Online Appendix

Information Acquisition, Uncertainty Reduction and Pre-announcement Premium in China

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A Additional Summaries

A.1 List of Other Announcements

We consider a wider range of macroeconomic variables that have their data regularly published by regulatory agencies through public announcements. Apart from the monetary-related statistics released by the PBOC, other macroeconomic statistics can be categorized into three groups by their data coverage: international trade data, the real-sector productivity measures, and aggregate price indexes. The data-associated announcements are correspondingly grouped. The U.S. FOMC statement issuance, labelled FOMC announcements, belongs to a fourth category. In the following, we discuss details of these announcements under each category.

1. **Trade Data Announcements**. Monthly statistics about the total imports and exports of China are published by the General Administration of Customs of the People's Republic of China (GACC) via a single statement on its website. We label these news for releasing trade data as **TRD** announcements.

2. **Real-sector Productivity Announcements**. We also examine four important data series measuring the fundamentals of the Chinese economy: fixed asset investment excluding rural households (**FAI**), value added of industrial enterprises above the designated size (**VAI**), profits of industrial enterprises above the designated size (**INP**), and the manufacturing

purchasing managers index (**PMI**). Each month, these statistics are published by the National Bureau of Statistics of China (NBS).[1]

3. **Aggregate Price Index Announcements**. NBS announcements of three other statistics of aggregate prices are also considered: the consumer price index (**CPI**) released simultaneously with the producer price index, and the sales price index of residential real estate in 70 large and medium-sized cities (**RST**).[2]

4. **FOMC Announcements**. FOMC meetings that discuss the relevance of U.S. monetary policy changes are held regularly eight times a year. Each FOMC statement is issued right after each meeting.[3]

In total, we look into nine data-release announcements including the PBOC's **M2** announcements, each of which publishes at least one important statistic. Note that some of these announcements made in a month are not releasing the data points associated with that month, but some statistics spanning the previous month. This is routinely known as the the data publication lag. For example, the M2 growth statistics of month $m-1$ are released in month m announcement. On the other hand, certain statistics of a month can be published very timely in the end of a month. For instance, China's manufacturing PMI data of a month are often made public on the 30th of that month.

Table A.1 summarizes these macroeconomic announcements by their publishing agencies, statistics published, and the number of regular statement issues in a year. We have the following observations. First, a macro announcement in China may release more than one set of statistics. Second, although key macroeconomic statistics of the Chinese economy are routinely published monthly, a subtlety should be noted, that is, there are at most 11 announcements for data releases of **FAI**, **FAI**, and **INP** in a year. This is because data for January and February are routinely collected

[1]FAI and VAI data are routinely published around the same time on an announcement day through separate statements on the NBS's website. Other important statistics, including retail sales of consumer goods, development and sales statistics of national real estate, energy production, and private fixed asset investment, are all published on the same day about the same time, albeit in separate statements. The quarterly GDP growth rate, however, is announced together with all these aforementioned statistics every 3 months.

[2]The release of PPI data preceded that of CPI by 1 day before 2009. Since 2009, CPI and PPI data are released simultaneously in one single public statement.

[3]In rare circumstances, more than eight FOMC statements were issued in a year. For example, during the recession years of 2001, 2007, and 2008, the FOMC Committee had issued more than one statement in a month of critical importance.

for releasing in the March statement as the NBS skips publishing these statistics in February. This is due to the fact that Chinese Spring Festival holidays consistently fall in February when manufacturing productions are paused and statistical efforts are halted.

Table A.1: List of Macro Announcements

Announcement	Publishing Agency	Released Statistics	No. of Routine Issues Per Year
M2	PBOC	M0/M1/M2 Level and Growth Loan and Savings Balance: Level and Growth Interbank Loan: Interest Rate and Balance	12
TRD	GACC	Import/Export Level and Growth	12
FAI	NBS	Fixed Asset Investment	11
VAI	NBS	Value Added of Industrial Enterprises	11
INP	NBS	Profits of Industrial Enterprises	11
PMI	NBS	Manufacturing/Non-manufacturing PMI	12
CPI	NBS	CPI & PPI	12
RST	NBS	Price Indexes of Residential Buildings	12
FOMC	U.S. FRB	FOMC Statement	8

A.2 Summaries of Announcement Timing

We have the dates and timing information of our considered macro announcement events obtained from the Bloomberg Economic Calendar (BEC) database. Table A.2 provides a summary of the announcement days by the day of month for the **M2** announcements along with other announcements. It shows that 75% of the monetary aggregate data published by the PBOC are announced between the 8th and 14th days of a month. The remaining 25% of the announcements are made after the 14th but no later than the 18th of a month. As for other announcements, the **TRD** announcements are routinely published on the 10th day of a month but no later than the 15th. Three-fourths of **FAI** and **VAI** data are published in the first half of a month before or on the 16th. 75% of **INP** announcements are made by the end of a month. The **PMI** announcements are consistently published on the first day of a month. The **CPI** announcements are mostly published before the 11th day of a month. The **RST** data are made public mostly on the 18th day of a month. 75% of the **FOMC** statements are issued later than the 14th of a month.

Table A.3 summarizes the announcement days by the day of week distribution for all announcements. The table shows that **M2** announcements are often made public on weekdays and about one-third of them fall on Fridays. While most of the announcements have greater chance of being released on Thursdays and Fridays, announcements of **PMI** are more evenly distributed across days within a week.

Table A.2: Day of Month Distribution of Announcements

	M2	TRD	FAI	VAI	INP	PMI	CPI	RST	FOMC
Min	8	8	9	9	3	1	8	15	1
25.Perctl	11	8	11	11	27	1	9	18	14
Median	12	10	14	14	27	1	10	18	19
75.Perctl	14	10	16	16	27	30	11	18	27
Max	18	15	21	21	29	31	21	26	31
Mode	11	8	14	14	27	1	9	18	2
No. Events	120	120	110	102	98	121	120	106	80

Notes: Sample: January 2010 to December 2019. This table shows the day of month distribution of announcements by their percentile cut-off day of a month. Number i in a cell denotes the i-th day of a month. Min: the earliest day of a month on which an announcement event falls; Max: the latest day of month for an announcement event; Percentiles: percentiles of the day of month distribution; Median: 50% percentile cut-off. Mode: day of month on which largest number of announcement events falls. Data reported are rounded off in the case that the percentile cut-off days are decimal ratios.

Table A.3: Day of Week Distribution of Announcements

	M2	TRD	FAI	VAI	INP	PMI	CPI	RST	FOMC
Mon	0.13	0.14	0.15	0.16	0.13	0.13	0.09	0.20	
Tue	0.18	0.11	0.16	0.17	0.14	0.14	0.17	0.14	
Wed	0.14	0.14	0.18	0.18	0.12	0.15	0.13	0.14	0.10
Thu	0.15	0.18	0.17	0.17	0.16	0.15	0.22	0.12	0.86
Fri	0.32	0.21	0.22	0.23	0.19	0.15	0.22	0.20	0.04
Sat	0.03	0.12	0.08	0.07	0.11	0.13	0.12	0.13	
Sun	0.05	0.11	0.04	0.04	0.13	0.15	0.06	0.07	

Notes: Sample: January 2010 to December 2019. This table shows the percentage of announcements (in decimals) made on each day of the week for a given announcement. Due to rounding off, column numbers might not add up precisely to one.

Table A.4 summarizes the distribution of announcement days by the point of time for data release in a day. In general, except for FOMC announcements that always fall on weekdays before trading hours of Chinese stock markets in Beijing Local Time, other listed announcements of China are made public either on weekdays or weekends at any time, that is, regardless of whether it falls within, before, or after the trading hours. For about one-third of all times in the sample, monetary aggregate data are published via **M2** announcements after trading hours on weekdays. Another one-third falls on weekends, that is, post-trading hours on Friday until the end of Sunday. Announcements about international trade data, real-sector statistics, and price indexes are routinely made available within trading hours near market opens and closes, although data may be occasionally released over the weekends. However, the PMI data are released promptly at 9:00 AM on weekdays or weekends.

Table A.4: Timing Distribution of Announcements

		M2	TRD	FAI	VAI	INP	PMI	CPI	RST	FOMC
Weekday before trading hours	No. Anns.	4					87			80
	Avg. Time	8:46					9:00			2:00
Weekday within trading hours	No. Anns.	30	91	96	90	74		99	85	
	Avg. Time	10:56	10:48	10:54	10:51	9:34		9:37	9:31	
Mon-Thur after trading hours	No. Anns.	46	1	1	1					
	Avg. Time	16:19	15:34	15:40	15:40					
On weekends	No. Anns.	40	28	13	11	24	34	21	21	
	Avg. Time	15:11	10:55	12:55	12:49	9:36	9:00	9:32	9:32	
Total		120	120	110	102	98	121	120	106	80

Notes: This table reports the number of announcement events by categorized groups of announcement timing and the averaged point of time for data releases in a day within each group. The four groups are: (1) announcements released before trading hours on weekdays; (2) announcements released within trading hours (including announcements with data released between the morning and afternoon sessions); (3) announcements released after trading hours from Monday to Thursday; and (4) announcements released between market closure on Friday until midnight of Sunday. The SZSE and SSE are normally open for trading from Monday to Friday, with call auction during 9:15–9:25, and continuous auction during 9:30–11:30 and 13:00–15:00. Intent orders for block trades are accepted during 9:30–11:30 and again 13:00–15:30, while execution orders and fixed-price orders for block trades are accepted during 15:00–15:30. Special block trade sessions are held on an ad-hoc basis during 15:00–17:00.

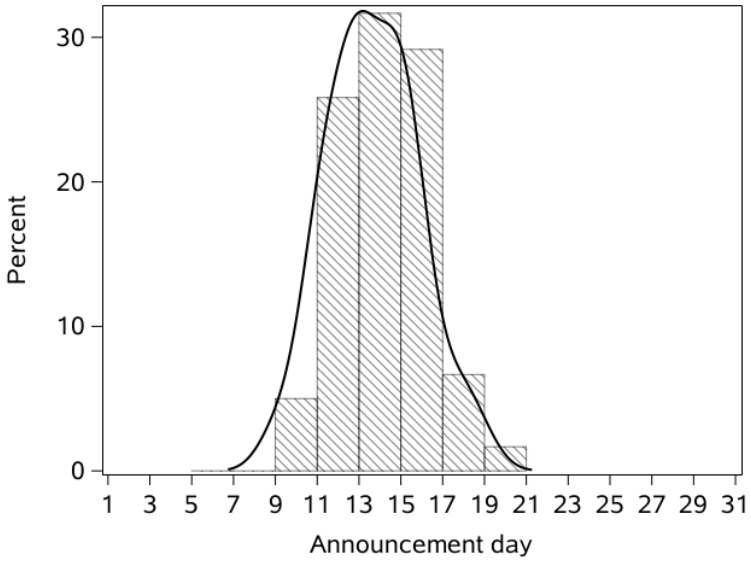
In addition, we make a few points here through comparing **M2** and **FOMC** announcements. The PBOC's announcements can be made public on any day of a week, whereas the FOMC statement releases predominantly fall on early Thursday mornings in Beijing time (Wednesday afternoons in U.S. Eastern Time). In addition, a greater proportion of **M2** announcements are publicly available during off-trading sessions, including post-trading hours and on weekends. However, the FOMC statements are issued routinely within trading hours around 2 PM U.S. Eastern time. Accounting for China–U.S. time differences, this FOMC news is initially accessible by the Chinese market around 2:00 to 3:00 AM on Thursdays locally in Beijing, depending on whether the U.S. daylight-saving time applies.

A.3 Histogram of the M2 Announcement Days

For our regression analysis in the main text, we applied the day realignment on the original dates of **M2** announcements in order to accommodate those cases when **M2** announcements were made during off trading hours. We specifically define an announcement day as the first trading day on which the market has initial access to the updated monetary data, as indicated by $\mathbb{I}_{t_{M2}} = 1$. Figure A.1 presents a histogram plot of the distribution of the **M2** announcement days. This figure shows a very similar timing heterogeneity to that in Figure 1 even if the market could have responded to the announced statistics with hours of delays when trading is not possible. It shows

that about 85% of the monthly monetary statistics are accessible to the market investors over days between the 11th and 16th days of a month.

Figure A.1: Distribution of M2 Announcements Days

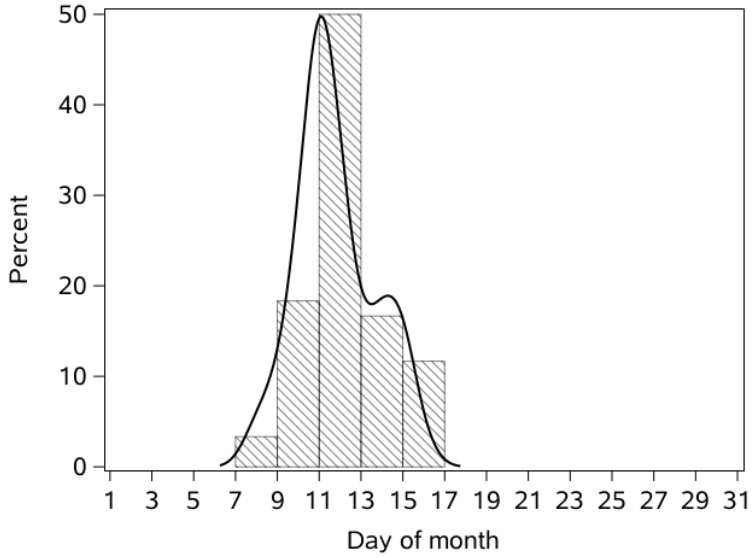


Notes: Sample: January 2010 to December 2019. An **M2** announcement day is defined as the first trading day on which China's financial markets have access to the PBOC's updated monetary statistics. This figure plots the histogram distribution of day of month across all **M2** announcements days in our sample. Each bin spans 2 consecutive calendar days. The vertical distance of the box denotes the percentage (%) of **M2** announcement days that fall into a 2-day bin. The solid line approximates the kernel density function.

A.4 Histogram of the M2 Announcement Events Before 2015

Figure A.2 presents a histogram plot of the day of month distribution of **M2** announcement events between January 2010 and December 2014. The vertical distance measures the percent of **M2** announcement events with days of data release falling into a 2-day bin. The solid line approximates a probability density function capturing the discrete distribution. The graph shows that about 87% of **M2** announcements fall before the 15th day of a month, which is supposed to be the announcement day every month according to the PBOC's annual time table for data release published early in a year before 2015. Hence, the PBOC did not stick to the pre-scheduled announcement day for releasing the monthly monetary statistics even before it no longer published any time table.

Figure A.2: Before 2015: Day of Month Distribution of M2 Announcement Events



Notes: Sample: January 2010 to December 2014. This figure plots the histogram distribution of day of month across **M2** announcements events before 2015. Each bin spans 2 consecutive calendar days. The vertical distance of the box denotes the percentage (%) of **M2** announcement events with days of data release falling into a 2-day bin. The solid line approximates the kernel density function.

A.5 Summary of Co-released Announcements

Table A.5 summarizes the number of a given type of macro announcement events that are made public on a day on which some other announcements are also published, that is, the count of co-released announcement events. Out of the 120 **M2** announcements, monetary data are co-released with **FAI**, **VAI** and **CPI** announcements about 20 times. Furthermore, **FAI** and **VAI** statistics are routinely released together. Across the macro announcements events, the **INP**, **PMI** and **RST** data are released with minimum days of overlaps with others in China.

Table A.5: Co-released Announcements

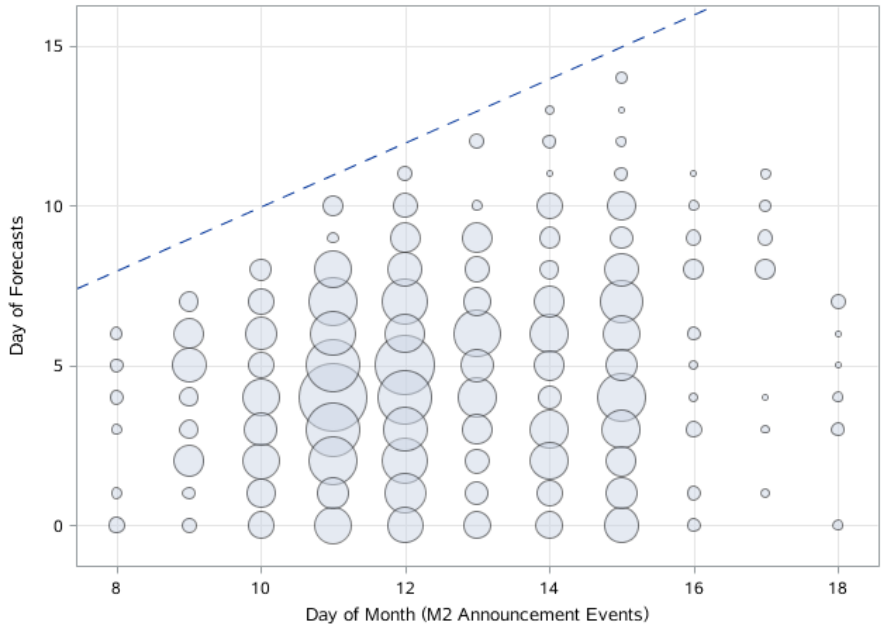
	M2	**TRD**	**FAI**	**VAI**	**INP**	**PMI**	**CPI**	**RST**	**FOMC**
M2	120	12	20	19			24		2
TRD		120					1		1
FAI			110	102			31	6	3
VAI				102			29	6	3
INP					98				2
PMI						121			4
CPI							120		2
RST								106	4
FOMC									80

Notes: Sample: January 2010 to December 2019. The number in the cell indicates the number of row announcement events that are overlapped with the column announcement events. An overlap is counted if both types of labeled announcements fall on the same day. Note that the sum of row or column numbers does not have to equal the total number of announcement events of a given announcement label.

A.6 Forecast Data: Date Distribution

We provide additional details on our panel forecast data. In Figure A.3, we plot on the Y-axis the day of month on which a forecast is made against the day of month on which the associated monthly **M2** announcement is made on the X-axis for all forecasts across all announcement cycles in our sample. The larger the blue circle, the greater number of forecasts is recorded. The dashed line is the 45 degree line that marks the upper bound of days for a meaningful forecast, which has to be made before announcements. We observe the following from the figure. First, very few forecasts are made in the 1-day or 2-day windows before announcements. Second, most of the point forecasts are made between the 1st and 8th of a month regardless of the actual announcement days ex-post. Third, there are fewer forecasts associated with those early announcement events on the 8th and 9th and with those extremely late announcement events on the 16th, 17th and 18th. This is simply because an **M2** announcement is most likely to fall between 11th to 15th.

Figure A.3: Day of Month Distribution of the Forecasts in the Bloomberg Survey



Notes: Sample: January 2010 to December 2019. This figure plots the day of month on which a forecast is made on the Y-axis against the day of month on which an **M2** announcement is made on the X-axis. The dashed line is the 45 degree line that marks the upper bound of days for a meaningful forecast, which has be made before announcements. The larger the blue circle, the greater number of forecasts is recorded in our sample. Forecasts made in the previous month are collected and bubbled on tick 0 on the Y-axis.

B Additional Empirical Results

B.1 Return Responses: Alternative Market Indexes and Earlier Sample Years

We discuss the robustness of our baseline results using returns constructed from alternative market indexes including the SZSE and SSE. We run regressions of the benchmark specifications of Equations (1) and (2). In Table B.1, Columns (1) and (7) first report the coefficient estimates taking Wind A-share index returns of our baseline sample to aid comparisons. Results in Columns (2)(3)(8) and (9) suggest that the coefficient estimates associated with the dummies indicating a 1-day and 3-day window prior to announcement are all positive and large in size. Though, the size of the pre-announcement premium is larger among the stocks traded on the Shenzhen Stock Exchange than that of those on the Shanghai Stock Exchange. However, when based on an earlier sample from January 2010 to June 2017, we find the coefficient estimates from Columns (4)(5)(6)(10)(11) and (12) are all positive across market index. In addition, the estimates based on earlier sample are somewhat larger than those from a sample that includes more recent years. Therefore, the price sensitivity of stocks traded both on Shenzhen and Shanghai Stock Exchange in the pre-announcement windows drops over time while more weakened premium is associated with stocks on the Shanghai Stock Exchange.

B.2 Return Responses: Co-released Announcements

We examine whether our documented pre-announcement premium in response to **M2** announcements may be driven by the fact that some other macro announcements, which are co-released on the same days when the PBOC publishes monetary statistics, may generate actual impacts on stock prices.

First, by delving into Table A.5 in which the co-released announcement events are tabulated, we observe that the announcements of **TRD**, **FAI**, **VAI**, **CPI** and **FOMC** had the announcement days overlapped with days on which PBOC published monetary statistics. Hence, we run the dummy variable regression of Equations (1) and disregard day windows of those **M2** announcement events that had date overlaps with others and treat them as non-announcement days. The estimation results are summarized in Table B.2.

Accordingly, our regression results table suggests that the daily excess returns prior to **M2** an-

Table B.1: Alternative Market Index and an Earlier Sample: Pre-announcement Premium

VARIABLES	(1) Wind A	(2) SZSE	(3) SSE	(4) Wind A (Alt.)	(5) SZSE (Alt.)	(6) SSE (Alt.)
$\mathbb{I}_{t_{M2}-5}$	0.09	0.10	0.06	0.16	0.15	0.11
	(0.16)	(0.17)	(0.14)	(0.18)	(0.19)	(0.15)
$\mathbb{I}_{t_{M2}-4}$	-0.02	-0.07	-0.03	-0.07	-0.12	-0.06
	(0.15)	(0.14)	(0.13)	(0.20)	(0.17)	(0.17)
$\mathbb{I}_{t_{M2}-3}$	0.21	0.14	0.11	0.29+	0.17	0.18
	(0.16)	(0.17)	(0.14)	(0.19)	(0.19)	(0.16)
$\mathbb{I}_{t_{M2}-2}$	0.22+	0.18	0.12	0.25+	0.19	0.16
	(0.14)	(0.14)	(0.12)	(0.17)	(0.16)	(0.14)
$\mathbb{I}_{t_{M2}-1}$	0.31**	0.29**	0.15	0.39**	0.32*	0.23*
	(0.13)	(0.14)	(0.11)	(0.16)	(0.17)	(0.13)
$\mathbb{I}_{t_{M2}}$	0.16	0.11	0.12	0.22	0.16	0.18
	(0.14)	(0.15)	(0.12)	(0.17)	(0.18)	(0.14)
$\mathbb{I}_{t_{M2}+1}$	-0.08	-0.15	-0.07	-0.21	-0.29+	-0.19
	(0.14)	(0.15)	(0.12)	(0.17)	(0.18)	(0.14)
$\mathbb{I}_{t_{M2}+2}$	0.01	-0.11	-0.03	0.02	-0.12	-0.05
	(0.16)	(0.17)	(0.15)	(0.19)	(0.20)	(0.18)
$\mathbb{I}_{t_{M2}+3}$	-0.10	-0.15	-0.09	-0.02	-0.07	-0.06
	(0.15)	(0.16)	(0.12)	(0.18)	(0.19)	(0.15)
$\mathbb{I}_{t_{M2}+4}$	0.16	0.13	0.09	0.01	-0.04	-0.07
	(0.15)	(0.17)	(0.13)	(0.19)	(0.21)	(0.17)
$\mathbb{I}_{t_{M2}+5}$	0.11	0.07	0.04	0.03	-0.02	-0.05
	(0.16)	(0.16)	(0.14)	(0.20)	(0.19)	(0.16)
Year/Month/Weekday Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,431	2,431	2,431	1,819	1,819	1,819

VARIABLES	(7) Wind A	(8) SZSE	(9) SSE	(10) Wind A (Alt.)	(11) SZSE (Alt.)	(12) SSE (Alt.)
$\mathbb{I}_{t_{M2}-5}$	0.09	0.10	0.06	0.16	0.15	0.11
	(0.16)	(0.17)	(0.14)	(0.18)	(0.19)	(0.15)
$\mathbb{I}_{t_{M2}-4}$	-0.02	-0.07	-0.03	-0.07	-0.12	-0.06
	(0.15)	(0.14)	(0.13)	(0.20)	(0.17)	(0.17)
$\mathbb{I}_{t_{M2}-3,t_{M2}-1}$	0.25***	0.20**	0.13+	0.31***	0.23**	0.19**
	(0.09)	(0.10)	(0.08)	(0.11)	(0.11)	(0.09)
$\mathbb{I}_{t_{M2}}$	0.16	0.11	0.12	0.22	0.16	0.18
	(0.14)	(0.15)	(0.12)	(0.17)	(0.18)	(0.14)
$\mathbb{I}_{t_{M2}+1}$	-0.08	-0.15	-0.07	-0.21	-0.29+	-0.19
	(0.14)	(0.15)	(0.12)	(0.17)	(0.18)	(0.14)
$\mathbb{I}_{t_{M2}+2}$	0.01	-0.11	-0.03	0.02	-0.12	-0.05
	(0.16)	(0.17)	(0.15)	(0.19)	(0.20)	(0.18)
$\mathbb{I}_{t_{M2}+3}$	-0.10	-0.15	-0.09	-0.02	-0.07	-0.06
	(0.15)	(0.16)	(0.12)	(0.18)	(0.19)	(0.15)
$\mathbb{I}_{t_{M2}+4}$	0.16	0.13	0.09	0.01	-0.04	-0.07
	(0.15)	(0.17)	(0.13)	(0.19)	(0.21)	(0.16)
$\mathbb{I}_{t_{M2}+5}$	0.11	0.07	0.04	0.03	-0.02	-0.05
	(0.16)	(0.16)	(0.14)	(0.20)	(0.19)	(0.16)
Year/Month/Weekday Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,431	2,431	2,431	1,819	1,819	1,819

Notes: Baseline sample: January 2010 to December 2019. This table reports the dummy variable regression results of Equations (1) and (2). The dependent variable is the close-to-close excess return constructed from the Wind A-share Index, the SZSE Index or the SSE Index. We align the return data of the first trading day on which the equity market has access to the monetary aggregate data to the dummy variable $\mathbb{I}_{t_{M2}} = 1$ when $i = 0$. Announcement dummy $\mathbb{I}_{t_{M2}-1}$ equals one for the day that is 1 day before an **M2** announcement. Announcement dummy $\mathbb{I}_{t_{M2}-3,t_{M2}-1}$ equals one for the trading days in a 3-trading-day window before an **M2** announcement. "Year/Month/Weekday Dummies": controlling for the year, month, and weekday effects. ***, **, *, and + denote significance at the 1%, 5%, 10%, and 15% levels, respectively. Robust standard errors are in parentheses. Regression results in Columns (1)(2) and (3) are based on the baseline sample. Columns (4)(5) and (6) report the results, labeled as Alt., estimated based an alternative sample of returns covering January 2010 to June 2017.

nouncements relative to that of days outside the announcement windows are positive over a window of 3 days. These results are consistent with our baseline estimates in Table 1 regardless of which type of overlapped announcement events is disregarded. We conclude the equity premium accrued prior to **M2** announcements reflects stock returns' reactions specifically to PBOC's announcements releasing aggregate monetary statistics.

Table B.2: Robustness: Without Co-released Announcements Windows

VARIABLES	(1) No TRD	(2) No FAI	(3) No VAI	(4) No INP	(5) No PMI	(6) No CPI	(7) No RST	(8) No FOMC
$\mathbb{I}_{t_{M2}-5}$	0.14	0.21	0.18	0.09	0.09	0.19	0.11	0.07
	(0.16)	(0.18)	(0.17)	(0.15)	(0.15)	(0.16)	(0.15)	(0.15)
$\mathbb{I}_{t_{M2}-4}$	-0.07	-0.07	-0.03	-0.02	-0.02	-0.05	-0.01	-0.03
	(0.16)	(0.18)	(0.17)	(0.15)	(0.15)	(0.16)	(0.15)	(0.15)
$\mathbb{I}_{t_{M2}-3}$	0.17	0.18	0.17	0.21	0.21	0.28*	0.24+	0.27*
	(0.16)	(0.18)	(0.17)	(0.15)	(0.15)	(0.16)	(0.15)	(0.15)
$\mathbb{I}_{t_{M2}-2}$	0.24+	0.16	0.13	0.22+	0.22+	0.27*	0.24+	0.20
	(0.16)	(0.18)	(0.17)	(0.15)	(0.15)	(0.16)	(0.15)	(0.15)
$\mathbb{I}_{t_{M2}-1}$	0.30*	0.36**	0.34*	0.31**	0.31**	0.42***	0.31**	0.32**
	(0.16)	(0.18)	(0.17)	(0.15)	(0.15)	(0.16)	(0.15)	(0.15)
$\mathbb{I}_{t_{M2}}$	0.18	0.20	0.22	0.16	0.16	0.19	0.15	0.14
	(0.16)	(0.18)	(0.17)	(0.15)	(0.15)	(0.16)	(0.15)	(0.15)
$\mathbb{I}_{t_{M2}+1}$	-0.05	0.09	0.06	-0.08	-0.08	-0.06	-0.06	-0.09
	(0.16)	(0.18)	(0.17)	(0.15)	(0.15)	(0.16)	(0.15)	(0.15)
$\mathbb{I}_{t_{M2}+2}$	-0.02	-0.03	-0.05	0.01	0.01	0.10	-0.01	-0.02
	(0.16)	(0.18)	(0.17)	(0.15)	(0.15)	(0.16)	(0.15)	(0.15)
$\mathbb{I}_{t_{M2}+3}$	-0.10	-0.13	-0.09	-0.10	-0.10	-0.05	-0.09	-0.12
	(0.16)	(0.18)	(0.17)	(0.15)	(0.15)	(0.16)	(0.15)	(0.15)
$\mathbb{I}_{t_{M2}+4}$	0.15	0.21	0.24	0.16	0.16	0.22	0.18	0.13
	(0.16)	(0.18)	(0.17)	(0.15)	(0.15)	(0.16)	(0.15)	(0.15)
$\mathbb{I}_{t_{M2}+5}$	0.11	0.01	0.02	0.11	0.11	0.17	0.15	0.11
	(0.16)	(0.18)	(0.17)	(0.15)	(0.15)	(0.16)	(0.15)	(0.15)
Constant	-0.04	-0.05	-0.05	-0.04	-0.04	-0.09	-0.05	-0.04
	(0.16)	(0.17)	(0.17)	(0.17)	(0.17)	(0.17)	(0.17)	(0.17)
Year/Month/Weekday Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,431	2,431	2,431	2,431	2,431	2,431	2,431	2,431
R^2	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02

Notes: Sample: January 2010 to December 2019. This table reports the dummy variable regression results of Equations (1) using varied samples. Results of each column reflect the regression results based on a sample that treats those 11-day **M2** announcement windows as non-announcement windows when an announcement had the monetary data and a particular type of other macro data published on the same day. The dependent variable is the close-to-close excess return constructed from the Wind A-Share Index. We align the return data of the first trading day on which the equity market has access to the monetary aggregate data to the dummy variable $\mathbb{I}_{t_{M2}} = 1$ when $i = 0$. Announcement dummy $\mathbb{I}_{t_{M2}-i}$ equals one for the day that is i day before (i is negative if after) an **M2** announcement. "Year/Month/Weekday Dummies": controlling for the year, month, and weekday effects. ***, **, *, and + denote significance at the 1%, 5%, 10%, and 15% levels, respectively. Robust standard errors are in parentheses.

B.3 Return Responses: Other Macro Announcements

We examine if the positive reaction of stock returns prior to the releases of monetary aggregates data carries over to the windows of other macro announcements. We consider the list of announcements as summarized in Table A.1. Then we run regressions based on Equation (1) and Table B.3

reports the estimation results. Importantly, focusing on a window length of 11 days centering the announcement events, we find that China's stock market also exhibits reactions to data releases over a few days before announcements of **VAI** and **FAI** by realizing positive pre-announcement premium. We regard this as complementary evidence in support of the channel of information-driven uncertainty reduction. As the aggregate market risk can be shifted by a range of macro statistics other than monetary aggregates data, pre-announcement information acquisition to learning about other statistics similarly helps mitigate the market perceived risk and push up equity prices ex-ante. Interestingly, we note that the equity market yields trivial but negative excess returns in response to incoming announcements of **INP**, **PMI** and **RST**.

Table B.3: Returns in Windows of Other Macro Announcements

VARIABLES	(1) M2	(2) TRD	(3) VAI	(4) FAI	(5) INP	(6) PMI	(7) CPI	(8) RST
$\mathbb{I}_{t_{Anns}-5}$	0.09	0.17	0.06	0.05	-0.26+	-0.29+	0.07	-0.12
	(0.16)	(0.14)	(0.17)	(0.16)	(0.17)	(0.18)	(0.16)	(0.16)
$\mathbb{I}_{t_{Anns}-4}$	-0.02	0.21	0.30*	0.25*	-0.07	-0.06	0.33**	0.11
	(0.15)	(0.17)	(0.16)	(0.15)	(0.19)	(0.15)	(0.15)	(0.15)
$\mathbb{I}_{t_{Anns}-3}$	0.21	0.18	0.31*	0.25+	-0.04	-0.15	0.00	-0.23+
	(0.16)	(0.14)	(0.17)	(0.17)	(0.16)	(0.17)	(0.14)	(0.15)
$\mathbb{I}_{t_{Anns}-2}$	0.22+	0.08	0.27*	0.24+	-0.19	-0.24+	-0.01	-0.01
	(0.14)	(0.16)	(0.16)	(0.15)	(0.14)	(0.16)	(0.15)	(0.16)
$\mathbb{I}_{t_{Anns}-1}$	0.31**	0.19	0.05	0.03	-0.26+	0.08	0.01	-0.06
	(0.13)	(0.15)	(0.15)	(0.14)	(0.18)	(0.14)	(0.16)	(0.17)
$\mathbb{I}_{t_{Anns}}$	0.16	0.25*	0.08	0.09	-0.17	0.18	-0.01	-0.16
	(0.14)	(0.15)	(0.17)	(0.16)	(0.20)	(0.17)	(0.17)	(0.17)
$\mathbb{I}_{t_{Anns}+1}$	-0.08	0.02	-0.01	-0.03	-0.22	0.17	0.15	0.07
	(0.14)	(0.14)	(0.15)	(0.15)	(0.15)	(0.16)	(0.14)	(0.17)
$\mathbb{I}_{t_{Anns}+2}$	0.01	0.10	-0.04	-0.01	-0.09	0.19	-0.06	0.07
	(0.16)	(0.16)	(0.18)	(0.17)	(0.18)	(0.14)	(0.15)	(0.14)
$\mathbb{I}_{t_{Anns}+3}$	-0.10	0.11	0.11	0.12	0.26*	0.01	0.09	-0.10
	(0.15)	(0.11)	(0.14)	(0.14)	(0.15)	(0.14)	(0.14)	(0.15)
$\mathbb{I}_{t_{Anns}+4}$	0.16	-0.02	0.13	0.14	-0.02	-0.00	0.10	-0.17
	(0.15)	(0.15)	(0.17)	(0.16)	(0.18)	(0.13)	(0.16)	(0.17)
$\mathbb{I}_{t_{Anns}+5}$	0.11	0.05	0.06	0.08	0.07	0.02	-0.09	-0.42**
	(0.16)	(0.16)	(0.16)	(0.15)	(0.15)	(0.17)	(0.15)	(0.20)
Year/Month/Weekday Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,431	2,431	2,431	2,431	2,431	2,431	2,431	2,431
R^2	0.02	0.01	0.02	0.01	0.02	0.02	0.01	0.02

Notes: Sample: January 2010 to December 2019. This table reports dummy variable regression results of Equation (1) for announcement windows associated with **M2** announcement and a wider range of announcements that release other macro data. The dependent variable is the close-to-close excess return constructed from the Wind A-Share Index. Announcement dummy $\mathbb{I}_{t_{Anns}-i}$ equals one if the i-th trading day is before (or after if i is negative) a particular type of announcement. We align the return data of the first trading day that the equity market has access to the news to the dummy variable $\mathbb{I}_{t_{Anns}} = 1$ when $i = 0$. ***, **, *, and + denote significance at the 1%, 5%, 10%, and 15% levels, respectively. Robust standard errors are in parentheses.

B.4 Return Responses: FOMC Statements

We evaluate if China's stock market reacts to the U.S. FOMC statement releases. Table B.4 summarizes our estimation results. Columns (1) and (4) list the estimated coefficients of pre-announcement dummies of Equations (1) and (2) based on our baseline sample covering a period from January, 2010 to December, 2019. Most of the coefficient estimates are insignificant, except for a trivially negative number for dummy $\mathbb{I}_{t_{FOMC}-2}$.

We also note the sample difference of our years of coverage 2010-2019 as compared with the pre-2011 period in Lucca and Moench (2015). Therefore, our sample captures a period when the U.S. federal funds rate stayed mostly near a zero lower bound since the end of 2008. In addition, the U.S. FRB did the forward guidance which anchored the market expectations of domestic and international investors by minimizing changes of the U.S. monetary policy. It is thus possible that the Chinese market hardly responded because there was little risk related to the U.S. monetary policy. To assess this possibility, we further examine two subsample periods and check if Chinese markets may react to the FOMC news since late 2015 when the zero lower bound (ZLB) was lifted. Importantly, by comparing and contrasting the estimation results in earlier and later samples, we are to explore if Chinese markets could have developed additional sophistication over time and may start being synchronized with other markets after rounds of market reforms and developments. First, we present the estimation results as in columns (2) and (5) of Table B.4 using the sample years of 2010 to 2014. We find that China's equity market reactions were silent in windows of the FOMC announcements when the zero lower bound was still binding. Second, we focus on later sample starting from 2015 and tabulate the regression results in columns (3) and (6). We find that the Chinese market started exhibiting negative pre-announcement premium in response to FOMC meetings in later years given a significant coefficient estimate for a three-day pre-announcement dummy. This evidence may suggest that in midst of rising interest rates after the zero lower bound was lifted in the U.S., drops of China's equity market prior to the FOMC announcements may be reflective of China's anticipated capital outflow and the RMB devaluation.

In sum, we conclude that the daily excess returns of China's equity market in FOMC announcement windows is not statistically different from that outside the FOMC announcement windows before 2014, which is roughly zero. It, however, exhibits trivially negative pre-announcement pre-

mium in case of forthcoming FOMC meetings since 2015 once the ZLB was lifted. Such evidence differs from the main findings in Lucca and Moench (2015) and Brusa, Savor, and Wilson (2019) with respect to the fact that the stock markets of a number of advanced economies do realize positive returns before or on the FOMC announcement days. Our findings also complement the view in Brusa, Savor, and Wilson (2019) that China's equity market is not at all responsive to the FOMC news.

Table B.4: China's Stock Market Responses to FOMC Announcements

VARIABLES	(1) 2010-2019	(2) 2010-2014	(3) 2015-2019	(4) 2010-2019	(5) 2010-2014	(6) 2015-2019
$\mathbb{I}_{t_{FOMC}-5}$	0.08	-0.17	0.31	0.08	-0.17	0.30
	(0.16)	(0.20)	(0.25)	(0.16)	(0.20)	(0.25)
$\mathbb{I}_{t_{FOMC}-4}$	-0.18	-0.09	-0.24	-0.18	-0.09	-0.24
	(0.17)	(0.22)	(0.25)	(0.17)	(0.22)	(0.25)
$\mathbb{I}_{t_{FOMC}-3}$	-0.28	-0.13	-0.45			
	(0.23)	(0.24)	(0.39)			
$\mathbb{I}_{t_{FOMC}-2}$	-0.35*	-0.22	-0.48			
	(0.20)	(0.23)	(0.34)			
$\mathbb{I}_{t_{FOMC}-1}$	-0.00	0.10	-0.06			
	(0.16)	(0.20)	(0.25)			
$\mathbb{I}_{t_{FOMC}-3,t_{FOMC}-1}$				-0.21*	-0.09	-0.33*
				(0.12)	(0.14)	(0.19)
$\mathbb{I}_{t_{FOMC}}$	-0.19	-0.04	-0.38	-0.19	-0.04	-0.38
	(0.20)	(0.24)	(0.33)	(0.20)	(0.24)	(0.33)
$\mathbb{I}_{t_{FOMC}+1}$	-0.04	0.05	-0.10	-0.04	0.05	-0.10
	(0.19)	(0.22)	(0.31)	(0.19)	(0.21)	(0.31)
$\mathbb{I}_{t_{FOMC}+2}$	-0.23	0.00	-0.51+	-0.22	0.01	-0.49+
	(0.20)	(0.25)	(0.32)	(0.20)	(0.25)	(0.32)
$\mathbb{I}_{t_{FOMC}+3}$	0.06	0.05	0.05	0.07	0.06	0.06
	(0.17)	(0.20)	(0.27)	(0.17)	(0.20)	(0.27)
$\mathbb{I}_{t_{FOMC}+4}$	-0.10	-0.11	-0.05	-0.12	-0.12	-0.09
	(0.16)	(0.19)	(0.27)	(0.16)	(0.19)	(0.26)
$\mathbb{I}_{t_{FOMC}+5}$	-0.15	0.05	-0.39	-0.16	0.05	-0.39
	(0.22)	(0.21)	(0.39)	(0.22)	(0.21)	(0.39)
Constant	-0.16	0.03	-0.20	-0.13	0.06	-0.16
	(0.17)	(0.19)	(0.28)	(0.17)	(0.19)	(0.28)
Year / Month / Weekday Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,431	1,212	1,219	2,431	1,212	1,219
R^2	0.02	0.03	0.02	0.01	0.03	0.02

Notes: This table reports dummy variable regression results for specifications of Equations (1) and (2) when considering FOMC announcements. The dependent variable is the close-to-close excess return constructed from the Wind A-Share Index. We align the return data of the first trading day on which the Chinese equity market has access to the FOMC news to the dummy variable $\mathbb{I}_{t_{FOMC}} = 1$ when $i = 0$. Announcement dummy $\mathbb{I}_{t_{FOMC}-i}$ equals one if the i-th trading day is before (or after if i is negative) an **FOMC** announcement. Announcement dummy $\mathbb{I}_{t_{FOMC}-3,t_{FOMC}-1}$ equals one for the trading days in a 3-trading-day window before an **FOMC** announcement. "Year/Month/Weekday Dummies" control the year, month, and weekday effects. ***, **, *, and + denote significance at the 1%, 5%, 10%, and 15% levels, respectively. Robust standard errors are in parentheses.

B.5 Return Responses: Monetary Policy Reports

Besides the monthly announcements of monetary aggregates data, the PBOC also issues the Monetary Policy Report (MPR) every quarter, namely, the **MPR** announcements. The MPR is a comprehensive collection of the PBOC's view on the functioning of credit market, the macroeconomic and financial stability, and the necessity to fine tune monetary policy in China. Therefore,

we are also interested to know whether the stock market reacts to the issuance of this policy report.

We estimate the regression specifications of Equations (1) and (2) in windows of **MPR** announcements. Table B.5 summarizes our findings. According to columns (1) and (2), the relative excess return per day for a 1-day and 3-day pre-announcement window before an **M2** announcement is 31 bps and 25 bps, respectively. We list these here as benchmark for comparison purposes. Columns (3) and (4) find that the equity market responds to the issuance of Monetary Policy Report ex-ante (two days before the issuance of monetary policy report) as well as ex-post (on and after the announcement days) positively and significantly. Then we consider all events of **M2** and **MPR** announcements in estimations, and columns (5) and (6) summarize the results. Our estimation results suggest that there is equity premium before and after the issuance of the monetary policy report.

Important to note that first, China's Monetary Policy Reports, although inclusive of statistics about the conduct of Chinese monetary policy, delivers much more information about the PBOC's assessments but less so about releasing the up-to-date monetary and credit data. Second, compared to an encyclopedia style of quarterly issues of the policy reports, monetary aggregates data are published monthly, which could be more useful for investors to draw real-time insights and implement trading strategies.

B.6 Return Responses: Other Asset Markets

We explore the responses of other asset markets in China to the PBOC's announcements of monetary aggregates data. We consider a series of measures of market performance as the dependent variable in regressions including the daily returns of 10-year government bond yields, the daily excess returns on Chinese A-share futures of 300 big stocks, the gold futures, and the exchange rates of Chinese Yuan against major currencies including the U.S. Dollar, Japanese Yen, and Euro. The estimation results based on the specification of Equation (2) are collected in Table B.6. Accordingly, relative to days outside **M2** announcement windows, we find no excess returns for most of these alternative asset markets. It should be noted that our estimated dummy coefficient associated with the future index of the 300 big stocks is sizable and is significant only at the 15% significance level. This is consistent with our findings that significant pre-announcement returns are accrued in Shenzhen stock exchange where more small and medium cap stocks are traded than Shanghai

Table B.5: Returns in Windows Prior to MPR Announcements

VARIABLES	(1) **M2**	(2) **M2**	(3) **MPR**	(4) **MPR**	(5) **M2** and **MPR**	(6) **M2** and **MPR**
$\mathbb{I}_{t_{Anns}-5}$	0.09	0.09	-0.60***	-0.60***	-0.06	-0.06
	(0.16)	(0.16)	(0.22)	(0.22)	(0.14)	(0.14)
$\mathbb{I}_{t_{Anns}-4}$	-0.02	-0.02	0.35	0.35	0.05	0.05
	(0.15)	(0.15)	(0.27)	(0.27)	(0.14)	(0.14)
$\mathbb{I}_{t_{Anns}-3}$	0.21		-0.01		0.17	
	(0.16)		(0.23)		(0.14)	
$\mathbb{I}_{t_{Anns}-2}$	0.22+		0.65***		0.33***	
	(0.14)		(0.19)		(0.12)	
$\mathbb{I}_{t_{Anns}-1}$	0.31**		0.01		0.22*	
	(0.13)		(0.23)		(0.12)	
$\mathbb{I}_{t_{Anns}-3,t_{Anns}-1}$		0.25***		0.22+		0.24***
		(0.09)		(0.14)		(0.08)
$\mathbb{I}_{t_{Anns}}$	0.16	0.16	0.66**	0.66**	0.28**	0.27**
	(0.14)	(0.14)	(0.27)	(0.27)	(0.12)	(0.12)
$\mathbb{I}_{t_{Anns}+1}$	-0.08	-0.08	0.71***	0.71***	0.08	0.08
	(0.14)	(0.14)	(0.22)	(0.22)	(0.12)	(0.12)
$\mathbb{I}_{t_{Anns}+2}$	0.01	0.01	-0.13	-0.13	-0.07	-0.07
	(0.16)	(0.16)	(0.19)	(0.19)	(0.13)	(0.13)
$\mathbb{I}_{t_{Anns}+3}$	-0.10	-0.10	0.17	0.16	-0.04	-0.04
	(0.15)	(0.15)	(0.20)	(0.20)	(0.13)	(0.13)
$\mathbb{I}_{t_{Anns}+4}$	0.16	0.16	0.05	0.06	0.16	0.16
	(0.15)	(0.15)	(0.22)	(0.22)	(0.13)	(0.13)
$\mathbb{I}_{t_{Anns}+5}$	0.11	0.11	0.60***	0.60***	0.23*	0.23*
	(0.16)	(0.16)	(0.22)	(0.22)	(0.14)	(0.14)
Year / Month / Weekday Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,431	2,431	2,431	2,431	2,431	2,431
R^2	0.02	0.02	0.02	0.02	0.02	0.02

Notes: Sample: January 2010 to December 2019. This table reports dummy variable regression results for specifications of Equations (1) and (2). The dependent variable is the close-to-close excess return constructed from the Wind A-Share Index. We align the return data of the first trading day on which the equity market has access to the **Anns** announcement or the **MPR** reports to the dummy variable $\mathbb{I}_{t_{Anns}} = 1$ when $i = 0$. Announcement dummy $\mathbb{I}_{t_{Anns}-1}$ equals one for the day that is 1 day before an **Anns** or **MPR** announcement. Announcement dummy $\mathbb{I}_{t_{Anns}-3,t_{Anns}-1}$ equals one for the trading days in a 3-trading-day window before an **Anns** or **MPR** announcement. "Year/Month/Weekday Dummies" controls for the year, month, and weekday effects. ***, **, *, and + denote significance at the 1%, 5%, 10%, and 15% levels, respectively. Robust standard errors are in parentheses.

stock market exchange which hosts primarily large stocks.

Table B.6: Other Asset Markets' Reactions to M2 Announcements

VARIABLES	(1) $R_{10Y,bond}$	(2) $Furture_{CSI300}$	(3) $Furture_{Gold}$	(4) EX_{USD}	(5) EX_{JPY}	(6) EX_{EUR}
$\mathbb{I}_{t_{M2}-3,t_{M2}-1}$	-0.00	0.15+	0.01	0.00	-0.01	-0.02
	(0.01)	(0.09)	(0.05)	(0.01)	(0.04)	(0.03)
Year/Month/Weekday Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Other Anns Window Ctrls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,431	2,362	2,431	2,431	2,431	2,431
R^2	0.73	0.01	0.02	0.03	0.02	0.02

Notes: Sample: January 2010 to December 2019 (However, the series of $Furture_{CSI300}$ is dated from April 2010 since its launch). This table reports dummy variable regression results of Equation (2) using different dependent variables as identified by the column headers. Announcement dummy $\mathbb{I}_{t_{M2}-3,t_{M2}-1}$ equals one for the trading days in a 3-trading-day window before an **M2** announcement. "Other Anns Window Ctrls" controls for the remaining day dummies of the announcement window of length of $2T + 1$ as $T = 5$. "Year/Month/Weekday Dummies" controls for the year, month, and weekday effects. ***, **, *, and + denote significance at the 1%, 5%, 10%, and 15% levels, respectively. Robust standard errors are in parentheses.

B.7 Return Responses: Neighboring Markets

We further check if any important neighboring market of China exhibits significant reactions to **M2** announcements. In particular, we study three neighboring markets focusing on their key stock market index including Hong Kong (Hang Seng Index), Japan (Nikkei 225 Index), and South Korea (Korea Composite Stock Price Index, KOSPI Index). By computing the excess returns after subtracting their corresponding government bond yields from the raw market returns, we estimate the regression specification of Equation (1) focusing on a window with 5 trading days before and after the PBOC's monetary announcements. In particular, we align the return data of the first trading day in a neighboring stock market has access to the Chinese news to the dummy variable $\mathbb{I}_{t_{M2}} = 1$ when $i = 0$.

Looking at the estimation results summarized in Table B.7, we find no positive excess returns accrued for holding the stock portfolio of the three neighboring markets 3 days prior to PBOC's monetary announcements over years of 2010 to 2019. This implies that the market co-movement between the Chinese mainland markets and its neighbors before China's **M2** announcements does not exist on average. It is safe to conclude that our documented pre-announcement equity premium in China so far is largely domestic. However, it is interesting to note significantly positive excess returns are detected in stock markets of Japan and Korea, and more recently in the Hong Kong market since 2015 on and after the PBOC's releases of Chinese monetary data.

B.8 Monetary Statistics Announcement as Source of Risk

In the main text, we examine the pre-announcement premium as our main focus. However, a natural question is whether the monetary statistics for example, the M2 year-over-year growth rate, would be truly important to the market investors upon announcement is made. That is, it is interesting to understand if **M2** announcements are source of risk and whether this risk is priced. In specific, we are to examine whether the news surprise would generate any market impact ex-post.

To measure the unexpected surprises, we follow Chen, Ren, and Zha (2018) and apply a two-step procedure. First, we estimate a time-varying reaction function of PBOC's money supply rule, which operates the M2 YOY growth each month given inflation and output gaps in China. Alternatively, we estimate this M2 growth reaction function by fitting a regime-switching dynamic structure and

Table B.7: Neighboring Markets' Reactions to Chinese M2 Announcements

VARIABLES	(1) HK (2010-2019)	(2) HK (2015-2019)	(3) JP (2010-2019)	(4) JP (2015-2019)	(5) KR (2010-2019)	(6) KR (2015-2019)
$\mathbb{I}_{t_{M2}-5}$	-0.09	0.12	-0.26*	0.18	-0.22**	0.01
	(0.12)	(0.17)	(0.13)	(0.18)	(0.10)	(0.15)
$\mathbb{I}_{t_{M2}-4}$	-0.20+	-0.11	0.16	0.15	-0.17**	-0.05
	(0.14)	(0.19)	(0.15)	(0.19)	(0.09)	(0.11)
$\mathbb{I}_{t_{M2}-3}$	0.04	0.07	-0.04	-0.02	0.01	0.11
	(0.13)	(0.19)	(0.16)	(0.22)	(0.10)	(0.12)
$\mathbb{I}_{t_{M2}-2}$	-0.05	0.10	-0.00	0.25	-0.02	0.19*
	(0.10)	(0.15)	(0.13)	(0.18)	(0.09)	(0.11)
$\mathbb{I}_{t_{M2}-1}$	0.03	0.04	0.07	0.04	0.01	0.12
	(0.10)	(0.15)	(0.12)	(0.18)	(0.09)	(0.11)
$\mathbb{I}_{t_{M2}}$	0.03	0.16	0.13	0.33**	0.10	0.06
	(0.12)	(0.16)	(0.12)	(0.14)	(0.10)	(0.11)
$\mathbb{I}_{t_{M2}+1}$	-0.00	0.06	0.00	0.02	0.05	0.14+
	(0.10)	(0.15)	(0.14)	(0.14)	(0.08)	(0.09)
$\mathbb{I}_{t_{M2}+2}$	0.03	0.25*	0.40***	0.42**	0.18*	0.24**
	(0.11)	(0.14)	(0.12)	(0.17)	(0.10)	(0.11)
$\mathbb{I}_{t_{M2}+3}$	-0.15	-0.04	-0.05	0.11	-0.03	0.12
	(0.10)	(0.15)	(0.11)	(0.15)	(0.09)	(0.10)
$\mathbb{I}_{t_{M2}+4}$	0.11	0.41***	0.18+	0.18	0.06	0.22**
	(0.11)	(0.14)	(0.12)	(0.14)	(0.09)	(0.09)
$\mathbb{I}_{t_{M2}+5}$	0.01	0.12	0.17+	0.31*	0.02	0.08
	(0.09)	(0.12)	(0.12)	(0.16)	(0.08)	(0.09)
Constant	0.14	0.05	-0.05	-0.08	0.13	0.03
	(0.12)	(0.16)	(0.15)	(0.20)	(0.10)	(0.11)
Year / Month / Weekday Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,366	1,186	2,311	1,158	2,351	1,177
R^2	0.01	0.02	0.02	0.02	0.02	0.03

Notes: This table reports the dummy variable regression results of Equation (1). The dependent variable is the monthly excess equity return constructed from the market index of three neighboring markets of China, i.e. HK (Hong Kong: Hang Seng Index), JP (Japan: Nikkei 225 Index), and KR (South Korea: Korea Composite Stock Price Index, KOSPI Index). The risk-free rates for Hong Kong and Japanese markets are proxied by the corresponding 3-month treasury bill yield to maturity, and one-year government bond yields are used for South Korea market. Years of coverage are displayed in the parenthesis in the header of each column. Announcement dummy $\mathbb{I}_{t_{M2}-i}$ equals 1 if it is the i-th trading day before (after if i is negative) a Chinese **M2** announcement made by Chinese central bank PBOC. We align the return data of the first trading day that a neighboring stock market has access to the Chinese news to the dummy variable $\mathbb{I}_{t_{M2}} = 1$ when $i = 0$. ***, **, *, and + denote significance at the 1%, 5%, 10%, and 15% levels, respectively. Robust standard errors are in parentheses.

then by simply estimating a linear Taylor-type rule using GMM simply for ensuring the robustness. Second, given an estimated M2 growth rule, we take the residuals as the monetary growth surprises. Residuals obtained from three different money operation rules are labeled as $MP_{sup_{CRZ}}$, $MP_{sup_{MS}}$ and $MP_{sup_{GMM}}$, respectively.

Then we run regressions to examine the market return responses to market surprises about the M2 growth rate as in PBOC's announcements. We have the regression results collected in Table B.8. Coefficient estimates in Columns (1)(2) and (3) find that our documented equity premium prior to **M2** announcements is not affected by the unexpected data surprises regardless of measures. This finding is consistent with results in Table 3. Then we check the coefficient estimates for the interaction term of surprises and the announcement day dummy variable $\mathbb{I}_{M2}$. Results in columns (4)(5) and (6) suggest that the unexpected monetary expansion does generate significant

and positive excess returns on announcement days. Therefore, we show that the unexpected shocks to money supply are part of the aggregate market risk.

Table B.8: Announced Monetary Statistics as Source of Risk

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
$\mathbb{I}_{t_{M2}-3,t_{M2}-1}$	0.26***	0.26***	0.26***			
	(0.09)	(0.09)	(0.09)			
$\mathbb{I}_{t_{M2}-3,t_{M2}-1} \cdot MP_{sup_{CRZ}}$	0.09					
	(0.10)					
$\mathbb{I}_{t_{M2}-3,t_{M2}-1} \cdot MP_{sup_{MS}}$		0.09				
		(0.10)				
$\mathbb{I}_{t_{M2}-3,t_{M2}-1} \cdot MP_{sup_{GMM}}$			0.09			
			(0.10)			
$\mathbb{I}_{t_{M2}}$				0.19	0.19	0.18
				(0.14)	(0.14)	(0.14)
$\mathbb{I}_{t_{M2}} \cdot MP_{sup_{CRZ}}$				0.25*		
				(0.14)		
$\mathbb{I}_{t_{M2}} \cdot MP_{sup_{MS}}$					0.25*	
					(0.14)	
$\mathbb{I}_{t_{M2}} \cdot MP_{sup_{GMM}}$						0.24*
						(0.14)
Constant	-0.21	-0.21	-0.22	-0.21	-0.21	-0.22
	(0.18)	(0.18)	(0.18)	(0.18)	(0.18)	(0.18)
Year / Month / Weekday Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Other Anns Window Ctrls	Yes	Yes	Yes	Yes	Yes	Yes
Level Term Ctrls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,431	2,431	2,431	2,431	2,431	2,431
R^2	0.02	0.02	0.02	0.02	0.02	0.02

Notes: Sample: January 2010 to December 2019. The dependent variable is the excess return constructed from the Wind A-Share Index. Announcement day dummy $\mathbb{I}_{t_{M2}-3,t_{M2}-1}$ equals one for the trading days in a three-day window before an **M2** announcement. We align the return data of the first trading day that the equity market has access to the news to the dummy variable $\mathbb{I}_{t_{M2}} = 1$ when $i = 0$. Year, month, and weekday dummies along with the remaining day dummies of the announcement window of length of $2T + 1$ as $T = 5$ are included. "Level Term Ctrls": the term of measures of monetary policy surprises is included into a specification for estimation. ***, **, *, and + denote significance at the 1%, 5%, 10%, and 15% levels, respectively. Robust standard errors are in parentheses.

B.9 Dummy Regressions: Timing of Announcement and the Pre-announcement Premium

Instead of dividing our full sample of return data into two subsamples by months that had announcements made relatively early and those having late announcement arrivals, here we run regressions using the full sample by defining a dummy variable indicate if a month is associated with an announcement arrived earlier than a cutoff day. We estimate the following specifications to examine if excess returns are indeed lower in those months when the PBOC's announcements

arrived relatively early.

$$Exret_t = \gamma + \psi \mathbb{I}_{early} + \phi \mathbb{I}_{t_{M2}-1} \cdot \mathbb{I}_{early} + \sum_{i=-T}^{T} \beta_i \mathbb{I}_{t_{M2}-i} + \beta_x X_t + \upsilon_t \tag{B.1}$$

$$Exret_t = \gamma + \psi \mathbb{I}_{early} + \phi \mathbb{I}_{t_{M2}-3,t_{M2}-1} \cdot \mathbb{I}_{early} + \theta \mathbb{I}_{t_{M2}-3,t_{M2}-1} + \sum_{i=-T}^{0} \beta_i \mathbb{I}_{t_{M2}-i} + \sum_{i=4}^{T} \beta_i \mathbb{I}_{t_{M2}-i} + \beta_x X_t + \upsilon_t \tag{B.2}$$

where $\mathbb{I}_{early} = 1$ if a trading day of a month that had the PBOC announcement arrive on a day earlier than a cutoff day of month. Therefore, $\mathbb{I}_{early} = 0$ if the trading day is associated with a month that had the PBOC announcement arrive on a day on and later than a cutoff day. In our estimations, we check the robustness of our results by varying the cutoff day between 11th and 14th and redefining the dummy variable for each estimation.

Table B.9 summarizes our estimation results. Accordingly, our coefficient estimates for the interaction terms of $\mathbb{I}_{t_{M2}-1} \cdot \mathbb{I}_{early}$ and $\mathbb{I}_{t_{M2}-3,t_{M2}-1} \cdot \mathbb{I}_{early}$ are consistently negative. In case these coefficients are statistically different from zero, they also have similar magnitudes compared to those for the terms $\mathbb{I}_{t_{M2}-1}$ and $\mathbb{I}_{t_{M2}-3,t_{M2}-1}$. These findings suggest generally, the pre-announcement premium exists only when an announcement arrives late in a month.

B.10 Information Acquisition: Early vs. Late Announcements

We report in Table B.10 the results based on estimations using a composite index covering more term searches. We consider the search terms of "M2 growth", "money supply", "total social financing", "monetary policy", "financial institutions", "liquidity of assets" and "economic fundamentals". It can be shown that information acquisition is larger when it comes to late arrivals of announcements. Despite missing statistical the significance for the Wald-test statistic related to the cutoff day of 11th, we confirm that the measured degree of information acquisition among investors for learning about the monetary data is further heightened before announcements when an announcement arrives late in a month.

Table B.9: Dummy Regressions: Pre-announcement Premium and Timing of Announcements

VARIABLES	(1) 11^{th}	(2) 12^{th}	(3) 13^{th}	(4) 14^{th}	(5) 11^{th}	(6) 12^{th}	(7) 13^{th}	(8) 14^{th}
$\mathbb{I}_{t_{M2}-5}$	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
	(0.16)	(0.16)	(0.16)	(0.16)	(0.16)	(0.16)	(0.16)	(0.16)
$\mathbb{I}_{t_{M2}-4}$	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02
	(0.15)	(0.15)	(0.15)	(0.15)	(0.15)	(0.15)	(0.15)	(0.15)
$\mathbb{I}_{t_{M2}-3}$	0.21	0.21	0.21	0.21				
	(0.16)	(0.16)	(0.16)	(0.16)				
$\mathbb{I}_{t_{M2}-2}$	0.22+	0.22+	0.22+	0.22+				
	(0.14)	(0.14)	(0.14)	(0.14)				
$\mathbb{I}_{t_{M2}-1}$	0.40***	0.54***	0.58***	0.65**				
	(0.14)	(0.15)	(0.20)	(0.26)				
$\mathbb{I}_{t_{M2}-1} \cdot \mathbb{I}_{Early}$	-0.65+	-0.57**	-0.45*	-0.49*				
	(0.40)	(0.27)	(0.25)	(0.29)				
$\mathbb{I}_{t_{M2}-3,t_{M2}-1}$					0.32***	0.39***	0.42***	0.33*
					(0.10)	(0.12)	(0.16)	(0.19)
$\mathbb{I}_{t_{M2}-3,t_{M2}-1} \cdot \mathbb{I}_{Early}$					-0.46**	-0.35**	-0.29+	-0.11
					(0.23)	(0.17)	(0.18)	(0.21)
$\mathbb{I}_{t_{M2}}$	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16
	(0.14)	(0.14)	(0.14)	(0.14)	(0.14)	(0.14)	(0.14)	(0.14)
$\mathbb{I}_{t_{M2}+1}$	-0.08	-0.08	-0.08	-0.08	-0.08	-0.07	-0.07	-0.08
	(0.14)	(0.14)	(0.14)	(0.14)	(0.14)	(0.14)	(0.14)	(0.14)
$\mathbb{I}_{t_{M2}+2}$	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	(0.16)	(0.16)	(0.16)	(0.16)	(0.16)	(0.16)	(0.16)	(0.16)
$\mathbb{I}_{t_{M2}+3}$	-0.10	-0.10	-0.10	-0.10	-0.10	-0.09	-0.09	-0.10
	(0.15)	(0.15)	(0.15)	(0.15)	(0.15)	(0.15)	(0.15)	(0.15)
$\mathbb{I}_{t_{M2}+4}$	0.16	0.16	0.16	0.16	0.16	0.16	0.17	0.16
	(0.15)	(0.15)	(0.15)	(0.15)	(0.15)	(0.15)	(0.15)	(0.15)
$\mathbb{I}_{t_{M2}+5}$	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
	(0.16)	(0.16)	(0.16)	(0.16)	(0.16)	(0.16)	(0.16)	(0.16)
Constant	-0.19	-0.18	-0.18	-0.19	-0.19	-0.17	-0.18	-0.19
	(0.17)	(0.17)	(0.17)	(0.17)	(0.17)	(0.17)	(0.17)	(0.17)
Year / Month / Weekday Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2431	2431	2431	2431	2431	2431	2431	2431
R^2	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02

Notes: Sample: January 2010 to December 2019. This table reports dummy variable regression results of Equations (B.1) and (B.2). The dependent variable is the excess return constructed from the Wind A-Share Index. Announcement day dummy $\mathbb{I}_{t_{M2}-i}$ equals one if the i-th trading day is before (or after if i is negative) an **M2** announcement. We align the return data of the first trading day that the equity market has access to the news to the dummy variable $\mathbb{I}_{t_{M2}} = 1$ when $i = 0$. Announcement dummy $\mathbb{I}_{t_{M2}-3,t_{M2}-1}$ equals 1 if a trading day falls in the 3-day window before the announcement. $\mathbb{I}_{early} = 1$ if the trading day is associated with a month that had the **M2** announcement arrived earlier than a cutoff day of month. Columns differ in the cutoff day, e.g.$11^{th}, 12^{th}, 13^{th}$ and 14^{th} by which the dummy variable $\mathbb{I}_{early} = 1$ is redefined accordingly. ***, **, *, and + denote significance at the 1%, 5%, 10%, and 15% levels, respectively. Robust standard errors are in parentheses.

B.11 Dummy Regressions: Timing of Announcement and Information Acquisition

We run regressions using the full sample of our measured index of information acquisition in a regression setting with an interaction term. We estimate the following specifications to examine if information acquisition is indeed lower in those months when the PBOC's announcements arrived

Table B.10: Information Acquisition: Early vs. Late M2 Announcements

	Panel A				Panel B			
VARIABLES	$< 11^{th}$	$< 12^{th}$	$< 13^{th}$	$< 14^{th}$	$\geq 11^{th}$	$\geq 12^{th}$	$\geq 13^{th}$	$\geq 14^{th}$
$\mathbb{I}_{t_{M2}-5}$	0.07	0.07***	0.07***	0.07***	0.08***	0.08***	0.08***	0.08***
	(0.05)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.03)	(0.03)
$\mathbb{I}_{t_{M2}-4}$	0.14***	0.09***	0.07***	0.07***	0.07***	0.08***	0.10***	0.11***
	(0.05)	(0.02)	(0.02)	(0.02)	(0.01)	(0.02)	(0.02)	(0.02)
$\mathbb{I}_{t_{M2}-3}$	0.15***	0.09***	0.08***	0.08***	0.09***	0.10***	0.13***	0.14***
	(0.05)	(0.02)	(0.02)	(0.02)	(0.01)	(0.02)	(0.02)	(0.03)
$\mathbb{I}_{t_{M2}-2}$	0.14***	0.08***	0.07***	0.08***	0.09***	0.11***	0.13***	0.13***
	(0.05)	(0.03)	(0.02)	(0.02)	(0.01)	(0.02)	(0.02)	(0.02)
$\mathbb{I}_{t_{M2}-1}$	0.15***	0.09***	0.12***	0.13***	0.15***	0.19***	0.20***	0.20***
	(0.05)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.03)
$\mathbb{I}_{t_{M2}}$	0.23***	0.17***	0.16***	0.18***	0.19***	0.21***	0.25***	0.24***
	(0.04)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
$\mathbb{I}_{t_{M2}+1}$	0.17***	0.13***	0.11***	0.12***	0.13***	0.15***	0.18***	0.19***
	(0.03)	(0.02)	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)
$\mathbb{I}_{t_{M2}+2}$	0.15***	0.12***	0.11***	0.12***	0.12***	0.13***	0.17***	0.16***
	(0.03)	(0.02)	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)
$\mathbb{I}_{t_{M2}+3}$	0.16***	0.12***	0.11***	0.11***	0.12***	0.13***	0.16***	0.16***
	(0.03)	(0.02)	(0.02)	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)
$\mathbb{I}_{t_{M2}+4}$	0.11***	0.10***	0.10***	0.10***	0.11***	0.12***	0.14***	0.14***
	(0.03)	(0.02)	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)
$\mathbb{I}_{t_{M2}+5}$	0.08**	0.07***	0.07***	0.08***	0.09***	0.11***	0.13***	0.13***
	(0.04)	(0.02)	(0.02)	(0.02)	(0.01)	(0.02)	(0.02)	(0.03)
Constant	-0.33***	-0.19***	-0.14***	-0.14***	-0.10***	-0.08***	-0.09***	-0.11***
	(0.05)	(0.03)	(0.02)	(0.02)	(0.02)	(0.02)	(0.03)	(0.04)
Year/Month/Weekday Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	551	1,464	2,226	2,591	3,101	2,188	1,426	1,061
R^2	0.39	0.34	0.38	0.37	0.33	0.33	0.30	0.31
Late - Early: $\mathbb{I}_{t_{M2}-1}$ (Wald Test: χ^2 *Stat.*)					0.00 [0.99]	11.2 [0.00]	7.61 [0.01]	5.40 [0.02]

Notes: Sample: January 2010 to December 2019. This table reports dummy variable regression results of Equation (7). The dependent variable is the detrended Baidu keywords-based search index with respect to a few terms about the monetary statistics announced each month: "M2 growth", "money supply", "total social financing", "monetary policy", "financial institutions", "liquidity of assets" and "economic fundamentals". Announcement day dummy $\mathbb{I}_{t_{M2}-i}$ equals one if the i-th trading day is before (or after if i is negative) an **M2** announcement. We first compute simple averages of the considered search index series for different key words, $index_t^{raw}$, and then apply the normalization by removing the 30-day moving-average trend, $trend_t$. The exact normalization follows that: $index_t^{norm} = log(\frac{1+index_t^{raw}}{1+trend_t})$. Each column summarizes the estimation results based on a restricted sample that includes data of trading days for a selected number of months. Regression results with the daily measure of search index in a month where the PBOC's M2 announcement arrived earlier than a cutoff day of month, e.g. $11^{th}, 12^{th}, 13^{th}$ and 14^{th} are shown in Panel A (Early Group). By contrast, regression results based on daily search index in a month with the announcements arriving on and after one the cutoff day of month are shown in Panel B (Late Group). Year, month, and weekday dummies are included. The actual date and time information of the PBOC's announcements is used for dividing the event sample into two groups. ***, **, *, and + denote significance at the 1%, 5%, 10%, and 15% levels, respectively. Robust standard errors are in parentheses. P-values of the wald-statistic are reported in the brackets besides the statistics.

relatively early.

$$Info_t = \gamma + \psi \mathbb{I}_{early} + \phi \mathbb{I}_{t_{M2}-1} \cdot \mathbb{I}_{early} + \sum_{i=-T}^{T} \beta_i \mathbb{I}_{t_{M2}-i} + \beta_x X_t + \upsilon_t \tag{B.3}$$

$$Info_t = \gamma + \psi \mathbb{I}_{early} + \phi \mathbb{I}_{t_{M2}-3,t_{M2}-1} \cdot \mathbb{I}_{early} + \theta \mathbb{I}_{t_{M2}-3,t_{M2}-1} + \sum_{i=-T}^{0} \beta_i \mathbb{I}_{t_{M2}-i} + \sum_{i=4}^{T} \beta_i \mathbb{I}_{t_{M2}-i} + \beta_x X_t + \upsilon_t \tag{B.4}$$

where $\mathbb{I}_{early} = 1$ if our measured information acquisition index aligned with a trading day is associated with a month that had the PBOC announcement arrive on a day earlier than a cutoff day of month. Therefore, $\mathbb{I}_{early} = 0$ if information acquisition is associated with a month that had the PBOC announcement arrive on a day on and later than a cutoff day. In our estimations, we check the robustness of our results by varying the cutoff day between the 11th and the 14th and redefining the dummy variable for each estimation.

Table B.11 summarizes our estimation results. The coefficient estimates for the interaction terms of $\mathbb{I}_{t_{M2}-1} \cdot \mathbb{I}_{early}$ and $\mathbb{I}_{t_{M2}-3,t_{M2}-1} \cdot \mathbb{I}_{early}$ are consistently negative. These findings suggest that information acquisition is further increased before announcements when an announcement arrives late in a month.

B.12 Intraday Return Volatility in Windows of M2 Announcements

In this subsection, we examine the intra-day dynamics of realized return volatility in windows of the **M2** announcements. These intra-day data are sourced from the RESSET High Frequency Database.

We first compute the average return volatility constructed from returns over 5-minute trading blocks of the Shenzhen and Shanghai market indexes conditional on whether a day is falling in an **M2** announcement 7-day window. In Figure B.1, averaged across all **M2** announcements for the period of January 2010 to December 2019, the red solid lines denote the 7-day mean return volatility based on the two market indexes starting 3 days before the PBOC's announcement. The day of the **M2** announcement is marked by 0 in the middle of the x-axis. 90% confidence bands are drawn along the mean return volatility. For comparison, we also plot the dark dashed lines to denote the average return volatility across all "non-announcement" 7-day windows, in which there is no **M2** announcement falling on any day of these 7 days.

Accordingly, upper panel of the two subplots in Figure B.1 says that the intraday realized return volatility on both market exchanges are roughly lower over a 7-day interval centering an average **M2** announcement than that outside an announcement window. To clarify the picture, we then remove the first and last five minutes trading blocks for plotting purposes because there are volatility spikes and troughs clustered at the market open or close on each day. We then plot the intraday return volatility series in the lower panel of the two subplots with trading blocks at

Table B.11: Dummy Regressions: Information Acquisition and Timing of Announcements

VARIABLES	(1) 11^{th}	(2) 12^{th}	(3) 13^{th}	(4) 14^{th}	(5) 11^{th}	(6) 12^{th}	(7) 13^{th}	(8) 14^{th}
$\mathbb{I}_{t_{M2}-5}$	0.07***	0.07***	0.07***	0.07***	0.07***	0.07***	0.07***	0.07***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
$\mathbb{I}_{t_{M2}-4}$	0.09***	0.09***	0.09***	0.09***	0.09***	0.09***	0.09***	0.09***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
$\mathbb{I}_{t_{M2}-3}$	0.07***	0.07***	0.07***	0.07***				
	(0.02)	(0.02)	(0.02)	(0.02)				
$\mathbb{I}_{t_{M2}-2}$	0.09***	0.09***	0.09***	0.09***				
	(0.02)	(0.02)	(0.02)	(0.02)				
$\mathbb{I}_{t_{M2}-1}$	0.29***	0.36***	0.35***	0.34***				
	(0.03)	(0.03)	(0.04)	(0.04)				
$\mathbb{I}_{t_{M2}-1} \cdot \mathbb{I}_{Early}$	-0.11**	-0.22***	-0.12***	-0.09*				
	(0.05)	(0.04)	(0.05)	(0.05)				
$\mathbb{I}_{t_{M2}-3,t_{M2}-1}$					0.15***	0.18***	0.19***	0.18***
					(0.01)	(0.02)	(0.02)	(0.02)
$\mathbb{I}_{t_{M2}-3,t_{M2}-1} \cdot \mathbb{I}_{Early}$					-0.02	-0.10***	-0.07***	-0.05*
					(0.03)	(0.02)	(0.03)	(0.03)
$\mathbb{I}_{t_{M2}}$	0.42***	0.42***	0.42***	0.42***	0.42***	0.42***	0.42***	0.42***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
$\mathbb{I}_{t_{M2}+1}$	0.27***	0.27***	0.27***	0.27***	0.27***	0.27***	0.27***	0.27***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
$\mathbb{I}_{t_{M2}+2}$	0.19***	0.19***	0.19***	0.19***	0.19***	0.19***	0.19***	0.19***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
$\mathbb{I}_{t_{M2}+3}$	0.17***	0.17***	0.17***	0.17***	0.17***	0.17***	0.17***	0.17***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
$\mathbb{I}_{t_{M2}+4}$	0.13***	0.13***	0.13***	0.13***	0.13***	0.13***	0.13***	0.13***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
$\mathbb{I}_{t_{M2}+5}$	0.10***	0.10***	0.10***	0.10***	0.10***	0.10***	0.10***	0.10***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Constant	-0.07***	-0.07***	-0.07***	-0.07***	-0.07***	-0.07***	-0.07***	-0.07***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Year/Month/Weekday Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3,652	3,652	3,652	3,652	3,652	3,652	3,652	3,652
R^2	0.26	0.27	0.26	0.26	0.25	0.25	0.25	0.25

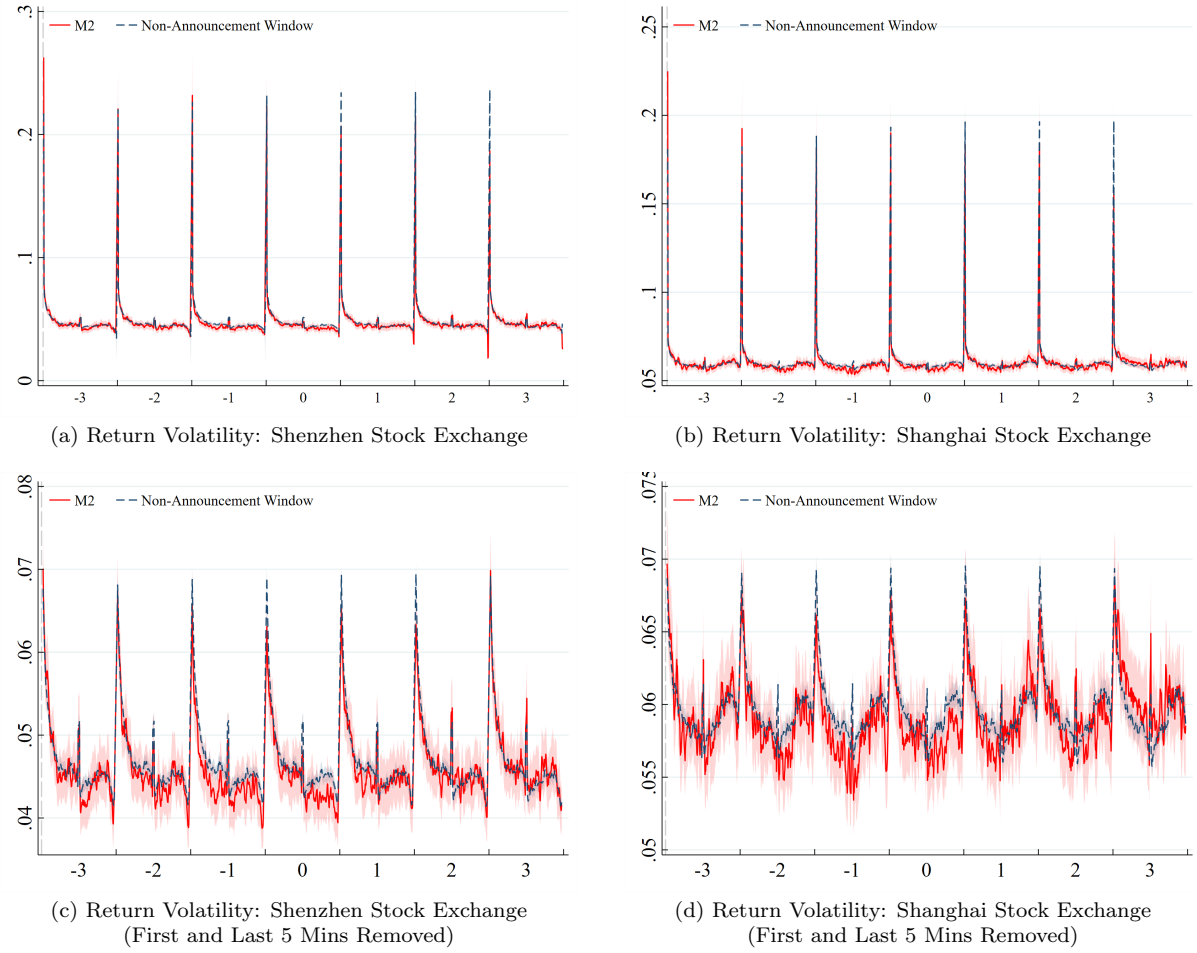
Notes: Sample: January 2010 to December 2019. This table reports dummy variable regression results of Equations (B.3) and (B.4). The dependent variable is the detrended Baidu keywords-based search index with respect to a few terms about the monetary statistics announced each month: "M2 growth", "money supply" and "total social financing". We first compute simple averages of the considered search index series for different key words, $index_t^{raw}$, and then apply the normalization by removing the 30-day moving-average trend, $trend_t$. The exact normalization follows that: $index_t^{norm} = log(\frac{1+index_t^{raw}}{1+trend_t})$. Announcement day dummy $\mathbb{I}_{t_{M2}-i}$ equals one if the i-th trading day is before (or after if i is negative) an **M2** announcement. Announcement dummy $\mathbb{I}_{t_{M2}-3,t_{M2}-1}$ equals 1 if a trading day falls in the 3-day window before the announcement. We align the search data of the first trading day that the equity market has access to the news to the dummy variable $\mathbb{I}_{t_{M2}} = 1$ when $i = 0$. $\mathbb{I}_{early} = 1$ if the search index realigned with a trading day is associated with a month that had the PBOC announcement arrive on a day earlier than a cutoff day of month. Columns differ in the cutoff day, e.g.$11^{th}, 12^{th}, 13^{th}$ and 14^{th} by which the dummy variable $\mathbb{I}_{early} = 1$ is redefined accordingly. ***, **, *, and + denote significance at the 1%, 5%, 10%, and 15% levels, respectively. Robust standard errors are in parentheses. parentheses.

market open and close removed. Our findings are robust.

B.13 Trading Volume Prior to Announcements

We further document that the trading volume in China is little changed within the windows of PBOC's announcements of monetary aggregates relative to that outside the windows. We estimate

Figure B.1: Intraday Dynamics Within and Outside M2 Windows: Return Volatility



(a) Return Volatility: Shenzhen Stock Exchange

(b) Return Volatility: Shanghai Stock Exchange

(c) Return Volatility: Shenzhen Stock Exchange (First and Last 5 Mins Removed)

(d) Return Volatility: Shanghai Stock Exchange (First and Last 5 Mins Removed)

Notes: Sample: January 2010 to December 2019. This figure shows the average return volatility over 5-minute blocks in each day on the SZSE Component Index (First Column) and the SSE Composite Index (Second Column) of a 7-day announcement window centering **M2** announcements. The solid red line of a subplot captures the average return volatility across all 7-day announcement windows. The announcement day, that is, the first trading day when the market has access to the monetary data, is centered in the middle. The dashed dark line denotes the average return volatility across 7-day windows with no announcement day falling in between. The lighter red color-shaded areas mark the 90% confidence bands around the average return volatility in announcement windows. The subplots in the second row plot the intraday return volatility with the first and last five-minutes trading blocks removed.

the following specification:

$$log(Volume_t) = \gamma + \sum_{i=-T}^{T} \beta_i \mathbb{I}_{t_{M2}-i} + \beta_x X_t + \upsilon_t \tag{B.5}$$

$log(Volume_t)$ denotes the logged trading volume on market index such as the Wind-A, SSE and SZSE. Accordingly, the estimate of β_i captures the size of daily trading volume i day before (after if positive) an **M2** announcement of a given market exchange, relative to that of days outside the announcement windows. Our estimation results in Table B.12 suggest that the trading volume

changes little within the **M2** announcement windows.

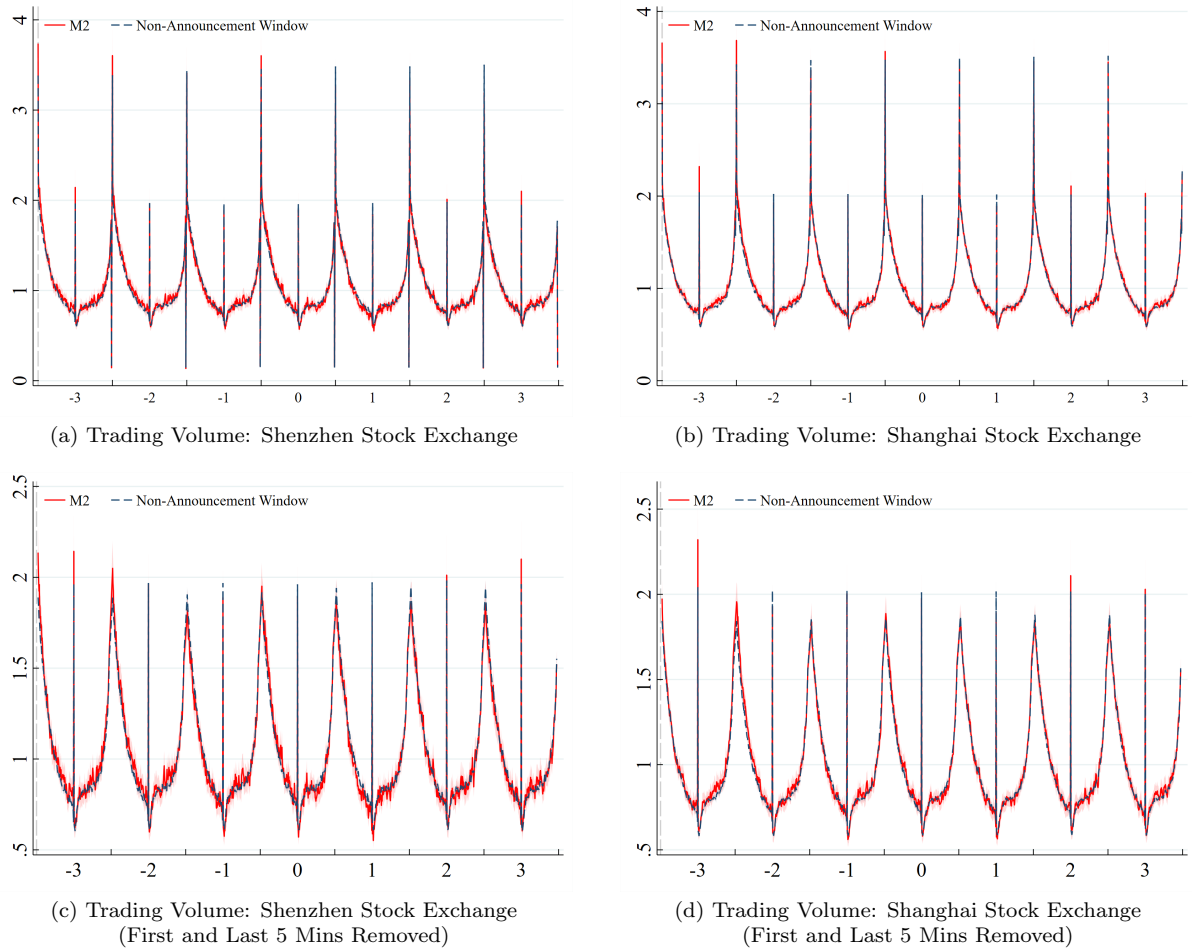
Table B.12: Trading Volume in Windows of M2 Announcements

VARIABLES	(1) Wind A	(2) Wind A	(3) Wind A	(4) Wind A	(5) SSE	(6) SZSE
$\mathbb{I}_{t_{M2}-5}$	0.02		0.02	0.02	0.03	0.01
	(0.03)		(0.03)	(0.03)	(0.04)	(0.03)
$\mathbb{I}_{t_{M2}-4}$	0.00		0.00	0.00	0.01	-0.01
	(0.03)		(0.03)	(0.03)	(0.04)	(0.03)
$\mathbb{I}_{t_{M2}-3}$	0.01	0.01	0.01			
	(0.03)	(0.03)	(0.03)			
$\mathbb{I}_{t_{M2}-2}$	0.02	0.02				
	(0.03)	(0.03)				
$\mathbb{I}_{t_{M2}-1}$	0.00	0.00				
	(0.03)	(0.03)				
$\mathbb{I}_{t_{M2}-2,t_{M2}-1}$			0.01			
			(0.02)			
$\mathbb{I}_{t_{M2}-3,t_{M2}-1}$				0.01	0.02	0.01
				(0.02)	(0.02)	(0.02)
$\mathbb{I}_{t_{M2}}$	0.02	0.02	0.02	0.02	0.02	0.02
	(0.03)	(0.03)	(0.03)	(0.03)	(0.04)	(0.03)
$\mathbb{I}_{t_{M2}+1}$	0.01	0.00	0.01	0.01	0.00	0.01
	(0.03)	(0.03)	(0.03)	(0.03)	(0.04)	(0.03)
$\mathbb{I}_{t_{M2}+2}$	0.02	0.02	0.02	0.02	0.01	0.02
	(0.03)	(0.03)	(0.03)	(0.03)	(0.04)	(0.03)
$\mathbb{I}_{t_{M2}+3}$	0.01	0.01	0.01	0.01	0.01	0.01
	(0.03)	(0.03)	(0.03)	(0.03)	(0.04)	(0.03)
$\mathbb{I}_{t_{M2}+4}$	-0.00		0.00	0.00	-0.00	-0.00
	(0.03)		(0.03)	(0.03)	(0.04)	(0.03)
$\mathbb{I}_{t_{M2}+5}$	-0.01		-0.01	-0.01	-0.01	-0.00
	(0.03)		(0.03)	(0.03)	(0.04)	(0.03)
Constant	25.97***	25.97***	25.97***	25.97***	25.42***	25.10***
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.03)
Year/Month/Weekday Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,431	2,431	2,431	2,431	2,431	2,431
R^2	0.77	0.77	0.77	0.77	0.69	0.82

Notes: Sample: January 2010 to December 2019. This table reports the estimation results of Equation (B.5). The dependent variable is the daily trading volume in log. We align the data of the first trading day on which the equity market has access to the monetary aggregate data to the dummy variable $\mathbb{I}_{t_{M2}} = 1$ when $i = 0$. Announcement dummy $\mathbb{I}_{t_{M2}-i}$ equals one for the day that is i day before (i is negative if after) an **M2** announcement. "Year/Month/Weekday Dummies": controlling for the year, month, and weekday effects. ***, **, *, and + denote significance at the 1%, 5%, 10%, and 15% levels, respectively. Robust standard errors are in parentheses.

We then compute and plot the average intraday trading volume in and outside the **M2** announcement windows in Figure B.2. These intra-day data are sourced from the RESSET High Frequency Database. It shows that the intraday trading volume on both market exchanges are indistinguishable in **M2** announcement day relative to that outside an announcement window. This holds regardless of whether we remove the first and last five minutes trading blocks in plots.

Figure B.2: Intraday Dynamics Within and Outside M2 Windows: Trading Volume



(a) Trading Volume: Shenzhen Stock Exchange

(b) Trading Volume: Shanghai Stock Exchange

(c) Trading Volume: Shenzhen Stock Exchange (First and Last 5 Mins Removed)

(d) Trading Volume: Shanghai Stock Exchange (First and Last 5 Mins Removed)

Notes: Sample: January 2010 to December 2019. This figure shows the average trading volume over 5-minute blocks in each day on the SZSE Component Index (First Column) and the SSE Composite Index (Second Column) of a 7-day announcement window centering **M2** announcements. The solid red line of a subplot captures the average trading volume across all 7-day announcement windows. The announcement day, that is, the first trading day when the market has access to the monetary data, is centered in the middle. The dashed dark line denotes the average trading volume across 7-day windows with no announcement day falling in between. The lighter red color-shaded areas mark the 90% confidence bands around the average trading volume in announcement windows. The subplots in the second row plot the intraday trading volume with the first and last five-minutes trading blocks removed.

C Pre-FOMC Announcement Period: the U.S. Evidence

In this section, we discuss the relevance of our key mechanism, i.e. the information-driven uncertainty reduction channel, for rationalizing the pre-FOMC announcement premium in the U.S. market. According to Lucca and Moench (2015), excess returns are accrued over a few hours starting from the afternoon on the day before the FOMC day till 2:15 PM to 2:30 PM on the day when the FOMC statement is released.

In the following, we first show that our defined quasi-scheduled announcement environment

accommodates the extreme case of the U.S. whereby the FOMC announcements are pre-scheduled and the market is pre-informed of the announcement dates. The pre-FOMC premium is accrued while the U.S. market investors are acquiring information to learning about the to-be-announced decision of the Federal Reserve Board right before the FOMC statement release. We then provide empirical evidence that is well consistent with our theoretical discussions. In particular, both the increased information acquisition and reduction in market uncertainty before FOMC announcements are observed in the U.S. market. It can be shown that the size of pre-FOMC premium is positively correlated with the intensity of information acquisition ex-ante.

However, without the exogenous variations with respect to the announcement timing across events as we have for China, the U.S. evidence, though well consistent with our theoretical discussions in line with Ai, Bansal, and Han (2022) highlighting the endogenous information acquisition, may also be partly driven by other potential channels (Wachter and Zhu, 2021; Cocoma, 2022). Therefore, China's unique setting of quasi-scheduled central bank announcements provides the exact data structure for identifying the *causal* mechanism of the information acquisition channel.

C.1 Theoretical Discussions

With an announcement falling on a single day instead of a range of days having nontrivial probability in each announcement cycle, we see that a slightly modified Definition 1 yields the pre-scheduled announcement environment.

Definition 1 (Pre-scheduled Announcements) *Announcements are pre-scheduled if market investors know that there is a unique day* $n \in \{1, ..., N\}$ *in an announcement cycle as pre-scheduled, on which the announcement falls with probability one such that* $Prob(t^A = n) = 1$.

By Definition 1, the U.S. market investors are well informed of the exact dates of the FOMC announcements ahead of time. Therefore, the market standing at day t perfectly understands when the probability of seeing an announcement next day would go up from 0 to 1 if $t^A = t + 1$. Given extensive evidence showing that the U.S. market uncertainty is heightened some days prior to FOMC announcements (Lucca and Moench, 2015; Hu et al., 2021), sudden shifts for $Prob(t^A = t + 1 | \{t^A \neq i\}_{i=1}^{i=t}) = 1$ right before the FOMC day increases the value for acquiring information

among uninformed investors on day t. As a result, the stock prices go up as information acquisition mitigates the market noises, which lowers the market uncertainty.

C.2 Pre-FOMC Premium and Uncertainty Reduction: More Recent Years

First, by extending the sample in Lucca and Moench (2015), we reaffirm the robustness of pre-FOMC equity premium in the U.S. market over years of 2004 to 2017 by taking market data of more recent years. Such evidence itself sheds light on the ongoing discussions on whether the U.S. pre-announcement premium had disappeared lately at least conditionally (Lucca and Moench, 2018; Kurov, Wolfe, and Gilbert, 2021). In specific, over 3-day windows centering the FOMC statement release dates, we compute and plot in Figure C.1 the average cumulative returns on the SP500 market index and the cumulative changes in the option-implied volatility index using minute-ticker data.

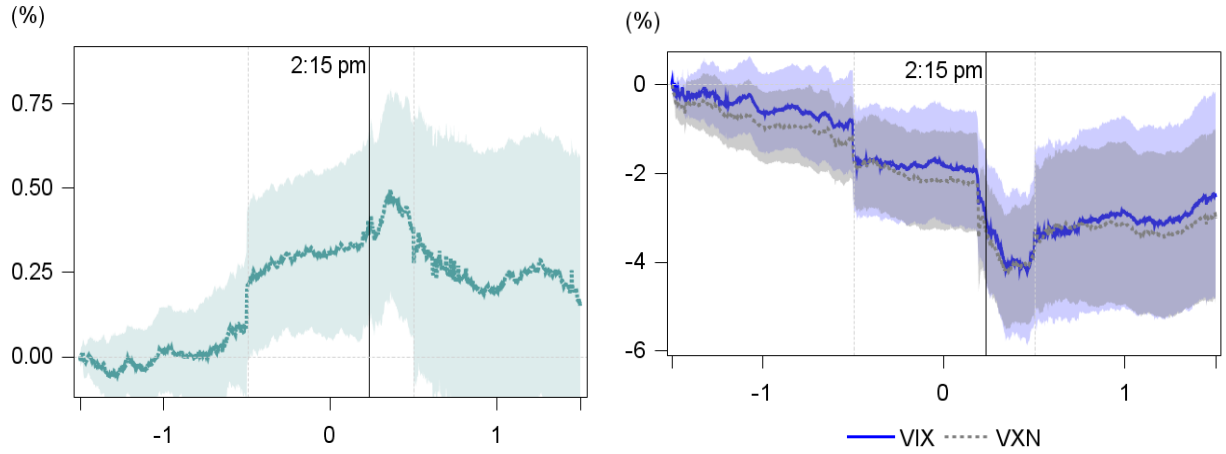
According to Panel (a) of this figure, in line with Savor and Wilson (2013) and Lucca and Moench (2015), we confirm the stock prices of the U.S. market jump on the FOMC days. Importantly, we emphasize that the positive FOMC-related positive returns are accumulated over the pre-announcement hours starting from the afternoon of the day before the FOMC day until the FOMC statement release. Moving to Panel (b), it shows that the U.S. market uncertainty starts declining one day before the FOMC day. This is true regardless of whether the uncertainty is measured by the SP500 implied volatility index, VIX or the Nasdaq-100 implied volatility index, VXN. This pre-announcement reduction of market uncertainty stops until reaching the bottom slightly after the FOMC statement is issued. Therefore, the U.S. market sees that the ex-ante build-ups of stock returns are coupled with declining market uncertainty.

In a regression setting, we provide additional evidence to establish the pre-FOMC equity premium and the ex-ante reduction of market uncertainty in the U.S. market. In specific, we estimate the following specification:

$$Exret_t^{US} = \gamma + \sum_{i=-T}^{T} \beta_i \mathbb{I}_{t_{FOMC}-i} + \beta_x X_t + e_t \tag{C.1}$$

where $Exret_t^{US}$ denotes the daily excess returns of the U.S. stock market portfolio on day t. The 1-month U.S. treasury bill yields are taken as the risk-free rates. In particular, our stock returns

Figure C.1: Pre-FOMC Cumulative Returns and Volatility Changes



(a) Cumulative SP500 Stock Returns

(b) Reduction of the U.S. Market Uncertainty

Notes: Sample: January 2004 to June 2017. This figure shows the average cumulative returns over 1-minute blocks on the SP500 Market Index in Panel (a) and cumulative changes of volatility indexes in Panel (b) over 3-day FOMC announcement windows. The FOMC announcement day is centered in the middle and a vertical line marks the scheduled time for most of the FOMC statement issuances in our sample, i.e. 2:15 PM. The shaded areas mark the 2 standard deviation confidence band around the average cumulative returns and changes in volatility measures. VIX: CBOE Volatility Index measures the market expectations of 30-day volatility for the SP500 index, as implied by the price of options on this index. VXN: CBOE Volatility Index measures the market expectations of 30-day volatility for the Nasdaq-100 index, as implied by the price of options on this index. The color of the confidence bands of the VIX index is lighter than that of the VXN index.

are computed as the log differentials of the market index as of 2PM of day t relative to that of 2PM on day $t-1$. Hence, on the FOMC day t_{FOMC}, our constructed stock returns $Exret^{US}_{t_{FOMC}}$ better capture the exact component of the pre-FOMC equity premium as accrued several hours before the release of FOMC statements. Though, we also take the standard measure of close-to-close daily returns to ensure the robustness of our results.

Table C.1 summarizes the estimation results per Equation (C.1). First, by columns (1) to (3), the statistically significant coefficient estimates for dummy indicator $\mathbb{I}_{t_{FOMC}}$ suggest that the U.S. market investors indeed earned positive excess returns over the 2PM to 2PM duration before the FOMC statement releases. Importantly, with close-to-close daily returns, the size of the coefficient estimates across columns (4) to (6) is little changed. Such finding implies that most of the U.S. equity premium realized on the FOMC days, if not entirely, is accrued before the FOMC statement release.

Then we estimate the regression model to identify the magnitude of uncertainty reduction in

Table C.1: Returns on SP500 Market Index in Windows of FOMC Announcements

VARIABLES	(1) $[2PM, 2PM]$	(2) $[2PM, 2PM]$	(3) $[2PM, 2PM]$	(4) Close-Close	(5) Close-Close	(6) Close-Close
$\mathbb{I}_{t_{FOMC}-5}$			-0.08			-0.08
			(0.09)			(0.13)
$\mathbb{I}_{t_{FOMC}-4}$			0.07			0.22**
			(0.10)			(0.09)
$\mathbb{I}_{t_{FOMC}-3}$			-0.05			-0.24**
			(0.09)			(0.12)
$\mathbb{I}_{t_{FOMC}-2}$		-0.03	-0.02		-0.05	-0.04
		(0.09)	(0.09)		(0.09)	(0.09)
$\mathbb{I}_{t_{FOMC}-1}$		-0.19+	-0.18		-0.04	-0.04
		(0.13)	(0.13)		(0.16)	(0.16)
$\mathbb{I}_{t_{FOMC}}$	0.32***	0.29**	0.28**	0.29**	0.28**	0.26*
	(0.12)	(0.12)	(0.12)	(0.13)	(0.14)	(0.14)
$\mathbb{I}_{t_{FOMC}+1}$		-0.11	-0.12		-0.25*	-0.25*
		(0.13)	(0.13)		(0.13)	(0.13)
$\mathbb{I}_{t_{FOMC}+2}$		-0.05	-0.05		-0.01	-0.01
		(0.10)	(0.10)		(0.13)	(0.14)
$\mathbb{I}_{t_{FOMC}+3}$			0.05			0.22*
			(0.19)			(0.12)
$\mathbb{I}_{t_{FOMC}+4}$			0.18			0.03
			(0.16)			(0.15)
$\mathbb{I}_{t_{FOMC}+5}$			-0.14			-0.19*
			(0.10)			(0.11)
Year / Month / Weekday Dummies		Yes	Yes		Yes	Yes
Observations	3,372	3,372	3,372	3,398	3,398	3,398
R^2	0.00	0.01	0.01	0.00	0.01	0.01

Notes: Sample: January 2004 to June 2017. This table reports dummy variable regression results of Equation (C.1). The dependent variable is the log excess return constructed from the U.S. SP500 market index and 1-month treasury bill rates. The duration of daily return is computed either over an interval of 2PM of day $t-1$ to 2PM of day t as in Columns (1) to (3) or from market close to market close as in Columns (4) to (6). The announcement dummy $\mathbb{I}_{t_{FOMC}-i}$ equals one if the i-th trading day is before (or after if i is negative) an FOMC announcement. ***, **, *, and + denote significance at the 1%, 5%, 10%, and 15% levels, respectively. Robust standard errors are in parentheses.

the U.S. stock market prior to FOMC announcements.

$$\Delta Unc_t^{US} = \alpha + \sum_{i=-T}^{T} \beta_i \mathbb{I}_{t_{FOMC}-i} + \beta_x X_t + u_t \tag{C.2}$$

ΔUnc_t^{US} denotes the daily log changes in measures of market uncertainty. To align the estimation results to those regarding market returns, changes in volatility-based market uncertainty are also computed using differentials of the volatility index as of 2PM of day t relative to that of 2PM on day $t-1$. Such cutoffs help confirm if market uncertainty reduction co-moves with the return accumulations over the same duration in time.

Table C.2 summarizes the estimation results. We see the coefficient estimate for the day dummy variable $\mathbb{I}_{t_{FOMC}}$ is negative across all columns. In addition, the size of coefficient estimate outweighs that of the constant term, which is significantly positive. Therefore, the U.S. market uncertainty is lower before the FOMC announcement relative to that of an average day outside the FOMC announcement window. This holds true regardless of how market uncertainty is measured. We thus

confirm that the U.S. market sees its uncertainty reduction during the same hours of return accumulations, i.e. over the 2PM to 2PM interval before the FOMC statement release. Interestingly, we should also note that turning to day 3 from day 4 prior to FOMC announcements, heightened uncertainty is also detected as coefficient estimate for dummy variable $\mathbb{I}_{t_{FOMC}-3}$ is positive and statistically significant. Such evidence well echoes findings in (Lucca and Moench, 2015; Hu et al., 2021) suggesting that market uncertainty before the window in which pre-FOMC premium is realized is relatively higher.

Table C.2: Relatively Low Uncertainty Prior to FOMC Announcements

VARIABLES	(1) ΔVIX_t [2PM,2PM]	(2) ΔVIX_t [2PM,2PM]	(3) ΔVIX_t [2PM,2PM]	(4) ΔVXN_t [2PM,2PM]	(5) ΔVXN_t [2PM,2PM]	(6) ΔVXN_t [2PM,2PM]
$\mathbb{I}_{t_{FOMC}-5}$			0.63			0.67
			(0.58)			(0.53)
$\mathbb{I}_{t_{FOMC}-4}$			0.02			-0.36
			(0.66)			(0.54)
$\mathbb{I}_{t_{FOMC}-3}$			1.71**			1.33**
			(0.68)			(0.59)
$\mathbb{I}_{t_{FOMC}-2}$		0.56	0.56		0.91+	0.91+
		(0.63)	(0.64)		(0.59)	(0.59)
$\mathbb{I}_{t_{FOMC}-1}$		0.51	0.47		-0.08	-0.12
		(0.70)	(0.71)		(0.66)	(0.66)
$\mathbb{I}_{t_{FOMC}}$	-2.25***	-1.93***	-1.80***	-2.62***	-2.18***	-2.09***
	(0.57)	(0.59)	(0.60)	(0.48)	(0.50)	(0.51)
$\mathbb{I}_{t_{FOMC}+1}$		-0.26	-0.12		0.20	0.28
		(0.84)	(0.84)		(0.77)	(0.77)
$\mathbb{I}_{t_{FOMC}+2}$		0.10	0.25		0.25	0.36
		(0.63)	(0.64)		(0.58)	(0.58)
$\mathbb{I}_{t_{FOMC}+3}$			-0.53			-0.34
			(0.73)			(0.67)
$\mathbb{I}_{t_{FOMC}+4}$			-1.24*			-1.20*
			(0.73)			(0.65)
$\mathbb{I}_{t_{FOMC}+5}$			0.97+			0.84*
			(0.60)			(0.48)
Year / Month / Weekday Dummies		Yes	Yes		Yes	Yes
Observations	3,372	3,372	3,372	3,372	3,372	3,372
R^2	0.00	0.02	0.02	0.01	0.03	0.04

Notes: Sample: January 2004 to June 2017. This table reports dummy variable regression results of Equation (C.2). The dependent variable is the log changes of market uncertainty measures, i.e. the minute-level ticker data of VIX or VXN index, over an interval of 2PM of day $t-1$ to 2PM of day t. Announcement dummy $\mathbb{I}_{t_{FOMC}-i}$ equals one if the i-th trading day is before (or after if i is negative) an FOMC announcement. ***, **, *, and + denote significance at the 1%, 5%, 10%, and 15% levels, respectively. Robust standard errors are in parentheses.

C.3 Pre-FOMC: Increased Information Acquisition

We further provide evidence showing that the U.S. market sees increased efforts of acquiring information to learn about the Fed's decision before the FOMC day. We take two empirical proxies to measure the degree of information acquisition in the market, the daily Google search index that

captures the aggregate intensity across U.S. Google users searching for the keyword "fed" (Base Measure), and that for the associated keywords "fed" and "FOMC" (Composite Measure). These measures of the degree of information acquisition are comparable to what we used for the Chinese markets.

We run the following regression specification to identify the dynamics of information acquisition over days in the FOMC announcement windows:

$$Info_t^{US} = \gamma + \sum_{i=-T}^{T} \beta_i \mathbb{I}_{t_{FOMC}-i} + \beta_x X_t + \upsilon_t \tag{C.3}$$

$Info_t^{US}$ denotes the measured intensity of information acquisition on day t. Note that the pre-FOMC accumulation of stock returns and uncertainty reduction in the U.S. market are relatively short-lived, which last a few hours starting from the afternoon of the day before the FOMC day. Therefore, it is ideal to frame our regressions using the search index of higher frequency rather than daily to better capture the information dynamics over those important hours. However, with daily data available at best, we have to carry on such data caveats.

Table C.3 summarizes the estimation results per Equation (C.3). Results in columns (1) and (2) suggest that regardless of which search index is used for regression, the coefficient for dummy variable $\mathbb{I}_{t_{FOMC}-1}$ is statistically significant and positive. This indicates that on the day before FOMC announcements, greater intensity of information acquisition is associated with searching for information related to the Fed and the FOMC decision than that of days outside the announcement windows. This holds true if the length of FOMC announcement window considered in regression is extended from 7 days ($T = 3$) to 11 days ($T = 5$) according to estimates in columns (3) and (4). Based on data of more recent years since 2012, our regression results in columns (5) to (6) confirm that information acquisition increases on the day before the FOMC day. In addition, we find that the increased intensity of pre-FOMC information acquisition starts to decay and eventually dies out within three days after peaking on the FOMC day.

Overall, we document that the search-based information acquisition dynamics in the U.S. market before FOMC announcements shares a very similar pattern with that of Chinese market prior to PBOC's monetary announcements. This implies that information acquisition channel could be the potential driver of the pre-FOMC uncertainty reduction and accumulation of equity returns in the

U.S. market.

Table C.3: Increased Information Acquisition Prior to FOMC Announcements

VARIABLES	(1) Base Post-2004	(2) Composite Post-2004	(3) Base Post-2004	(4) Composite Post-2004	(5) Base Post-2012	(6) Composite Post-2012
$\mathbb{I}_{t_{FOMC}-5}$			-1.39	-0.77	-0.87	-0.63
			(1.21)	(0.62)	(1.68)	(0.86)
$\mathbb{I}_{t_{FOMC}-4}$			-1.58+	-0.75	-0.82	-0.40
			(1.04)	(0.53)	(1.55)	(0.79)
$\mathbb{I}_{t_{FOMC}-3}$			-0.35	-0.10	-0.39	-0.14
			(0.99)	(0.50)	(1.29)	(0.66)
$\mathbb{I}_{t_{FOMC}-2}$	0.92	0.84+	1.13	0.95*	1.03	0.84
	(1.03)	(0.53)	(1.05)	(0.53)	(1.35)	(0.69)
$\mathbb{I}_{t_{FOMC}-1}$	3.32***	2.26***	3.47***	2.33***	3.24**	2.24***
	(1.13)	(0.58)	(1.14)	(0.59)	(1.33)	(0.69)
$\mathbb{I}_{t_{FOMC}}$	16.91***	11.21***	16.79***	11.13***	17.41***	11.24***
	(1.55)	(0.84)	(1.56)	(0.85)	(2.60)	(1.43)
$\mathbb{I}_{t_{FOMC}+1}$	6.04***	3.51***	5.85***	3.41***	4.77***	2.79***
	(1.17)	(0.60)	(1.18)	(0.61)	(1.56)	(0.80)
$\mathbb{I}_{t_{FOMC}+2}$	1.73+	1.08*	1.73+	1.09*	0.87	0.53
	(1.09)	(0.56)	(1.10)	(0.56)	(1.25)	(0.63)
$\mathbb{I}_{t_{FOMC}+3}$			2.03**	1.07**	-0.06	-0.04
			(1.03)	(0.53)	(1.27)	(0.65)
$\mathbb{I}_{t_{FOMC}+4}$			1.76+	0.82	0.99	0.44
			(1.20)	(0.61)	(1.43)	(0.74)
$\mathbb{I}_{t_{FOMC}+5}$			0.20	-0.05	-2.09+	-1.34*
			(1.28)	(0.65)	(1.41)	(0.71)
Year / Month / Weekday Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3,372	3,372	3,372	3,372	1,365	1,365
R^2	0.51	0.51	0.51	0.51	0.73	0.73

Notes: Samples: January 2004 or January 2012 to June 2017. This table reports the dummy variable regression results of Equation (C.3). The dependent variable is the daily Google search index that captures the searching intensity for the keyword "fed" (Base Measure) and word pairs of "fed" & "FOMC" (Composite Measure). Announcement dummy $\mathbb{I}_{t_{FOMC}-i}$ equals one if the i-th trading day is before (or after if i is negative) an FOMC announcement. ***, **, *, and + denote significance at the 1%, 5%, 10%, and 15% levels, respectively. Robust standard errors are in parentheses.

C.4 Correlations: Equity Premium, Uncertainty and Information Acquisition

We then explore if larger pre-FOMC equity premium is associated with greater uncertainty reduction and more intense information acquisition efforts prior to FOMC announcements.

First, we group the FOMC announcement events into two by the size of pre-FOMC premium, which is measured by the excess returns accrued over the critical hours from 2PM on the day before the FOMC day to 2PM on the FOMC day. An FOMC announcement event is then assigned to the "High Premium Group" if its pre-FOMC premium is greater than or equal to the median premium of all announcement events, or grouped to the "Low Premium Group" otherwise. Then we check the between-group mean difference with respect to the magnitude of uncertainty reduction, and that of the intensity of information acquisition on days before and after the FOMC days.

C.4.1 Uncertainty Changes

Table C.4 summarizes the comparisons of mean daily uncertainty changes between two groups of announcement events in 5-days windows centering the FOMC days. For those announcement events realized with high Pre-FOMC premium, the U.S. market uncertainty declines by about 1% as measured by the log difference in VIX or VXN as of 2PM on day $t_{FOMC} - 1$ relative to 2PM on day $t_{FOMC} - 2$. A larger uncertainty reduction of roughly 4.6% is realized over the 2PM-2PM interval on day t_{FOMC} relative to day $t_{FOMC} - 1$. Focusing on daily changes in VIX and VXN index over close-to-close intervals for those announcement events that realized larger pre-FOMC premium, market uncertainty declines by more than 4 % on the FOMC day relative to the previous day.

Conversely, concerning the low-premium group, we find that the market uncertainty, instead of declining, climbs by about 2% by 2PM on day $t_{FOMC} - 1$. More importantly, over the 2PM-2PM intervals from day $t_{FOMC} - 1$ to the FOMC day t_{FOMC}, very limited uncertainty changes can be detected. In addition, when uncertainty changes are captured over close-to-close intervals, uncertainty goes up on the day before the FOMC day and drops by about 1.4% on the FOMC day.

Finally, regarding the high-minus-low group difference in daily uncertainty changes in columns $(t_{FOMC} - 1)$ and (t_{FOMC}), we see that the between-group t-statistics are consistently greater than 2, indicating that uncertainty changes between the two groups during the pre-FOMC period are statistically different from zero. Our findings suggest that the U.S. market accrues sizable pre-FOMC premium only when the market uncertainty is significantly lowered ex-ante.

C.4.2 Information Acquisition

Table C.5 presents the results regarding the between-group difference in the average intensity of information acquisition. By focusing on the group difference in column $(t_{FOMC} - 1)$, we find that the intensity of information acquisition regarding the Fed's decision and the FOMC-related news on the day before the FOMC day, $t_{FOMC} - 1$, is higher among the group of FOMC announcement events in the high premium group than that of the low premium group. With t-statistics of around 2, the between group difference is statistically significant. Therefore, we conclude that increased information acquisition before FOMC announcements is observed only among announcements of

Table C.4: Daily Uncertainty Changes (%) in Windows of FOMC Announcements

Variables	Group	N	$(t_{FOMC}-2)$	$(t_{FOMC}-1)$	(t_{FOMC})	$(t_{FOMC}+1)$	$(t_{FOMC}+2)$
ΔVIX_t $[2PM, 2PM]$	High Premium Group	55	0.96	-1.19	-4.69	-0.42	0.23
	Low Premium Group	55	1.47	2.67	0.30	-0.28	-0.63
	Difference		-0.51	-3.87	-4.99	-0.13	0.86
	t - Statistics		-0.42	**-2.93**	**-4.91**	-0.08	0.72
ΔVXN_t $[2PM, 2PM]$	High Premium Group	55	1.23	-0.97	-4.64	-0.21	0.14
	Low Premium Group	55	2.31	1.57	-0.43	0.37	-0.62
	Difference		-1.08	-2.54	-4.21	-0.58	0.76
	t - Statistics		-0.94	**-2.00**	**-4.91**	-0.39	0.69
ΔVIX_t $close-close$	High Premium Group	55	1.49	-2.70	-4.57	0.84	-0.21
	Low Premium Group	55	0.39	3.71	-1.46	1.71	-1.19
	Difference		1.10	-6.40	-3.11	-0.88	0.98
	t - Statistics		0.84	**-4.69**	**-2.20**	-0.56	0.79
ΔVXN_t $close-close$	High Premium Group	55	1.66	-2.09	-4.13	0.39	-0.37
	Low Premium Group	55	0.99	2.45	-1.42	1.65	-1.40
	Difference		0.68	-4.53	-2.71	-1.26	1.03
	t - Statistics		0.65	**-4.05**	**-2.52**	-0.95	0.95

Notes: Sample: January 2004 to June 2017, with 110 5-day FOMC window events included. Difference: mean measure of uncertainty changes between the High Premium Group and that of the Low Premium Group. Uncertainty changes are measured by the log changes in return volatilities, i.e. the minute-level ticker data of VIX or VXN index, over an interval of 2PM of day $t-1$ to 2PM of day t ($[2PM, 2PM]$), or over an interval of market close to market close ($close-close$). Indicator $t_{FOMC}-i$ denotes the i-th trading day if it is before (or after if i is negative) an FOMC announcement. High (Low) Premium Group includes those FOMC announcement events that realized greater than and equal to (Smaller than) the median of pre-FOMC premium over duration of 2PM of $t_{FOMC}-1$ to 2PM of t_{FOMC} in our sample.

high-premium group.

Again, we highlight the caveat of using daily search index, which makes us unable to perfectly isolate those hours of return accumulation and uncertainty reduction. Therefore, we cannot simply separate the pre-FOMC information acquisition from those after the statement release by simply looking at the numbers shown in column (t_{FOMC}). That's why we focus on column $(t_{FOMC}-1)$ for the comparison analysis. Nevertheless, our evidence well demonstrates that the U.S. market realizes sizable pre-FOMC premium only when the efforts for acquiring information to learn about the Fed and FOMC-related information are higher.

Table C.5: Information Acquisition in Windows of FOMC Announcements

Variables	Group	N	$(t_{FOMC}-2)$	$(t_{FOMC}-1)$	(t_{FOMC})	$(t_{FOMC}+1)$	$(t_{FOMC}+2)$
Base Measure $Attn_t^{US}$	High Premium Group	55	64.69	69.05	83.00	70.62	64.96
	Low Premium Group	55	60.53	63.44	78.33	68.53	62.91
	Difference		4.16	5.62	4.67	2.09	2.05
	t - Statistics		1.47	**1.93**	1.52	0.74	0.71
Composite Measure $Attn_t^{US}$	High Premium Group	55	33.19	35.73	44.84	36.36	33.06
	Low Premium Group	55	31.09	32.75	42.42	35.14	32.14
	Difference		2.10	2.98	2.42	1.23	0.92
	t - Statistics		1.48	**2.01**	1.43	0.85	0.62

Notes: Sample: January 2004 to June 2017, with 110 5-day FOMC window events included. Difference: information acquisition measure of the High Premium Group minus that of the Low Premium Group. The degree of acquired information is proxied by the daily Google search index to capture the search intensity among U.S. Google users for the keyword "fed" (Base Measure) and "fed" & "FOMC" (Composite Measure). Indicator $t_{FOMC}-i$ denotes the i-th trading day if it is before (or after if i is negative) an FOMC announcement. High (Low) Premium Group includes those FOMC announcement events that realized greater than and equal to (Smaller than) the median of pre-FOMC premium over duration of 2PM of $t_{FOMC}-1$ to 2PM of t_{FOMC} in our sample.

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