Internet Appendix for

**"Cross-Listing, Investment Sensitivity to Stock Price and the Learning Hypothesis"**

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This internet appendix is divided in three parts. In section A we check that a U.S. cross-listing is associated with an increase in stock price informativeness by replicating the analysis of Fernandes and Ferreira (2008) on our sample. In section B, we assess the performance of the methodology that we use to identify cross-listed firms with relatively high or low investment-to-price sensitivity (Section 3.5 of the paper). Section C presents robustness tests that we mention at various places in the paper.

*A. U.S. cross-listing and price informativeness*

The "learning hypothesis" rests on the idea that a U.S. cross-listing is associated with an increase in the informativeness of stock prices for managers. It is difficult to isolate the information new to managers in stock prices since managers' information set cannot be observed. Fernandes and Ferreira (2008) have established that a cross-listing is associated with an increase in stock price informativeness. However, as explained in Footnote 6 in the paper, an increase in stock price informativeness following a cross-listing is neither sufficient, nor necessary to conclude that cross-listing has a positive effect on the informational content of stock prices for managers.

Yet, for completeness, we check here that Fernandes and Ferreira's (2008) result holds in our sample. To this end, we borrow their methodology and use firm-specific stock return variation as a proxy for price informativeness.[1] The idea (due to Roll (1988)) is that informed trades based on firm specific information increase the idiosyncratic risk of a stock. Therefore, a higher idiosyncratic risk for a stock indicates that its stock price contains more private information.

[1] This measure of stock price informativeness is used for instance by Roll (1988), Wurgler (2000), Durnev, Morck, Yeung and Zarowin (2003), Jin and Myers (2006), and Chen, Goldstein and Jiang (2007). Chen, Goldstein and Jiang (2007) provide a detailed survey of the literature supporting the idea that high firm-specific return variation is a valid proxy for firm-specific information. Durnev, Morck, Yeung and Zarowin (2003) offer support for this measure by showing that stocks for which this measure of stock price informativeness is high also exhibit a high correlation between current returns and future earnings.

Based on this reasoning, as in Durnev, Morck, and Yeung (2004) and Fernandes and Ferreira (2008), we measure the stock price informativeness of a firm by $\psi_{i,t} = \ln[(1-R^2_{i,t})/ R^2_{i,t}]$, where $R^2_{i,t}$ represents the $R^2$ from a regression of firm $i$ weekly returns on both the local and U.S. market returns in year $t$ (from Datastream). The local and U.S. market indices are value-weighted and exclude the firm in question. Then, to check whether a U.S. cross-listing enhances the informativeness of stock prices, we regress firm-specific return variation ($\psi_{i,t}$) on firms' cross-listing status, as well as factors that are likely to be related to firm-specific return variation, i.e. firm's size, book-to-market value, leverage and return-on-equity. In addition and to keep with Fernandes and Ferreira (2008)'s baseline specification, we further add country, industry, and year fixed effects. This specification is identical to their main regression.[2]

The results are reported in Table A1 and are in line with those of Fernandes and Ferreira (2008) (Table 3, page 225). In column (1), we observe a positive and significant coefficient on *Exchange*: All else equal, firms cross-listed on U.S. exchanges display a higher firm-specific return variation than similar non-cross-listed firms. In columns (2) and (3) we add year and firm fixed effects to the baseline regression. The results are unchanged. Next, we study whether the effect of a cross-listing on price informativeness depends on whether a cross-listing firm is incorporated in an emerging market or a developed market. To this end, we interact the variable *Exchange* with a dummy variable, *Emerging*, which is equal to one if a firm is from an emerging market. Column (4) reveals that the coefficient on the interaction between *Exchange* and *Emerging* is negative and marginally significant. Thus, the net effect of a cross-listing on price informativeness is no distinguishable from zero for firms from emerging country. Overall, as in Fernandes and Ferreira (2008), the positive effect of a U.S. cross-listing on price informativeness is present only for firms from developed market firms in our sample. A similar picture emerges when we further control for year, firm, and respectively country fixed effects (see Colums (5) and (6)). In Column (7), we split cross-listed firms in two groups based on whether they cross-list via a Level 2 or Level 3 ADR programs. The effect of a U.S. cross-listing on price informativeness is similar across the two cross-listing types.

[2] See their specification (3) on page 224.

**Table A1: U.S. cross-listing and stock price informativeness**

This table presents the results of OLS regressions of the effect of a U.S. cross-listing on firms' stock price informativeness. The baseline specification (column (1)) is similar to that of Fernandes and Ferreira (2008, p. 224). The dependent variable is firm specific return variation ($\psi_{i,t}$) and serves as a proxy for stock price informativeness. *Exchange* is a dummy variable that is equal to one if the firm is cross-listed on a U.S. exchange, and zero otherwise. *Level 2* and *Level 3* are dummy variables that are equal to one if the firms cross-list via a Level 2 or Level 3 ADR program. The control variables are the same as in Fernandes and Ferreira (2008). The sample period is from 1989 to 2006. All estimations include country and industry fixed effects. We report heteroskedasticity and serial correlation robust t-statistics in brackets. ** and * indicate statistical significance at the 1% and 5% levels, respectively.

| | **Firm specific return variation** ($\psi_{i,t}$) | | | | | | |
|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| *Exchange* | 0.130** | 0.135** | 0.187* | 0.143** | 0.149** | 0.267** | |
| | [3.20] | [3.31] | [2.41] | [2.94] | [3.05] | [2.91] | |
| *log(MarketCap)* | -0.033** | -0.034** | -0.01 | -0.033** | -0.034** | -0.01 | -0.033** |
| | [6.28] | [6.43] | [0.83] | [6.29] | [6.45] | [0.84] | [6.28] |
| *LT Debt / Assets* | -0.089 | -0.084 | -0.054 | -0.090 | -0.085 | -0.054 | -0.089 |
| | [1.74] | [1.64] | [0.86] | [1.74] | [1.65] | [0.86] | [1.74] |
| *log(Book-to-Market)* | -0.023* | -0.027** | 0.005 | -0.023* | -0.027** | 0.005 | -0.023** |
| | [2.53] | [2.93] | [0.33] | [2.55] | [2.94] | [0.34] | [2.53] |
| *ROE* | 0.013 | -0.002 | 0.039 | 0.013 | -0.002 | 0.039 | 0.013 |
| | [0.40] | [0.08] | [1.10] | [0.41] | [0.07] | [1.11] | [0.41] |
| *Emerging* | | | | -0.357* | -0.354* | -0.386* | |
| | | | | [2.28] | [2.26] | [2.12] | |
| *Exchange×Emerging* | | | | -0.203 | -0.266 | -0.304 | |
| | | | | [1.78] | [1.85] | [1.86] | |
| *Level 2* | | | | | | | 0.112** |
| | | | | | | | [2.71] |
| *Level 3* | | | | | | | 0.133** |
| | | | | | | | [3.25] |
| Country FE | Yes | Yes | No | Yes | Yes | No | Yes |
| Industry FE | Yes | Yes | No | Yes | Yes | No | Yes |
| Firm FE | No | Yes | Yes | No | Yes | Yes | No |
| Year FE | No | No | Yes | No | No | Yes | No |
| # Firm-years | 130,421 | 130,421 | 130,421 | 130,421 | 130,421 | 130,421 | 130,421 |
| $R^2$ | 0.01 | 0.02 | 0.40 | 0.01 | 0.02 | 0.40 | 0.01 |

*B. Identification of firm-level investment-to-price sensitivity*

In Section 3.5, we split cross-listed firms in two groups depending on whether they experience a relatively large or small increase in their investment-to-price sensitivity. This is difficult since our baseline regression (1) provides an estimate of the average change in the investment-to-price sensitivity of cross-listed firms in our sample, and not the change in this sensitivity for each cross-listed firm. Hence, to classify firms according to the change in their investment-to-price sensitivity, we use a methodology inspired by Durnev (2010).

First, we estimate the baseline investment-$Q$ equation (1) without the interaction variable between $Q$ and *Exchange*. That is, we estimate the following regression on the whole sample of cross-listed (exchange listed) and control firms:

$$I_{i,t} = \alpha + \beta_0 Q_{i,t-1} + \beta_1 Exchange_{i,t-1} + \gamma_1 CF_{i,t-1} + \gamma_2 \log(TA_{i,t-1}) + \varepsilon_{i,t} \qquad \text{(B.1)}$$

where the variables are identical to those defined in section 2.2. By construction the average estimated residual for this regression is zero. However, the average value of the estimated residuals for cross-listed firms is positive and equal to 0.011. This is expected since cross-listed firms have on average a higher sensitivity of investment-to-stock price. The residual picks up this effect since we do not explicitly control for it. This suggests that firm-year observations for which the residual of regression (B.1) is positive (resp. negative) are units for which the investment-to-price sensitivity is relatively large (small).

Hence, in each year $t$, we assign cross-listed firms to one of two groups depending on whether their residual in equation (B.1) is positive or negative. The group of firms with a positive (negative) residual in a given year is the group that should have a relatively large (low) sensitivity of investment-to-stock price in that year. To keep track of the group to which a firm belongs in a given year, we define two dummy variables, *Pos* and *Neg*. The dummy variable $Pos_{it}$ (respectively $Neg_{it}$) is equal to one if firm $i$ has a positive (respectively negative) estimated residual in year $t$.

To check whether this approach performs well in identifying cross-listed firms with respectively high and low investment-to-price sensitivity, we use Monte Carlo simulations. We proceed as follows:

1. In each year we form a so called "treated" group of firms by randomly selecting 633 firms (this corresponds to the number of cross-listed firms in the sample) from the whole sample of firms in our study (both control firms and cross-listed firms). We define a dummy variable $Treated_{i,t}$ which is equal to one if a firm belongs to the treated group in year $t$ and zero otherwise.

2. We assign an artificial investment-to-price sensitivity $\beta_2^*$ to each firm-year observation in the treated group by drawing $\beta_2^*$ from a normal distribution with mean $\mu$ and variance $\sigma^2$. In the baseline simulation we parameterize the distribution of $\beta_2^*$ to match the characteristics of our estimate of $\beta_2$ reported in Table 3 in the paper (a mean $\mu$ of 0.066 and a standard deviation $\sigma$ of 0.009).

3. For each firm-year observation in the treated group, we create an artificial level of investment (capital expenditures divided by lagged PPE) $I^*$ using the investment-to-price sensitivity that we generated in stage 2. Specifically, we define :

$$I_{i,t}^* = \begin{cases} I_{i,t} + \beta_{2,i,t}^* \times Q_{i,t-1} & \text{if } Treated_{i,t} = 1 \\ I_{i,t} & \text{if } Treated_{i,t} = 0 \end{cases} \quad \text{(B. 2)}$$

where $I_{i,t}$ is the actual level of investment of firm $i$ in year $t$ and $Q_{i,t-1}$ is the actual value of firm $i$ in year $t$.

4. We then estimate the following investment-$Q$ regression on the entire sample with the simulated data:

$$I^*_{i,t} = \alpha + \beta_0 Q_{i,t-1} + \beta_1 Treated_{i,t-1} + \gamma_1 CF_{i,t-1} + \gamma_2 \log(TA_{i,t-1}) + \omega_{i,t} \qquad (B.3)$$

5. Finally, we compute the percentage of firm-year observations for firms in the treated group for which the sign of the residual of regression (B.3) corresponds to the sign of the investment-to-price sensitivity drawn for the firm in Stage 2. We call this percentage *Detection*.

We repeat this procedure 1,000 times and compute the average value of *Detection*. If the methodology described in the first part of this section works well then we should observe high average values for *Detection* (relative to 50%). Panel A of Table B.1 reports the average value of *Detection* and its standard deviation for various parameterization for the distribution of $\beta_2^*$ (used in Stage 2 of the Monte-Carlo procedure). Across different specifications, the average value of *Detection* ranges between 66% and 88%. For the baseline specification in which we match the mean and the variance of $\beta_2^*$ with the mean and standard deviation of this variable in our sample, the average value of *Detection* is 75% with a standard deviation equal to 0.5%.

In Panel B, we refine the Monte-Carlo procedure by also considering the unconditional effect of belonging to the treated group (i.e. being cross-listed) on investment. So, in Stage 2 of the Monte-Carlo simulation, we generate an artificial $\beta_1^*$ from a normal distribution with a mean and a variance that match the estimates of Table 3 (a mean of -0.082 and a standard deviation of 0.012). Then in step 3, the artificial investment of firm *i* in year *t* is defined as $I^*_{i,t} = I_{i,t} + \beta^*_{1,i,t} + \beta^*_{2,i,t} \times Q_{i,t-1}$ for treated firms. The average value of *Detection* turns out to be higher in this case and ranges between 80% and 88% with standard deviations that are smaller than 0.4%. Overall, the Monte-Carlo analysis indicates that our approach to identify firms that experience a relatively large (small) increase in their investment-to-price sensitivity after a U.S. cross-listing should perform reasonably well.

**Table B1: Detection rate from the Monte-Carlo simulations**

This table presents the results of the Monte-Carlo simulations that are used to assess the performance of the indirect methodology to infer the unobserved firm-year investment-to-price sensitivities ($\beta_{2,i,t}$). In the simulations, the (firm-year) investment-to-price sensitivities are normally distributed with mean $\mu$ and variance $\sigma^2$. The detection rate corresponds to the number of times our indirect approach identifies the sign of the (true) investment-to-price sensitivities (obtain by averaging the detection rate over 1000 simulations). Panel A presents the results when we only simulate the unobserved firm-year investment-to-price sensitivities ($\beta_{2,i,t}$). Panel B presents the results when we simulate both the unobserved firm-year investment-to-price sensitivities ($\beta_{2,i,t}$) and the unconditional effect of being cross-listed on investment (($\beta_{1,i,t}$). The sample period is from 1989 to 2006. We report the standard deviation of the detection rate in brackets.

| Panel A | **Detection rate** | | |
|---|---|---|---|
| | $\mu = 0.040$ | $\mu = 0.072$ | $\mu = 0.100$ |
| $\sigma^2 = 0.004$ | 66.15% | 75.90% | 81.85% |
| | [0.9%] | [0.6%] | [0.4%] |
| $\sigma^2 = 0.008$ | 66.14% | **75.60%** | 82.01% |
| | [0.6%] | **[0.5%]** | [0.37%] |
| $\sigma^2 = 0.010$ | 66.25% | 75.68% | 81.90% |
| | [0.6%] | [0.5%] | [0.6%] |

| Panel B | **Detection rate** | | |
|---|---|---|---|
| | $\mu = 0.040$ | $\mu = 0.072$ | $\mu = 0.100$ |
| $\sigma^2 = 0.004$ | 80.50% | 85.56% | 88.75% |
| | [0.3%] | [0.3%] | [0.3%] |
| $\sigma^2 = 0.008$ | 80.51% | **85.41%** | 88.85% |
| | [0.4%] | **[0.3%]** | [0.4%] |
| $\sigma^2 = 0.010$ | 80.45% | 85.34% | 88.50% |
| | [0.3%] | [0.3%] | [0.3%] |

*C. Additional tests*

We perform the following additional analyses to strengthen the validity of our findings. All these tests are referenced in the paper.

- **Figure C1** replicates Figure 2 ("*U.S. cross-listing and firms' investment-to-price sensitivity in event time*") restricting our attention to firms for which we have three years of observations before and after the cross-listing date. With this restriction the number of cross-listed firms in our sample drops to 278 firms. (FN#16)

- **Figure C2** presents the evolution of firms' size (total assets in $MM) for level 2 and level 3 cross-listings. (FN#33)

- **Table C1** replicates Table 3 ("*U.S. cross-listing and firms' investment-to-price sensitivity: Main results*") but the control sample in this case includes firms that are cross-listed over-the-counter and via private placements (Rule 144a). (FN#10)

- **Table C2** presents the estimates of the coefficients of equation (1) in the paper when we include the interaction between Q and size, as well as the interaction between Q and two proxies for financial constraints (the Whited and Wu (2006) index and firms' payout policy). (FN#13)

- **Table C3** presents the estimates of the coefficients of equation (1) in our paper with different forms of clustering for the residuals. (FN#14)

- **Table C4** presents the estimates of the coefficients of equation (1) in the paper when we exclude influential countries, i.e. countries that comprise the largest number of firms cross-listed on U.S. exchanges (Canada, UK, Japan, Israel, and the Netherlands). (FN#14)

- **Table C5** evaluates the robustness of the results reported in Table 8 to various specifications of the Heckman two-stage estimation procedure (Section 4.1). Panel A presents the probit estimates (first stage) of the model for the cross-listing decision used in Doidge, Karolyi, and Stulz (2004) and Doidge, Karolyi, Lins, Miller, and Stulz (2009) while Panel B shows the estimates of the investment model (equation (1)) controlling for the Inverse Mills ratio obtained with each specification of the first stage.

- **Table C6** presents the estimates of the coefficients of equation (1) in the paper when we split countries in groups based on proxies for home-market governance quality *and* measures of liquidity. (FN#29)

- **Table C7** presents the estimates of the coefficients of equation (1) in the paper when we split countries in groups based on proxies for home-market disclosure quality *and* measures of economic development. (FN#32)

- **Table C8** presents the estimates of the coefficients of equation (1) in the paper when we split countries in groups based on proxies for home-market disclosure quality *and* measures of liquidity. (FN#32)

- **Table C9** extends the results of Table 5 by splitting cross-listed firms based on the fraction of sales they realized in the U.S. and the fraction of foreign sales they realized prior to cross-listing. (Page 22)

- **Table C10** details the RiskMetrics sample that we use to perform the firm-level governance tests reported in Table 10. (Page 32)

- **Tables C11** to **C14** evaluate the robustness of the results reported in Tables 5, 9, 10 and 11 respectively when we interact a firm's stock price (Q) with proxies for (i) the informational gain of a cross-listing, (ii) firms' governance quality, (iii) disclosure environment, and (iv) measures of financial constraints, instead of dummies variables based on these proxies (as we do in the paper). (FN#19 and FN#27)

- **Table C15** presents the estimates of the coefficients of equation (1) in the paper when we split cross-listed firms based on industry measures of the importance of capital expenditures. (Page 24)

- **Figure C1: U.S. cross-listing and firms' investment-to-price sensitivity in event time**

This figure reports results from an event-time analysis of the effect of a U.S. cross-listing on the investment-to-price sensitivity. Specifically, we create a set of "event time" dummy variables where the event year (year 0) represents the cross-listing year for a given firm. We consider a window that encompasses three years before and respectively three years after the cross-listing. We only consider cross-listed firms that are present over this seven year event windows. This requirement restricts the sample to 278 cross-listed firms (44% of our initial sample). Then, to track the evolution of the investment-to-price sensitivity around the cross-listing event, we re-estimate the baseline specification (1) in Table 3, but replace *Exchange* by the set of event time dummies. This figure displays the coefficient estimates on the interaction between *Q* and each event-time dummy as well as their 95% confidence interval. The sample period is from 1989 to 2006. All estimations include country, year and industry fixed effects. The standard errors used to compute the confidence bounds are adjusted for heteroskedasticity and within-firm clustering.

**Figure C2: The evolution of firms' size around the cross-listing: Level 2 versus Level 3**

This figure presents the evolution of firms' size around the cross-listing event for Level 2 and Level 3 ADRs. Size is a firm's total assets in million U.S. dollars. The sample period is from 1989 to 2006.

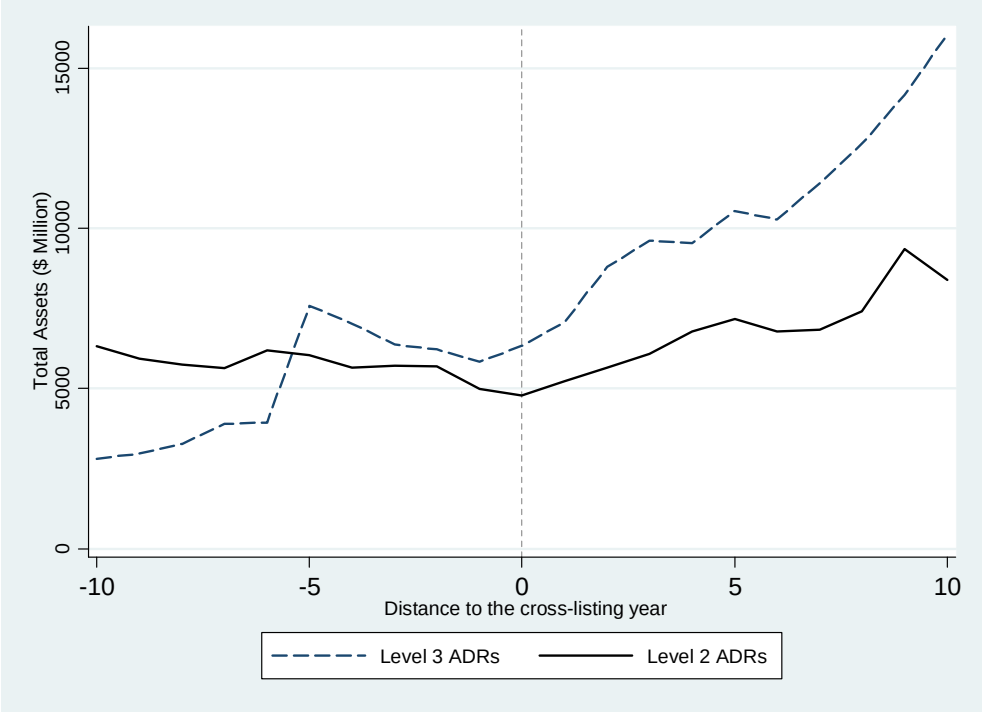

**Table C1: U.S. cross-listing and firms' investment-to-price sensitivity: OTC and Rule 144a as control firms**

This table presents the estimation of equation (1) with various estimation techniques. The dependent variable is investment, defined as capital expenditures divided by lagged property, plant and equipment (PPE). *Exchange* is a dummy variable that is equal to one if the firm is cross-listed on a U.S. exchange, and zero otherwise. Other explanatory variables are defined in the Appendix. In column (1), we estimate equation (1) with pooled OLS regressions with country, year and industry fixed effects. In column (2), we reestimate equation (1) with firm fixed effects and without country and industry fixed effects. In column (3), we estimate equation (1) using Fama and MacBeth (1973)'s methodology. In column (4), we estimate equation (1) by including country random effects. In columns (5) to (7), we include only cross-listed firms and their matches as defined in Section 3. In column (8), we include only cross-listing firms (before and after they cross-list). The sample period is from 1989 to 2006. The standard errors used to compute the *t*-statistics (in brackets) are adjusted for heteroskedasticity and within-firm clustering. Symbols ** and * indicate statistical significance at the 1% and 5% levels, respectively.

| | **Investment** (capex over lagged PPE) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Baseline | Firm FE | F-M | Country RE | Match Size | Match WW | Match Div | Cross-listings |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| *Exchange* | -0.080** | -0.064** | -0.047** | -0.050** | -0.100** | -0.083** | -0.052** | -0.105** |
| | [6.72] | [3.32] | [4.60] | [5.33] | [7.73] | [6.01] | [3.99] | [5.08] |
| *Q* | 0.067** | 0.051** | 0.057** | 0.077** | 0.067** | 0.067** | 0.082** | 0.076** |
| | [35.22] | [20.12] | [8.12] | [71.19] | [10.11] | [9.65] | [11.96] | [6.16] |
| *Q* × *Exchange* | 0.064** | 0.056** | 0.058** | 0.054** | 0.066** | 0.058** | 0.052** | 0.060** |
| | [7.09] | [5.19] | [6.85] | [9.93] | [6.75] | [5.49] | [5.10] | [4.51] |
| *CF/TA* | 0.315** | 0.427** | 0.429** | 0.314** | 0.236** | 0.404** | 0.269** | 0.169** |
| | [21.35] | [22.64] | [10.04] | [41.60] | [4.86] | [7.90] | [6.57] | [3.00] |
| *log(TA)* | -0.024** | -0.076** | -0.027** | -0.027** | -0.027** | -0.030** | -0.030** | -0.032** |
| | [25.36] | [17.17] | [10.88] | [45.71] | [10.58] | [11.52] | [10.66] | [6.40] |
| Country FE | Yes | No | Yes | No | Yes | Yes | Yes | Yes |
| Industry FE | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes |
| Year FE | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes |
| Firm FE | No | Yes | No | No | No | No | No | No |
| # Firm-years | 137,225 | 137,225 | 137,225 | 137,225 | 11,422 | 11,012 | 11,422 | 5,711 |
| $R^2$/*Pseudo* $R^2$ | 0.15 | 0.49 | 0.09 | *0.09* | 0.23 | 0.22 | 0.24 | 0.31 |

**Table C2: U.S. cross-listing and firms' investment-to-price sensitivity: Interaction with Size and Financing Constraints**

This table presents the estimation of equation (1) with various estimation techniques. The dependent variable is investment, defined as capital expenditures divided by lagged property, plant and equipment (PPE). *Exchange* is a dummy variable that is equal to one if the firm is cross-listed on a U.S. exchange, and zero otherwise. Other explanatory variables are defined in the Appendix. In column (1), we estimate equation (1) with pooled OLS regressions with country, year and industry fixed effects. In column (2), we reestimate equation (1) with firm fixed effects and without country and industry fixed effects. In column (3), we estimate equation (1) using Fama and MacBeth (1973)'s methodology. In column (4), we estimate equation (1) by including country random effects. In columns (5) to (7), we include only cross-listed firms and their matches as defined in Section 3. In column (8), we include only cross-listing firms (before and after they cross-list). The sample period is from 1989 to 2006. The standard errors used to compute the *t*-statistics (in brackets) are adjusted for heteroskedasticity and within-firm clustering. Symbols ** and * indicate statistical significance at the 1% and 5% levels, respectively.

| | **Investment (capex over lagged PPE)** | | |
|---|---|---|---|
| | Size | WW | Div |
| | (1) | (2) | (3) |
| *Exchange* | -0.100** | -0.061** | -0.074** |
| | [8.75] | 4.74 | 6.67 |
| *Q* | 0.112** | 0.021** | 0.086** |
| | [20.57] | 3.91 | 33.03 |
| *Q* × *Exchange* | 0.083** | 0.051** | 0.056** |
| | [9.72] | 5.04 | 6.58 |
| *CF/TA* | 0.326** | 0.290** | 0.377** |
| | [21.64] | 17.54 | 23.93 |
| *log(TA)* | -0.012** | -0.031** | -0.022** |
| | [9.86] | 23.28 | 22.25 |
| *Q* × *log(TA)* | -0.010** | | |
| | [9.86] | | |
| *Q* × *WW* | | -0.161** | |
| | | 7.57 | |
| *Q* × *Div/TA* | | | -0.035** |
| | | | 12.98 |
| C-I-Y FE | Yes | Yes | Yes |
| # Firm-years | 131,463 | 130,122 | 131,457 |
| $R^2$ | 0.15 | 0.15 | 0.15 |

**Table C3: U.S. cross-listing and firms' investment-to-price sensitivity: Different Clustering of standard errors**

This table presents the results of regressions of the effect of a U.S. cross-listing on firms' investment-to-price sensitivity (equation (1)) with different forms of clustering of the residuals for the calculation of the coefficients' standard errors. The dependent variable is investment, defined as capital expenditures divided by lagged property, plant and equipment (PPE). *Exchange* is a dummy variable that is equal to one if the firm is cross-listed on a U.S. exchange, and zero otherwise. All variables are defined in the Appendix of the paper. Each column represents a different form of clustering. We consider different clustering dimensions (firm, industry, country and year) as well as some combinations (firm-industry, firm-country, and firm-year). The sample period is from 1989 to 2006. Symbols ** and * indicate statistical significance at the 1% and 5% levels, respectively.

| | **Investment** (capex over lagged PPE) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| *Exchange* | -0.082** | -0.082** | -0.082** | -0.082** | -0.082** | -0.082** | -0.082* | -0.082** |
| | [8.70] | [6.74] | [4.80] | [8.37] | [3.45] | [3.19] | [2.56] | [6.46] |
| *Q* | 0.066** | 0.066** | 0.066** | 0.066** | 0.066** | 0.066** | 0.066** | 0.066** |
| | [57.91] | [34.01] | [22.48] | [27.45] | [12.35] | [15.29] | [11.39] | [23.83] |
| *Q* × *Exchange* | 0.066** | 0.066** | 0.066** | 0.066** | 0.066** | 0.056** | 0.066** | 0.066** |
| | [12.24] | [7.26] | [5.22] | [12.13] | [2.85] | [4.90] | [2.80] | [8.55] |
| *CF/TA* | 0.311** | 0.311** | 0.311** | 0.311** | 0.311** | 0.311** | 0.311** | 0.311** |
| | [40.11] | [20.67] | [7.40] | [7.48] | [4.61] | [7.15] | [4.59] | [7.71] |
| *log(TA)* | -0.024** | -0.024** | -0.024** | -0.024** | -0.024** | -0.024** | -0.024** | -0.024** |
| | [36.80] | [24.43] | [7.48] | [17.38] | [4.84] | [7.35] | [8.95] | [13.85] |
| Country FE | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes |
| Industry FE | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes |
| Year FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No |
| Firm clustering | No | Yes | No | No | No | Yes | Yes | Yes |
| Industry clustering | No | No | Yes | No | No | Yes | No | No |
| Country clustering | No | No | No | Yes | No | No | Yes | No |
| Year clustering | No | No | No | No | Yes | No | No | Yes |
| # Firm-years | 131,463 | 131,463 | 131,463 | 131,463 | 131,463 | 131,463 | 131,463 | 131,463 |
| $R^2$ | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.13 | 0.12 | 0.15 |

**Table C4: U.S. cross-listing and firms' investment-to-price sensitivity: Influential countries**

This table presents the results of regressions of the effect of a U.S. cross-listing on firms' investment-to-price sensitivity (equation (1)) when we exclude influential countries. The dependent variable is investment, defined as capital expenditures divided by lagged property, plant and equipment (PPE). *Exchange* is a dummy variable that is equal to one if the firm is cross-listed on a U.S. exchange, and zero otherwise. All variables are defined in the Appendix of the paper. In columns (1) to (5) we estimate equation (1) without the observations for each influential country (both cross-listed and control observations). Influential countries are the five countries that comprise the largest number of firms that are cross-listed on a U.S. exchange. In column (6) we estimate equation (1) without the observations from all the five influential countries. The sample period is from 1989 to 2006. The standard errors used to compute the t-statistics (in brackets) are adjusted for heteroskedasticity and within-firm clustering. Symbols ** and * indicate statistical significance at the 1% and 5% levels, respectively.

| | **Investment** (capex over lagged PPE) | | | | | |
|---|---|---|---|---|---|---|
| | w/Canada | w/UK | w/Japan | w/Israel | w/Netherland | w/all five |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| *Exchange* | -0.051** | -0.095** | -0.086** | -0.083** | -0.079** | -0.055** |
| | [4.01] | [7.50] | [7.24] | [6.54] | [6.25] | [3.80] |
| *Q* | 0.063** | 0.063** | 0.065** | 0.066** | 0.066** | 0.057** |
| | [31.26] | [29.57] | [30.05] | [33.83] | [33.62] | [21.15] |
| *Q* × *Exchange* | 0.036** | 0.081** | 0.069** | 0.068** | 0.064** | 0.039** |
| | [4.23] | [8.17] | [7.58] | [7.06] | [6.67] | [3.50] |
| *CF/TA* | 0.322** | 0.379** | 0.307** | 0.313** | 0.310** | 0.412** |
| | [20.14] | [22.75] | [19.24] | [20.67] | [20.42] | [20.72] |
| *log(TA)* | -0.022** | -0.025** | -0.030** | -0.024** | -0.025** | -0.029** |
| | [21.61] | [22.55] | [25.49] | [24.28] | [24.22] | [19.72] |
| Country FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Industry FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes | Yes | Yes | Yes |
| # Firm-years | 123,592 | 114,938 | 103,725 | 130,708 | 129,411 | 76,498 |
| $R^2$ | 0.15 | 0.16 | 0.13 | 0.15 | 0.15 | 0.13 |

**Table C5: U.S. cross-listing and firms' investment-to-price sensitivity: Self-selection models**

This table assesses the sensitivity of our baseline results to self-selection biases. For that, we estimate different Heckman models. Panel A presents the probit results of two different first-stage (selection) equations. In columns (1) to (3) we use the selection model of Doidge, Karolyi, and Stulz (2004). In columns (4) to (6), we use the selection model of Doidge, Karolyi, Lins, Miller, and Stulz (2009). The dependent variables is *Exchange*, a dummy variable that is equal to one if the firm is cross-listed on a U.S. exchange, and zero otherwise. All variables are defined in the Appendix of the paper. In column 1, we do not include industry and year fixed effects. In column (2), we include industry and year fixed effects. In column (3), we estimate the probit models for each year separately to account for potential time-varying selection. We present that *average* estimates, *t*-statistics and $R^2$. Panel B presents the OLS results of the second-stage (outcome) equations where dependent variable is investment, defined as capital expenditures divided by lagged property, plant and equipment (PPE). *Exchange* is a dummy variable that is equal to one if the firm is cross-listed on a U.S. exchange, and zero otherwise. The *Inverse Mills Ratio* is computed using the associated probit estimates. The control variables are defined in Appendix A. The sample period is from 1989 to 2006. The standard errors used to compute the *t*-statistics (in brackets) are adjusted for heteroskedasticity and within-firm clustering. Symbols ** and * indicate statistical significance at the 1% and 5% levels, respectively.

**Panel A: First stage Probit regressions**

| | **Exchange** (1 if cross-listed on a U.S. exchange, 0 otherwise) | | | | | |
|---|---|---|---|---|---|---|
| | DKS (2004) model | | | DKLMS (2009) model | | |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| *Log(Sales)* | 0.281** | 0.308** | 0.309** | 0.359** | 0.359** | 0.381** |
| | [66.83] | [64.82] | [15.60] | [70.29] | [64.05] | [15.91] |
| *French law* | -1.302** | -1.223** | -1.224** | -0.204** | -0.197** | -0.441 |
| | [34.06] | [29.53] | [7.39] | [3.43] | [3.05] | [1.26] |
| *German law* | -1.843** | -1.857** | -1.784** | 0.003** | 0.002* | 0.069** |
| | [59.60] | [53.93] | [13.22] | [4.39] | [2.37] | [2.37] |
| *Scandinavian law* | -1.419** | -1.437** | -1.310** | 0.087** | 0.057** | 0.105* |
| | [30.54] | [28.57] | [6.65] | [4.34] | [2.69] | [1.82] |
| *Judicial Efficiency* | 0.005** | 0.006** | 0.007** | 1.753** | -3.894** | 1.692** |
| | [10.66] | [12.62] | [2.77] | [34.83] | [3.68] | [7.42] |
| *Anti-director* | 2.226** | 2.200** | -2.110** | -0.379** | -0.348** | -0.107 |
| | [34.53] | [31.63] | [7.54] | [5.71] | [5.07] | [1.23] |
| *Log(GDP)* | -0.625** | -0.627** | -0.504** | 1.108** | 1.101** | 1.314** |
| | [28.06] | [25.88] | [5.41] | [43.21] | [39.07] | [10.05] |
| | | | | 0.745** | 0.790** | 0.814** |
| | | | | [36.56] | [35.96] | [8.32] |
| | | | | -0.378** | -0.360** | -0.478** |
| | | | | [21.62] | [20.00] | [4.97] |
| Industry FE | No | Yes | Yes | No | Yes | Yes |
| Year FE | No | Yes | No | No | Yes | No |
| # Firm-years | 166,416 | 166,416 | 166,416 | 156,982 | 156,982 | 156,982 |
| Pseudo $R^2$ | 0.22 | 0.29 | 0.24 | 0.31 | 0.34 | 0.33 |

**Panel B: Second stage regressions**

| | **Investment** (capex over lagged PPE) | | | | | |
|---|---|---|---|---|---|---|
| | DKS (2004) | | | DKLMS(2009) | | |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| *Exchange* | -0.193** | -0.230** | -0.110** | -0.075** | -0.085** | -0.090** |
| | [5.33] | [7.35] | [4.78] | [3.16] | [4.15] | [4.20] |
| *Q* | 0.066** | 0.066** | 0.066** | 0.064** | 0.064** | 0.066** |
| | [32.78] | [31.97] | [34.00] | [32.59] | [32.59] | [34.00] |
| *Q* × *Exchange* | 0.060** | 0.060** | 0.066** | 0.063** | 0.063** | 0.066** |
| | [6.34] | [6.36] | [7.29] | [6.67] | [6.65] | [7.24] |
| *CF/TA* | 0.349** | 0.348** | 0.312** | 0.347** | 0.347** | 0.311** |
| | [22.86] | [22.28] | [20.69] | [23.09] | [23.08] | [20.68] |
| *log(TA)* | -0.021** | -0.020** | -0.024** | -0.023** | -0.023** | -0.024** |
| | [17.72] | [17.18] | [22.57] | [20.56] | [20.87] | [22.01] |
| *Inverse Mills Ratio* | 0.061** | 0.084** | 0.018 | 0.012 | 0.007 | 0.016 |
| | [3.73] | [5.91] | [1.38] | [0.05] | [0.77] | [0.23] |
| Country/Industry/Year FE | Yes | Yes | Yes | Yes | Yes | Yes |
| # Firm-years | 131,354 | 131,354 | 131,354 | 131,221 | 131,221 | 131,221 |
| $R^2$ | 0.15 | 0.49 | 0.09 | | 0.17 | 0.18 |

**Table C6: U.S. cross-listing and firms' investment-to-price sensitivity: Interaction between (country-level) governance and liquidity**

This table presents the effect of a U.S. cross-listing on firms' investment-to-price sensitivity (equation (1)) for different groups classified based on country-level of liquidity *and* governance quality. The dependent variable is investment, defined as capital expenditures divided by lagged property, plant and equipment (PPE). *Exchange* is a dummy variable that is equal to one if the firm is cross-listed on a U.S. exchange, and zero otherwise. In **Panel A**, we partition countries into Illiquid and Liquid groups based on the median annual Stock Market Turnover (below or above). Within each partition, we further split countries based on the Anti-self-dealing and legal origin (Common Law) indices from Djankov, La Porta, Lopez-de-Silanes, Shleifer, and Vishny (2008) (Low and High ASD, and Non CL and CL). In **Panel B**, we partition countries into Illiquid and Liquid groups based on the median annual fraction of zero returns (above or below). Within each partition, we again further split countries based on the Anti-self-dealing and legal origin (Common Law) indices from Djankov, La Porta, Lopez-de-Silanes, Shleifer, and Vishny (2008) (Low and High ASD, and Non CL and CL). All explanatory variables are defined in the Appendix. All estimations include the control variables, country, year and industry fixed-effects as well as *CF/TA* and *log(TA)* as control variables. The standard errors used to compute the *t*-statistics (in brackets) are adjusted for heteroskedasticity and within-firm clustering. ** and * indicate statistical significance at the 1% and 5% levels, respectively.

**Panel A: Stock Market Turnover**

| | **Investment** (capex over lagged PPE) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Illiquid | Liquid | Illiquid | | Liquid | | Illiquid | | Liquid | |
| | | | Low ASD | High ASD | Low ASD | High ASD | Non CL | CL | Non CL | CL |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| *Exchange* | -0.085** | -0.042* | -0.073** | -0.090** | -0.048 | -0.031 | -0.057** | -0.100** | -0.027 | -0.053 |
| | [7.60] | [2.03] | [4.30] | [5.86] | [1.61] | [1.04] | [3.24] | [6.66] | [0.93] | [1.77] |
| *Q* | 0.0674** | 0.058** | 0.052** | 0.070** | 0.072** | 0.042** | 0.060** | 0.065** | 0.056** | 0.060** |
| | [41.72] | [33.68] | [22.04] | [34.10] | [25.83] | [20.66] | [24.71] | [32.35] | [23.12] | [24.25] |
| *Q* × *Exchange* | 0.073** | 0.037* | 0.057** | 0.075** | 0.027 | 0.043* | 0.054** | 0.082** | 0.023 | 0.048* |
| | [11.75] | [2.42] | [6.45] | [9.52] | [1.30] | [1.98] | [4.80] | [10.82] | [1.06] | [2.17] |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| C-I-Y FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| # Firm-years | 75,085 | 50,026 | 34,962 | 39,459 | 27,052 | 22,974 | 35,716 | 38,705 | 24,946 | 25,080 |
| $R^2$ | 0.14 | 0.17 | 0.18 | 0.13 | 0.17 | 0.15 | 0.17 | 0.13 | 0.16 | 0.18 |

**Panel B: Fraction of zero returns**

| | **Investment** (capex over lagged PPE) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Illiquid | Liquid | Illiquid | | Liquid | | Illiquid | | Liquid | |
| | | | Low ASD | High ASD | Low ASD | High ASD | Non CL | CL | Non CL | CL |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| *Exchange* | -0.092** | -0.070** | -0.067** | -0.106** | -0.033 | -0.102** | -0.067** | -0.099** | -0.04 | -0.077** |
| | [6.80] | [5.35] | [3.00] | [6.64] | [1.46] | [6.59] | [2.80] | [5.99] | [1.90] | [4.34] |
| *Q* | 0.067** | 0.062** | 0.065** | 0.066** | 0.060** | 0.060** | 0.064** | 0.069** | 0.055** | 0.064** |
| | [39.81] | [40.66] | [25.66] | [30.08] | [28.15] | [26.32] | [26.09] | [29.08] | [22.78] | [31.45] |
| *Q* × *Exchange* | 0.074** | 0.055** | 0.048** | 0.088** | 0.019 | 0.096** | 0.053** | 0.080** | 0.024 | 0.066** |
| | [9.90] | [7.24] | [3.54] | [10.39] | [1.60] | [9.66] | [3.58] | [9.06] | [1.59] | [6.98] |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| C-I-Y FE | Yes | yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| # Firm-years | 64,071 | 67,386 | 34,311 | 29,607 | 33,304 | 33,571 | 32,150 | 31,768 | 31,350 | 35,525 |
| $R^2$ | 0.17 | 0.12 | 0.17 | 0.18 | 0.15 | 0.11 | 0.19 | 0.17 | 0.13 | 0.13 |

**Table C7: U.S. cross-listing and firms' investment-to-price sensitivity: Interaction between economic development and disclosure quality**

This table presents estimates of the link between a U.S. cross-listing and firms' investment-to-price sensitivity (equation (1)) for different groups of firms partitioned according to country-level measures of development *and* disclosure quality. The dependent variable is investment, defined as capital expenditures divided by lagged property, plant and equipment (PPE). *Exchange* is a dummy variable that is equal to one if the firm is cross-listed on a U.S. exchange, and zero otherwise. In **Panel A**, we partition firms into Developed and Emerging groups depending on whether the annual GDP per capita of their home country is above or below the median annual GDP. Within each partition, we further split firms in two groups depending whether the disclosure index from Djankov, La Porta, Lopez-de-Silanes, Shleifer, and Vishny (2008) (D_DLSV) or the disclosure index from Lin and Myers (2007) (D_LM) of their home country is above ("High" group) or below the median disclosure index ("Low" group). In **Panel B**, we partition firms into Developed and Emerging groups depending on whether the stock market capitalization of their home country is above or below the median annual GDP. Within each partition, we further split firms in two groups depending whether the disclosure index from Djankov, La Porta, Lopez-de-Silanes, Shleifer, and Vishny (2008) (D_DLSV) or the disclosure index from Lin and Myers (2007) (D_LM) of their home country is above ("High" group) or below the median disclosure index ("Low" group). All explanatory variables are defined in the Appendix. All estimations include the control variables, country, year and industry fixed-effects as well as *CF/TA* and *log(TA)* as control variables. The standard errors used to compute the *t*-statistics (in brackets) are adjusted for heteroskedasticity and within-firm clustering. Superscripts ** and * indicate statistical significance at the 1% and 5% levels, respectively.

**Panel A: GDP per capita**

| | **Investment** (capex over lagged PPE) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Emerging | | Developed | | Emerging | | Developed | |
| | Low D_DLSV | High D_DLSV | Low D_DLSV | High D_DLSV | Low D_LM | High D_LM | Low D_LM | High D_LM |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| *Exchange* | -0.032 | -0.065** | -0.073** | -0.090** | -0.043 | -0.063** | -0.077** | -0.088** |
| | [1.59] | [2.89] | [3.12] | [5.73] | [1.66] | [3.12] | [3.54] | [5.21] |
| *Q* | 0.068** | 0.048** | 0.065** | 0.071** | 0.069** | 0.040** | 0.060** | 0.071** |
| | [25.91] | [24.28] | [24.14] | [33.48] | [29.65] | [19.06] | [22.51] | [32.43] |
| *Q* × *Exchange* | 0.007 | 0.084** | 0.069** | 0.077** | 0.023 | 0.038** | 0.066** | 0.075** |
| | [0.61] | [6.02] | [4.87] | [9.70] | [1.41] | [2.77] | [5.02] | [8.98] |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| C-I-Y FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| # Firm-years | 31,612 | 28,792 | 30,474 | 33,687 | 31,758 | 29,588 | 30,909 | 32,427 |
| $R^2$ | 0.16 | 0.16 | 0.15 | 0.14 | 0.19 | 0.13 | 0.16 | 0.14 |

**Panel B: Stock Market Capitalization**

| | **Investment** (capex over lagged PPE) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Emerging | | Developed | | Emerging | | Developed | |
| | Low D_DLSV | High D_DLSV | Low D_DLSV | High D_DLSV | Low D_LM | High D_LM | Low D_LM | High D_LM |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| *Exchange* | -0.033 | -0.086* | -0.057** | -0.091** | -0.042 | -0.077* | -0.049** | -0.079** |
| | [1.66] | [2.14] | [3.08] | [6.68] | [1.42] | [2.27] | [2.45] | [5.60] |
| *Q* | 0.058** | 0.039** | 0.065** | 0.072** | 0.047** | 0.031** | 0.061** | 0.073** |
| | [14.41] | [10.88] | [31.91] | [42.75] | [13.01] | [9.32] | [32.53] | [39.47] |
| *Q* × *Exchange* | 0.022 | 0.058** | 0.047** | 0.073** | 0.003 | 0.053** | 0.051** | 0.068** |
| | [1.71] | [2.54] | [4.20] | [10.29] | [0.15] | [2.57] | [3.79] | [9.21] |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| C-I-Y FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| # Firm-years | 12,653 | 13,234 | 48,395 | 50,283 | 13,789 | 15,445 | 43,549 | 51,899 |
| $R^2$ | 0.14 | 0.15 | 0.16 | 0.15 | 0.10 | 0.15 | 0.18 | 0.13 |

**Table C8: U.S. cross-listing and firms' investment-to-price sensitivity: Interaction between (country-level) disclosure and liquidity**

This table presents estimates of the link between a U.S. cross-listing and firms' investment-to-price sensitivity (equation (1)) for different groups partitioned according to country-level measures of market liquidity *and* disclosure quality. The dependent variable is investment, defined as capital expenditures divided by lagged property, plant and equipment (PPE). *Exchange* is a dummy variable that is equal to one if the firm is cross-listed on a U.S. exchange, and zero otherwise. In **Panel A**, we partition firms into Illiquid and Liquid groups depending on whether the annual Stock Market Turnover of their home country is above or below the cross-country median value of this variable. Within each partition, we further split firms in two groups depending whether the disclosure index from Djankov, La Porta, Lopez-de-Silanes, Shleifer, and Vishny (2008) (D_DLSV) or the disclosure index from Lin and Myers (2007) (D_LM) of their home country is above ("High" group) or below the median disclosure index ("Low" group). In **Panel B**, we partition firms into Illiquid and Liquid groups depending on whether the annual fraction of zero returns of their home country is above or below the cross-country median value of this variable. Within each partition, we further split firms in two groups depending whether the disclosure index from Djankov, La Porta, Lopez-de-Silanes, Shleifer, and Vishny (2008) (D_DLSV) or the disclosure index from Lin and Myers (2007) (D_LM) of their home country is above ("High" group) or below the median disclosure index ("Low" group). All explanatory variables are defined in the Appendix. All estimations include the control variables, country, year and industry fixed-effects as well as *CF/TA* and *log(TA)* as control variables. The standard errors used to compute the *t*-statistics (in brackets) are adjusted for heteroskedasticity and within-firm clustering. Superscripts ** and * indicate statistical significance at the 1% and 5% levels, respectively.

**Panel A: Stock Market Turnover**

| | **Investment** (capex over lagged PPE) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Illiquid | Liquid | Illiquid | | Liquid | | Illiquid | | Liquid | |
| | | | Low D_DLSV | High D_DLSV | Low D_DLSV | High D_DLSV | Low D_LM | High D_LM | Low D_LM | High D_LM |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| *Exchange* | -0.085** | -0.042* | -0.056** | -0.101** | 0.002 | -0.060* | -0.057** | -0.086** | -0.067* | -0.017 |
| | [7.60] | [2.03] | [3.25] | [6.64] | [0.07] | [2.22] | [2.75] | [5.67] | [2.01] | [0.64] |
| *Q* | 0.067** | 0.058** | 0.061** | 0.066** | 0.071** | 0.060 | 0.050** | 0.072** | 0.50** | 0.066** |
| | [41.72] | [33.68] | [24.23] | [33.92] | [23.83] | [26.38] | [19.65] | [35.19] | [21.12] | [27.14] |
| *Q* × *Exchange* | 0.073** | 0.037* | 0.052** | 0.085** | 0.024 | 0.095** | 0.051** | 0.074** | 0.056* | 0.023 |
| | [11.75] | [2.42] | [4.80] | [11.04] | [1.02] | [5.08] | [3.72] | [9.83] | [2.33] | [1.13] |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| C-I-Y FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| # Firm-years | 75,085 | 50,026 | 35,539 | 38,620 | 22,952 | 21,118 | 34,002 | 36,719 | 23,456 | 24,168 |
| $R^2$ | 0.14 | 0.17 | 0.16 | 0.13 | 0.17 | 0.15 | 0.16 | 0.14 | 0.13 | 0.21 |

**Panel B: Fraction of zero returns**

| | **Investment** (capex over lagged PPE) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Illiquid | Liquid | Illiquid | | Liquid | | Illiquid | | Liquid | |
| | | | Low D_DLSV | High D_DLSV | Low D_DLSV | High D_DLSV | Low D_LM | High D_LM | Low D_LM | High D_LM |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| *Exchange* | -0.092** | -0.070** | -0.063** | -0.112** | -0.020 | -0.077** | -0.024 | -0.098** | -0.080** | -0.058** |
| | [6.80] | [5.35] | [3.06] | [6.40] | [1.00] | [4.11] | [1.12] | [5.15] | [3.60] | [3.19] |
| *Q* | 0.067** | 0.062** | 0.064** | 0.071** | 0.073** | 0.062** | 0.051** | 0.071** | 0.043** | 0.071** |
| | [39.81] | [40.66] | [26.05] | [30.16] | [27.58] | [29.70] | [24.93] | [27.89] | [18.82] | [32.75] |
| *Q* × *Exchange* | 0.074** | 0.055** | 0.048** | 0.095** | 0.006 | 0.070** | 0.031* | 0.083** | 0.045** | 0.053** |
| | [9.90] | [7.24] | [4.00] | [9.97] | [0.48] | [7.10] | [2.15] | [8.15] | [2.88] | [5.50] |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| C-I-Y FE | Yes | yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| # Firm-years | 64,071 | 67,386 | 34,025 | 29,712 | 29,541 | 31,296 | 25,767 | 34,346 | 29,895 | 34,682 |
| $R^2$ | 0.17 | 0.12 | 0.15 | 0.20 | 0.15 | 0.12 | 0.17 | 0.15 | 0.13 | 0.13 |

**Table C9: U.S. cross-listing and firms' investment-to-price sensitivity: U.S. sales, U.S. assets, and foreign sales**

In this table we estimate the investment equation (1) adding two interaction terms between Q and two dummy variables *Low* and *High* with pooled OLS regressions. The dependent variable is investment, defined as capital expenditures divided by lagged property, plant and equipment (PPE). *Exchange* is a dummy variable that is equal to one if the firm is cross-listed on a U.S. exchange, and zero otherwise. *Low* (resp. *High*) is a dummy variable equal to one in year *t* for a cross-listed firm if the value of a proxy that measures the informational content of stocks prices for managers is below (resp. above) the median value of this proxy for all cross-listed firms. We use three different firm-level variables as proxies of the informational content of stock prices for managers of cross-listed firms: (1) *U.S. Sales* is the fraction of sales that are realized in the U.S.; (2) *Foreign Sales* measures the average fraction of sales realized abroad prior to the cross-listing. In the last line of the table, we report the p-value of a *F*-test that evaluates whether the coefficients on $Q \times Low$ and $Q \times High$ are equal. The sample period is from 1989 to 2006. All other explanatory variables are defined in the Appendix. All estimations include country, year and industry fixed effects. The standard errors used to compute the *t*-statistics (in brackets) are adjusted for heteroskedasticity and within-firm clustering. Symbols ** and * indicate statistical significance at the 1% and 5% levels, respectively.

| | **Investment** (capex over lagged PPE) | |
|---|---|---|
| | U.S. Sales | Foreign Sales |
| | (1) | (2) |
| *Exchange* | -0.109** | -0.107** |
| | [3.86] | [7.61] |
| *Q* | 0.065** | 0.065** |
| | [33.22] | [33.73] |
| $Q \times Low$ (a) | 0.046* | 0.056** |
| | [2.16] | [3.12] |
| $Q \times High$ (b) | 0.091** | 0.085** |
| | [4.21] | [6.57] |
| *CF/ TA* | 0.317** | 0.317** |
| | [20.52] | [20.83] |
| *log(TA)* | -0.024** | -0.024** |
| | [23.46] | [24.03] |
| Country FE | Yes | Yes |
| Industry FE | Yes | Yes |
| Year FE | Yes | Yes |
| # Firm-years | 126 958 | 129,271 |
| $R^2$ | 0.14 | 0.15 |
| (a)=(b) (*p*-val.) | 0.09 | 0.11 |

**Table C10: The RiskMetrics Sample**

This table describes the number of cross-listed and non-cross-listed (control) firms that are included in the RiskMetrics database. For each country, we report the number of firms and the number of firm-years available. Exchange firms are firms that are listed on a U.S. exchange (Level 2 and 3 ADRs and ordinary listings). Control firms are firms that never cross-list in the U.S. The sample period is from 2003 to 2006. + denotes a country designated as an emerging market by Standard and Poor's Emerging Market Database.

| | **Exchange** | | **Control** | |
|---|---|---|---|---|
| | Firms | obs. | Firms | obs. |
| Argentina+ | - | - | - | - |
| Australia | 2 | 8 | 49 | 151 |
| Austria | 1 | 4 | 10 | 36 |
| Belgium | 0 | 0 | 17 | 57 |
| Brazil+ | - | - | - | - |
| Canada | 75 | 239 | 101 | 312 |
| Chile+ | - | - | - | - |
| China+ | 1 | 2 | 1 | 2 |
| Denmark | 1 | 4 | 14 | 53 |
| Finland | 1 | 4 | 13 | 49 |
| France | 19 | 68 | 41 | 142 |
| Germany | 12 | 45 | 39 | 133 |
| Greece+ | 2 | 8 | 21 | 80 |
| Hong Kong | 4 | 10 | 29 | 77 |
| Hungary+ | - | - | - | - |
| India+ | - | - | - | - |
| Ireland | 5 | 18 | 7 | 19 |
| Israel | 0 | 0 | 2 | 4 |
| Italy | 6 | 14 | 27 | 83 |
| Japan | 15 | 57 | 228 | 821 |
| Korea+ | - | - | - | - |
| Mexico+ | - | - | - | - |
| Netherland | 12 | 42 | 21 | 70 |
| NewZeeland | 1 | 3 | 11 | 32 |
| Norway | 3 | 12 | 9 | 25 |
| Peru+ | - | - | - | - |
| Philipines+ | - | - | - | - |
| Portugal | 2 | 8 | 2 | 8 |
| Poland+ | - | - | - | - |
| Russia+ | - | - | - | - |
| Singapore | 4 | 12 | 22 | 81 |
| South Africa+ | - | - | - | - |
| Spain | 3 | 12 | 24 | 78 |
| Sweden | 5 | 11 | 26 | 85 |
| Switzerland | 6 | 24 | 25 | 86 |
| Taiwan+ | 0 | 0 | 1 | 4 |
| Turkey+ | - | - | - | - |
| UK | 42 | 140 | 305 | 733 |
| Venezuela+ | - | - | - | - |
| **All countries** | **222** | **745** | **1,045** | **3,221** |

**Table C11: Managerial learning , U.S. cross-listing and firms' investment-to-price sensitivity: Interacted variables**

This table evaluates the role of managerial learning on the positive effect of cross-listing on the investment-to-price sensitivity using interaction variables instead of sample splits (Table 5). The dependent variable is investment, defined as capital expenditures divided by lagged property, plant and equipment (PPE). *Exchange* is a dummy variable that is equal to one if the firm is cross-listed on a U.S. exchange, and zero otherwise. We use seven different firm-level variables as proxies of the informational content of stock prices for managers of cross-listed firms: (1) $\psi$ is firm-specific return variation; (2) *U.S. Rel.Ind* is the difference in the percentage of the market capitalization of a firm's industry located in the U.S. and the percentage of industry market capitalization for a firm's industry in its home country; (3) *Foreign sales* measures the fraction of sales realized abroad; (4) *BKL* is the "U.S. information factor" developed by Baruch et al. (2007); (5) *U.S. trading* is the fraction of trading that takes place on U.S. exchanges; (6) *Coverage* is the average number of analysts issuing forecasts over a given year; (7) *Inst.Holdings* is the fraction of U.S. institutional holdings to total shares outstanding. The sample period is from 1989 to 2006. All other explanatory variables are defined in the Appendix. All estimations include country, year and industry fixed effects. The standard errors used to compute the *t*-statistics (in brackets) are adjusted for heteroskedasticity and within-firm clustering. Symbols ** and * indicate statistical significance at the 1% and 5% levels, respectively.

| | **Investment** (capex over lagged PPE) | | | | | | |
|---|---|---|---|---|---|---|---|
| | $\psi$ | U.S. Rel.Ind. | Foreign Sales | BKL | U.S. Trading | Coverage | Ins. Holdings |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| *Exchange* | -0.079** | -0.081** | -0.083** | -0.075** | -0.045** | -0.071** | -0.045** |
| | [6.47] | [6.85] | [6.76] | [5.93] | [3.46] | [5.27] | [2.80] |
| *Q* | 0.066** | 0.066** | 0.066** | 0.066** | 0.065** | 0.066** | 0.065** |
| | [33.98] | [34.01] | [34.03] | [33.96] | [33.55] | [33.75] | [33.16] |
| *Q×Exchange* | 0.061** | 0.070** | 0.073** | 0.046** | 0.030** | 0.077** | 0.021 |
| | [5.38] | [7.63] | [6.36] | [4.36] | [3.03] | [5.85] | [1.69] |
| *Q×Exchange×Proxy* | 0.011* | 0.120** | 0.018 | 0.011** | 0.013* | -0.001** | 0.016* |
| | [1.87] | [3.14] | [1.59] | [2.86] | [1.96] | [3.15] | [2.01] |
| *CF/ TA* | 0.314** | 0.314** | 0.313** | 0.311** | 0.319** | 0.317** | 0.322** |
| | [20.82] | [20.85] | [20.80] | [20.67] | [20.98] | [20.87] | [20.84] |
| *log(TA)* | -0.024** | -0.024** | -0.024** | -0.024** | -0.024** | -0.024** | -0.024** |
| | [24.40] | [24.32] | [24.36] | [24.33] | [23.92] | [23.99] | [23.52] |
| Country FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Industry FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| # Firm-years | 131,324 | 131,469 | 131,463 | 131,116 | 130,199 | 130,588 | 127,703 |
| $R^2$ | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 |

**Table C12: Alternative explanation: Change in governance quality (interacted variables)**

This table evaluates the role of change in governance on the positive effect of cross-listing on the investment-to-price sensitivity using interaction variables instead of sample splits (Table 9). The dependent variable is investment, defined as capital expenditures divided by lagged property, plant and equipment (PPE). *Exchange* is a dummy variable that is equal to one if the firm is cross-listed on a U.S. exchange, and zero otherwise. We use different country- and firm-level variables as proxies for change in governance around the cross-listing: (1) the Anti-self-dealing (ASD); (2) the legal origin indices (CL) from Djankov, La Porta, Lopez-de-Silanes, Shleifer, and Vishny (2008); (3) the GDP per capital; (4) the market capitalization from the Worldbank; (5) *GOV* is a governance index built using 41 governance attributes from the RiskMetrics database (see the text); (6) Δ*GOV* represents the average change of *GOV* over the period 2003-2006. All explanatory variables are defined in the Appendix. The standard errors used to compute the *t*-statistics (in brackets) are adjusted for heteroskedasticity and within-firm clustering. ** and * indicate statistical significance at the 1% and 5% levels, respectively.

| | **Investment** (capex over lagged PPE) | | | | | |
|---|---|---|---|---|---|---|
| | ASD | CL | GDP/capita | Mkt. Cap | GOV | ΔGOV |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| *Exchange* | -0.084** | -0.082** | -0.080** | -0.083** | -0.094** | -0.110** |
| | [7.10] | [6.97] | [6.76] | [6.92] | [2.98] | [3.20] |
| *Q* | 0.066** | 0.066** | 0.066** | 0.066** | 0.047** | 0.045** |
| | [33.96] | [33.97] | [34.02] | [33.97] | [5.05] | [4.64] |
| *Q×Exchange* | 0.084** | 0.065** | 0.051** | 0.075** | 0.048 | 0.104** |
| | [6.02] | [6.78] | [5.22] | [6.15] | [1.48] | [2.75] |
| *Q×Exchange×Proxy* | 0.027* | 0.011** | 0.017* | 0.008 | 0.001 | -0.156 |
| | [1.76] | [2.09] | [1.80] | [1.04] | [0.75] | [1.10] |
| *CF/ TA* | 0.312** | 0.312** | 0.313** | 0.312** | 0.194** | 0.232** |
| | [20.67] | [20.66] | [20.80] | [20.67] | [2.76] | [3.27] |
| *log(TA)* | -0.024** | -0.024** | -0.024** | -0.024** | -0.020** | -0.018** |
| | [24.45] | [24.46] | [24.45] | [24.41] | [3.88] | [3.42] |
| Country FE | No | No | Yes | Yes | Yes | Yes |
| Industry FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes | Yes | Yes | Yes |
| # Firm-years | 130,793 | 130,793 | 131,457 | 130,793 | 3,801 | 3,705 |
| $R^2$ | 0.15 | 0.15 | 0.15 | 0.15 | 0.22 | 0.22 |

**Table C13: Alternative explanation: Change in investor's ability to predict future investment (interacted variables)**

This table evaluates the role of change in investor's ability to predict future investment on the positive effect of cross-listing on the investment-to-price sensitivity using interaction variables instead of sample splits (Table 10). The dependent variable is investment, defined as capital expenditures divided by lagged property, plant and equipment (PPE). *Exchange* is a dummy variable that is equal to one if the firm is cross-listed on a U.S. exchange, and zero otherwise. We use different country- and firm-level variables as proxies for change in investor's ability to predict future investment around the cross-listing: (1) the disclosure index from Djankov, La Porta, Lopez-de-Silanes, Shleifer, and Vishny (2008); (2) the disclosure index from Lin and Myers (2007); (3) The *S&P Score* which measures corporate disclosure practice to measure firm-level disclosure quality from Standard & Poor's (available only in 2000 or 2001); (4) *Accuracy* measures the precision of analyst forecasts; and (5) *ΔAccuracy* which measures the change in forecast accuracy around the cross-listing event (three years before and after the cross-listing). All explanatory variables are defined in the Appendix. The standard errors used to compute the *t*-statistics (in brackets) are adjusted for heteroskedasticity and within-firm clustering. ** and * indicate statistical significance at the 1% and 5% levels, respectively.

| | **Investment** (capex over lagged PPE) | | | | |
|---|---|---|---|---|---|
| | Discl. (LLSW) | Discl. (JM) | S&P Score | Accuracy | ΔAccuracy |
| | (1) | (2) | (3) | (4) | (5) |
| *Exchange* | -0.074** | -0.082** | -0.125** | -0.070** | -0.101** |
| | [6.27] | [6.35] | [3.92] | [4.85] | [3.31] |
| *Q* | 0.069** | 0.067** | 0.059** | 0.064** | 0.067** |
| | [33.80] | [33.96] | [19.51] | [27.61] | [30.80] |
| *Q×Exchange* | 0.02 | 0.017 | 0.148** | 0.055** | 0.072** |
| | [1.08] | [0.37] | [4.37] | [5.05] | [2.70] |
| *Q×Exchange×Proxy* | 0.054* | 0.018 | -0.001 | 0.006 | -0.023 |
| | [2.09] | [1.64] | [1.12] | [0.97] | [0.56] |
| *CF/ TA* | 0.292** | 0.307** | 0.103** | 0.287** | 0.328** |
| | [18.78] | [19.86] | [2.91] | [14.78] | [18.71] |
| *log(TA)* | -0.025** | -0.025** | -0.024** | -0.028** | -0.025** |
| | [24.48] | [24.29] | [12.60] | [22.61] | [21.47] |
| Country FE | No | No | Yes | Yes | Yes |
| Industry FE | Yes | Yes | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes | Yes | Yes |
| # Firm-years | 130,793 | 124,678 | 19,159 | 80,450 | 102,459 |
| $R^2$ | 0.16 | 0.15 | 0.22 | 0.19 | 0.17 |

**Table C14: Alternative explanation: Change in firms' access to external finance (interacted variables)**

This table evaluates the role of change in firms' access to external capital on the positive effect of cross-listing on the investment-to-price sensitivity using interaction variables instead of sample splits (Table 11). The dependent variable is investment, defined as capital expenditures divided by lagged property, plant and equipment (PPE). *Exchange* is a dummy variable that is equal to one if the firm is cross-listed on a U.S. exchange, and zero otherwise. We use different firm-level variables as proxies for change in capital access around the cross-listing: (1) Level 2 indicates firms that cannot issue new capital in the U.S.; (2) Non-Raising are firms that do not increase their capital issuance activity after cross-listing (three years before and after the cross-listing); (3) ΔSize measures the change in firms' size around the cross-listing (three years before and after the cross-listing); (4) ΔWW measures the change in the Whited and Wu index around the cross-listing (three years before and after the cross-listing); and (5) ΔDIV measures the change in payout policy around the cross-listing (three years before and after the cross-listing). All explanatory variables are defined in the Appendix. The standard errors used to compute the *t*-statistics (in brackets) are adjusted for heteroskedasticity and within-firm clustering. ** and * indicate statistical significance at the 1% and 5% levels, respectively.

| | **Investment** (capex over lagged PPE) | | | | |
|---|---|---|---|---|---|
| | Level 2 | Non-Raising | ΔSize | ΔWW | ΔDIV |
| | (1) | (2) | (3) | (4) | (5) |
| *Exchange* | -0.082** | -0.083** | -0.104** | -0.104** | -0.104** |
| | [6.79] | [6.74] | [7.46] | [7.39] | [7.66] |
| *Q* | 0.066** | 0.066** | 0.065** | 0.064** | 0.065** |
| | [34.03] | [34.03] | [33.71] | [32.85] | [33.65] |
| *Q*×*Exchange* | 0.070** | 0.060** | 0.088** | 0.084** | 0.085** |
| | [4.25] | [6.60] | [5.89] | [6.07] | [7.09] |
| *Q*×*Exchange*×*Proxy* | -0.004 | 0.015 | -0.004 | 0.041 | -0.285 |
| | [0.29] | [1.35] | [1.23] | [1.03] | [1.49] |
| *CF/ TA* | 0.313** | 0.313** | 0.318** | 0.341** | 0.317** |
| | [20.78] | [20.79] | [20.81] | [22.33] | [20.77] |
| *log(TA)* | -0.024** | -0.024** | -0.025** | -0.024** | -0.024** |
| | [24.43] | [24.39] | [24.10] | [23.46] | [23.86] |
| Country FE | Yes | Yes | Yes | Yes | Yes |
| Industry FE | Yes | Yes | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes | Yes | Yes |
| # Firm-years | 131,457 | 131,457 | 129,271 | 128,619 | 128,711 |
| $R^2$ | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 |

**Table C15: U.S. cross-listing and firms' investment-to-price sensitivity: The importance of capital investment**

In this table we estimate our baseline equation (1) with two dummy variables *Low* and *High* (instead of *Exchange*) interacted with *Q* and we estimate this specification with pooled OLS regressions. The dependent variable is investment, defined as capital expenditures divided by lagged property, plant and equipment (PPE). *Exchange* is a dummy variable that is equal to one if the firm is cross-listed on a U.S. exchange, and zero otherwise. *Low* (resp. *High*) is a dummy variable equal to one in year *t* for a cross-listed firm if the value of a proxy that measures the importance of investment for this firm is below (resp. above) the cross-sectional median value of this proxy . We use five different industry-level variables as proxies for the importance of investment, where industries are defined at the SIC2 level. In columns (1) and (2), we use industry's capital intensity defined as the industry mean (Column (1)) or median (Column (2)) ratio of property, plant and equipment to total assets. In columns (3) to (5) we use the industry sensitivity of future (1, 2, or 3 years) sales growth to current capital expenditures, $\theta$. This sensitivity, denoted $\theta$, is obtained via the estimation of industry OLS regressions of future sales growth on current capital expenditures, size, leverage and cash holdings) where $\theta$ is the estimated coefficient on current capital expenditure (see Equation (R.1)). In the last line of the table, we report the p-value of a *F*-test that evaluates whether the coefficients on $Q \times Low$ and $Q \times High$ are equal. The sample period is from 1989 to 2006. All other explanatory variables are defined in the Appendix. All estimations include country, year and industry fixed effects. The standard errors used to compute the *t*-statistics (in brackets) are adjusted for heteroskedasticity and within-firm clustering. Symbols ** and * indicate statistical significance at the 1% and 5% levels, respectively.

.

| | **Investment** (capex over lagged PPE) | | | | |
|---|---|---|---|---|---|
| | Mean (PPE/A) | Median (PPE/A) | $\theta$ (1 yr) | $\theta$ (2 yrs) | $\theta$ (3 yrs) |
| | (1) | (2) | (3) | (4) | (5) |
| *Exchange* | -0.085** | -0.080** | -0.080** | -0.078** | -0.078** |
| | [6.77] | [6.30] | [6.78] | [6.84] | [6.82] |
| *Q* | 0.065** | 0.065** | 0.065** | 0.065** | 0.065** |
| | [34.00] | [34.02] | [33.97] | [33.97] | [33.97] |
| $Q \times Low$ (a) | 0.059** | 0.061** | 0.054** | 0.048** | 0.046** |
| | [7.21] | [4.99] | [5.62] | [7.58] | [5.75] |
| $Q \times High$ (b) | 0.079** | 0.071** | 0.072** | 0.074** | 0.073** |
| | [7.21] | [7.91] | [7.24] | [7.43] | [7.50] |
| Controls | Yes | Yes | Yes | Yes | Yes |
| C-I-Y FE | Yes | Yes | Yes | Yes | Yes |
| # Firm-years | 131,460 | 131,460 | 130,890 | 130,890 | 130,890 |
| $R^2$ | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 |
| (a)=(b) (*p*-val.) | 0.07 | 0.12 | 0.07 | 0.00 | 0.00 |

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