001 | 0.000 | 3.813 | 28.688 | 215.410\*\*\* | -4.105\*\*\* |
| CNCB | 0.0001 | 0.000 | 0.001 | 0.000 | 6.317 | 63.079 | 1130.720\*\*\* | -4.043\*\*\* |
| NH | 0.0002 | 0.000 | 0.005 | 0.000 | 7.468 | 95.191 | 2616.661\*\*\* | -8.128\*\*\* |
| WJ | 0.0001 | 0.000 | 0.002 | 0.000 | 4.617 | 34.340 | 320.251\*\*\* | -4.170\*\*\* |

Table 7. Descriptive statistics for bad volatility information series

| ID | Mean | SD | Max | Min | Skewness | Kurtosis | Jarque-Bera | ADF |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| VA | 0.0002 | 0.000 | 0.001 | 0.000 | 3.281 | 18.322 | 83.353\*\*\* | -4.041\*\*\* |
| ZHEN | 0.0002 | 0.000 | 0.006 | 0.000 | 7.862 | 83.183 | 2002.985\*\*\* | -8.224\*\*\* |
| PRD | 0.0003 | 0.000 | 0.004 | 0.000 | 4.764 | 33.232 | 301.430\*\*\* | -5.851\*\*\* |
| GJ | 0.0002 | 0.000 | 0.002 | 0.000 | 4.637 | 33.725 | 309.003\*\*\* | -4.661\*\*\* |
| OCT | 0.0002 | 0.000 | 0.002 | 0.000 | 3.103 | 16.798 | 68.673\*\*\* | -4.056\*\*\* |
| FCS | 0.0001 | 0.000 | 0.004 | 0.000 | 7.714 | 90.686 | 2378.057\*\*\* | -6.598\*\*\* |
| GYFZ | 0.0004 | 0.001 | 0.007 | 0.000 | 4.335 | 31.962 | 274.192\*\*\* | -5.808\*\*\* |
| 5I5 | 0.0004 | 0.000 | 0.005 | 0.000 | 4.782 | 34.387 | 322.998\*\*\* | -7.002\*\*\* |
| SUC | 0.0004 | 0.000 | 0.005 | 0.000 | 4.258 | 29.225 | 228.075\*\*\* | -5.818\*\*\* |
| ZN | 0.0003 | 0.000 | 0.006 | 0.000 | 8.266 | 118.083 | 4055.208\*\*\* | -6.365\*\*\* |
| CMPO | 0.0003 | 0.000 | 0.004 | 0.000 | 4.165 | 32.315 | 278.624\*\*\* | -5.307\*\*\* |
| CMSK | 0.0002 | 0.000 | 0.002 | 0.000 | 2.649 | 11.964 | 32.526\*\*\* | -4.800\*\*\* |
| RS | 0.0002 | 0.000 | 0.002 | 0.000 | 3.097 | 17.145 | 71.529\*\*\* | -3.704\*\*\* |
| HUCD | 0.0002 | 0.000 | 0.005 | 0.000 | 6.230 | 60.599 | 1041.886\*\*\* | -8.012\*\*\* |
| BJ | 0.0003 | 0.000 | 0.002 | 0.000 | 2.894 | 14.365 | 48.804\*\*\* | -4.278\*\*\* |
| SLH | 0.0004 | 0.001 | 0.006 | 0.000 | 4.590 | 32.855 | 292.680\*\*\* | -5.806\*\*\* |
| NS | 0.0004 | 0.001 | 0.008 | 0.000 | 6.230 | 51.996 | 766.748\*\*\* | -6.923\*\*\* |
| PRE | 0.0002 | 0.000 | 0.002 | 0.000 | 2.691 | 13.183 | 39.798\*\*\* | -4.311\*\*\* |
| NJGK | 0.0001 | 0.000 | 0.001 | 0.000 | 3.848 | 24.845 | 160.928\*\*\* | -4.660\*\*\* |
| GT | 0.0002 | 0.000 | 0.003 | 0.000 | 7.804 | 91.936 | 2445.989\*\*\* | -4.883\*\*\* |
| GR | 0.0004 | 0.001 | 0.010 | 0.000 | 7.738 | 106.383 | 3278.264\*\*\* | -8.086\*\*\* |
| XH | 0.0002 | 0.000 | 0.003 | 0.000 | 7.745 | 97.070 | 2726.754\*\*\* | -6.077\*\*\* |
| LS | 0.0004 | 0.000 | 0.004 | 0.000 | 3.229 | 18.432 | 83.956\*\*\* | -4.667\*\*\* |
| VT | 0.0003 | 0.000 | 0.003 | 0.000 | 2.899 | 14.906 | 52.610\*\*\* | -6.877\*\*\* |
| BC | 0.0002 | 0.000 | 0.003 | 0.000 | 7.240 | 73.681 | 1561.646\*\*\* | -5.704\*\*\* |
| HF | 0.0002 | 0.000 | 0.003 | 0.000 | 4.479 | 36.664 | 364.064\*\*\* | -5.293\*\*\* |
| BCDC | 0.0002 | 0.000 | 0.004 | 0.000 | 6.605 | 72.947 | 1520.124\*\*\* | -5.776\*\*\* |
| GEMD | 0.0002 | 0.000 | 0.002 | 0.000 | 2.526 | 11.638 | 30.041\*\*\* | -4.691\*\*\* |
| DXE | 0.0002 | 0.000 | 0.005 | 0.000 | 10.631 | 175.761 | 9089.560\*\*\* | -7.675\*\*\* |
| DIMA | 0.0003 | 0.000 | 0.003 | 0.000 | 5.743 | 67.089 | 1271.798\*\*\* | -4.097\*\*\* |
| SB | 0.0002 | 0.000 | 0.004 | 0.000 | 7.105 | 80.277 | 1852.104\*\*\* | -9.063\*\*\* |
| GB | 0.0002 | 0.000 | 0.003 | 0.000 | 5.952 | 59.571 | 1002.604\*\*\* | -5.228\*\*\* |
| WY | 0.0004 | 0.000 | 0.004 | 0.000 | 3.325 | 20.474 | 104.872\*\*\* | -5.559\*\*\* |
| SMI | 0.0001 | 0.000 | 0.002 | 0.000 | 7.566 | 94.530 | 2582.035\*\*\* | -4.416\*\*\* |
| TD | 0.0005 | 0.001 | 0.007 | 0.000 | 2.993 | 18.884 | 86.437\*\*\* | -5.184\*\*\* |
| SLHC | 0.0001 | 0.000 | 0.003 | 0.000 | 8.588 | 118.980 | 4123.927\*\*\* | -5.853\*\*\* |
| ZJHTC | 0.0002 | 0.000 | 0.004 | 0.000 | 7.922 | 96.429 | 2693.983\*\*\* | -6.633\*\*\* |
| SEZE | 0.0003 | 0.000 | 0.003 | 0.000 | 4.531 | 40.015 | 435.676\*\*\* | -7.532\*\*\* |
| PAB | 0.0001 | 0.000 | 0.001 | 0.000 | 2.144 | 9.462 | 18.043\*\*\* | -4.342\*\*\* |
| SWHY | 0.0001 | 0.000 | 0.001 | 0.000 | 5.217 | 41.079 | 467.660\*\*\* | -4.046\*\*\* |
| SITI | 0.0002 | 0.000 | 0.002 | 0.000 | 7.906 | 111.410 | 3600.798\*\*\* | -5.217\*\*\* |
| HDI | 0.0003 | 0.001 | 0.008 | 0.000 | 8.723 | 108.898 | 3455.641\*\*\* | -13.602\*\*\* |
| CNP | 0.0002 | 0.000 | 0.004 | 0.000 | 5.664 | 39.558 | 439.436\*\*\* | -5.059\*\*\* |
| BIO | 0.0002 | 0.000 | 0.003 | 0.000 | 7.746 | 94.671 | 2593.060\*\*\* | -5.725\*\*\* |
| JW | 0.0002 | 0.000 | 0.007 | 0.000 | 10.631 | 149.090 | 6538.307\*\*\* | -10.118\*\*\* |
| NE | 0.0001 | 0.000 | 0.001 | 0.000 | 3.530 | 19.956 | 101.210\*\*\* | -6.514\*\*\* |
| GD | 0.0002 | 0.000 | 0.009 | 0.000 | 13.063 | 243.280 | 17525.105\*\*\* | -10.781\*\*\* |
| GS | 0.0001 | 0.000 | 0.003 | 0.000 | 6.459 | 65.829 | 1234.312\*\*\* | -6.577\*\*\* |
| SS | 0.0002 | 0.000 | 0.004 | 0.000 | 12.454 | 201.203 | 11971.426\*\*\* | -9.162\*\*\* |
| GF | 0.0002 | 0.000 | 0.002 | 0.000 | 3.756 | 24.435 | 154.762\*\*\* | -5.527\*\*\* |
| CJ | 0.0001 | 0.000 | 0.001 | 0.000 | 3.491 | 21.419 | 116.401\*\*\* | -6.152\*\*\* |
| SJZ | 0.0002 | 0.000 | 0.004 | 0.000 | 5.348 | 43.643 | 529.891\*\*\* | -6.261\*\*\* |
| YX | 0.0002 | 0.000 | 0.005 | 0.000 | 6.928 | 77.250 | 1711.528\*\*\* | -8.837\*\*\* |
| NB | 0.0002 | 0.000 | 0.001 | 0.000 | 2.384 | 11.871 | 30.427\*\*\* | -3.893\*\*\* |
| ZY | 0.0002 | 0.000 | 0.004 | 0.000 | 7.453 | 71.634 | 1479.830\*\*\* | -9.501\*\*\* |
| SX | 0.0001 | 0.000 | 0.001 | 0.000 | 4.435 | 32.653 | 287.394\*\*\* | -6.004\*\*\* |
| MS | 0.0005 | 0.001 | 0.010 | 0.000 | 5.600 | 46.340 | 601.152\*\*\* | -8.679\*\*\* |
| WS | 0.0001 | 0.000 | 0.002 | 0.000 | 7.071 | 71.430 | 1464.822\*\*\* | -7.032\*\*\* |
| GUO | 0.0001 | 0.000 | 0.001 | 0.000 | 3.346 | 19.368 | 93.808\*\*\* | -4.982\*\*\* |
| FC | 0.0002 | 0.000 | 0.003 | 0.000 | 5.342 | 46.236 | 595.058\*\*\* | -7.404\*\*\* |
| JRCB | 0.0001 | 0.000 | 0.003 | 0.000 | 10.177 | 166.326 | 8126.892\*\*\* | -7.067\*\*\* |
| ZJG | 0.0001 | 0.000 | 0.001 | 0.000 | 4.069 | 27.585 | 201.189\*\*\* | -6.031\*\*\* |
| HXSE | 0.0001 | 0.000 | 0.003 | 0.000 | 12.647 | 243.914 | 17603.784\*\*\* | -7.821\*\*\* |
| ZZ | 0.0001 | 0.000 | 0.004 | 0.000 | 14.566 | 299.515 | 26631.011\*\*\* | -6.240\*\*\* |
| GW | 0.0002 | 0.000 | 0.002 | 0.000 | 4.168 | 24.432 | 158.647\*\*\* | -6.791\*\*\* |
| CL | 0.0003 | 0.001 | 0.008 | 0.000 | 6.797 | 64.798 | 1201.135\*\*\* | -9.949\*\*\* |
| QD | 0.0001 | 0.000 | 0.004 | 0.000 | 11.283 | 165.846 | 8108.380\*\*\* | -9.921\*\*\* |
| QRCB | 0.0001 | 0.000 | 0.003 | 0.000 | 11.821 | 204.870 | 12393.151\*\*\* | -7.440\*\*\* |
| SZ | 0.0001 | 0.000 | 0.000 | 0.000 | 2.333 | 11.257 | 26.981\*\*\* | -4.352\*\*\* |
| FI | 0.0003 | 0.000 | 0.005 | 0.000 | 5.301 | 41.734 | 483.822\*\*\* | -5.616\*\*\* |
| EM | 0.0002 | 0.000 | 0.004 | 0.000 | 5.719 | 61.353 | 1060.760\*\*\* | -6.822\*\*\* |
| CP | 0.0004 | 0.000 | 0.003 | 0.000 | 3.107 | 18.650 | 85.061\*\*\* | -5.397\*\*\* |
| SPD | 0.0000 | 0.000 | 0.000 | 0.000 | 2.669 | 12.556 | 35.942\*\*\* | -3.971\*\*\* |
| HX | 0.0001 | 0.000 | 0.000 | 0.000 | 3.487 | 23.422 | 139.713\*\*\* | -3.256\*\*\* |
| CMBC | 0.0001 | 0.000 | 0.001 | 0.000 | 6.236 | 80.481 | 1847.641\*\*\* | -2.924\*\*\* |
| CIT | 0.0001 | 0.000 | 0.003 | 0.000 | 7.552 | 84.916 | 2081.497\*\*\* | -7.454\*\*\* |
| CMB | 0.0001 | 0.000 | 0.001 | 0.000 | 3.124 | 21.133 | 110.352\*\*\* | -4.501\*\*\* |
| SDIC | 0.0001 | 0.000 | 0.002 | 0.000 | 5.391 | 43.934 | 537.540\*\*\* | -7.051\*\*\* |
| HHTG | 0.0004 | 0.001 | 0.006 | 0.000 | 4.693 | 36.014 | 353.410\*\*\* | -7.781\*\*\* |
| ZJFHC | 0.0001 | 0.000 | 0.002 | 0.000 | 6.758 | 70.291 | 1413.239\*\*\* | -8.017\*\*\* |
| HBC | 0.0002 | 0.000 | 0.004 | 0.000 | 6.589 | 59.402 | 1006.445\*\*\* | -7.033\*\*\* |
| SWSC | 0.0002 | 0.000 | 0.008 | 0.000 | 20.738 | 500.537 | 74778.834\*\*\* | -11.956\*\*\* |
| MIN | 0.0001 | 0.000 | 0.006 | 0.000 | 20.201 | 476.845 | 67848.466\*\*\* | -11.165\*\*\* |
| ZXDQ | 0.0002 | 0.000 | 0.003 | 0.000 | 4.681 | 32.058 | 279.608\*\*\* | -5.959\*\*\* |
| SHCF | 0.0002 | 0.000 | 0.003 | 0.000 | 4.578 | 32.809 | 291.727\*\*\* | -6.967\*\*\* |
| AJ | 0.0001 | 0.000 | 0.001 | 0.000 | 7.128 | 87.662 | 2211.278\*\*\* | -6.510\*\*\* |
| AVI | 0.0002 | 0.000 | 0.003 | 0.000 | 5.970 | 48.995 | 677.429\*\*\* | -5.610\*\*\* |
| HTSE | 0.0001 | 0.000 | 0.001 | 0.000 | 2.712 | 12.247 | 34.475\*\*\* | -4.816\*\*\* |
| HTGF | 0.0002 | 0.000 | 0.004 | 0.000 | 5.762 | 52.065 | 762.062\*\*\* | -7.665\*\*\* |
| JSFL | 0.0001 | 0.000 | 0.001 | 0.000 | 4.014 | 31.484 | 262.734\*\*\* | -4.641\*\*\* |
| WX | 0.0001 | 0.000 | 0.002 | 0.000 | 5.766 | 50.174 | 707.510\*\*\* | -5.125\*\*\* |
| HA | 0.0002 | 0.000 | 0.005 | 0.000 | 12.469 | 229.369 | 15559.499\*\*\* | -9.271\*\*\* |
| JS | 0.0001 | 0.000 | 0.001 | 0.000 | 2.208 | 12.984 | 35.759\*\*\* | -3.405\*\*\* |
| HZ | 0.0002 | 0.000 | 0.001 | 0.000 | 2.239 | 10.000 | 20.717\*\*\* | -4.137\*\*\* |
| XA | 0.0001 | 0.000 | 0.006 | 0.000 | 20.069 | 473.728 | 66958.792\*\*\* | -11.564\*\*\* |
| ORI | 0.0003 | 0.000 | 0.003 | 0.000 | 3.731 | 19.726 | 100.625\*\*\* | -6.088\*\*\* |
| CMS | 0.0001 | 0.000 | 0.002 | 0.000 | 4.321 | 33.057 | 293.443\*\*\* | -6.257\*\*\* |
| NJCB | 0.0001 | 0.000 | 0.001 | 0.000 | 2.575 | 12.539 | 35.255\*\*\* | -4.283\*\*\* |
| CHI | 0.0002 | 0.000 | 0.002 | 0.000 | 4.476 | 31.262 | 263.662\*\*\* | -6.018\*\*\* |
| CIN | 0.0001 | 0.000 | 0.000 | 0.000 | 1.631 | 8.570 | 12.498\*\*\* | -2.650\*\*\* |
| PAC | 0.0002 | 0.000 | 0.002 | 0.000 | 4.867 | 36.645 | 368.030\*\*\* | -5.885\*\*\* |
| CT | 0.0002 | 0.000 | 0.002 | 0.000 | 4.666 | 31.891 | 276.533\*\*\* | -6.774\*\*\* |
| CS | 0.0001 | 0.000 | 0.001 | 0.000 | 3.163 | 19.934 | 98.030\*\*\* | -4.623\*\*\* |
| TF | 0.0002 | 0.000 | 0.001 | 0.000 | 3.474 | 23.582 | 141.565\*\*\* | -4.950\*\*\* |
| IND | 0.0001 | 0.000 | 0.001 | 0.000 | 2.472 | 12.670 | 35.382\*\*\* | -3.966\*\*\* |
| BOB | 0.0001 | 0.000 | 0.000 | 0.000 | 1.994 | 13.373 | 37.048\*\*\* | -2.243\*\*\* |
| DX | 0.0001 | 0.000 | 0.002 | 0.000 | 5.320 | 47.063 | 616.436\*\*\* | -6.545\*\*\* |
| GTJA | 0.0001 | 0.000 | 0.001 | 0.000 | 3.877 | 27.631 | 200.046\*\*\* | -5.550\*\*\* |
| SH | 0.0000 | 0.000 | 0.000 | 0.000 | 4.188 | 33.897 | 307.431\*\*\* | -4.156\*\*\* |
| HT | 0.0002 | 0.000 | 0.004 | 0.000 | 5.611 | 43.446 | 528.548\*\*\* | -9.749\*\*\* |
| AGR | 0.0001 | 0.000 | 0.001 | 0.000 | 4.468 | 44.655 | 544.497\*\*\* | -2.498\*\*\* |
| PA | 0.0001 | 0.000 | 0.000 | 0.000 | 1.998 | 8.735 | 14.658\*\*\* | -3.956\*\*\* |
| PICC | 0.0001 | 0.000 | 0.001 | 0.000 | 4.039 | 31.479 | 262.883\*\*\* | -4.418\*\*\* |
| COMM | 0.0001 | 0.000 | 0.001 | 0.000 | 5.616 | 54.896 | 845.809\*\*\* | -3.417\*\*\* |
| NCI | 0.0001 | 0.000 | 0.001 | 0.000 | 2.329 | 9.368 | 18.677\*\*\* | -4.007\*\*\* |
| CCSC | 0.0002 | 0.000 | 0.003 | 0.000 | 5.668 | 53.909 | 816.052\*\*\* | -5.877\*\*\* |
| IS | 0.0002 | 0.000 | 0.003 | 0.000 | 4.325 | 30.583 | 250.690\*\*\* | -7.032\*\*\* |
| ICBC | 0.0001 | 0.000 | 0.001 | 0.000 | 5.639 | 56.260 | 889.142\*\*\* | -3.556\*\*\* |
| DZH | 0.0002 | 0.000 | 0.004 | 0.000 | 5.630 | 44.586 | 556.868\*\*\* | -7.525\*\*\* |
| SCS | 0.0001 | 0.000 | 0.002 | 0.000 | 5.237 | 41.674 | 481.611\*\*\* | -6.298\*\*\* |
| CSHA | 0.0001 | 0.000 | 0.002 | 0.000 | 6.097 | 64.000 | 1160.908\*\*\* | -6.398\*\*\* |
| CPIC | 0.0001 | 0.000 | 0.001 | 0.000 | 3.068 | 16.787 | 68.323\*\*\* | -3.743\*\*\* |
| LIFE | 0.0002 | 0.000 | 0.002 | 0.000 | 4.020 | 31.738 | 267.153\*\*\* | -4.814\*\*\* |
| PS | 0.0001 | 0.000 | 0.001 | 0.000 | 4.542 | 34.412 | 320.771\*\*\* | -5.123\*\*\* |
| HTSC | 0.0001 | 0.000 | 0.001 | 0.000 | 3.953 | 27.644 | 200.947\*\*\* | -6.318\*\*\* |
| EBSCN | 0.0002 | 0.000 | 0.003 | 0.000 | 4.665 | 31.004 | 261.384\*\*\* | -7.029\*\*\* |
| CEB | 0.0001 | 0.000 | 0.001 | 0.000 | 3.799 | 32.414 | 276.864\*\*\* | -2.761\*\*\* |
| CD | 0.0002 | 0.000 | 0.003 | 0.000 | 5.134 | 50.829 | 717.901\*\*\* | -4.678\*\*\* |
| ZJ | 0.0001 | 0.000 | 0.002 | 0.000 | 6.220 | 68.315 | 1326.243\*\*\* | -4.440\*\*\* |
| GA | 0.0001 | 0.000 | 0.001 | 0.000 | 2.089 | 8.848 | 15.499\*\*\* | -4.940\*\*\* |
| FOU | 0.0001 | 0.000 | 0.005 | 0.000 | 11.395 | 204.533 | 12340.448\*\*\* | -8.730\*\*\* |
| CZ | 0.0001 | 0.000 | 0.001 | 0.000 | 4.078 | 32.719 | 284.919\*\*\* | -3.769\*\*\* |
| CCB | 0.0001 | 0.000 | 0.001 | 0.000 | 5.646 | 55.375 | 861.198\*\*\* | -3.944\*\*\* |
| CB | 0.0001 | 0.000 | 0.001 | 0.000 | 9.334 | 153.465 | 6896.458\*\*\* | -2.737\*\*\* |
| NSC | 0.0002 | 0.000 | 0.002 | 0.000 | 4.635 | 31.348 | 266.865\*\*\* | -7.314\*\*\* |
| GY | 0.0001 | 0.000 | 0.000 | 0.000 | 2.799 | 14.779 | 51.021\*\*\* | -3.556\*\*\* |
| CNCB | 0.0001 | 0.000 | 0.002 | 0.000 | 8.870 | 121.991 | 4342.032\*\*\* | -6.496\*\*\* |
| NH | 0.0002 | 0.000 | 0.009 | 0.000 | 16.248 | 336.662 | 33715.910\*\*\* | -11.531\*\*\* |
| WJ | 0.0001 | 0.000 | 0.001 | 0.000 | 3.444 | 19.219 | 93.150\*\*\* | -4.608\*\*\* |

Table 8. Macro market variables

|  |  |
| --- | --- |
| Macro state variable M | Explanation |
| Market Volatility Index (VIX) | Conditional variance of the return series of the Shanghai composite Index |
| Stock Market Yield (SR) | Weekly return series of the Shanghai composite index |
| Liquidity Spread (LS) | Difference between three-month interbank Lending market rate and three-month yield to maturity of treasury bond bonds |
| Term Spread (YS) | Difference between the yield to maturity of 10-year treasury bond and the yield to maturity of six-month treasury bond |
| Credit Spread (CS) | Difference between yield to maturity of 10-year treasury bond bonds and yield to maturity of 10-year AAA corporate bonds |

Table 9. Internal financial variables of firms

|  |  |
| --- | --- |
| Internal characteristic variables of the firm | Explanation |
| Firm Size (Size) | The logarithm of total assets |
| Market to Book Value Ratio (MTB) | The ratio of equity market value to book value |
| Leverage Ratio (LEV) | The ratio of the book value of assets to the book value of equity |
| Return on Equity (ROE) | The ratio of net profit to owner’s equity |

Table 10. Transmission efficiency related to good return information spillovers with quality of 5% and 95% at weekly frequencies

|  |  |  |
| --- | --- | --- |
| Market Status | Sluggish (5%) | Prosperous(95%) |
| Average efficiency | 0.4247 | 0.1132 |
| Deviation of efficiency | 1.9501 | 0.9102 |
| Densest efficiency | 0.3374 | 0.0902 |
| Depth | 3.9512 | 12.9630 |

Table 11. Transmission efficiency related to bad return information spillovers with quality of 5% and 95% at weekly frequencies

|  |  |  |
| --- | --- | --- |
| Market Status | Sluggish (5%) | Prosperous(95%) |
| Average efficiency | 0.4313 | 0.1682 |
| Deviation of efficiency | 2.0213 | 0.5070 |
| Densest efficiency | 0.3410 | 0.1204 |
| Depth | 4.0573 | 13.4723 |