How Local and Foreign Investors React to Public News

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Abstract

This study uses the segmented dual-class shares of Chinese firms---A shares traded inside mainland China by local investors and H shares traded in Hong Kong by foreign investors---to analyze how local and foreign investors react to public news about the same firms. We find significant heterogeneity in their reactions. First, foreign investors react more strongly to earnings announcements. Second, foreign investors react more strongly to earnings forecast revisions made by foreign analysts, while local investors react more strongly to forecast revisions by local analysts. The first finding supports the argument that local investors are more informed about local firms, while the latter reveals that local and foreign investors agree to disagree about their interpretations of the same news---each group favoring information from sources it trusts more.

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How do local and foreign investors react to news shocks? Addressing this question is critical for understanding several central issues in international finance, such as home bias and dynamics of international equity flow.[1] French and Poterba (1991) and Shiller, Kon-Ya, and Tsutsui (1991) consider local investors' optimism about home equity returns as an explanation for their tendency to over-invest in home equity. Dornbusch and Park (1995) and Radelet and Sachs (2000) argue that foreign investors tend to overreact to changes in home fundamentals and the resulting capital inflows and outflows can destabilize economies. To systematically analyze the origin and characteristics of the belief dynamics of local and foreign investors, this paper empirically compares their reactions to public news regarding a set of Chinese firms.

A large number of economic models emphasize that local investors are better informed than foreign investors about home assets and thus have different reactions to public news about local firms. Specifically, Gehrig (1993) and Brennan and Cao (1997) develop two-country noisy rational expectations (NRE) models, in which investors in two countries trade stocks, one by each country. Investors in both countries receive a signal on the fundamental value of each stock but the signal on the home stock is more precise. As a result of this information asymmetry, the less well informed foreign investors find the same public information more informative and thus react more strongly.

Another line of literature holds that local and foreign investors may agree to disagree about the precision of different public information and thus react differently. Dumas, Lewis, and Osambela (2011) adopt this approach to analyze the dynamics of international equity flow.[2] Relative to the NRE models, this approach is more flexible in analyzing equilibrium dynamics of investors' wealth and consumption and in allowing more general preference specifications. As the trades of local and foreign investors are mixed together, it is typically difficult to separately measure their reactions to specific information shocks and thus to analyze the relevance of these two approaches.

[1] See Coeurdacier and Rey (2011) and Lewis (2011) for reviews of the extensive literature related to these issues.

[2] See Harrison and Kreps (1978), Harris and Raviv (1993), Kandel and Pearson (995), Scheinkman and Xiong (2003), Dumas, Kurshev and Uppal (2009), and Cao and Ou-yang (2009) for examples of asset pricing models with agents agreeing to disagree. Hong and Stein (2007) and Xiong (2012) provide extensive reviews of this literature.

In this paper, we take advantage of the segmented dual-class shares of Chinese firms---A shares traded inside mainland China and H shares traded in Hong Kong---to compare how local and foreign investors react to public news. Several dozen Chinese firms have simultaneously listed their shares inside mainland China (i.e., the part of China excluding Hong Kong, Macau and Taiwan) in the Shanghai and Shenzhen Stock Exchanges and outside in the Stock Exchange of Hong Kong (SEHK). While Hong Kong officially returned to China in 1997 from British colonization, it has an autonomous government and a financial system independent of the mainland's. In particular, China's capital controls prevent capital from freely moving between the mainland and outside (including Hong Kong), in sharp contrast to the flexibility that allows capital to move freely between Hong Kong and other parts of the world. The capital controls result in segmentation of A and H shares and make SEHK a hub for foreign investors from the outside world to invest in Chinese stocks. We refer to A-share investors, who are primarily residents of the mainland, as local and H-share investors, who are a balanced mix of investors from Hong Kong and other parts of the world, as foreign. The prices of A shares and H shares separately reflect the preferences and beliefs of these two groups of investors.

We use an event-study approach to compare daily price reactions of the pairs of A and H shares to two types of regular news events: firms' earnings announcements and analysts' earnings forecast revisions. As these news shocks are firm specific and have minimal implications for investors' aggregate wealth and consumption, the resulting daily price reactions reflect belief revisions rather than preference fluctuations of the two groups of investors.

We examine contrasting implications of the aforementioned information-asymmetry argument and agree-to-disagree argument. The first argument posits that local investors are better informed about local assets and thus always less responsive to any public news, while the latter emphasizes local and foreign investors may react more strongly to different news. We draw on several strands of the literature for predictions on how local and foreign investors may disagree. First, Guiso, Sapienza, and Zingales (2008, 2009) highlight that trust between people, which is due to social and cultural factors, directly affects economic transactions. This consideration implies that local and foreign investors may have different levels of trust for information released by local firms and by local and foreign analysts, and in particular, that local investors may lend more trust to information given by local firms and local analysts while foreign investors favor information by foreign analysts. Second, a quickly growing branch of literature (e.g., Sims 2002, Hirshleifer and Teoh 2004, Van Nieuwerburg and Veldkamp 2009) emphasizes people's attention constraints. Limited attention dictates that investors have to be selective in processing even public information, which further exacerbates local investors' preference for information from more trustworthy and more easily accessible sources such as local analysts and foreign investors' preference for information from foreign analysts.

The information-asymmetry argument and agree-to-disagree argument may work together to determine the price reactions of A and H shares to public news. In response to firms' earnings announcements, the information-asymmetry argument implies that H shares should react more strongly, while social factors may cause H-share investors to have less trust for disclosures of local firms and thus react less strongly. We use an event-study approach to compare the abnormal returns of A shares and H shares across firms' annual earnings announcements, and find a salient pattern that H-share prices rise up more after good earnings news and drop more after bad earnings news. The stronger price reactions of H shares are robust to a host of controls for various risk and liquidity effects, and thus support the information asymmetry argument.

From Bloomberg, we collect a large sample of earnings forecasts made by financial analysts of brokerage and research firms inside and outside the mainland and outside (which we call local and foreign houses). As Bloomberg is widely subscribed to by financial institutions inside and outside the mainland, analyst forecasts released through Bloomberg are public news to investors of both A and H shares. In response to a forecast revision, the information-asymmetry argument again implies that H shares should react more strongly regardless of whether the revision is made by a local or foreign analyst. However, social factors discussed earlier can lead local investors of A shares to have more trust and be more attentive to local analysts' revisions while foreign investors of H shares to have more trust and be more attentive to foreign analysts' revisions.

It is important to note that analysts make a large number of forecasts and, as a result, an average forecast might be noisy and generate no visible price reaction. However, as pointed out by Loh and Stulz (2011), a small fraction of the forecasts do offer important information and can lead to significant price reactions. We thus adopt their logit regression approach to examine influential forecast revisions---those that are accompanied by significant abnormal stock returns in the same direction as the revisions---and, specifically, whether forecasts made by local or foreign analysts are more likely to be influential among A-share or H-share investors.

Interestingly, we find that forecast revisions by analysts of local houses are significantly more likely to be influential among A-share investors while revisions by analysts of foreign houses are significantly more likely to be influential among H-share investors. Furthermore, within a sample of forecasts made by foreign and local analysts (identified by their last names) who work for the same foreign houses, forecasts by foreign analysts are more likely to be influential among H-share investors than among A-share investors. These results are robust after controlling for a host of analyst, firm, and market characteristics, and cannot be simply explained by the information-asymmetry argument or by the information advantage of forecasts by local analysts (e.g., Bae, Stulz, and Tan, 2008). Instead, it reveals that local and foreign investors agree to disagree about their interpretation of the same news---each group favoring information given by sources they are familiar with.

Taken together, our analysis uncovers rich heterogeneity in local and foreign investors' reactions to public news. Our findings lend support to both the information-asymmetry argument and agree-to-disagree argument, which anchor the NRE and difference-of-opinion models, respectively. In other words, our analysis suggests that neither the NRE models nor the difference-of-opinion models can fully explain the data. Our results also indicate the important role played by social factors in shaping local and foreign investors' information processing and belief dynamics.

The extant empirical literature on foreign equity flows focuses on their joint dynamics with home equity returns. This literature documents that foreign equity flows are positively correlated with home returns (e.g., Bohn and Tesar (1996) and Brennan and Cao (1997)) and display positive feedback to past returns (e.g., Choe, Kho, and Stulz (1999) and Froot, O'Connell, and Seasholes (2001)). These findings are insufficient to differentiate the NRE models and difference-of-opinion models as they are consistent with both types of models.[3] By directly

[3] Theoretically, Brennan and Cao (1997) show that in an NRE model, foreign investors' stronger reaction to publicly observed stock price (a source of public information) can cause foreign equity flows to be positively correlated with home equity returns, while Dumas, Lewis, and Osambela (2011) show that their difference-of-opinion model gives the same prediction if local investors are better at interpreting local signals.

compare the price reactions of A and H shares to different public news, we find evidence supporting relevance of both types of models in the data.

There is extensive literature analyzing price differentials of twin shares and dual-class shares. Froot and Dabora (1999) study stock prices of three pairs of twin corporations whose charters fix division of current and future cash flows between two twin companies, and highlight market-sentiment shocks as an explanation of persistent and substantial price deviations between these twin shares. Stulz and Wasserfallen (1993) and Bailey and Jagtiani (1994) examine price deviations of dual-class shares issued by Swiss and Thai firms to local and foreign investors, and emphasize differences between the risk exposures of local and foreign investors as a key driver of the price deviations. Several prior studies, e.g., Fernald and Rogers (2002), Chen and Xiong (2002), Karolyi and Li (2003), Chan, Menkveld, and Yang (2008), and Mei, Scheinkman, and Xiong (2009), have also examined the substantial price deviations between A shares and B shares issued by Chinese firms to local and foreign investors, which are both traded inside mainland China. These studies attribute the price deviations to differences in investment opportunity sets, market liquidity, and speculative trading motives of local and foreign investors. In contrast to all of these studies, which are primarily concerned with the differences in price levels of twin shares and dual-class shares, we use an event-study approach to compare daily price reactions of A and H shares to public news, which allows us to analyze belief dynamics of local and foreign investors. In this regard, our analysis also differs from the literature on the improved information environment of individual stocks induced by cross listing, e.g., Baker et al. (2002), Lang et al. (2003), and Bailey, Karolyi, and Salva (2006).

Another branch of the literature analyzes factors that determine investors' portfolio holdings of foreign assets (i.e., home bias). Grinblatt and Keloharju (2001) emphasize the key role of distance, language and cultural similarities in international asset allocation. Portes and Rey (2005) show that physical distance significantly affects international equity flows and holdings. Chan, Covrig and Ng (2005) find that stock market developments and familiarity variables have a significant impact on home bias. Like these studies, our analysis also confirms information frictions and social factors as important factors in explaining the heterogeneity between asset valuations of local and foreign investors. Different from these studies, which are mostly concerned with the level of foreign portfolio holdings, our focus on comparing local and foreign investors' daily reactions to public news allows us to contrast the implications of the information-asymmetry argument and agree-to-disagree argument and to separately establish their relevance in the data.

The paper is organized as follows. Section I describes the institutional setting and summary information of the pairs of A and H shares. Section II introduces the economic hypotheses. We analyze price reactions of A and H shares to firms' earnings announcements in Section III and to analysts' earnings forecast revisions in Section IV. Finally, Section V concludes the paper.

I. Segmented Pairs of A and H Shares

A. Institutional Background

China established the Shanghai Stock Exchange and the Shenzhen Stock Exchange in 1990 and 1991, respectively, to list stocks issued by Chinese firms. Since then, the Chinese stock markets have rapidly grown. By the end of 2011, these two stock exchanges listed the stocks of 2342 firms, with a total market value of 21,475.81 billion RMB (3,408.37 billion US dollars), which represented 46% of China's 2011 GDP. There are two types of shares, A shares, which are traded in Chinese RMB, and B shares, which are traded in US dollars in the Shanghai Stock Exchange and in Hong Kong dollars in the Shenzhen Stock Exchange, respectively.[4] The vast majority of firms issue A shares. At the end of 2011, 2320 out of 2342 firms issued A shares and only 108 issued B shares.[5]

Many Chinese firms have also chosen to list their stocks outside mainland China, in places such as Hong Kong, New York, Singapore, and London. Due to its geographical proximity to the mainland, the Stock Exchange of Hong Kong (SEHK) is often the first choice when a Chinese firm decides to go overseas. Shares issued by Chinese firms in SEHK are often called H shares. A Chinese firm listed its H shares for the first time in 1993. By the end of 2011, 167

[4] Before February 2001, A shares were restricted to Chinese residents while B shares were restricted to foreign investors. After February 2001, the Chinese government relaxed the restriction on B shares by allowing Chinese residents with foreign currency to legally own and trade B shares, while maintaining the restriction on A shares.

[5] Some firms issue both A and B shares.

Chinese firms had listed their H shares, with a total market value of 4107.27 billion Hong Kong dollars, accounting for 23.38% of the market capitalization of SEHK.

Interestingly, a set of firms issued both A and H shares. These dually listed shares are the main sample of our analysis. A and H shares of these firms offer the same voting and cash-flow rights. The three stock exchanges involved in listing these shares all require the firms to disclose identical information to investors, including those inside and outside mainland China.

China imposes capital controls, which prevent local and foreign investors from freely moving capital across its boundary. As a result, local investors cannot simply move capital to Hong Kong to trade H shares; neither can foreign investors move capital to the mainland to trade A shares. China's capital controls thus lead to segmentation of A and H shares.[6] Due to this segmentation, it is difficult for people to arbitrage any price deviation between the A and H shares issued by the same firm. Instead, the prices of A and H shares reflect risk preferences and beliefs of two groups of investors inside and outside mainland China.

Investors inside mainland China are predominantly local individuals or institutions. In contrast, investors in the SEHK come from all over the world. Based on the survey data released by Hong Kong Exchange Clearing Limited (HKEx),[7] which owns the SEHK, during the 12-month period from October 2010 to September 2011 investors from Hong Kong contributed to only 42% of the SEHK's total trading volume, among which 20% was from institutional investors and 22% from retail investors, while investors from outside Hong Kong contributed to 46% of the trading volume, among which 42% was from institutional investors and 4% from retail investors.[8] Within the trading volume by overseas investors, the fractions of investors from

[6] There are two exceptions to the capital controls. In 2002, China introduced a program called Qualified Foreign Institutional Investors (QFIIs), which allowed a selected group of foreign institutions to invest in financial assets inside mainland China subject to quotas set by the China Securities Regulatory Commission (CSRC). By the end of 2011, there were 135 QFIIs, with a total investment quota up to 1.64 billion US dollars, which was minor relative to the market capitalization of China's stock markets. In 2007, China launched another program called Qualified Domestic Institutional Investors (QDIIs), which allowed a group of domestic institutions to invest in securities outside mainland China, including stocks traded in Hong Kong, again subject to quotas set by the CSRC. By the end of 2011, 32 asset management firms and 10 securities firms were granted the QDII status, with a total investment value of merely 58.2 billion RMB invested outside of mainland China.

[7] See the website of HKEx at http://www.hkex.com.hk/eng/stat/statrpt/factbook/factbook2011/Documents/32.pdf.

[8] The remaining 12% of the trading volume is by dealers.

US, UK, continental Europe, and mainland China were 28%, 27%, 14%, and 10%, respectively.[9] The relatively minor contribution of investors from mainland China confirms China's restrictive capital controls in preventing its residents from trading shares listed in Hong Kong.

B. Summary Statistics

Our data sample spans January 1, 2000 - April 30, 2012. We obtain daily closing stock prices of the pairs of A and H shares from CSMAR (for A shares) and RESSET (for H shares). Figure 1 shows that the number of pairs of A and H shares increased over time from 18 at the beginning of our sample on January 1, 2000 to 72 on April 30, 2012. There was no delisting of any A or H share in this sample during this period. Among the 72 pairs, 12 listed their A shares on the Shenzhen Stock Exchange and 60 on the Shanghai Stock Exchange. Furthermore, 55 of them had their H shares listed before their A shares, 9 had A shares listed before the H shares, and only 8 had the IPOs of their A and H shares at the same time.[10]

The firms that issued these pairs of A and H shares are typically blue-chip companies from key industries of China, such as energy, electric power, manufacturing, banking, and finance industries. The list of companies includes Industrial and Commercial Bank of China, China Construction Bank, Bank of China, and Agricultural Bank of China (the four largest banks), China Life and Ping An Insurance (the two largest insurance companies), Petro China and Sinopec (the two largest energy companies), and Air China (the largest airline).

The prices of A and H shares in these pairs can substantially deviate from each other. Figure 1 also plots the average price ratio of A shares to H shares, value weighted across all available pairs. The average price ratio hovered in the range of 4 to 8 in the early 2000s and gradually dropped into the mid-2000s and then stayed in a relatively narrow range between 1 and 2 in the late 2000s. The large price deviations between A and H shares confirm the segmentation of A and H markets. The literature, as referenced in the Introduction, has pointed out that many factors, such as differences in investment opportunity sets, risk exposures, risk preferences, and

[9] Beyond the investment flows to H shares via China's QDII program, Hong Kong also hosts a group of mainland residents who regularly travel to Hong Kong for business and other purposes and who are thus able to invest in H shares.

[10] In our analysis, we drop one of the pairs, Xinhua Insurance, because it was listed only at the end of 2011.

sentiment of the A-share and H-share investors, might have contributed to these price deviations. Our study focuses on the differential reactions of A and H shares to public news announcements rather than the differences in their price levels.

Table 1 reports the summary statistics of the pairs of A and H shares. There are several notable points. First, the returns of A shares, which are measured as the close-to-close returns between two days with valid trading in both A and H shares, are significantly less volatile than those of the corresponding H shares. The average daily return volatility of A shares is 2.9% while that of the H shares is 3.6%. After using a linear regression model to remove the market fluctuations of the Shanghai Composite Index and the Hong Kong Hang Seng Index (widely used indices for Chinese A-share markets and Hong Kong stock markets) from the daily returns of A and H shares, A shares have an average idiosyncratic volatility of 2.0% while H shares have 2.9%. Second, both A- and H-share returns have positive skewness, and the skewness of H shares is significantly larger than that of A shares. Third, A shares are more liquid based on two measures of liquidity: turnover rate and the illiquidity measure of Amihud (2002), which is given by daily return volatility divided by daily turnover rate. Third, the fraction of tradable shares held by retail investors is about 58% in both A-share and H-share markets. Finally, H shares have a higher average daily return than A shares even though the average return of the Chinese A-share market index is similar to that of the Hong Kong market index.

Panel B of Table 1 also shows that there are roughly the same number of tradable A and H shares in these pairs, with tradable H shares on average contributing to 54.8% of the total number of tradable A and H shares across all pairs.[11] The daily returns of the pairs of A and H shares have only a modest average correlation of 0.375.

In Panel C of Table 1, we also report the lead-lag relation between the daily returns of A and H shares. Among the 71 firms in our sample, 36 firms have no Granger causality in either direction, 11 firms have A-share returns Granger causing H-share returns, 14 firms have H-share returns Granger causing A-share returns, and 10 firms have Granger causality in both directions.

[11] Note that it is common for Chinese governments at the state and municipal levels to hold non-tradable shares in publicly listed firms. We count only tradable A and H shares in our analysis.

If we interpret Granger causality as a reflection of the direction of information flow, this panel shows that information flows symmetrically between A shares and H shares.

II. Economic Hypotheses

The segmented pairs of A and H shares offer a unique opportunity to analyze how investors inside and outside mainland China react to public news. We employ two types of regular news events: firms' annual earnings announcements and financial analysts' earnings forecast revisions. These events are important sources of information for investors. As the information transmitted by these events is firm specific, it has minimal implications for investors' aggregate wealth and consumption. As a result, the resulting daily price reactions of A and H shares reflect belief revisions rather than preference fluctuations of the local and foreign investors in the A-share and H-share markets.

To focus on comparing the belief revisions of local and foreign investors, we ignore the heterogeneity among each group in most of our analysis. That is, we treat both A-share and H-share investors as homogenous groups. The price reactions of A and H shares to a piece of news thus reflect the average belief revisions induced by the news among the two groups. We also briefly analyze heterogeneity within each group by comparing trading volume reactions of A and H shares.

Our analysis focuses on the implications of the information-asymmetry argument and agree-to-disagree argument. The information-asymmetry argument, which underlies a number of NRE models of international asset pricing, e.g., Gehrig (1993) and Brennan and Cao (1997), posits that local investors are better informed about home firms than foreign investors. As a result, local investors face less uncertainty about home firms' fundamental values, which, in turn, implies that they react less strongly to any public news than foreign investors.

In contrast to the information-asymmetry argument, the agree-to-disagree argument, which underlies the difference-of-opinion models of Harrison and Kreps (1978), Harris and Raviv (1993), Kandel and Pearson (995), Scheinkman and Xiong (2003), Dumas, Kurshev and Uppal (2009), Cao and Ou-yang (2009), and Dumas, Lewis, and Osambela (2011), posits that local and foreign investors may react more strongly to different news. Which investors react more strongly to which news? Several strands of the economics and finance literature emphasize that social connections between investors and transmitters of information may affect how investors react to information. First, Guiso, Sapienza, and Zingales (2008, 2009) argue that cultural and social factors determine the level of trust between people and that trust is an important factor in driving trades between countries and in determining individuals' participation in stock markets. To the extent that investors may have different levels of trust for firm managers and financial analysts, trust can be an important factor in driving investors' reactions to news. In particular, it is intuitive to argue that by being socially more connected to managers of home firms, local investors may have more trust than foreign investors on earnings figures released by firm managers. Similarly, local investors may also have more trust in local analysts, who live in the same social environment as local investors and who share similar social values and use similar jargon. Symmetrically, foreign investors may have more trust in foreign analysts.

Furthermore, another strand of the literature, e.g., Sims (2002), Hirshleifer and Teoh (2004), and Van Nieuwerburg and Veldkamp (2009), emphasize that people have limited attention and are unable to process all publicly available information. As a result, they have to be selective in which information they process. Despite that the news events we analyze are all publicly available, one would nevertheless expect that local investors devote more attention to information provided by local analysts because they have more trust in local analysts or because information provided by local analysts is easier to access. The attention constraints thus further exacerbate local investors' preference for information provided by local analysts and foreign investors' preference for information provided by foreign analysts.

The information-asymmetry argument and agree-to-disagree argument may operate together to determine the daily price reactions of A and H shares to different news announcements. The information-asymmetry argument clearly implies that foreign investors of H shares should react more strongly to earnings announcements. To the extent that local investors are socially more connected to firm managers, the agree-to-disagree argument implies that local investors of A shares would trust the firms' earnings announcements more than foreign investors and thus react more strongly. Thus, whether H-share prices react more or less strongly than A-share prices depends on the relative strength of these two offsetting effects. We summarize these considerations in the following hypothesis:

Hypothesis 1: H-share prices react more strongly to earnings announcements than A-share prices if the information-asymmetry effect dominates the agree-to-disagree effect, and less strongly otherwise.

In response to analysts' earnings forecasts, the information-asymmetry effect leads H-share prices to react more strongly regardless of whether an analyst is local or foreign. On the other hand, the agree-to-disagree effect depends on whether an analyst is local or foreign---a forecast revision made by a local analyst should have a greater influence on local investors while a revision by a foreign analyst tends to have a greater influence on foreign investors. Taken together, if the information-asymmetry effect dominates the agree-to-disagree effect, we expect H-share prices to react more strongly to any forecast revision (either by a local or foreign analyst). On the other hand, if we observe that H-share prices react more strongly to revisions by foreign analysts while A-share prices react more strongly to revisions by local analysts, then this symmetric pattern indicates that the agree-to-disagree effect dominates the information-asymmetry effect. We summarize these considerations in the following hypothesis:

Hypothesis 2: In response to analysts' forecast revisions, if the information-asymmetry effect is dominating, H-share prices react more strongly to revisions made by either local or foreign analysts; if the agree-to-disagree effect is dominating, H-share prices react more strongly to revisions made by foreign analysts while A-share prices react more strongly to revisions made by local analysts.

Note that A-share (or H-share) investors may also have different reactions to public news. The different reactions directly lead to trading among A-share (or H-share) investors. In fact, as pointed out by Harris and Raviv (1993) and Kandel and Pearson (1995), heterogeneous beliefs are an important determinant of trading. Thus, volume reactions of A and H shares allow us to compare the heterogeneity among local and foreign investors. We also report the result from this comparison at the end of the paper.

III. Price Reactions to Earnings Announcements

In this section, we examine how A-share and H-share prices react to firms' earnings announcements. We focus on each firm's annual rather than quarterly earnings announcements because the Listing Rules of both the Shanghai and Shenzhen Stock Exchanges only require the annual earnings reports of publicly listed firms to be audited by certified auditors.[12] Consequently, annual earnings reports are more reliable than quarterly earnings reports.

A. Earnings Data

A firm announces its earnings for both A and H shares on the same day. Note that A and H shares are subject to accounting standards in mainland China and Hong Kong. These two systems have minor differences in cost and revenue recognition. Despite the different standards, the difference between A-share and H-share earnings is negligible. For convenience, we use H-share earnings in our analysis of price reactions of A and H shares. For the 71 firms in our sample, we obtain their reported annual earnings for H shares, announcement dates, and the consensus of analysts' earnings forecasts one day before each announcement from Thomson One. From 2001 to 2011, there were 360 valid announcements, with both reported earnings and consensus forecast and sufficient stock return observations for both A and H shares around each announcement for an event study.

Table 2 compares the earnings reported for A and H shares. For 300 of the 360 earnings announcements in our sample, Thomson One also provides reported EPS of A shares. Among these 300 pairs of EPS for A and H shares, 250 are identical, 16 have only slight differences less than 0.01 RMB, 32 have differences between 0.01 and 0.1 RMB, and only 2 have differences larger than 0.1 RMB, which are 0.12 and 0.15 RMB, respectively. If we scale the difference by the previous-year-end H-share price, there are only 13 differences large than 1%, with a maximum of 5.2%. The changes in earnings are perhaps more relevant than the levels in terms of information flow. The difference between year-to-year EPS change of A and H shares is also small with the correlation between the two changes being 0.999. Taken together, it is reasonable to ignore the difference between the earnings of A and H shares induced by accounting standards of A and H markets.

We compare a firm's reported earnings per share (EPS) with the consensus of analysts' earnings forecasts before the announcement. We categorize the news as bad if the reported EPS

[12] See Section 6.5 of Listing Rules of Shanghai Stock Exchange and the same section of Listing Rules of Shenzhen Stock Exchange.

is lower than the consensus and, otherwise, as good. We also define *Surprise*---the surprise in the earnings announcement---by the difference between the reported EPS and the consensus of analysts' forecasts deflated by the firm's H share price at the end of the previous year.[13]

B. Preliminary Analysis

There are 130 good-news announcements and 230 bad-news announcements in our sample. We first compare the abnormal returns of A and H shares around these announcements. To estimate abnormal returns, we estimate a linear regression of the daily return of each share on the returns of both the Shanghai Composite Index (a measure of A-share market return) and the Hong Kong Hang Seng Index (a measure of Hong Kong market return). We use data from 365 days to 10 days before each announcement to estimate the regression coefficients and then use the coefficients to compute the share's daily abnormal returns across the announcement.

Table 3 reports the cumulative abnormal returns of A shares and H shares in two separate samples, one with all bad-news announcements and the other with all good-news announcements, across three event windows: from one day before to one day after the announcement *CAR(-1,1)*, from one day before to two days after *CAR(-1,2)*, and from one day before to three days after *CAR(-1,3)*. The price reactions of A shares are rather modest. While the abnormal returns of A shares are on average negative after bad earnings news and positive after good earnings news, the t-statistics are mostly insignificant for the good-earnings samples and marginally significant for the bad-earnings samples. In contrast, the price reactions of H shares are categorically stronger. First, their reactions to both good and bad earnings across all event windows are significant with the right signs. More important, the differences between the price reactions of H shares and A shares to bad earnings are significantly negative, and to good earnings are significantly positive. For example, from one day before to one day after the announcement, H-share prices drop on average by 1.1% more than A-share prices in response to bad earnings announcements, but rise by 1.8% more in response to good earnings announcements. Both differences are statistically significant at the 1% level.

[13] We obtain similar results by using A-share EPS deflated by the firm's A-share price, or the average EPS of A and H shares deflated by their average price..

Following Bailey, Karolyi, and Salva (2006), in panel C of Table 3, we also compare the absolute values of cumulative abnormal returns of A and H shares in the pooled sample of both good and bad earnings announcements. The difference between A and H shares in absolute CAR is even bigger. For example, from one day before to one day after the announcement, the absolute CAR of H-share reaction is 1.8% higher than that of A-share reaction, again statistically significant at the 1% level. Taken together, Table 3 shows that H shares react more strongly to earnings news than A shares.

C. Regression Analysis

In order to control for other factors that might also affect the price reactions of A and H shares to earnings news, we pool together *CAR(-1,1)* of both A shares and H shares for all the earnings announcements and run the following regression analysis:

$$CAR(-1,1) = \beta_0 + \beta_1 H + \beta_2 Surprise + \beta_3 H \cdot Surprise + \beta_4 Controls + \varepsilon \qquad (1)$$

In this regression specification, *H* is a dummy variable, which equals 1 if the observation is for H shares, and 0 otherwise, and *Surprise* is the surprise in the reported EPS. Our analysis focuses on the interaction term of *Surprise* and *H*. If this interaction term has a positive coefficient, it means H shares react more strongly to surprise in the earnings news.

Our control variables include the three firm characteristics used by Fama and French (1992): market beta (*Beta*), logarithm of firm size (*log(Size)*), and logarithm of the ratio of book value to market value (*log(BM)*), which are commonly used as risk measures of individual stocks. Specifically, in our analysis, we measure *Beta* of a share (either A or H) by the sum of the coefficients of the Shanghai Composite Index return and the Hong Kong Hang Seng Index return from regressing the share's daily return on these market returns. We separately measure the Size of a firm's A and H shares by the market capitalization of each type of shares at the end of the previous year. A firm's A and H shares have the same *BM*, which is measured by ratio of the firm's total book value to its total market value at the end of the previous year.

Furthermore, we also control for price momentum and illiquidity. Following Jegadeesh and Titman (2001), the finance literature has established price momentum as an important factor for stock returns. We measure price momentum, labeled as *Momentum,* of a share (either A or H) by the average daily return in the prior three months. Illiquidity is another important factor in stock returns. Following Amihud (2002), we measure illiquidity, labeled by *Amihud*, of a share (either A or H) by the ratio of its daily return volatility to daily trading volume averaged over the prior three months.

We report summary statistics for all the variables used in our analysis in Table 4, and the regression results in left panel of Table 5. The first major column of Table 5, which is marked as Model 1, shows estimated coefficients of the regression specified in equation (1). The t-statistics are calculated based on standard errors clustered in each firm. First, note that the coefficient of the key interaction term, $H \cdot Surprise$, is significantly positive with a t-statistic of 3.53. This coefficient indicates that H shares react more strongly to earnings surprise. Regarding the control variables, the coefficient of *Amihud* is significantly positive, indicating the presence of illiquidity premium, the coefficient of *Momentum* is positive although insignificant, and the coefficients of the three firm characteristics are all insignificant.

We also use an alternative panel regression specification with fixed effect of each earnings announcement (*EA effect*). As each event has two observations, i.e., reactions of A and H shares, this regression is equivalent to a difference model with the dependent variable being the difference between the price reactions of A and H shares. This one-to-one difference helps to control various latent factors associated with every earnings announcement. The second major column of Table 5, which is marked by Model 2, reports the regression result. Two of the variables, *Surprise* and *Log(BM)* are irrelevant there, as they are replaced by individual fixed-effect dummies. The key interaction term $H \cdot Surprise$ still has positive and significant coefficient, again confirming stronger reactions of H-share prices to earnings surprise. The coefficients of the control variables are also similar to those in the baseline regression of Model 1, except that the coefficient of *Momentum* is now positive and significant while the coefficient of *Amihud* is positive and insignificant.

We also adopt an alternative regression approach by regressing the absolute value of *CAR(-1,1)* on the H-share dummy and its interaction term with the absolute value of *Surprise*. This regression approach focuses on the price volatility around the earnings announcement, which also reflects the price reaction to the announcement. This approach is similar to what was used by Bailey, Karolyi, and Salva (2006). If H shares are responsive to earnings news, we expect their price volatility around the announcement to be larger and the price volatility to be even higher when the earnings surprise is large. The regression results are reported in the right panel of Table 5. Here we also control for size and leverage, which are commonly regarded as important determinants of stock return volatility. As the regression of CAR(-1,1) , we also use simple regression (Model 3) and panel fixed effect regression (Model 4). In both regressions, the coefficients of key variables H and the interaction term of *H* and |*Surprise*| are both significantly positive, confirming the finding above that H shares have stronger reactions to the earnings announcement news.

Taken together, by using two different reaction measures and four different regression specifications, we obtain the same finding that H-share prices react more strongly to earnings news. In light of Hypothesis 1, this result shows that in response to earnings news, the information-asymmetry effect dominates the agree-to-disagree effect. In other words, this result supports the argument that foreign investors of H shares are less well informed than local investors of A shares. As a result, foreign investors react more strongly to earnings news despite the potential presence of an offsetting effect that foreign investors may also be more dubious of the quality of earnings reported by Chinese firms.[14]

IV. Price Reactions to Analyst Forecast Revisions

In this section we examine price reactions of A and H shares to financial analysts' earnings forecast revisions. Financial analysts regularly release to investors reports on publicly listed firms. These reports are widely recognized by the finance and accounting literature as an important source of information to investors.

A typical report in our sample contains an analyst's forecast of a firm's earnings as well as a categorized recommendation to buy (or sell) the firm's A shares or H shares. As the A and H

[14] We have also examined post-earnings announcement drift of A-share and H-share prices and found no evidence of any significant difference. It is thus difficult to attribute the differential reactions of A-share and H-share prices to local and foreign investors' attention to earnings announcements.

shares have the same cash flow rights, the analyst's earnings forecast contains the same information to both A-share and H-share investors regarding the earnings potential of the firm. However, the analyst's recommendation to buy (or sell) the firm's A shares or H shares reflects the analyst's judgments of not only the firm's fundamental value but also the general conditions of the specific A-share or H-share markets. To focus on investors' reactions to information specific to the firm, we choose to examine whether A-share and H-share prices might have differential reactions to the revisions of analysts' earnings forecasts, conditional on no changes in their recommendations.[15]

A. Data Sample

We collect analysts' earnings per share (EPS) forecasts for all firms in our sample from Bloomberg for the period between January 1, 2005 and April 30, 2012. The EPS forecasts are made for the current fiscal year from January 1 to December 31 of each year. We use Bloomberg because it is widely subscribed to by institutions both inside and outside China. An EPS forecast released by Bloomberg is accessible by institutional investors of both A and H shares. Thus, we view forecasts released through Bloomberg as public news to all investors.

Following Loh and Stulz (2011), we use several criteria to screen these forecasts. We delete those forecasts made in the three days around quarterly earnings announcements to avoid any earnings-announcement effect. We delete those multiple forecasts made on the same day by multiple houses to avoid the compounding effect of multiple forecasts. We also remove any forecast that is accompanied by a change in the analyst's recommendation to avoid the recommendation change's complicating the information contained in the forecast revision. We also require a valid EPS forecast to be made by a brokerage or research firm with a known name and to have active trading around the release date in both A and H shares of the firm.[16]

[15] As recommendation changes are more likely to be accompanied by large forecast revisions, this data filter tends to filter out large forecast revisions and thus make the remaining forecasts in our sample less likely to be influential.

[16] We match a given forecast for A or H shares by a house with the house's previous forecast and the consensus forecast for the same share type of the firm. That is, an EPS forecast for A shares is matched with the consensus forecast for the firm's A shares.

Even after applying these filters, we still have a large sample with 14693 EPS forecasts made by analysts from 63 brokerage and research firms (houses). We count a house as Chinese if its controlling shareholders are Chinese corporations and it is incorporated in mainland China, and as foreign if its controlling shareholders are not Chinese corporations and is incorporated outside the mainland. According to this definition, we have 33 Chinese houses and 25 foreign houses. The former list includes all of the major brokerage firms inside mainland China such as China International Capital Corporation, China Merchants Securities, and SWS Research Co Ltd., while the latter includes brokerage and research firms from all over the world, such as Credit Suisse, BNP Paribas, Nomura, and Sanford Bernstein. To focus on the comparison of price reactions to forecasts made by analysts of Chinese and foreign houses, we exclude analysts of the remaining 5 houses, which are neither Chinese nor foreign. This leaves us 5861 forecasts by analysts of Chinese houses and 5383 forecasts by analysts of foreign houses.

In our initial analysis, we do not differentiate different analysts working for the same house. We treat analysts working for Chinese houses as local analysts and those working for foreign houses as foreign analysts. We will then further differentiate native Chinese and foreign analysts, based on their family names.

B. Influential Forecast Revisions

As highlighted by Loh and Stulz (2011), due to the large number of earnings forecasts and recommendations regularly made by analysts, many of the forecasts and recommendations are noisy even though some of them do contain useful information and can significantly move stock prices. To deal with the large amount of noise in an average analyst forecast or recommendation, Loh and Stulz (2011) propose to analyze the impact of a subset of influential forecasts and recommendations---i.e., those that visibly move stock prices---rather than the average forecast and recommendation. Specifically, they define a forecast revision or recommendation change to be influential if it leads to a statistically significant abnormal stock return in the same direction as the forecast revision or recommendation change.

Motivated by their analysis, we test Hypothesis 2 by examining whether a forecast revision given by a local or foreign house is more likely to be influential among A-share or H-share investors. Like before, we compute the abnormal return associated with a forecast revision by regressing the daily return of a share (either A or H) on returns of the Shanghai Composite Index and the Hong Kong Hang Seng Index. We classify a forecast revision as bad news if the new forecast is lower than the house's previous forecast. Otherwise, we classify the forecast as good news. We define a forecast revision to be influential among A-share (or H-share) investors if the share's cumulative abnormal return from one day before to one day after the release of the forecast, *CAR(-1,1)*, is in the same direction as the news and the absolute value of *CAR(-1,1)* exceeds $\sigma_r \times \sqrt{3} \times 1.96$, where σ_r is the share's idiosyncratic volatility, 3 is the length of the three-day return period, and 1.96 corresponds to the 2.5% significant level of normal distribution. By this definition, we expect 2.5% of the forecast revisions to be influential by pure chance.

Table 6 summarizes the number of influential forecasts. In the sample of 5383 forecasts made by foreign houses, 167 of them are influential among A-share investors while 279 are influential among the H-share investors. In terms of percentage, 3.10% of these forecast revisions are influential among A-share investors while 5.18% are influential among H-share investors. Loh and Stulz (2011) analyze a sample of analyst forecasts about earnings of U.S. firms in Thomson Financial's I/B/E/S database and find the fraction of influential forecast revisions to be around 5%. The percentage of influential forecasts among the H-share investors is at the same level as that in the U.S. data with a highly significant t-statistic of 8.88. More important, the fraction among H-share investors is 2.08% higher than the fraction among A-share investors and this difference is significant with a t-statistic of 5.82. This difference indicates that forecast revisions made by foreign analysts are more likely to be influential among H-share investors than among A-share investors.

Similarly, in the sample of 5861 forecasts made by local houses, 210 of them are influential among A-share investors while 160 are influential among H-share investors. In percentage terms, the fraction of influential forecast revisions among A-share investors is 3.58%, with a significant t-statistic of 4.45. This fraction is 0.85% higher than that among H-share investors and the difference is also significant with a t-statistic of 2.87. This difference indicates that forecast revisions made by local houses are more likely to be influential among A-share investors than among H-share investors. The overall percentages of influential forecast revisions in our sample are somewhat lower than that in the U.S. sample of Loh and Stulz (2011), partly due to our data filter to remove forecast revisions that are accompanied by recommendation changes.

We also vary the 2.5% significance level in the definition of influential forecast revisions to 0.5%. That is, a revision is influential if the associated cumulative abnormal return *CAR(-1,1)* of the share is in the same direction of the news with an absolute value exceeding $\sigma_r \times \sqrt{3} \times 2.57$, where 2.57 corresponds to the 0.5% significant level of normal distribution. Based on the 0.5% significance level, Panel B of Table 6 summarizes the number of influential forecast revisions made by both foreign and local houses among A-share and H-share investors. We observe a similar symmetric pattern that revisions made by foreign houses are more likely to be influential among H-share investors than among A-share investors, while revisions made by local houses are more likely to be influential among A-share investors.

C. Logit Regressions

To formally verify that the differential reactions of A and H shares are robust to controls for other factors, we follow Loh and Stulz (2011) to use a logit regression approach. Specifically, we pool forecast revisions made by analysts of either local or foreign houses to run the following logit regression:

$$inf = \beta_0 + \beta_1 H + \beta_2 Controls + \varepsilon \qquad (2)$$

where the dependent variable inf is a dummy variable, which takes the value of 1 if the revision is influential and 0 otherwise, and the key explanatory variable H is also a dummy variable, which takes the value of 1 if the observation is for H shares and 0 if it is for A shares. In this logit regression, we treat reactions of A and H shares to a given forecast revision as two observations, and pool them to construct the sample.

We separate forecast revisions made by local houses from those made by foreign houses. When running the logit regression in (2) in the sample of revisions made by local houses, we examine whether β_1, the coefficient of the dummy variable H, is negative, i.e., whether revisions made by local analysts are less likely to be influential among H-share investors. On the other hand, in the sample of revisions made by foreign houses, we examine whether β_1 is positive, i.e., whether revisions by foreign houses are more likely to be influential among H-share investors. In this analysis, we implicitly treat analysts working for local houses as local analysts and those working for foreign houses as foreign analysts. In the next subsection, we further separate local and foreign analysts, based on their family names, of the same foreign houses.

We include three types of control variables in the regression: analyst characteristics, firm characteristics, and market characteristics. We use several analyst characteristics to capture analysts' forecast ability. These variables include the following: We measure an analyst's experience (*experience*) by the number of quarters the analyst has been covering a firm minus the average experience for all analysts covering the firm. To measure the accuracy of an analyst's previous forecast (*accuracy*), we compute for each forecast in our sample the analyst's forecast error by the absolute forecast error divided by the firm's average A-share and H-share price at the end of the previous year, and then sort errors of all forecast observations into 5 quintiles and an analyst's quintile in the previous year as the measure of *accuracy*. We also use a dummy variable to measure whether the analyst has previously made any influential forecast revision on the same firm (*Inf_lag*). It takes the value of 1 if the analyst has previously made an influential revision on the same firm and 0 otherwise. We include this variable due to the argument that analysts' skills are likely to be persistent and, as a result, having previously made an influential forecast revision makes his future revisions more likely to be influential as well. We also include another dummy variable to measure whether a forecast is further away from the consensus forecast (*boldness*). Specifically, it takes the value of 1 if the current forecast deviates further from the consensus than the analyst's prior forecast and 0 otherwise. This variable captures the forecast's boldness.

We also include several firm characteristics to capture uncertainty faced by investors in trading a firm's shares: the ratio of a firm's book value to market value (*BM*), firm size, analyst coverage (*coverage*), and analysts' forecast dispersion (*dispersion*). Intuitively, a forecast revision is more likely to be influential if investors face greater uncertainty about the firm's earnings. It is often argued that growth firms are more uncertain as their fundamental values rely more on growth options rather than steady cash flows. We use the book-to-market ratio to control for growth firms as they tend to have lower book-to-market ratios than value firms. We also include firm size and analyst coverage as investors face a less transparent information environment for small firms and firms with less analyst coverage. We measure firm size by a logarithm of the market value of all tradable shares in one class at the end of the previous year.

We separately measure the size of A shares and H shares of each firm. We measure analyst coverage by the number of analysts that cover a given firm in a given year. Furthermore, we include dispersion of analysts' EPS forecasts---calculated by the ratio of standard deviation to mean of all forecasts made by all analysts for a given firm in the year before each news event ---as another measure of the firm's information uncertainty. It is intuitive that great analysts' forecast dispersion implies greater information uncertainty faced by investors.

We also include several market variables to control for market factors that might affect the stock returns during the event period. These variables include turnover rate (*turnover*), return volatility (*volatility*), and return momentum (*momentum*), which are all measured based on the market observations in the three months prior to the news event. Following the standard procedure in the literature, we take a logarithmic transformation of both turnover rate and volatility in the regression. As institutional investors and retail investors may have different reactions to news, we also control for the fraction of all tradable shares held by retail investors. We also separately measure these variables for both A and H shares of each firm.

Finally, we also include the fraction of tradable shares held by retail investors (*retail*) as a control variable. As retail investors may not subscribe to Bloomberg and other news portals, they do not have equal access to analyst reports as institutional investors. The summary information given in Table 1 shows that the fraction of tradable A and H shares held by retail investors is roughly the same. Thus, we do not expect A-share and H-share investors in aggregate to have differential access to analyst reports. Nevertheless, we include *retail* as a control variable in our analysis to capture heterogeneity of retail investor ownership across firms and across announcement events.

Table 7 reports the summary statistics of all control variables. All of these control variables are winsorized to 1% or 99%.[17] A few comments are worthwhile here. The mean and median of *experience* is 0.080 and 0.003, respectively. They are almost zero because *experience* is a relative measure---the duration of each analyst's coverage of a firm subtracted by the average duration of all analysts for each firm-year observation. The mean of *boldness* is 0.296, which

[17] Winsorizing the control variables does not affect our results. Due to the availability of data, the number of observations for each control variable also varies.

indicates that about 30% of forecasts are moving away from the consensus relative to the analysts' prior forecasts. Consistent with the pattern in Table 1, the return volatility of H shares is larger than that of A shares, and the turnover rate of H shares is less than that of A shares.

Table 8 separately reports the logit regression results for the samples of forecast revisions made by local and foreign houses. We compute t-statistics in the regressions using standard deviation clustered in firm/analyst pairs. In the sample of forecast revisions made by local houses (left panel), the first major column (marked as Model 1) reports the result from a base-line regression without including any control variable. The coefficient of the key dummy variable *H* is significantly negative with a t-statistic of -2.86. The second major column (marked as Model 2) reports the result from a full regression with all the control variables. Due to availability of some of the control variables, the number of observations is reduced to 3901. The coefficient of *H* is again significantly negative with a t-statistic of -2.07. Taken together, these regressions confirm that forecast revisions made by local houses are significantly less likely to be influential among H-share investors than among A-share investors.

In the sample of forecast revisions made by foreign houses, we repeat the same base-line and full regressions with the results reported in major columns 3 and 4 of Table 8 (right panel). The coefficient of *H* is significantly positive with a t-statistic of 4.58 in the base-line regression, and is positive with a marginally significant t-statistic of 2.74 in the full regression. Taken together, these regressions demonstrate that forecast revisions made by foreign houses are significantly more likely to be influential among H-share investors than among A-share investors.

Among the control variables, the coefficient of the dummy variable for the house's previous influential forecast revision is positive and significant in the sample of revisions made by foreign houses. This result is consistent with the finding of Loh and Stulz (2011) and confirms the notion that the skill to make influential forecast revisions is persistent. The coefficient of analyst coverage is negative in both samples and, in particular, is significant in the sample of forecast revisions made by foreign houses. This negative coefficient is consistent with the notion that greater analyst coverage improves a stock's information environment and thus reduces the impact of analysts' individual forecasts. The coefficient of volatility is positive in both samples and significant in the sample of forecasts made by foreign houses, which is consistent with the notion that greater fundamental uncertainty makes analysts' earnings forecasts more likely to be influential. The coefficient of price momentum is negative and significant in the sample of forecast revisions made by foreign houses, but significantly positive in the sample of forecast revisions made by local houses. The coefficients of other control variables are insignificant.

Taken together, our analysis shows that forecast revisions made by local houses are significantly more likely to be influential among local investors while forecast revisions made by foreign houses are significantly more likely to be influential among foreign investors. In light of Hypothesis 2, the symmetry in the differential reactions of local and foreign investors to information released by local and foreign houses cannot simply be explained by the information-asymmetry argument. It is also difficult to attribute this symmetry in differential reactions of local and foreign investors to the informational advantage of forecasts of local houses (e.g., Bae, Stulz, and Tan, 2008). Instead, it reveals that local and foreign investors agree to disagree about their interpretations of the same news---with each group of investors favoring information from particular sources they trust and have easy access to.

D. Further Analysis

In our earlier analysis, we treat analysts working for local houses as local analysts and for foreign houses as foreign analysts. It is common for foreign brokerage and research firms to hire Chinese analysts to cover Chinese firms, although it is rare for local houses to hire non-Chinese analysts. In this subsection, we further compare whether A-share and H-share investors have differential reactions to forecasts made by local and foreign analysts of the same foreign houses.

This comparison allows us to control for several sources of heterogeneity between local and foreign houses. First, it may be easier for A-share investors to obtain reports of local houses and H-share investors to obtain reports of foreign houses. As investors (A-share or H-share investors) have the same access to reports by local and foreign analysts of the same foreign houses, comparing price reactions of A and H shares to these reports naturally controls for this accessibility issue. Second, the working language of local houses is Chinese while that of foreign houses is English. Bloomberg releases the abstract of all analyst reports in both Chinese and English, and the main body of some of the reports in both languages. Whether the main body of a report is available in both languages depends on whether the issuing house provides both versions. As a foreign house is equally likely to translate reports of its local and foreign analysts, comparing price reactions of A and H shares to these reports again controls for this language issue.

Bloomberg provides the name of the analyst for each analyst report. Analyst name allows us to further identify whether an analyst is Chinese or not. Specifically, we define an analyst as Chinese if his last name is based on Pinyin, the official phonetic system for transcribing the sound of Chinese characters into Latin scripts, and as foreign otherwise. We use family name as the criterion because it is rare for Chinese to adopt foreign family names even though it is common for them to use western first names.

Note that A-share investors are primarily residents of mainland China, while H-share investors are mixed with residents from outside mainland China, including Chinese speaking regions such as Hong Kong, Taiwan and Singapore and other parts of the world such as U.S., U.K., and continental Europe. In light of our discussion in Section II, if the differential reactions of A-share and H-share investors are driven by their differential trust and social connections to the analysts, it is useful to separate analysts with origins inside mainland China from those with origins in Hong Kong, Taiwan and Singapore even though they can also speak Chinese. To do so, we take advantage of the fact that the Pinyin systems used in mainland China, Hong Kong, Taiwan, and Singapore are different from each other. Specifically, we define an analyst as local only if his family name matches Pinyin used in mainland China.[18] It is easy for both local and foreign investors to recognize an analyst whose family name matches this criterion as coming from a family in mainland China.

In Table 9, we focus on the analyst forecasts made by foreign houses that have both local and foreign analysts in our sample. Because some foreign houses have only foreign analysts and some forecasts do not have analyst names, this restriction leads to a reduction in the sample size of analyst forecasts by 1044 (relative to the last column of Table 8). Specifically, we have 1300 forecasts made by foreign analysts of foreign houses and 1550 forecasts made by local analysts.

[18] This criterion is different from Bae, Stulz and Tan (2008), who define an analyst as local if her address is close to the firm she covers. We believe that our family-name based definition is better suited for our analysis of trust and social connections between investors and analysts, while their distance based definition fits better for their focus on analyzing the informational advantage of local analysts.

In the first and second major columns of Table 9, we repeat regression (2) in the subsamples of forecasts made by foreign and local analysts. The estimate of the key coefficient H is positive and significant in the subsample of forecasts by foreign analysts, but positive and insignificant in the subsample of forecasts by local analysts. The magnitude of this coefficient in the former subsample is 0.715, which is clearly larger than 0.188 in the latter subsample.

To explicitly compare the differential reactions of A-share and H-share investors to these two subsamples of analyst forecasts, we run the following regression:

$$inf = \beta_0 + \beta_1 H + \beta_2 LocalAnalyst + \beta_3 H * LocalAnalyst + \beta_4 Controls + \varepsilon \quad (3)$$

Like regression (2), the dependent variable inf is a dummy variable, which takes the value of 1 if the forecast revision is influential and 0 otherwise. The dummy variable H takes the value of 1 if the observation is for H shares and 0 if it is for A shares. The dummy variable $LocalAnalyst$ takes the value 1 if the forecast is made by a local analyst and 0 otherwise. The coefficient β_3 of the interaction term $H * LocalAnalyst$ measures a diff-in-diff effect---whether the differential reaction of A-share and H-share investors is more pronounced to forecasts made by foreign analysts than those by local analysts. We use the same set of control variables as in regression (2).

We summarize the regression result in the third major column of Table 9. The coefficient β_3 of the interaction term $H * LocalAnalyst$ is negative and marginally significant. This confirms that within forecasts of foreign houses, the stronger reactions of H-share investors are more pronounced to forecasts made by foreign analysts than to those by local analysts. As this regression directly compares forecasts made by local and foreign analysts of the same houses, one cannot simply attribute the differential price reactions of A and H shares to either the differential accessibility of local and foreign investors to the analyst reports or different languages of the analyst reports. Instead, our result directly relates the differential price reactions to attributes of local and foreign analysts. This result is consistent with our discussion in Section II that local and foreign investors may have differential trust and social connections to local and foreign analysts.

V. Volume Reactions

A public announcement leads to not only price reactions but also trading among investors. The trading reflects heterogeneity among investors due to either different interpretations of the announcement or difference in their private information. In this section, we compare the volume reactions of A and H shares to firms' earnings announcements and analyst forecast revisions.

Following Llorente, Michaely, Saar, and Wang (2002), we define abnormal turnover around an announcement date by

$$abturn = \log(turnover + 0.00000255) - \overline{\log(turnover + 0.00000255)},$$

where $\overline{\log(turnover + 0.00000255)}$ is the average over the previous one year (days −365 to −10 from the announcement date).

We first analyze volume reactions to earnings announcements. We regress cumulative abnormal turnover from one day before to one day after earnings announcement date on H dummy variable and other controls, using a specification similar to equation (1). The regression result is reported in Table 10. Like price reactions, H shares also have significantly stronger volume reactions than A shares. The stronger volume reaction of H shares indicates greater heterogeneity among H-share investors than among A-share investors regarding earnings news.

Next, we analyze volume reactions to analyst forecast revisions. Following Loh and Stulz (2011), we classify a forecast as influential if the increase in cumulative abnormal turnover from one day before to one day after the revision is statistically significant, i.e., larger than $\sigma_t \times \sqrt{3} \times 1.96$, where σ_t is the volatility of the share's abnormal turnover in the previous one year, 3 is the length of the three-day period, and 1.96 corresponds to the 2.5% significant level of normal distribution. We use a logit regression specification similar to equation (2) to compare the volume reactions of A and H shares. Table 11 reports the regression result. Interestingly, like price reactions, A shares have stronger volume reactions to forecast revisions of local houses while H shares have stronger volume reactions to forecast revisions of foreign houses.

Taken together, the volume reactions of A and H shares to firms' earnings announcements and analysts' forecast revisions display rather similar patterns to those in the price reactions of these shares. The patterns in their price reactions demonstrate the difference in the average reactions of local and foreign investors to public news, while the patterns in the volume reactions highlight the difference in the heterogeneity of their reactions within each group. Specifically, in response to earnings news, foreign investors react not only stronger on average but also more heterogeneously. In response to forecast revisions by local (foreign) houses, local (foreign) investors react not only stronger on average but also more heterogeneously.

VI. Conclusion

In this paper, we use the segmented A and H shares issued by Chinese firms in mainland China and Hong Kong to analyze how local and foreign investors react to public news about the same firms. We find significant heterogeneity in their reactions. First, foreign investors react more strongly to earnings announcements. Second, foreign investors react more strongly to earnings forecast revisions made by foreign analysts, while local investors react more strongly to forecast revisions by local analysts. The first finding supports the information-asymmetry argument, which posits that local investors are more informed about local firms, and which underlies a large number of NRE models that analyze international asset market equilibrium. The latter finding cannot simply be explained by the information-asymmetry argument, and instead supports the agree-to-disagree argument, which posits that local and foreign investors may agree to disagree about their interpretation of the same news, and which underlies another set of difference-of-opinion models of asset market equilibrium. This finding also indicates the important role played by social factors in determining local and foreign investors' information processing and belief formation.

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Figure 1: Number of Pairs and Average Price Ratio of A Shares to H Shares

The dotted line with the scale on the right is the number of pairs of A and H shares issued by Chinese firms. The solid line with the scale on the left is the average price ratio of A shares and H shares, weighted across different pairs by the total market value of each pair's A and H shares.

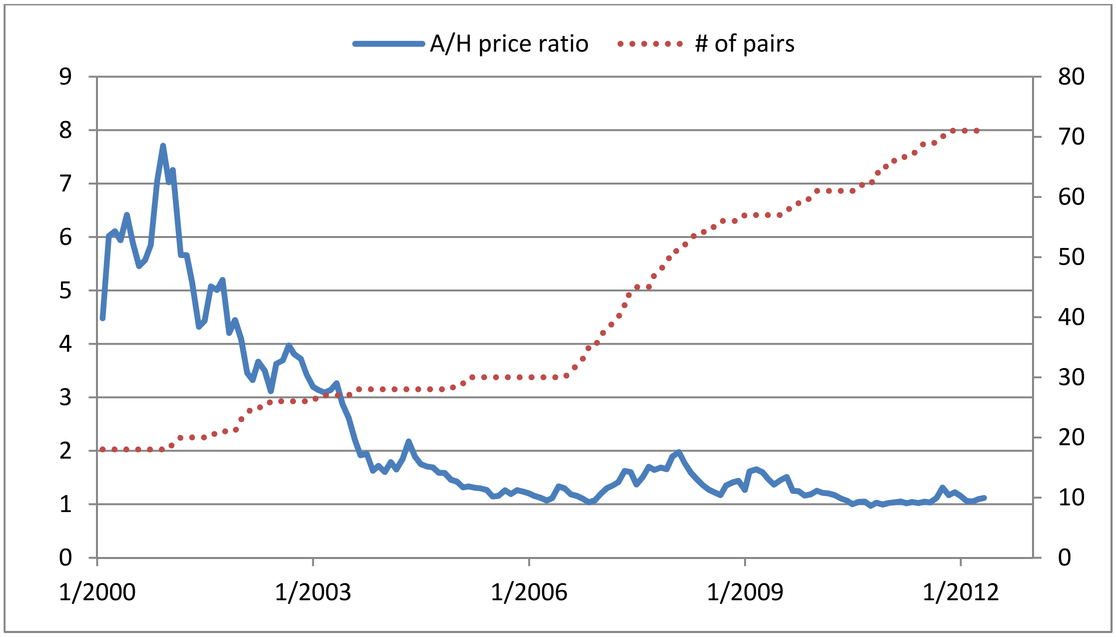

Table 1: Characteristics of Pairs of A and H Shares

Market Ret for A shares is the daily return of the Shanghai Composite Index, and for H shares is the daily return of the Hong Kong Hang Seng Index. Share *Ret* is the daily return of either A or H share of the pairs of A and H shares in our sample. Ret *Vol* is each share's daily return volatility. *Idiosyn Vol* is each share's idiosyncratic volatility after a linear regression to remove the contemporaneous returns of the Shanghai Composite Index and the Hong Kong Hang Seng Index, and *R-Square* is the R-square of the regression. *Skewness* is each share's daily return skewness. *Amihud* is the illiquidity measure of Amihud (2002) with the unit of 10^{-8}. *Turnover* is daily traded shares divided by the total number of tradable shares. *Retail* is the fraction of all tradable shares held by retail investors at the end of each year. *H-fraction* is the fraction of a firm's tradable H shares in its total number of tradable shares. *Log(Size)* is the logarithm of the total market value of a firm's tradable A and H shares. Correlation is the daily return correlation between a firm's A and H shares. We use *,**, and *** to denote significance levels of 10%, 5%, and 1%, respectively.

Panel A: Share Characteristics

	A Shares					H Shares					A-H	
	mean	std	min	median	max	mean	Std	min	median	max	diff	t-value
Market Ret	0.0004	0.019	-0.105	0.000	0.136	0.0002	0.017	-0.103	0.000	0.148	0.0002	0.47
Share Ret	0.0004	0.031	-0.226	0.000	0.313	0.0010	0.039	-0.400	0.000	0.932	-0.0006	-4.82***
Ret Vol	0.029	0.006	0.011	0.029	0.044	0.036	0.008	0.021	0.038	0.059	-0.008	-11.9***
Idiosyn Vol	0.020	0.006	0.008	0.020	0.036	0.029	0.009	0.015	0.030	0.054	-0.009	-12.8***
R-Square	0.502	0.122	0.223	0.479	0.737	0.351	0.190	0.091	0.338	0.769	0.150	9.73***
Skewness	0.159	0.234	-0.617	0.127	1.173	0.622	0.418	-0.037	0.600	1.962	-0.463	-8.80***
Amihud	0.090	0.146	0.002	0.020	0.665	3.080	9.300	0.001	0.074	64.704	-2.989	-2.74***
Turnover	2.128	1.562	0.598	1.796	10.297	0.783	0.370	0.149	0.754	1.768	1.343	6.88***
Retail	0.567	0.281	0.018	0.586	0.999	0.580	0.232	0.001	0.580	0.998	-0.012	-0.7

Panel B: Firm Characteristic					
	mean	std	min	median	max
H-fraction	0.548	0.171	0.154	0.560	0.962
Log(Size)	23.715	1.792	20.464	23.606	27.850
Correlation	0.375	0.102	0.165	0.386	0.603

Panel C: Granger Causality of A/H market			
	H leads A	H does not lead A	Subtotal
A leads H	10	11	21
A does not lead H	14	36	50
subtotal	24	47	71

Table 2: Difference in Earnings Accounting in A and H Markets

Diff is the absolute difference of EPS between A and H markets, *n* is the sample size, *Diff_rel* is the absolute difference of EPS between A and H markets deflated by the previous-year-end H-market stock price, *daeps* is the absolute value of year-to-year change of A-market EPS, *dheps* is the absolute value of year-to-year change of H-market EPS, *ddeps* is the absolute value of difference between *daeps* and *dheps*, *corr* is the correlation between *daeps* and *dheps*,

Panel A: difference							
variable	n	mean	min	p75	p90	p99	max
diff	300	0.006	0.000	0.001	0.014	0.092	0.148
diff_rel	300	0.001	0.000	0.000	0.002	0.034	0.052
daeps	243	0.286	0.003	0.334	0.690	1.868	3.200
dheps	300	0.253	0.000	0.292	0.641	1.850	3.200
ddeps	243	0.006	0.000	0.002	0.013	0.116	0.148
Panel B: correlation							
corr				0.999			

Table 3: Price Reactions to Earnings Announcement

CAR(-1,1) is the cumulative abnormal return from one day before to one day after the earnings announcement. *CAR(-1,2)* is the cumulative abnormal return from one day before to two days after the announcement. *CAR(-1,3)* is the cumulative abnormal return from one day before to three days after the announcement. We estimate a linear regression of the daily return of each share on the returns of the Shanghai Composite Index and the Hong Kong Hang Seng Index from 365 days before to 10 days before each announcement and then use the estimated regression coefficients to compute the share's abnormal returns across the announcement. We categorize an announcement as bad news if the announced EPS is less than the consensus forecast and, otherwise, as good news. We use *, **, and *** to denote significance levels of 10%, 5%, and 1%, respectively.

		A Shares		H Shares		A - H	
	nobs	mean	t-value	mean	t-value	mean	t-value
Panel A: CAR in bad news sample							
CAR(-1,1)	230	-0.006	-2.47**	-0.016	-3.78***	0.009	2.33**
CAR(-1,2)	204	-0.008	-2.46**	-0.018	-3.43***	0.009	1.97**
CAR(-1,3)	180	-0.010	-2.43**	-0.023	-3.91***	0.013	2.50**
Panel B: CAR in good news sample							
CAR(-1,1)	130	0.004	1.28	0.014	2.62***	-0.010	-1.98**
CAR(-1,2)	119	0.006	1.53	0.020	3.28***	-0.014	-2.49**
CAR(-1,3)	112	0.005	1.12	0.017	2.55**	-0.012	-1.81*
Panel C: Absolute CAR in both good and bad news samples							
|*CAR(-1,1)*|	360	0.028	18.53***	0.046	20.03***	-0.018	-7.58***
|*CAR(-1,2)*|	323	0.034	18.22***	0.053	18.93***	-0.019	-6.84***
|*CAR(-1,3)*|	292	0.038	17.43***	0.059	19.51**	-0.021	-6.57***

Table 4: Summary Statistics for Variables Used in Analyzing Earnings Announcements

CAR is the cumulative abnormal return from one day before to one day after the earnings announcement. We estimate a linear regression of the daily return of each share on the returns of the Shanghai Composite Index and the Hong Kong Hang Seng Index from 365 days before to 10 days before each announcement and then use the estimated regression coefficients to compute the share's abnormal returns across the announcement. *Beta* is the sum of the estimated coefficients of the two market returns in estimating each share's abnormal return. *Log(Size)* is the logarithm of the market capitalization of one type of tradable shares (A or H) of each firm at the end of the previous year. *Momentum* is calculated by the average daily returns for A and H shares during the three-month period before the announcement. *Amihud* is the Amihud's (2002) illiquidity measure (with a unit of 10^{-8}) for A and H shares, which is defined by the average ratio of daily return volatility to daily trading volume during the three-month period before the announcement. *Log(BM)* is the logarithm of each firm's book-value to market-value ratio at the end of the previous year. *Lev* is the firm's leverage. *Surprise* is measured by the difference between reported EPS and the consensus forecast before the announcement, further deflated by the H share price ten days before the announcement. Except for *Log(BM)* and *Surprise,* we separately measure each of the other variables for A and H shares of each firm, marked by subscript *a* or *h* under each variable name.

Variables	mean	std	min	p1	median	p99	max
CAR_a	-0.002	0.040	-0.197	-0.102	-0.003	0.122	0.177
CAR_h	-0.004	0.063	-0.195	-0.141	-0.007	0.180	0.342
Beta_a	1.081	0.261	0.390	0.545	1.065	1.791	1.834
Beta_h	1.228	0.410	-0.205	0.398	1.224	2.395	3.069
Log(Size)_a	22.448	1.798	18.899	19.384	22.173	27.075	27.926
Log(Size)_h	22.356	2.066	17.161	18.053	22.366	27.896	28.064
Momentum_a	0.001	0.004	-0.016	-0.011	0.001	0.013	0.016
Momentum_h	0.001	0.004	-0.014	-0.012	0.001	0.015	0.020
Amihud_a	0.080	0.154	0.001	0.001	0.022	0.894	0.990
Amihud_h	2.407	13.681	0.001	0.001	0.057	50.681	174.143
Surprise	-0.024	0.151	-2.319	-0.707	-0.003	0.073	0.302
Log(BM)	-1.377	0.670	-3.988	-3.784	-1.285	-0.110	0.536
Lev	0.541	0.239	0.009	0.107	0.521	0.966	1.223

Table 5: Regression Analysis of Price Reactions to Earnings Announcements

CAR(-1,1) is the cumulative abnormal return from one day before to one day after the earnings announcement. *Surprise* .is measured by the difference between reported EPS and the consensus forecast before the announcement, deflated by the H-share price ten days before the announcement. *H* is 1 if the observation is for H shares, and 0 otherwise. *Beta* is the sum of each share's A-share market beta and Hong Kong market beta. *Log(Size)* is logarithm of the market capitalization of tradable A and H shares of each firm at the end of the previous year. *Log(BM)* is logarithm of each firm's book-value to market-value ratio at the end of the previous year. *Momentum* is calculated by the average daily return of A or H share during the three-month period before the announcement. *Amihud* is the Amihud's (2002) illiquidity measure, which is defined by the average ratio of daily return volatility to daily trading volume during the three-month period before the announcement. *EA effect* is a dummy variable for each announcement event. *Lev* is the firm's leverage. We use *, **, and *** to denote significance levels of 10%, 5%, and 1%, respectively. The t-value is based on standard errors clustered in each firm.

	Dependent variable: CAR(-1,1)					Dependent variable: |CAR(-1,1)|			
	Model 1		Model 2			Model 3		Model 4	
	estimator	t-value	estimator	t-value		estimator	t-value	estimator	t-value
H	-0.001	-0.21	0.000	0.07	*H*	0.016	7.31***	0.017	6.66***
Surprise	0.010	0.98			*|Surprise|*	-0.006	-1.12		
H·Surprise	0.084	3.53***	0.086	4.02***	*H·|Surprise|*	0.040	2.65***	0.044	2.70***
Log(Size)	0.001	1.47	0.001	0.27	*Log(Size)*	-0.004	-3.58***	0.001	-0.30
Log(BM)	0.001	0.34			*Lev*	0.003	0.43		
Beta	-0.005	-0.84	-0.004	-0.52					
Momentum	1.185	1.42	2.560	3.10***					
Amihud	69793	3.01***	26324	1.08					
EA effect	No		Yes		*EA effect*	No		Yes	
F-value	4.74***		4.22***		F-value	20.46***		21.50***	
R-Square	0.052		0.068		R-Square	0.109		0.154	

Table 6: Number of Influential Forecasts

In Panel A, we define a forecast revision to be influential if the share's *CAR(-1,1)* has the same sign as the direction of the news and an absolute value greater than 2.5% tail of normal distribution with volatility equal to the share's idiosyncratic volatility during the prior one year. Numbers in parenthesis for A and H shares are the t-statistics for testing the percentage being equal to2.5%. Numbers in parenthesis for (A–H) column are t-statistics for testing the percentage of A shares being equal to that of H shares. Local houses are brokerage firms or research firms incorporated in mainland China with Chinese corporations as their controlling shareholders. Foreign houses are brokerage firms or research firms incorporated outside Mainland China without Chinese corporations as their controlling shareholders. In Panel B, we define a forecast revision to be influential by requiring 0.5% tail of normal distribution to cut off the absolute value of a share's *CAR(-1,1)*. We use *, **, and *** to denote significance levels of 10%, 5%, and 1%, respectively.

	Nobs	# of Influential Forecasts		Percentage of Influential Forecast		
		A Shares	H Shares	A Shares	H Shares	A – H
Panel A: 2.5% Tail Distribution						
Foreign Houses	5383	167	279	3.10%	5.18%	-2.08%
				(2.54)**	(8.88)***	(-5.82)***
Local Houses	5861	210	160	3.58%	2.73%	0.85%
				(4.45)***	(1.17)	(2.87)***
Panel B: 0.5% Tail Distribution						
Foreign Houses	5383	75	144	1.39%	2.67%	-1.28%
				(5.59)***	(9.89)***	(-4.85)***
Local Houses	5861	103	75	1.76%	1.28%	0.48%
				(7.30)***	(5.35)***	(2.24)**

Table 7: Summary Statistics for Variables Used in Analyzing Forecast Revisions

E*xperience* is measured as the number of quarters an analyst has covered the firm up to the time of the event minus the average number of quarters all analysts have covered the firm. *Accuracy* is quintile from sorting the analyst's previous year's forecast error among errors of all forecast observations. *Boldness* = 1 if the new forecast deviates further away from the consensus than the analyst's previous forecast. *Dispersion* is the dispersion of updated forecasts of all analysts before the current event. *BM* is the book-value to market-value ratio at the end of the previous year. *Coverage* is the number of analysts covering the firm. *Retail* is the fraction of all tradable shares held by retail investors. *Size* is the market value of all tradable shares at the end of the previous year. *Turnover*, V*olatility*, and *Momentum* are all measured based on the averages of the prior three-month period. Variables that are marked by a subscript of either *a* or *h* are separately measured for A and H shares of the firm.

variables	mean	std	min	p1	median	p99	max
Experience	0.584	5.475	-12.559	-12.559	0.700	11.098	11.098
Accuracy	2.099	1.365	0.000	0.000	2.000	4.000	4.000
Boldness	0.332	0.471	0.000	0.000	0.000	1.000	1.000
Dispersion	0.234	0.586	-1.784	-1.784	0.123	3.776	3.823
Log(BM)	-1.373	0.586	-3.170	-3.099	-1.301	-0.110	-0.110
Coverage	17.377	9.038	1.000	1.000	17.000	42.000	46.000
Retail_a	0.510	0.280	0.029	0.029	0.538	0.973	0.973
Retail_h	0.543	0.220	0.033	0.033	0.553	0.963	0.965
Log(size)_a	23.873	1.601	20.472	20.472	23.796	27.926	27.926
Log(size)_h	23.639	1.623	20.084	20.084	23.391	27.896	27.896
Log(turnover)_a	-0.332	1.334	-4.288	-4.288	-0.132	1.854	1.863
Log(turnover)_h	-0.536	0.656	-2.243	-2.243	-0.490	0.990	0.990
Log(volatility)_a	-3.767	0.407	-4.713	-4.713	-3.773	-2.963	-2.943
Log(volatility)_h	-3.591	0.415	-4.446	-4.446	-3.615	-2.496	-2.420
Momentum_a	0.000	0.004	-0.011	-0.010	0.000	0.010	0.010
Momentum_h	0.000	0.004	-0.012	-0.011	0.000	0.011	0.011

Table 8: Logit Regression Analysis of Price Reactions to Analyst Forecast Revisions

The dependent variable is a dummy for whether a forecast is influential or not. Local houses are brokerage or research firms incorporated in mainland China with Chinese corporations as controlling shareholders. Foreign houses are brokerage or research firms incorporated outside mainland China without Chinese corporations as controlling shareholders. We define a forecast revision to be influential if the share's *CAR(-1,1)* has the same sign as the direction of the news and an absolute value greater than 2.5% tail of normal distribution with volatility equal to the share's idiosyncratic volatility during the prior one year. *H* =1 if the observation is for H shares. E*xperience* is measured as the number of quarters an analyst has covered the firm up to the time of the event minus the average number of quarters all analysts have covered the firm. *Accuracy* is quintile from sorting the analyst's previous forecast error among errors of all forecast observations. *Boldness* = 1 if the new forecast deviates further away from the consensus than the analyst's previous forecast. *Dispersion* is the dispersion of updated forecasts of all analysts before the current event. *BM* is the book-value to market-value ratio at the end of the previous year. *Coverage* is the number of analysts covering the firm. *Retail* is the fraction of all tradable shares held by retail investors. *Size* is the market value of all tradable shares at the end of the previous year. *Turnover*, V*olatility*, and *Momentum* are all measured based on the averages of the prior three-month period. We use *, **, and *** to denote significance levels of 10%, 5%, and 1%, respectively, based on standard errors clustered in firm/analyst pairs.

	Local Houses				Foreign Houses			
	Model 1		Model 2		Model 1		Model 2	
	estimator	t-value	estimator	t-value	estimator	t-value	estimator	t-value
H	-0.281	-2.86***	-0.299	-2.07**	0.535	4.58***	0.317	2.74***
Experience			-0.015	-0.97			-0.006	-0.55
Accuracy			-0.011	-0.17			0.003	0.05
Inf_lag			0.231	1.18			0.304	2.02**
Bondness			-0.024	-0.16			0.048	0.33
Dispersion			0.022	0.20			-0.069	-0.83
Log(BM)			-0.345	-3.34***			0.109	0.79
Coverage			-0.010	-1.02			-0.020	-2.49**
Retail			0.910	2.67***			1.021	4.15***
Log(size)			0.073	1.28			0.142	2.46**
Log(turnover)			-0.017	-0.16			0.018	0.24
Log(volatility)			0.330	1.28			0.931	4.82***
Momentum			61.891	2.61***			-55.820	-3.26***
Nobs	5861		3901		5383		3894	
Chi2	8.17***		35.80***		20.95***		85.71***	
Pseudo-R2	0.002		0.018		0.008		0.043	

Table 9: Logit Regression Analysis of Price Reactions to Forecasts by Local and Foreign Analysts of Foreign Houses

The dependent variable is a dummy for whether a forecast is influential or not. The sample includes forecasts made by foreign houses that hire both local and foreign analysts. *LocalAnalyst*=1 if a forecast is made by a local analyst. *H*LocalAnalyst* is the interaction term of *H* and *LocalAnalyst.* E*xperience* is measured as the number of quarters an analyst has covered the firm up to the time of the event minus the average number of quarters all analysts have covered the firm. *Accuracy* is quintile from sorting the analyst's previous forecast error among errors of all forecast observations. *Boldness* = 1 if the new forecast deviates further away from the consensus than the analyst's previous forecast. *Dispersion* is the dispersion of updated forecasts of all analysts before the current event. *BM* is the book-value to market-value ratio at the end of the previous year. *Coverage* is the number of analysts covering the firm. *Retail* is the fraction of all tradable shares held by retail investors. *Size* is the market value of all tradable shares at the end of the previous year. *Turnover*, V*olatility*, and *Momentum* are all measured based on the averages of the prior three-month period. We use *, **, and *** to denote significance levels of 10%, 5%, and 1%, respectively, based on standard errors clustered in firm/analyst pairs.

	Foreign Analysts		Local Analysts		Full Sample	
	estimator	t-value	estimator	t-value	estimator	t-value
H	0.715	3.37***	0.188	1.05	0.631	3.32***
LocalAnalyst					0.420	0.272
*H*LocalAnalyst*					-0.445	-1.65*
Experience	-0.018	-0.71	0.008	0.42	0.004	0.26
Accuracy	-0.084	-1.09	0.114	1.40	0.012	0.20
Inf_lag	0.450	1.77*	0.373	1.65*	0.372	2.14**
Bondness	-0.165	-0.68	0.342	1.38	0.106	0.60
Dispersion	-0.068	-0.41	-0.075	-0.68	-0.084	-0.94
Log(BM)	-0.253	-1.05	0.254	1.34	0.231	1.66*
Coverage	0.010	0.61	-0.041	-3.42***	-0.023	-2.30**
Retail	0.187	0.44	0.967	2.35**	0.759	2.74***
Log(size)	0.319	3.16***	-0.034	-0.37	0.150	2.09**
Log(turnover)	-0.096	-0.81	0.212	1.88*	0.028	0.31
Log(volatility)	1.051	2.98***	0.836	2.81***	1.013	4.44***
Momentum	-74.626	-2.28***	-46.963	-2.53**	-63.803	-3.44***
Nobs	1305		1550		2850	
Chi2	49.42***		66.83***		91.46***	
Pseudo-R2	0.084		0.076		0.054	

Table 10: Regression Analysis of Volume Reactions to Earnings Announcements

The dependent variable is the cumulative abnormal turnover from one day before to one day after the earnings announcement. *Surprise* is measured by the difference between reported EPS and the consensus forecast before the announcement, deflated by the H-share price ten days before the announcement. *H* is 1 if the observation is for H shares, and 0 otherwise. *Log(Size)* is logarithm of the market capitalization of tradable A and H shares of each firm at the end of the previous year. *Log(BM)* is logarithm of each firm's book-value to market-value ratio at the end of the previous year. *Amihud* is the Amihud's (2002) illiquidity measure, which is defined by the average ratio of daily return volatility to daily trading volume during the three-month period before the announcement. *EA effect* is a dummy variable for each announcement event. We use *, **, and *** to denote significance levels of 10%, 5%, and 1%, respectively. The t-value is based on standard errors clustered in each firm.

	Model 1		Model 2		Model 3	
	estimator	t-value	estimator	t-value	estimator	t-value
H	0.851	6.36***	0.707	5.45***	0.660	4.29***
Surprise			-0.313	-0.44		
H·Surprise			-3.370	-2.63**	-3.304	-3.08***
Log(Size)			-0.216	-4.91***	0.041	0.3
Log(BM)			-0.147	-0.93		
Amihud			2881413	1.78*	5011002	4.47***
EA effect	No		No		Yes	
F-value	40.41***		16.61***		16.89***	
R-Square	0.031		0.114		0.168	

Table 11: Logit Regression Analysis of Volume Reactions to Analyst Forecast Revisions

The dependent variable is a dummy for whether a forecast is influential or not. Local houses are brokerage or research firms incorporated in mainland China with Chinese corporations as controlling shareholders. Foreign houses are brokerage or research firms incorporated outside mainland China without Chinese corporations as controlling shareholders. We define a forecast revision to be influential if the share's cumulative abnormal turnover from day -1 to day 1is greater than 2.5% tail of normal distribution with volatility equal to the share's abnormal turnover volatility during the prior one year. *H* =1 if the observation is for H shares. E*xperience* is measured as the number of quarters an analyst has covered the firm up to the time of the event minus the average number of quarters all analysts have covered the firm. *Accuracy* is quintile from sorting the analyst's previous forecast error among errors of all forecast observations. *Boldness* = 1 if the new forecast deviates further away from the consensus than the analyst's previous forecast. *Dispersion* is the dispersion of updated forecasts of all analysts before the current event. *BM* is the book-value to market-value ratio at the end of the previous year. *Coverage* is the number of analysts covering the firm. *Retail* is the fraction of all tradable shares held by retail investors. *Size* is the market value of all tradable shares at the end of the previous year. V*olatility*, and *Momentum* are all measured based on the averages of the prior three-month period. We use *, **, and *** to denote significance levels of 10%, 5%, and 1%, respectively, based on standard errors clustered in firm/analyst pairs.

	Local Houses				Foreign Houses			
	Model 1		Model 2		Model 1		Model 2	
	estimator	t-value	estimator	t-value	estimator	t-value	estimator	t-value
H	-0.322	-4.45***	-0.415	-4.57***	0.317	3.22***	0.154	1.56
Experience			0.000	-0.02			-0.003	-0.36
Accuracy			0.024	0.64			0.017	0.43
Inf_lag			0.585	3.87***			1.451	9.92***
Bondness			-0.071	-0.69			-0.027	-0.25
Dispersion			0.074	0.9			0.037	0.52
Log(BM)			-0.147	-1.83*			0.099	0.84
Coverage			-0.008	-1.06			-0.023	-3.72***
Retail			0.579	3.01***			0.543	2.46**
Log(size)			-0.082	-2.04**			-0.039	-0.92
Log(volatility)			0.872	6.17***			0.741	5.65***
Momentum			74.203	5.00***			22.765	1.41
Nobs	5861		3903		5383		3899	
Chi2	19.78***		256.9***		10.37***		303.1***	
Pseudo-R2	0.003		0.054		0.003		0.074	