ANTICIPATION AND IMPACT OF CORPORATE ANNOUNCEMENTS IN THE AMERICAS

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WHY IS THIS IMPORTANT?

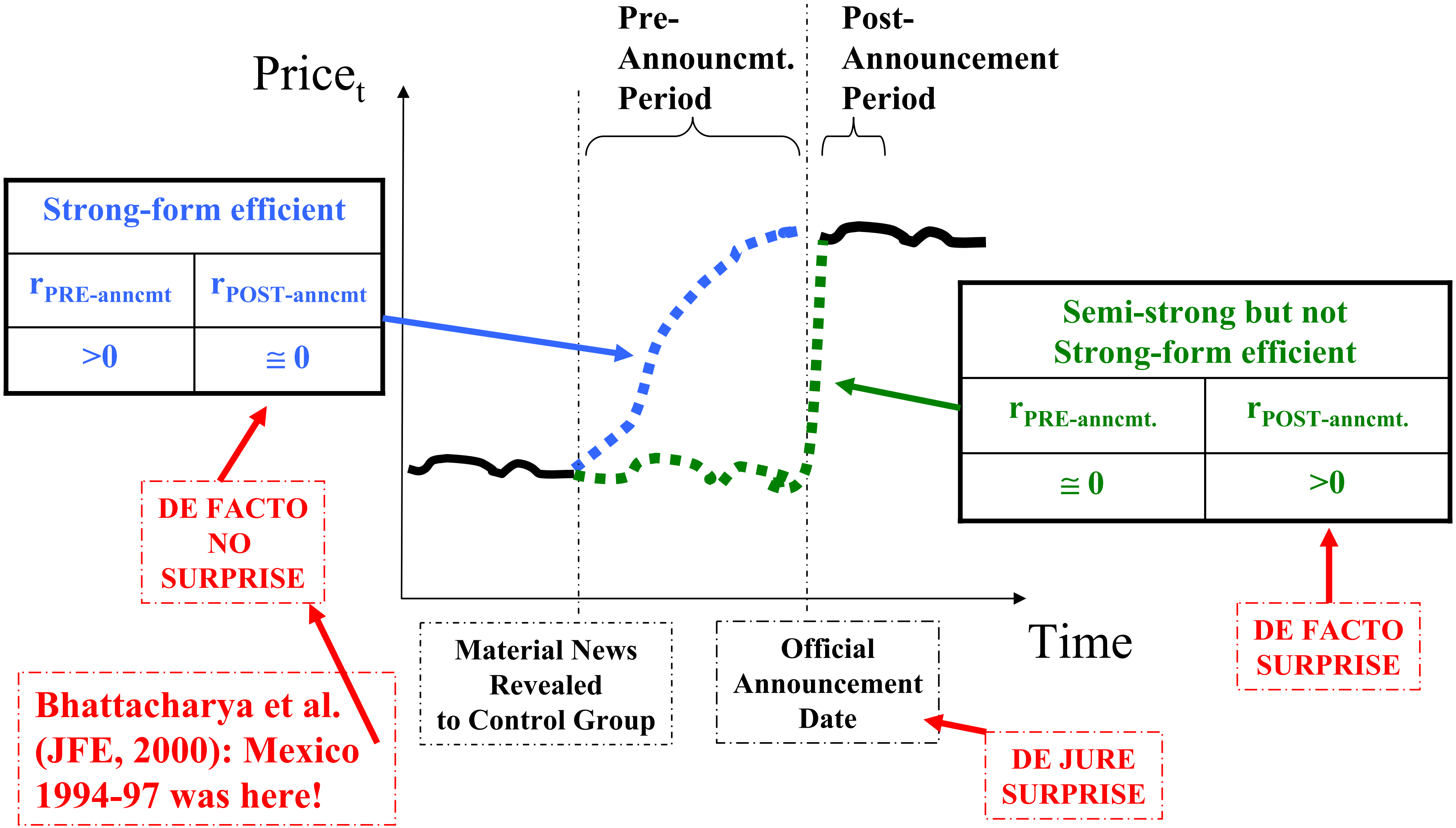
- There is suspicion among market participants that insider trading is more prevalent in Latin America than in the United States.

- Traditionally IT restrictions unenforced in region but … recent surge in prosecutions by Chilean SVS.

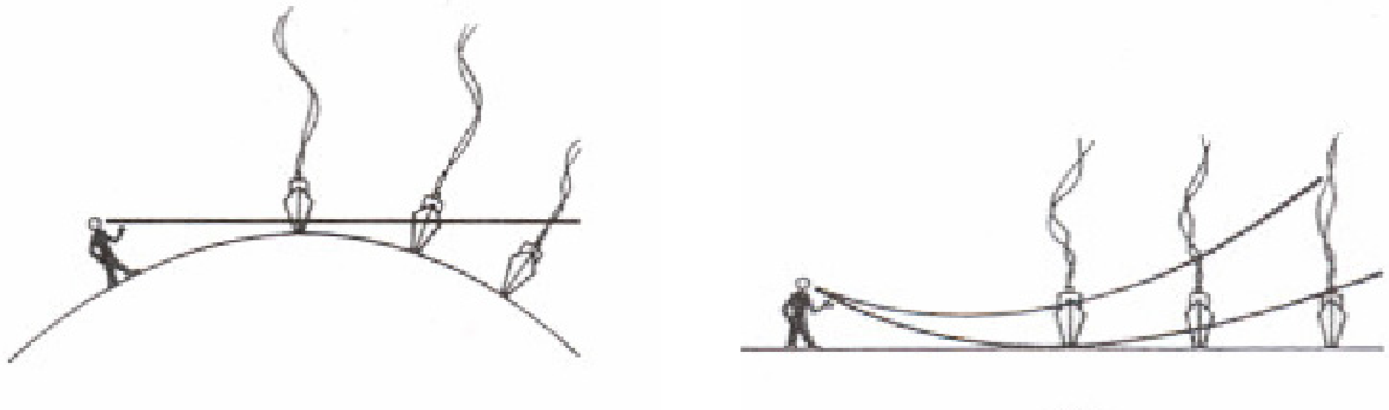
- SVS commissioned a study on the degree of market anticipation and impact of corp. announcements in Chile, analyzed from an international perspective.

- Contribution: We measure anticipation and impact consistently across countries using various methods.

BACK TO BASICS: WHAT TO EXPECT OF A GOOD ANNOUNCEMENT?



LIMITATIONS OF THIS STUDY TO ASSESS THE PREVALENCE OF INSIDER TRADING



(a) (b)

POTENTIAL CAUSES OF ANTICIPATION

- **Great analysts**
- **Leakage via press reports**
- **Corps. making probabilistic announcements that are not recorded in dataset since they are not certain**
- **Insider trading**

SAMPLE DESIGN

Chile: 25 shares from eight industrial sectors. At least three stocks per sector. Focus on the most liquid shares in each sector.

Argentina, Brazil, Mexico and USA: 83 stocks. Tried to choose three firms from each country-sector, as liquid as possible. These turned out to be leading firms (Blue chip bias).

Time span: Jan-1-2000 to Aug-31-2007.

Variables: daily log return in US dollars (adjusted for cash dividends). Announcements of quarterly earnings, cash dividends, acquisitions and divestitures (5,400 Anncmts.).

Source: Economatica and Bloomberg.

SAMPLE

Sector	Country										Total Firms
	Chile		Argentina		Brazil		Mexico		USA		
	Firms	Volume	Firms	Volume	Firms	Volume	Firms	Volume	Firms	Volume	
Alimentos y bebidas	3	$18	2	$11	3	$76	2	$48	3	$2,557	13
Comercio	4	$63	--	--	4	$25	3	$147	4	$3,800	15
Energía eléctrica	4	$49	3	$2	3	$141	--	--	3	$2,277	13
Finanzas y seguros	4	$22	4	$21	3	$285	2	$79	3	$9,731	16
Minería	2	$23	--	--	2	$414	3	$69	4	$2,045	11
Siderurgia y metalurgia	3	$15	2	$445	4	$193	3	$45	3	$1,606	15
Telecomunicaciones	2	$48	2	$39	3	$296	3	$440	3	$5,640	13
Transporte	3	$24	--	--	3	$55	2	$34	4	$1,180	12
Sum or Weighted Avg.	25	$34	13	$83	25	$170	18	$135	27	$3,464	108
Average Presence	86		90		92		86		98		

Volume is in millions of US dollars per month

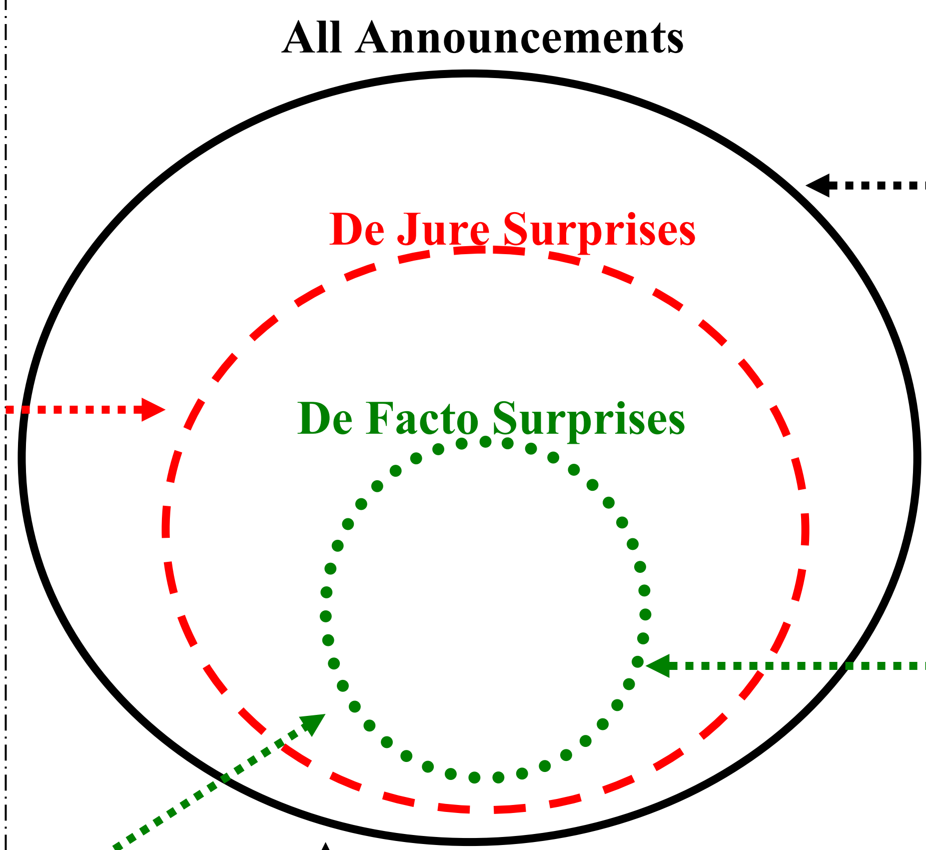
Notice different liquidity levels

METHODOLOGY: THREE APPROACHES

1. ABNORMAL RETURNS MODEL:

Requires establishing ex ante which announcements were De Jure Surprises. Use AR model for Earnings and Dividends. All Acquisitions/Dives-titures coded as De Jure Surprises.

Ask: Which De Jure Surprises were De Facto Surprises?



2. ABNORMAL VOLATILITY MODEL:

Work with All the Announcements.

Ask: Which announcements were De Facto Surprises (judging by the modulus of the residual in a market model)?

Does the info. get to the market before or after anncmt.?

3. TOTAL RETURN ANALYSIS

1. ABNORMAL RETURNS MODEL

$$r_{it} = \alpha_i + \beta_i^W r_{mt}^W + \gamma_{T-30,T-16}^{PRE} D_{T-30,T-16}^{PRE}(i,t,j,c) + \gamma_{T-15,T-6}^{PRE} D_{T-15,T-6}^{PRE}(i,t,j,c) +$$

$$+ \gamma_{T-6,T-2}^{PRE} D_{T-6,T-2}^{PRE}(i,t,j,c) + \gamma_{T-1,T+2}^{POST} D_{T-1,T+2}^{POST}(i,t,j,c) + e_{it}$$

$i = 1,\ldots,108$ $\qquad$ $j = \text{Earnings, Dividends, Adquisit./Divest}$

$t = 1-\text{Jan}-2000,\ldots,31-\text{Aug}-2007$ $\qquad$ $c = \text{Chile, Argentina, Brazil, Mexico, USA}$

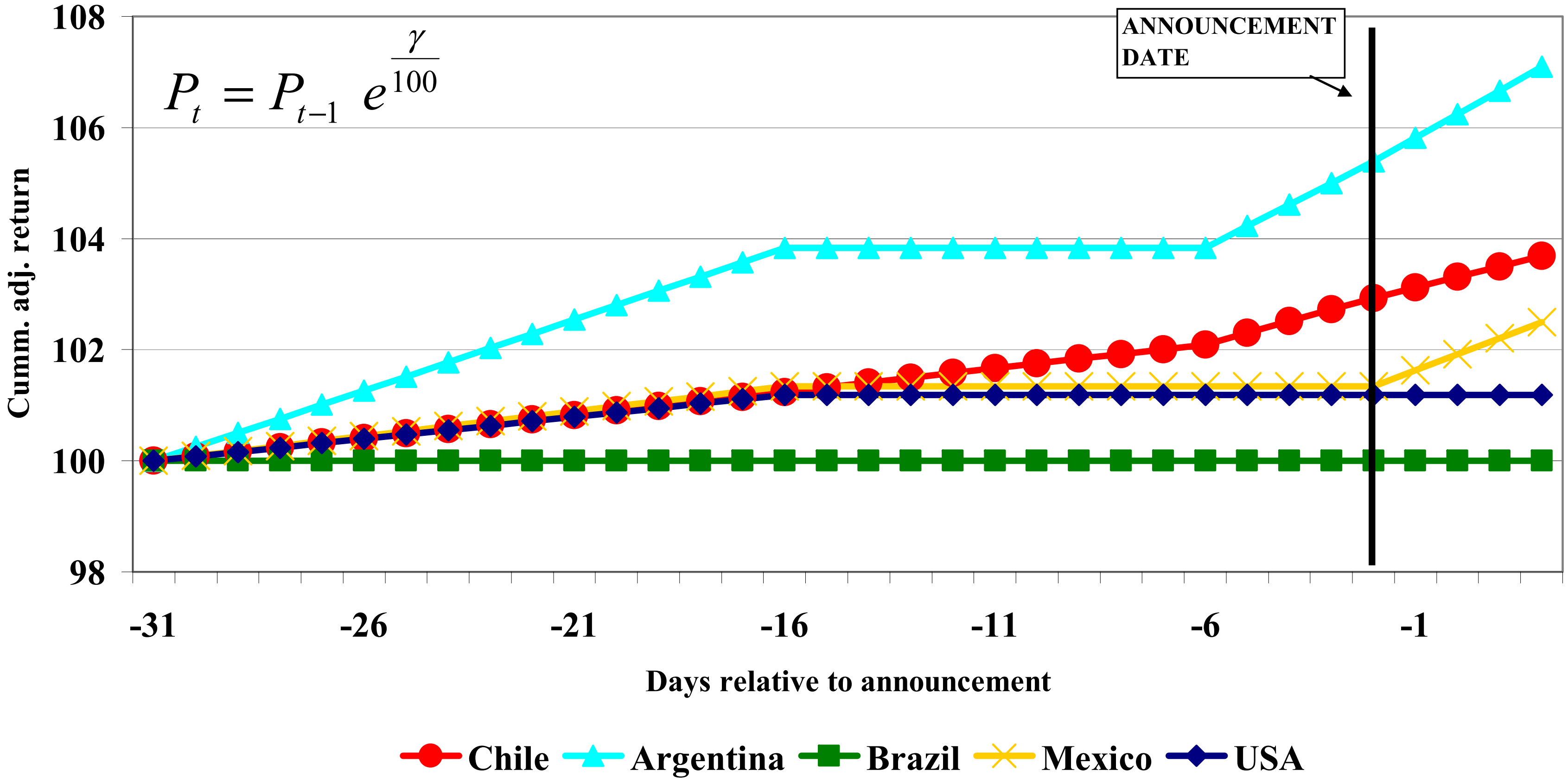
$$D(i,t,j,c) = \begin{cases} 1 & : \text{ if Announcement } T, j, c \text{ was De Jure a Good Surprise} \\ 0 & : \text{ if Announcement } T, j, c \text{ was De Jure No Surprise} \\ -1 & : \text{ if Announcement } T, j, c \text{ was De Jure a Bad Surprise} \end{cases}$$

Note: of the 5400 announcements, only about 2400 are De Jure Surprises (see Tables 2.A, 2.B & 2.C).

Various specifications: local index, US index, both & none, IPSA type / MSCI type indices.

QUARTERLY EARNINGS

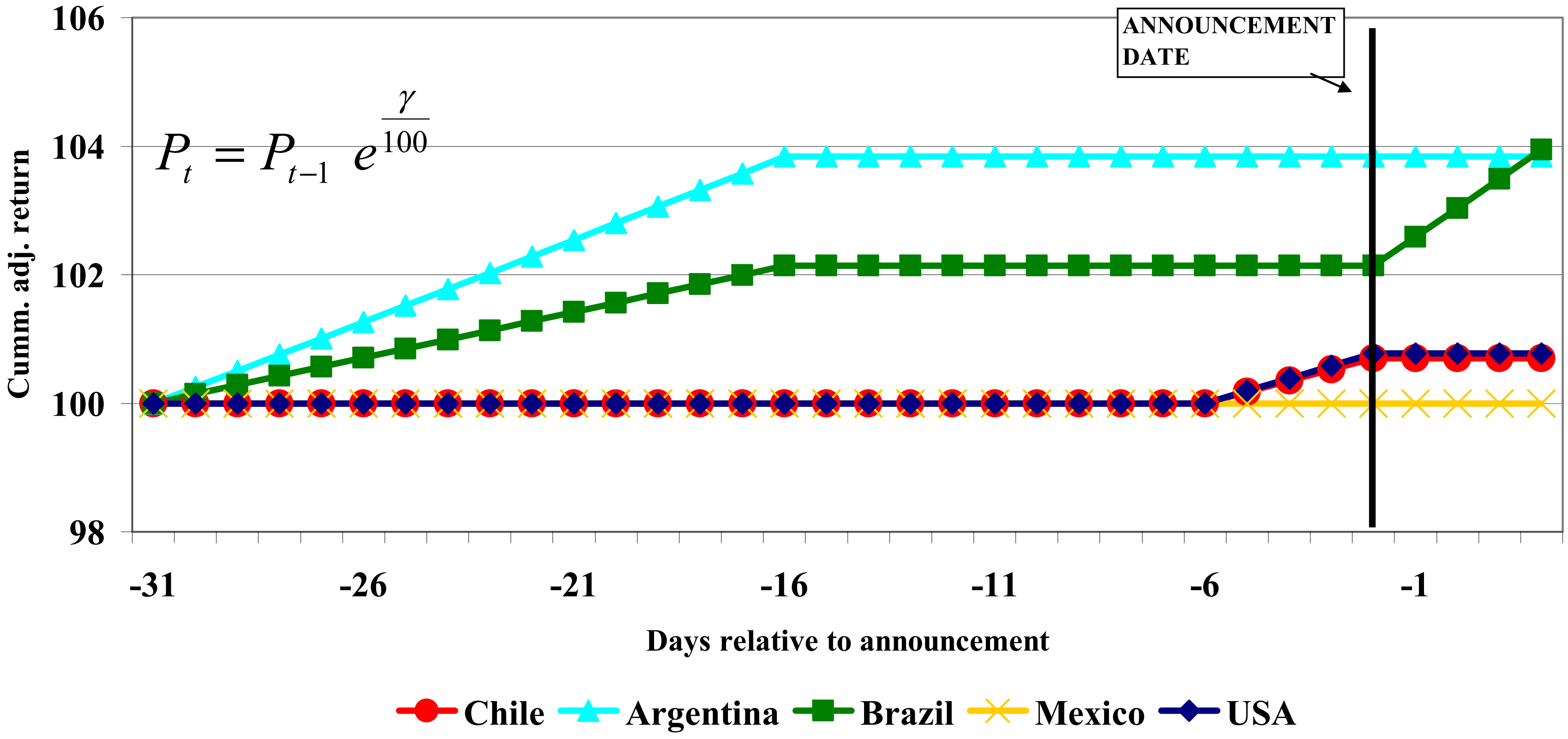
CUMMULATIVE ADJUSTED RETURNS DURING ANTICIPATION
AND IMPACT OF GOOD ANNOUNCEMENTS



SIGNIFICANT γ COEFFICIENTS FROM REGRESSION COMPOUNDED OVER TIME

CASH DIVIDENDS

CUMMULATIVE ADJUSTED RETURNS DURING ANTICIPATION
AND IMPACT OF GOOD ANNOUNCEMENTS



SIGNIFICANT γ COEFFICIENTS FROM REGRESSION COMPOUNDED OVER TIME

2. ABNORMAL VOLATILITY MODEL

First stage:

$$r_{it} = \alpha_i + \beta_i^W \; r_{mt}^W + u_{it}$$

Second stage:

$$|u_{it}| = \eta_i + \pi_i \left(\sum_{s=31}^{60} \frac{|u_{it-s}|}{30} \right) + \gamma_{T-30,T-16}^{PRE} \; D_{T-30,T-16}^{PRE}(i,t,j,c) + \gamma_{T-15,T-6}^{PRE} \; D_{T-15,T-6}^{PRE}(i,t,j,c) +$$

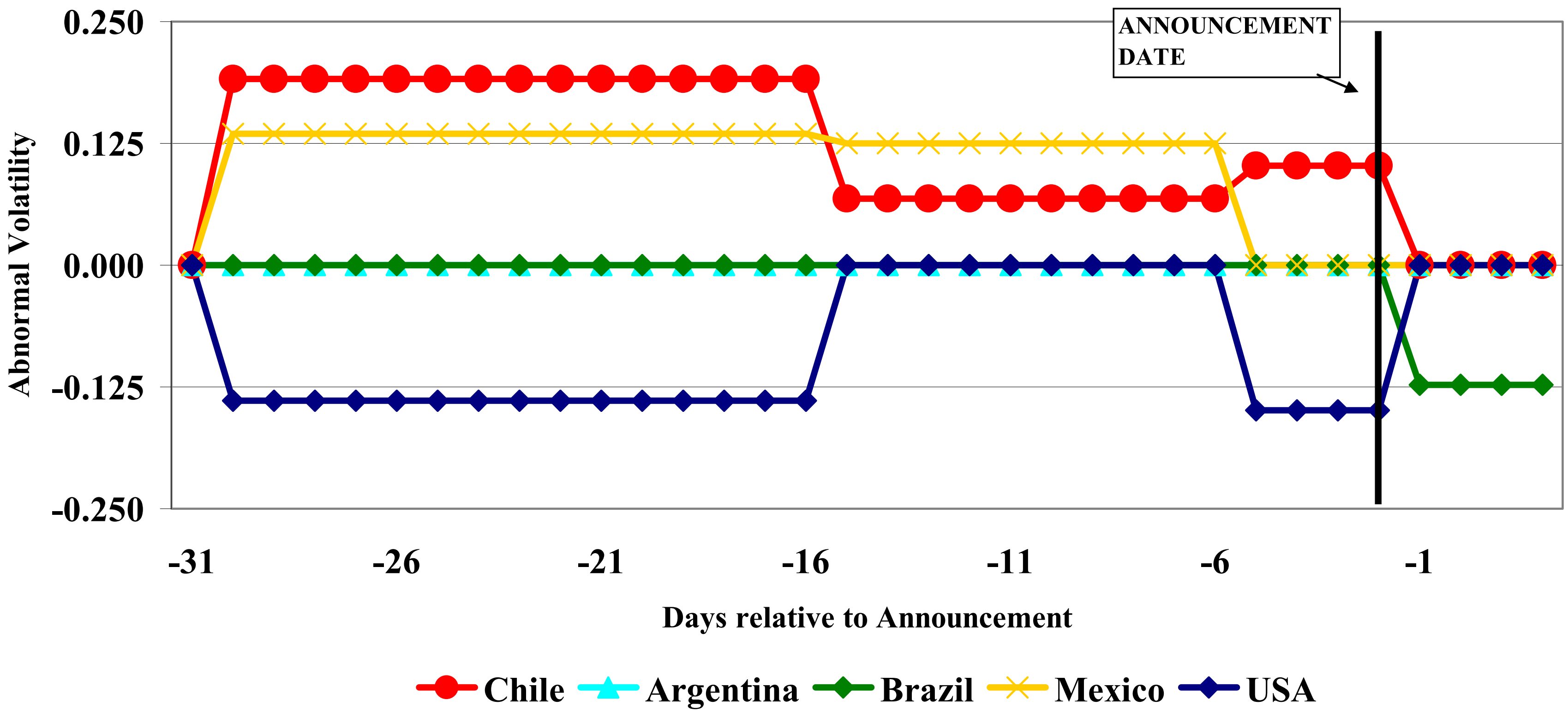
$$+ \gamma_{T-6,T-2}^{PRE} \; D_{T-6,T-2}^{PRE}(i,t,j,c) + \gamma_{T-1,T+2}^{POST} \; D_{T-1,T+2}^{POST}(i,t,j,c) + v_{it}$$

$$D(i,j,t,c) = \begin{cases} 1 & : \text{ if } t \in N(T) \text{ when there was an announcement} \\ & \quad \text{of type } j \text{ in security } i \text{ of country } c \\ 0 & : \text{ otherwise} \end{cases}$$

$j = \text{Earnings, Dividends, Adquisit./Divest}$ $\qquad c = \text{Chile, Argentina, Brazil, Mexico, USA}$

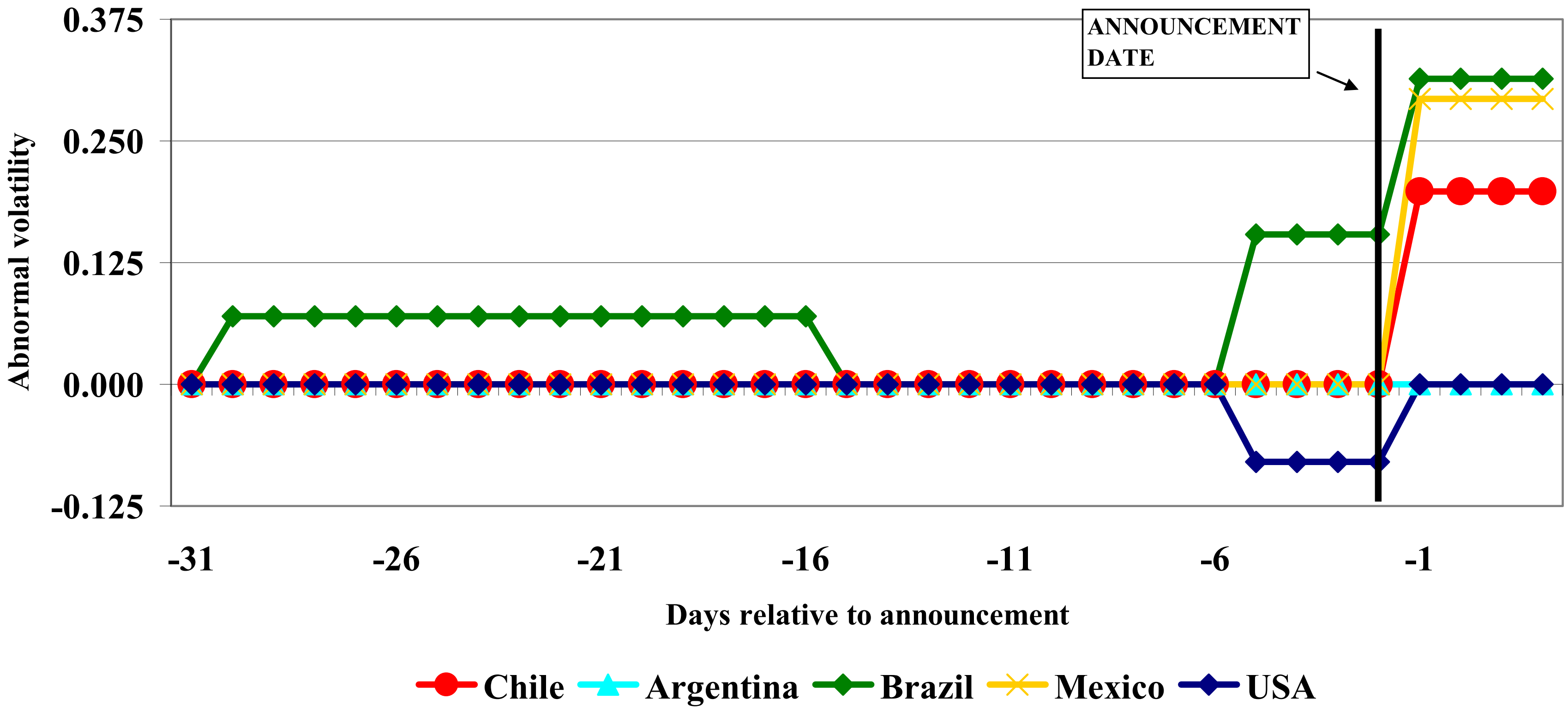
Note: use all 5400 announcements.

QUARTERLY EARNINGS
ABNORMAL VOLATILITY DURING ANTICIPATION AND IMPACT PERIODS



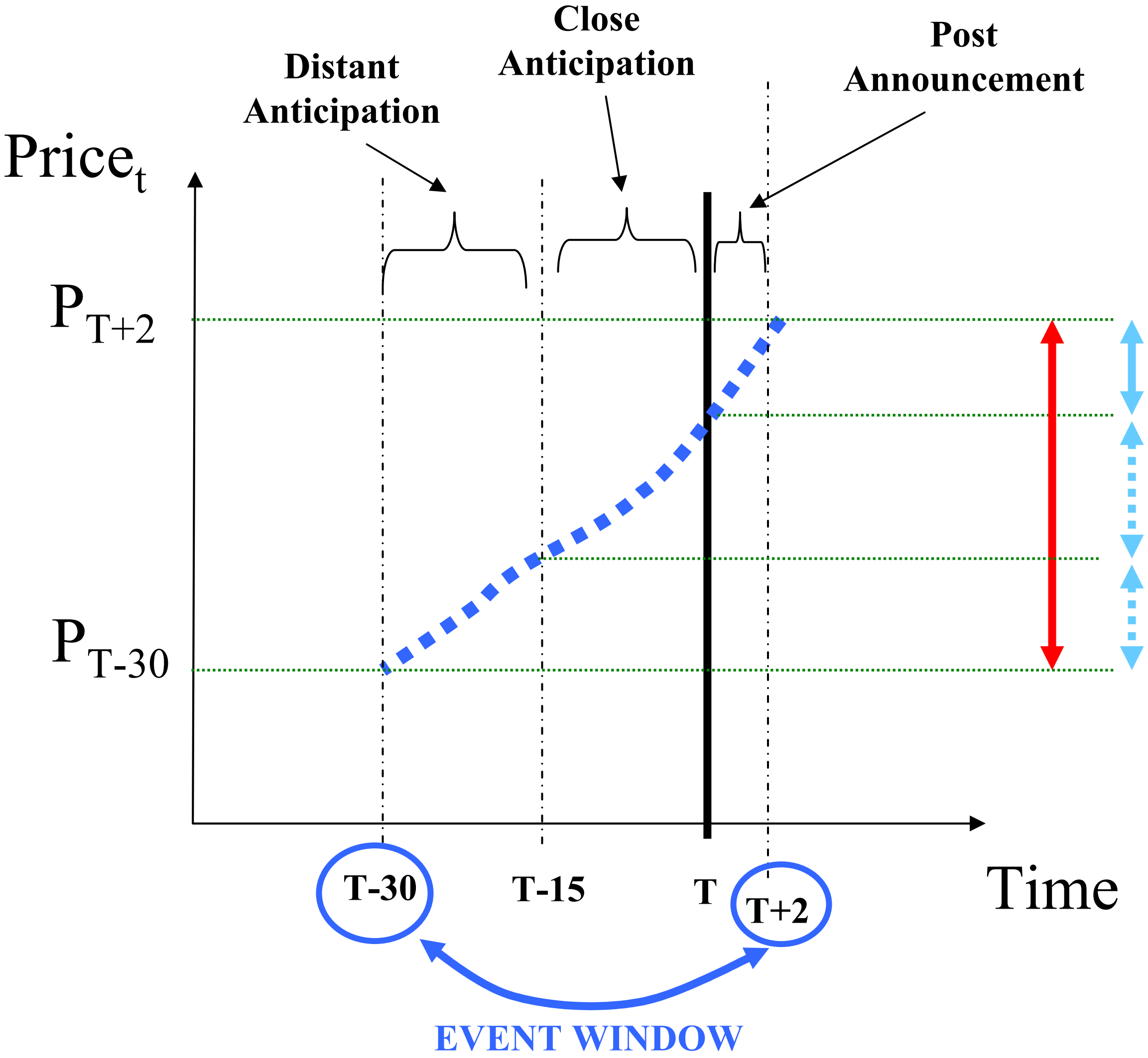
SIGNIFICANT γ COEFFICIENTS FROM SECOND STAGE REGRESSION

CASH DIVIDENDS
ABNORMAL VOLATILITY
DURING ANTICIPATION AND IMPACT

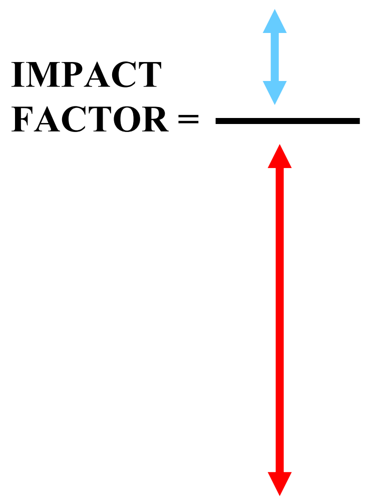


SIGNIFICANT γ COEFFICIENTS FROM SECOND STAGE REGRESSION

APPROACH #3. TOTAL RETURN ANALYSIS



IMPACT FACTOR = RETURN DURING POST ANNOUNCEMENT AS FRACTION OF TOTAL EVENT RETURN



APPROACH #3. TOTAL RETURN ANALYSIS (cont.)

- Take all the announcements that were not preceded nor succeded by another announcement during 33 trading days. Use all types of announcements: Earnings, Dividends, Aquisitions & Divestitures (Exclude reversals). 752 Annc.

- Compute the total percentage return during the 33-day event window.

- Sort the events in three categories:
  * Very good: $10\% < r < 42\%$
  * Good: $0\% < r < 10\%$
  * Bad: $-42\% < r < 0\%$

- For each category: Compute average return during distant anticipation, close anticipation, and post announcement. What fraction of the total event average return took place during Post announcement?

- Impact factor = Post announcement return / Total event return

- Compute average impact factor across event categories for one subject.

TOTAL RETURN ANALYSIS -- INTERNATIONAL COMPARISON

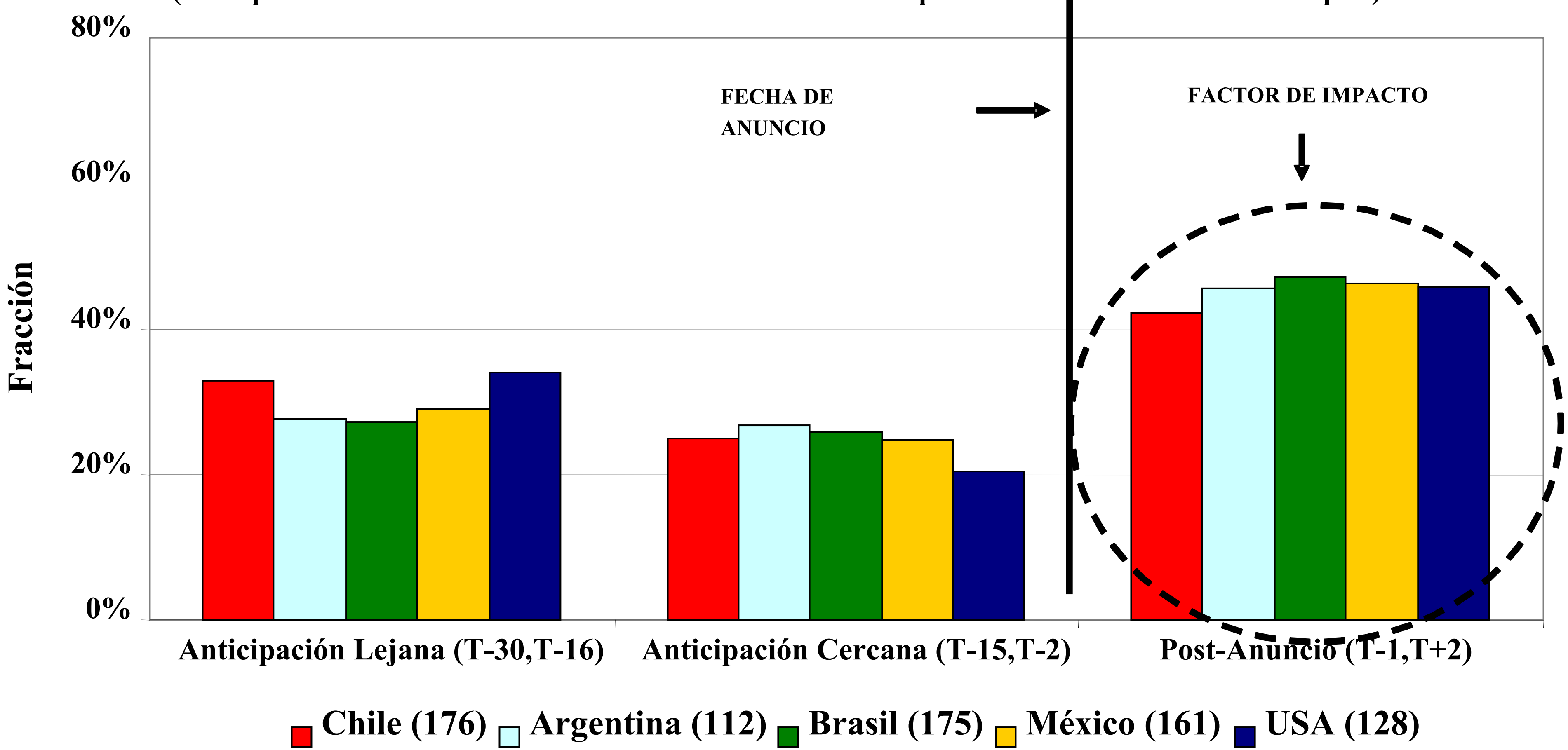
Country	Category	Number of announ-cements	Total return (T-30,T+2)	Distant anticipation (T-30,T-16)	Close anticipation (T-15,T-2)	Post anncmt. (T-1,T+2)	Total number of anncmts.	Impact Factor
Chile	Very good	45	16.6	5.5	6.7	4.4	176	42%
	Good	63	4.6	1.6	0.2	2.8		
	Bad	68	-7.8	-2.4	-2.6	-2.7		
Argentina	Very good	29	18.8	5.0	8.3	5.4	112	46%
	Good	27	4.6	1.9	-0.6	3.3		
	Bad	56	-11.0	-2.4	-4.0	-4.6		
Brazil	Very good	77	20.1	7.4	6.8	5.9	175	47%
	Good	41	4.2	-0.1	0.1	4.2		
	Bad	57	-16.2	-5.9	-5.1	-5.2		
Mexico	Very good	50	19.0	8.5	6.2	4.4	161	46%
	Good	48	5.3	0.4	1.4	3.5		
	Bad	63	-10.1	-3.3	-1.7	-5.1		
USA	Very good	38	17.1	6.0	5.1	6.0	128	46%
	Good	40	4.5	1.1	0.7	2.7		
	Bad	50	-11.2	-4.5	-1.8	-4.8		

TOTAL RETURN ANALYSIS ACROSS COUNTRIES

Fig. 1: ANNOUNCEMENT ANTICIPATION

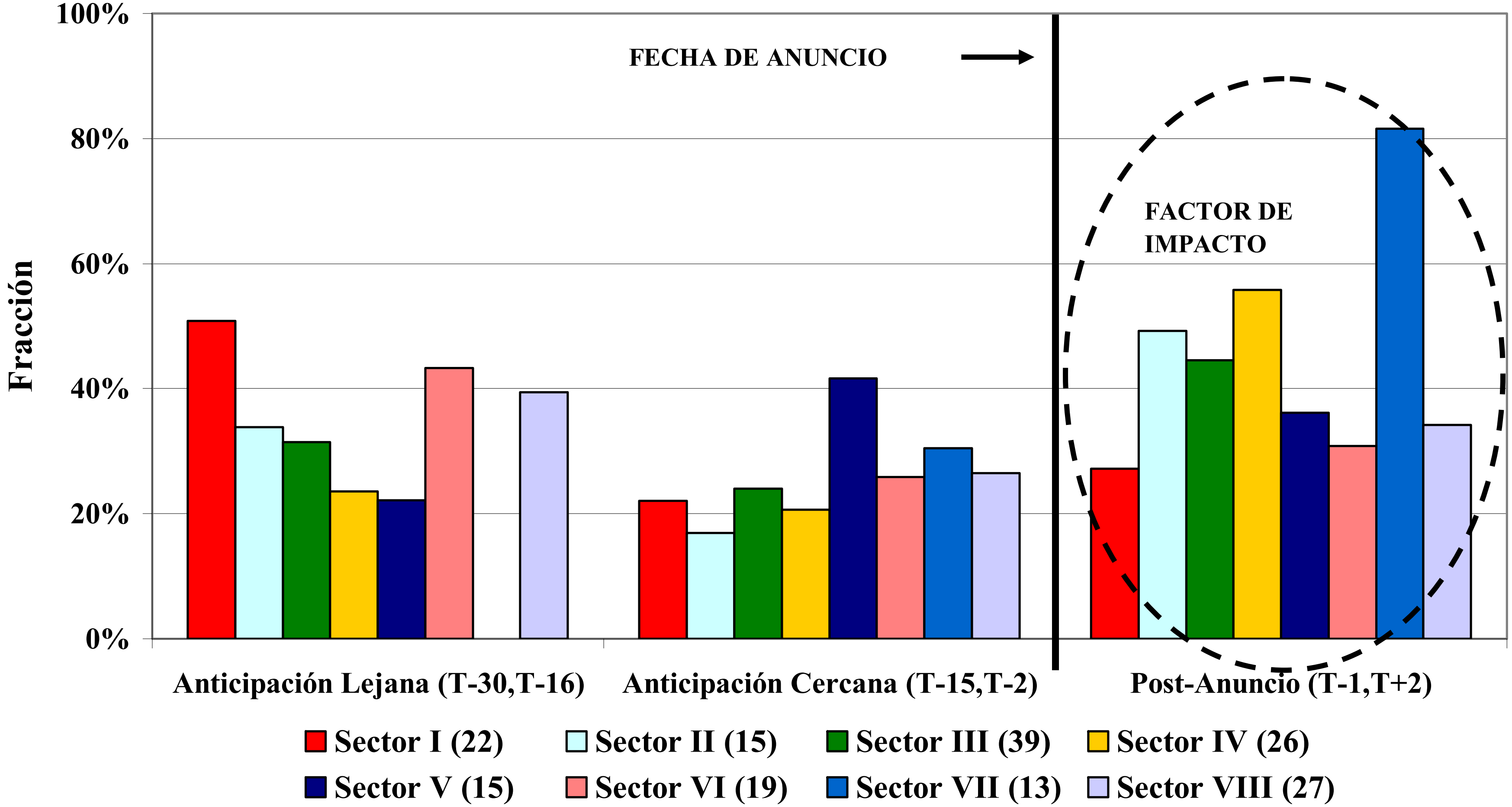
Fracción del rendimiento total sucedida en cada sub-período alrededor de los anuncios corporativos

(entre paréntesis se muestra la cantidad de eventos sobre los que se basa la estimación en cada país)



TOTAL RETURN ANALYSIS ACROSS INDUSTRIAL SECTORS WITHIN CHILE

(the number of announcements on which each estimation is based appears in brackets)



CONCLUSIONS

1. **The degree of market anticipation in Chile is comparable to other countries in the region.**

   Volatility analysis suggests that there is more extensive anticipation of Earnings announcements in Chile than in the other countries.

2. **Should SVS stop and do nothing? BAD IDEA! NATIONAL AVERAGE HIDES IMPORTANT HETEROGENEITY in anticipation and impact across industrial sectors and individual firms.**

3. **PUZZLE: Latin America is not particularly different from USA. [Note: get similar conclusion using Easley & O'Hara's PIN!].**

4. **NEXT STEP: examine heterogeneity in detail. Cross-holdings (Lefort?), visibility, analyst coverage, pension fund holdings, etc.**