

# Economic Policy Uncertainty and Stock Liquidity

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**Abstract.** Based on the annual stock data of Chinese stock market from 2007 to 2019, this paper explores how economic policy uncertainty (EPU) affects stocks' liquidity by applying a fixed effect model (here the effects of different years and different stocks are controlled). It has analyzed what role the retail investor attention plays in the interplay between EPU and stocks' liquidity. The results show that the increase of EPU makes retail investors more willing to trade stocks, thus increasing the liquidity of stocks. Furthermore, this paper categorizes listed companies into 4 different groups according to their market value and return on assets (ROA). And it has been found that the interplay among EPU, China investors' composite sentiment index (CICSI), and Amihud is more notable in companies with small market value and high ROA.

**Keywords:** Stock liquidity; policy uncertainty; investors' sentiment; market value; ROA.

## 1. Introduction

Stock liquidity is defined as the speed and ease at which investors' trading on the stock does not make any significant change in stock price [1]. According to some existing studies, aggregate liquidity plays an important role in influencing transaction costs, expected returns and financial market stability [2, 3]. Given the great impact of government policies on the financial market, it is conceivable that policies will inevitably affect the stocks' liquidity. Based on this idea, this paper explores how policy influences the liquidity of stocks. In order to clarify what role it plays in the interplay between the policy and stock liquidity, the retail investors attention has also been considered. It is worth mentioning that the whole exploration is based on the stock market of China. It is mainly because the unique component of Chinese stock market is mainly comprised of retail investors [4-6].

Firstly, this paper chooses indexes economic policy uncertainty (EPU), China investors' composite sentiment index (CICSI) and Amihud to indicate the economic policy environment, the retail investor attention, and the stock liquidity, respectively. Some control variables are also introduced to show the robustness, including the risk-free rate each year, listed companies' market value, Tobin value, return on assets (ROA), debt to asset ratio (LEV), and the proportion of their tangible and intangible assets.

Then, this paper applies a fixed effect model to control the effect of not only different years but also different stocks, so as to run regressions between each two of the three indicators (EPU, CICSI, and Amihud). Specific results are shown in section IV. Based on the results, conclusions are drawn that the more uncertain the economic environment is, the more zealous retail investors will be, and this zealotry further improves the liquidity of stocks.

Thirdly, in order to do further research, according to the market value and ROA, all sample companies are categorized into different groups and are applied the same routine. It has been found that the interplay among EPU, CICSI, and Amihud is more notable in companies with small market value and high ROA.

## 2. Hypotheses

On the one hand, Chinese stock market features a strong gambling atmosphere [6]. Therefore, when the uncertainty of economic policy rises, investors stand to be more fervid to invest, which may make stocks more frequently traded and thus more fluid.

On the other hand, however, some argue that the higher the economic uncertainty, the lower the stock liquidity [7]. This may be because when the volatility of economic policy rises, future stock

market return will decrease [4], which makes retail investors more cautious and thus decreases stock liquidity.

Before the exploration, the two possible ways that the influence chain works can be summarized as follows:

Hypothesis 1: Even though higher uncertainty always means higher risk, it means higher reward as well. Therefore, retail investors may become more willing to invest, which increases the liquidity of stocks.

Hypothesis 2: Because higher uncertainty of policy increases the risk of investment, retail investors become less willing to invest. As a result, the liquidity of stocks falls.

### 3. Data Source and Sample Selection

All data used in this research are obtained from CSMAR, an authoritative financial data source in China. It is worth mentioning that this research picks out all financial industry companies and companies which have delisted or are about to delist.

To match the different frequencies of different data, all data is converted into an annual base. Considering the hysteresis of stocks liquidity's reaction, this research lags Amihud data by one year. That is to say, when doing regression, the Amihud data is always matched with other data of the prior year.

Here are the symbols.

**Table 1.** Symbols of variables used in further regressions.

| Financial Meaning                                           | Symbol              |
|-------------------------------------------------------------|---------------------|
| amihud<br>(lagged by 1 year)                                | <i>damihud</i>      |
| economic policy uncertainty                                 | <i>EPU</i>          |
| retail investor attention                                   | <i>CICSI</i>        |
| listed companies' market value<br>(taken natural logarithm) | <i>lnsize</i>       |
| listed companies' Tobin value                               | <i>tobin</i>        |
| listed companies' return on asstes                          | <i>ROA</i>          |
| listed companies' debt to asset ratio                       | <i>LEV</i>          |
| proportion of tangible assets<br>in a listed company        | <i>tangible</i>     |
| proportion of intangible assets<br>in a listed company      | <i>intangible</i>   |
| risk-free rate each year                                    | <i>riskfreerate</i> |

The last step of data preprocessing is winsorization: to avoid outliers, the data smaller than 1 percentile and larger than 99 percentile is replaced by 1 percentile number and 99 percentile number respectively.

## 4. Empirical Results

### 4.1 Regress *damihud* on *EPU*

Firstly, this research applies univariate regression of *damihud* and *EPU*, and the results obtained are as follows. The fixed effect of each year and individual (stock) have been controlled.

**Table 2.** Univariate regression of damihud and epu.

| <b>damihud</b> | <b>Coef.</b> | <b>St.Err.</b> | <b>t-value</b> | <b>p-value</b> | <b>[95% Conf</b> | <b>Interval]</b> | <b>Sig</b> |
|----------------|--------------|----------------|----------------|----------------|------------------|------------------|------------|
| EPU            | -0.003       | 0              | -19.24         | 0              | -0.003           | -0.002           | ***        |
| 2008b.year     | 0            | .              | .              | .              | .                | .                |            |
| 2009.year      | 0.177        | 0.098          | 1.81           | 0.071          | -0.015           | 0.369            | *          |
| 2010.year      | -0.359       | 0.099          | -3.61          | 0              | -0.553           | -0.164           | ***        |
| 2011.year      | -0.239       | 0.09           | -2.66          | 0.008          | -0.416           | -0.063           | ***        |
| 2012.year      | 0.041        | 0.082          | 0.51           | 0.613          | -0.119           | 0.202            |            |
| 2013.year      | -0.234       | 0.092          | -2.53          | 0.011          | -0.415           | -0.053           | **         |
| 2014.year      | -0.316       | 0.091          | -3.46          | 0.001          | -0.495           | -0.137           | ***        |
| 2015.year      | 0.014        | 0.085          | 0.16           | 0.872          | -0.154           | 0.181            |            |
| 2016.year      | 1.013        | 0.07           | 14.45          | 0              | 0.876            | 1.151            | ***        |
| 2017.year      | 0.842        | 0.069          | 12.18          | 0              | 0.707            | 0.978            | ***        |
| 2018.year      | 0.631        | 0.062          | 10.23          | 0              | 0.51             | 0.752            | ***        |
| 2019o.year     | 0            | .              | .              | .              | .                | .                |            |
| Constant       | 1.234        | 0.09           | 13.77          | 0              | 1.058            | 1.409            | ***        |

Here is the result table of multi-variate regression where all control variables are added.

**Table 3.** Multi-variate regression of damihud and epu.

| <b>damihud</b>      | <b>Coef.</b> | <b>St.Err.</b> | <b>t-value</b> | <b>p-value</b> | <b>[95% Conf</b> | <b>Interval]</b> | <b>Sig</b> |
|---------------------|--------------|----------------|----------------|----------------|------------------|------------------|------------|
| <i>EPU</i>          | -0.005       | 0              | -24.43         | 0              | -0.005           | -0.004           | ***        |
| <i>Insize</i>       | -0.385       | 0.045          | -8.61          | 0              | -0.473           | -0.297           | ***        |
| <i>tobin</i>        | 0.055        | 0.02           | 2.74           | 0.006          | 0.016            | 0.094            | ***        |
| <i>ROA</i>          | 0.999        | 0.378          | 2.64           | 0.008          | 0.258            | 1.74             | ***        |
| <i>LEV</i>          | -0.325       | 0.172          | -1.89          | 0.058          | -0.662           | 0.012            | *          |
| <i>tangible</i>     | -0.534       | 0.22           | -2.42          | 0.015          | -0.965           | -0.102           | **         |
| <i>intangible</i>   | -0.66        | 0.597          | -1.11          | 0.268          | -1.829           | 0.509            |            |
| <i>riskfreerate</i> | -68.527      | 5.307          | -12.91         | 0              | -78.93           | -58.124          | ***        |
| 2008b.year          | 0            | .              | .              | .              | .                | .                |            |
| 2009.year           | -1.123       | 0.106          | -10.62         | 0              | -1.331           | -0.916           | ***        |
| 2010.year           | -1.471       | 0.107          | -13.78         | 0              | -1.68            | -1.262           | ***        |
| 2011.year           | -0.547       | 0.085          | -6.47          | 0              | -0.713           | -0.381           | ***        |
| 2012.year           | -0.163       | 0.078          | -2.10          | 0.036          | -0.316           | -0.011           | **         |
| 2013.year           | -0.803       | 0.086          | -9.32          | 0              | -0.972           | -0.634           | ***        |
| 2014.year           | -0.732       | 0.089          | -8.18          | 0              | -0.908           | -0.557           | ***        |
| 2015.year           | -0.727       | 0.098          | -7.43          | 0              | -0.918           | -0.535           | ***        |
| 2016.year           | 0.251        | 0.082          | 3.08           | 0.002          | 0.091            | 0.411            | ***        |
| 2017.year           | 0.117        | 0.078          | 1.49           | 0.135          | -0.037           | 0.271            |            |
| 2018o.year          | 0            | .              | .              | .              | .                | .                |            |
| 2019o.year          | 0            | .              | .              | .              | .                | .                |            |
| Constant            | 12.833       | 1.039          | 12.36          | 0              | 10.797           | 14.868           | ***        |

#### 4.2 Regress CICSII on EPU

Based on yearly data of *CICSII* and *EPU*, the result obtained are as follows. Univariate regression was used and only the fixed effect of every year was controlled.

**Table 4.** Regression of CICS I and EPU.

| <i>CICS I</i> | Coef.   | St.Err. | t-value  | p-value | [95% Conf | Interval] | Sig |
|---------------|---------|---------|----------|---------|-----------|-----------|-----|
| <i>EPU</i>    | 0.007   | 0       | 1988.60  | 0       | 0.007     | 0.007     | *** |
| 2007b.year    | 0       | .       | .        | .       | .         | .         |     |
| 2008.year     | 0.811   | 0.002   | 378.63   | 0       | 0.807     | 0.815     | *** |
| 2009.year     | -1.957  | 0.002   | -881.40  | 0       | -1.961    | -1.953    | *** |
| 2010.year     | -2.559  | 0.002   | -1128.29 | 0       | -2.564    | -2.555    | *** |
| 2011.year     | -7.433  | 0.002   | -3450.00 | 0       | -7.438    | -7.429    | *** |
| 2012.year     | -15.786 | 0.002   | -7659.88 | 0       | -15.79    | -15.782   | *** |
| 2013.year     | -6.94   | 0.002   | -3094.54 | 0       | -6.945    | -6.936    | *** |
| 2014.year     | -3.885  | 0.002   | -1744.86 | 0       | -3.89     | -3.881    | *** |
| 2015.year     | 0.395   | 0.002   | 184.43   | 0       | 0.39      | 0.399     | *** |
| 2016.year     | -2.241  | 0.002   | -1140.00 | 0       | -2.245    | -2.238    | *** |
| 2017.year     | 5.525   | 0.002   | 2809.26  | 0       | 5.521     | 5.529     | *** |
| 2018o.year    | 0       | .       | .        | .       | .         | .         |     |
| 2019o.year    | 0       | .       | .        | .       | .         | .         |     |
| Constant      | 39.495  | 0.002   | 22142.14 | 0       | 39.492    | 39.499    | *** |

#### 4.3 Regress CICS I on damihud

**Table 5.** Univariate regression of CICS I and damihud.

| <i>damihud</i> | Coef.  | St.Err. | t-value | p-value | [95% Conf | Interval] | Sig |
|----------------|--------|---------|---------|---------|-----------|-----------|-----|
| <i>CICS I</i>  | -0.465 | 0.024   | -19.24  | 0       | -0.513    | -0.418    | *** |
| 2008b.year     | 0      | .       | .       | .       | .         | .         |     |
| 2009.year      | -1.137 | 0.15    | -7.57   | 0       | -1.431    | -0.842    | *** |
| 2010.year      | -1.967 | 0.167   | -11.80  | 0       | -2.294    | -1.64     | *** |
| 2011.year      | -4.081 | 0.266   | -15.36  | 0       | -4.601    | -3.56     | *** |
| 2012.year      | -7.651 | 0.452   | -16.93  | 0       | -8.537    | -6.765    | *** |
| 2013.year      | -3.873 | 0.263   | -14.74  | 0       | -4.388    | -3.359    | *** |
| 2014.year      | -2.529 | 0.19    | -13.28  | 0       | -2.902    | -2.156    | *** |
| 2015.year      | -0.179 | 0.092   | -1.94   | 0.053   | -0.36     | 0.002     | *   |
| 2016.year      | -0.315 | 0.119   | -2.65   | 0.008   | -0.548    | -0.082    | *** |
| 2017.year      | 3.128  | 0.105   | 29.76   | 0       | 2.922     | 3.334     | *** |
| 2018.year      | 0.255  | 0.071   | 3.59    | 0       | 0.116     | 0.394     | *** |
| 2019o.year     | 0      | .       | .       | .       | .         | .         |     |
| Constant       | 20.081 | 1.062   | 18.91   | 0       | 18        | 22.163    | *** |

**Table 6.** Multi-variate regression of CICS I and damihud

| <i>damihud</i>      | Coef.   | St.Err. | t-value | p-value | [95% Conf | Interval] | Sig |
|---------------------|---------|---------|---------|---------|-----------|-----------|-----|
| <i>CICS I</i>       | -0.581  | 0.024   | -24.43  | 0       | -0.627    | -0.534    | *** |
| <i>Insize</i>       | -0.385  | 0.045   | -8.61   | 0       | -0.473    | -0.297    | *** |
| <i>tobin</i>        | 0.055   | 0.02    | 2.74    | 0.006   | 0.016     | 0.094     | *** |
| <i>ROA</i>          | 0.999   | 0.378   | 2.64    | 0.008   | 0.258     | 1.74      | *** |
| <i>LEV</i>          | -0.325  | 0.172   | -1.89   | 0.058   | -0.662    | 0.012     | *   |
| <i>tangible</i>     | -0.534  | 0.22    | -2.42   | 0.015   | -0.965    | -0.102    | **  |
| <i>intangible</i>   | -0.66   | 0.597   | -1.11   | 0.268   | -1.829    | 0.509     |     |
| <i>riskfreerate</i> | -32.633 | 4.574   | -7.13   | 0       | -41.599   | -23.668   | *** |
| 2008b.year          | 0       | .       | .       | .       | .         | .         |     |
| 2009.year           | -2.089  | 0.135   | -15.52  | 0       | -2.353    | -1.825    | *** |
| 2010.year           | -2.783  | 0.148   | -18.74  | 0       | -3.074    | -2.492    | *** |
| 2011.year           | -5.096  | 0.227   | -22.48  | 0       | -5.54     | -4.652    | *** |
| 2012.year           | -9.61   | 0.407   | -23.62  | 0       | -10.407   | -8.812    | *** |
| 2013.year           | -4.921  | 0.227   | -21.64  | 0       | -5.367    | -4.475    | *** |

|            |        |       |        |   |        |        |     |
|------------|--------|-------|--------|---|--------|--------|-----|
| 2014.year  | -3.073 | 0.162 | -18.91 | 0 | -3.392 | -2.755 | *** |
| 2015.year  | -0.322 | 0.087 | -3.70  | 0 | -0.492 | -0.151 | *** |
| 2016.year  | -0.804 | 0.114 | -7.06  | 0 | -1.027 | -0.581 | *** |
| 2017.year  | 3.576  | 0.109 | 32.91  | 0 | 3.363  | 3.789  | *** |
| 2018o.year | 0      | .     | .      | . | .      | .      |     |
| 2019o.year | 0      | .     | .      | . | .      | .      |     |
| Constant   | 34.691 | 1.397 | 24.84  | 0 | 31.953 | 37.428 | *** |

## 5. Mechanism Analysis

### 5.1 EPU and damihud

Because the coefficient of *EPU* is negative, it can be considered that the uncertainty of policy can stimulate the liquidity of stocks. That is to say, if the policy environment becomes more unstable, individual investors will probably be more willing to trade their stocks, which conforms with hypothesis 1, and that the majority of the public always have a proclivity of speculation and opportunism. Moreover, the negative coefficient of *lnsize* in table III means when the policy environment is unstable, investors are more intended to invest in big companies. It may come from the consensus that big companies are plausibly more reliable, even under an unstable economic environment.

### 5.2 EPU and CICI

Based on the positive coefficient of *EPU*, it can be seen that the economic policy uncertainty makes retail investors more fervent about investing, which is consistent with hypothesis 1.

### 5.3 CICI and damihud

It conforms with our life experience that the more retail investor attention some company draws, the more fluid its stock will be. This result also means that attention can bring about trading.

### 5.4 Summary

On the basis of regression results, it is not hard to find that positively correlates with which also positively correlates with the liquidity of stocks (negatively correlates with). Therefore, the influence chain works as:

The uncertainty of policy stimulates the speculation emotion of the mass.

The high mood of individual investors lets them become more active in the stock market's trading, which leads to higher stocks' liquidity.

It means hypothesis 1 is corroborated.

## 6. Regressions of Different Groups

### 6.1 Groups of Different Market Values

Because market value is one of the most basic features of a listed company, it has become a main concern of any investment. As a result, there may be significant investment differences between large and small companies. More concretely, to simplify the situation, companies whose *lnsize* is greater than the average are categorized as large companies and the rest as small companies. After repeating the same process that has been discussed in Section IV, conclusions are drawn below, followed by the specific regression results.

Mechanism concluded in Section V is still valid;

The key difference is: the liquidity of small companies' stocks is more susceptible. This observation is drawn from the fact that all the coefficients of the regression of small companies are much larger (in the sense of absolute value) than their counterparts of the regression of big companies.

Table 7. Regressions of Companies of Different Market Values.

| VARIABLES           | (1)<br>Model 1<br>(Small Companies)<br><i>damihud</i> | (2)<br>Model 2<br>(Small Companies)<br><i>damihud</i> | (3)<br>Model 3<br>(Big Companies)<br><i>damihud</i> | (4)<br>Model 4<br>(Big Companies)<br><i>damihud</i> |
|---------------------|-------------------------------------------------------|-------------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------|
| <i>EPU</i>          | -0.007***<br>(-21.36)                                 |                                                       | -0.001***<br>(-5.39)                                |                                                     |
| <i>Insize</i>       | -1.210***<br>(-10.74)                                 | -1.210***<br>(-10.74)                                 | -0.118***<br>(-4.19)                                | -0.118***<br>(-4.19)                                |
| <i>tobin</i>        | 0.085**<br>(2.18)                                     | 0.085**<br>(2.18)                                     | 0.003<br>(0.24)                                     | 0.003<br>(0.24)                                     |
| <i>ROA</i>          | 1.309**<br>(2.05)                                     | 1.309**<br>(2.05)                                     | 0.833***<br>(3.70)                                  | 0.833***<br>(3.70)                                  |
| <i>LEV</i>          | -0.199<br>(-0.64)                                     | -0.199<br>(-0.64)                                     | 0.085<br>(0.83)                                     | 0.085<br>(0.83)                                     |
| <i>tangible</i>     | -0.946**<br>(-2.34)                                   | -0.946**<br>(-2.34)                                   | -0.079<br>(-0.61)                                   | -0.079<br>(-0.61)                                   |
| <i>intangible</i>   | -1.134<br>(-1.03)                                     | -1.134<br>(-1.03)                                     | 0.197<br>(0.55)                                     | 0.197<br>(0.55)                                     |
| <i>riskfreerate</i> | -125.371***<br>(-12.48)                               | -68.783***<br>(-7.73)                                 | -8.072***<br>(-2.94)                                | -4.061*<br>(-1.69)                                  |
| 2008.year           |                                                       |                                                       |                                                     |                                                     |
| 2009.year           | -1.748***<br>(-9.01)                                  | -3.270***<br>(-13.36)                                 | -0.045<br>(-0.85)                                   | -0.153**<br>(-2.27)                                 |
| 2010.year           | -2.152***<br>(-10.80)                                 | -4.221***<br>(-15.47)                                 | -0.215***<br>(-4.08)                                | -0.361***<br>(-4.89)                                |
| 2011.year           | -0.685***<br>(-4.28)                                  | -7.856***<br>(-19.01)                                 | -0.105**<br>(-2.51)                                 | -0.613***<br>(-5.36)                                |
| 2012.year           | -0.095<br>(-0.64)                                     | -14.987***<br>(-20.34)                                | -0.038<br>(-0.98)                                   | -1.093***<br>(-5.31)                                |
| 2013.year           | -1.015***<br>(-6.29)                                  | -7.507***<br>(-18.13)                                 | -0.081*<br>(-1.86)                                  | -0.541***<br>(-4.70)                                |
| 2014.year           | -0.708***<br>(-4.07)                                  | -4.398***<br>(-14.51)                                 | -0.068<br>(-1.52)                                   | -0.330***<br>(-4.01)                                |
| 2015.year           | -0.476**<br>(-2.42)                                   | 0.162<br>(0.91)                                       | -0.039<br>(-0.81)                                   | 0.007<br>(0.16)                                     |
| 2016.year           | 0.932***<br>(5.88)                                    | -0.730***<br>(-3.40)                                  | 0.033<br>(0.83)                                     | -0.085<br>(-1.52)                                   |
| 2017.year           | 0.639***<br>(4.36)                                    | 6.092***<br>(30.44)                                   | 0.014<br>(0.36)                                     | 0.400***<br>(7.34)                                  |
| 2018o.year          | -                                                     | -                                                     | -                                                   | -                                                   |
| 2019o.year          | -                                                     | -                                                     | -                                                   | -                                                   |
| <i>CICSI</i>        |                                                       | -0.916***<br>(-21.36)                                 |                                                     | -0.065***<br>(-5.39)                                |
| Constant            | 33.223***<br>(13.19)                                  | 67.683***<br>(23.07)                                  | 3.192***<br>(4.78)                                  | 5.634***<br>(7.03)                                  |
| Observations        | 13,532                                                | 13,532                                                | 12,031                                              | 12,031                                              |
| R-squared           | 0.117                                                 | 0.117                                                 | 0.014                                               | 0.014                                               |
| Number of stkcd     | 2,578                                                 | 2,578                                                 | 1,941                                               | 1,941                                               |
| r2_a                | -0.0919                                               | -0.0919                                               | -0.177                                              | -0.177                                              |
| F                   | 85.57                                                 | 85.57                                                 | 8.683                                               | 8.683                                               |

## 6.2 Groups of Different ROA

ROA reflects the profitability of a company, which is therefore almost as important as the market value. Like before, companies whose ROA is higher than the average are classified as high profitability companies, and the rest as low profitability companies. Results are shown below.

Mechanism concluded in Section V is still valid;

The key difference is: the liquidity of high profitability companies' stocks is more susceptible, which is drawn from that the majority of the coefficients of the regression of high profitability companies are much larger (in the sense of absolute value) than their counterparts of low profitability companies. An explanation for this phenomenon is that when the economic environment becomes more unstable, people are more intended to invest in lucrative companies.

**Table 8.** Regressions of Companies of Different Profitability (ROA).

| VARIABLES           | (1)<br>Model 1<br>(low ROA)<br><i>damihud</i> | (2)<br>Model 2<br>(low ROA)<br><i>damihud</i> | (3)<br>Model 3<br>(high ROA)<br><i>damihud</i> | (4)<br>Model 4<br>(high ROA)<br><i>damihud</i> |
|---------------------|-----------------------------------------------|-----------------------------------------------|------------------------------------------------|------------------------------------------------|
| <i>EPU</i>          | -0.002***<br>(-11.06)                         |                                               | -0.006***<br>(-18.73)                          |                                                |
| <i>Insize</i>       | -0.256***<br>(-5.07)                          | -0.256***<br>(-5.07)                          | -0.456***<br>(-5.08)                           | -0.456***<br>(-5.08)                           |
| <i>tobin</i>        | 0.054**<br>(2.36)                             | 0.054**<br>(2.36)                             | 0.069*<br>(1.76)                               | 0.069*<br>(1.76)                               |
| <i>ROA</i>          | 0.803*<br>(1.92)                              | 0.803*<br>(1.92)                              | 2.834**<br>(2.50)                              | 2.834**<br>(2.50)                              |
| <i>LEV</i>          | -0.322*<br>(-1.73)                            | -0.322*<br>(-1.73)                            | -0.245<br>(-0.70)                              | -0.245<br>(-0.70)                              |
| <i>tangible</i>     | -0.155<br>(-0.65)                             | -0.155<br>(-0.65)                             | -0.585<br>(-1.32)                              | -0.585<br>(-1.32)                              |
| <i>intangible</i>   | -0.717<br>(-1.08)                             | -0.717<br>(-1.08)                             | -0.270<br>(-0.23)                              | -0.270<br>(-0.23)                              |
| <i>riskfreerate</i> | -33.584***<br>(-5.58)                         | -15.022***<br>(-2.93)                         | -89.102***<br>(-9.26)                          | -42.667***<br>(-4.95)                          |
| 2008.year           |                                               |                                               |                                                |                                                |
| 2009.year           | -0.451***<br>(-3.79)                          | -0.950***<br>(-6.23)                          | -1.555***<br>(-8.43)                           | -2.804***<br>(-12.16)                          |
| 2010.year           | -0.759***<br>(-6.42)                          | -1.438***<br>(-8.60)                          | -1.923***<br>(-10.14)                          | -3.621***<br>(-14.11)                          |
| 2011.year           | -0.331***<br>(-3.49)                          | -2.683***<br>(-10.39)                         | -0.651***<br>(-4.39)                           | -6.535***<br>(-16.97)                          |
| 2012.year           | -0.100<br>(-1.14)                             | -4.985***<br>(-10.73)                         | -0.160<br>(-1.17)                              | -12.381***<br>(-17.97)                         |
| 2013.year           | -0.401***<br>(-4.10)                          | -2.530***<br>(-9.76)                          | -0.981***<br>(-6.49)                           | -6.308***<br>(-16.28)                          |
| 2014.year           | -0.384***<br>(-3.81)                          | -1.595***<br>(-8.65)                          | -0.872***<br>(-5.53)                           | -3.900***<br>(-13.95)                          |
| 2015.year           | -0.345***<br>(-3.10)                          | -0.135<br>(-1.36)                             | -0.883***<br>(-5.24)                           | -0.358**<br>(-2.38)                            |
| 2016.year           | 0.273***<br>(2.98)                            | -0.272**<br>(-2.11)                           | 0.325**<br>(2.28)                              | -1.039***<br>(-5.34)                           |
| 2017.year           | -0.059<br>(-0.67)                             | 1.730***<br>(14.16)                           | 0.385***<br>(2.82)                             | 4.859***<br>(25.69)                            |

|                 |                    |                       |                     |                       |
|-----------------|--------------------|-----------------------|---------------------|-----------------------|
| 2018o.year      | -                  | -                     | -                   | -                     |
| 2019o.year      | -                  | -                     | -                   | -                     |
| <i>CICSI</i>    |                    | -0.300***<br>(-11.06) |                     | -0.751***<br>(-18.73) |
| Constant        | 8.004***<br>(6.81) | 19.307***<br>(12.02)  | 15.399***<br>(7.39) | 43.677***<br>(17.13)  |
| Observations    | 13,597             | 13,597                | 11,966              | 11,966                |
| R-squared       | 0.036              | 0.036                 | 0.093               | 0.093                 |
| Number of stkcd | 2,499              | 2,499                 | 2,830               | 2,830                 |
| r2_a            | -0.182             | -0.182                | -0.189              | -0.189                |
| F               | 24.65              | 24.65                 | 55.31               | 55.31                 |

## 7. Conclusion

All in all, when the uncertainty of economic policy increases, Chinese retail investors tend to trade their stocks more frequently. And this frenzy stimulates better liquidity of stocks to some degree. After analysis, it is found that such stimulation is more palpable in small and high profitability companies, which may be partly due to that they are more appealing to Chinese retail investors in an unstable environment. Such results are intuitive.

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