THE EARNINGS ANNOUNCEMENT PREMIUM AROUND THE GLOBE

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Abstract

U.S. stocks have been shown to earn higher returns during earnings announcement months than during non-announcement months. We document that this earnings announcement premium exists across the globe. Using data from 46 countries, we find that the average stock return during earnings announcement months exceeds the return during non-announcement months by over 11 percent annually, after controlling for factors known to be associated with stock returns. The positive incremental return during earnings announcement months is not isolated to a few years; it is significant for 16 of the 20 years of our sample period. Moreover, it is not isolated to a few countries. Of the 20 countries with enough data to conduct a within-country analysis, nine exhibit a significantly positive premium. We also document that the premium for the smallest stocks exceeds that for the largest ones, by roughly 6 percent annually. As to potential explanations for the premium, we find evidence of an increase in the attention paid to firms around the time of earnings releases, creating upward pressure on stock prices. However, there is no evidence that higher levels of systematic or idiosyncratic risk around the time of earnings releases is a significant driver of the premium.

The Earnings Announcement Premium Around the Globe

Introduction

It has been documented that U.S. stocks earn higher returns during months when earnings are announced than during non-announcement months. The magnitude of this earnings announcement premium has recently been estimated by Frazzini and Lamont (2007) to be over 7 percent per year.[1] While a number of potential explanations for the premium have been put forward (such as increased risk around earnings announcements or heightened investor attention to firms announcing earnings), uncertainty still exists over the drivers of this return. In this study we investigate whether the earnings announcement premium is a more global phenomenon or is isolated to U.S. stocks. We make two major contributions. First, we provide out-of-sample evidence on the existence of an announcement premium (prior research focused mostly on U.S. stocks). Second, we exploit cross-country differences in potential explanatory variables in order to obtain additional insights into the factors underlying the premium's existence.

Our sample consists of roughly 200,000 announcements of annual earnings from 46 foreign countries over a 20-year period. Using these announcements we estimate that the average monthly raw return to a strategy of investing in a portfolio comprised of those stocks expected to announce annual earnings during the month and shorting an equal dollar amount of a portfolio of those expected to be non-announcers is 66.8 basis points, or 8.02 percent annualized. As shown in Figure 1, a $1 investment in the long portfolio offset by a similar position in the short portfolio in 1991 would have grown to $4.26 by 2010. By comparison, investing $1 in a

[1] Savor and Wilson (2011) also document higher returns during earnings announcement months. Others have found a similar premium for shorter windows around earnings announcements. See, for example, Chari et al. (1988), Ball and Kothari (1991), Cohen et al. (2007), and Berkman and Truong (2009). Aboody et al. (2010) document a large earnings announcement premium for the stocks with the greatest prior 12-month return.

global portfolio, equally-weighted by country, would have grown to $3.64 over that time period. Moreover, the long-short portfolio delivered a Sharpe ratio that is over forty percent greater than that of the global portfolio.

To control for factors known to be associated with stock returns we estimate the return premium using monthly cross-sectional regressions (employing a Fama-MacBeth approach), regressing individual firm returns on firm size, momentum, and book-to-market ratio, and adding an indicator variable for the firm's earnings announcement month. We also include country fixed effects. The coefficient on the indicator variable can be interpreted as the monthly earnings announcement premium. Over the 1991-2010 period we find that it averages over 11 percent annualized.

The positive earnings announcement premium is not isolated to a few years; it is significantly greater than zero in 16 of the 20 years of our sample period. It is also not isolated to just a few countries. Of the 20 countries with the greatest number of observations, the premium is positive in 16 and significant in nine. In each of these nine countries, the magnitude of the announcement premium is greater than that estimated for U.S. firms.

We also find that the announcement premium is most pronounced for the smallest firms. The difference between the premium for the smallest and largest 20 percent of our sample is roughly 6 percent on an annual basis. This finding stands in contrast to that of Frazzini and Lamont (2007), who find the greatest premium to be among the largest firms in their sample of U.S. stocks.

We next turn to an exploration of possible factors driving the earnings announcement premium. We first examine an attention-based explanation, consistent with Frazzini and Lamont (2007) whereby individual investors exhibit a tendency to purchase stocks that grab their

attention, putting upward price pressure on these stocks. We test for this by examining whether, at the firm level, there is a positive relation between the magnitude of expected trading volume during the earnings announcement month and the size of the announcement premium. Although we do not find a reliably positive association over our full sample period, it is significantly positive over the last ten years. As we discuss in more detail below, there are two factors that might account for the weaker results during the earlier years. First, volume data is much less available in the first half of our sample period. Second, our predictive model for trading volume does not perform well during the first half of our sample period.

Our second set of tests exploits cross-country differences in potential explanatory variables. In addition to country-level measures of attention, we incorporate measures of systematic and idiosyncratic risk to test whether increased risk around earnings releases is partially responsible for the documented announcement premium. Using this approach we find weak support for attention as an explanatory variable. However, there is no evidence that either type of risk is a driver of the premium. One possible explanation for these mixed results is that the firm-level variation in these measures swamps the variation at the country-level. Accordingly, in future work we plan to replicate this analysis on a firm level.

We consider two additional potential explanations for the documented announcement premium. The first is that it is a manifestation of the continuation pattern in monthly returns across calendar years reported by Heston and Sadka (2008, 2010). We control for this by adding to our regression each firm's prior year monthly return as an independent variable. The earnings announcement premium remains significantly positive. Another potential explanation is that firms globally had surprisingly good earnings, on average, during our sample period and that this is reflected in positive market returns across countries, concentrated in earnings announcement

months. We test for this by regressing the size of a country's earnings announcement premium on its average market returns. No significant relation is found.

The plan of this paper is as follows. In Section I we outline the data collection process and present descriptive statistics. In Section II we estimate the calendar-time returns to a strategy of purchasing (shorting) the shares of firms expected (not expected) to announce earnings during the month. An estimate of the magnitude of the earnings announcement premium, controlling for factors known to affect stock prices, appears in Section III. In Section IV we examine an attention-based explanation for the existence of the announcement premium. Additional light is shed on the determinants of the premium in Section V by exploiting cross-country differences. Competing hypotheses are examined in Section VI. Section VII presents a summary and conclusions.

I. Data Collection

Determining whether there exists a predictable return premium during earnings announcement months requires an expectation model for the timing of earnings announcements.[2] As our expectation of a firm's earnings announcement month we use the month in which it released earnings during the prior fiscal year. We collect annual earnings announcement dates for the twenty-year period from 1990 through 2009 and use them to form our expectations for the announcement months during 1991-2010.

While the IBES database is a principle source of earnings announcement dates for U.S. companies, its use for foreign firms is problematic. The reason is that the date recorded for a

[2] While we could have used the actual, rather than the expected, earnings announcement month for our analysis, that choice implicitly assumes that investors have perfect foresight of announcement timing (which they do not). Cohen et al. (2007) argue that another problem with using the actual earnings announcement date is that it causes an upward bias in returns due to the timing of good and bad news announcements. In Section III we estimate the effect that using the actual announcement month has on the magnitude of the premium.

foreign firm's earnings announcement is the date on which the earnings information was entered into the database, not necessarily the date on which the earnings were announced. For this reason we employ Bloomberg as our primary source for earnings announcement dates.[3] We use the IBES date only if Bloomberg does not record an earnings announcement for a given firm and fiscal year. If neither Bloomberg nor IBES provides a date, then the earnings announcement is recorded as missing.

For most of our tests we do not include interim announcements. There are a number of reasons for this. First, and most importantly, there are no uniform interim reporting standards across countries. In some countries quarterly earnings reports are required. In others semi-annual reporting is mandated.[4] In still others, semi-annual reporting is mandatory, but quarterly reports are allowed. Second, reporting requirements have not been constant over our sample period.[5] Third, the coverage of interim announcements in both Bloomberg and IBES is spotty during the first several years of our sample period.[6]

Table I details our sample selection process. We begin with all annual earnings announcements in the Bloomberg database for which the announcement date is given and for which there is a valid SEDOL (Stock Exchange Daily Official List) code on Thomson Financial's Datastream database. This totals 260,659 annual announcements issued by 34,652 firms. To remain in the sample we also require either that the fiscal year-end date be given or

[3] Griffin et al. (2008a) find that for a given firm and fiscal year, the date reported in the Bloomberg database is generally earlier than that reported in IBES. This is consistent with there being a delay in the reporting of the announcements in IBES. For an international sample of earnings announcements, Defond et al. (2007) find that the IBES dates often differ from those reported in the financial press. Along the lines of Griffin et al. (2008a), we hand-check the accuracy of a small subset of announcement dates and find Bloomberg to be much more accurate than IBES.

[4] In 2007 the European Union issued its Transparency Directive, which imposed a quarterly reporting requirement. The reports, however, are not required to include a disclosure of quarterly earnings.

[5] One notable example, Japan, moved from semiannual to quarterly reporting in 2008.

[6] The total number of interim announcements in Bloomberg and IBES during the years 1990-1999 is only about 25 percent of the total number of annual announcements during this time (untabulated results).

that it be reliably estimable from the fiscal year-end dates of adjacent years. Imposing this requirement reduces our announcement sample by approximately six percent. We also dropped announcements that are made more than 150 days after the fiscal year-end date, under the assumption that such a long delay likely reflects either an erroneous announcement date or fiscal year-end date. This lowers our announcement sample by roughly four percent, leaving a final Bloomberg sample of 234,577 announcements by 33,230 firms.

To this set we add all those valid annual announcements in the IBES database that are not in Bloomberg. As before, a valid IBES announcement is one that includes the earnings amount and announcement date, and is issued no more than 150 days after the end of the fiscal year.[7] Using IBES we are able to supplement our sample by 71,327 announcements issued by 10,992 firms. As a last step, we eliminate instances in which a firm makes two annual earnings announcements in the same calendar year (about three percent of the total). Our final earnings announcement sample consists of 303,617 annual announcements made by 44,192 firms.

Our source for stock returns and other firm-specific financial information is Datastream. Of the 44,192 firms with valid announcements we drop those for which Datastream does not provide (a) return data for the market of primary listing, (b) the exchange listing code, and (c) the listing currency. We also exclude delisted firms without a valid delisting date and firms whose traded securities are not common equity (using the filters described in Griffin et al., 2008b). Imposing these criteria reduces the number of firms in our sample by approximately one-third. We also drop firms with concurrently-trading ADR's in the U.S. (only for the time period during which the ADR is trading). We do so in order to ensure that a combination of arbitrage and the presence of an announcement premium in the U.S. are not driving the return pattern we document in foreign firms' shares. Finally, we exclude firms for those months in which the

[7] Unlike some Bloomberg announcements, IBES always gives the fiscal year-end date.

beginning-of-month market capitalizations (denominated in U.S. dollars) are less than $1 million.[8] This leaves us with a final sample of 200,711 annual earnings announcements issued by 28,772 firms. For a portion of our analysis we require information on firms' book values. When we impose this requirement, our sample is reduced by 18,786 announcements and 989 firms.

The distribution of annual earnings announcements across years is shown in Table II. The number of announcements in our sample increases almost monotonically over our sample period, more than doubling over the last ten years, from 9,439 in 1999 to 19,632 in 2009. This jump reflects the increasing comprehensiveness of the Bloomberg database over time. Bloomberg accounted for 44 percent of all sample announcements during the 1990-1999 period; that number increased to 93 percent during the years 2000-2009.

Our sample encompasses annual earnings announcements from 46 countries. For each country, Table III reports the average market capitalization of the firms included in our sample, as a percentage of total market capitalization, as well as the number of earnings announcements provided.[9] Mean (median) coverage across the countries in our sample is 41.8 (43.6) percent of total market cap. The mean (median) number of annual announcements per country is 4,363 (1,921). Japan has by far the largest number of announcements in our sample (over 40,000), covering 50.9 percent of the firms by market cap. Seven countries contribute at least 10,000 annual announcements. Of those, average coverage ranges from 30.0 percent (China) to 67.0 percent (Australia).

[8] Bloomberg is our source for exchange rate data.

[9] Market capitalization data are provided by the World Bank and encompass the universe of stocks listed in each country. According to their definition, "[m]arket capitalization…is the share price times the number of shares outstanding. Listed domestic companies are the domestically incorporated companies listed on the country's stock exchanges at the end of the year. Listed companies does not include investment companies, mutual funds, or other collective investment vehicles." For each country-year, the year-end coverage percentage is calculated. The average over these years is the number reported in the table for that country.

To assess the accuracy of our expectation model for the month of the earnings announcement we present in Table IV the distribution of the actual announcement month conditional on the expected month. In the case where January is the expected earnings announcement month, for example, the probability that the actual announcement month is also January is 62.19%. The probability that the actual and expected announcement months are the same ranges from 61.28 percent (for October) to 81.69 percent (for December). The month with the greatest number of expected announcements, February, has an accuracy rate of 76.94 percent. Later in the paper we estimate the impact that perfect foresight of the announcement month would have on the magnitude of the announcement premium.

II. The Global Annual Earnings Announcement Premium: Calendar-time Returns

We begin our analysis by estimating the calendar-time returns to a trading strategy based on the expected annual earnings announcement month. To do so, we construct two portfolios at the end of each month *t-1* of our sample period. The first, referred to as the "announcer portfolio", is comprised of all firms that are expected to announce annual earnings during month *t*. The second, referred to as the "non-announcer portfolio," is comprised of all firms that are not expected to announce earnings during the month. Each portfolio's value-weighted raw return for month *t* is then calculated. (The weight for each component firm is based on the firm's dollar-denominated market value as of the end of month *t-1*.) The difference between the month *t* returns on these two portfolios is equal to the return from a trading strategy of purchasing the expected month *t* announcers and shorting the expected month *t* non-announcers. This return is sometimes referred to below as the "long-short return". If there are fewer than ten observations

in either the announcer or non-announcer portfolio in a given month, that month is not included in our calendar-time return calculations.[10]

The first row of Table V presents the average monthly raw returns over our entire sample period. For the announcer portfolio, the average return is 118.3 basis points. The corresponding return for the non-announcer portfolio is 51.6 basis points. Both returns are significantly greater than zero. The long-short return is also significantly positive, averaging 66.8 basis points monthly, or 8.02 percent on an annual basis. The monthly Sharpe ratio for this strategy is 0.205. We alternatively compute the earnings announcement premium by value-weighting firm returns *within* country and then taking a simple average of the country returns.[11] Using this methodology, the average monthly return to the announcer portfolio drops to 107.9 basis points, while the non-announcer portfolio's average monthly return increases to 62.2 basis points (see the second row of Table V). The long-short return is 45.6 basis points, or 5.47 percent annualized. As a point of reference, we replicate this analysis for U.S. firms. As reported in the last row of Table V, the long-short return for the U.S. is 75.9 basis points per month, or 9.11 percent on an annual basis, with a corresponding Sharpe ratio of 0.217. These numbers are not significantly different from those obtained when firms are value-weighted across countries.

[10] Only four of the 240 months of our sample period fall short of this requirement. All occur at the beginning of the sample period, January through April, 1991.

[11] We require there to be at least five observations in a country's announcer and non-announcer portfolios in a given month in order to include that country in the month's return calculations.

III. The Global Earnings Announcement Premium: Regression Analysis

In this section we calculate the earnings announcement premium by means of a Fama-Macbeth regression analysis. For each month *t* of our sample period we estimate the following regression:[12]

$$Ret_{ijt} = \alpha_t + \beta_{1t} ExpAnn_{ijt} + \beta_{2t} Mom_{ijt} + \beta_{3t} MktCap_{ijt} + \beta_{4t} BTM_{ijt} + \sum_{j=1}^{46} \gamma_j Country_j + \varepsilon_{ijt} \qquad (1)$$

where:

Ret_{ijt} = natural log of the raw return for firm *i* in country *j* during month *t*;

$ExpAnn_{ijt}$ = indicator variable taking on a value of 1 if firm *i* in country *j* is expected to announce annual earnings during month *t*, and 0 otherwise;

Mom_{ijt} = natural log of the average monthly raw return for firm *i* in country *j* over months *t-11* to *t-1*.[13]

$MktCap_{ijt}$ = natural log of market capitalization (in U.S. dollars) of firm *i* in country *j* at the end of month *t-1*.

BTM_{ijt} = natural log of the book-to-market ratio for firm *i* in country *j* as of the end of the fiscal year preceding month *t*;[14]

$Country_j$ = fixed-effect dummy variable, taking on a value of 1 for each firm in country *j*, and 0 otherwise; and

ε_{ijt} = regression residual for firm *i* in country *j* for month *t*.

[12] For all full-sample regressions we only include months where there are at least 10 announcing and 10 non-announcing firms.
[13] Results are quantitatively similar when we calculate momentum using months *t-12* to *t-2*.
[14] If month *t* is less than four months after the previous fiscal year-end, then we calculate the book-to-market ratio using data as of the end of the fiscal year prior to that.

The coefficient, β_{1t}, on the indicator variable, $ExpAnn_{ijt}$, can be interpreted as the average incremental monthly return generated during expected annual earnings announcement months relative to non-announcement months. In estimating its value, we control for the firm's prior return, the firm's size, and its book-to-market ratio, all factors that have been shown to be related to firms' stock returns. As mentioned previously, requiring that book value information by available reduces our sample of firms by 989, or approximately 3.4 percent of the total.

Table VI reports the results of our main analysis. Over our entire sample period, the average coefficients on the momentum, size, and book-to-market control variables are all positive and significant. The average coefficient on the indicator variable, $ExpAnn_{ijt}$, is a significantly positive and economically large 0.954, which means that the average monthly incremental return during annual earnings announcement months is 95.4 basis points, or 11.45 percent on an annual basis. Moreover, the coefficient on $ExpAnn_{ijt}$ is positive in every single year. Moreover, for 16 of the 20 years of our sample period it is significantly greater than zero. This suggests that the earnings announcement premium is robust over time.

We next examine the prevalence of the earnings announcement premium across countries. When calculating returns for a particular country we only include those months for which at least five firms within that country are expected to announce earnings and at least five firms are expected not to make an announcement. Our country-level analysis encompasses only those countries for which at least 25 percent of the months in our sample period satisfy this criterion (60 out of 240 months). Twenty of the 46 countries included in our global portfolio meet this requirement.

The results of our country analysis are presented in Table VII, panel A. For reference, we also include the U.S. For U.S. firms the average coefficient on the indicator variable,

$ExpAnn_{ijt}$, is equal to 0.326. This is equivalent to an annualized earnings announcement premium of 3.91 percent. Of the 20 foreign countries included in our analysis, 16 have a positive average coefficient on $ExpAnn_{ijt}$; nine of them are significantly greater than zero. The magnitudes of all nine are greater than that for the U.S., ranging as high as 2.354 for the U.K. (equivalent to an annualized announcement premium of 28.25 percent). The average coefficient on $ExpAnn_{ijt}$ is negative in only four countries; none, though, are significantly different from zero.[15]

Further inspection of these results reveals that almost all the significant earnings announcement premia arise in developed countries. To test whether there is a significant difference between the average premium in developed and in developing countries we rerun our regressions separately for the firms in each of these two sets of countries. For this analysis we use all 46 countries represented in our sample. We employ the World Bank definitions of developed and developing countries, revising our classifications each year, as necessary.[16] The results of our analysis appear in Table VII, panel B. The average coefficient on $ExpAnn_{ijt}$ for the developed countries is a significant and economically large 1.104, which is equivalent to an annualized announcement premium of almost 13¼ percent. For the developing countries there is an insignificant premium of 0.176. The difference between the two, 0.928, is reliably greater than zero.

Of all the developed countries, Japan has by far the largest number of firms in our sample. To ensure that the developed country announcement premium is not driven by Japan we

[15] The intercept for China, 12.038, stands out for being unusually large. It is due primarily to non-announcer returns of over 100 percent during March and April, 2001 and average non-announcer returns of over 60 percent during February – April, 2007.

[16] Each year the World Bank calculates each country's per capita gross national income and partitions countries into low, middle, and high income. Developed (developing) countries are defined as those with a high (low or middle) income level.

rerun our analysis, excluding Japanese firms. In untabulated results, we find that the average coefficient on $ExpAnn_{ijt}$ for the remaining developed countries rises slightly, to 1.229. The developed country premium is not an artifact of the large number of Japanese firms in our sample.

That the premium is significantly positive in almost half of the countries listed in Table VII is not due to significant positive cross-country correlations in long-short portfolio returns. In untabulated results we find that the average pair-wise return correlations for these nine countries is only 0.01 and there are almost as many negative correlations as positive ones. Further, of those that are positive, only three are significantly different from zero.

Frazzini and Lamont (2007) find positive and significant announcement premia for interim, as well as annual, disclosures. As discussed previously, the diverse reporting requirements of foreign countries, combined with the scarcity of interim announcement data, cast doubt on whether an interim announcement premium outside the U.S. can be detected. We test for this by adding to regression (1) an indicator variable, $ExpInt_{ijt}$, which is equal to one if firm *i* in country *j* is expected to announce interim earnings (semiannual or quarterly) during month *t*, and is equal to zero, otherwise. The coefficient on this variable can be interpreted as the average incremental monthly return during expected interim announcement months relative to non-announcement months. Regression results appear in panel A of Table VIII. The average coefficient on $ExpInt_{ijt}$, 0.168, is insignificantly different from zero. In contrast, the average coefficient on $ExpAnn_{ijt}$, 0.962, remains significantly positive and indistinguishable from its value estimated in regression (1). There is no evidence from our sample that an interim announcement premium exists in foreign countries.

We next examine whether firm size affects the magnitude of the annual earnings announcement premium. To do so we partition our sample into quintiles at the end of each month, according to market capitalization at that time, and then replicate the analysis of Table VI.[17] As presented in Table VIII, panel B, the average coefficient on $ExpAnn_{ijt}$ is significantly greater for the smallest firms than it is for the largest ones (1.217 compared to 0.737). The smallest firms generate an annual earnings announcement premium that is 48 basis points per month, or 5.76 percentage points annualized, greater than that of the largest firms. This result contrasts with Frazzini and Lamont (2007) whose U.S. findings suggest either that size plays an insignificant role or that the larger firms generate a higher announcement premium.

As a final analysis is this section, we estimate the effect that imperfect knowledge of the announcement month has on the magnitude of the announcement premium. We do so by replicating the analysis in Table VI, replacing the expected announcement month by the actual month of the earnings release. As reported in Table VIII, panel C, the average coefficient on the indicator variable, $ExpAnn_{ijt}$, increases to 1.125 from 0.954. Having perfect foresight of the earnings announcement month would increase the premium by a significant 17.1 basis points per month, or 2.05 percentage points annually.

IV. An Attention-based Explanation for the Earnings Announcement Premium

In this section and the next we explore possible explanations for the documented earnings announcement premium. We begin here by examining the role played by attention. As shown by Lee (1992), Frazzini and Lamont (2007), and Barber and Odean (2008), there is a tendency for individual investors to purchase stocks that catch their attention. In the context of our paper

[17] For each quintile regression we only include months in which there are at least five announcing and five non-announcing firms.

the attention-grabbing event is the earnings announcement and the implication is that individual investors' share purchases put upward pressure on an announcing firm's stock price (regardless of whether the earnings news is favorable or unfavorable). If this is true, then we should find a positive relation between abnormal trading volume and the magnitude of the premium.

As in Frazzini and Lamont (2007),we calculate a scaled measure of trading volume for firm *i* in country *j* during month *t* (denoted by SV_{ijt}):

$$SV_{ijt} = \frac{VOLUME_{ijt}}{\frac{1}{12}\sum_{\tau=t-12}^{t-1} VOLUME_{ij\tau}} \tag{2}$$

where the month's volume, $VOLUME_{ijt}$, is standardized by the average volume for the firm over the preceding twelve months. (Volume data come from Bloomberg.) For each month we compute (2) for all firms for which we have daily volume data over at least 15 trading days of the month, as well as for each of the preceding 12 months. Since volume data is sparser than price data, this requirement significantly reduces our sample size. In contrast to an average of almost 9,000 observations in our monthly return regressions, adding this volume requirement reduces the average to slightly less than 2,600.

The firm's abnormal volume, denoted by AV_{ijt}, is the difference between the firm's scaled volume and the average scaled volume during month *t*:[18]

$$AV_{ijt} = SV_{ijt} - Avg(SV_{ijt}) \tag{3}$$

We test for the relation between abnormal volume and the size of the announcement premium by augmenting regression (1) to include AV_{ijt} as well as its interaction with $ExpAnn_{ijt}$:

[18] We include in the average only those firms that satisfy the minimum volume requirement specified above.

$$Ret_{ijt} = \alpha + \beta_{1t} ExpAnn_{ijt} + \beta_{2t} Mom_{ijt} + \beta_{3t} MktCap_{ijt} + \beta_{4t} BTM_{ijt} + \beta_{5t} AV_{ijt} + \beta_{6t} AV_{ijt} \cdot ExpAnn_{ijt} + \sum_{j=1}^{46} \gamma_j Country_j + \varepsilon_{ijt} \quad (4)$$

If abnormal volume is positively related to the announcement premium, then β_6 should be greater than zero.

The results of estimating this regression are presented in Table IX, panel A. For comparison we also rerun the original regression (1) for our reduced sample. As reported in the table, the average coefficient on $ExpAnn_{ijt}$ in that regression, 0.997, remains reliably greater than zero. In the expanded regression, the average coefficient on the interaction term, β_{6t}, is a significantly positive 0.7.

This result is consistent with the attention-grabbing hypothesis. However, it is also consistent with the empirical regularity that price increases are accompanied by higher volume than are price decreases, as well as with the finding in Barber and Odean (2008) that stocks generating high volume attract investor attention and thereby experience upward price pressure.[19] In order to abstract from these alternative explanations, we replace the firm's actual volume in (4) by a measure of expected volume. The proxy we use to capture expected volume is the percentage of the prior year's volume that falls within the prior year's expected earnings announcement month. We refer to this measure as the firm's volume concentration and denote it by VC_{ijt-1} for firm *i* in country *j* during year *t-1*.[20] Using expected volume in our regression has the added advantage of being consistent with our focus on implementable trading strategies.

At the beginning of each year *t* we rank firms according to their volume concentration during the prior year and then partition the firms into quintiles. For each quintile we rerun

[19] See Karpoff (1987) for a summary of the empirical research on the relation between price and volume.
[20] Lamont and Frazzini (2008) also use volume concentration as a proxy for expected volume.

regression (1).[21] If investor attention is a driver of the announcement premium, then the average coefficient on $ExpAnn_{ijt}$ should be greater for quintiles with higher volume concentrations.

Before reporting the regression results, we present in panel B of Table IX evidence on the effectiveness of our measure of expected volume. For firms in the prior year's highest (lowest) volume concentration quintile, the current year's abnormal volume is significantly higher (lower) during the expected announcement month than during other months. Moreover, abnormal volume during announcement (non-announcement) months is significantly higher (lower) for firms with the highest volume concentration than for those with the lowest. These results are consistent with prior year volume concentration having predictive power for abnormal volume during the expected earnings announcement month.

Results of the regression analysis for each of the volume concentration quintiles are reported in panel C of Table IX. For our full sample period there is no discernible relation between volume concentration and the magnitude of the average coefficient on $ExpAnn_{ijt}$, contrary to what would be expected if investor attention were at least driving the announcement premium. In panels D and E, respectively, we repeat this analysis for two subperiods – 1992-2000 and 2001-2010. We do this because volume data is relatively scarce for the first several years of our sample period, raising questions about the power of our test for those years.[22] (The average number of firms in each quintile is more than four-times greater during 2001-2010 than during 1992-2000.) For the earlier subperiod there is no discernible link between volume concentration and the earnings announcement premium. In fact, the highest quintile is the only one whose announcement premium is not significantly different from zero. The results are quite

[21] For each quintile regression we only include months for which there are at least five announcing and five non-announcing firms.

[22] Untabulated results also reveal that volume concentration has less predictive ability for future volume during the first half of our sample period than during the last half.

different for the last half of our sample period. For these years the earnings announcement premium increases almost monotonically with volume concentration. Further, the difference between the average premium in the top and bottom quintiles is an economically large and significantly positive 109.5 basis points per month, or over 13 percent annualized. These results are consistent with attention-grabbing being at least a partial explanation for the earnings announcement premium during the second half of our sample period.

V. Cross-country Differences and the Earnings Announcement Premium

In this section we exploit country-level differences in order to shed light on the factors that may (or may not) be driving the documented earnings announcement premium. In addition to country-level measures of attention, we include in this analysis measures of systematic and idiosyncratic risk, under the notion that higher returns might be compensation for increased risk around earnings announcements.[23] We estimate the following regression:

$$Coeff\_ExpAnn_{jt} = \alpha + \delta_1 IVOL_{jt} + \delta_2 BETA_j + \delta_3 VC_{jt-1} + \delta_4 MEDIA_{jt} + \delta_5 MktCap_{jt} + \varepsilon_{jt} \quad (5)$$

The dependent variable in (5) is the average value of the coefficient on the expected announcement indicator variable in regression (1), estimated for each of the months in year *t* for country *j*. It measures the strength of the announcement premium in country *j* during year *t*.[24]

The variable $IVOL_{jt}$ is a standardized measure of the idiosyncratic volatility of stock prices in country *j* during their announcement months in year *t*. It is computed by taking the

[23] Ball and Kothari (1991) find that the short-window announcement premium is not explained by systematic risk. Savor and Wilson (2011), in contrast, claim that higher returns during earnings announcement months are compensation for an increase in this risk. Cohen et al. (2007) show that the short-window premium is positively related to the level of idiosyncratic risk and argue that idiosyncratic risk inhibits the ability to arbitrage away the premium. Lamont and Frazzini (2007) claim that neither systematic nor idiosyncratic risk can explain the higher return during earnings announcement months. More generally, the evidence on whether idiosyncratic risk is priced is mixed. In an international context, Ang et al. (2009) find that higher levels of idiosyncratic risk are related to lower future returns. Fu (2009) claims that there are methodological issues with the Ang et al. (2009) analysis and that there is, in fact, a positive relation between returns and idiosyncratic risk.

[24] The sample period for these regressions ends in 2009 since we do not have data for the independent variables as of the end of 2010.

ratio of the idiosyncratic volatility of the portfolio of announcing firms in country *j* to the idiosyncratic volatility of the portfolio of non-announcing firms in country *j* for each month of the year, and then averaging over all 12 months. The idiosyncratic volatility of a portfolio in a given month, *m*, is equal to the value-weighted cross-sectional variance of the returns of the *N* component stocks during the month:

$$\frac{1}{\sum_{i=1}^{N} MktCap_{im}} \sum_{i=1}^{N} MktCap_{im} \left(Ret_{im} - \overline{Ret_{im}} \right)^2 \qquad (6)$$

where Ret_{im} is the natural log of firm *i*'s raw return during month *m*, $\overline{Ret_{im}}$ is the average of those individual firm returns, and $MktCap_{im}$ is the natural log firm *i*'s market capitalization (in U.S. dollars) at the end of month *m-1*.

The variable $BETA_j$ is the coefficient on the monthly market return of country *j* in a time-series regression with the monthly long-short portfolio return (long the announcers and short the non-announcers) in that country as the dependent variable. The country market indices are provided by Datastream.[25] By construction, $BETA_j$ is constant over our sample period.

We employ three variables to measure attention. The first, VC_{jt-1}, is the volume concentration for country *j*. Specifically, it is equal to the percent of total volume in the country during year *t-1* that occurs in earnings announcement months. It is computed first at the firm level, and then averaged across all the firms in the country. The second, $MEDIA_{jt}$, is the media-penetration rank for country *j* as of the end of year *t*. (A higher rank means greater penetration.) It is the average of the following three rankings: (a) number of telephones per capita, (b) number of internet users per capita, and (c) number of cell phone subscriptions per capita. The data

[25] We alternatively construct our own market index for country *j* using all of the sample firms from that country. Results are quantitatively similar when we use this constructed index as the independent variable.

necessary for calculating this variable are included in the World Bank's *World Development Indicators* database. The notion behind the use of this measure is that the greater the ease of communications in the country, the more likely it is that earnings announcements can attract individual investors' attention. The third variable is $MktCap_{jt}$, the total capitalization of the market in country *j* at the end of year *t*, as a percentage of the country's gross domestic product. It measures the importance of the market to the country's investors. This variable is included in the World Banks' *World Development Indicators* database.[26]

In Table X we present the results of univariate regressions of $Coeff\_ExpAnn_{jt}$ on each of the explanatory variables, as well as the results of estimating regression (5). The coefficients in the univariate regressions are of mixed significance. Those for the country's media penetration rank and market capitalization, two of the three variables measuring investor attention, are significantly positive; those for systematic and idiosyncratic risk, as well as for volume concentration are not. The mixed results carry over to our multiple regression, where media penetration rank and market capitalization are the only independent variables to enter significantly; the coefficients on systematic and idiosyncratic risk are again insignificantly different from zero.

There are at least two possible reasons for the mixed results. One is that we currently have only monthly return data for our sample firms. This limits the precision of our measures of systematic and idiosyncratic risk. Another is that firm-level variations in the independent variables may be swamping variations at the country level. We are currently in the process of collecting daily return data, which will be used to refine our firm-specific risk measures. Once we have these more precise measures we will re-estimate regression (5) at the firm level.

[26] If one or more of the independent variables for country *j* in year *t* are not available, that country-year is not included in our regression analysis.

VI. Competing Hypotheses

In this section we explore two competing hypotheses for the observed return premium during earnings announcement months. One possibility is that it is a manifestation of the seasonality pattern in stock returns documented by Heston and Sadka (2008, 2010). They found that outperforming (underperforming) stocks in a given month tend to outperform (underperform) during the same month in subsequent years. Given that firms tend to announce annual earnings in the same calendar month each year, it is necessary to control for this seasonality factor in order to estimate the announcement premium. We do so by modifying regression (1) as follows:

$$\begin{aligned} Ret_{ijt} = \alpha + \beta_{1t} ExpAnn_{ijt} + \beta_{2t} Mom_{ijt} + \beta_{3t} MktCap_{ijt} + \beta_{4t} BTM_{ijt} + \\ + \beta_{5t} PriorRet_{ijt} + \beta_{6t} ExpAnn_{ijt} \cdot PriorRet_{ijt} + \sum_{j=1}^{45} \gamma_j Country_j + \varepsilon_{ijt} \end{aligned} \quad (7)$$

where $PriorRet_{ijt}$ is the raw stock return of firm *i* in country *j* during month *t-12*. In addition to $PriorRet_{ijt}$, we include in regression (7) the interaction between the prior year's return and the expected announcement month indicator variable. This interaction term tests whether the impact of the seasonality effect is greater during earnings announcement months.

Regression results are reported in Table XI, panel A. Consistent with Heston and Sadka (2008), the average coefficient on the prior return variable is positive and significant; the interaction term, though, is not. Importantly for our analysis, the average coefficient on $ExpAnn_{ijt}$ remains significantly positive and economically large. In fact, its value, 0.894, is insignificantly different from the average coefficient of 0.954 originally estimated in regression (1). We conclude from this that the return premium during earnings announcement months is not simply a manifestation of the seasonality pattern documented by Heston and Sadka (2008, 2010).

Another potential explanation for our results is that, globally, firms had unexpectedly strong earnings during our sample period and that this is reflected in positive market returns concentrated in earnings announcement months. To test this, we estimate the following regression:

$$Ret_j = \alpha + \gamma MKT_j + \varepsilon_j \quad (8)$$

where Ret_j is the average monthly return during our sample period on a portfolio long in the shares of firms in country *j* during their earnings announcement months and short in the shares of those firms during their non-announcement months, and MKT_j is the average monthly value-weighted market return for country *j* over our sample period.[27] We calculate the monthly market return by value-weighting the returns of the individual stocks in our sample from country *j*.[28]

If unexpectedly good earnings news is driving the observed global earnings announcement premium, then we should observe a positive relation between a country's market return and the size of its announcement premium (that is, γ should be greater than zero). As reported in Table XI, panel B, γ equals -0.269, which is insignificantly different from zero. We conclude from this that the earnings announcement premium cannot be explained solely by the release of surprisingly favorable earnings news over our sample period.

VII. Summary and Conclusions

We show that the earnings announcement premium, documented previously for U.S. stocks, extends globally. For the firms within our 46-country sample, a calendar-time strategy of holding shares of firms during their earnings announcement months and shorting them during all

[27] We exclude from our long-short return computations those months without a valid long-short portfolio (that is, in which there are fewer than five announcer firms and five non-announcer firms in the country). There is one country without a valid long-short portfolio in any month of our sample period; consequently, it is not included in this analysis.

[28] The average market return is computed using only those months that have a valid long-short portfolio.

other months generates a return of over 8 percent annually over our 1991-2010 sample period. Within a regression framework, controlling for size, momentum, and the book-to-market ratio, and introducing country fixed-effects, we find that the average monthly incremental return during earnings announcement months is a significant and economically large 95.4 basis points. The premium is pervasive over time and across countries. It is significantly positive in 16 of the 20 years of our sample period and for nine of the 20 countries with sufficient data to perform a within-country analysis. We also find the phenomenon to be more pronounced for the smallest stocks. This stands in contrast to the Frazzini and Lamont (2007) finding of a stronger announcement premium in the U.S. for the largest firms.

We find some evidence consistent with an attention-based explanation for the earnings announcement premium. In contrast, there is no indication that the premium is just compensation for increased levels of systematic and idiosyncratic risk around the time of earnings announcements. We find no evidence that the documented premium is simply a manifestation of return seasonality, a phenomenon previously documented by Heston and Sadka (2008). Similarly, there is no support for the hypothesis that the higher return during earnings announcement months is simply the result of earnings news being surprisingly positive over our sample period.

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Figure 1

Cumulative Return on an Investment of $1 in a Long-short Expected Earnings Announcement Strategy

This figure depicts the cumulative raw returns to (1) a long-short strategy of buying all expected announcers in our global firm sample (excluding the U.S.) and shorting all expected non-announcers in a given month, where returns are value-weighted at the firm-level; and (2) a long position in the Morgan Stanley Capital International (MSCI) value-weighted global index (excluding the U.S.). Beginning with a $1 investment, returns are cumulated on a monthly basis from April 1991 through December 2010.

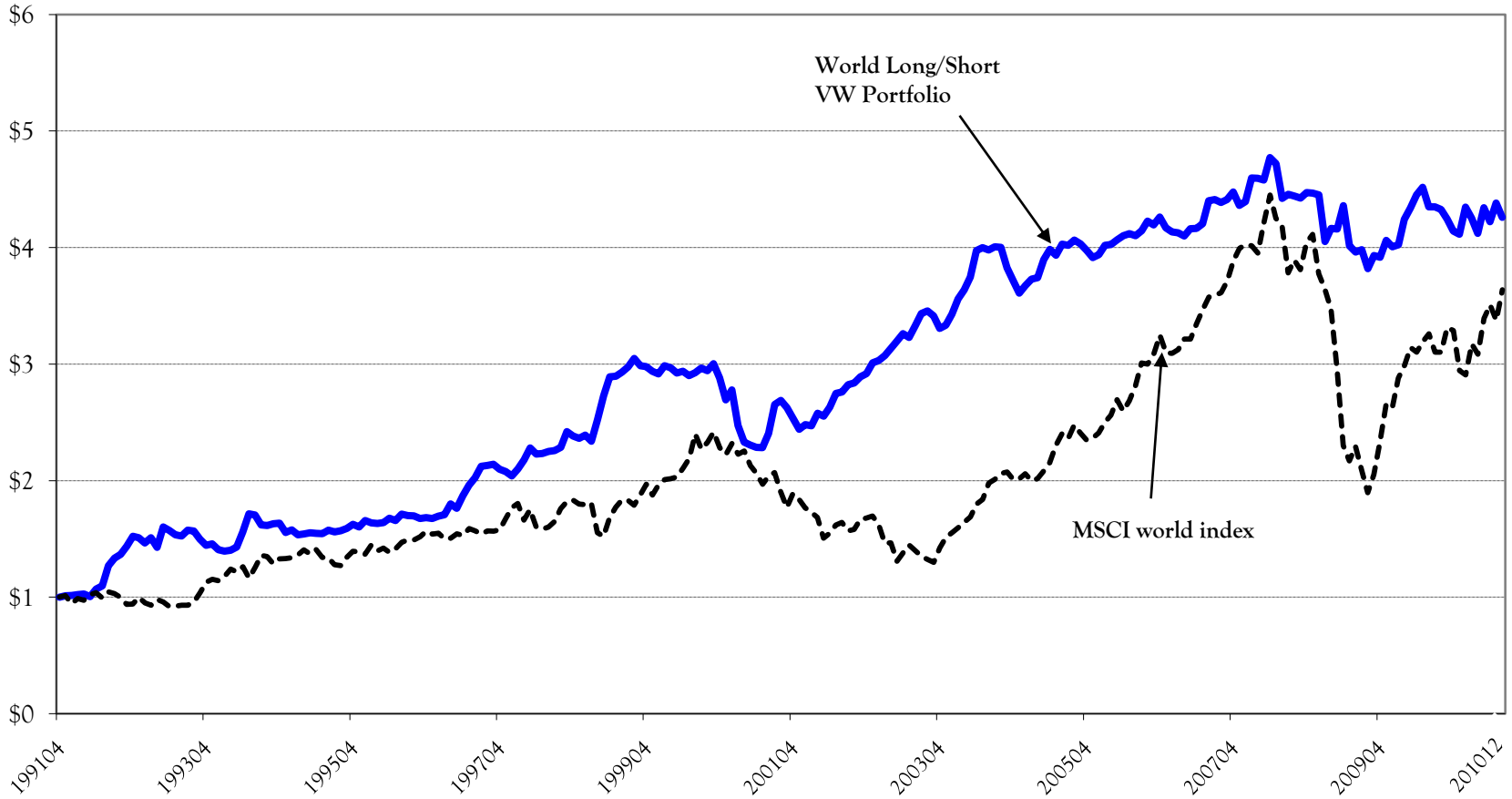

Table I: Sample Selection Process

This table details the compilation of our final sample. We begin with the set of all Datastream firms with valid SEDOLs as of February 2011. For these firms we collect all annual earnings announcements from Bloomberg, eliminating those made more than 150 days after the end of the fiscal year and those without valid period-end dates. For fiscal periods without valid Bloomberg data, we use IBES as our source for earnings announcements. We exclude from our final sample (a) those securities that do not represent common equity, (b) those firms for which Datastream does not provide return data for the market of primary listing, as well as the exchange listing code and the listing currency, (c) firm-years where there is more than one annual earnings announcement, (d) delisted firms without a valid delisting date, (e) firms with beginning-of-year market capitalization of less than $1 million, and (f) securities that represent American Depositary Receipts (ADRs). For some of our analyses we need to calculate the book-to-market ratio. For those analyses we eliminate firms without the necessary information to make this calculation.

	No. of annual announcements	No. of firms
Bloomberg earnings announcements with a valid SEDOL code on Datastream	260,659	34,652
Less: Bloomberg announcements without valid period-end dates	(15,396)	(478)
Less: Bloomberg announcements greater than 150 days old	(10,686)	(944)
Equals: total Bloomberg announcements	234,577	33,230
Plus: Non-stale, nonoverlapping I/B/E/S earnings announcements	71,327	10,992
Less: years with more than one annual announcement per year	(2,287)	(30)
Equals: total earnings announcements	303,617	44,192
Less: firms with missing returns, missing exchange code and exchange currency; non-common equity; delisted firms without valid delisting date	(90,714)	(14,554)
Equals: announcements matched to valid Datastream data	212,903	29,638
Less: firms with less than $1 million market capitalization	(1,956)	(279)
Less: ADR issues	(10,236)	(587)
Equals: final earnings announcement sample	**200,711**	**28,772**
Less: firms without book-to-market data	(18,786)	(989)
Equals: final earnings announcement sample for analyses requiring B/M ratio	**181,925**	**27,783**

Table II - Distribution of Annual Earnings Announcements, by Year

This table reports the yearly number of annual earnings announcements coming from Bloomberg and from IBES for the period 1990-2009.

Year	Number of Announcements		
	Bloomberg	IBES	Total
All years	167,701	33,010	200,711
1990	8	550	558
1991	14	1,116	1,130
1992	39	1,287	1,326
1993	165	1,752	1,917
1994	309	2,069	2,378
1995	556	2,918	3,474
1996	1,299	3,050	4,349
1997	3,008	3,908	6,916
1998	4,954	3,240	8,194
1999	6,934	2,505	9,439
2000	8,754	2,159	10,913
2001	10,074	1,970	12,044
2002	11,695	1,222	12,917
2003	13,668	1,031	14,699
2004	14,861	832	15,693
2005	16,271	764	17,035
2006	17,742	843	18,585
2007	19,071	673	19,744
2008	19,173	595	19,768
2009	19,106	526	19,632

Table III: Distribution of Earnings Announcements by Country

This table presents the distribution of earnings announcements by country for our sample of 200,711 annual announcements over the period 1990-2009. The average coverage ratio for a country is equal to the total market capitalization of our firm sample in that country (denominated in U.S. dollars), measured at the end of each year, divided by the total market capitalization for that country (as reported by the World Bank), and then averaged across years. World Bank market capitalization includes only listed domestic companies at the end of the year, exclusive of investment companies, mutual funds, and other collective investment vehicles.

Country	Number of announcements	Average coverage ratio
Japan	40,635	50.9%
UK	15,450	36.9%
Australia	13,574	67.0%
South Korea	12,511	34.6%
China	11,233	30.0%
Canada	11,212	59.3%
Taiwan	10,074	45.2%
Malaysia	9,524	63.7%
Hong Kong	8,259	53.1%
France	5,902	43.6%
India	5,492	30.2%
Singapore	5,127	46.7%
Germany	4,679	37.6%
Thailand	4,573	57.8%
Sweden	3,546	44.6%
South Africa	3,375	27.8%
Indonesia	2,700	46.1%
Italy	2,369	44.5%
Brazil	2,250	26.3%
Greece	2,183	44.2%
Norway	2,041	46.8%
Switzerland	1,936	37.9%
Turkey	1,922	48.3%
Denmark	1,919	40.3%
Netherlands	1,717	43.2%
Israel	1,634	32.7%
Chile	1,482	65.0%
New Zealand	1,445	61.2%
Poland	1,438	34.4%
Finland	1,378	35.9%
Belgium	1,329	52.3%
Philippines	1,232	37.3%
Spain	1,152	20.1%
Mexico	963	33.4%
Ireland	669	71.1%
Argentina	644	21.7%
Peru	549	46.3%
Portugal	507	38.6%
Pakistan	489	24.1%
Austria	416	23.4%
Jordan	334	46.8%
Hungary	264	46.8%
Czech Republic	258	46.6%
Colombia	233	36.0%
Luxembourg	76	N/A
Venezuela	16	0.0%
Total	200,711	

Table IV: Accuracy Rate for Expected Announcement Month

This table presents the distribution of the actual announcement month (the columns) conditional on the expected announcement month (the rows) over the sample period 1991-2010.

Expected announcement month	Actual announcement month												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
Jan.	**62.19%**	22.86%	7.60%	3.05%	0.66%	0.21%	0.06%	0.04%	0.06%	0.15%	0.46%	2.66%	100%
Feb.	3.51%	**76.94%**	15.62%	2.70%	0.80%	0.04%	0.02%	0.10%	0.05%	0.02%	0.05%	0.16%	100%
Mar.	1.06%	14.92%	**70.16%**	11.68%	1.91%	0.08%	0.03%	0.05%	0.03%	0.02%	0.02%	0.04%	100%
Apr.	0.55%	3.76%	19.78%	**67.16%**	7.90%	0.46%	0.16%	0.08%	0.06%	0.01%	0.02%	0.05%	100%
May.	0.08%	1.01%	3.16%	10.25%	**81.56%**	3.10%	0.54%	0.15%	0.04%	0.03%	0.03%	0.05%	100%
Jun.	0.02%	0.04%	0.14%	1.59%	24.06%	**66.50%**	6.10%	1.25%	0.13%	0.09%	0.04%	0.06%	100%
Jul.	0.06%	0.06%	0.12%	1.44%	5.06%	19.23%	**65.38%**	7.25%	0.98%	0.27%	0.06%	0.10%	100%
Aug.	0.01%	0.09%	0.08%	0.37%	0.84%	2.54%	6.02%	**75.24%**	13.15%	1.27%	0.33%	0.05%	100%
Sep.	0.00%	0.01%	0.06%	0.05%	0.05%	0.17%	0.77%	19.08%	**71.93%**	6.64%	1.12%	0.12%	100%
Oct.	0.03%	0.09%	0.09%	0.23%	0.11%	0.06%	0.43%	4.99%	25.23%	**61.28%**	6.52%	0.96%	100%
Nov.	0.03%	0.19%	0.05%	0.19%	0.37%	0.05%	0.08%	1.12%	3.48%	8.14%	**79.73%**	6.56%	100%
Dec.	0.00%	0.04%	0.00%	0.08%	0.38%	0.25%	0.00%	0.08%	0.25%	1.63%	15.59%	**81.69%**	100%

Table V: Returns on Global Portfolios of Expected Announcers and Expected Non-Announcers

This table shows average monthly raw returns, value-weighted at the firm level, on global portfolios of firms (46 foreign countries) for the period 1991-2010 ("firm-level global portfolios"). At the beginning of every calendar-month stocks are assigned to one of two portfolios—expected announcers and expected non-announcers—using annual announcement dates predicted based on the previous year's actual annual announcement month. In order for a stock to be included in these portfolios in a given year it must have an expected annual announcement month. Conditional on having an expected annual announcement month, each stock appears in the portfolio of expected announcers once each year and in the portfolio of non-announcers 11 times during the year. The long-short portfolio each month is comprised of a long position in expected announcers that month and a short position in expected non-announcers. To be included in our calculations, a monthly portfolio of expected announcers or a monthly portfolio of expected non-announcers must be comprised of at least 10 firms; a monthly long-short portfolio must have at least 10 firms on the long side and 10 firms on the short side. The table also presents the average monthly portfolio raw returns, value-weighted within country and then value-weighted across countries ("country-level global portfolios). Country value-weightings are computed each year, using country-level total market capitalizations as of the end of the prior calendar year. The last column provides the number of months with sufficient data to calculate long-short portfolio returns. For comparison, we report the corresponding portfolio returns for U.S. firms. *t*-statistics appear below the reported monthly returns. ***=significant at the 1% level; **=significant at the 5% level; *=significant at the 10% level. Sharpe ratios are also shown for each portfolio.

	Portfolio of expected announcers			Portfolio of expected non-announcers			Long-Short portfolio		Number of months included in long-short portfolio return calculations
	Monthly raw return	Sharpe ratio	Average monthly number of firms in portfolio	Monthly raw return	Sharpe ratio	Average monthly number of firms in portfolio	Monthly raw return	Sharpe ratio	
Firm-level global portfolios	**1.183** ***	0.238	850	**0.516** *	0.121	9294	**0.668** ***	0.205	236
t-statistic	*3.66*			*1.86*			*3.16*		
Country-level global portfolios	**1.079** ***	0.275	46	**0.622** **	0.152	46	**0.456** ***	0.198	236
t-statistic	*4.22*			*2.34*			*3.04*		
United States portfolios	**1.648** ***	**0.271**	445	**0.889** ***	**0.198**	4808	**0.759** ***	**0.217**	240
t-statistic	***4.20***			***3.07***			***3.35***		

Table VI: Fama-Macbeth Regression Analysis of Global Portfolio Returns, by Year

This table reports the average coefficients for monthly regressions of:

$$Ret_{ijt} = \alpha + \beta_1 ExpAnn_{ijt} + \beta_2 Mom_{ijt} + \beta_3 MktCap_{ijt} + \beta_4 BTM_{ijt} + \sum_{j=1}^{46} \gamma_j Country_j + \varepsilon_{ijt}$$

where Ret_{ijt} is the natural log of the raw return during month t for firm i in country j; $ExpAnn_{ijt}$ is an indicator variable equal to 1 if firm i of country j is expected to announce annual earnings in month t and is equal to 0, otherwise; Mom_{ijt} is the natural log of the average raw return for firm i of country j over months *t-1* through *t-11*; $MktCap_{ijt}$ is the log of the market capitalization of firm i in country j at the end of month *t-1*, denominated in U.S. dollars; BTM_{ijt} is the log of the book-to-market ratio for firm i of country j as of the end of the prior fiscal year; $Country_j$ is an indicator variable equal to 1 for all firms in country j and equal to 0, otherwise; ε_{ijt} is the regression residual for firm i of country j in month t. The coefficients on the country indicator variables are not reported in the table. The average number of observations in the monthly regressions ("Avg. N") as well as the regression R^2 are also reported in the table. In the regressions we only include months for which there are at least ten announcer and ten non-announcer firms; this criterion is met for all months except for Jan.-Apr. 1991. Below each coefficient value is the corresponding t-statistic. We determine significance based on the time-series distribution of equally- weighted monthly coefficient estimates. ***=significant at the 1% level; **=significant at the 5% level; *=significant at the 10% level.

Year	Avg. N	**Intercept**	***ExpAnn***	***Mom***	***MktCap***	***BTM***	**R-squared**
1991-2010	8,996	-0.843	**0.954 *****	**0.008 *****	**0.081 ****	**0.511 *****	16.04%
		-0.87	*11.08*	*4.43*	*2.29*	*9.21*	
1991	458	1.130	**0.830 ****	**0.018 ****	-0.160	-0.268	17.84%
		0.21	*2.50*	*2.20*	*-0.41*	*-0.64*	
1992	845	-2.056	0.658	**0.017 ****	0.214	0.380	23.51%
		-0.72	*1.19*	*2.54*	*1.01*	*1.63*	
1993	1,006	**5.188 ***	0.673	0.008	-0.180	**0.899 *****	23.54%
		1.79	*1.58*	*0.90*	*-0.84*	*3.35*	
1994	1,293	1.569	**0.544 ***	-0.002	-0.122	**0.411 *****	25.11%
		0.62	*1.89*	*-0.57*	*-0.63*	*2.95*	
1995	1,671	-0.873	**1.104 *****	**0.012 *****	0.149	0.198	20.44%
		-0.69	*4.44*	*3.41*	*1.40*	*0.83*	
1996	2,595	5.032	**0.856 ****	**0.017 *****	0.089	0.132	15.38%
		1.51	*2.74*	*3.50*	*0.92*	*0.74*	
1997	3,384	-0.011	**1.518 *****	**0.031 *****	0.199	0.188	21.96%
		0.00	*3.29*	*3.52*	*1.04*	*1.45*	
1998	5,251	-6.113	**1.929 *****	-0.011	0.118	0.101	25.31%
		-1.17	*5.88*	*-0.91*	*0.71*	*0.45*	
1999	6,384	-2.037	**1.783 *****	0.009	-0.017	-0.102	15.75%
		-1.03	*4.03*	*1.31*	*-0.16*	*-0.30*	
2000	7,585	-2.142	**0.922 ****	-0.003	0.157	**1.025 ***	13.52%
		-1.40	*2.19*	*-0.25*	*0.58*	*1.89*	
2001	9,169	-3.577	**1.563 *****	0.016	0.165	**1.104 *****	16.05%
		-1.64	*4.27*	*1.28*	*1.46*	*3.95*	
2002	10,491	**-4.222 *****	**0.780 ****	**0.020 ****	0.147	**1.061 *****	11.99%
		-3.00	*2.73*	*2.38*	*1.33*	*10.00*	
2003	11,447	**2.823 ***	**1.357 *****	-0.001	0.065	**0.734 *****	10.39%
		1.85	*3.88*	*-0.09*	*0.52*	*5.24*	
2004	13,105	0.220	**0.643 ****	0.005	0.158	**0.819 *****	11.87%
		0.08	*2.57*	*1.45*	*1.31*	*4.80*	
2005	14,067	**-4.527 ****	0.196	**0.011 *****	0.104	**0.471 *****	11.29%
		-2.32	*0.67*	*5.04*	*0.99*	*5.36*	
2006	15,692	3.363	**0.530 *****	**0.010 ****	**0.145 *****	**0.726 *****	9.13%
		1.52	*3.97*	*2.47*	*2.87*	*4.71*	
2007	17,315	**-7.069 ****	**1.233 *****	**0.009 ****	0.017	**0.520 ****	15.52%
		-2.61	*3.85*	*2.56*	*0.14*	*2.74*	
2008	18,384	-6.341	0.061	**0.016 ***	0.074	**0.624 *****	12.64%
		-0.41	*0.14*	*1.78*	*0.46*	*4.70*	
2009	18,550	**3.351 ***	**0.983 ****	**-0.025 ****	0.130	**0.468 *****	12.61%
		1.84	*2.23*	*-2.37*	*0.88*	*2.84*	
2010	18,389	0.093	**0.871 ***	**0.007 ****	0.093	**0.469 *****	7.63%
		0.06	***1.83***	***2.30***	*0.73*	***3.37***	

Table VII: Fama-Macbeth Regression Analysis, by Country

This table reports the average coefficients for monthly regressions of:

$$Ret_{ijt} = \alpha + \beta_1 ExpAnn_{ijt} + \beta_2 Mom_{ijt} + \beta_3 MktCap_{ijt} + \beta_4 BTM_{ijt} + \varepsilon_{ijt}$$

for each country j, where Ret_{ijt} is the natural log of the raw return during month t for firm i in country j; $ExpAnn_{ijt}$ is an indicator variable equal to 1 if firm i of country j is expected to announce annual earnings in month t and is equal to 0, otherwise; Mom_{ijt} is the natural log of the average raw return for firm i of country j over months *t-1* through *t-11*; $MktCap_{ijt}$ is the log of the market capitalization of firm i in country j at the end of month *t-1*, denominated in U.S. dollars; BTM_{ijt} is the log of the book-to-market ratio for firm i of country j as of the end of the prior fiscal year; ε_{ijt} is the regression residual for firm i of country j in month t. We estimate the regressions for each country only for those months where there are at least five announcer and five non-announcer firms. Panel A reports results for those countries for which at least 60 months satisfy this criterion. In addition to the coefficient estimates, the table reports the number of months for which the country regressions are estimated, the average number of observations per month, and the R^2. Panel B reports regression results for the sub-samples of developed and developing countries, where country classifications are based on the World Bank's definitions. Below each coefficient value is the corresponding *t*-statistic. We determine significance based on the time-series distribution of equally- weighted monthly coefficient estimates. ***=significant at the 1% level; **=significant at the 5% level; *=significant at the 10% level.

Panel A: Country level earnings announcement premia

Country	Number of months	Avg. monthly no. of obs.	Average coefficient estimates: Intercept	*ExpAnn*	*Mom*	*MktCap*	*BTM*	R-squared
United States	**240**	**5,151**	**-1.570 ***	**0.326 *****	**0.009 *****	**0.135 ****	**0.389 *****	3.54%
			-1.93	*2.77*	*3.32*	*2.35*	*4.84*	
Japan	**203**	**2,258**	**-2.215 ****	**0.799 *****	-0.003	**0.128 ****	**0.701 *****	5.46%
			-2.29	*4.26*	*-0.78*	*2.06*	*6.63*	
UK	**235**	**686**	-1.077	**2.354 *****	**0.020 *****	0.078	**0.346 *****	4.59%
			-1.55	*13.81*	*8.33*	*1.38*	*4.19*	
Australia	**164**	**679**	-0.205	**1.687 *****	**0.014 *****	0.014	**0.477 *****	5.55%
			-0.20	*4.85*	*3.91*	*0.19*	*3.96*	
China	**62**	**745**	**12.038 ****	-0.302	-0.004	**-0.732 ***	0.458	14.40%
			2.30	*-1.03*	*-0.35*	*-1.87*	*0.93*	
Canada	**204**	**554**	-0.400	0.029	**0.016 *****	0.043	**0.328 ****	5.66%
			-0.41	*0.10*	*5.15*	*0.64*	*2.42*	
South Korea	**134**	**716**	0.266	-0.280	0.002	-0.078	**1.225 *****	6.17%
			0.15	*-0.53*	*0.42*	*-0.53*	*5.90*	
Taiwan	**60**	**627**	1.290	*-0.27*	0.009	-0.101	0.551	10.95%
			0.48	-0.538	*1.22*	*-0.49*	*0.84*	
Malaysia	**180**	**529**	**-3.860 ****	0.229	-0.004	**0.321 ****	**0.703 *****	7.19%
			-2.39	*0.86*	*-0.81*	*2.67*	*5.69*	
Hong Kong	**172**	**462**	1.505	0.366	0.004	-0.112	**0.586 *****	6.91%
			0.94	*1.00*	*0.99*	*-0.92*	*3.86*	
France	**144**	**339**	-0.062	**0.638 ***	**0.014 ****	0.025	**0.343 ****	7.70%
			-0.08	*1.78*	*2.74*	*0.39*	*2.27*	
Singapore	**154**	**303**	-2.269	**1.467 *****	0.000	0.173	**0.698 *****	8.37%
			-1.44	*4.44*	*0.02*	*1.53*	*4.27*	
India	**97**	**459**	0.408	0.286	0.006	0.151	**1.052 ****	9.69%
			0.14	*0.63*	*0.81*	*0.69*	*2.38*	
Germany	**105**	**348**	-1.383	**0.937 ****	**0.013 ****	**0.140 ****	0.282	6.62%
			-1.52	*2.01*	*2.22*	*2.06*	*1.63*	
Thailand	**67**	**256**	-1.827	-0.061	0.002	0.139	0.964 ***	8.43%
			-0.89	*-0.07*	*0.36*	*0.66*	*3.01*	
Sweden	**72**	**233**	0.847	0.478	0.007	-0.020	0.116	7.94%
			0.52	*0.94*	*1.04*	*-0.15*	*0.50*	
South Africa	**151**	**196**	**-5.140 *****	**1.965 *****	**0.008 ***	**0.430 *****	**0.576 ****	7.85%
			-4.15	*4.46*	*1.91*	*3.99*	*2.55*	
Switzerland	**61**	**125**	0.684	**0.918 *****	**0.016 ***	0.042	**0.328 ****	11.25%
			0.57	*3.17*	*1.70*	*0.45*	*1.94*	
Brazil	**63**	**118**	-1.270	0.406	-0.010	0.146	**0.550 ****	9.31%
			-0.52	*0.44*	*-1.13*	*0.75*	*2.13*	
Denmark	**76**	**109**	-0.717	0.812	**0.031 *****	0.003	**0.620 ****	10.82%
			-0.38	*1.63*	*4.00*	*0.02*	*2.21*	
New Zealand	**92**	**72**	-0.142	**1.170 ****	**0.042 *****	-0.021	0.317	15.50%
			-0.07	*2.22*	*2.90*	*-0.13*	*1.30*	

Table VII: Continued

Panel B: Developed vs. Emerging markets

Country	Number of months	Avg. monthly no. of obs.	Average coefficient estimates					R-squared
			Intercept	*ExpAnn*	*Mom*	*MktCap*	*BTM*	
Developed markets	224	6941	**-1.002 ***	**1.104 *****	**0.009 *****	**0.081 ** **	**0.470 *****	12.8%
			-1.86	*11.78*	*4.74*	*2.07*	*7.54*	
Emerging markets	224	2051	0.874	0.176	0.003	**0.121 ***	**0.687 *****	23.9%
			0.70	*0.76*	*1.01*	*1.65*	*6.26*	

Test of difference (Developed - Emerging) = 1.104 - 0.176 = **0.928***** (Z = 3.73 ; p < 0.01)

Table VIII: Sensitivity analyses

Panel A reports the average coefficients for monthly regressions of:

$$Ret_{ijt} = \alpha + \beta_1 ExpAnn_{ijt} + \beta_2 Mom_{ijt} + \beta_3 MktCap_{ijt} + \beta_4 BTM_{ijt} + \beta_5 ExpInt_{ijt} + \sum_{j=1}^{46} \gamma_j Country_j + \varepsilon_{ijt}$$

where Ret_{ijt} is the natural log of the raw return during month t for firm i in country j; $ExpAnn_{ijt}$ is an indicator variable equal to 1 if firm i of country j is expected to announce annual earnings in month t and is equal to 0, otherwise; Mom_{ijt} is the natural log of the average raw return for firm i of country j over months t-1 through t-11; $MktCap_{ijt}$ is the log of the market capitalization of firm i in country j at the end of month t-1, denominated in U.S. dollars; BTM_{ijt} is the log of the book-to-market ratio for firm i of country j as of the end of the prior fiscal year; $ExpInt_{ijt}$ is an indicator variable equal to 1 if firm i of country j is expected to announce interim earnings in month t and is equal to 0, otherwise; $Country_j$ is an indicator variable equal to 1 for all firms in country j and equal to 0, otherwise; ε_{ijt} is the regression residual for firm i of country j in month t. The coefficients on the country indicator variables are not reported in the table. Panel B reports Fama-MacBeth regression estimates for size quintiles, where firms are ranked based on market capitalization at the beginning of each month. In the regressions we only include months for which there are at least five announcer and five non-announcer firms. Panel C reports Fame-MacBeth regression results when we replace the expected annual earnings announcement month with the actual annual earnings announcement month. The indicator variable, $ActAnn_{ijt}$ equals 1 if firm i in country j announced annual earnings in month t and is equal to zero, otherwise. The average number of observations in the monthly regressions ("Avg. N") as well as the regression R^2 are also reported in the table. In this regression we only include months for which there are at least ten announcer and ten non-announcer firms. Below each coefficient value is the corresponding t-statistic. We determine significance based on the time-series distribution of equally- weighted monthly coefficient estimates. ***=significant at the 1% level; **=significant at the 5% level; *=significant at the 10% level.

Panel A: Controlling for interim announcement months

Year	Avg. N	Intercept	*ExpAnn*	*Mom*	*MktCap*	*BTM*	*ExpInt*	R-squared
1991-2010	8,996	-0.847	**0.962 *****	**0.008 *****	**0.080 ****	**0.511 *****	0.168	16.07%
		-0.87	*11.15*	*4.43*	*2.25*	*9.22*	*1.18*	

Panel B: Earnings announcement premium across size quintiles

Quintiles	Avg. N	Intercept	*ExpAnn*	*Mom*	*MktCap*	*BTM*	R-squared
Q1 (smallest)	1,610	**3.731 *****	**1.217 *****	**0.005 ****	**-0.555 *****	**0.539 *****	15.9%
		3.48	*4.84*	*2.20*	*-5.10*	*6.67*	
Q2	1,723	2.052	**1.199 *****	**0.014 *****	-0.182	**0.439 *****	19.5%
		1.31	*6.49*	*5.86*	*-1.47*	*5.57*	
Q3	1,821	-0.943	**0.819 *****	**0.009 *****	0.087	**0.506 *****	21.6%
		-0.75	*5.44*	*4.07*	*0.85*	*7.00*	
Q4	1,876	-1.957	**0.745 *****	**0.006 ****	**0.143 ***	**0.522 *****	24.2%
		-1.58	*3.79*	*2.82*	*1.74*	*7.00*	
Q5 (largest)	1,910	-1.177	**0.737 *****	0.002	**0.119 ****	**0.439 *****	24.0%
		-1.40	*5.48*	*0.83*	*2.29*	*5.21*	

Test of difference (Q1 - Q5) = 1.217 - 0.737 = **0.48*** (Z = 1.70 ; p < 0.089)

Panel C: Earnings announcement premium using actual announcement months

Years	Avg. N	Intercept	*ActAnn*	*Mom*	*MktCap*	*BTM*	R-squared
1991-2010	8,787	-0.769	1.125 ***	**0.007 *****	**0.062** *	**0.489 *****	16.77%
		-0.79	*12.41*	*3.70*	*1.70*	*8.60*	

Table IX: Earnings Announcements Premium and Volume

Panel A reports the average coefficients for monthly regressions of:

$$Ret_{ijt} = \alpha + \beta_1 ExpAnn_{ijt} + \beta_2 Mom_{ijt} + \beta_3 MktCap_{ijt} + \beta_4 BTM_{ijt} + \beta_5 AV_{ijt} + \beta_6 AV_{ijt} \cdot ExpAnn_{ijt} + \sum_{j=1}^{46} \gamma_j Country_j + \varepsilon_{ijt}$$

where Ret_{ijt} is the natural log of the raw return during month t for firm i in country j; $ExpAnn_{ijt}$ is an indicator variable equal to 1 if firm i of country j is expected to announce annual earnings in month t and is equal to 0, otherwise; Mom_{ijt} is the natural log of the average raw return for firm i of country j over months *t-1* through *t-11*; $MktCap_{ijt}$ is the log of the market capitalization of firm i in country j at the end of month *t-1*, denominated in U.S. dollars; BTM_{ijt} is the log of the book-to-market ratio for firm i of country j as of the end of the prior fiscal year; AV_{ijt} is the abnormal volume for firm i of country j in month t; $Country_j$ is an indicator variable equal to 1 for all firms in country j and equal to 0, otherwise; ε_{ijt} is the regression residual for firm i of country j in month t. The coefficients on the country indicator variables are not reported in the table. AV_{ijt} is equal to scaled volume of firm i (SV_{ijt}) less the average scaled volume of all firms in month t, where SV_{ijt} is equal to the volume of firm i in month t scaled by the firm's average monthly volume over the previous 12 months. To be included in the regression for month t a firm must have at least 15 trading days of volume data during the month, as well as for each of the preceding 12 months. Also reported in panel A is a replication of our main Fama-MacBeth regression specification ("Benchmark") using the same sample as is used for our volume analysis. In the regressions we only include months for which there are at least five announcer and five non-announcer firms. This criterion is met for three months in 1992, 10 months in 1993 and all months in all other years. Panel B reports abnormal monthly volume for all the months of our sample period, as well as for announcement and non-announcement months, separately, for the highest and lowest quintiles of firms sorted on their volume concentration in the previous calendar year. Volume concentration for a firm is defined as the percent of the previous year's total volume that occurred in the previous year's expected announcement month. Panels C-E report results for our main Fama-MacBeth regression specification across quintile ranks of volume concentration for the entire sample period, 1991-2010, as well as for the sub-periods, 1991-2000 and 2001-2010. Also reported in panels A and C-E are the average number of observations in the monthly regressions ("Avg. N") as well as the regression R^2. Below each coefficient value is the corresponding *t*-statistic. We determine significance based on the time-series distribution of equally- weighted monthly coefficient estimates. ***=significant at the 1% level; **=significant at the 5% level; *=significant at the 10% level.

Panel A: Benchmark and contemporaneous abnormal volume regressions

	Avg. N	Intercept	*ExpAnn*	*Mom*	*MktCap*	*BTM*	*AV*	*AV*ExpAnn*	R-squared
Benchmark	2,581	**-2.077 ****	**0.997 *****	**0.006 *****	**0.143 ****	**0.540 *****	-	-	18.4%
		-2.52	*7.24*	*2.21*	*2.69*	*6.84*			
Period 1992-2010	2,581	**-2.539 *****	0.365	**0.005 ****	**0.198 *****	**0.524 *****	**1.622 *****	**0.700 ****	23.7%
		-3.19	*0.89*	*2.01*	*4.01*	*6.93*	*15.71*	*2.31*	

Panel B: Abnormal volume as a function of volume concentration

Period: 1992 - 2010	**All months**	**Expected announcement months**	**Expected non-announcement months**	**Difference between expected announcement and non-announcement months**
Low volume concentration (Q1)	0.651 **	-0.681 ***	0.732 *	**-1.412 ****
t-statistic	*1.97*	*-7.19*	*1.84*	*-2.88*
High volume concentration (Q5)	-0.162	1.239 ***	-0.218 **	**1.457 *****
t-statistic	*-1.41*	*10.82*	*-2.34*	*20.25*
High minus Low	-0.768 *	1.919 ***	-0.951 *	**2.870 *****
t-statistic	*-1.86*	*27.62*	*-1.94*	*5.77*

Table IX: Earnings Announcements Premium and Volume (continued)

Panel C: Fama-MacBeth regressions across quintiles of year t-1 volume concentration for full sample period, 1992-2010

	Avg. N	Intercept	*ExpAnn*	*Mom*	*MktCap*	*BTM*	R-squared
Q1 (Low volume)	875	**-2.148 ****	**0.529 ****	**0.013 *****	**0.164 ****	**0.641 *****	24.3%
		-2.41	*2.26*	*4.66*	*2.61*	*6.41*	
Q2	906	**-1.430 ***	**1.019 *****	**0.007 ****	**0.132 ****	**0.489 *****	23.1%
		-1.84	*4.11*	*2.48*	*2.52*	*5.40*	
Q3	913	**-2.871 *****	**1.001 *****	0.005	**0.137 *****	**0.571 *****	23.5%
		-3.67	*4.85*	*1.56*	*3.13*	*6.76*	
Q4	912	**-2.001 ****	**0.951 *****	**0.009 *****	**0.145 *****	**0.502 *****	23.2%
		-2.61	*4.45*	*3.06*	*3.05*	*5.69*	
Q5 (High Volume)	892	-1.239	**0.766 *****	**0.007 ****	**0.101 ****	**0.549 *****	23.2%
		-1.62	*3.50*	*2.56*	*2.00*	*6.84*	

Test of difference (High - Low) = 0.766 - 0.529 = 0.237 (Z = 0.743 ; NS)

Panel D: Fama-MacBeth regressions across quintiles of year t-1 volume concentration for subperiod, 1992-2000

	Avg. N	Intercept	*ExpAnn*	*Mom*	*MktCap*	*BTM*	R-squared
Q1 (Low volume)	280	-0.809	**1.195 *****	**0.015 ****	0.094	**0.396 ****	34.3%
		0.49	*2.93*	*2.88*	*0.77*	*2.01*	
Q2	286	-1.292	**1.644 *****	0.001	0.148	0.244	31.3%
		-0.92	*4.27*	*0.24*	*1.49*	*1.45*	
Q3	294	**-4.482 *****	**1.292 *****	0.001	**0.162 ****	**0.432 ****	31.2%
		-3.16	*3.53*	*0.24*	*2.06*	*2.64*	
Q4	294	**-3.147 ****	**0.768 ****	0.007	**0.213 ****	**0.416 ****	30.8%
		-2.29	*2.07*	*1.31*	*2.43*	*2.51*	
Q5 (High Volume)	280	-1.357	0.371	0.003	0.093	**0.386 ****	31.9%
		-0.98	*1.01*	*0.56*	*0.99*	*2.67*	

Test of difference (High - Low) = 0.371 - 1.195 = -0.824 (Z = 1.49 ; NS)

Panel E: Fama-MacBeth regressions across quintiles of year t-1 volume concentration for subperiod, 2001-2010

Q1 (Low volume)	1,365	**-3.230 *****	-0.009	**-0.011 *****	**0.220 *****	**0.840 *****	16.1%
		-3.63	*-0.04*	*4.18*	*4.00*	*10.16*	
Q2	1,405	**-1.544 ***	0.514	**0.012 *****	**0.119 ****	**0.686 *****	16.4%
		-1.85	*1.62*	*4.19*	*2.36*	*8.09*	
Q3	1,412	**-1.568 ***	**0.767 *****	**0.008 ****	**0.117 ****	**0.684 *****	17.2%
		-1.92	*3.38*	*2.44*	*2.44*	*9.08*	
Q4	1,412	-1.076	**1.103 *****	**0.011 *****	**0.089 ***	**0.571 *****	17.2%
		-1.31	*4.47*	*3.43*	*1.84*	*6.63*	
Q5 (High Volume)	1,386	-1.144	**1.086 *****	**0.011 *****	**0.107 ****	**0.681 *****	16.2%
		-1.37	*4.17*	*3.87*	*2.13*	*7.99*	

Test of difference (High - Low) = 1.086 - (-0.009) = 1.077*** (Z = 3.01 ; p < 0.01)

Table X: Country-level Differences and the Earnings Announcement Premium

The following table shows the results from yearly regressions of:

$$Coeff\_ExpAnn_{jt} = \alpha + \delta_1 IVOL_{jt} + \delta_2 BETA_j + \delta_3 VC_{jt-1} + \delta_4 MEDIA_{jt} + \delta_5 MktCap_{jt} + \varepsilon_{jt}$$

where $Coeff\_ExpAnn_{jt}$ is the average coefficient on $ExpAnn_{jt}$ from our main Fama-MacBeth monthly regressions for country j in year t; $IVOL_{jt}$ is the ratio of idiosyncratic volatility of the portfolio of announcing firms in country j to the idiosyncratic volatility of the portfolio of non-announcers for each month of year t, and then averaged over all 12 months of the year; $BETA_j$ is the coefficient on the monthly market return of country j in a regression with the monthly long-short portfolio return (long the announcers and short the non-announcers) in that country as the dependent variable; VC_{jt-1} is the total volume in country j during year $t-1$ that occurs in annual earnings announcement months; $MEDIA_{jt}$ is the average ranking of country j at the end of year t along the following dimensions: (a) number of telephones per capita, (b) number of internet users per capita, and (c) number of cell phone subscriptions per capita; $MktCap_{jt}$ is the log of the market capitalization of country j at the end of year t, denominated in U.S. dollars; ε_{jt} is the regression residual for country j in year t. Also shown are univariate regressions of the dependent variable on each of the independent variables. Our sample period covers 1991-2009 and includes only those country-year observations for which data for all of the independent variable are available. Also presented are the average number of observations in the regressions and the adjusted R^2. Below each coefficient value is the corresponding t-statistic. ***=significant at the 1% level; **=significant at the 5% level; *=significant at the 10% level.

Variable	(1)	(2)	(3)	(4)	(5)	(6)
Intercept	**0.913 *** **	0.279	**0.379 ** **	0.176	-0.091	0.286
	2.89	*1.58*	*2.42*	*0.59*	*-0.36*	*0.67*
IVOL		0.061				0.048
		1.19				*0.75*
BETA			0.861			1.157
			1.54			*1.55*
VC				0.071		0.013
				0.83		*0.14*
MEDIA	**0.026 ** **					**0.021 ** **
	1.92					*1.71*
MktCap					**0.006 ** **	**0.006 ** **
					2.57	*2.12*
Adj. R-squared	0.95%	0.17%	0.56%	0.08%	1.55%	3.27%
Average N	558	558	540	519	555	502

NOTE: When substituting lag idiosyncratic volatility (i.e. previous month or year) for contemporaneous volatility measures we find no explanatory power, that is our coefficients on idiosyncratic are both significantly reduced in magnitude and not highly insignificant. When we substitute the raw value for ranked value, or decile ranking the tenor of our results remain unchanged (not significant). We also re-define volume concentration to be measured as the proportion of total volume in the previous calendar year attributable to the *Actual* announcement month, and our results remain qualitatively unchanged (marginal attenuation).

Table XI: Analysis of Competing Hypotheses

Panel A reports the average coefficients for monthly regressions of:

$$Ret_{ijt} = \alpha + \beta_1 ExpAnn_{ijt} + \beta_2 Mom_{ijt} + \beta_3 MktCap_{ijt} + \beta_4 BTM_{ijt} +$$
$$+\beta_5 PriorRet_{ijt} + \beta_6 ExpAnn_{ijt} \cdot PriorRet_{ijt} + \sum_{j=1}^{45} \gamma_j Country_j + \varepsilon_{ijt}$$

where Ret_{ijt} is the natural log of the raw return during month t for firm i in country j; $ExpAnn_{ijt}$ is an indicator variable equal to 1 if firm i of country j is expected to announce annual earnings in month t and is equal to 0, otherwise; Mom_{ijt} is the natural log of the average raw return for firm i of country j over months *t-1* through *t-11*; $MktCap_{ijt}$ is the log of the market capitalization of firm i in country j at the end of month *t-1*, denominated in U.S. dollars; BTM_{ijt} is the log of the book-to-market ratio for firm i of country j as of the end of the prior fiscal year; $PriorRet_{ijt}$ is the raw stock return of firm i in country j during month *t-12*; $Country_j$ is an indicator variable equal to 1 for all firms in country j and equal to 0, otherwise; ε_{ijt} is the regression residual for firm i of country j in month t. The coefficients on the country indicator variables are not reported in the table. Panel B reports results from the country-level regression: $Ret_j = \alpha + \gamma MKT_j + \varepsilon_j$, where Ret_j is the average monthly return on a portfolio long on firms in their expected annual earnings announcement months and short on firms in their expected non-announcement months and MKT_j is the average monthly value-weighted market return for country j over our sample period. We include in our long-short return calculations only those months with at least ten announcer and ten non-announcer firms in country j. The average market return for country j is computed only for those months as well. Our sample period covers 1991-2010. The average number of observations in the monthly regressions ("Avg. N") in panel A and the number of countries in the panel B regression, as well as the regression R^2, are also reported in the table. Below each coefficient value is the corresponding t-statistic. We determine significance in panel A based on the time-series distribution of equally- weighted monthly coefficient estimates. ***=significant at the 1% level; **=significant at the 5% level; *=significant at the 10% level.

Panel A: Testing for seasonality in returns

Avg. N	Intercept	*ExpAnn*	*Mom*	*MktCap*	*BTM*	*PriorRet*	*ExpAnn * PriorRet*	R-squared
8,759	-0.925	**0.894 *** **	**0.008 *** **	**0.077 ** **	**0.515 *** **	**1.308 *** **	0.921	16.34%
	-0.96	*9.57*	*4.39*	*2.20*	*9.47*	*4.23*	*1.36*	

Panel B: Testing for unexpectedly strong earnings driving returns

Number of countries	Intercept	*MKT*	R-squared
45	**0.423 ***	-0.269	4.0%
	1.74	*-1.38*	